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

RP-040411

Title CRs (Rel-6) to TS25.105/TS25.142 on Clarification to note on spurious

emissions

Source 3GPP TSG RAN WG4 (Radio)

Agenda Item 8.9

WG Tdoc	Spec	CR	R	Cat	Rel	Curr Ver	Title	Work Item
R4-040640	25.105	155		F	Rel-6	6.1.0	Clarification to note of spurious emission in case co-existence with UTRA-FDD	TEI6
R4-040641	25.142	172		Α	Rel-6	6.1.0	Clarification to note of spurious emission in case co-existence with UTRA-FDD	TEI6

Yokohama, Japan 15 - 19 November 2004

CHANGE REQUEST								CR-Form-v7				
×	25	.105	CR 1	55	ж	rev		¥	Current v	ersion:	6.1.0	#
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Proposed change	affec	<i>ts:</i> L	IICC ap	ps# <mark> </mark>]	ME	Rad	dio Ad	ccess Netv	work X	Core Ne	etwork
Title: #	Cla	rificatio	on to the	note of	spuriou	ıs emi	ssion	in ca	se coexis	tance w	vith UTRA-	FDD
Source: #	3G	PP TS	G RAN	WG4 (R	adio)							
Work item code: ₩	TE	16							Date:	光 31	/12/2004	
Category: अ	Deta	F (corred) A (corred) B (add) C (function D (edite) iled exp	ection) responds ition of fe ctional m orial mod lanation	eature), odificatio dification)	rection in on of feat) above cat	ure)		elease	2	of the formal (GS) (Relation (Relati	el-6 ollowing rele M Phase 2) ease 1996) ease 1997) ease 1998) ease 1999) ease 4) ease 5) ease 6)	eases:
Reason for chang	e: #	within for TD	the ban D base	d 1900 – stations v	1920 Mb which us	Hz is ne e carrie	edecer free	l to me Juenci	easure acco	ording to ne band :	carrier freq the note. F 2010 – 2029 bands.	lowever,
Summary of chan	ge:♯	UTRA	-FDD is		lied to Ti						s coexistene equencies w	
Consequences if not approved:	*	carrie at 192 Isola The c	r frequer 20-1980 ted Imp	ncies with MHz acco pact Ana on of the	nin the ba ording to alysis:	and 201 notes.	10 – 2	:025 N	//Hz in case	coexist	ence with U	TRA-FDD
Clauses affected:	Ж	6.6.3	.4									
Other specs affected:	Ж	Y N X X X	Test sp	core spe pecificati Specifica		ns	*	25.1	42			
Other comments:	\mathfrak{H}											

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 \(\mathcal{H} \) 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.

6.6.3.4 Co-existence with UTRA-FDD

6.6.3.4.1 Operation in the same geographic area

This requirement may be applied to geographic areas in which both UTRA-TDD and UTRA-FDD are deployed.

6.6.3.4.1.1 Minimum Requirement

For TDD base stations which use carrier frequencies within the band 2010 – 2025 MHz the requirements applies at all frequencies within the specified frequency bands in table 6.16. For 3.84 Mcps TDD option base stations which use a carrier frequency within the band 1900-1920 MHz, the requirement applies at frequencies within the specified frequency range which are more than 12,5 MHz above the last carrier used in the frequency band 1900-1920 MHz. For 1.28 Mcps TDD option base stations which use carrier frequencies within the band 1900-1920 MHz, the requirement applies at frequencies within the specified frequency range which are more than 4 MHz above the last carrier used in the frequency band 1900-1920 MHz.

The power of any spurious emission shall not exceed:

Table 6.16: BS Spurious emissions limits for BS in geographic coverage area of UTRA-FDD

BS Class	Band	Maximum Level	Measurement Bandwidth
Wide Area BS	1920 – 1980 MHz	-43 dBm (*)	3,84 MHz
Wide Area BS	2110 – 2170 MHz	-52 dBm	1 MHz
Local Area BS	1920 – 1980 MHz	-40 dBm (*)	3,84 MHz
Local Area BS	2110 – 2170 MHz	-52 dBm	1 MHz

NOTE* For 3.84 Mcps TDD option base stations which use carrier frequencies within the band 1900 – 1920 MHz, the requirement shall be measured RRC filtered mean power with the lowest center frequency of measurement at 1922.6 MHz or 15 MHz above the last TDD carrier used, whichever is higher. For 1.28 Mcps TDD option base stations which use carrier frequencies within the band 1900 – 1920 MHz, the requirement shall be measured RRC filtered mean power with the lowest center frequency of measurement at 1922.6 MHz or 6.6 MHz above the last TDD carrier used, whichever is higher.

NOTE: The requirements for Wide Area BS in Table 6.16 are based on a coupling loss of 67dB between the TDD and FDD base stations. The requirements for Local Area BS in Table 6.16 are based on a coupling loss of 70 dB between TDD and FDD Wide Area base stations. The scenarios leading to these requirements are addressed in TR 25.942 [4].

6.6.3.4.2 Co-located base stations

This requirement may be applied for the protection of UTRA-FDD BS receivers when UTRA-TDD BS and UTRA FDD BS are co-located.

6.6.3.4.2.1 Minimum Requirement

For TDD base stations which use carrier frequencies within the band 2010 – 2025 MHz the requirements applies at all frequencies within the specified frequency bands in table 6.17. For 3.84 Mcps TDD option base stations which use a carrier frequency within the band 1900-1920 MHz, the requirement applies at frequencies within the specified frequency range which are more than 12,5 MHz above the last carrier used in the frequency band 1900-1920 MHz. For 1.28 Mcps TDD option base stations which use carrier frequencies within the band 1900-1920 MHz, the requirement applies at frequencies within the specified frequency range which are more than 4 MHz above the last carrier used in the frequency band 1900-1920 MHz.

The power of any spurious emission shall not exceed:

Table 6.17: BS Spurious emissions limits for BS co-located with UTRA-FDD

BS Class	Band	Maximum Level	Measurement Bandwidth
Wide Area BS	1920 – 1980 MHz	-80 dBm (*)	3,84 MHz
Wide Area BS	2110 – 2170 MHz	-52 dBm	1 MHz
within the last RRC filters measurem used, which use requirement lowest cen	cps TDD option base band 1900 – 1920 MHz d mean power with the ent at 1922.6 MHz or hever is higher. For 1 carrier frequencies wint shall be measured be ter frequency of meas last TDD carrier used,	z, the requirement s le lowest center frequing 15 MHz above the la la la Mcps TDