Tdoc **≋***R*1-041530

	C	CHANGE		UE	ST	CR-Form-v7.1
^ж 25.	.215 CR	150	жrev	-	ж	Current version: 3.12.0 ^ℋ
For <mark>HELP</mark> on using t	his form, see	bottom of this	s page or l	look a	at the	e pop-up text over the א symbols.
Proposed change affect	ts: UICC a	pps#	ME	Radi	io Ac	ccess Network X Core Network
Title: % Rer	noval of TGP	L2				
Source: % Eric	csson, Nokia					
Work item code: ೫ TEI						<i>Date:</i>
Detai	F (correction, A (correspon release) B (addition o C (functional D (editorial n	ds to a correction f feature), modification of modification) ms of the above	on in an ea feature)			Release: # R99 Use <u>one</u> of the following releases: Ph2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6) Rel-7 (Release 7)
	defined. Parar compressed m that they have In 25.133, par measurement - <i>l</i> <i>i</i> Thus, there are TGPL2 is not mode pattern s since there are TGPL1≠TGPI The conclusio	neter TGPL2 node patterns th different lengtl agraph 8.1.2.1, requirements in <i>provide the patt</i> <i>dentical (i.e., T</i> e no measureme equal to TGPL sequence. Hence no measureme L2. No gain has	makes it po at alternate h (TGPL1 a Appendix o h chapter 8 terns withinGPL1 = Toent perform1 in the RRet, UTRANent performs been showhat the para	C, the c, the to app <i>a a tra</i> <i>GPL2</i> cance C sig canna ance to ved us	e for only GPL2 ere is oly: <i>unsmi:</i>), requi nallir ot uso requinsing	the compressed mode parameters are the network to set two different difference between pattern 1 and 2 is 2 respectively) defined a general limitation for the <i>ission gap pattern sequence that are</i> irements when two pattern are used (i.e ng to the UE) within one compressed e TGPL2 if it's different than TGPL1 rements specified for the case when the second pattern defined by TGPL2. PL2 can be removed from the
Summary of change: ೫	TGPL2 is rem	oved from the	specificatio	on.		
	Isolated Impa Functionality Isolated impac	act Analysis corrected: Com ct statement: Co	pressed mo	ode a fun		where specifications are inconsistent. ns are not affected. Would affect

	UTRAN implementations supporting the removed functionality.
Consequences if not approved:	# Inconsistency will remain in specfications.
Clauses affected:	策 <u>6.1.1.2</u>
Other specs affected:	Y N X Other core specifications X Test specifications X O&M Specifications
Other comments:	ж

- 1) Fill out the above form. The symbols above marked **#** contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

6 Measurements for UTRA FDD

6.1 UE measurements

6.1.1 Compressed mode

6.1.1.1 Use of compressed mode for monitoring

On command from the UTRAN, a UE shall monitor cells on other FDD frequencies and on other modes and radio access technologies that are supported by the UE (i.e. TDD, GSM). To allow the UE to perform measurements, UTRAN shall command that the UE enters in compressed mode, depending on the UE capabilities.

The UE capabilities define whether a UE requires compressed mode in order to monitor cells on other FDD frequencies and on other modes and radio access technologies. UE capabilities indicate the need for compressed mode separately for the uplink and downlink and for each mode, radio access technology and frequency band.

A UE shall support compressed mode for all cases for which the UE indicates that compressed mode is required.

A UE does not need to support compressed mode for cases for which the UE indicates that compressed mode is not required. For these cases, the UE shall support an alternative means of making the measurements.

The UE shall support one single measurement purpose for one transmission gap pattern sequence. The measurement purpose of the transmission gap pattern sequence is signalled by higher layers.

The following subclause provides rules to parameterise the compressed mode.

6.1.1.2 Parameterisation of the compressed mode

In response to a request from higher layers, the UTRAN shall signal to the UE the compressed mode parameters.

A transmission gap pattern sequence consists of alternating consecutive occurrences of transmission gap patterns 1 and 2, each of these where transmission gap patterns 1 in turn consists of one or two transmission gaps. See figure 1.

The following parameters characterise a transmission gap pattern:

- TGSN (Transmission Gap Starting Slot Number): A transmission gap pattern begins in a radio frame, henceforward called first radio frame of the transmission gap pattern, containing at least one transmission gap slot. TGSN is the slot number of the first transmission gap slot within the first radio frame of the transmission gap pattern;
- TGL1 (Transmission Gap Length 1): This is the duration of the first transmission gap within the transmission gap pattern, expressed in number of slots;
- TGL2 (Transmission Gap Length 2): This is the duration of the second transmission gap within the transmission gap pattern, expressed in number of slots. If this parameter is not explicitly set by higher layers, then TGL2 = TGL1;
- TGD (Transmission Gap start Distance): This is the duration between the starting slots of two consecutive transmission gaps within a transmission gap pattern, expressed in number of slots. The resulting position of the second transmission gap within its radio frame(s) shall comply with the limitations of [2]. If this parameter is not set by higher layers, then there is only one transmission gap in the transmission gap pattern;
- TGPL1 (Transmission Gap Pattern Length): This is the duration of transmission gap pattern 1, expressed in number of frames;
- TGPL2 (Transmission Gap Pattern Length): This is the duration of transmission gap pattern 2, expressed in number of frames. If this parameter is not explicitly set by higher layers, then TGPL2 = TGPL1.

The following parameters control the transmission gap pattern sequence start and repetition:

- TGPRC (Transmission Gap Pattern Repetition Count): This is the number of transmission gap patterns within the transmission gap pattern sequence;
- TGCFN (Transmission Gap Connection Frame Number): This is the CFN of the first radio frame of the first pattern 1 within the transmission gap pattern sequence.

In addition to the parameters defining the positions of transmission gaps, each transmission gap pattern sequence is characterised by:

- UL/DL compressed mode selection: This parameter specifies whether compressed mode is used in UL only, DL only or both UL and DL;
- UL compressed mode method: The methods for generating the uplink compressed mode gap are spreading factor division by two or higher layer scheduling and are described in [2];
- DL compressed mode method: The methods for generating the downlink compressed mode gap are puncturing, spreading factor division by two or higher layer scheduling and are described in [2];
- downlink frame type: This parameter defines if frame structure type 'A' or 'B' shall be used in downlink compressed mode. The frame structures are defined in [2];
- scrambling code change: This parameter indicates whether the alternative scrambling code is used for compressed mode method 'SF/2'. Alternative scrambling codes are described in [3];
- RPP: Recovery Period Power control mode specifies the uplink power control algorithm applied during recovery period after each transmission gap in compressed mode. RPP can take 2 values (0 or 1). The different power control modes are described in [4];
- ITP: Initial Transmit Power mode selects the uplink power control method to calculate the initial transmit power after the gap. ITP can take two values (0 or 1) and is described in [4].

The UE shall support simultaneous compressed mode pattern sequences which can be used for different measurements. The following measurement purposes can be signalled from higher layers:

- FDD
- TDD
- GSM carrier RSSI measurement
- Initial BSIC identification
- BSIC re-confirmation.

The UE shall support one compressed mode pattern sequence for each measurement purpose while operating in FDD mode, assuming the UE needs compressed mode to perform the respective measurement. In case the UE supports several of the measurement purposes, it shall support in parallel one compressed mode pattern sequence for each supported measurement purpose where the UE needs compressed mode to perform the measurement. The capability of the UE to operate in compressed mode in uplink and downlink is given from the UE capabilities.

The GSM measurements Initial BSIC identification and BSIC re-confirmation are defined in [20].

Higher layers will ensure that the compressed mode gaps do not overlap and are not scheduled to overlap the same frame. The behaviour when an overlap occurs is described in [11]. UE is not required to support two compressed mode gaps in a frame.

In all cases, higher layers have control of individual UE parameters. Any pattern sequence can be stopped on higher layers' command.

The parameters TGSN, TGL1, TGL2, TGD, TGPL1, TGPL2, TGPRC and TGCFN shall all be integers.

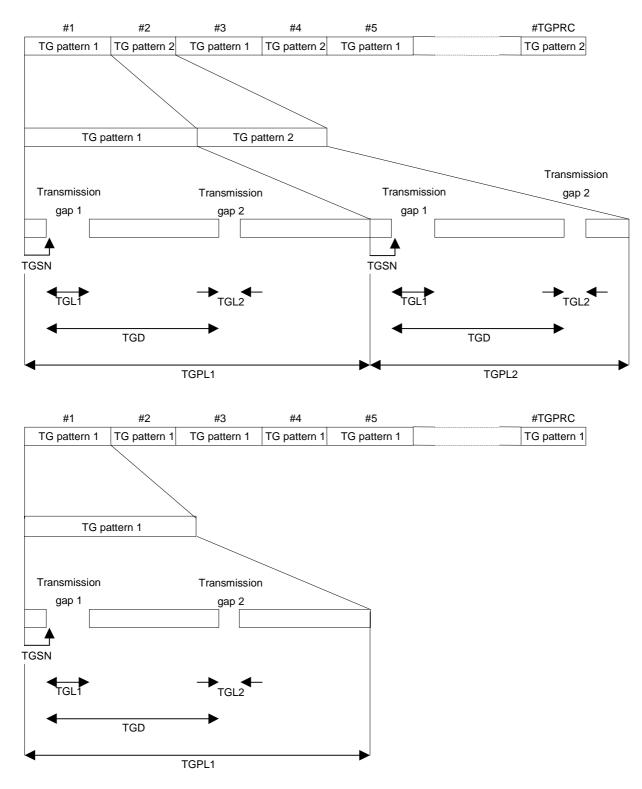


Figure 1: Illustration of compressed mode pattern parameters

CR-Form-v7.1 * 25.215 CR 151 * rev - * Current version: 4.7.0 * For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the * symbols. Proposed change affects: UICC apps* ME X Radio Access Network X Core Network Title: * Removal of TGPL2 Source: * Ericsson, Nokia

Work item code: #	TEI	<i>Date:</i>
Category: Ж	TEI A Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earelease) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories be found in 3GPP TR 21.900.	Release: %Rel-4Use one of the following releases:Ph2(GSM Phase 2)arlierR96R97(Release 1996)R97R98(Release 1998)R99Release 1999)Rel-4(Release 4)
		Rel-7 (Release 7)

Reason for change: अ	In RAN1 specification TS 25.215, section 6.1.1.2, the compressed mode parameters are
	defined. Parameter TGPL2 makes it possible for the network to set two different
	compressed mode patterns that alternate. The only difference between pattern 1 and 2 is
	that they have different length (TGPL1 and TGPL2 respectively)
	In 25.133, paragraph 8.1.2.1, Appendix C, there is defined a general limitation for the
	measurement requirements in chapter 8 to apply:
	- provide the patterns within a transmission gap pattern sequence that are identical (i.e., TGPL1 = TGPL2),
	Thus, there are no measurement performance requirements when two pattern are used (i.e TGPL2 is not equal to TGPL1 in the RRC signalling to the UE) within one compressed
	mode pattern sequence. Hence, UTRAN cannot use TGPL2 if it's different than TGPL1 since there are no measurement performance requirements specified for the case when TGPL1≠TGPL2. No gain has been showed using the second pattern defined by TGPL2.
	The conclusion of RAN4 is that the parameter TGPL2 can be removed from the specifications (Ref R4-040781).
Summary of change: ೫	TGPL2 is removed from the specification.
	Isolated Impact Analysis Functionality corrected: Compressed mode
	Isolated impact statement: Correction to a function where specifications are inconsistent. Since functionality is removed, UE implementations are not affected. Would affect

	UTRAN implementations supporting the removed functionality.
Consequences if not approved:	# Inconsistency will remain in specfications.
Clauses affected:	策 <u>6.1.1.2</u>
Other specs affected:	Y N X Other core specifications X Test specifications X O&M Specifications
Other comments:	ж

- 1) Fill out the above form. The symbols above marked **#** contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

6 Measurements for UTRA FDD

6.1 UE measurements

6.1.1 Compressed mode

6.1.1.1 Use of compressed mode for monitoring

On command from the UTRAN, a UE shall monitor cells on other FDD frequencies and on other modes and radio access technologies that are supported by the UE (i.e. TDD, GSM). To allow the UE to perform measurements, UTRAN shall command that the UE enters in compressed mode, depending on the UE capabilities.

The UE capabilities define whether a UE requires compressed mode in order to monitor cells on other FDD frequencies and on other modes and radio access technologies. UE capabilities indicate the need for compressed mode separately for the uplink and downlink and for each mode, radio access technology and frequency band.

A UE shall support compressed mode for all cases for which the UE indicates that compressed mode is required.

A UE does not need to support compressed mode for cases for which the UE indicates that compressed mode is not required. For these cases, the UE shall support an alternative means of making the measurements.

The UE shall support one single measurement purpose for one transmission gap pattern sequence. The measurement purpose of the transmission gap pattern sequence is signalled by higher layers.

The following subclause provides rules to parameterise the compressed mode.

6.1.1.2 Parameterisation of the compressed mode

In response to a request from higher layers, the UTRAN shall signal to the UE the compressed mode parameters.

A transmission gap pattern sequence consists of alternating consecutive occurrences of transmission gap patterns 1 and 2, each of these where transmission gap patterns 1 in turn consists of one or two transmission gaps. See figure 1.

The following parameters characterise a transmission gap pattern:

- TGSN (Transmission Gap Starting Slot Number): A transmission gap pattern begins in a radio frame, henceforward called first radio frame of the transmission gap pattern, containing at least one transmission gap slot. TGSN is the slot number of the first transmission gap slot within the first radio frame of the transmission gap pattern;
- TGL1 (Transmission Gap Length 1): This is the duration of the first transmission gap within the transmission gap pattern, expressed in number of slots;
- TGL2 (Transmission Gap Length 2): This is the duration of the second transmission gap within the transmission gap pattern, expressed in number of slots. If this parameter is not explicitly set by higher layers, then TGL2 = TGL1;
- TGD (Transmission Gap start Distance): This is the duration between the starting slots of two consecutive transmission gaps within a transmission gap pattern, expressed in number of slots. The resulting position of the second transmission gap within its radio frame(s) shall comply with the limitations of [2]. If this parameter is not set by higher layers, then there is only one transmission gap in the transmission gap pattern;
- TGPL1 (Transmission Gap Pattern Length): This is the duration of transmission gap pattern 1, expressed in number of frames;
- TGPL2 (Transmission Gap Pattern Length): This is the duration of transmission gap pattern 2, expressed in number of frames. If this parameter is not explicitly set by higher layers, then TGPL2 = TGPL1.

The following parameters control the transmission gap pattern sequence start and repetition:

- TGPRC (Transmission Gap Pattern Repetition Count): This is the number of transmission gap patterns within the transmission gap pattern sequence;
- TGCFN (Transmission Gap Connection Frame Number): This is the CFN of the first radio frame of the first pattern 1 within the transmission gap pattern sequence.

In addition to the parameters defining the positions of transmission gaps, each transmission gap pattern sequence is characterised by:

- UL/DL compressed mode selection: This parameter specifies whether compressed mode is used in UL only, DL only or both UL and DL;
- UL compressed mode method: The methods for generating the uplink compressed mode gap are spreading factor division by two or higher layer scheduling and are described in [2];
- DL compressed mode method: The methods for generating the downlink compressed mode gap are puncturing, spreading factor division by two or higher layer scheduling and are described in [2];
- downlink frame type: This parameter defines if frame structure type 'A' or 'B' shall be used in downlink compressed mode. The frame structures are defined in [2];
- scrambling code change: This parameter indicates whether the alternative scrambling code is used for compressed mode method 'SF/2'. Alternative scrambling codes are described in [3];
- RPP: Recovery Period Power control mode specifies the uplink power control algorithm applied during recovery period after each transmission gap in compressed mode. RPP can take 2 values (0 or 1). The different power control modes are described in [4];
- ITP: Initial Transmit Power mode selects the uplink power control method to calculate the initial transmit power after the gap. ITP can take two values (0 or 1) and is described in [4].

The UE shall support simultaneous compressed mode pattern sequences which can be used for different measurements. The following measurement purposes can be signalled from higher layers:

- FDD
- TDD
- GSM carrier RSSI measurement
- Initial BSIC identification
- BSIC re-confirmation.

The UE shall support one compressed mode pattern sequence for each measurement purpose while operating in FDD mode, assuming the UE needs compressed mode to perform the respective measurement. In case the UE supports several of the measurement purposes, it shall support in parallel one compressed mode pattern sequence for each supported measurement purpose where the UE needs compressed mode to perform the measurement. The capability of the UE to operate in compressed mode in uplink and downlink is given from the UE capabilities.

The GSM measurements Initial BSIC identification and BSIC re-confirmation are defined in [20].

Higher layers will ensure that the compressed mode gaps do not overlap and are not scheduled to overlap the same frame. The behaviour when an overlap occurs is described in [11]. UE is not required to support two compressed mode gaps in a frame.

In all cases, higher layers have control of individual UE parameters. Any pattern sequence can be stopped on higher layers' command.

The parameters TGSN, TGL1, TGL2, TGD, TGPL1, TGPL2, TGPRC and TGCFN shall all be integers.

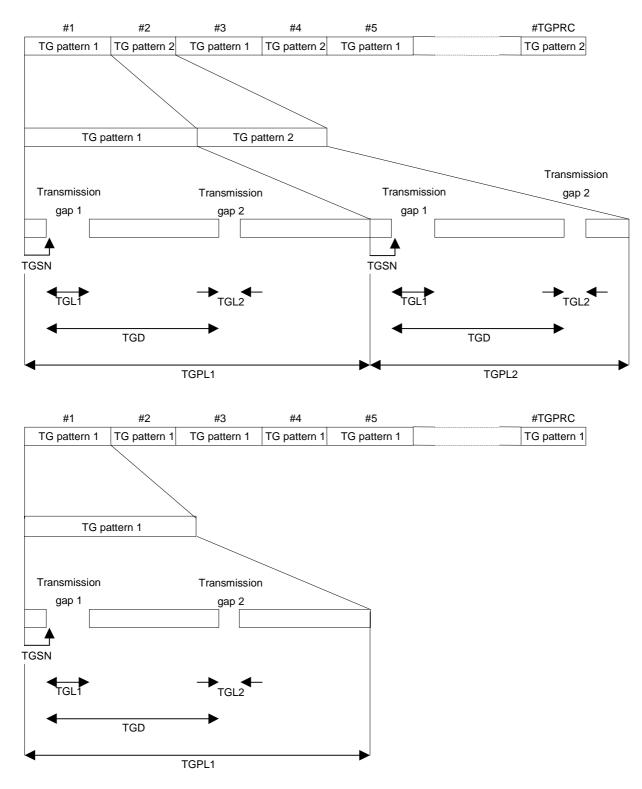


Figure 1: Illustration of compressed mode pattern parameters

25.215 CR 152 # rev # Current version: 5.5.0 # For HELP on using this form, see bottom of this page or look at the pop-up text over the # symbols. Proposed change affects: UICC apps# ME X Radio Access Network X Core Network Title: # Removal of TGPL2 Source: # Ericsson, Nokia Work item code: TEL Date: # 01/12/2004

Work item cod	е: Ж	TEI	Date: ₩	01/12/2004
Category:	ж	A	Release: ¥	Rel-5
		Use one of the following categories:	Use <u>one</u> of	the following releases:
		F (correction)	Ph2	(GSM Phase 2)
		A (corresponds to a correction in a	an earlier R96	(Release 1996)
		release)	R97	(Release 1997)
		B (addition of feature),	R98	(Release 1998)
		C (functional modification of feature	re) R99	(Release 1999)
		D (editorial modification)	Rel-4	(Release 4)
		Detailed explanations of the above categories	gories can Rel-5	(Release 5)
		be found in 3GPP <u>TR 21.900</u> .	Rel-6	(Release 6)
			Rel-7	' (Release 7)

Reason for change: ೫	In RAN1 specification TS 25.215, section 6.1.1.2, the compressed mode parameters are
	defined. Parameter TGPL2 makes it possible for the network to set two different
	compressed mode patterns that alternate. The only difference between pattern 1 and 2 is
	that they have different length (TGPL1 and TGPL2 respectively)
	In 25.133, paragraph 8.1.2.1, Appendix C, there is defined a general limitation for the measurement requirements in chapter 8 to apply:
	- provide the patterns within a transmission gap pattern sequence that are identical (i.e., TGPL1 = TGPL2),
	Thus, there are no measurement performance requirements when two pattern are used (i.e TGPL2 is not equal to TGPL1 in the RRC signalling to the UE) within one compressed mode pattern sequence. Hence, UTRAN cannot use TGPL2 if it's different than TGPL1 since there are no measurement performance requirements specified for the case when
	TGPL1≠TGPL2. No gain has been showed using the second pattern defined by TGPL2.
	The conclusion of RAN4 is that the parameter TGPL2 can be removed from the specifications (Ref R4-040781).
Summary of change: ೫	TGPL2 is removed from the specification.
	Isolated Impact Analysis
	Functionality corrected: Compressed mode
	Isolated impact statement: Correction to a function where specifications are inconsistent. Since functionality is removed, UE implementations are not affected. Would affect

CR-Form-v7.1

	UTRAN implementations supporting the removed functionality.
Consequences if not approved:	# Inconsistency will remain in specfications.
Clauses affected:	策 <u>6.1.1.2</u>
Other specs affected:	Y N X Other core specifications X Test specifications X O&M Specifications
Other comments:	ж

- 1) Fill out the above form. The symbols above marked **#** contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

6 Measurements for UTRA FDD

6.1 UE measurements

6.1.1 Compressed mode

6.1.1.1 Use of compressed mode for monitoring

On command from the UTRAN, a UE shall monitor cells on other FDD frequencies and on other modes and radio access technologies that are supported by the UE (i.e. TDD, GSM). To allow the UE to perform measurements, UTRAN shall command that the UE enters in compressed mode, depending on the UE capabilities.

The UE capabilities define whether a UE requires compressed mode in order to monitor cells on other FDD frequencies and on other modes and radio access technologies. UE capabilities indicate the need for compressed mode separately for the uplink and downlink and for each mode, radio access technology and frequency band.

A UE shall support compressed mode for all cases for which the UE indicates that compressed mode is required.

A UE does not need to support compressed mode for cases for which the UE indicates that compressed mode is not required. For these cases, the UE shall support an alternative means of making the measurements.

The UE shall support one single measurement purpose for one transmission gap pattern sequence. The measurement purpose of the transmission gap pattern sequence is signalled by higher layers.

The following subclause provides rules to parameterise the compressed mode.

6.1.1.2 Parameterisation of the compressed mode

In response to a request from higher layers, the UTRAN shall signal to the UE the compressed mode parameters.

A transmission gap pattern sequence consists of alternating consecutive occurrences of transmission gap patterns 1 and 2, each of these where transmission gap patterns 1 in turn consists of one or two transmission gaps. See figure 1.

The following parameters characterise a transmission gap pattern:

- TGSN (Transmission Gap Starting Slot Number): A transmission gap pattern begins in a radio frame, henceforward called first radio frame of the transmission gap pattern, containing at least one transmission gap slot. TGSN is the slot number of the first transmission gap slot within the first radio frame of the transmission gap pattern;
- TGL1 (Transmission Gap Length 1): This is the duration of the first transmission gap within the transmission gap pattern, expressed in number of slots;
- TGL2 (Transmission Gap Length 2): This is the duration of the second transmission gap within the transmission gap pattern, expressed in number of slots. If this parameter is not explicitly set by higher layers, then TGL2 = TGL1;
- TGD (Transmission Gap start Distance): This is the duration between the starting slots of two consecutive transmission gaps within a transmission gap pattern, expressed in number of slots. The resulting position of the second transmission gap within its radio frame(s) shall comply with the limitations of [2]. If this parameter is not set by higher layers, then there is only one transmission gap in the transmission gap pattern;
- TGPL1 (Transmission Gap Pattern Length): This is the duration of transmission gap pattern 1, expressed in number of frames;
- TGPL2 (Transmission Gap Pattern Length): This is the duration of transmission gap pattern 2, expressed in number of frames. If this parameter is not explicitly set by higher layers, then TGPL2 = TGPL1.

The following parameters control the transmission gap pattern sequence start and repetition:

- TGPRC (Transmission Gap Pattern Repetition Count): This is the number of transmission gap patterns within the transmission gap pattern sequence;
- TGCFN (Transmission Gap Connection Frame Number): This is the CFN of the first radio frame of the first pattern 1 within the transmission gap pattern sequence.

In addition to the parameters defining the positions of transmission gaps, each transmission gap pattern sequence is characterised by:

- UL/DL compressed mode selection: This parameter specifies whether compressed mode is used in UL only, DL only or both UL and DL;
- UL compressed mode method: The methods for generating the uplink compressed mode gap are spreading factor division by two or higher layer scheduling and are described in [2];
- DL compressed mode method: The methods for generating the downlink compressed mode gap are puncturing, spreading factor division by two or higher layer scheduling and are described in [2];
- downlink frame type: This parameter defines if frame structure type 'A' or 'B' shall be used in downlink compressed mode. The frame structures are defined in [2];
- scrambling code change: This parameter indicates whether the alternative scrambling code is used for compressed mode method 'SF/2'. Alternative scrambling codes are described in [3];
- RPP: Recovery Period Power control mode specifies the uplink power control algorithm applied during recovery period after each transmission gap in compressed mode. RPP can take 2 values (0 or 1). The different power control modes are described in [4];
- ITP: Initial Transmit Power mode selects the uplink power control method to calculate the initial transmit power after the gap. ITP can take two values (0 or 1) and is described in [4].

The UE shall support simultaneous compressed mode pattern sequences which can be used for different measurements. The following measurement purposes can be signalled from higher layers:

- FDD
- TDD
- GSM carrier RSSI measurement
- Initial BSIC identification
- BSIC re-confirmation.

The UE shall support one compressed mode pattern sequence for each measurement purpose while operating in FDD mode, assuming the UE needs compressed mode to perform the respective measurement. In case the UE supports several of the measurement purposes, it shall support in parallel one compressed mode pattern sequence for each supported measurement purpose where the UE needs compressed mode to perform the measurement. The capability of the UE to operate in compressed mode in uplink and downlink is given from the UE capabilities.

The GSM measurements Initial BSIC identification and BSIC re-confirmation are defined in [20].

Higher layers will ensure that the compressed mode gaps do not overlap and are not scheduled to overlap the same frame. The behaviour when an overlap occurs is described in [11]. UE is not required to support two compressed mode gaps in a frame.

In all cases, higher layers have control of individual UE parameters. Any pattern sequence can be stopped on higher layers' command.

The parameters TGSN, TGL1, TGL2, TGD, TGPL1, TGPL2, TGPRC and TGCFN shall all be integers.

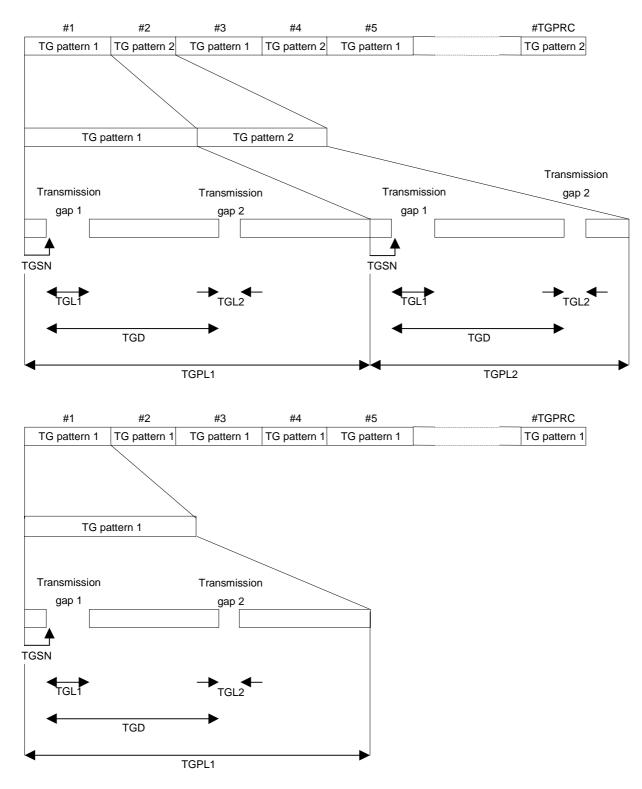


Figure 1: Illustration of compressed mode pattern parameters

Tdoc **#***R*1-041533

	CHANGE	EREQUE	ST	CR-Form-v7.1
^ਸ 2	2 <mark>5.215</mark> CR <mark>153</mark>	ж rev -	発 Current vers	^{ion:} 6.0.0 [#]
For <mark>HELP</mark> on usin	ng this form, see bottom of thi	is page or look	at the pop-up text	over the X symbols.
Proposed change aff	ects: UICC apps೫	ME Rad	dio Access Networ	k X Core Network
Title: ೫ F	Removal of TGPL2			
Source: ೫ E	Ericsson, Nokia			
Work item code: 🕱 🧻	ΓΕΙ		Date: ೫	01/12/2004
De	 A se <u>one</u> of the following categories F (correction) A (corresponds to a correct release) B (addition of feature), C (functional modification on D (editorial modification)) etailed explanations of the above found in 3GPP <u>TR 21.900</u>. 	tion in an earlier f feature)	Use <u>one</u> of Ph2 R96 R97 R98 R99 Rel-4 Rel-5 Rel-6	Rel-6 the following releases: (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 4) (Release 5) (Release 6) (Release 7)
Reason for change:	<i>identical (i.e., 1</i> Thus, there are no measurem TGPL2 is not equal to TGPI mode pattern sequence. Hen since there are no measurem TGPL1≠TGPL2. No gain ha	makes it possib hat alternate. The th (TGPL1 and T , Appendix C, th n chapter 8 to ap tterns within a tra TGPL1 = TGPL2 hent performance L1 in the RRC sig ce, UTRAN can ent performance us been showed u	le for the network to conly difference bet (GPL2 respectively) ere is defined a gene ply: ansmission gap patt 2), e requirements when gnalling to the UE) not use TGPL2 if it' requirements specifi sing the second pa	o set two different ween pattern 1 and 2 is eral limitation for the <i>ern sequence that are</i> two pattern are used (i.e within one compressed s different than TGPL1 fied for the case when attern defined by TGPL2.
	The conclusion of RAN4 is specifications (Ref R4-0407		er TGPL2 can be rer	noved from the
Summary of change:	 TGPL2 is removed from the Isolated Impact Analysis Functionality corrected: Corr Isolated impact statement: C Since functionality is remov 	npressed mode forrection to a fur		

	UTRAN implementations supporting the removed functionality.
Consequences if not approved:	# Inconsistency will remain in specfications.
Clauses affected:	策 <u>6.1.1.2</u>
Other specs affected:	Y N X Other core specifications X Test specifications X O&M Specifications
Other comments:	ж

- 1) Fill out the above form. The symbols above marked **#** contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

6 Measurements for UTRA FDD

6.1 UE measurements

6.1.1 Compressed mode

6.1.1.1 Use of compressed mode for monitoring

On command from the UTRAN, a UE shall monitor cells on other FDD frequencies and on other modes and radio access technologies that are supported by the UE (i.e. TDD, GSM). To allow the UE to perform measurements, UTRAN shall command that the UE enters in compressed mode, depending on the UE capabilities.

The UE capabilities define whether a UE requires compressed mode in order to monitor cells on other FDD frequencies and on other modes and radio access technologies. UE capabilities indicate the need for compressed mode separately for the uplink and downlink and for each mode, radio access technology and frequency band.

A UE shall support compressed mode for all cases for which the UE indicates that compressed mode is required.

A UE does not need to support compressed mode for cases for which the UE indicates that compressed mode is not required. For these cases, the UE shall support an alternative means of making the measurements.

The UE shall support one single measurement purpose for one transmission gap pattern sequence. The measurement purpose of the transmission gap pattern sequence is signalled by higher layers.

The following subclause provides rules to parameterise the compressed mode.

6.1.1.2 Parameterisation of the compressed mode

In response to a request from higher layers, the UTRAN shall signal to the UE the compressed mode parameters.

A transmission gap pattern sequence consists of alternating consecutive occurrences of transmission gap patterns 1 and 2, each of these where transmission gap patterns 1 in turn consists of one or two transmission gaps. See figure 1.

The following parameters characterise a transmission gap pattern:

- TGSN (Transmission Gap Starting Slot Number): A transmission gap pattern begins in a radio frame, henceforward called first radio frame of the transmission gap pattern, containing at least one transmission gap slot. TGSN is the slot number of the first transmission gap slot within the first radio frame of the transmission gap pattern;
- TGL1 (Transmission Gap Length 1): This is the duration of the first transmission gap within the transmission gap pattern, expressed in number of slots;
- TGL2 (Transmission Gap Length 2): This is the duration of the second transmission gap within the transmission gap pattern, expressed in number of slots. If this parameter is not explicitly set by higher layers, then TGL2 = TGL1;
- TGD (Transmission Gap start Distance): This is the duration between the starting slots of two consecutive transmission gaps within a transmission gap pattern, expressed in number of slots. The resulting position of the second transmission gap within its radio frame(s) shall comply with the limitations of [2]. If this parameter is not set by higher layers, then there is only one transmission gap in the transmission gap pattern;
- TGPL1 (Transmission Gap Pattern Length): This is the duration of transmission gap pattern 1, expressed in number of frames;
- TGPL2 (Transmission Gap Pattern Length): This is the duration of transmission gap pattern 2, expressed in number of frames. If this parameter is not explicitly set by higher layers, then TGPL2 = TGPL1.

The following parameters control the transmission gap pattern sequence start and repetition:

- TGPRC (Transmission Gap Pattern Repetition Count): This is the number of transmission gap patterns within the transmission gap pattern sequence;
- TGCFN (Transmission Gap Connection Frame Number): This is the CFN of the first radio frame of the first pattern 1 within the transmission gap pattern sequence.

In addition to the parameters defining the positions of transmission gaps, each transmission gap pattern sequence is characterised by:

- UL/DL compressed mode selection: This parameter specifies whether compressed mode is used in UL only, DL only or both UL and DL;
- UL compressed mode method: The methods for generating the uplink compressed mode gap are spreading factor division by two or higher layer scheduling and are described in [2];
- DL compressed mode method: The methods for generating the downlink compressed mode gap are puncturing, spreading factor division by two or higher layer scheduling and are described in [2];
- downlink frame type: This parameter defines if frame structure type 'A' or 'B' shall be used in downlink compressed mode. The frame structures are defined in [2];
- scrambling code change: This parameter indicates whether the alternative scrambling code is used for compressed mode method 'SF/2'. Alternative scrambling codes are described in [3];
- RPP: Recovery Period Power control mode specifies the uplink power control algorithm applied during recovery period after each transmission gap in compressed mode. RPP can take 2 values (0 or 1). The different power control modes are described in [4];
- ITP: Initial Transmit Power mode selects the uplink power control method to calculate the initial transmit power after the gap. ITP can take two values (0 or 1) and is described in [4].

The UE shall support simultaneous compressed mode pattern sequences which can be used for different measurements. The following measurement purposes can be signalled from higher layers:

- FDD
- TDD
- GSM carrier RSSI measurement
- Initial BSIC identification
- BSIC re-confirmation.

The UE shall support one compressed mode pattern sequence for each measurement purpose while operating in FDD mode, assuming the UE needs compressed mode to perform the respective measurement. In case the UE supports several of the measurement purposes, it shall support in parallel one compressed mode pattern sequence for each supported measurement purpose where the UE needs compressed mode to perform the measurement. The capability of the UE to operate in compressed mode in uplink and downlink is given from the UE capabilities.

The GSM measurements Initial BSIC identification and BSIC re-confirmation are defined in [20].

Higher layers will ensure that the compressed mode gaps do not overlap and are not scheduled to overlap the same frame. The behaviour when an overlap occurs is described in [11]. UE is not required to support two compressed mode gaps in a frame.

In all cases, higher layers have control of individual UE parameters. Any pattern sequence can be stopped on higher layers' command.

The parameters TGSN, TGL1, TGL2, TGD, TGPL1, TGPL2, TGPRC and TGCFN shall all be integers.

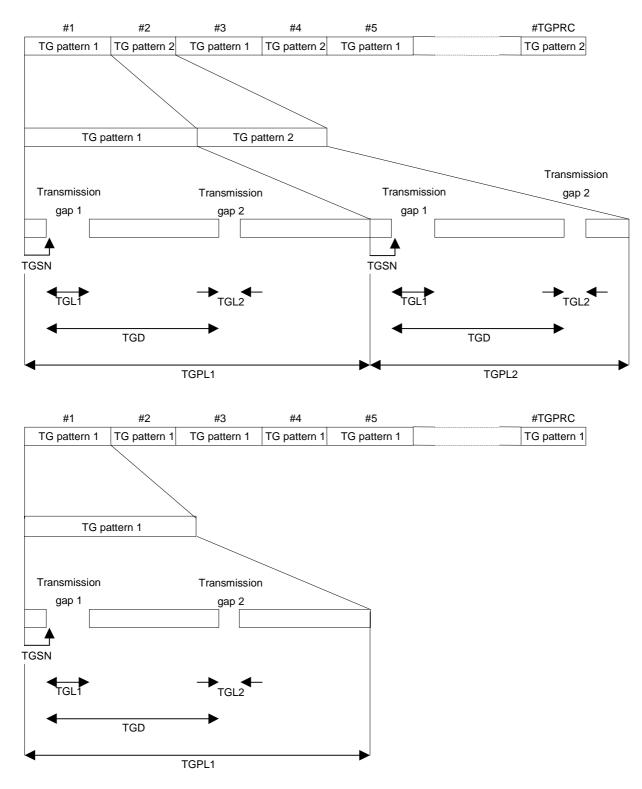


Figure 1: Illustration of compressed mode pattern parameters

Tdoc **#R2-04xxxx**

		CHANG	E REQ	UES	Г	(CR-Form-v7.1
æ	25.331	CR 2488	ж rev	- #	Current vers	^{sion:} 3.k.0	Ħ
For <u>HELP</u> on	using this fo	rm, see bottom of ti	his page or	look at ti	he pop-up text	over the X syr	nbols.
Proposed chang a	e affects:	UICC apps೫	ME	Radio /	Access Netwo	rk 🗙 Core Ne	etwork
Title:	ដ <mark>Removal</mark>	of TGPL2					
Source:	器 <mark>Ericsson</mark>	, Nokia					
Work item code:	೫ TEI				<i>Date:</i> ೫	15/11/2004	
Category:	F (col A (co B (ad C (fur D (ed Detailed ex	the following categor rrection) rresponds to a correc dition of feature), nctional modification of itorial modification) splanations of the abor 3GPP <u>TR 21.900</u> .	tion in an ear of feature)		Ph2	R99 the following reli (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5) (Release 6) (Release 7)	

Reason for change: ೫	In RAN1 specification TS 25.215, section 6.1.1.2, the compressed mode parameters are defined. Parameter TGPL2 makes it possible for the network to set two different compressed mode patterns that alternate. The only difference between pattern 1 and 2 is
	that they have different length (TGPL1 and TGPL2 respectively)
	In 25.133, paragraph 8.1.2.1, Appendix C, there is defined a general limitation for the measurement requirements in chapter 8 to apply:
	- provide the patterns within a transmission gap pattern sequence that are identical (i.e., TGPL1 = TGPL2),
	Thus, there are no measurement performance requirements when two pattern are used (i.e TGPL2 is not equal to TGPL1 in the RRC signalling to the UE) within one compressed mode pattern sequence. Hence, UTRAN cannot use TGPL2 if it's different than TGPL1 since there are no measurement performance requirements specified for the case when TGPL1≠TGPL2. No gain has been showed using the second pattern defined by TGPL2.
	The conclusion of RAN4 is that the parameter TGPL2 can be removed from the specifications (Ref R2-042670).
Summary of change: ೫	TGPL2 is removed from the Tabular description, and changed to "dummy" in ASN.1
	Isolated Impact Analysis Functionality corrected: Compressed mode
	Isolated impact statement: Correction to a function where specifications are inconsistent. Since functionality is removed, UE implementations are not affected. Would affect

	UTRAN implementations supporting the removed functionality.						
Consequences if not approved:	# Inconsistency will remain in specfications.						
Clauses affected:	¥ 10.3.6.33, 11.3						
Other specs affected:	Y N X Other core specifications # 25.101, 25.133, 25.215, 25.423, 25.433 X Test specifications 34.108, 34.121, 34.123-1 X O&M Specifications Provide the second sec						
Other comments:	x						

- 1) Fill out the above form. The symbols above marked **#** contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

10.3.6.33 DPCH compressed mode info

NOTE: Only for FDD.

This information element indicates the parameters of the compressed mode to be used by the UE in order to perform inter-frequency and inter-RAT measurements.

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Transmission gap pattern sequence	MP	1 to <maxtgp S></maxtgp 		
>TGPSI	MP		TGPSI 10.3.6.82	
>TGPS Status Flag	MP		Enumerated(activate, deactivate)	This flag indicates whether the Transmission Gap Pattern Sequence shall be activated or deactivated.
>TGCFN	CV-Active		Integer (0255)	Connection Frame Number of the first frame of the first pattern within the Transmission Gap Pattern Sequence.
>Transmission gap pattern sequence configuration parameters	OP			
>>TGMP	MP		Enumerated(TDD measuremen t, FDD measuremen t, GSM carrier RSSI measuremen t, GSM Initial BSIC identification, GSM BSIC re- confirmation, Multi-carrier measuremen t)	Transmission Gap pattern sequence Measurement Purpose.
>>TGPRC	MP		Integer (1511, Infinity)	The number of transmission gap patterns within the Transmission Gap Pattern Sequence.
>>TGSN	MP		Integer (014)	Transmission Gap Starting Slot Number The slot number of the first transmission gap slot within the TGCFN.
>>TGL1	MP		Integer(114)	The length of the first Transmission Gap within the transmission gap pattern expressed in number of slots
>>TGL2	MD		Integer (114)	The length of the second Transmission Gap within the transmission gap pattern. If omitted, then TGL2=TGL1. The value of TGL2 shall be ignored if TGD is set to "undefined"
>>TGD	MP		Integer(152 69,	Transmission gap distance indicates the number of slots

Information Element/Group name	Need	Multi	Type and reference	Semantics description
			undefined)	between starting slots of two consecutive transmission gaps within a transmission gap pattern. If there is only one transmission gap in the transmission gap pattern, this parameter shall be set to undefined.
>>TGPL1	MP		Integer (1144)	The duration of transmission gap pattern 1.
>>TGPL2	MÐ		Integer (1144)	The duration of transmission- gap pattern 2. If omitted, then- TGPL2=TGPL1.
>>RPP	MP		Enumerated (mode 0, mode 1).	Recovery Period Power control mode during the frame after the transmission gap within the compressed frame. Indicates whether normal PC mode or compressed PC mode is applied
>>ITP	MP		Enumerated (mode 0, mode 1).	Initial Transmit Power is the uplink power control method to be used to compute the initial transmit power after the compressed mode gap.
>>CHOICE UL/DL mode	MP			
>>>DL only				Compressed mode used in DL only
>>>>Downlink compressed mode method	MP		Enumerated (puncturing, SF/2, higher layer scheduling)	Method for generating downlink compressed mode gap
>>>UL only				Compressed mode used in UL only
>>>Uplink compressed mode method	MP		Enumerated (SF/2, higher layer scheduling)	Method for generating uplink compressed mode gap
>>>UL and DL				Compressed mode used in UL and DL
>>>>Downlink compressed mode method	MP		Enumerated (puncturing, SF/2, higher layer scheduling)	Method for generating downlink compressed mode gap
>>>>Uplink compressed mode method	MP		Enumerated (SF/2, higher layer scheduling)	Method for generating uplink compressed mode gap
>>Downlink frame type	MP		Enumerated (A, B)	
>>DeltaSIR1	MP		Real(03 by step of 0.1)	Delta in DL SIR target value to be set in the UE during the frame containing the start of the first transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase)
>>DeltaSIRafter1	MP		Real(03 by step of 0.1)	Delta in DL SIR target value to be set in the UE one frame after the frame containing the start of the first transmission gap in the transmission gap pattern.

5

Information Element/Group name	Need	Multi	Type and reference	Semantics description
>>DeltaSIR2	OP		Real(03 by step of 0.1)	Delta in DL SIR target value to be set in the UE during the frame containing the start of the second transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase) When omitted, DeltaSIR2 = DeltaSIR1.
>>DeltaSIRafter2	OP		Real(03 by step of 0.1)	Delta in DL SIR target value to be set in the UE one frame after the frame containing the start of the second transmission gap in the transmission gap pattern. When omitted, DeltaSIRafter2 = DeltaSIRafter1.
>>N Identify abort	CV-Initial BSIC		Integer(112 8)	Indicates the maximum number of repeats of patterns that the UE shall use to attempt to decode the unknown BSIC of the GSM cell in the initial BSIC identification procedure
>>T Reconfirm abort	CV-Re- confirm BSIC		Real(0.510. 0 by step of 0.5)	Indicates the maximum time allowed for the re-confirmation of the BSIC of one GSM cell in the BSIC re-confirmation procedure. The time is given in steps of 0.5 seconds.

Condition	Explanation
Active	This IE is mandatory present when the value of the IE "TGPS Status Flag" is "Activate" and not needed otherwise.
Initial BSIC	This IE is mandatory present when the value of the IE "TGMP" is set to "GSM Initial BSIC identification" and not needed otherwise.
Re-confirm BSIC	This IE is mandatory present when the value of the IE "TGMP" is set to "GSM BSIC re-confirmation" and not needed otherwise.

6

TGPL ::=	INTEGER (1144)					
TABULAR: In TGPRC, value 0 repre TGPRC ::=	esents "infinity" in the tabular descrip INTEGER (0511)	tion.				
TGPS-ConfigurationParams ::=	SEQUENCE {					
tgmp	TGMP,					
tgprc	TGPRC,					
tgsn	TGSN,					
tgl1	TGL,					
tgl2	TGL	OPTIONAL,				
tgd	TGD,					
tgpl1	TGPL,					
	ersion of the specification, it should					
	not be sent and if received it should be ignored.					
<u>tgpl2</u> dummy	TGPL	OPTIONAL,				
rpp	RPP,					
itp	ITP,					
	hod is nested inside UL-DL-Mode					
ul-DL-Mode	UL-DL-Mode,					
dl-FrameType	DL-FrameType,					
deltaSIR1	DeltaSIR,					
deltaSIRAfter1	DeltaSIR,					
deltaSIR2	DeltaSIR	OPTIONAL,				
deltaSIRAfter2	DeltaSIR	OPTIONAL,				
nidentifyAbort	NidentifyAbort	OPTIONAL,				
treconfirmAbort	TreconfirmAbort	OPTIONAL				
}						

Tdoc **#R2-04xxxx**

		CHANGI	E REQ	UEST	-	CR-Form-v7.1
ж	25.331	CR 2489	жrev	- #	Current vers	^{ion:} <mark>4.15.0</mark> [#]
For <u>HELP</u> on	using this fo	rm, see bottom of th	is page or	look at th	e pop-up text	over the X symbols.
Proposed change a	e affects:	UICC apps ೫ 🦰	ME	Radio A	ccess Networ	k X Core Network
Title: 3	ধ <mark>Removal</mark>	of TGPL2				
Source:	€ Ericsson,	Nokia				
Work item code: ३	€ TEI				<i>Date:</i> ೫	15/11/2004
Category: ३	F (con A (con B (ad C (fur D (ed Detailed ex	the following categorie rection) rresponds to a correcti dition of feature), ictional modification of itorial modification) planations of the abov 3GPP <u>TR 21.900</u> .	on in an ear feature)		Use <u>one</u> of Ph2 e) R96 R97 R98 R99 Rel-4	Rel-4 the following releases: (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5) (Release 6) (Release 7)

Reason for change: ೫	In RAN1 specification TS 25.215, section 6.1.1.2, the compressed mode parameters are defined. Parameter TGPL2 makes it possible for the network to set two different compressed mode patterns that alternate. The only difference between pattern 1 and 2 is that they have different length (TGPL1 and TGPL2 respectively)
	In 25.133, paragraph 8.1.2.1, Appendix C, there is defined a general limitation for the measurement requirements in chapter 8 to apply:
	- provide the patterns within a transmission gap pattern sequence that are identical (i.e., TGPL1 = TGPL2),
	Thus, there are no measurement performance requirements when two pattern are used (i.e TGPL2 is not equal to TGPL1 in the RRC signalling to the UE) within one compressed mode pattern sequence. Hence, UTRAN cannot use TGPL2 if it's different than TGPL1 since there are no measurement performance requirements specified for the case when TGPL1≠TGPL2. No gain has been showed using the second pattern defined by TGPL2. The conclusion of RAN4 is that the parameter TGPL2 can be removed from the specifications (Ref R2-042670).
Summary of change: ೫	TGPL2 is removed from the Tabular description, and changed to "dummy" in ASN.1
	Isolated Impact Analysis Functionality corrected: Compressed mode
	Isolated impact statement: Correction to a function where specifications are inconsistent. Since functionality is removed, UE implementations are not affected. Would affect

	UTRAN implementations supporting the removed functionality.						
Consequences if not approved:	# Inconsistency will remain in specfications.						
Clauses affected:	¥ 10.3.6.33, 11.3						
Other specs affected:	Y N X Other core specifications # 25.101, 25.133, 25.215, 25.423, 25.433 X Test specifications 34.108, 34.121, 34.123-1 X O&M Specifications Provide the second sec						
Other comments:	x						

- 1) Fill out the above form. The symbols above marked **#** contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

10.3.6.33 DPCH compressed mode info

NOTE: Only for FDD.

This information element indicates the parameters of the compressed mode to be used by the UE in order to perform inter-frequency and inter-RAT measurements.

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Transmission gap pattern sequence	MP	1 to <maxtgp S></maxtgp 		
>TGPSI	MP		TGPSI 10.3.6.82	
>TGPS Status Flag	MP		Enumerated(activate, deactivate)	This flag indicates whether the Transmission Gap Pattern Sequence shall be activated or deactivated.
>TGCFN	CV-Active		Integer (0255)	Connection Frame Number of the first frame of the first pattern within the Transmission Gap Pattern Sequence.
>Transmission gap pattern sequence configuration parameters	OP			
>>TGMP	MP		Enumerated(TDD measuremen t, FDD measuremen t, GSM carrier RSSI measuremen t, GSM Initial BSIC identification, GSM BSIC re- confirmation, Multi-carrier measuremen t)	Transmission Gap pattern sequence Measurement Purpose.
>>TGPRC	MP		Integer (1511, Infinity)	The number of transmission gap patterns within the Transmission Gap Pattern Sequence.
>>TGSN	MP		Integer (014)	Transmission Gap Starting Slot Number The slot number of the first transmission gap slot within the TGCFN.
>>TGL1	MP		Integer(114)	The length of the first Transmission Gap within the transmission gap pattern expressed in number of slots
>>TGL2	MD		Integer (114)	The length of the second Transmission Gap within the transmission gap pattern. If omitted, then TGL2=TGL1. The value of TGL2 shall be ignored if TGD is set to "undefined"
>>TGD	MP		Integer(152 69,	Transmission gap distance indicates the number of slots

Information Element/Group name	Need	Multi	Type and reference	Semantics description
			undefined)	between starting slots of two consecutive transmission gaps within a transmission gap pattern. If there is only one transmission gap in the transmission gap pattern, this parameter shall be set to undefined.
>>TGPL1	MP		Integer (1144)	The duration of transmission gap pattern 1.
>>TGPL2	MÐ		Integer (1144)	The duration of transmission- gap pattern 2. If omitted, then- TGPL2=TGPL1.
>>RPP	MP		Enumerated (mode 0, mode 1).	Recovery Period Power control mode during the frame after the transmission gap within the compressed frame. Indicates whether normal PC mode or compressed PC mode is applied
>>ITP	MP		Enumerated (mode 0, mode 1).	Initial Transmit Power is the uplink power control method to be used to compute the initial transmit power after the compressed mode gap.
>>CHOICE UL/DL mode	MP			
>>>DL only				Compressed mode used in DL only
>>>>Downlink compressed mode method	MP		Enumerated (puncturing, SF/2, higher layer scheduling)	Method for generating downlink compressed mode gap
>>>UL only				Compressed mode used in UL only
>>>Uplink compressed mode method	MP		Enumerated (SF/2, higher layer scheduling)	Method for generating uplink compressed mode gap
>>>UL and DL				Compressed mode used in UL and DL
>>>>Downlink compressed mode method	MP		Enumerated (puncturing, SF/2, higher layer scheduling)	Method for generating downlink compressed mode gap
>>>>Uplink compressed mode method	MP		Enumerated (SF/2, higher layer scheduling)	Method for generating uplink compressed mode gap
>>Downlink frame type	MP		Enumerated (A, B)	
>>DeltaSIR1	MP		Real(03 by step of 0.1)	Delta in DL SIR target value to be set in the UE during the frame containing the start of the first transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase)
>>DeltaSIRafter1	MP		Real(03 by step of 0.1)	Delta in DL SIR target value to be set in the UE one frame after the frame containing the start of the first transmission gap in the transmission gap pattern.

5

Information Element/Group name	Need	Multi	Type and reference	Semantics description
>>DeltaSIR2	OP		Real(03 by step of 0.1)	Delta in DL SIR target value to be set in the UE during the frame containing the start of the second transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase) When omitted, DeltaSIR2 = DeltaSIR1.
>>DeltaSIRafter2	OP		Real(03 by step of 0.1)	Delta in DL SIR target value to be set in the UE one frame after the frame containing the start of the second transmission gap in the transmission gap pattern. When omitted, DeltaSIRafter2 = DeltaSIRafter1.
>>N Identify abort	CV-Initial BSIC		Integer(112 8)	Indicates the maximum number of repeats of patterns that the UE shall use to attempt to decode the unknown BSIC of the GSM cell in the initial BSIC identification procedure
>>T Reconfirm abort	CV-Re- confirm BSIC		Real(0.510. 0 by step of 0.5)	Indicates the maximum time allowed for the re-confirmation of the BSIC of one GSM cell in the BSIC re-confirmation procedure. The time is given in steps of 0.5 seconds.

Condition	Explanation
Active	This IE is mandatory present when the value of the IE "TGPS Status Flag" is "Activate" and not needed otherwise.
Initial BSIC	This IE is mandatory present when the value of the IE "TGMP" is set to "GSM Initial BSIC identification" and not needed otherwise.
Re-confirm BSIC	This IE is mandatory present when the value of the IE "TGMP" is set to "GSM BSIC re-confirmation" and not needed otherwise.

6

TGPL ::=	INTEGER (1144)				
TABULAR: In TGPRC, value 0 repre TGPRC ::=	esents "infinity" in the tabular descrip INTEGER (0511)	tion.			
TGPS-ConfigurationParams ::=	SEQUENCE {				
tgmp	TGMP,				
tgprc	TGPRC,				
tgsn	TGSN,				
tgl1	TGL,				
tgl2	TGL	OPTIONAL,			
tgd	TGD,				
tgpl1	TGPL,				
	rsion of the specification, it should				
not be sent and if received it should be ignored.					
dummytgpl2	TGPL	OPTIONAL,			
rpp	RPP,				
itp	ITP,				
-	hod is nested inside UL-DL-Mode				
ul-DL-Mode	UL-DL-Mode,				
dl-FrameType	DL-FrameType,				
deltaSIR1	DeltaSIR,				
deltaSIRAfter1	DeltaSIR,				
deltaSIR2	DeltaSIR	OPTIONAL,			
deltaSIRAfter2	DeltaSIR	OPTIONAL,			
nidentifyAbort	NidentifyAbort	OPTIONAL,			
treconfirmAbort	TreconfirmAbort	OPTIONAL			
}					

Tdoc **#R2-04xxxx**

	CHANGE REQUEST	2490CR-Form-v7.1			
æ	25.331 CR 2490	Current version: 5.a.0 [#]			
For HELP on using this form, see bottom of this page or look at the pop-up text over the # symbols.					
Proposed chang a		cess Network X Core Network			
Title:	Removal of TGPL2				
Source:	# Ericsson				
Work item code:	ж <mark>ТЕІ</mark>	<i>Date:</i>			
Category:	 A Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP <u>TR 21.900</u>. 	Release: %Rel-5Use one of the following releases:Ph2(GSM Phase 2)R96R97(Release 1996)R97R98(Release 1998)R99Rel-4Release 4)Rel-5Rel-6Rel-7(Release 7)			

Reason for change: ೫	In RAN1 specification TS 25.215, section 6.1.1.2, the compressed mode parameters are				
	defined. Parameter TGPL2 makes it possible for the network to set two different				
	compressed mode patterns that alternate. The only difference between pattern 1 and 2 is				
	that they have different length (TGPL1 and TGPL2 respectively)				
	In 25.133, paragraph 8.1.2.1, Appendix C, there is defined a general limitation for the				
	measurement requirements in chapter 8 to apply:				
	- provide the patterns within a transmission gap pattern sequence that are identical (i.e., TGPL1 = TGPL2),				
	Thus, there are no measurement performance requirements when two pattern are used (i.e TGPL2 is not equal to TGPL1 in the RRC signalling to the UE) within one compressed mode pattern sequence. Hence, UTRAN cannot use TGPL2 if it's different than TGPL1				
	since there are no measurement performance requirements specified for the case when TGPL1≠TGPL2. No gain has been showed using the second pattern defined by TGPL2.				
	The conclusion of RAN4 is that the parameter TGPL2 can be removed from the specifications (Ref R2-042670).				
Summary of change: #	TGPL2 is removed from the Tabular description, and changed to "dummy" in ASN.1				
	Isolated Impact Analysis				
	Functionality corrected: Compressed mode				
	Isolated impact statement: Correction to a function where specifications are inconsistent. Since functionality is removed, UE implementations are not affected. Would affect				

	UTRAN implementations supporting the removed functionality.			
Consequences if not approved:	# Inconsistency will remain in specfications.			
Clauses affected:	¥ 10.3.6.33, 11.3			
Other specs affected:	Y N X Other core specifications # 25.101, 25.133, 25.215, 25.423, 25.433 X Test specifications 34.108, 34.121, 34.123-1 X O&M Specifications Provide the second sec			
Other comments:	x			

- 1) Fill out the above form. The symbols above marked **#** contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

10.3.6.33 DPCH compressed mode info

NOTE: Only for FDD.

This information element indicates the parameters of the compressed mode to be used by the UE in order to perform inter-frequency and inter-RAT measurements.

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Transmission gap pattern sequence	MP	1 to <maxtgp S></maxtgp 		
>TGPSI	MP		TGPSI 10.3.6.82	
>TGPS Status Flag	MP		Enumerated(activate, deactivate)	This flag indicates whether the Transmission Gap Pattern Sequence shall be activated or deactivated.
>TGCFN	CV-Active		Integer (0255)	Connection Frame Number of the first frame of the first pattern within the Transmission Gap Pattern Sequence.
>Transmission gap pattern sequence configuration parameters	OP			
>>TGMP	MP		Enumerated(TDD measuremen t, FDD measuremen t, GSM carrier RSSI measuremen t, GSM Initial BSIC identification, GSM BSIC re- confirmation, Multi-carrier measuremen t)	Transmission Gap pattern sequence Measurement Purpose.
>>TGPRC	MP		Integer (1511, Infinity)	The number of transmission gap patterns within the Transmission Gap Pattern Sequence.
>>TGSN	MP		Integer (014)	Transmission Gap Starting Slot Number The slot number of the first transmission gap slot within the TGCFN.
>>TGL1	MP		Integer(114)	The length of the first Transmission Gap within the transmission gap pattern expressed in number of slots
>>TGL2	MD		Integer (114)	The length of the second Transmission Gap within the transmission gap pattern. If omitted, then TGL2=TGL1. The value of TGL2 shall be ignored if TGD is set to "undefined"
>>TGD	MP		Integer(152 69,	Transmission gap distance indicates the number of slots

Information Element/Group name	Need	Multi	Type and reference	Semantics description
			undefined)	between starting slots of two consecutive transmission gaps within a transmission gap pattern. If there is only one transmission gap in the transmission gap pattern, this parameter shall be set to undefined.
>>TGPL1	MP		Integer (1144)	The duration of transmission gap pattern 1.
>>TGPL2	MÐ		Integer (1144)	The duration of transmission- gap pattern 2. If omitted, then- TGPL2=TGPL1.
>>RPP	MP		Enumerated (mode 0, mode 1).	Recovery Period Power control mode during the frame after the transmission gap within the compressed frame. Indicates whether normal PC mode or compressed PC mode is applied
>>ITP	MP		Enumerated (mode 0, mode 1).	Initial Transmit Power is the uplink power control method to be used to compute the initial transmit power after the compressed mode gap.
>>CHOICE UL/DL mode	MP			
>>>DL only				Compressed mode used in DL only
>>>>Downlink compressed mode method	MP		Enumerated (puncturing, SF/2, higher layer scheduling)	Method for generating downlink compressed mode gap
>>>UL only				Compressed mode used in UL only
>>>>Uplink compressed mode method	MP		Enumerated (SF/2, higher layer scheduling)	Method for generating uplink compressed mode gap
>>>UL and DL				Compressed mode used in UL and DL
>>>Downlink compressed mode method	MP		Enumerated (puncturing, SF/2, higher layer scheduling)	Method for generating downlink compressed mode gap
>>>>Uplink compressed mode method	MP		Enumerated (SF/2, higher layer scheduling)	Method for generating uplink compressed mode gap
>>Downlink frame type	MP		Enumerated (A, B)	
>>DeltaSIR1	MP		Real(03 by step of 0.1)	Delta in DL SIR target value to be set in the UE during the frame containing the start of the first transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase)
>>DeltaSIRafter1	MP		Real(03 by step of 0.1)	Delta in DL SIR target value to be set in the UE one frame after the frame containing the start of the first transmission gap in the transmission gap pattern.

Information Element/Group name	Need	Multi	Type and reference	Semantics description
>>DeltaSIR2	OP		Real(03 by step of 0.1)	Delta in DL SIR target value to be set in the UE during the frame containing the start of the second transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase) When omitted, DeltaSIR2 = DeltaSIR1.
>>DeltaSIRafter2	OP		Real(03 by step of 0.1)	Delta in DL SIR target value to be set in the UE one frame after the frame containing the start of the second transmission gap in the transmission gap pattern. When omitted, DeltaSIRafter2 = DeltaSIRafter1.
>>N Identify abort	CV-Initial BSIC		Integer(112 8)	Indicates the maximum number of repeats of patterns that the UE shall use to attempt to decode the unknown BSIC of the GSM cell in the initial BSIC identification procedure
>>T Reconfirm abort	CV-Re- confirm BSIC		Real(0.510. 0 by step of 0.5)	Indicates the maximum time allowed for the re-confirmation of the BSIC of one GSM cell in the BSIC re-confirmation procedure. The time is given in steps of 0.5 seconds.

Condition	Explanation
Active	This IE is mandatory present when the value of the IE "TGPS Status Flag" is "Activate" and not needed otherwise.
Initial BSIC	This IE is mandatory present when the value of the IE "TGMP" is set to "GSM Initial BSIC identification" and not needed otherwise.
Re-confirm BSIC	This IE is mandatory present when the value of the IE "TGMP" is set to "GSM BSIC re-confirmation" and not needed otherwise.

TGPL ::=	INTEGER (1144)	
TABULAR: In TGPRC, value 0 repre TGPRC ::=	esents "infinity" in the tabular descrip INTEGER (0511)	tion.
TGPS-ConfigurationParams ::=	SEQUENCE {	
tgmp	TGMP,	
tgprc	TGPRC,	
tgsn	TGSN,	
tgl1	TGL,	
tgl2	TGL	OPTIONAL,
tgd	TGD,	
tgpl1	TGPL,	
	rsion of the specification, it should	
not be sent and if received	it should be ignored.	
dummytgpl2	TGPL	OPTIONAL,
rpp	RPP,	
itp	ITP,	
-	hod is nested inside UL-DL-Mode	
ul-DL-Mode	UL-DL-Mode,	
dl-FrameType	DL-FrameType,	
deltaSIR1	DeltaSIR,	
deltaSIRAfter1	DeltaSIR,	
deltaSIR2	DeltaSIR	OPTIONAL,
deltaSIRAfter2	DeltaSIR	OPTIONAL,
nidentifyAbort	NidentifyAbort	OPTIONAL,
treconfirmAbort	TreconfirmAbort	OPTIONAL
}		

3GPP TSG-RAN Meeting #26 Vouliagmeni, Greece, 8th -10th December 2004

Tdoc **#R2-04xxxx**

		CHANG	E REQ	UEST		C	R-Form-v7.1
æ	25.331	CR <mark>2491</mark>	жrev	- #	Current vers	^{ion:} 6.3.0	ж
For HELP on using this form, see bottom of this page or look at the pop-up text over the # symbols.							
Proposed chang a	e affects:	UICC apps೫	ME	Radio A	ccess Networ	k 🗙 Core Ne	etwork
Title:	ដ <mark>Remova</mark>	l of TGPL2					
Source:	ដ <mark>Ericsson</mark>	, Nokia					
Work item code:	¥ TEI				Date: ೫	15/11/2004	
Category:	F (co A (co B (ad C (fui D (cd Detailed ex	f the following categori rrection) presponds to a correct Idition of feature), nctional modification o litorial modification) kplanations of the about 3GPP <u>TR 21.900</u> .	ion in an ear f feature)		Ph2 9) R96 R97 R98 R99 R99 Rel-4	Rel-6 the following rele (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5) (Release 6) (Release 7)	ases:

Reason for change: #	In RAN1 specification TS 25.215, section 6.1.1.2, the compressed mode parameters are defined. Parameter TGPL2 makes it possible for the network to set two different compressed mode patterns that alternate. The only difference between pattern 1 and 2 is
	that they have different length (TGPL1 and TGPL2 respectively) In 25.133, paragraph 8.1.2.1, Appendix C, there is defined a general limitation for the
	 provide the patterns within a transmission gap pattern sequence that are identical (i.e., TGPL1 = TGPL2),
	Thus, there are no measurement performance requirements when two pattern are used (i.e TGPL2 is not equal to TGPL1 in the RRC signalling to the UE) within one compressed
	mode pattern sequence. Hence, UTRAN cannot use TGPL2 if it's different than TGPL1 since there are no measurement performance requirements specified for the case when TGPL1≠TGPL2. No gain has been showed using the second pattern defined by TGPL2.
	The conclusion of RAN4 is that the parameter TGPL2 can be removed from the specifications (Ref R2-042670).
Summary of change: %	TGPL2 is removed from the Tabular description, and changed to "dummy" in ASN.1
	Isolated Impact Analysis Functionality corrected: Compressed mode
	Isolated impact statement: Correction to a function where specifications are inconsistent. Since functionality is removed, UE implementations are not affected. Would affect

	UTRAN implementations supporting the removed functionality.				
Consequences if not approved:	# Inconsistency will remain in specfications.				
Clauses affected:	¥ 10.3.6.33, 11.3				
Other specs affected:	Y N X Other core specifications # 25.101, 25.133, 25.215, 25.423, 25.433 X Test specifications 34.108, 34.121, 34.123-1 X O&M Specifications Provide the second sec				
Other comments:	x				

- 1) Fill out the above form. The symbols above marked **#** contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

10.3.6.33 DPCH compressed mode info

NOTE: Only for FDD.

This information element indicates the parameters of the compressed mode to be used by the UE in order to perform inter-frequency and inter-RAT measurements.

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Transmission gap pattern sequence	MP	1 to <maxtgp S></maxtgp 		
>TGPSI	MP		TGPSI 10.3.6.82	
>TGPS Status Flag	MP		Enumerated(activate, deactivate)	This flag indicates whether the Transmission Gap Pattern Sequence shall be activated or deactivated.
>TGCFN	CV-Active		Integer (0255)	Connection Frame Number of the first frame of the first pattern within the Transmission Gap Pattern Sequence.
>Transmission gap pattern sequence configuration parameters	OP			
>>TGMP	MP		Enumerated(TDD measuremen t, FDD measuremen t, GSM carrier RSSI measuremen t, GSM Initial BSIC identification, GSM BSIC re- confirmation, Multi-carrier measuremen t)	Transmission Gap pattern sequence Measurement Purpose.
>>TGPRC	MP		Integer (1511, Infinity)	The number of transmission gap patterns within the Transmission Gap Pattern Sequence.
>>TGSN	MP		Integer (014)	Transmission Gap Starting Slot Number The slot number of the first transmission gap slot within the TGCFN.
>>TGL1	MP		Integer(114)	The length of the first Transmission Gap within the transmission gap pattern expressed in number of slots
>>TGL2	MD		Integer (114)	The length of the second Transmission Gap within the transmission gap pattern. If omitted, then TGL2=TGL1. The value of TGL2 shall be ignored if TGD is set to "undefined"
>>TGD	MP		Integer(152 69,	Transmission gap distance indicates the number of slots

Information Element/Group name	Need	Multi	Type and reference	Semantics description
			undefined)	between starting slots of two consecutive transmission gaps within a transmission gap pattern. If there is only one transmission gap in the transmission gap pattern, this parameter shall be set to undefined.
>>TGPL1	MP		Integer (1144)	The duration of transmission gap pattern 1.
>>TGPL2	MÐ		Integer (1144)	The duration of transmission- gap pattern 2. If omitted, then- TGPL2=TGPL1.
>>RPP	MP		Enumerated (mode 0, mode 1).	Recovery Period Power control mode during the frame after the transmission gap within the compressed frame. Indicates whether normal PC mode or compressed PC mode is applied
>>ITP	MP		Enumerated (mode 0, mode 1).	Initial Transmit Power is the uplink power control method to be used to compute the initial transmit power after the compressed mode gap.
>>CHOICE UL/DL mode	MP			
>>>DL only				Compressed mode used in DL only
>>>>Downlink compressed mode method	MP		Enumerated (puncturing, SF/2, higher layer scheduling)	Method for generating downlink compressed mode gap
>>>UL only				Compressed mode used in UL only
>>>Uplink compressed mode method	MP		Enumerated (SF/2, higher layer scheduling)	Method for generating uplink compressed mode gap
>>>UL and DL				Compressed mode used in UL and DL
>>>>Downlink compressed mode method	MP		Enumerated (puncturing, SF/2, higher layer scheduling)	Method for generating downlink compressed mode gap
>>>>Uplink compressed mode method	MP		Enumerated (SF/2, higher layer scheduling)	Method for generating uplink compressed mode gap
>>Downlink frame type	MP		Enumerated (A, B)	
>>DeltaSIR1	MP		Real(03 by step of 0.1)	Delta in DL SIR target value to be set in the UE during the frame containing the start of the first transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase)
>>DeltaSIRafter1	MP		Real(03 by step of 0.1)	Delta in DL SIR target value to be set in the UE one frame after the frame containing the start of the first transmission gap in the transmission gap pattern.

Information Element/Group name	Need	Multi	Type and reference	Semantics description
>>DeltaSIR2	OP		Real(03 by step of 0.1)	Delta in DL SIR target value to be set in the UE during the frame containing the start of the second transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase) When omitted, DeltaSIR2 = DeltaSIR1.
>>DeltaSIRafter2	OP		Real(03 by step of 0.1)	Delta in DL SIR target value to be set in the UE one frame after the frame containing the start of the second transmission gap in the transmission gap pattern. When omitted, DeltaSIRafter2 = DeltaSIRafter1.
>>N Identify abort	CV-Initial BSIC		Integer(112 8)	Indicates the maximum number of repeats of patterns that the UE shall use to attempt to decode the unknown BSIC of the GSM cell in the initial BSIC identification procedure
>>T Reconfirm abort	CV-Re- confirm BSIC		Real(0.510. 0 by step of 0.5)	Indicates the maximum time allowed for the re-confirmation of the BSIC of one GSM cell in the BSIC re-confirmation procedure. The time is given in steps of 0.5 seconds.

Condition	Explanation
Active	This IE is mandatory present when the value of the IE "TGPS Status Flag" is "Activate" and not needed otherwise.
Initial BSIC	This IE is mandatory present when the value of the IE "TGMP" is set to "GSM Initial BSIC identification" and not needed otherwise.
Re-confirm BSIC	This IE is mandatory present when the value of the IE "TGMP" is set to "GSM BSIC re-confirmation" and not needed otherwise.

TGPL ::=	INTEGER (1144)	
TABULAR: In TGPRC, value 0 repre TGPRC ::=	esents "infinity" in the tabular descrip INTEGER (0511)	tion.
TGPS-ConfigurationParams ::=	SEQUENCE {	
tgmp	TGMP,	
tgprc	TGPRC,	
tgsn	TGSN,	
tgl1	TGL,	
tgl2	TGL	OPTIONAL,
tgd	TGD,	
tgpl1	TGPL,	
	ersion of the specification, it should	
not be sent and if received		
<u>tgpl2</u> dummy	TGPL	OPTIONAL,
rpp	RPP,	
itp	ITP,	
	hod is nested inside UL-DL-Mode	
ul-DL-Mode	UL-DL-Mode,	
dl-FrameType	DL-FrameType,	
deltaSIR1	DeltaSIR,	
deltaSIRAfter1	DeltaSIR,	
deltaSIR2	DeltaSIR	OPTIONAL,
deltaSIRAfter2	DeltaSIR	OPTIONAL,
nidentifyAbort	NidentifyAbort	OPTIONAL,
treconfirmAbort	TreconfirmAbort	OPTIONAL
}		



	CHANGE REQUEST	CR-Form-v7.1			
¥	25.423 CR 1012 # rev - ^{# C}	Current version: 3.14.2 [#]			
For HELP on using this form, see bottom of this page or look at the pop-up text over the # symbols.					
Proposed change	<i>affects:</i> UICC apps発 <mark></mark> ME <mark></mark> Radio Acc	ess Network X Core Network			
Title: 3	Removal of TGPL2				
Source: }	Ericsson, Nokia				
Work item code: }	TEI	Date: ೫ <mark>3/12/2004</mark>			
Category: \$	 F F Vse <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP <u>TR 21.900</u>. 	Release: %R99Use one of the following releases:Ph2(GSM Phase 2)R96R97(Release 1996)R97R98(Release 1997)R98R99(Release 1998)R99Rel-4(Release 4)Rel-5Rel-6Rel-7(Release 7)			

Reason for change: # In RAN1 specification TS 25.215, section 6.1.1.2, the compressed mode parameters are defined. Parameter TGPL2 makes it possible for the network to set two different compressed mode patterns that alternate. The only difference between pattern 1 and 2 is that they have different length (TGPL1 and TGPL2 respectively) In 25.133, paragraph 8.1.2.1, Appendix C, there is defined a general limitation for the measurement requirements in chapter 8 to apply: - provide the patterns within a transmission gap pattern sequence that are identical (i.e., TGPL1 = TGPL2), Thus, there are no measurement performance requirements when two pattern are used (i.e. TGPL2 is not equal to TGPL1 in the RRC signalling to the UE) within one compressed mode pattern sequence. Hence, UTRAN cannot use TGPL2 if it's different than TGPL1		
 measurement requirements in chapter 8 to apply: provide the patterns within a transmission gap pattern sequence that are identical (i.e., TGPL1 = TGPL2), Thus, there are no measurement performance requirements when two pattern are used (i.e TGPL2 is not equal to TGPL1 in the RRC signalling to the UE) within one compressed mode pattern sequence. Hence, UTRAN cannot use TGPL2 if it's different than TGPL1 	Reason for change: ೫	defined. Parameter TGPL2 makes it possible for the network to set two different compressed mode patterns that alternate. The only difference between pattern 1 and 2 is
<i>identical (i.e., TGPL1 = TGPL2),</i> Thus, there are no measurement performance requirements when two pattern are used (i.e TGPL2 is not equal to TGPL1 in the RRC signalling to the UE) within one compressed mode pattern sequence. Hence, UTRAN cannot use TGPL2 if it's different than TGPL1		
TGPL2 is not equal to TGPL1 in the RRC signalling to the UE) within one compressed mode pattern sequence. Hence, UTRAN cannot use TGPL2 if it's different than TGPL1		
TGPL1≠TGPL2. No gain has been showed using the second pattern defined by TGPL2. The conclusion of RAN4 is that the parameter TGPL2 can be removed from the specifications (Ref R4-040781).		TGPL2 is not equal to TGPL1 in the RRC signalling to the UE) within one compressed mode pattern sequence. Hence, UTRAN cannot use TGPL2 if it's different than TGPL1 since there are no measurement performance requirements specified for the case when TGPL1≠TGPL2. No gain has been showed using the second pattern defined by TGPL2. The conclusion of RAN4 is that the parameter TGPL2 can be removed from the
Summary of change: # TGPL2 is changed to "Not-to-be-used-1" in the Tabular description and in ASN.1.	Summary of change: ೫	TGPL2 is changed to "Not-to-be-used-1" in the Tabular description and in ASN.1.
Isolated Impact Analysis		
Functionality corrected: Compressed mode		Functionality corrected: Compressed mode
Isolated impact statement: Correction to a function where specifications are inconsistent. Since functionality is removed, UE implementations are not affected. Would affect UTRAN implementations supporting the removed		inconsistent. Since functionality is removed, UE implementations are not

	functionality.							
Consequences if not approved:	nconsistency will remain in specfications.							
Clauses affected:	9.2.2.47A, 9.3.4							
Othersen								
Other specs	X Other core specifications # 25.101, 25.133, 25.215, 25.133, 25.433	•						
affected:	XTest specifications34.108, 34.121, 34.123-1XO&M Specifications							
Other comments:								

- 1) Fill out the above form. The symbols above marked **#** contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

9.2.2.47A Transmission Gap Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence. For details see [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmission Gap Pattern Sequence Information		1 <maxtgps></maxtgps>		
>TGPSI Identifier	М		INTEGER(1. . <maxtgps >)</maxtgps 	Transmission Gap Pattern Sequence Identifier Establish a reference to the compressed mode pattern sequence. Up to <maxtgps> simultaneous compressed mode pattern sequences can be used.</maxtgps>
>TGSN	M		INTEGER (014)	Transmission Gap Starting Slot Number The slot number of the first transmission gap slot within the TGCFN.
>TGL1	М		INTEGER(1. .14)	The length of the first Transmission Gap within the transmission gap pattern expressed in number of slots.
>TGL2	0		INTEGER (114)	The length of the second Transmission Gap within the transmission gap pattern. If omitted, then TGL2=TGL1.
>TGD	M		INTEGER (0, 15 269)	Transmission gap distance indicates the number of slots between the starting slots of two consecutive transmission gaps within a transmission gap pattern. If there is only one transmission gap in the transmission gap pattern, this parameter shall be set to 0 (0 =undefined).
>TGPL1	М		INTEGER (1144,)	The duration of transmission gap pattern 1 in frames.
>TGPL2Not-to-be-used-1	0		INTEGER (1144,)	This IE shall never be included in the IE group. If received it shall be ignored. The duration of transmission gap pattern 2 in frames. If omitted, then TGPL2=TGPL1.
>UL/DL mode	M		ENUMERAT ED (UL only, DL only, UL/DL)	Defines whether only DL, only UL, or combined UL/DL compressed mode is used.
>Downlink Compressed Mode Method	C-DL		ENUMERAT ED (puncturing, SF/2, higher layer scheduling,)	Method for generating downlink compressed mode gap None means that compressed mode pattern is stopped.
>Uplink Compressed Mode Method	C-UL		ENUMERAT ED (SF/2, higher layer scheduling,)	Method for generating uplink compressed mode gap.
>Downlink Frame Type	M		ENUMERAT ED (A, B,)	Defines if frame type 'A' or 'B' shall be used in downlink compressed mode.
>DeltaSIR1	М		INTEGER (030)	Delta in SIR target value to be set in the DRNS during the frame containing the start of the first transmission gap in the transmission gap pattern (without including the effect of

			the bit-rate increase) Step 0.1 dB, Range 0-3dB
>DeltaSIRafter1	Μ	INTEGER (030)	Delta in SIR target value to be set in the DRNS one frame after the frame containing the start of the first transmission gap in the transmission gap pattern,. Step 0.1 dB, Range 0-3dB
>DeltaSIR2	0	INTEGER (030)	Delta in SIR target value to be set in the DRNS during the frame containing the start of the second transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase) When omitted, DeltaSIR2 = DeltaSIR1. Step 0.1 dB, Range 0-3dB
>DeltaSIRafter2	0	INTEGER (030)	Delta in SIR target value to be set in the DRNS one frame after the frame containing the start of the second transmission gap in the transmission gap pattern. When omitted, DeltaSIRafter2 = DeltaSIRafter1. Step 0.1 dB, Range 0-3dB

Condition	Explanation
UL	The IE shall be present if the UL/DL mode IE is "UL only" or "UL/DL".
DL	The IE shall be present if the UL/DL mode IE is "DL only" or "UL/DL".

Range bound	Explanation			
maxTGPS	Maximum number of transmission gap pattern sequences.			

9.3.4 Information Element Definitions

-- Information Element Definitions

RNSAP-IEs {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

_ _

Unchanged parts not shown

Transmission-Gap-Pattern-Sequence-Information ::= SEQUENCE (SIZE (1..maxTGPS)) OF

```
SEQUENCE {
   tGPSID
                   TGPSID,
   tGSN
                   TGSN,
   tGL1
                   GapLength,
   tGL2
                   GapLength OPTIONAL,
   tGD
                   TGD,
   tGPL1
                   GapDuration,
   tGPL2not-to-be-used-1
                                   GapDuration OPTIONAL,
       -- This optional not-to-be-used-1 IE shall not be included in the sequence
   uL-DL-mode
                   UL-DL-mode,
   downlink-Compressed-Mode-Method
                                       Downlink-Compressed-Mode-Method
                                                                           OPTIONAL,
       -- This IE shall be present if the value of the UL/DL mode IE is "DL only" or "UL/DL"
   uplink-Compressed-Mode-Method
                                       Uplink-Compressed-Mode-Method
                                                                           OPTIONAL,
       -- This IE shall be present if the value of the UL/DL mode IE is "UL only" or "UL/DL"
   dL-FrameType
                       DL-FrameType,
   delta-SIR1
                   DeltaSIR,
   delta-SIR-after1 DeltaSIR,
   delta-SIR2
                  DeltaSIR
                               OPTIONAL,
   delta-SIR-after2 DeltaSIR
                                   OPTIONAL,
   iE-Extensions
                           ProtocolExtensionContainer { {Transmission-Gap-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
    . . .
```

```
Transmission-Gap-Pattern-Sequence-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

Unchanged parts not shown

END

}

. . .

Release 1999

Tdoc **#R3-04xxxx**

				C	CHAN	GE	REC	UE	ST	•				CR-Fo	orm-v7.1
æ		25.4	23	CR	1013	:	жrev	-	ж	Curre	ent ve	rsion:	4.12.1	ж	
For <u>HELP</u> or	า นร	sing thi	s forn	n, see	bottom o	of this	page oi	· look	at th	e pop·	up te	(t ove	r the	mbc	ols.
Proposed chang	ie a	affects:	: U	ICC a	pps#		ME	Rad	dio A	ccess	Netwo	ork <mark>X</mark>	Core N	etwo	ork
Title:	ж	Remo	oval o	f TGF	PL2										
Source:	Irce: ೫ Ericsson, Nokia														
Work item code:	ж	TEI								Ľ	Date: 8	€ <mark>3/</mark>	12/2004		
Category:	H	Use <u>on</u> F A B C D Detailed	(corre (corre (addi (func (edito d expl	ection) espond tion of tional I prial mo anatio	owing categ ds to a corr feature), modification odification) ns of the a <u>FR 21.900</u> .	rection n of fe bove c	in an ea ature)			Use	ease: 8 9 <u>one</u> c Ph2 R96 R97 R98 R99 Rel-4 Rel-5 Rel-5 Rel-7	of the f (GS) (Rel (Rel (Rel (Rel (Rel (Rel (Rel	el-4 ollowing re M Phase 2 ease 1996 ease 1997 ease 1999 ease 4) ease 5) ease 5) ease 6) ease 7))))	es:

Reason for change: ೫	In RAN1 specification TS 25.215, section <i>6.1.1.2</i> , the compressed mode parameters are defined. Parameter TGPL2 makes it possible for the network to set two different compressed mode patterns that alternate. The only difference between pattern 1 and 2 is that they have different length (TGPL1 and TGPL2 respectively)
	that they have different length (16) ET and 16) E2 respectively)
	In 25.133, paragraph 8.1.2.1, Appendix C, there is defined a general limitation for the measurement requirements in chapter 8 to apply:
	- provide the patterns within a transmission gap pattern sequence that are identical (i.e., TGPL1 = TGPL2),
	Thus, there are no measurement performance requirements when two pattern are used (i.e TGPL2 is not equal to TGPL1 in the RRC signalling to the UE) within one compressed mode pattern sequence. Hence, UTRAN cannot use TGPL2 if it's different than TGPL1
	since there are no measurement performance requirements specified for the case when TGPL1≠TGPL2. No gain has been showed using the second pattern defined by TGPL2.
	The conclusion of RAN4 is that the parameter TGPL2 can be removed from the specifications (Ref R4-040781).
Summary of change: ೫	TGPL2 is changed to "Not-to-be-used-1" in the Tabular description and in ASN.1.
	Isolated Impact Analysis
	Functionality corrected: Compressed mode
	Isolated impact statement: Correction to a function where specifications are inconsistent. Since functionality is removed, UE implementations are not affected. Would affect UTRAN implementations supporting the removed

nconsistency will remain in specfications.							
۹, 9.3.4							
per core specifications #	25.101, 25.133, 25.215, 25.133, 25.433						
·							
st specifications M Specifications	34.108, 34.121, 34.123-1						
	A, 9.3.4 her core specifications %						

- 1) Fill out the above form. The symbols above marked **#** contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

9.2.2.47A Transmission Gap Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence. For details see [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmission Gap Pattern Sequence Information		1< maxTGPS >		
>TGPSI Identifier	М		INTEGER(1. . <maxtgps >)</maxtgps 	Transmission Gap Pattern Sequence Identifier Establish a reference to the compressed mode pattern sequence. Up to <maxtgps> simultaneous compressed mode pattern sequences can be used.</maxtgps>
>TGSN	М		INTEGER (014)	Transmission Gap Starting Slot Number The slot number of the first transmission gap slot within the TGCFN.
>TGL1	М		INTEGER(1. .14)	The length of the first Transmission Gap within the transmission gap pattern expressed in number of slots.
>TGL2	0		INTEGER (114)	The length of the second Transmission Gap within the transmission gap pattern. If omitted, then TGL2=TGL1.
>TGD	Μ		INTEGER (0, 15 269)	Transmission gap distance indicates the number of slots between the starting slots of two consecutive transmission gaps within a transmission gap pattern. If there is only one transmission gap in the transmission gap pattern, this parameter shall be set to 0 (0 =undefined).
>TGPL1	М		INTEGER (1144,)	The duration of transmission gap pattern 1 in frames.
> <u>Not-to-be-used-1</u> TGPL2	0		INTEGER (1144,)	This IE shall never be included in the IE group. If received it shall be ignored. The duration of transmission gap pattern 2 in frames. If omitted, then TGPL2=TGPL1.
>UL/DL mode	М		ENUMERAT ED (UL only, DL only, UL/DL)	Defines whether only DL, only UL, or combined UL/DL compressed mode is used.
>Downlink Compressed Mode Method	C-DL		ENUMERAT ED (puncturing, SF/2, higher layer scheduling,)	Method for generating downlink compressed mode gap None means that compressed mode pattern is stopped.
>Uplink Compressed Mode Method	C-UL		ENUMERAT ED (SF/2, higher layer scheduling,)	Method for generating uplink compressed mode gap.
>Downlink Frame Type	M		ENUMERAT ED (A, B,)	Defines if frame type 'A' or 'B' shall be used in downlink compressed mode.
>DeltaSIR1	М		INTEGER (030)	Delta in SIR target value to be set in the DRNS during the frame containing the start of the first transmission gap in the transmission gap pattern (without including the effect of

			the bit-rate increase) Step 0.1 dB, Range 0-3dB
>DeltaSIRafter1	Μ	INTEGER (030)	Delta in SIR target value to be set in the DRNS one frame after the frame containing the start of the first transmission gap in the transmission gap pattern,. Step 0.1 dB, Range 0-3dB
>DeltaSIR2	0	INTEGER (030)	Delta in SIR target value to be set in the DRNS during the frame containing the start of the second transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase) When omitted, DeltaSIR2 = DeltaSIR1.
>DeltaSIRafter2	0	INTEGER (030)	Step 0.1 dB, Range 0-3dBDelta in SIR target value to be set in the DRNS one frame after the frame containing the start of the second transmission gap in the transmission gap pattern. When omitted, DeltaSIRafter2 = DeltaSIRafter1.Step 0.1 dB, Range 0-3dB

Condition	Explanation
UL	The IE shall be present if the <i>UL/DL mode</i> IE is set to "UL only" or "UL/DL".
DL	The IE shall be present if the UL/DL mode IE is set to "DL only" or "UL/DL".

Range bound	Explanation
maxTGPS	Maximum number of transmission gap pattern sequences.

9.3.4 Information Element Definitions

-- Information Element Definitions

RNSAP-IEs {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

_ _

Unchanged parts not shown

Transmission-Gap-Pattern-Sequence-Information ::= SEQUENCE (SIZE (1..maxTGPS)) OF SEQUENCE { tGPSID TGPSID, tGSN TGSN, tGL1 GapLength, tGL2 GapLength OPTIONAL, tGD TGD, tGPL1 GapDuration, tGPL2not-to-be-used-1 GapDuration OPTIONAL, -- This optional not-to-be-used-1 IE shall not be included in the sequence uL-DL-mode UL-DL-mode, downlink-Compressed-Mode-Method Downlink-Compressed-Mode-Method OPTIONAL, -- This IE shall be present if the value of the UL/DL mode IE is "DL only" or "UL/DL" uplink-Compressed-Mode-Method Uplink-Compressed-Mode-Method OPTIONAL, -- This IE shall be present if the value of the UL/DL mode IE is "UL only" or "UL/DL" dL-FrameType DL-FrameType, delta-SIR1 DeltaSIR, delta-SIR-after1 DeltaSIR, delta-SIR2 DeltaSIR OPTIONAL, delta-SIR-after2 DeltaSIR OPTIONAL, iE-Extensions ProtocolExtensionContainer { {Transmission-Gap-Pattern-Sequence-Information-ExtIEs} } OPTIONAL, . . .

Transmission-Gap-Pattern-Sequence-Information-Extles RNSAP-PROTOCOL-EXTENSION ::= {

Unchanged parts not shown

END

}

. . .

Tdoc **#R3-04xxxx**

	CHANGE F	REQUES	ST	CR-Form-v7.1
¥	<mark>25.423</mark> CR <mark>1014</mark> ж	rev - ^s	発 Current versi	on: <mark>5.11.0</mark> [¥]
	using this form, see bottom of this pa			
Proposed change	affects: UICC apps #	ME Radio	o Access Networ	k X Core Network
Title: भ	Removal of TGPL2			
Source: भ	Ericsson, Nokia			
Work item code: भ	6 TEI		<i>Date:</i> ೫	3/12/2004
Category: ₩	 A Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in B (addition of feature), C (functional modification of feat D (editorial modification) Detailed explanations of the above ca be found in 3GPP <u>TR 21.900</u>. 	ure)	Use <u>one</u> of t Ph2 ease) R96 R97 R98 R99 Rel-4 Rel-5 Rel-6	Rel-5 the following releases: (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5) (Release 6) (Release 7)

Reason for change: ೫	In RAN1 specification TS 25.215, section <i>6.1.1.2</i> , the compressed mode parameters are defined. Parameter TGPL2 makes it possible for the network to set two different compressed mode patterns that alternate. The only difference between pattern 1 and 2 is that they have different length (TGPL1 and TGPL2 respectively)
	In 25.133, paragraph 8.1.2.1, Appendix C, there is defined a general limitation for the measurement requirements in chapter 8 to apply:
	- provide the patterns within a transmission gap pattern sequence that are identical (i.e., TGPL1 = TGPL2),
	Thus, there are no measurement performance requirements when two pattern are used (i.e TGPL2 is not equal to TGPL1 in the RRC signalling to the UE) within one compressed mode pattern sequence. Hence, UTRAN cannot use TGPL2 if it's different than TGPL1 since there are no measurement performance requirements specified for the case when TGPL1≠TGPL2. No gain has been showed using the second pattern defined by TGPL2. The conclusion of RAN4 is that the parameter TGPL2 can be removed from the specifications (Ref R4-040781).
Summary of change: ೫	TGPL2 is changed to "Not-to-be-used-1" in the Tabular description and in ASN.1.
	Isolated Impact Analysis Functionality corrected: Compressed mode
	Isolated impact statement: Correction to a function where specifications are inconsistent. Since functionality is removed, UE implementations are not affected. Would affect UTRAN implementations supporting the removed

Consequences if not approved: # Inconsistency will remain in specifications. Clauses affected: # 9.2.2.47A, 9.3.4 Y N Other specs # Z5.101, 25.133, 25.215, 25.133, 25.433		functionality.
Y N OUT	-	# Inconsistency will remain in specfications.
	Clauses affected:	ж 9.2.2.47A, 9.3.4
<i>affected:</i> Test specifications 34.108, 34.121, 34.123-1	-	X Other core specifications # 25.101, 25.133, 25.215, 25.133, 25.433 X Test specifications 34.108, 34.121, 34.123-1
X O&M Specifications Other comments: #	Other commontes	

- 1) Fill out the above form. The symbols above marked **#** contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

9.2.2.47A Transmission Gap Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence. For details see [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmission Gap Pattern Sequence Information		1 <maxtgps></maxtgps>		
>TGPSI Identifier	М		INTEGER(1. . <maxtgps >)</maxtgps 	Transmission Gap Pattern Sequence Identifier Establish a reference to the compressed mode pattern sequence. Up to <maxtgps> simultaneous compressed mode pattern sequences can be used.</maxtgps>
>TGSN	М		INTEGER(0. .14)	Transmission Gap Starting Slot Number The slot number of the first transmission gap slot within the TGCFN.
>TGL1	М		INTEGER(1. .14)	The length of the first Transmission Gap within the transmission gap pattern expressed in number of slots.
>TGL2	0		INTEGER(1. .14)	The length of the second Transmission Gap within the transmission gap pattern. If omitted, then TGL2=TGL1.
>TGD	Μ		INTEGER (0, 15 269)	Transmission gap distance indicates the number of slots between the starting slots of two consecutive transmission gaps within a transmission gap pattern. If there is only one transmission gap in the transmission gap pattern, this parameter shall be set to 0 (0 =undefined).
>TGPL1	М		INTEGER(1144,)	The duration of transmission gap pattern 1 in frames.
> <u>Not-to-be-used-1</u> TGPL2	0		INTEGER(1144,)	This IE shall never be included in the IE group. If received it shall be ignored. The duration of transmission gap pattern 2 in frames. If omitted, then TGPL2=TGPL1.
>UL/DL mode	M		ENUMERAT ED(UL only, DL only, UL/DL)	Defines whether only DL, only UL, or combined UL/DL compressed mode is used.
>Downlink Compressed Mode Method	C-DL		ENUMERAT ED(puncturin g, SF/2, higher layer scheduling,)	Method for generating downlink compressed mode gap
>Uplink Compressed Mode Method	C-UL		ENUMERAT ED(SF/2, higher layer scheduling,)	Method for generating uplink compressed mode gap.
>Downlink Frame Type	M		ENUMERAT ED(A, B,)	Defines if frame type 'A' or 'B' shall be used in downlink compressed mode.
>DeltaSIR1	М		INTEGER(0. .30)	Delta in SIR target value to be set in the DRNS during the frame containing the start of the first transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase)

			Step 0.1 dB, Range 0-3dB
>DeltaSIRafter1	М	INTEGER (030)	Delta in SIR target value to be set in the DRNS one frame after the frame containing the start of the first transmission gap in the transmission gap pattern,. Step 0.1 dB, Range 0-3dB
>DeltaSIR2	0	INTEGER (030)	Delta in SIR target value to be set in the DRNS during the frame containing the start of the second transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase) When omitted, DeltaSIR2 = DeltaSIR1. Step 0.1 dB, Range 0-3dB
>DeltaSIRafter2	0	INTEGER (030)	Delta in SIR target value to be set in the DRNS one frame after the frame containing the start of the second transmission gap in the transmission gap pattern. When omitted, DeltaSIRafter2 = DeltaSIRafter1. Step 0.1 dB, Range 0-3dB

Condition	Explanation
UL	The IE shall be present if the <i>UL/DL mode</i> IE is set to "UL only" or "UL/DL".
DL	The IE shall be present if the UL/DL mode IE is set to "DL only" or "UL/DL".

Range bound	Explanation
maxTGPS	Maximum number of transmission gap pattern sequences.

9.3.4 Information Element Definitions

-- Information Element Definitions

RNSAP-IEs {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

_ _

Unchanged parts not shown

Transmission-Gap-Pattern-Sequence-Information ::= SEQUENCE (SIZE (1..maxTGPS)) OF SEQUENCE { tGPSID TGPSID, tGSN TGSN, tGL1 GapLength, tGL2 GapLength OPTIONAL, tGD TGD, tGPL1 GapDuration, tGPL2not-to-be-used-1 GapDuration OPTIONAL, -- This optional not-to-be-used-1 IE shall not be included in the sequence uL-DL-mode UL-DL-mode, downlink-Compressed-Mode-Method Downlink-Compressed-Mode-Method OPTIONAL, -- This IE shall be present if the value of the UL/DL mode IE is "DL only" or "UL/DL" uplink-Compressed-Mode-Method Uplink-Compressed-Mode-Method OPTIONAL, -- This IE shall be present if the value of the UL/DL mode IE is "UL only" or "UL/DL" dL-FrameType DL-FrameType, delta-SIR1 DeltaSIR, delta-SIR-after1 DeltaSIR, delta-SIR2 DeltaSIR OPTIONAL, delta-SIR-after2 DeltaSIR OPTIONAL, iE-Extensions ProtocolExtensionContainer { {Transmission-Gap-Pattern-Sequence-Information-ExtIEs} } OPTIONAL, . . .

Transmission-Gap-Pattern-Sequence-Information-Extles RNSAP-PROTOCOL-EXTENSION ::= {

Unchanged parts not shown

END

}

. . .

Tdoc **#R3-04xxxx**

			(CHANGE	REQ	UE	ST			C	R-Form-v7.1
æ		<mark>25.423</mark>	CR	1015	жrev	-	ж	Current ve	sion:	6.3.0	ж
For <u>HELP</u> or	า us	sing this fo	rm, see	bottom of this	s page or	look	at th	e pop-up te>	t over	^r the	nbols.
Proposed chang	e a	ffects:	UICC a	ppsℋ	ME	Rad	dio A	ccess Netwo	ork X	Core Ne	etwork
Title:	Ж	Removal	of TGF	PL2							
Source:	Ж	Ericsson,	Nokia								
Work item code:	ж	TEI						Date:	€ <mark>3/1</mark>	2/2004	
Category:		F (con A (con B (ada C (fun D (eda	rrection) rrespond dition of actional i itorial me planatio	wing categories ds to a correctic feature), modification of t odification) ns of the above <u>R 21.900</u> .	on in an ea feature)			Ph2	of the fo (GSI (Rela (Rela (Rela (Rela (Rela (Rela	I-6 Dlowing rele M Phase 2) Pase 1996) Pase 1997) Pase 1998) Pase 1999) Pase 4) Pase 5) Pase 5) Pase 6) Pase 7)	eases:

Reason for change: ೫	In RAN1 specification TS 25.215, section <i>6.1.1.2</i> , the compressed mode parameters are defined. Parameter TGPL2 makes it possible for the network to set two different compressed mode patterns that alternate. The only difference between pattern 1 and 2 is that they have different length (TGPL1 and TGPL2 respectively)
	In 25.133, paragraph 8.1.2.1, Appendix C, there is defined a general limitation for the measurement requirements in chapter 8 to apply:
	- provide the patterns within a transmission gap pattern sequence that are identical (i.e., TGPL1 = TGPL2),
	Thus, there are no measurement performance requirements when two pattern are used (i.e TGPL2 is not equal to TGPL1 in the RRC signalling to the UE) within one compressed mode pattern sequence. Hence, UTRAN cannot use TGPL2 if it's different than TGPL1 since there are no measurement performance requirements specified for the case when TGPL1≠TGPL2. No gain has been showed using the second pattern defined by TGPL2. The conclusion of RAN4 is that the parameter TGPL2 can be removed from the specifications (Ref R4-040781).
Summary of change: %	TGPL2 is changed to "Not-to-be-used-1" in the Tabular description and in ASN.1.
	Isolated Impact Analysis Functionality corrected: Compressed mode
	Isolated impact statement: Correction to a function where specifications are inconsistent. Since functionality is removed, UE implementations are not affected. Would affect UTRAN implementations supporting the removed

Consequences if not approved: # Inconsistency will remain in specifications. Clauses affected: # 9.2.2.47A, 9.3.4 Y N Other specs # Z5.101, 25.133, 25.215, 25.133, 25.433		functionality.
Y N OUT	-	# Inconsistency will remain in specfications.
	Clauses affected:	ж 9.2.2.47A, 9.3.4
<i>affected:</i> Test specifications 34.108, 34.121, 34.123-1	-	X Other core specifications # 25.101, 25.133, 25.215, 25.133, 25.433 X Test specifications 34.108, 34.121, 34.123-1
X O&M Specifications Other comments: #	Other commontes	

- 1) Fill out the above form. The symbols above marked **#** contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

9.2.2.47A Transmission Gap Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence. For details see [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmission Gap Pattern Sequence Information		1 <maxtgps></maxtgps>		
>TGPSI Identifier	М		INTEGER(1. . <maxtgps >)</maxtgps 	Transmission Gap Pattern Sequence Identifier Establish a reference to the compressed mode pattern sequence. Up to <maxtgps> simultaneous compressed mode pattern sequences can be used.</maxtgps>
>TGSN	М		INTEGER(0. .14)	Transmission Gap Starting Slot Number The slot number of the first transmission gap slot within the TGCFN.
>TGL1	М		INTEGER(1. .14)	The length of the first Transmission Gap within the transmission gap pattern expressed in number of slots.
>TGL2	0		INTEGER(1. .14)	The length of the second Transmission Gap within the transmission gap pattern. If omitted, then TGL2=TGL1.
>TGD	Μ		INTEGER (0, 15 269)	Transmission gap distance indicates the number of slots between the starting slots of two consecutive transmission gaps within a transmission gap pattern. If there is only one transmission gap in the transmission gap pattern, this parameter shall be set to 0 (0 =undefined).
>TGPL1	М		INTEGER(1144,)	The duration of transmission gap pattern 1 in frames.
> <u>Not-to-be-used-1</u> TGPL2	0		INTEGER(1144,)	This IE shall never be included in the IE group. If received it shall be ignored. The duration of transmission gap pattern 2 in frames. If omitted, then TGPL2=TGPL1.
>UL/DL mode	M		ENUMERAT ED(UL only, DL only, UL/DL)	Defines whether only DL, only UL, or combined UL/DL compressed mode is used.
>Downlink Compressed Mode Method	C-DL		ENUMERAT ED(puncturin g, SF/2, higher layer scheduling,)	Method for generating downlink compressed mode gap
>Uplink Compressed Mode Method	C-UL		ENUMERAT ED(SF/2, higher layer scheduling,)	Method for generating uplink compressed mode gap.
>Downlink Frame Type	M		ENUMERAT ED(A, B,)	Defines if frame type 'A' or 'B' shall be used in downlink compressed mode.
>DeltaSIR1	М		INTEGER(0. .30)	Delta in SIR target value to be set in the DRNS during the frame containing the start of the first transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase)

			Step 0.1 dB, Range 0-3dB
>DeltaSIRafter1	М	INTEGER (030)	Delta in SIR target value to be set in the DRNS one frame after the frame containing the start of the first transmission gap in the transmission gap pattern,. Step 0.1 dB, Range 0-3dB
>DeltaSIR2	0	INTEGER (030)	Delta in SIR target value to be set in the DRNS during the frame containing the start of the second transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase) When omitted, DeltaSIR2 = DeltaSIR1. Step 0.1 dB, Range 0-3dB
>DeltaSIRafter2	0	INTEGER (030)	Delta in SIR target value to be set in the DRNS one frame after the frame containing the start of the second transmission gap in the transmission gap pattern. When omitted, DeltaSIRafter2 = DeltaSIRafter1. Step 0.1 dB, Range 0-3dB

Condition	Explanation				
UL	The IE shall be present if the <i>UL/DL mode</i> IE is set to "UL only" or "UL/DL".				
DL	The IE shall be present if the UL/DL mode IE is set to "DL only" or "UL/DL".				

Range bound	Explanation		
maxTGPS	Maximum number of transmission gap pattern sequences.		

9.3.4 Information Element Definitions

-- Information Element Definitions

RNSAP-IEs {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

_ _

Unchanged parts not shown

Transmission-Gap-Pattern-Sequence-Information ::= SEQUENCE (SIZE (1..maxTGPS)) OF SEQUENCE { tGPSID TGPSID, tGSN TGSN, tGL1 GapLength, tGL2 GapLength OPTIONAL, tGD TGD, tGPL1 GapDuration, tGPL2not-to-be-used-1 GapDuration OPTIONAL, -- This optional not-to-be-used-1 IE shall not be included in the sequence uL-DL-mode UL-DL-mode, downlink-Compressed-Mode-Method Downlink-Compressed-Mode-Method OPTIONAL, -- This IE shall be present if the value of the UL/DL mode IE is "DL only" or "UL/DL" uplink-Compressed-Mode-Method Uplink-Compressed-Mode-Method OPTIONAL, -- This IE shall be present if the value of the UL/DL mode IE is "UL only" or "UL/DL" dL-FrameType DL-FrameType, delta-SIR1 DeltaSIR, delta-SIR-after1 DeltaSIR, delta-SIR2 DeltaSIR OPTIONAL, delta-SIR-after2 DeltaSIR OPTIONAL, iE-Extensions ProtocolExtensionContainer { {Transmission-Gap-Pattern-Sequence-Information-ExtIEs} } OPTIONAL, . . . Transmission-Gap-Pattern-Sequence-Information-Extles RNSAP-PROTOCOL-EXTENSION ::= {

} ...

Unchanged parts not shown

END

Tdoc #RP-04xxxx

						R-Form-v7.1					
æ		<mark>25.43</mark>	<mark>3</mark> CR	1062	жrev	-	ж	Current vers	ion:	3.14.2	ж
For <u>HELP</u> or	For HELP on using this form, see bottom of this page or look at the pop-up text over the # symbols.						nbols.				
Proposed chang	je a	affects:	UICC a	ipps#	ME	Rac	dio Ad	ccess Netwo	rk X	Core Ne	twork
Title:	ж	Remov	al of TGF	PL2							
Source:	Source: % Ericsson, Nokia										
Work item code:	ж	TEI						<i>Date:</i> ೫	3/1	2/2004	
Category:	ж	Use <u>one</u> (F (c A (c B (a C (f D (e Detailed e	correction) correspond addition of unctional editorial m explanatio	ds to a correctio	on in an ear feature)		elease	Release: # Use <u>one</u> of Ph2 P) R96 R97 R98 R99 Rel-4 Rel-5 Rel-6 Rel-7	the fc (GSN (Rele (Rele (Rele (Rele (Rele (Rele	-	pases:

In RAN1 specification TS 25.215, section <i>6.1.1.2</i> , the compressed mode parameters are defined. Parameter TGPL2 makes it possible for the network to set two different compressed mode patterns that alternate. The only difference between pattern 1 and 2 is that they have different length (TGPL1 and TGPL2 respectively)
In 25.133, paragraph 8.1.2.1, Appendix C, there is defined a general limitation for the measurement requirements in chapter 8 to apply:
- provide the patterns within a transmission gap pattern sequence that are identical (i.e., TGPL1 = TGPL2),
Thus, there are no measurement performance requirements when two pattern are used (i.e TGPL2 is not equal to TGPL1 in the RRC signalling to the UE) within one compressed mode pattern sequence. Hence, UTRAN cannot use TGPL2 if it's different than TGPL1 since there are no measurement performance requirements specified for the case when TGPL1≠TGPL2. No gain has been showed using the second pattern defined by TGPL2. The conclusion of RAN4 is that the parameter TGPL2 can be removed from the specifications (Ref R4-040781).
TGPL2 is changed to "Not-to-be-used-1" in the Tabular description and in ASN.1.
Isolated Impact Analysis Functionality corrected: Compressed mode
Isolated impact statement: Correction to a function where specifications are inconsistent. Since functionality is removed, UE implementations are not affected. Would affect UTRAN implementations supporting the removed

Consequences if not approved:	第 Inconsistency will remain in specfications.
Clauses affected: Other specs	# 9.2.2.53A, 9.3.4 Y N # X Other core specifications # 25.101, 25.133, 25.215, 25.331, 25.423
affected:	XTest specifications34.108, 34.121, 34.123-1XO&M Specifications
Other comments:	ж

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked # contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

9.2.2.53A Transmission Gap Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence. For details see ref. [18].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmission Gap Pattern Sequence Information		1 <maxt GPS></maxt 		
>TGPS Identifier	M		INTEGER (1maxTGPS)	Transmission Gap Pattern Sequence Identifier: Establish a reference to the compressed mode pattern sequence. Up to <maxtgps> simultaneous compressed mode pattern sequences can be used.</maxtgps>
>TGSN	M		INTEGER (014)	Transmission Gap Starting Slot Number: The slot number of the first transmission gap slot within the TGCFN.
>TGL1	М		INTEGER (114)	The length of the first Transmission Gap within the transmission gap pattern expressed in number of slots.
>TGL2	0		INTEGER (114)	The length of the second Transmission Gap within the transmission gap pattern. If omitted, then TGL2=TGL1.
>TGD	М		INTEGER (0, 15 269)	Transmission Gap Distance: indicates the number of slots between the starting slots of two consecutive transmission gaps within a transmission gap pattern. If there is only one transmission gap in the transmission gap pattern, this parameter shall be set to "0" ("0" =undefined).
>TGPL1	М		INTEGER (1144,)	The duration of transmission gap pattern 1 in frames.
> <u>Not-to-be-used-1</u> TGPL2	0		INTEGER (1144,)	This IE shall never be included in the IE group. If received it shall be ignored. The duration of transmission gap pattern 2 in frames. If omitted, then TGPL2=TGPL1.
>UL/DL Mode	M		ENUMERATED (UL only, DL only, UL/DL)	Defines whether only DL, only UL or combined UL/DL compressed mode is used.
>Downlink Compressed Mode Method	C-DL		ENUMERATED (Puncturing, SF/2, Higher Layer Scheduling,)	Method for generating downlink compressed mode gap None means that compressed mode pattern is stopped.
>Uplink Compressed Mode Method	C-UL		ENUMERATED (SF/2, Higher Layer Scheduling,)	Method for generating uplink compressed mode gap.
>Downlink Frame Type	М		ENUMERATED (A, B,)	Defines if frame structure type "A" or "B" shall be used in downlink compressed mode.
>DeltaSIR1	M		INTEGER (030)	Delta in SIR target value to be set in the Node B during the frame containing the start of the first transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase). Unit: dB

			Range: 03 dB Step: 0.1 dB
>DeltaSIRafter1	М	INTEGER (030)	Delta in SIR target value to be set in the Node B one frame after the frame containing the start of the first transmission gap in the transmission gap pattern. Unit: dB Range: 03 dB Step: 0.1 dB
>DeltaSIR2	0	INTEGER (030)	Delta in SIR target value to be set in the Node B during the frame containing the start of the second transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase). When omitted, DeltaSIR2 = DeltaSIR1. Unit: dB Range: 03 dB Step: 0.1 dB
>DeltaSIRafter2	0	INTEGER (030)	Delta in SIR target value to be set in the Node B one frame after the frame containing the start of the second transmission gap in the transmission gap pattern. When omitted, DeltaSIRafter2 = DeltaSIRafter1. Unit: dB Range: 03 dB Step: 0.1 dB

Condition	Explanation
UL	The IE shall be present if the <i>UL/DL mode</i> IE is set to "UL only" or "UL/DL".
DL	The IE shall be present if the UL/DL mode IE is set to "DL only" or "UL/DL".

Range Bound	Explanation		
MaxTGPS	Maximum number of transmission gap pattern sequences		

9.2.2.53B Transmission Gap Pattern Sequence Code Information

This IE indicates whether the alternative scrambling code shall used for the Downlink compressed mode method or not in the Transmission Gap Pattern Sequence. For details see [9].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmission Gap Pattern Sequence Code Information			ENUMERATED (Code Change, No Code Change)	Indicates whether the alternative scrambling code is used for compressed mode method "SF/2".

3GPP

9.3.4 Information Elements Definitions

-- Information Element Definitions

NBAP-IEs {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::= BEGIN

Unchanged parts not shown

Transmission-Gap-Pattern-Sequence-Information ::= SEQUENCE (SIZE (1..maxTGPS)) OF

Landini	Spion dap factor.	Dequence information () = Digolated (Dill (1mations)) of
SEQU	UENCE {	
	tGPSID	TGPSID,
	tGSN	TGSN,
	tGL1	GapLength,
	tGL2	GapLength OPTIONAL,
	tGD	TGD,
	tGPL1	GapDuration,
	tGPL2not-to-be-	ased-1 GapDuration OPTIONAL,
	This opt:	onal not-to-be-used-1 IE shall not be included in the sequence
	uL-DL-mode	UL-DL-mode,
	downlink-Compres	ssed-Mode-Method Downlink-Compressed-Mode-Method OPTIONAL,
	This IE :	shall be present if the UL/DL mode IE is set to "DL only" or "UL/DL"
	uplink-Compress	ed-Mode-Method Uplink-Compressed-Mode-Method OPTIONAL,
	This IE :	shall be present if the UL/DL mode IE is set to "UL only" or "UL/DL"
	dL-FrameType	DL-FrameType,
	delta-SIR1	DeltaSIR,
	delta-SIR-after	DeltaSIR,
	delta-SIR2	DeltaSIR OPTIONAL,
	delta-SIR-after	2 DeltaSIR OPTIONAL,
	iE-Extensions	ProtocolExtensionContainer { {Transmission-Gap-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
}		

Transmission-Gap-Pattern-Sequence-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

Error! No text of specified style in document.

} ...

Unchanged parts not shown

END

3GPP TSG-RAN Meeting #26 Vouliagmeni, Greece, 8th- 10th December 2004

Tdoc **#R3-04xxxx**

		CHANGE REQUES	ST		C	R-Form-v7.1
æ		25.433 CR 1063 #rev - *	Ж	Current vers	ion: 4.13.0	ж
		ing this form, see bottom of this page or look at				
Proposed chang	e a		o Ao	ccess Networ	k X Core Ne	etwork
Title:	ж	Removal of TGPL2				
Source:	ж	Ericsson, Nokia				
Work item code:	ж	TEI		<i>Date:</i> ೫	3/12/2004	
Category:		 A Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier released (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP <u>TR 21.900</u>. 	ease	Ph2 (R96 (R97 (R98 (R99) (Rel-4 (Rel-5) (Rel-6)	Rel-4 the following rele (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5) (Release 6) (Release 7)	pases:

Reason for change: ೫	In RAN1 specification TS 25.215, section 6.1.1.2, the compressed mode parameters are defined. Parameter TGPL2 makes it possible for the network to set two different compressed mode patterns that alternate. The only difference between pattern 1 and 2 is that they have different length (TGPL1 and TGPL2 respectively)
	In 25.133, paragraph 8.1.2.1, Appendix C, there is defined a general limitation for the measurement requirements in chapter 8 to apply:
	- provide the patterns within a transmission gap pattern sequence that are identical (i.e., TGPL1 = TGPL2),
	Thus, there are no measurement performance requirements when two pattern are used (i.e TGPL2 is not equal to TGPL1 in the RRC signalling to the UE) within one compressed mode pattern sequence. Hence, UTRAN cannot use TGPL2 if it's different than TGPL1 since there are no measurement performance requirements specified for the case when TGPL1≠TGPL2. No gain has been showed using the second pattern defined by TGPL2. The conclusion of RAN4 is that the parameter TGPL2 can be removed from the specifications (Ref R4-040781).
Summary of change: #	TGPL2 is changed to "Not-to-be-used-1" in the Tabular description and in ASN.1.
	Isolated Impact Analysis
	Functionality corrected: Compressed mode
	Isolated impact statement: Correction to a function where specifications are inconsistent. Since functionality is removed, UE implementations are not affected. Would affect UTRAN implementations supporting the removed

Consequences if not approved:	第 Inconsistency will remain in specfications.
Clauses affected: Other specs	# 9.2.2.53A, 9.3.4 Y N # X Other core specifications # 25.101, 25.133, 25.215, 25.331, 25.423
affected:	XTest specifications34.108, 34.121, 34.123-1XO&M Specifications
Other comments:	ж

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked # contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

9.2.2.53A Transmission Gap Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence. For details see ref. [18].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmission Gap Pattern Sequence Information		1 <maxt GPS></maxt 		
>TGPS Identifier	M		INTEGER (1maxTGPS)	Transmission Gap Pattern Sequence Identifier: Establish a reference to the compressed mode pattern sequence. Up to <maxtgps> simultaneous compressed mode pattern sequences can be used.</maxtgps>
>TGSN	М		INTEGER (014)	Transmission Gap Starting Slot Number: The slot number of the first transmission gap slot within the TGCFN.
>TGL1	M		INTEGER (114)	The length of the first Transmission Gap within the transmission gap pattern expressed in number of slots.
>TGL2	0		INTEGER (114)	The length of the second Transmission Gap within the transmission gap pattern. If omitted, then TGL2=TGL1.
>TGD	M		INTEGER (0, 15 269)	Transmission Gap Distance: indicates the number of slots between the starting slots of two consecutive transmission gaps within a transmission gap pattern. If there is only one transmission gap in the transmission gap pattern, this parameter shall be set to "0" ("0" =undefined).
>TGPL1	М		INTEGER (1144,)	The duration of transmission gap pattern 1 in frames.
> <u>Not-to-be-used-1</u> TGPL2	0		INTEGER (1144,)	This IE shall never be included in the IE group. If received it shall be ignored. The duration of transmission gap pattern 2 in frames. If omitted, then TGPL2=TGPL1.
>UL/DL Mode	M		ENUMERATED (UL only, DL only, UL/DL)	Defines whether only DL, only UL or combined UL/DL compressed mode is used.
>Downlink Compressed Mode Method	C-DL		ENUMERATED (Puncturing, SF/2, Higher Layer Scheduling,)	Method for generating downlink compressed mode gap None means that compressed mode pattern is stopped.
>Uplink Compressed Mode Method	C-UL		ENUMERATED (SF/2, Higher Layer Scheduling,)	Method for generating uplink compressed mode gap.
>Downlink Frame Type	М		ENUMERATED (A, B,)	Defines if frame structure type "A" or "B" shall be used in downlink compressed mode.
>DeltaSIR1	M		INTEGER (030)	Delta in SIR target value to be set in the Node B during the frame containing the start of the first transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase).

>DeltaSIRafter1	M	INTEGER (030)	Unit: dB Range: 03 dB Step: 0.1 dB Delta in SIR target value to be set in the Node B one frame
			after the frame containing the start of the first transmission gap in the transmission gap pattern. Unit: dB Range: 03 dB Step: 0.1 dB
>DeltaSIR2	0	INTEGER (030)	Delta in SIR target value to be set in the Node B during the frame containing the start of the second transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase). When omitted, DeltaSIR2 = DeltaSIR1. Unit: dB Range: 03 dB Step: 0.1 dB
>DeltaSIRafter2	0	INTEGER (030)	Delta in SIR target value to be set in the Node B one frame after the frame containing the start of the second transmission gap in the transmission gap pattern. When omitted, DeltaSIRafter2 = DeltaSIRafter1. Unit: dB Range: 03 dB Step: 0.1 dB

Condition	Explanation
UL	The IE shall be present if the UL/DL mode IE is set to "UL only" or
	"UL/DL".
DL	The IE shall be present if the UL/DL mode IE is set to "DL only" or "UL/DL".

Range Bound	Explanation
maxTGPS	Maximum number of transmission gap pattern sequences

9.3.4 Information Elements Definitions

-- Information Element Definitions

NBAP-IEs {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::= BEGIN

Unchanged parts not shown

Transmission-Gap-Pattern-Sequence-Information ::= SEQUENCE (SIZE (1..maxTGPS)) OF

SEO	UENCE {	
~	tGPSID	TGPSID,
	tGSN	TGSN,
	tGL1	GapLength,
	tGL2	GapLength OPTIONAL,
	tGD	TGD,
	tGPL1	GapDuration,
	tGPL2not-to-be-	used-1 GapDuration OPTIONAL,
	This opt	ional not-to-be-used-1 IE shall not be included in the sequence
	uL-DL-mode	UL-DL-mode,
	downlink-Compres	ssed-Mode-Method Downlink-Compressed-Mode-Method OPTIONAL,
	This IE	shall be present if the UL/DL mode IE is set to "DL only" or "UL/DL"
	uplink-Compress	ed-Mode-Method Uplink-Compressed-Mode-Method OPTIONAL,
	This IE	shall be present if the UL/DL mode IE is set to "UL only" or "UL/DL"
	dL-FrameType	DL-FrameType,
	delta-SIR1	DeltaSIR,
	delta-SIR-after	1 DeltaSIR,
	delta-SIR2	DeltaSIR OPTIONAL,
	delta-SIR-after	2 DeltaSIR OPTIONAL,
	iE-Extensions	ProtocolExtensionContainer { {Transmission-Gap-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
}		

Transmission-Gap-Pattern-Sequence-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

}

Unchanged parts not shown

END

. . .

3GPP TSG-RAN Meeting #26 Vouliagmeni, Greece, 8th- 10th December 2004

Tdoc **#R3-04xxxx**

	CHANGE REQU	CR-Form-v7.1
ж	25.433 CR 1064 #rev -	# Current version: 5.10.0 ^第
For <u>HELP</u> on	using this form, see bottom of this page or lool	k at the pop-up text over the $#$ symbols.
Proposed change	a ffects: UICC apps ೫ ME Ra	adio Access Network X Core Network
Title:	Removal of TGPL2	
Source:	Ericsson, Nokia	
Work item code:	€ TEI	Date: 米 3/12/2004
Category:	 A Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories categories categories to a correction in 3GPP <u>TR 21.900</u>. 	R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4)
Reason for chang	that they have different length (TGPL1 and	e for the network to set two different ne only difference between pattern 1 and 2 is

measurement requirements in chapter 8 to apply:

- provide the patterns within a transmission gap pattern sequence that are identical (i.e., TGPL1 = TGPL2),

Thus, there are no measurement performance requirements when two pattern are used (i.e TGPL2 is not equal to TGPL1 in the RRC signalling to the UE) within one compressed mode pattern sequence. Hence, UTRAN cannot use TGPL2 if it's different than TGPL1 since there are no measurement performance requirements specified for the case when TGPL1≠TGPL2. No gain has been showed using the second pattern defined by TGPL2.

The conclusion of RAN4 is that the parameter TGPL2 can be removed from the specifications (Ref R4-040781).

Summary of change: # TGPL2 is changed to "Not-to-be-used-1" in the Tabular description and in ASN.1.

Isolated Impact Analysis

Functionality corrected: Compressed mode

Isolated impact statement: Correction to a function where specifications are inconsistent. Since functionality is removed, UE implementations are not affected. Would affect UTRAN implementations supporting the removed

Consequences if not approved:	Hard Strategy and
Clauses affected:	₩ 9.2.2.53A, 9.3.4
Other specs affected:	X Other core specifications X 25.101, 25.133, 25.215, 25.331, 25.423 X Test specifications 34.108, 34.121, 34.123-1 X O&M Specifications 34.108, 34.121, 34.123-1
Other comments:	ж

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked # contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

9.2.2.53A Transmission Gap Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence. For details see ref. [18].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmission Gap Pattern Sequence Information		1 <maxt GPS></maxt 		
>TGPS Identifier	M		INTEGER (1maxTGPS)	Transmission Gap Pattern Sequence Identifier: Establish a reference to the compressed mode pattern sequence. Up to <maxtgps> simultaneous compressed mode pattern sequences can be used.</maxtgps>
>TGSN	M		INTEGER (014)	Transmission Gap Starting Slot Number: The slot number of the first transmission gap slot within the TGCFN.
>TGL1	M		INTEGER (114)	The length of the first Transmission Gap within the transmission gap pattern expressed in number of slots.
>TGL2	0		INTEGER (114)	The length of the second Transmission Gap within the transmission gap pattern. If omitted, then TGL2=TGL1.
>TGD	M		INTEGER (0, 15 269)	Transmission Gap Distance: indicates the number of slots between the starting slots of two consecutive transmission gaps within a transmission gap pattern. If there is only one transmission gap in the transmission gap pattern, this parameter shall be set to "0" ("0" =undefined).
>TGPL1	М		INTEGER (1144,)	The duration of transmission gap pattern 1 in frames.
> <u>Not-to-be-used-1</u> TGPL2	0		INTEGER (1144,)	This IE shall never be included in the IE group. If received it shall be ignored. The duration of transmission gap pattern 2- in frames. If omitted, then TGPL2=TGPL1.
>UL/DL Mode	M		ENUMERATED (UL only, DL only, UL/DL)	Defines whether only DL, only UL or combined UL/DL compressed mode is used.
>Downlink Compressed Mode Method	C-DL		ENUMERATED (Puncturing, SF/2, Higher Layer Scheduling,)	Method for generating downlink compressed mode gap
>Uplink Compressed Mode Method	C-UL		ENUMERATED (SF/2, Higher Layer Scheduling,)	Method for generating uplink compressed mode gap.
>Downlink Frame Type	M		ENUMERATED (A, B,)	Defines if frame structure type "A" or "B" shall be used in downlink compressed mode.
>DeltaSIR1	Μ		INTEGER (030)	Delta in SIR target value to be set in the Node B during the frame containing the start of the first transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase).

>DeltaSIRafter1	M	INTEGER (030)	Unit: dB Range: 03 dB Step: 0.1 dB Delta in SIR target value to be set in the Node B one frame
			after the frame containing the start of the first transmission gap in the transmission gap pattern. Unit: dB Range: 03 dB Step: 0.1 dB
>DeltaSIR2	0	INTEGER (030)	Delta in SIR target value to be set in the Node B during the frame containing the start of the second transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase). When omitted, DeltaSIR2 = DeltaSIR1. Unit: dB Range: 03 dB Step: 0.1 dB
>DeltaSIRafter2	0	INTEGER (030)	Delta in SIR target value to be set in the Node B one frame after the frame containing the start of the second transmission gap in the transmission gap pattern. When omitted, DeltaSIRafter2 = DeltaSIRafter1. Unit: dB Range: 03 dB Step: 0.1 dB

Condition	Explanation
UL	The IE shall be present if the UL/DL mode IE is set to "UL only" or
	"UL/DL".
DL	The IE shall be present if the UL/DL mode IE is set to "DL only" or "UL/DL".

Range Bound	Explanation
maxTGPS	Maximum number of transmission gap pattern sequences

9.3.4 Information Elements Definitions

-- Information Element Definitions

NBAP-IEs {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::= BEGIN

Unchanged parts not shown

Transmission-Gap-Pattern-Sequence-Information ::= SEQUENCE (SIZE (1..maxTGPS)) OF

SEQ	UENCE {	
	tGPSID	TGPSID,
	tGSN	TGSN,
	tGL1	GapLength,
	tGL2	GapLength OPTIONAL,
	tGD	TGD,
	tGPL1	GapDuration,
	tGPL2not-to-be-	used-1 GapDuration OPTIONAL,
	This opt:	ional not-to-be-used-1 IE shall not be included in the sequence
	uL-DL-mode	UL-DL-mode,
	downlink-Compres	ssed-Mode-Method Downlink-Compressed-Mode-Method OPTIONAL,
	This IE :	shall be present if the UL/DL mode IE is set to "DL only" or "UL/DL" $$
	uplink-Compresse	ed-Mode-Method Uplink-Compressed-Mode-Method OPTIONAL,
	This IE :	shall be present if the UL/DL mode IE is set to "UL only" or "UL/DL"
	dL-FrameType	DL-FrameType,
	delta-SIR1	DeltaSIR,
	delta-SIR-after	l DeltaSIR,
	delta-SIR2	DeltaSIR OPTIONAL,
	delta-SIR-after2	2 DeltaSIR OPTIONAL,
	iE-Extensions	ProtocolExtensionContainer { {Transmission-Gap-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
}		

Transmission-Gap-Pattern-Sequence-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

}

Unchanged parts not shown

END

. . .

3GPP TSG-RAN Meeting #26 Vouliagmeni, Greece, 8th- 10th December 2004

Tdoc **#R3-04xxxx**

	CHANGE REQUEST									R-Form-v7.1			
æ		25.433	CR	1065	жrе	€V	-	ж	Currer	nt vers	ion:	6.3.0	ж
For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the # symbols.													
Proposed chang	e a	ffects:	UICC a	pps೫	ME	E	Rac	lio A	ccess N	Vetwo	rk X	Core Ne	etwork
Title:	Ж	Removal	of TGP	L2									
Source:	ж	Ericsson,	Nokia										
Work item code:	Ж	TEI							Da	ate: ೫	3/1	2/2004	
Category:		F (cor A (cor B (ada C (fun D (edi	rection) respond dition of ctional r torial mo planation	wing categories ls to a correctio feature), modification of t odification) ns of the above <u>R 21.900</u> .	on in ar feature	e)		elease	P) R R R R R R R R		the fo (GSN (Rele (Rele (Rele (Rele (Rele (Rele	I-6 Illowing rele A Phase 2) pase 1996) pase 1997) pase 1998) pase 1999) pase 4) pase 5) pase 5) pase 6) pase 7)	ases:

Reason for change: ೫	In RAN1 specification TS 25.215, section 6.1.1.2, the compressed mode parameters are defined. Parameter TGPL2 makes it possible for the network to set two different compressed mode patterns that alternate. The only difference between pattern 1 and 2 is that they have different length (TGPL1 and TGPL2 respectively)
	In 25.133, paragraph 8.1.2.1, Appendix C, there is defined a general limitation for the measurement requirements in chapter 8 to apply:
	- provide the patterns within a transmission gap pattern sequence that are identical (i.e., TGPL1 = TGPL2),
	Thus, there are no measurement performance requirements when two pattern are used (i.e TGPL2 is not equal to TGPL1 in the RRC signalling to the UE) within one compressed mode pattern sequence. Hence, UTRAN cannot use TGPL2 if it's different than TGPL1 since there are no measurement performance requirements specified for the case when TGPL1≠TGPL2. No gain has been showed using the second pattern defined by TGPL2. The conclusion of RAN4 is that the parameter TGPL2 can be removed from the specifications (Ref R4-040781).
Summary of change: #	TGPL2 is changed to "Not-to-be-used-1" in the Tabular description and in ASN.1.
	Isolated Impact Analysis
	Functionality corrected: Compressed mode
	Isolated impact statement: Correction to a function where specifications are inconsistent. Since functionality is removed, UE implementations are not affected. Would affect UTRAN implementations supporting the removed

Consequences if not approved:	第 Inconsistency will remain in specfications.
Clauses affected: Other specs	# 9.2.2.53A, 9.3.4 Y N # X Other core specifications # 25.101, 25.133, 25.215, 25.331, 25.423
affected:	XTest specifications34.108, 34.121, 34.123-1XO&M Specifications
Other comments:	ж

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked # contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

9.2.2.53A Transmission Gap Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence. For details see ref. [18].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmission Gap Pattern Sequence Information		1 <maxt GPS></maxt 		
>TGPS Identifier	M		INTEGER (1maxTGPS)	Transmission Gap Pattern Sequence Identifier: Establish a reference to the compressed mode pattern sequence. Up to <maxtgps> simultaneous compressed mode pattern sequences can be used.</maxtgps>
>TGSN	M		INTEGER (014)	Transmission Gap Starting Slot Number: The slot number of the first transmission gap slot within the TGCFN.
>TGL1	M		INTEGER (114)	The length of the first Transmission Gap within the transmission gap pattern expressed in number of slots.
>TGL2	0		INTEGER (114)	The length of the second Transmission Gap within the transmission gap pattern. If omitted, then TGL2=TGL1.
>TGD	M		INTEGER (0, 15 269)	Transmission Gap Distance: indicates the number of slots between the starting slots of two consecutive transmission gaps within a transmission gap pattern. If there is only one transmission gap in the transmission gap pattern, this parameter shall be set to "0" ("0" =undefined).
>TGPL1	М		INTEGER (1144,)	The duration of transmission gap pattern 1 in frames.
> <u>Not-to-be-used-1</u> TGPL2	0		INTEGER (1144,)	This IE shall never be included in the IE group. If received it shall be ignored. The duration of transmission gap pattern 2 in frames. If omitted, then TGPL2=TGPL1.
>UL/DL Mode	M		ENUMERATED (UL only, DL only, UL/DL)	Defines whether only DL, only UL or combined UL/DL compressed mode is used.
>Downlink Compressed Mode Method	C-DL		ENUMERATED (Puncturing, SF/2, Higher Layer Scheduling,)	Method for generating downlink compressed mode gap
>Uplink Compressed Mode Method	C-UL		ENUMERATED (SF/2, Higher Layer Scheduling,)	Method for generating uplink compressed mode gap.
>Downlink Frame Type	M		ENUMERATED (A, B,)	Defines if frame structure type "A" or "B" shall be used in downlink compressed mode.
>DeltaSIR1	M		INTEGER (030)	Delta in SIR target value to be set in the Node B during the frame containing the start of the first transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase).

>DeltaSIRafter1	M	INTEGER (030)	Unit: dB Range: 03 dB Step: 0.1 dB Delta in SIR target value to be set in the Node B one frame
			after the frame containing the start of the first transmission gap in the transmission gap pattern. Unit: dB Range: 03 dB Step: 0.1 dB
>DeltaSIR2	0	INTEGER (030)	Delta in SIR target value to be set in the Node B during the frame containing the start of the second transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase). When omitted, DeltaSIR2 = DeltaSIR1. Unit: dB Range: 03 dB Step: 0.1 dB
>DeltaSIRafter2	0	INTEGER (030)	Delta in SIR target value to be set in the Node B one frame after the frame containing the start of the second transmission gap in the transmission gap pattern. When omitted, DeltaSIRafter2 = DeltaSIRafter1. Unit: dB Range: 03 dB Step: 0.1 dB

Condition	Explanation
UL	The IE shall be present if the UL/DL mode IE is set to "UL only" or
	"UL/DL".
DL	The IE shall be present if the UL/DL mode IE is set to "DL only" or "UL/DL".

Range Bound	Explanation
maxTGPS	Maximum number of transmission gap pattern sequences

9.3.4 Information Elements Definitions

-- Information Element Definitions

NBAP-IEs {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::= BEGIN

Unchanged parts not shown

Transmission-Gap-Pattern-Sequence-Information ::= SEQUENCE (SIZE (1..maxTGPS)) OF

SEQ	UENCE {	
	tGPSID	TGPSID,
	tGSN	TGSN,
	tGL1	GapLength,
	tGL2	GapLength OPTIONAL,
	tGD	TGD,
	tGPL1	GapDuration,
	tGPL2not-to-be-	used-1 GapDuration OPTIONAL,
	This opt:	ional not-to-be-used-1 IE shall not be included in the sequence
	uL-DL-mode	UL-DL-mode,
	downlink-Compres	ssed-Mode-Method Downlink-Compressed-Mode-Method OPTIONAL,
	This IE :	shall be present if the UL/DL mode IE is set to "DL only" or "UL/DL" $$
	uplink-Compresse	ed-Mode-Method Uplink-Compressed-Mode-Method OPTIONAL,
	This IE :	shall be present if the UL/DL mode IE is set to "UL only" or "UL/DL"
	dL-FrameType	DL-FrameType,
	delta-SIR1	DeltaSIR,
	delta-SIR-after	l DeltaSIR,
	delta-SIR2	DeltaSIR OPTIONAL,
	delta-SIR-after2	2 DeltaSIR OPTIONAL,
	iE-Extensions	ProtocolExtensionContainer { {Transmission-Gap-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
}		

Transmission-Gap-Pattern-Sequence-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

}

Unchanged parts not shown

END

. . .

3GPP TSG-RAN Meeting #26 Vouliagmeni Athens, Greece, 8 - 10 December 2004

Tdoc **≋***R4-040790*

				CHANGI	E RE	QL	JE	ST	1				CR-Fo	rm-v7.1
ж		25.10	1 CR	387	жrе	v	-	ж	Curre	ent ver	sion:	<mark>3.17</mark>	.0 ^ж	
For <u>HELP</u> or	า นร	sing this	form, see	e bottom of th	is page	or lo	ook a	at the	e pop	-up tex	t over	the X	symbo	ls.
Proposed chang	je a	affects:	UICC a	apps#	ME		Rad	lio A	ccess	Netwo	ork <mark>X</mark>] Core	Netwo	rk
Title:	ж	Remov	al of TG	PL2										
Source:	ж	Ericsso	o <mark>n, Nokia</mark>											
Work item code:	ж	TEI							L	Date: ສ	3 <mark>29/</mark>	<mark>/11/200</mark>	4	
Category:		Use <u>one</u> F (0 A (0 B (i C (i D (0 Detailed	correction) correspon addition or functional editorial m explanatio	ds to a correcti	ion in an [•] feature,)		lease	Us(e <u>ase:</u> ¥ Ph2 R96 R97 R98 R99 Rel-4 Rel-5 Rel-5 Rel-6 Rel-7	f the fo (GSN (Rele (Rele (Rele (Rele (Rele (Rele	9 M Phase pase 199 pase 199 pase 199 pase 199 pase 5) pase 5) pase 6) pase 7)	2) 96) 97) 98)	s:

compressed mode patterns that alternate. The only difference between pattern 1 and	
that they have different length (TGPL1 and TGPL2 respectively)	
In 25.133, paragraph 8.1.2.1, Appendix C, there is defined a general limitation for measurement requirements in chapter 8 to apply:	he
- provide the patterns within a transmission gap pattern sequence that identical (i.e., TGPL1 = TGPL2),	are
Thus, there are no measurement performance requirements when two pattern are u TGPL2 is not equal to TGPL1 in the RRC signalling to the UE) within one compre- mode pattern sequence. Hence, UTRAN cannot use TGPL2 if it's different than To since there are no measurement performance requirements specified for the case w TGPL1≠TGPL2. No gain has been showed using the second pattern defined by To The conclusion of RAN4 is that the parameter TGPL2 can be removed from	ssed GPL1 hen GPL2.
specifications (Ref R4-040781).	
Summary of change: # TGPL2 is removed.	
Isolated Impact Analysis	
Functionality corrected: Compressed mode	
Isolated impact statement: Correction to a function where specifications a inconsistent. Since functionality is removed, UE implementations are not affected. Would affect UTRAN implementations supporting the removed	e

	functionality.
Consequences if not approved:	# Inconsistency will remain in specfications.
Clauses affected:	策 <mark>A5</mark>
	Y N
Other specs affected:	X Other core specifications X 25.133, 25.215, 25.331, 25.423, 25.433 34.108, 34.121, 34.123-1 X O&M Specifications 34.108, 34.121, 34.123-1
Other comments:	¥

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <u>http://www.3gpp.org/specs/CR.htm</u>. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked **#** contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

A.5 DL reference compressed mode parameters

Parameters described in Table A.21 are used in some test specified in TS 25.101 while parameters described in Table A.22 are used in some tests specified in TS 25.133.

Set 1 parameters in Table A.21 are applicable when compressed mode by spreading factor reduction is used in downlink. Set 2 parameters in Table A.21 are applicable when compressed mode by puncturing is used in downlink.

Parameter	Set 1	Set 2	Note
TGSN (Transmission Gap Starting Slot Number)	11	11	
TGL1 (Transmission Gap Length 1)	7	7	
TGL2 (Transmission Gap Length 2)	-	-	Only one gap in use.
TGD (Transmission Gap Distance)	0	0	Only one gap in use.
TGPL1 (Transmission Gap Pattern Length)	4	4	
TGPL2 (Transmission Gap Pattern Length)	-	-	Only one pattern in use.
TGPRC (Transmission Gap Pattern Repetition Count)	NA	NA	Defined by higher layers
TGCFN (Transmission Gap Connection Frame Number):	NA	NA	Defined by higher layers
UL/DL compressed mode selection	DL & UL	DL & UL	2 configurations possible DL &UL / DL
UL compressed mode method	SF/2	SF/2	
DL compressed mode method	SF/2	Puncturing	
Downlink frame type and Slot format	11B	11A	
Scrambling code change	No	No	
RPP (Recovery period power control mode)	0	0	
ITP (Initial transmission power control mode)	0	0	

Table A.21: Compressed mode re	eference pattern 1	parameters
--------------------------------	--------------------	------------

Table A.22: Compressed mode reference pattern 2 parameters

Parameter	Set 1	Set 2	Set 3	Note
TGSN (Transmission Gap Starting Slot Number)	4	4	10	
TGL1 (Transmission Gap Length 1)	7	7	10	
TGL2 (Transmission Gap Length 2)	-	-	-	Only one gap in use.
TGD (Transmission Gap Distance)	0	0	0	
TGPL1 (Transmission Gap Pattern Length)	3	12	11	
TGPL2 (Transmission Gap Pattern Length)	-	-	-	Only one pattern in use.
TGPRC (Transmission Gap Pattern Repetition	NA	NA	NA	Defined by higher layers
Count)				
TGCFN (Transmission Gap Connection Frame	NA	NA	NA	Defined by higher layers
Number):				
UL/DL compressed mode selection	DL & UL	DL & UL	DL & UL	2 configurations possible.
				DL & UL / DL
UL compressed mode method	SF/2	SF/2	SF/2	
DL compressed mode method	SF/2	SF/2	Puncturing	
Downlink frame type and Slot format	11B	11B	11A	
Scrambling code change	No	No	No	
RPP (Recovery period power control mode)	0	0	0	
ITP (Initial transmission power control mode)	0	0	0	

3GPP TSG-RAN Meeting #26 Vouliagmeni Athens, Greece, 8 - 10 December 2004 Tdoc #R4-040791 CR-Form-v7.1 CHANGE REQUEST # 25.101 CR 388 # rev # Current version: 4.11.0 # For HELP on using this form, see bottom of this page or look at the pop-up text over the # symbols.

Proposed change affects: UICC apps#



Title:	Ж	Removal of TGPL2			
•					
Source:	Ж	Ericsson, Nokia			
Work item code.	: X	TEI		Date: ೫	29/11/2004
Category:	ж	Α		Release: ೫	Rel-4
		Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier in B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP <u>TR 21.900</u> .	,	Ph2 R96 R97 R98 R99 Rel-4 Rel-5 Rel-6	the following releases: (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5) (Release 6) (Release 7)

Reason for change: ೫	In RAN1 specification TS 25.215, section <i>6.1.1.2</i> , the compressed mode parameters are defined. Parameter TGPL2 makes it possible for the network to set two different
	compressed mode patterns that alternate. The only difference between pattern 1 and 2 is
	that they have different length (TGPL1 and TGPL2 respectively)
	In 25.133, paragraph 8.1.2.1, Appendix C, there is defined a general limitation for the measurement requirements in chapter 8 to apply:
	- provide the patterns within a transmission gap pattern sequence that are identical (i.e., TGPL1 = TGPL2),
	Thus, there are no measurement performance requirements when two pattern are used (i.e TGPL2 is not equal to TGPL1 in the RRC signalling to the UE) within one compressed mode pattern sequence. Hence, UTRAN cannot use TGPL2 if it's different than TGPL1
	since there are no measurement performance requirements specified for the case when TGPL1≠TGPL2. No gain has been showed using the second pattern defined by TGPL2.
	The conclusion of RAN4 is that the parameter TGPL2 can be removed from the specifications (Ref R4-040781).
Summary of change: ₩	TGPL2 is removed.
	Isolated Impact Analysis
	Functionality corrected: Compressed mode
	Isolated impact statement: Correction to a function where specifications are inconsistent. Since functionality is removed, UE implementations are not affected. Would affect UTRAN implementations supporting the removed

Consequences if	Ħ	functionality. Inconsistency will remain in specfications.
not approved:		
Clauses affected:	æ	A5 Y N
Other specs affected:	ж	X Other core specifications # 25.133, 25.215, 25.331, 25.423, 25.433 X Test specifications # 34.108, 34.121, 34.123-1 X O&M Specifications #
Other comments:	ж	

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <u>http://www.3gpp.org/specs/CR.htm</u>. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked **#** contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

A.5 DL reference compressed mode parameters

Parameters described in Table A.21 are used in some test specified in TS 25.101 while parameters described in Table A.22 are used in some tests specified in TS 25.133.

Set 1 parameters in Table A.21 are applicable when compressed mode by spreading factor reduction is used in downlink. Set 2 parameters in Table A.21 are applicable when compressed mode by puncturing is used in downlink.

Parameter	Set 1	Set 2	Note
TGSN (Transmission Gap Starting Slot Number)	11	11	
TGL1 (Transmission Gap Length 1)	7	7	
TGL2 (Transmission Gap Length 2)	-	-	Only one gap in use.
TGD (Transmission Gap Distance)	0	0	Only one gap in use.
TGPL1 (Transmission Gap Pattern Length)	4	4	
TGPL2 (Transmission Gap Pattern Length)	-	-	Only one pattern in use.
TGPRC (Transmission Gap Pattern Repetition	NA	NA	Defined by higher layers
Count)			
TGCFN (Transmission Gap Connection Frame	NA	NA	Defined by higher layers
Number):			
UL/DL compressed mode selection	DL & UL	DL & UL	2 configurations possible
			DL &UL / DL
UL compressed mode method	SF/2	SF/2	
DL compressed mode method	SF/2	Puncturing	
Downlink frame type and Slot format	11B	11A	
Scrambling code change	No	No	
RPP (Recovery period power control mode)	0	0	
ITP (Initial transmission power control mode)	0	0	

Table A.21: Compressed mode reference pattern 1 parameters

Parameter	Set 1	Set 2	Set 3	Note
TGSN (Transmission Gap Starting Slot Number)	4	4	10	
TGL1 (Transmission Gap Length 1)	7	7	10	
TGL2 (Transmission Gap Length 2)	-	-	-	Only one gap in use.
TGD (Transmission Gap Distance)	0	0	0	
TGPL1 (Transmission Gap Pattern Length)	3	12	11	
TGPL2 (Transmission Gap Pattern Length)	-	-	-	Only one pattern in use.
TGPRC (Transmission Gap Pattern Repetition Count)	NA	NA	NA	Defined by higher layers
TGCFN (Transmission Gap Connection Frame Number):	NA	NA	NA	Defined by higher layers
UL/DL compressed mode selection	DL & UL	DL & UL	DL & UL	2 configurations possible. DL & UL / DL
UL compressed mode method	SF/2	SF/2	SF/2	
DL compressed mode method	SF/2	SF/2	Puncturing	
Downlink frame type and Slot format	11B	11B	11A	
Scrambling code change	No	No	No	
RPP (Recovery period power control mode)	0	0	0	
ITP (Initial transmission power control mode)	0	0	0	

 Table A.22: Compressed mode reference pattern 2 parameters

CR-Form-v7.1

Tdoc **#***R4-04792* 3GPP TSG-RAN Meeting #26 Vouliagmeni Athens, Greece, 8 - 10 December 2004

CHANGE REQUEST											
ж		25.101	CR	389	жrev	-	Ħ	Current ver	sion:	5 <mark>.12</mark> .	<mark>0</mark> ^ж
For <u>HE</u>	<u>LP</u> on us	sing this fo	rm, see	bottom of this	s page or l	look a	at the	e pop-up tex	tover	the X s	ymbols.
Proposed	change a	affects:	UICC a	npps#	ME	Rad	io Ao	ccess Netwo	rk X	Core N	Vetwork <mark></mark>
Title:	ж	Removal	of TGF	PL2							
Source:	ж	Ericsson	<mark>, Nokia</mark>								
Work iten	n code: Ж	TEI						<i>Date:</i> ଖ	29/	<mark>11/2004</mark>	
Category:	ж	F (col A (co B (ad C (fur D (ed	rrection) rrespond dition of nctional litorial m planatic	ds to a correction feature), modification of fo odification) ons of the above	n in an ear eature)		lease	Release: # Use <u>one</u> o Ph2 R96 R97 R98 R99 Rel-4 Rel-5 Rel-6 Rel-7	the for (GSN) (Rele (Rele (Rele (Rele (Rele (Rele	-	2) 5) 7) 3)

Reason for change: ೫	In RAN1 specification TS 25.215, section 6.1.1.2, the compressed mode parameters are
	defined. Parameter TGPL2 makes it possible for the network to set two different
	compressed mode patterns that alternate. The only difference between pattern 1 and 2 is
	that they have different length (TGPL1 and TGPL2 respectively)
	In 25.133, paragraph 8.1.2.1, Appendix C, there is defined a general limitation for the
	measurement requirements in chapter 8 to apply:
	- provide the patterns within a transmission gap pattern sequence that are identical (i.e., TGPL1 = TGPL2),
	Thus, there are no measurement performance requirements when two pattern are used (i.e
	TGPL2 is not equal to TGPL1 in the RRC signalling to the UE) within one compressed
	mode pattern sequence. Hence, UTRAN cannot use TGPL2 if it's different than TGPL1
	since there are no measurement performance requirements specified for the case when
	TGPL1≠TGPL2. No gain has been showed using the second pattern defined by TGPL2.
	The englishing of DANA is that the negative TODI 2 can be remayed from the
	The conclusion of RAN4 is that the parameter TGPL2 can be removed from the specifications (Ref R4-040781).
Summary of change: ℜ	TGPL2 is removed.
	Isolated Impact Analysis
	Functionality corrected: Compressed mode
	Isolated impact statement: Correction to a function where specifications are
	inconsistent. Since functionality is removed, UE implementations are not
	affected. Would affect UTRAN implementations supporting the removed

		functionality.						
Consequences if not approved:	ж	Inconsistency will remain in specfications.						
Clauses affected:	ж	A5						
	,	YN						
Other specs	¥ [X Other core specifications # 25.133, 25.215, 25.331, 25.423, 25.433						
affected:		XTest specifications34.108, 34.121, 34.123-1XO&M Specifications						
Other comments:	Ж							

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <u>http://www.3gpp.org/specs/CR.htm</u>. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked **#** contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

A.5 DL reference compressed mode parameters

Parameters described in Table A.21 are used in some test specified in TS 25.101 while parameters described in Table A.22 are used in some tests specified in TS 25.133.

Set 1 parameters in Table A.21 are applicable when compressed mode by spreading factor reduction is used in downlink. Set 2 parameters in Table A.21 are applicable when compressed mode by puncturing is used in downlink.

Parameter	Set 1	Set 2	Note
TGSN (Transmission Gap Starting Slot Number)	11	11	
TGL1 (Transmission Gap Length 1)	7	7	
TGL2 (Transmission Gap Length 2)	-	-	Only one gap in use.
TGD (Transmission Gap Distance)	0	0	Only one gap in use.
TGPL1 (Transmission Gap Pattern Length)	4	4	
TGPL2 (Transmission Gap Pattern Length)	-	-	Only one pattern in use.
TGPRC (Transmission Gap Pattern Repetition	NA	NA	Defined by higher layers
Count)			
TGCFN (Transmission Gap Connection Frame	NA	NA	Defined by higher layers
Number):			
UL/DL compressed mode selection	DL & UL	DL & UL	2 configurations possible
			DL &UL / DL
UL compressed mode method	SF/2	SF/2	
DL compressed mode method	SF/2	Puncturing	
Downlink frame type and Slot format	11B	11A	
Scrambling code change	No	No	
RPP (Recovery period power control mode)	0	0	
ITP (Initial transmission power control mode)	0	0	

Table A.22: Compressed mode reference pattern 2 parameters

Parameter	Set 1	Set 2	Set 3	Note
TGSN (Transmission Gap Starting Slot Number)	4	4	10	
TGL1 (Transmission Gap Length 1)	7	7	10	
TGL2 (Transmission Gap Length 2)	-	-	-	Only one gap in use.
TGD (Transmission Gap Distance)	0	0	0	
TGPL1 (Transmission Gap Pattern Length)	3	12	11	
TGPL2 (Transmission Gap Pattern Length)	-	4	-	Only one pattern in- use.
TGPRC (Transmission Gap Pattern Repetition Count)	NA	NA	NA	Defined by higher layers
TGCFN (Transmission Gap Connection Frame Number):	NA	NA	NA	Defined by higher layers
UL/DL compressed mode selection	DL & UL	DL & UL	DL & UL	2 configurations possible. DL & UL / DL
UL compressed mode method	SF/2	SF/2	SF/2	
DL compressed mode method	SF/2	SF/2	Puncturing	
Downlink frame type and Slot format	11B	11B	11A	
Scrambling code change	No	No	No	
RPP (Recovery period power control mode)	0	0	0	
ITP (Initial transmission power control mode)	0	0	0	

Tdoc #R4-040793 **3GPP TSG-RAN Meeting #26** Vouliagmeni Athens, Greece, 8 - 10 December 2004 CR-Form-v7.1 CHANGE REQUEST # Current version: 6.5.0 ж 25.101 CR 390 ж жrev For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the *# symbols*. ME Radio Access Network X Core Network Proposed change affects: UICC apps# Title: **%** Removal of TGPL2

Source:	ж	Erics	sson, Nokia			
Work item code.	:¥	TEI			<i>Date:</i> ೫	29/11/2004
Category:	ж	Α			Release: ೫	Rel-6
		Use <u>o</u>	ne of the following categories:		Use <u>one</u> of	the following releases:
		F	(correction)		Ph2	(GSM Phase 2)
		Α	(corresponds to a correction in an	earlier release)	R96	(Release 1996)
		В	(addition of feature),		R97	(Release 1997)
		С	(functional modification of feature)		R98	(Release 1998)
		D	(editorial modification)		R99	(Release 1999)
		Detaile	ed explanations of the above catego	ries can	Rel-4	(Release 4)
		be fou	nd in 3GPP TR 21.900.		Rel-5	(Release 5)
					Rel-6	(Release 6)
					Rel-7	(Release 7)

Reason for change: ೫	In RAN1 specification TS 25.215, section <i>6.1.1.2</i> , the compressed mode parameters are defined. Parameter TGPL2 makes it possible for the network to set two different compressed mode patterns that alternate. The only difference between pattern 1 and 2 is
	that they have different length (TGPL1 and TGPL2 respectively)
	In 25.133, paragraph 8.1.2.1, Appendix C, there is defined a general limitation for the measurement requirements in chapter 8 to apply:
	- provide the patterns within a transmission gap pattern sequence that are identical (i.e., TGPL1 = TGPL2),
	Thus, there are no measurement performance requirements when two pattern are used (i.e
	TGPL2 is not equal to TGPL1 in the RRC signalling to the UE) within one compressed mode pattern sequence. Hence, UTRAN cannot use TGPL2 if it's different than TGPL1
	since there are no measurement performance requirements specified for the case when TGPL1≠TGPL2. No gain has been showed using the second pattern defined by TGPL2.
	The conclusion of RAN4 is that the parameter TGPL2 can be removed from the specifications (Ref R4-040781).
Summary of change: #	TGPL2 is removed.
	Isolated Impact Analysis
	Functionality corrected: Compressed mode
	Isolated impact statement: Correction to a function where specifications are inconsistent. Since functionality is removed, UE implementations are not affected. Would affect UTRAN implementations supporting the removed
•	

	fu	nctionality.	
Consequences if not approved:	¥ In	consistency will remain in specfications.	
Clauses affected:	ж A	5	
Clauses allected.	መ 八	5	
	Y	N	
Other specs	жХ	Other core specifications 第 25.133, 25.21	5, 25.331, 25.423, 25.433
affected:	Χ	Test specifications 34.108, 34.1	21, 34.123-1
		X O&M Specifications	
Other comments:	ж		

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <u>http://www.3gpp.org/specs/CR.htm</u>. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked **#** contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

A.5 DL reference compressed mode parameters

Parameters described in Table A.21 are used in some test specified in TS 25.101 while parameters described in Table A.22 are used in some tests specified in TS 25.133.

Set 1 parameters in Table A.21 are applicable when compressed mode by spreading factor reduction is used in downlink. Set 2 parameters in Table A.21 are applicable when compressed mode by puncturing is used in downlink.

Parameter	Set 1	Set 2	Note
TGSN (Transmission Gap Starting Slot Number)	11	11	
TGL1 (Transmission Gap Length 1)	7	7	
TGL2 (Transmission Gap Length 2)	-	-	Only one gap in use.
TGD (Transmission Gap Distance)	0	0	Only one gap in use.
TGPL1 (Transmission Gap Pattern Length)	4	4	
TGPL2 (Transmission Gap Pattern Length)	-	-	Only one pattern in use.
TGPRC (Transmission Gap Pattern Repetition	NA	NA	Defined by higher layers
Count)			
TGCFN (Transmission Gap Connection Frame	NA	NA	Defined by higher layers
Number):			
UL/DL compressed mode selection	DL & UL	DL & UL	2 configurations possible
			DL &UL / DL
UL compressed mode method	SF/2	SF/2	
DL compressed mode method	SF/2	Puncturing	
Downlink frame type and Slot format	11B	11A	
Scrambling code change	No	No	
RPP (Recovery period power control mode)	0	0	
ITP (Initial transmission power control mode)	0	0	

Table A.22: Compressed mode reference	pattern 2 parameters
---------------------------------------	----------------------

Parameter	Set 1	Set 2	Set 3	Set 4	Note
TGSN (Transmission Gap Starting Slot Number)	4	4	10	8	
TGL1 (Transmission Gap Length 1)	7	7	10	14	
TGL2 (Transmission Gap Length 2)	-	-	-	-	Only one gap in use.
TGD (Transmission Gap Distance)	0	0	0	0	
TGPL1 (Transmission Gap Pattern Length)	3	12	11	4	
TGPL2 (Transmission Gap Pattern Length)	-	-	-		Only one pattern in use.
TGPRC (Transmission Gap Pattern Repetition Count)	NA	NA	NA	NA	Defined by higher layers
TGCFN (Transmission Gap Connection Frame Number):	NA	NA	NA	NA	Defined by higher layers
UL/DL compressed mode selection	DL & UL	DL & UL	DL & UL	DL & UL	2 configurations possible. DL & UL / DL
UL compressed mode method	SF/2	SF/2	SF/2	SF/2	
DL compressed mode method	SF/2	SF/2	Puncturing	SF/2	
Downlink frame type and Slot format	11B	11B	11A	11B	
Scrambling code change	No	No	No	No	
RPP (Recovery period power control mode)	0	0	0	0	
ITP (Initial transmission power control mode)	0	0	0	0	

3GPP TSG-RAN Meeting #26Tdoc #R4-040794Vouliagmeni Athens, Greece, 8 - 10 December 2004CB-Form-VZ 1

	CHANGE RI	EQUEST	CR-Form-v7.1
¥	25.133 CR 708 жге	ev - [#] Current versi	^{on:} <mark>3.19.0</mark> [≇]
For <u>HELP</u> on ι	using this form, see bottom of this pag	e or look at the pop-up text	over the X symbols.
Proposed change	<i>affects:</i> UICC apps ೫ M	E Radio Access Networ	k X Core Network
Title: #	Removal of TGPL2		
Source: #	Ericsson, Nokia		
Work item code: #	TEI	<i>Date:</i> ೫	29/11/2004
Category: ₩	 F Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in a B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories be found in 3GPP <u>TR 21.900</u>. 	Ph2 n earlier release) R96 R97 e) R98 R99 gories can Rel-4 Rel-5 Rel-6	R99 the following releases: (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5) (Release 5) (Release 7)

Reason for change: ೫	In RAN1 specification TS 25.215, section 6.1.1.2, the compressed mode parameters are defined. Parameter TGPL2 makes it possible for the network to set two different
	compressed mode patterns that alternate. The only difference between pattern 1 and 2 is that they have different length (TGPL1 and TGPL2 respectively)
	In 25.133, paragraph 8.1.2.1, Appendix C, there is defined a general limitation for the measurement requirements in chapter 8 to apply:
	- provide the patterns within a transmission gap pattern sequence that are identical (i.e., TGPL1 = TGPL2),
	Thus, there are no measurement performance requirements when two pattern are used (i.e
	TGPL2 is not equal to TGPL1 in the RRC signalling to the UE) within one compressed mode pattern sequence. Hence, UTRAN cannot use TGPL2 if it's different than TGPL1
	since there are no measurement performance requirements specified for the case when
	TGPL1≠TGPL2. No gain has been showed using the second pattern defined by TGPL2.
	The conclusion of RAN4 is that the parameter TGPL2 can be removed from the specifications (Ref R4-040781).
Summary of change: Ж	TGPL2 is removed.
	Isolated Impact Analysis
	Functionality corrected: Compressed mode
	Isolated impact statement: Correction to a function where specifications are inconsistent. Since functionality is removed, UE implementations are not affected. Would affect UTRAN implementations supporting the removed
•	

		functionality.
		······································
Consequences if	ж	Inconsistency will remain in specfications.
not approved:		
Clauses affected:	ж	8.1.2.1, 8.1.2.5.2.1, 8.1.5.2.2
	[YN
Other specs	ж	X Other core specifications
affected:	Ē	X Test specifications 34.108, 34.121, 34.123-1
		X O&M Specifications
	-	
Other comments:	ж	

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <u>http://www.3gpp.org/specs/CR.htm</u>. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked **#** contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8 UE Measurements Procedures

8.1 General Measurement Requirements in CELL_DCH State

3

8.1.1 Introduction

This section contains requirements on the UE regarding measurement reporting in CELL_DCH state. The requirements are split in FDD intra frequency, FDD inter frequency, TDD and GSM measurements. These measurements may be used by the UTRAN, e.g. for handover decisions. The measurements are defined in TS 25.215, the measurement model is defined in TS 25.302 and measurement accuracies are specified in section 9. Control of measurement reporting is specified in TS 25.331 and parallel measurements are specified in section 8.2. Compressed mode is specified in TS 25.215.

8.1.2 Requirements

8.1.2.1 UE Measurement Capability

In CELL_DCH state the UE shall be able to monitor up to

- 32 intra frequency FDD cells (including active set), and
- 32 inter frequency cells, including
 - FDD cells distributed on up to 2 additional FDD carriers and
 - Depending on UE Capability, TDD cells, distributed on up to 3 TDD carriers and
- Depending on UE capability, 32 GSM cells distributed on up to 32 GSM carriers.
- Depending on UE capability, the UE shall be able to monitor up to 16 intra frequency cells during IPDL gaps.

If the UE utilises compressed mode for inter-frequency and/or inter-RAT measurements, in order for the requirements in the following subsections to apply the UTRAN must:

- provide transmission gap pattern sequences with TGPL1 > 1, and

- provide the patterns within a transmission gap pattern sequence that are identical (i.e., TGPL1 = TGPL2), and

- ensure that with the activation of one or more transmission gap pattern sequences, no more than two frames contain a transmission gap within any window of three consecutive frames, and
- ensure that there is a minimum of 8 slots between the end of the first transmission gap and the beginning of the second transmission gap in case of two successive compressed frames..

Performance requirements for different types of transmission gap pattern sequences and different number of cells is defined in the following sections.

The requirements in section 9 are applicable for a UE performing measurements according to this section.

The received CPICH E_c/I_o is defined as

$$\left(\frac{CPICH_E_c}{I_o}\right)\Big|_{in\ dB} = \left(\frac{CPICH_E_c}{I_{or}}\right)\Big|_{in\ dB} - \frac{I_o}{(\hat{I}_{or})}\Big|_{in\ dB}$$

and the received SCH E_c/I_o is defined as

$$\left(\frac{SCH_E_c}{I_o}\right)_{in\ dB} = \left(\frac{SCH_E_c}{I_{or}}\right)_{in\ dB} - \frac{I_o}{(\hat{I}_{or})}_{in\ dB}$$

8.1.2.5 GSM measurements

The requirements in this section apply only to UE supporting FDD and GSM.

Measurements on GSM cells can be requested with BSIC verified or BSIC non-verified.

- a) In CELL_DCH state when a transmission gap pattern sequence is provided by the UTRAN the UE shall continuously measure GSM cells and search for new GSM cells given in the monitored set.
- b) If the UE does not need compressed mode to perform GSM measurements:
 - the UE shall measure all GSM cells present in the monitored set
 - the relevant requirements for GSM dedicated mode when a TCH channel is assigned in TS 05.08 shall apply. This is further detailed in the following sub-sections.

8.1.2.5.1 GSM carrier RSSI

a) For a UE requiring compressed mode

A UE supporting GSM measurements using compressed mode shall meet the minimum number of GSM RSSI carrier measurements specified in table 8.4. This measurement shall be based on a transmission gap pattern sequence with purpose "GSM carrier RSSI measurements"

In order for the requirements in this subsection to apply the UTRAN must provide a transmission gap pattern sequence with measurement purpose GSM carrier RSSI measurements using the following combinations for TGL1, TGL2 and TGD:

TGL1 [slots]	TGL2 [slots]	TGD [slots]
3	-	undefined
4	-	undefined
5	-	undefined
7	-	undefined
10	-	undefined
14	-	undefined
3	3	15269
4	4	15269
5	5	15269
7	7	15269
10	10	15269
14	14	15269

Table 8.3

In the CELL_DCH state the measurement period, $T_{Measurement Period, GSM}$, for the GSM carrier RSSI measurement is 480 ms.

The UE shall meet the measurement accuracy requirements stated for RXLEV in TS 05.08, when the given measurement time allows the UE to take at least 3 GSM carrier RSSI samples per GSM carrier in the monitored set during the measurement period.

TGL	Number of GSM carrier RSSI samples in each gap.
3	1
4	2
5	3
7	6
10	10
14	15

Table 8.4

In case the UE is not able to acquire the required number of samples per GSM carrier during one measurement period, the UE shall measure as many GSM carriers as possible during that measurement period using at least 3 samples per GSM carrier. The GSM carriers that were not measured during that measurement period shall be measured in the following measurement periods. This means that, in this particular case, the L1 reporting period to higher layers of a GSM neighbour can be a multiple of the measurement period.

b) For a UE not requiring compressed mode

The samples allocated to each carrier shall as far as possible be uniformly distributed over each measurement period. At least 3 received signal level measurement samples are required per RSSI value. The measurement period is 480 ms.

8.1.2.5.2 BSIC verification

a) For a UE requiring compressed mode

In order for the requirements in the following subsections to apply the UTRAN must provide a transmission gap pattern sequence with measurement purpose GSM Initial BSIC identification or with measurement purpose GSM BSIC reconfirmation, using the following combinations for TGL1, TGL2 and TGD:

TGL1 [slots]	TGL2 [slots]	TGD [slots]
5	-	undefined
7	-	undefined
10	-	undefined
14	-	undefined
5	5	15269
7	7	15269
10	10	15269
14	14	15269

Table 8.5

The procedure for BSIC verification on a GSM cell can be divided into the following two tasks:

Initial BSIC identification

Includes searching for the BSIC and decoding the BSIC for the first time when there is no knowledge about the relative timing between the FDD and GSM cell. The UE shall trigger the initial BSIC identification within the available transmission gap pattern sequence with purpose "GSM Initial BSIC identification". The requirements for Initial BSIC identification can be found in 8.1.2.5.2.1.

BSIC re-confirmation

Tracking and decoding the BSIC of a GSM cell after initial BSIC identification is performed. The UE shall trigger the BSIC re-confirmation within the available transmission gap pattern sequence with purpose "GSM BSIC re-confirmation". The requirements for BSIC re-confirmation can be found in 8.1.2.5.2.2.

Measurements on a GSM cell can be requested with BSIC verified or BSIC non-verified. If GSM measurements are requested with BSIC verified the UE shall be able to report the GSM cells with BSIC verified for those cells where the verification of BSIC has been successful.

If the network requests measurements on a GSM cell with BSIC verified, the UE shall behave as follows:

- The UE shall perform GSM carrier RSSI measurements according to Section 8.1.2.5.1 when ever a transmission gap pattern sequence with the purposes "GSM carrier RSSI measurements" is provided and the UE shall perform measurement reporting as defined in Section 8.6.7.6 of [16].
- The UE shall perform BSIC identification according to Section 8.1.2.5.2.1 when a "GSM Initial BSIC identification" transmission gap pattern sequence is activated. The UE shall use the last available GSM carrier RSSI measurement results for arranging GSM cells in signal strength order for performing BSIC identification.
- The UE shall perform BSIC re-confirmation according to Section 8.1.2.5.2.2 when a "GSM BSIC re-confirmation" transmission gap pattern sequence is activated.
- If a "GSM BSIC re-confirmation" transmission gap pattern sequence is not activated in parallel to a "GSM Initial BSIC identification" transmission gap pattern sequence or within one frame from the deactivation of a "GSM Initial BSIC identification" transmission gap pattern sequence, the BSIC shall be considered to be non-verified after the UE has performed one event evaluation or periodic reporting evaluation with verified BSIC and the corresponding reporting is required after the evaluation.

The UE shall perform event evaluation for event-triggered reporting after the BSIC has been verified for a GSM cell. The UE shall use the last available GSM carrier RSSI measurement results in event evaluation and event-triggered reporting. Periodic reports shall be triggered according to the given reporting period even if the BSIC of a GSM cell has not been verified as defined in Sections 8.6.7.5 and 8.6.7.6 of [16]. Non verified BSIC shall be indicated in the measurement report.

The BSIC of a GSM cell is considered to be "verified" if the UE has decoded the SCH of the BCCH carrier and identified the BSIC at least one time (initial BSIC identification) and from that moment the BSIC shall be re-confirmed at least once every $T_{re-confirm_abort}$ seconds. Otherwise the BSIC of the GSM cell is considered as "non-verified". If a transmission gap pattern sequence with a purpose "GSM BSIC re-confirmation" is not activated by the network after BSIC identified or the "GSM BSIC re-confirmation" transmission gap pattern sequence is deactivated, the UE shall behave as described previously in this section.

The parameters $N_{identify_abort}$ and $T_{re-confirm_abort}$ are defined by higher layers and are signalled to the UE together with the transmission gap pattern sequence. $N_{identify_abort}$ indicates the maximum number of patterns that the UE shall use to attempt to decode the unknown BSIC of the GSM cell in the initial BSIC identification procedure. $T_{re-confirm_abort}$ indicates the maximum time allowed for the re-confirmation of the BSIC of one GSM cell in the BSIC re-confirmation procedure.

The UE shall be able to decode a BSIC within a transmission gap when the time difference between the middle of the received GSM synchronisation burst at the UE and the middle of the effective transmission gap is within the limits specified in table 8.6.

The effective transmission gap is calculated by assuming both UL and DL compressed mode and applying the worstcase values for UL/DL timing offset and pilot field length of last DL gap slot.

Gap length [slots]	Maximum time difference [μs]
5	± 500
7	± 1200
10	± 2200
14	± 3500

 Table 8.6: The gap length and maximum time difference for BSIC verification

The UE shall be able to perform BSIC verification at levels down to the reference sensitivity level or reference interference levels as specified in TS 05.05.

If a BSIC is decoded and matches the expected value, it is considered as "verified", else it is considered as "non verified".

The UE shall be able to perform BSIC verification at levels down to the reference sensitivity level or reference interference levels as specified in TS 05.05.

8.1.2.5.2.1 Initial BSIC identification

This measurement shall be based on a transmission gap pattern sequence with the purpose "GSM Initial BSIC identification"

For GSM cells that are requested with BSIC verified the UE shall attempt to decode the SCH on the BCCH carrier of the 8 strongest BCCH carriers of the GSM cells indicated in the measurement control information. The UE shall give priority for BSIC decoding attempts in decreasing signal strength order to BSIC carriers with unknown BSIC. The strongest BCCH carrier is defined as the BCCH carrier having the highest measured GSM carrier RSSI value after layer 3 filtering. The GSM signal strength levels used in BSIC identification for arranging GSM cells in signal strength order shall be based on the latest GSM carrier RSSI measurement results available.

When the UE attempts to decode the BSIC of one GSM BCCH carrier with unknown BSIC, the UE shall use all available transmission gaps, within the transmission gap pattern sequence with the purpose "GSM Initial BSIC identification", to attempt to decode the BSIC from that GSM BCCH carrier.

If the BSIC of the GSM BCCH carrier has been successfully decoded the UE shall immediately continue BSIC identification with the next GSM BCCH carrier, in signal strength order, with unknown BSIC. The GSM cell for which the BSIC has been successfully identified shall be moved to the BSIC re-confirmation procedure.

If the UE has not successfully decoded the BSIC of the GSM BCCH carrier within N_{identify_abort} successive patterns, the UE shall abort the BSIC identification attempts for that GSM BCCH carrier. The UE shall continue to try to perform BSIC identification of the next GSM BCCH carrier in signal strength order. The GSM BCCH carrier for which the BSIC identification failed shall not be re-considered for BSIC identification until BSIC identification attempts have been made for all the rest of the 8 strongest GSM BCCH carriers in the monitored set with unknown BSIC.

 $N_{identify_abort}$ values are given for a set of reference patterns in table 8.7. $T_{identify_abort}$ is the elapsed time during $N_{identify_abort}$ transmission gap patterns (informative). The figures given in table 8.7 represent the number of patterns required to guarantee at least two attempts to decode the BSIC for one GSM BCCH carrier.

	TGL1 [slots]	TGL2 [slots]	TGD [slots]	TGPL1 [frames]	TGPL2 [frames]	T _{identify abort} [S]	N _{identify_abort} [patterns]
Pattern 1	7	-	undefined	3	TGPL1	1.56	52
Pattern 2	7	-	undefined	8	TGPL1	5.28	66
Pattern 3	7	7	47	8	TGPL1	2.88	36
Pattern 4	7	7	38	12	TGPL1	2.88	24
Pattern 5	14	-	undefined	8	TGPL1	1.84	23
Pattern 6	14	-	undefined	24	TGPL1	5.28	22
Pattern 7	14	14	45	12	TGPL1	1.44	12
Pattern 8	10	-	undefined	8	TGPL1	2.88	36
Pattern 9	10	10	75	12	TGPL1	2.88	24

Table 8.7: The worst-case time for identification of one previously not identified GSM cell

8.1.2.5.2.2 BSIC re-confirmation

The requirements of this section are applicable for BSIC re-confirmation.

The UE shall maintain the timing information of 8 identified GSM cells. Initial timing information is obtained from the initial BSIC identification. The timing information shall be updated every time the BSIC is decoded.

For each transmission gap of a transmission gap pattern sequence with the measurement purpose "GSM BSIC reconfirmation", the UE shall attempt to decode the BSIC falling within the effective gap duration. If more than one BSIC can be decoded within the same gap, priority shall be given to the least recently decoded BSIC.

If the UE fails to decode the BSIC after two successive attempts or if the UE has not been able to re-confirm the BSIC for a GSM cell within $T_{re-confirm_abort}$ seconds, the UE shall abort the BSIC re-confirmation attempts for that GSM cell.

The GSM cell shall be treated as a new GSM cell with unidentified BSIC and the GSM cell shall be moved to the initial BSIC identification procedure, see section 8.1.2.5.2.1. The UE shall be able to make BSIC re-confirmation attempts for the 8 strongest GSM cells in the monitored list.

 $N_{re-confirm_abort}$ is the number of transmission gap patterns executed during $T_{re-confirm_abort}$ (informative).

	TGL1 [slots]	TGL2 [slots]	TGD [slots]	TGPL1 [frames]	TGPL2 [frames]	T _{re-confirm_abort}	N _{re-confirm_abort}
Pattern 1	7	-	undefined	3	TGPL1	1.32	44
Pattern 2	7	-	undefined	8	TGPL1	5.04	63
Pattern 3	7	-	undefined	15	TGPL1	8.1	54
Pattern 4	7	7	69	23	TGPL1	10.12	44
Pattern 5	7	7	69	8	TGPL1	2.64	33
Pattern 6	14	-	undefined	8	TGPL1	1.6	20
Pattern 7	14	14	60	8	TGPL1	0.80	10
Pattern 8	10	-	undefined	8	TGPL1	2.64	33
Pattern 9	10	-	undefined	23	TGPL1	8.05	35
Pattern 10	7	7	47	8	TGPL1	2.64	33
Pattern 11	7	7	38	12	TGPL1	2.64	22
Pattern 12	14	-	undefined	24	TGPL1	5.04	21
Pattern 13	14	14	45	12	TGPL1	1.20	10
Pattern 14	10	-	undefined	13	TGPL1	4.94	38
Pattern 15	10	10	75	12	TGPL1	2.64	22

Table 8.8: The worst-case time for BSIC re-confirmation of one GSM cell

8.1.2.5.3 Periodic Reporting

Reported measurements in periodically triggered measurement reports shall meet the requirements in section 9.

8.1.2.5.4 Event Triggered Reporting

Reported measurements in event triggered measurement reports shall meet the requirements in section 9.

The UE shall not send any event triggered measurement reports, as long as the reporting criteria is not fulfilled.

The measurement reporting delay is defined as the time between any event that will trigger a measurement report until the UE starts to transmit the measurement report over the Uu interface. This requirement assumes that that the measurement report is not delayed by other RRC signalling on the DCCH. This measurement reporting delay excludes a delay uncertainty resulted when inserting the measurement report to the TTI of the uplink DCCH. The delay uncertainty is twice the TTI of the uplink DCCH.

The event triggered reporting delay requirement is valid when the UE for each GSM carrier in the monitored set can take the required number of samples during the measurement period $T_{Measurement Period, GSM}$ (see section 8.1.2.5.1).

The event triggered measurement reporting delay for a GSM cell with verified BSIC, measured without L3 filtering shall be less than $2*T_{Measurement Period, GSM}$, where $T_{Measurement Period, GSM}$ is defined in Section 8.1.2.5.1. When L3 filtering is used an additional delay can be expected. For a GSM cell with non-verified BSIC an additional delay according to section 8.1.2.5.2.1 Initial BSIC identification can be expected.

3GPP TSG-RAN Meeting #26Tdoc #R4-040795Vouliagmeni Athens, Greece, 8 - 10 December 2004Tdoc #R4-040795

	CHANGE REQUEST									CR-Form-v7.1			
ж			25.13	3 CR	709	жrev	-	Ħ	Curren	nt vers	ion: <mark>4</mark>	<mark>.13.(</mark>) ^ж
For <mark>H</mark>	ELP on	us	sing this	form, see	e bottom of this	s page o	r look	at the	ə pop-u	p text	over th	he X sy	mbols.
Propose	d chang	e a	ffects:	UICC a	apps#	ME	Rad	dio Ad	ccess N	letwoi	k X	Core N	etwork
Title:		ж	Remov	al of TG	PL2								
Source:		Ħ	Ericsso	o <mark>n, Nokia</mark>									
Work ite	m code:	Ħ	TEI						Da	i te: ೫	29/1	1/2004	
Category	/:		<i>F</i> (0 <i>A</i> (0 <i>B</i> (0 <i>C</i> (0 <i>D</i> (0 Detailed	correction) correspon addition of functional editorial m explanatic	ds to a correctio	on in an ea feature)			PH PH RS RS RS RS RS RS RS RS RS RS		the follo (GSM) (Relea (Relea (Relea	owing re Phase 2, se 1996, se 1997, se 1998, se 1999, se 4) se 5) se 6))))

Reason for change: ೫	In RAN1 specification TS 25.215, section <i>6.1.1.2</i> , the compressed mode parameters are defined. Parameter TGPL2 makes it possible for the network to set two different compressed mode patterns that alternate. The only difference between pattern 1 and 2 is
	that they have different length (TGPL1 and TGPL2 respectively)
	In 25.133, paragraph 8.1.2.1, Appendix C, there is defined a general limitation for the measurement requirements in chapter 8 to apply:
	- provide the patterns within a transmission gap pattern sequence that are identical (i.e., TGPL1 = TGPL2),
	Thus, there are no measurement performance requirements when two pattern are used (i.e TGPL2 is not equal to TGPL1 in the RRC signalling to the UE) within one compressed
	mode pattern sequence. Hence, UTRAN cannot use TGPL2 if it's different than TGPL1
	since there are no measurement performance requirements specified for the case when TGPL1≠TGPL2. No gain has been showed using the second pattern defined by TGPL2.
	The conclusion of RAN4 is that the parameter TGPL2 can be removed from the specifications (Ref R4-040781).
Summary of change: ೫	TGPL2 is removed.
	Isolated Impact Analysis
	Functionality corrected: Compressed mode
	Isolated impact statement: Correction to a function where specifications are inconsistent. Since functionality is removed, UE implementations are not affected. Would affect UTRAN implementations supporting the removed

	functionality.							
Consequences if not approved:	Inconsistency will remain in specfications.							
Clauses affected:	8.1.2.1, 8.1.2.5.2.1, 8.1.5.2.2	2						
	YN							
Other specs	X Other core specification	ns						
affected:	X Test specifications X O&M Specifications	34.108, 34.121, 34.123-1						
Other comments:								

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <u>http://www.3gpp.org/specs/CR.htm</u>. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked # contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8 UE Measurements Procedures

8.1 General Measurement Requirements in CELL_DCH State

8.1.1 Introduction

This section contains requirements on the UE regarding measurement reporting in CELL_DCH state. The requirements are split in FDD intra frequency, FDD inter frequency, TDD and GSM measurements. These measurements may be used by the UTRAN, e.g. for handover decisions. The measurements are defined in TS 25.215, the measurement model is defined in TS 25.302 and measurement accuracies are specified in section 9. Control of measurement reporting is specified in TS 25.331 and parallel measurements are specified in section 8.2. Compressed mode is specified in TS 25.215.

8.1.2 Requirements

8.1.2.1 UE Measurement Capability

In CELL_DCH state the UE shall be able to monitor up to

- 32 intra frequency FDD cells (including active set), and
- 32 inter frequency cells, including
 - FDD cells distributed on up to 2 additional FDD carriers and
 - Depending on UE Capability, TDD cells, distributed on up to 3 TDD carriers and
- Depending on UE capability, 32 GSM cells distributed on up to 32 GSM carriers.
- Depending on UE capability, the UE shall be able to monitor up to 16 intra frequency cells during IPDL gaps.

If the UE utilises compressed mode for inter-frequency and/or inter-RAT measurements, in order for the requirements in the following subsections to apply the UTRAN must:

- provide transmission gap pattern sequences with TGPL1 > 1, and

provide the patterns within a transmission gap pattern sequence are identical (i.e., TGPL1 = TGPL2), and

- ensure that with the activation of one or more transmission gap pattern sequences, no more than two frames contain a transmission gap within any window of three consecutive frames, and
- ensure that there is a minimum of 8 slots between the end of the first transmission gap and the beginning of the second transmission gap in case of two successive compressed frames.

Performance requirements for different types of transmission gap pattern sequences and different number of cells is defined in the following sections.

The requirements in section 9 are applicable for a UE performing measurements according to this section.

The received CPICH E_c/I_o is defined as

$$\left(\frac{CPICH_E_c}{I_o}\right)\Big|_{in\ dB} = \left(\frac{CPICH_E_c}{I_{or}}\right)\Big|_{in\ dB} - \frac{I_o}{(\hat{I}_{or})}\Big|_{in\ dB}$$

and the received SCH E_c/I_o is defined as

$$\left(\frac{SCH_E_c}{I_o}\right)_{in\ dB} = \left(\frac{SCH_E_c}{I_{or}}\right)_{in\ dB} - \frac{I_o}{(\hat{I}_{or})}_{in\ dB}$$

8.1.2.5 GSM measurements

The requirements in this section apply only to UE supporting FDD and GSM.

Measurements on GSM cells can be requested with BSIC verified or BSIC non-verified.

1) In CELL_DCH state when a transmission gap pattern sequence is provided by the UTRAN the UE shall continuously measure GSM cells and search for new GSM cells given in the monitored set.

2) If the UE does not need compressed mode to perform GSM measurements:

- the UE shall measure all GSM cells present in the monitored set
- the relevant requirements for GSM dedicated mode when a TCH channel is assigned in TS 45.008 shall apply. This is further detailed in the following sub-sections.

8.1.2.5.1 GSM carrier RSSI

1) For a UE requiring compressed mode

A UE supporting GSM measurements using compressed mode shall meet the minimum number of GSM RSSI carrier measurements specified in table 8.4. This measurement shall be based on a transmission gap pattern sequence with purpose "GSM carrier RSSI measurements"

In order for the requirements in this subsection to apply the UTRAN must provide a transmission gap pattern sequence with measurement purpose GSM carrier RSSI measurements using the following combinations for TGL1, TGL2 and TGD:

TGL1 [slots]	TGL2 [slots]	TGD [slots]
3	-	undefined
4	-	undefined
5	-	undefined
7	-	undefined
10	-	undefined
14	-	undefined
3	3	15269
4	4	15269
5	5	15269
7	7	15269
10	10	15269
14	14	15269

Table 8.3

In the CELL_DCH state the measurement period, $T_{Measurement Period, GSM}$, for the GSM carrier RSSI measurement is 480 ms.

The UE shall meet the measurement accuracy requirements stated for RXLEV in TS45.008, when the given measurement time allows the UE to take at least 3 GSM carrier RSSI samples per GSM carrier in the monitored set during the measurement period.

TGL	Number of GSM carrier RSSI samples in each gap.
3	1
4	2
5	3
7	6
10	10
14	15

Table 8.4

In case the UE is not able to acquire the required number of samples per GSM carrier during one measurement period, the UE shall measure as many GSM carriers as possible during that measurement period using at least 3 samples per GSM carrier. The GSM carriers that were not measured during that measurement period shall be measured in the following measurement periods. This means that, in this particular case, the L1 reporting period to higher layers of a GSM neighbour can be a multiple of the measurement period.

2) For a UE not requiring compressed mode

The samples allocated to each carrier shall as far as possible be uniformly distributed over each measurement period. At least 3 received signal level measurement samples are required per RSSI value. The measurement period is 480 ms.

8.1.2.5.2 BSIC verification

1) For a UE requiring compressed mode

In order for the requirements in the following subsections to apply the UTRAN must provide a transmission gap pattern sequence with measurement purpose GSM Initial BSIC identification or with measurement purpose GSM BSIC reconfirmation, using the following combinations for TGL1, TGL2 and TGD:

TGL1 [slots]	TGL2 [slots]	TGD [slots]
5	-	undefined
7	-	undefined
10	-	undefined
14	-	undefined
5	5	15269
7	7	15269
10	10	15269
14	14	15269

Table 8.5

The procedure for BSIC verification on a GSM cell can be divided into the following two tasks:

Initial BSIC identification

Includes searching for the BSIC and decoding the BSIC for the first time when there is no knowledge about the relative timing between the FDD and GSM cell. The UE shall trigger the initial BSIC identification within the available transmission gap pattern sequence with purpose "GSM Initial BSIC identification". The requirements for Initial BSIC identification can be found in 8.1.2.5.2.1.

BSIC re-confirmation

Tracking and decoding the BSIC of a GSM cell after initial BSIC identification is performed. The UE shall trigger the BSIC re-confirmation within the available transmission gap pattern sequence with purpose "GSM BSIC re-confirmation". The requirements for BSIC re-confirmation can be found in 8.1.2.5.2.2.

Measurements on a GSM cell can be requested with BSIC verified or BSIC non-verified. If GSM measurements are requested with BSIC verified the UE shall be able to report the GSM cells with BSIC verified for those cells where the verification of BSIC has been successful.

If the network requests measurements on a GSM cell with BSIC verified, the UE shall behave as follows:

- The UE shall perform GSM carrier RSSI measurements according to Section 8.1.2.5.1 when ever a transmission gap pattern sequence with the purposes "GSM carrier RSSI measurements" is provided and the UE shall perform measurement reporting as defined in Section 8.6.7.6 of [16].
- The UE shall perform BSIC identification according to Section 8.1.2.5.2.1 when a "GSM Initial BSIC identification" transmission gap pattern sequence is activated. The UE shall use the last available GSM carrier RSSI measurement results for arranging GSM cells in signal strength order for performing BSIC identification.
- The UE shall perform BSIC re-confirmation according to Section 8.1.2.5.2.2 when a "GSM BSIC reconfirmation" transmission gap pattern sequence is activated.
- If a "GSM BSIC re-confirmation" transmission gap pattern sequence is not activated in parallel to a "GSM Initial BSIC identification" transmission gap pattern sequence or within one frame from the deactivation of a "GSM Initial BSIC identification" transmission gap pattern sequence, the BSIC shall be considered to be nonverified after the UE has performed one event evaluation or periodic reporting evaluation with verified BSIC and the corresponding reporting if reporting is required after the evaluation.

The UE shall perform event evaluation for event-triggered reporting after the BSIC has been verified for a GSM cell. The UE shall use the last available GSM carrier RSSI measurement results in event evaluation and event-triggered reporting. Periodic reports shall be triggered according to the given reporting period even if the BSIC of a GSM cell has not been verified as defined in Sections 8.6.7.5 and 8.6.7.6 of [16]. Non verified BSIC shall be indicated in the measurement report.

The BSIC of a GSM cell is considered to be "verified" if the UE has decoded the SCH of the BCCH carrier and identified the BSIC at least one time (initial BSIC identification) and from that moment the BSIC shall be re-confirmed at least once every $T_{re-confirm_abort}$ seconds. Otherwise the BSIC of the GSM cell is considered as "non-verified". If a transmission gap pattern sequence with a purpose "GSM BSIC re-confirmation" is not activated by the network after BSIC identified or the "GSM BSIC re-confirmation" transmission gap pattern sequence is deactivated, the UE shall behave as described previously in this section.

The parameters $N_{identify_abort}$ and $T_{re-confirm_abort}$ are defined by higher layers and are signalled to the UE together with the transmission gap pattern sequence. $N_{identify_abort}$ indicates the maximum number of patterns that the UE shall use to attempt to decode the unknown BSIC of the GSM cell in the initial BSIC identification procedure. $T_{re-confirm_abort}$ indicates the maximum time allowed for the re-confirmation of the BSIC of one GSM cell in the BSIC re-confirmation procedure.

The UE shall be able to decode a BSIC within a transmission gap when the time difference between the middle of the received GSM synchronisation burst at the UE and the middle of the effective transmission gap is within the limits specified in table 8.6.

The effective transmission gap is calculated by assuming both UL and DL compressed mode and applying the worstcase values for UL/DL timing offset and pilot field length of last DL gap slot.

Gap length [slots]	Maximum time difference [µs]
5	± 500
7	± 1200
10	± 2200
14	± 3500

The UE shall be able to perform BSIC verification at levels down to the reference sensitivity level or reference interference levels as specified in TS 45.005.

2) For a UE not requiring compressed mode

If a BSIC is decoded and matches the expected value, it is considered as "verified", else it is considered as "non verified".

The UE shall be able to perform BSIC verification at levels down to the reference sensitivity level or reference interference levels as specified in TS 45.005.

8.1.2.5.2.1 Initial BSIC identification

This measurement shall be based on a transmission gap pattern sequence with the purpose "GSM Initial BSIC identification"

For GSM cells that are requested with BSIC verified the UE shall attempt to decode the SCH on the BCCH carrier of the 8 strongest BCCH carriers of the GSM cells indicated in the measurement control information. The UE shall give priority for BSIC decoding attempts in decreasing signal strength order to BSIC carriers with unknown BSIC. The strongest BCCH carrier is defined as the BCCH carrier having the highest measured GSM carrier RSSI value after layer 3 filtering. The GSM signal strength levels used in BSIC identification for arranging GSM cells in signal strength order shall be based on the latest GSM carrier RSSI measurement results available.

When the UE attempts to decode the BSIC of one GSM BCCH carrier with unknown BSIC, the UE shall use all available transmission gaps, within the transmission gap pattern sequence with the purpose "GSM Initial BSIC identification", to attempt to decode the BSIC from that GSM BCCH carrier.

If the BSIC of the GSM BCCH carrier has been successfully decoded the UE shall immediately continue BSIC identification with the next GSM BCCH carrier, in signal strength order, with unknown BSIC. The GSM cell for which the BSIC has been successfully identified shall be moved to the BSIC re-confirmation procedure.

If the UE has not successfully decoded the BSIC of the GSM BCCH carrier within N_{identify_abort} successive patterns, the UE shall abort the BSIC identification attempts for that GSM BCCH carrier. The UE shall continue to try to perform BSIC identification of the next GSM BCCH carrier in signal strength order. The GSM BCCH carrier for which the BSIC identification failed shall not be re-considered for BSIC identification until BSIC identification attempts have been made for all the rest of the 8 strongest GSM BCCH carriers in the monitored set with unknown BSIC.

 $N_{identify_abort}$ values are given for a set of reference patterns in table 8.7. $T_{identify_abort}$ is the elapsed time during $N_{identify_abort}$ transmission gap patterns (informative). The figures given in table 8.7 represent the number of patterns required to guarantee at least two attempts to decode the BSIC for one GSM BCCH carrier.

	TGL1 [slots]	TGL2 [slots]	TGD [slots]	TGPL1 [frames]	TGPL2 [frames]	Tidentify abort [S]	N _{identify_abort} [patterns]
Pattern 1	7	-	undefined	3	TGPL1	1.56	52
Pattern 2	7	-	undefined	8	TGPL1	5.28	66
Pattern 3	7	7	47	8	TGPL1	2.88	36
Pattern 4	7	7	38	12	TGPL1	2.88	24
Pattern 5	14	-	undefined	8	TGPL1	1.84	23
Pattern 6	14	-	undefined	24	TGPL1	5.28	22
Pattern 7	14	14	45	12	TGPL1	1.44	12
Pattern 8	10	-	undefined	8	TGPL1	2.88	36
Pattern 9	10	10	75	12	TGPL1	2.88	24

Table 8.7: The worst-case time for identification of one previously not identified GSM cell

8.1.2.5.2.2 BSIC re-confirmation

The requirements of this section are applicable for BSIC re-confirmation.

The UE shall maintain the timing information of 8 identified GSM cells. Initial timing information is obtained from the initial BSIC identification. The timing information shall be updated every time the BSIC is decoded.

For each transmission gap of a transmission gap pattern sequence with the measurement purpose "GSM BSIC reconfirmation", the UE shall attempt to decode the BSIC falling within the effective gap duration. If more than one BSIC can be decoded within the same gap, priority shall be given to the least recently decoded BSIC.

If the UE fails to decode the BSIC after two successive attempts or if the UE has not been able to re-confirm the BSIC for a GSM cell within $T_{re-confirm_abort}$ seconds, the UE shall abort the BSIC re-confirmation attempts for that GSM cell.

The GSM cell shall be treated as a new GSM cell with unidentified BSIC and the GSM cell shall be moved to the initial BSIC identification procedure, see section 8.1.2.5.2.1. The UE shall be able to make BSIC re-confirmation attempts for the 8 strongest GSM cells in the monitored list.

 $N_{re-confirm_abort}$ is the number of transmission gap patterns executed during $T_{re-confirm_abort}$ (informative).

	TGL1 [slots]	TGL2 [slots]	TGD [slots]	TGPL1 [frames]	TGPL2 [frames]	T _{re-confirm_abort} [s]	N _{re-confirm_abort} [patterns]
Pattern 1	7	-	undefined	3	TGPL1	1.32	44
Pattern 2	7	-	undefined	8	TGPL1	5.04	63
Pattern 3	7	-	undefined	15	TGPL1	8.1	54
Pattern 4	7	7	69	23	TGPL1	10.12	44
Pattern 5	7	7	69	8	TGPL1	2.64	33
Pattern 6	14	-	undefined	8	TGPL1	1.6	20
Pattern 7	14	14	60	8	TGPL1	0.80	10
Pattern 8	10	-	undefined	8	TGPL1	2.64	33
Pattern 9	10	-	undefined	23	TGPL1	8.05	35
Pattern 10	7	7	47	8	TGPL1	2.64	33
Pattern 11	7	7	38	12	TGPL1	2.64	22
Pattern 12	14	-	undefined	24	TGPL1	5.04	21
Pattern 13	14	14	45	12	TGPL1	1.20	10
Pattern 14	10	-	undefined	13	TGPL1	4.94	38
Pattern 15	10	10	75	12	TGPL1	2.64	22

Table 8.8: The worst-case time for BSIC re-confirmation of one GSM cell

8.1.2.5.3 Periodic Reporting

Reported measurements in periodically triggered measurement reports shall meet the requirements in section 9.

8.1.2.5.4 Event Triggered Reporting

Reported measurements in event triggered measurement reports shall meet the requirements in section 9.

The UE shall not send any event triggered measurement reports, as long as the reporting criteria is not fulfilled.

The measurement reporting delay is defined as the time between any event that will trigger a measurement report until the UE starts to transmit the measurement report over the Uu interface. This requirement assumes that that the measurement report is not delayed by other RRC signalling on the DCCH. This measurement reporting delay excludes a delay uncertainty resulted when inserting the measurement report to the TTI of the uplink DCCH. The delay uncertainty is twice the TTI of the uplink DCCH.

The event triggered reporting delay requirement is valid when the UE for each GSM carrier in the monitored set can take the required number of samples during the measurement period $T_{Measurement Period, GSM}$ (see section 8.1.2.5.1).

The event triggered measurement reporting delay for a GSM cell with verified BSIC, measured without L3 filtering shall be less than $2*T_{Measurement Period, GSM}$, where $T_{Measurement Period, GSM}$ is defined in Section 8.1.2.5.1. When L3 filtering is used an additional delay can be expected. For a GSM cell with non-verified BSIC an additional delay according to section 8.1.2.5.2.1 Initial BSIC identification can be expected.

CR-Form-v7.1

Tdoc **#***R4-040796* 3GPP TSG-RAN Meeting #26 Vouliagmeni Athens, Greece, 8 - 10 December 2004 _

	CHANGE REQUES	Т
ж	25.133 CR 710 #rev - #	Current version: 5.12.0 [#]
For <mark>HELP</mark> o	on using this form, see bottom of this page or look at t	the pop-up text over the
Proposed chan	ge affects: UICC apps ೫ ME Radio	Access Network X Core Network
Title:	発 Removal of TGPL2	
Source:	策 Ericsson, Nokia	
Work item code	e: ೫ TEI	Date:
Category:	 A Use <u>one</u> of the following categories: <i>F</i> (correction) A (corresponds to a correction in an earlier releat B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP <u>TR 21.900</u>. 	Release: # Rel-5 Use <u>one</u> of the following releases: Ph2 (GSM Phase 2) se) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6) Rel-7 (Release 7)

Reason for change: ೫	In RAN1 specification TS 25.215, section <i>6.1.1.2</i> , the compressed mode parameters are defined. Parameter TGPL2 makes it possible for the network to set two different compressed mode patterns that alternate. The only difference between pattern 1 and 2 is that they have different length (TGPL1 and TGPL2 respectively)
	In 25.133, paragraph 8.1.2.1, Appendix C, there is defined a general limitation for the measurement requirements in chapter 8 to apply:
	- provide the patterns within a transmission gap pattern sequence that are identical (i.e., TGPL1 = TGPL2),
	Thus, there are no measurement performance requirements when two pattern are used (i.e TGPL2 is not equal to TGPL1 in the RRC signalling to the UE) within one compressed mode pattern sequence. Hence, UTRAN cannot use TGPL2 if it's different than TGPL1 since there are no measurement performance requirements specified for the case when TGPL1≠TGPL2. No gain has been showed using the second pattern defined by TGPL2. The conclusion of RAN4 is that the parameter TGPL2 can be removed from the specifications (Ref R4-040781).
Summary of change: ೫	TGPL2 is removed.
	Isolated Impact Analysis Functionality corrected: Compressed mode
	Isolated impact statement: Correction to a function where specifications are inconsistent. Since functionality is removed, UE implementations are not affected. Would affect UTRAN implementations supporting the removed

	functionality.		
Consequences if not approved:	Inconsistency will remain in specfications.		
Clauses affected:	8.1.2.1, 8.1.2.5.2.1, 8.1.5.2.2		
	ΥΝ		
Other specs	X Other core specifications # 25.101, 25.215, 25.331, 25.423, 25.433		
affected:	XTest specifications34.108, 34.121, 34.123-1XO&M Specifications		
Other comments:			

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <u>http://www.3gpp.org/specs/CR.htm</u>. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked # contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8 UE Measurements Procedures

8.1 General Measurement Requirements in CELL_DCH State

8.1.1 Introduction

This section contains requirements on the UE regarding measurement reporting in CELL_DCH state. The requirements are split in FDD intra frequency, FDD inter frequency, TDD and GSM measurements. These measurements may be used by the UTRAN, e.g. for handover decisions. The measurements are defined in TS 25.215, the measurement model is defined in TS 25.302 and measurement accuracies are specified in section 9. Control of measurement reporting is specified in TS 25.331 and parallel measurements are specified in section 8.2. Compressed mode is specified in TS 25.215.

8.1.2 Requirements

8.1.2.1 UE Measurement Capability

In CELL_DCH state the UE shall be able to monitor up to

- 32 intra frequency FDD cells (including active set), and
- 32 inter frequency cells, including
 - FDD cells distributed on up to 2 additional FDD carriers and
 - Depending on UE Capability, TDD cells, distributed on up to 3 TDD carriers and
- Depending on UE capability, 32 GSM cells distributed on up to 32 GSM carriers.
- Depending on UE capability, the UE shall be able to monitor up to 16 intra frequency cells during IPDL gaps.

If the UE utilises compressed mode for inter-frequency and/or inter-RAT measurements, in order for the requirements in the following subsections to apply the UTRAN must:

- provide transmission gap pattern sequences with TGPL1 > 1, and

provide the patterns within a transmission gap pattern sequence are identical (i.e., TGPL1 = TGPL2), and

- ensure that with the activation of one or more transmission gap pattern sequences, no more than two frames contain a transmission gap within any window of three consecutive frames, and
- ensure that there is a minimum of 8 slots between the end of the first transmission gap and the beginning of the second transmission gap in case of two successive compressed frames.

Performance requirements for different types of transmission gap pattern sequences and different number of cells is defined in the following sections.

The requirements in section 9 are applicable for a UE performing measurements according to this section.

The received CPICH E_c/I_o is defined as

$$\left(\frac{CPICH_E_c}{I_o}\right)\Big|_{in\ dB} = \left(\frac{CPICH_E_c}{I_{or}}\right)\Big|_{in\ dB} - \frac{I_o}{(\hat{I}_{or})}\Big|_{in\ dB}$$

and the received SCH E_c/I_o is defined as

$$\left(\frac{SCH_E_c}{I_o}\right)_{in\ dB} = \left(\frac{SCH_E_c}{I_{or}}\right)_{in\ dB} - \frac{I_o}{(\hat{I}_{or})}_{in\ dB}$$

8.1.2.5 GSM measurements

The requirements in this section apply only to UE supporting FDD and GSM.

Measurements on GSM cells can be requested with BSIC verified or BSIC non-verified.

1) In CELL_DCH state when a transmission gap pattern sequence is provided by the UTRAN the UE shall continuously measure GSM cells and search for new GSM cells given in the monitored set.

- 2) If the UE does not need compressed mode to perform GSM measurements:
 - the UE shall measure all GSM cells present in the monitored set
 - the relevant requirements for GSM dedicated mode when a TCH channel is assigned in TS 45.008 shall apply. This is further detailed in the following sub-sections.

8.1.2.5.1 GSM carrier RSSI

1) For a UE requiring compressed mode

A UE supporting GSM measurements using compressed mode shall meet the minimum number of GSM RSSI carrier measurements specified in table 8.4. This measurement shall be based on a transmission gap pattern sequence with purpose "GSM carrier RSSI measurements"

In order for the requirements in this subsection to apply the UTRAN must provide a transmission gap pattern sequence with measurement purpose GSM carrier RSSI measurements using the following combinations for TGL1, TGL2 and TGD:

TGL1 [slots]	TGL2 [slots]	TGD [slots]
3	-	undefined
4	-	undefined
5	-	undefined
7	-	undefined
10	-	undefined
14	-	undefined
3	3	15269
4	4	15269
5	5	15269
7	7	15269
10	10	41269
14	14	45269

Table 8.3

In the CELL_DCH state the measurement period, $T_{Measurement Period, GSM}$, for the GSM carrier RSSI measurement is 480 ms.

The UE shall meet the measurement accuracy requirements stated for RXLEV in TS45.008, when the given measurement time allows the UE to take at least 3 GSM carrier RSSI samples per GSM carrier in the monitored set during the measurement period.

TGL	Number of GSM carrier RSSI samples in each gap.
3	1
4	2
5	3
7	6
10	10
14	15

Table 8.4

In case the UE is not able to acquire the required number of samples per GSM carrier during one measurement period, the UE shall measure as many GSM carriers as possible during that measurement period using at least 3 samples per GSM carrier. The GSM carriers that were not measured during that measurement period shall be measured in the following measurement periods. This means that, in this particular case, the L1 reporting period to higher layers of a GSM neighbour can be a multiple of the measurement period.

2) For a UE not requiring compressed mode

The samples allocated to each carrier shall as far as possible be uniformly distributed over each measurement period. At least 3 received signal level measurement samples are required per RSSI value. The measurement period is 480 ms.

8.1.2.5.2 BSIC verification

1) For a UE requiring compressed mode

In order for the requirements in the following subsections to apply the UTRAN must provide a transmission gap pattern sequence with measurement purpose GSM Initial BSIC identification or with measurement purpose GSM BSIC reconfirmation, using the following combinations for TGL1, TGL2 and TGD:

TGL1 [slots]	TGL2 [slots]	TGD [slots]
5	-	undefined
7	-	undefined
10	-	undefined
14	-	undefined
5	5	15269
7	7	15269
10	10	41269
14	14	45269

Table 8.5

The procedure for BSIC verification on a GSM cell can be divided into the following two tasks:

Initial BSIC identification

Includes searching for the BSIC and decoding the BSIC for the first time when there is no knowledge about the relative timing between the FDD and GSM cell. The UE shall trigger the initial BSIC identification within the available transmission gap pattern sequence with purpose "GSM Initial BSIC identification". The requirements for Initial BSIC identification can be found in 8.1.2.5.2.1.

BSIC re-confirmation

Tracking and decoding the BSIC of a GSM cell after initial BSIC identification is performed. The UE shall trigger the BSIC re-confirmation within the available transmission gap pattern sequence with purpose "GSM BSIC re-confirmation". The requirements for BSIC re-confirmation can be found in 8.1.2.5.2.2.

Measurements on a GSM cell can be requested with BSIC verified or BSIC non-verified. If GSM measurements are requested with BSIC verified the UE shall be able to report the GSM cells with BSIC verified for those cells where the verification of BSIC has been successful.

If the network requests measurements on a GSM cell with BSIC verified, the UE shall behave as follows:

- The UE shall perform GSM carrier RSSI measurements according to Section 8.1.2.5.1 when ever a transmission gap pattern sequence with the purposes "GSM carrier RSSI measurements" is provided and the UE shall perform measurement reporting as defined in Section 8.6.7.6 of [16].
- The UE shall perform BSIC identification according to Section 8.1.2.5.2.1 when a "GSM Initial BSIC identification" transmission gap pattern sequence is activated. The UE shall use the last available GSM carrier RSSI measurement results for arranging GSM cells in signal strength order for performing BSIC identification.
- The UE shall perform BSIC re-confirmation according to Section 8.1.2.5.2.2 when a "GSM BSIC reconfirmation" transmission gap pattern sequence is activated.
- If a "GSM BSIC re-confirmation" transmission gap pattern sequence is not activated in parallel to a "GSM Initial BSIC identification" transmission gap pattern sequence or within one frame from the deactivation of a "GSM Initial BSIC identification" transmission gap pattern sequence, the BSIC shall be considered to be non-verified after the UE has performed one event evaluation or periodic reporting evaluation with verified BSIC and the corresponding reporting is required after the evaluation.

The UE shall perform event evaluation for event-triggered reporting after the BSIC has been verified for a GSM cell. The UE shall use the last available GSM carrier RSSI measurement results in event evaluation and event-triggered reporting. Periodic reports shall be triggered according to the given reporting period even if the BSIC of a GSM cell has not been verified as defined in Sections 8.6.7.5 and 8.6.7.6 of [16]. Non verified BSIC shall be indicated in the measurement report.

The BSIC of a GSM cell is considered to be "verified" if the UE has decoded the SCH of the BCCH carrier and identified the BSIC at least one time (initial BSIC identification) and from that moment the BSIC shall be re-confirmed at least once every $T_{re-confirm_abort}$ seconds. Otherwise the BSIC of the GSM cell is considered as "non-verified". If a transmission gap pattern sequence with a purpose "GSM BSIC re-confirmation" is not activated by the network after BSIC identified or the "GSM BSIC re-confirmation" transmission gap pattern sequence is deactivated, the UE shall behave as described previously in this section.

The parameters $N_{identify_abort}$ and $T_{re-confirm_abort}$ are defined by higher layers and are signalled to the UE together with the transmission gap pattern sequence. $N_{identify_abort}$ indicates the maximum number of patterns that the UE shall use to attempt to decode the unknown BSIC of the GSM cell in the initial BSIC identification procedure. $T_{re-confirm_abort}$ indicates the maximum time allowed for the re-confirmation of the BSIC of one GSM cell in the BSIC re-confirmation procedure.

The UE shall be able to decode a BSIC within a transmission gap when the time difference between the middle of the received GSM synchronisation burst at the UE and the middle of the effective transmission gap is within the limits specified in table 8.6.

The effective transmission gap is calculated by assuming both UL and DL compressed mode and applying the worstcase values for UL/DL timing offset and pilot field length of last DL gap slot.

Gap length [slots]	Maximum time difference [μs]
5	± 500
7	± 1200
10	± 2200
14	± 3500

 Table 8.6: The gap length and maximum time difference for BSIC verification

The UE shall be able to perform BSIC verification at levels down to the reference sensitivity level or reference interference levels as specified in TS 45.005.

2) For a UE not requiring compressed mode

If a BSIC is decoded and matches the expected value, it is considered as "verified", else it is considered as "non verified".

The UE shall be able to perform BSIC verification at levels down to the reference sensitivity level or reference interference levels as specified in TS 45.005.

8.1.2.5.2.1 Initial BSIC identification

This measurement shall be based on a transmission gap pattern sequence with the purpose "GSM Initial BSIC identification"

For GSM cells that are requested with BSIC verified the UE shall attempt to decode the SCH on the BCCH carrier of the 8 strongest BCCH carriers of the GSM cells indicated in the measurement control information. The UE shall give priority for BSIC decoding attempts in decreasing signal strength order to BSIC carriers with unknown BSIC. The strongest BCCH carrier is defined as the BCCH carrier having the highest measured GSM carrier RSSI value after layer 3 filtering. The GSM signal strength levels used in BSIC identification for arranging GSM cells in signal strength order shall be based on the latest GSM carrier RSSI measurement results available.

When the UE attempts to decode the BSIC of one GSM BCCH carrier with unknown BSIC, the UE shall use all available transmission gaps, within the transmission gap pattern sequence with the purpose "GSM Initial BSIC identification", to attempt to decode the BSIC from that GSM BCCH carrier.

If the BSIC of the GSM BCCH carrier has been successfully decoded the UE shall immediately continue BSIC identification with the next GSM BCCH carrier, in signal strength order, with unknown BSIC. The GSM cell for which the BSIC has been successfully identified shall be moved to the BSIC re-confirmation procedure.

If the UE has not successfully decoded the BSIC of the GSM BCCH carrier within N_{identify_abort} successive patterns, the UE shall abort the BSIC identification attempts for that GSM BCCH carrier. The UE shall continue to try to perform BSIC identification of the next GSM BCCH carrier in signal strength order. The GSM BCCH carrier for which the BSIC identification failed shall not be re-considered for BSIC identification until BSIC identification attempts have been made for all the rest of the 8 strongest GSM BCCH carriers in the monitored set with unknown BSIC.

 $N_{identify_abort}$ values are given for a set of reference patterns in table 8.7. $T_{identify_abort}$ is the elapsed time during $N_{identify_abort}$ transmission gap patterns (informative). The figures given in table 8.7 represent the number of patterns required to guarantee at least two attempts to decode the BSIC for one GSM BCCH carrier.

	TGL1 [slots]	TGL2 [slots]	TGD [slots]	TGPL1 [frames]	TGPL2 [frames]	T _{identify abort} [S]	N _{identify_abort} [patterns]
Pattern 1	7	-	undefined	3	TGPL1	1.56	52
Pattern 2	7	-	undefined	8	TGPL1	5.28	66
Pattern 3	7	7	47	8	TGPL1	2.88	36
Pattern 4	7	7	38	12	TGPL1	2.88	24
Pattern 5	14	-	undefined	8	TGPL1	1.84	23
Pattern 6	14	-	undefined	24	TGPL1	5.28	22
Pattern 7	14	14	45	12	TGPL1	1.44	12
Pattern 8	10	-	undefined	12	TGPL1	2.88	36
Pattern 9	10	10	75	12	TGPL1	2.88	24

Table 8.7: The worst-case time for identification of one previously not identified GSM cell

8.1.2.5.2.2 BSIC re-confirmation

The requirements of this section are applicable for BSIC re-confirmation.

The UE shall maintain the timing information of 8 identified GSM cells. Initial timing information is obtained from the initial BSIC identification. The timing information shall be updated every time the BSIC is decoded.

For each transmission gap of a transmission gap pattern sequence with the measurement purpose "GSM BSIC reconfirmation", the UE shall attempt to decode the BSIC falling within the effective gap duration. If more than one BSIC can be decoded within the same gap, priority shall be given to the least recently decoded BSIC.

If the UE fails to decode the BSIC after two successive attempts or if the UE has not been able to re-confirm the BSIC for a GSM cell within $T_{re-confirm_abort}$ seconds, the UE shall abort the BSIC re-confirmation attempts for that GSM cell.

The GSM cell shall be treated as a new GSM cell with unidentified BSIC and the GSM cell shall be moved to the initial BSIC identification procedure, see section 8.1.2.5.2.1. The UE shall be able to make BSIC re-confirmation attempts for the 8 strongest GSM cells in the monitored list.

 $N_{re-confirm_abort}$ is the number of transmission gap patterns executed during $T_{re-confirm_abort}$ (informative).

		TGL2 [slots]	TGD [slots]	TGPL1 [frames]	TGPL2 [frames]	T _{re-confirm_abort}	N _{re-confirm_abort}
Pattern 1	7	-	undefined	3	TGPL1	1.32	44
Pattern 2	7	-	undefined	8	TGPL1	5.04	63
Pattern 3	7	-	undefined	15	TGPL1	8.1	54
Pattern 4	7	7	69	23	TGPL1	10.12	44
Pattern 5	7	7	69	8	TGPL1	2.64	33
Pattern 6	14	-	undefined	8	TGPL1	1.6	20
Pattern 7	14	14	60	8	TGPL1	0.80	10
Pattern 8	10	-	undefined	8	TGPL1	2.64	33
Pattern 9	10	-	undefined	23	TGPL1	8.05	35
Pattern 10	7	7	47	8	TGPL1	2.64	33
Pattern 11	7	7	38	12	TGPL1	2.64	22
Pattern 12	14	-	undefined	24	TGPL1	5.04	21
Pattern 13	14	14	45	12	TGPL1	1.20	10
Pattern 14	10	-	undefined	13	TGPL1	4.94	38
Pattern 15	10	10	75	12	TGPL1	2.64	22

Table 8.8: The worst-case time for BSIC re-confirmation of one GSM cell

8.1.2.5.3 Periodic Reporting

Reported measurements in periodically triggered measurement reports shall meet the requirements in section 9.

8.1.2.5.4 Event Triggered Reporting

Reported measurements in event triggered measurement reports shall meet the requirements in section 9.

The UE shall not send any event triggered measurement reports, as long as the reporting criteria is not fulfilled.

The measurement reporting delay is defined as the time between any event that will trigger a measurement report until the UE starts to transmit the measurement report over the Uu interface. This requirement assumes that that the measurement report is not delayed by other RRC signalling on the DCCH. This measurement reporting delay excludes a delay uncertainty resulted when inserting the measurement report to the TTI of the uplink DCCH. The delay uncertainty is twice the TTI of the uplink DCCH.

The event triggered reporting delay requirement is valid when the UE for each GSM carrier in the monitored set can take the required number of samples during the measurement period $T_{Measurement Period, GSM}$ (see section 8.1.2.5.1).

The event triggered measurement reporting delay for a GSM cell with verified BSIC, measured without L3 filtering shall be less than $2*T_{Measurement Period, GSM}$, where $T_{Measurement Period, GSM}$ is defined in Section 8.1.2.5.1. When L3 filtering is used an additional delay can be expected. For a GSM cell with non-verified BSIC an additional delay according to section 8.1.2.5.2.1 Initial BSIC identification can be expected.

3GPP TSG-RAN Meeting #26Tdoc #R4-040797Vouliagmeni Athens, Greece, 8 - 10 December 2004Tdoc #R4-040797

Vouliag	Vouliagmeni Athens, Greece, 8 - 10 December 2004											
								_		(CR-Form-v7.1	
	CHANGE REQUEST											
ж			25.133	CR	711	жrev	-	ж	Current version:	6.7.0	ж	
For <mark>H</mark>	IELP or	i us	ing this for	m, see	bottom of this	s page or	look	at th	e pop-up text over	r the ೫ syl	mbols.	
Propose	d chang	e a	ffects: (JICC a	pps#	ME	Rac	lio A	ccess Network X	Core Ne	etwork	
Title:		ж	Removal	of TGP	'L2							
Source:		ж	Ericsson,	Nokia								

Work item code: ℜ	TEI	Date: ೫	29/11/2004
Category: ⊮	A Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in a B (addition of feature), C (functional modification of featur D (editorial modification) Detailed explanations of the above cate be found in 3GPP <u>TR 21.900</u> .	Ph2 an earlier release) R96 R97 re) R98 R99 gories can Rel-4 Rel-5	Rel-6 the following releases: (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5) (Release 6) (Release 7)

Reason for change: ೫	In RAN1 specification TS 25.215, section 6.1.1.2, the compressed mode parameters are
	defined. Parameter TGPL2 makes it possible for the network to set two different
	compressed mode patterns that alternate. The only difference between pattern 1 and 2 is
	that they have different length (TGPL1 and TGPL2 respectively)
	In 25.133, paragraph 8.1.2.1, Appendix C, there is defined a general limitation for the
	measurement requirements in chapter 8 to apply:
	- provide the patterns within a transmission gap pattern sequence that are
	identical (i.e., TGPL1 = TGPL2),
	Thus, there are no measurement performance requirements when two pattern are used (i.e
	TGPL2 is not equal to TGPL1 in the RRC signalling to the UE) within one compressed
	mode pattern sequence. Hence, UTRAN cannot use TGPL2 if it's different than TGPL1
	since there are no measurement performance requirements specified for the case when
	TGPL1≠TGPL2. No gain has been showed using the second pattern defined by TGPL2.
	The conclusion of RAN4 is that the parameter TGPL2 can be removed from the
	specifications (Ref R4-040781).
Summary of change: 🕷	TGPL2 is removed.
	T 1 / 1T / A 1 '
	Isolated Impact Analysis
	Functionality corrected: Compressed mode
	Isolated impact statement: Correction to a function where specifications are
	inconsistent. Since functionality is removed, UE implementations are not
1	affected. Would affect UTRAN implementations supporting the removed

	functionality.	
Consequences if not approved:	Inconsistency will remain in specfications.	
Clauses affected:	8.1.2.1, 8.1.2.5.2.1, 8.1.5.2.2	
	YN	
Other specs	Cher core specifications # 25.101, 25.215, 25.331, 25.423, 25	.433
affected:	XTest specifications34.108, 34.121, 34.123-1XO&M Specifications	
Other comments:		

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <u>http://www.3gpp.org/specs/CR.htm</u>. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked # contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.1.2 Requirements

8.1.2.1 UE Measurement Capability

In CELL_DCH state the UE shall be able to monitor up to

- 32 intra frequency FDD cells (including active set), and
- 32 inter frequency cells, including
 - FDD cells distributed on up to 2 additional FDD carriers and
 - Depending on UE Capability, TDD cells, distributed on up to 3 TDD carriers and
- Depending on UE capability, 32 GSM cells distributed on up to 32 GSM carriers.
- Depending on UE capability, the UE shall be able to monitor up to 16 intra frequency cells during IPDL gaps.

If the UE utilises compressed mode for inter-frequency and/or inter-RAT measurements, in order for the requirements in the following subsections to apply the UTRAN must:

- provide transmission gap pattern sequences with TGPL1 > 1, and
- ensure that with the activation of one or more transmission gap pattern sequences, no more than two frames contain a transmission gap within any window of three consecutive frames, and

- ensure that there is a minimum of 8 slots between the end of the first transmission gap and the beginning of the second transmission gap in case of two successive compressed frames.

Performance requirements for different types of transmission gap pattern sequences and different number of cells is defined in the following sections.

The requirements in section 9 are applicable for a UE performing measurements according to this section.

The received CPICH E_c/I_o is defined as

$$\left(\frac{CPICH_E_c}{I_o}\right)_{in\ dB} = \left(\frac{CPICH_E_c}{I_{or}}\right)_{in\ dB} - \frac{I_o}{(\hat{I}_{or})}_{in\ dB}$$

and the received SCH E_c/I_o is defined as

$$\left(\frac{SCH_E_c}{I_o}\right)\Big|_{in\ dB} = \left(\frac{SCH_E_c}{I_{or}}\right)\Big|_{in\ dB} - \frac{I_o}{(\hat{I}_{or})}\Big|_{in\ dB}$$

8.1.2.5 GSM measurements

The requirements in this section apply only to UE supporting FDD and GSM.

Measurements on GSM cells can be requested with BSIC verified or BSIC non-verified.

1) In CELL_DCH state when a transmission gap pattern sequence is provided by the UTRAN the UE shall continuously measure GSM cells and search for new GSM cells given in the monitored set.

2) If the UE does not need compressed mode to perform GSM measurements:

- the UE shall measure all GSM cells present in the monitored set
- the relevant requirements for GSM dedicated mode when a TCH channel is assigned in TS 45.008 shall apply. This is further detailed in the following sub-sections.

8.1.2.5.1 GSM carrier RSSI

1) For a UE requiring compressed mode

A UE supporting GSM measurements using compressed mode shall meet the minimum number of GSM RSSI carrier measurements specified in table 8.4. This measurement shall be based on a transmission gap pattern sequence with purpose "GSM carrier RSSI measurements"

In order for the requirements in this subsection to apply the UTRAN must provide a transmission gap pattern sequence with measurement purpose GSM carrier RSSI measurements using the following combinations for TGL1, TGL2 and TGD:

TGL1 [slots]	TGL2 [slots]	TGD [slots]
3	-	undefined
4	-	undefined
5	-	undefined
7	-	undefined
10	-	undefined
14	-	undefined
3	3	15269
4	4	15269
5	5	15269
7	7	15269
10	10	41269
14	14	45269

Table 8.3

In the CELL_DCH state the measurement period, T_{Measurement Period, GSM}, for the GSM carrier RSSI measurement is 480 ms.

The UE shall meet the measurement accuracy requirements stated for RXLEV in TS45.008, when the given measurement time allows the UE to take at least 3 GSM carrier RSSI samples per GSM carrier in the monitored set during the measurement period.

TGL	Number of GSM carrier RSSI samples in each gap.
3	1
4	2
5	3
7	6
10	10
14	15

In case the UE is not able to acquire the required number of samples per GSM carrier during one measurement period, the UE shall measure as many GSM carriers as possible during that measurement period using at least 3 samples per GSM carrier. The GSM carriers that were not measured during that measurement period shall be measured in the following measurement periods. This means that, in this particular case, the L1 reporting period to higher layers of a GSM neighbour can be a multiple of the measurement period.

2) For a UE not requiring compressed mode

The samples allocated to each carrier shall as far as possible be uniformly distributed over each measurement period. At least 3 received signal level measurement samples are required per RSSI value. The measurement period is 480 ms.

8.1.2.5.2 BSIC verification

1) For a UE requiring compressed mode

In order for the requirements in the following subsections to apply the UTRAN must provide a transmission gap pattern sequence with measurement purpose GSM Initial BSIC identification or with measurement purpose GSM BSIC reconfirmation, using the following combinations for TGL1, TGL2 and TGD:

TGL1 [slots]	TGL2 [slots]	TGD [slots]
5	-	undefined
7	-	undefined
10	-	undefined
14	-	undefined
5	5	15269
7	7	15269
10	10	41269
14	14	45269

Table 8.5

The procedure for BSIC verification on a GSM cell can be divided into the following two tasks:

Initial BSIC identification

Includes searching for the BSIC and decoding the BSIC for the first time when there is no knowledge about the relative timing between the FDD and GSM cell. The UE shall trigger the initial BSIC identification within the available transmission gap pattern sequence with purpose "GSM Initial BSIC identification". The requirements for Initial BSIC identification can be found in 8.1.2.5.2.1.

BSIC re-confirmation

Tracking and decoding the BSIC of a GSM cell after initial BSIC identification is performed. The UE shall trigger the BSIC re-confirmation within the available transmission gap pattern sequence with purpose "GSM BSIC re-confirmation". The requirements for BSIC re-confirmation can be found in 8.1.2.5.2.2.

Measurements on a GSM cell can be requested with BSIC verified or BSIC non-verified. If GSM measurements are requested with BSIC verified the UE shall be able to report the GSM cells with BSIC verified for those cells where the verification of BSIC has been successful.

If the network requests measurements on a GSM cell with BSIC verified, the UE shall behave as follows:

- The UE shall perform GSM carrier RSSI measurements according to Section 8.1.2.5.1 when ever a transmission gap pattern sequence with the purposes "GSM carrier RSSI measurements" is provided and the UE shall perform measurement reporting as defined in Section 8.6.7.6 of [16].
- The UE shall perform BSIC identification according to Section 8.1.2.5.2.1 when a "GSM Initial BSIC identification" transmission gap pattern sequence is activated. The UE shall use the last available GSM carrier RSSI measurement results for arranging GSM cells in signal strength order for performing BSIC identification.
- The UE shall perform BSIC re-confirmation according to Section 8.1.2.5.2.2 when a "GSM BSIC re-confirmation" transmission gap pattern sequence is activated.
- If a "GSM BSIC re-confirmation" transmission gap pattern sequence is not activated in parallel to a "GSM Initial BSIC identification" transmission gap pattern sequence or within one frame from the deactivation of a "GSM Initial BSIC identification" transmission gap pattern sequence, the BSIC shall be considered to be non-verified after the UE has performed one event evaluation or periodic reporting evaluation with verified BSIC and the corresponding reporting is required after the evaluation.

The UE shall perform event evaluation for event-triggered reporting after the BSIC has been verified for a GSM cell. The UE shall use the last available GSM carrier RSSI measurement results in event evaluation and event-triggered reporting. Periodic reports shall be triggered according to Sections 8.6.7.5 and 8.6.7.6 of [16].

The BSIC of a GSM cell is considered to be "verified" if the UE has decoded the SCH of the BCCH carrier and identified the BSIC at least one time (initial BSIC identification) and from that moment the BSIC shall be re-confirmed at least once every $T_{re-confirm_abort}$ seconds. Otherwise the BSIC of the GSM cell is considered as "non-verified". If a transmission gap pattern sequence with a purpose "GSM BSIC re-confirmation" is not activated by the network after BSIC identified or the "GSM BSIC re-confirmation" transmission gap pattern sequence is deactivated, the UE shall behave as described previously in this section.

The parameters $N_{identify_abort}$ and $T_{re-confirm_abort}$ are defined by higher layers and are signalled to the UE together with the transmission gap pattern sequence. $N_{identify_abort}$ indicates the maximum number of patterns that the UE shall use to

attempt to decode the unknown BSIC of the GSM cell in the initial BSIC identification procedure. $T_{re-confirm_abort}$ indicates the maximum time allowed for the re-confirmation of the BSIC of one GSM cell in the BSIC re-confirmation procedure.

The UE shall be able to decode a BSIC within a transmission gap when the time difference between the middle of the received GSM synchronisation burst at the UE and the middle of the effective transmission gap is within the limits specified in table 8.6.

The effective transmission gap is calculated by assuming both UL and DL compressed mode and applying the worstcase values for UL/DL timing offset and pilot field length of last DL gap slot.

 Table 8.6: The gap length and maximum time difference for BSIC verification

Gap length [slots]	Maximum time difference [μs]
5	± 500
7	± 1200
10	± 2200
14	± 3500

The UE shall be able to perform BSIC verification at levels down to the reference sensitivity level or reference interference levels as specified in TS 45.005.

2) For a UE not requiring compressed mode

If a BSIC is decoded and matches the expected value, it is considered as "verified", else it is considered as "non verified".

The UE shall be able to perform BSIC verification at levels down to the reference sensitivity level or reference interference levels as specified in TS 45.005.

8.1.2.5.2.1 Initial BSIC identification

This measurement shall be based on a transmission gap pattern sequence with the purpose "GSM Initial BSIC identification"

For GSM cells that are requested with BSIC verified the UE shall attempt to decode the SCH on the BCCH carrier of the 8 strongest BCCH carriers of the GSM cells indicated in the measurement control information. The UE shall give priority for BSIC decoding attempts in decreasing signal strength order to BSIC carriers with unknown BSIC. The strongest BCCH carrier is defined as the BCCH carrier having the highest measured GSM carrier RSSI value after layer 3 filtering. The GSM signal strength levels used in BSIC identification for arranging GSM cells in signal strength order shall be based on the latest GSM carrier RSSI measurement results available.

When the UE attempts to decode the BSIC of one GSM BCCH carrier with unknown BSIC, the UE shall use all available transmission gaps, within the transmission gap pattern sequence with the purpose "GSM Initial BSIC identification", to attempt to decode the BSIC from that GSM BCCH carrier.

If the BSIC of the GSM BCCH carrier has been successfully decoded the UE shall immediately continue BSIC identification with the next GSM BCCH carrier, in signal strength order, with unknown BSIC. The GSM cell for which the BSIC has been successfully identified shall be moved to the BSIC re-confirmation procedure.

If the UE has not successfully decoded the BSIC of the GSM BCCH carrier within N_{identify_abort} successive patterns, the UE shall abort the BSIC identification attempts for that GSM BCCH carrier. The UE shall continue to try to perform BSIC identification of the next GSM BCCH carrier in signal strength order. The GSM BCCH carrier for which the BSIC identification failed shall not be re-considered for BSIC identification until BSIC identification attempts have been made for all the rest of the 8 strongest GSM BCCH carriers in the monitored set with unknown BSIC.

 $N_{identify_abort}$ values are given for a set of reference patterns in table 8.7. $T_{identify_abort}$ is the elapsed time during $N_{identify_abort}$ transmission gap patterns (informative). The figures given in table 8.7 represent the number of patterns required to guarantee at least two attempts to decode the BSIC for one GSM BCCH carrier.

	TGL1 [slots]	TGL2 [slots]	TGD [slots]	TGPL1 [frames]	TGPL2 [frames]	Tidentify abort [S]	N _{identify_abort} [patterns]
Pattern 1	7	-	undefined	3	TGPL1	1.56	52
Pattern 2	7	-	undefined	8	TGPL1	5.28	66
Pattern 3	7	7	47	8	TGPL1	2.88	36
Pattern 4	7	7	38	12	TGPL1	2.88	24
Pattern 5	14	-	undefined	8	TGPL1	1.84	23
Pattern 6	14	-	undefined	24	TGPL1	5.28	22
Pattern 7	14	14	45	12	TGPL1	1.44	12
Pattern 8	10	-	undefined	12	TGPL1	2.88	36
Pattern 9	10	10	75	12	TGPL1	2.88	24

Table 8.7: The worst-case time for identification of one previously not identified GSM cell

8.1.2.5.2.2 BSIC re-confirmation

The requirements of this section are applicable for BSIC re-confirmation.

The UE shall maintain the timing information of 8 identified GSM cells. Initial timing information is obtained from the initial BSIC identification. The timing information shall be updated every time the BSIC is decoded.

For each transmission gap of a transmission gap pattern sequence with the measurement purpose "GSM BSIC reconfirmation", the UE shall attempt to decode the BSIC falling within the effective gap duration. If more than one BSIC can be decoded within the same gap, priority shall be given to the least recently decoded BSIC.

If the UE fails to decode the BSIC after two successive attempts or if the UE has not been able to re-confirm the BSIC for a GSM cell within $T_{re-confirm_abort}$ seconds, the UE shall abort the BSIC re-confirmation attempts for that GSM cell. The GSM cell shall be treated as a new GSM cell with unidentified BSIC and the GSM cell shall be moved to the initial BSIC identification procedure, see section 8.1.2.5.2.1. The UE shall be able to make BSIC re-confirmation attempts for the 8 strongest GSM cells in the monitored list.

N_{re-confirm abort} is the number of transmission gap patterns executed during T_{re-confirm abort} (informative).

	TGL1 [slots]	TGL2 [slots]	TGD [slots]	TGPL1 [frames]	TGPL2 [frames]	T _{re-confirm_abort} [S]	N _{re-confirm_abort} [patterns]
Pattern 1	7	-	undefined	3	TGPL1	1.32	44
Pattern 2	7	-	undefined	8	TGPL1	5.04	63
Pattern 3	7	-	undefined	15	TGPL1	8.1	54
Pattern 4	7	7	69	23	TGPL1	10.12	44
Pattern 5	7	7	69	8	TGPL1	2.64	33
Pattern 6	14	-	undefined	8	TGPL1	1.6	20
Pattern 7	14	14	60	8	TGPL1	0.80	10
Pattern 8	10	-	undefined	8	TGPL1	2.64	33
Pattern 9	10	-	undefined	23	TGPL1	8.05	35
Pattern 10	7	7	47	8	TGPL1	2.64	33
Pattern 11	7	7	38	12	TGPL1	2.64	22
Pattern 12	14	-	undefined	24	TGPL1	5.04	21
Pattern 13	14	14	45	12	TGPL1	1.20	10
Pattern 14	10	-	undefined	13	TGPL1	4.94	38
Pattern 15	10	10	75	12	TGPL1	2.64	22

Table 8.8: The worst-case time for BSIC re-confirmation of one GSM cell

8.1.2.5.3 Periodic Reporting

Reported measurements in periodically triggered measurement reports shall meet the requirements in section 9.

8.1.2.5.4 Event Triggered Reporting

Reported measurements in event triggered measurement reports shall meet the requirements in section 9.

The UE shall not send any event triggered measurement reports, as long as the reporting criteria is not fulfilled.

The measurement reporting delay is defined as the time between any event that will trigger a measurement report until the UE starts to transmit the measurement report over the Uu interface. This requirement assumes that that the measurement report is not delayed by other RRC signalling on the DCCH. This measurement reporting delay excludes a delay uncertainty resulted when inserting the measurement report to the TTI of the uplink DCCH. The delay uncertainty is twice the TTI of the uplink DCCH.

The event triggered reporting delay requirement is valid when the UE for each GSM carrier in the monitored set can take the required number of samples during the measurement period $T_{Measurement Period, GSM}$ (see section 8.1.2.5.1).

The event triggered measurement reporting delay for a GSM cell with verified BSIC, measured without L3 filtering shall be less than $2*T_{Measurement Period, GSM}$, where $T_{Measurement Period, GSM}$ is defined in Section 8.1.2.5.1. When L3 filtering is used an additional delay can be expected. For a GSM cell with non-verified BSIC an additional delay according to section 8.1.2.5.2.1 Initial BSIC identification can be expected.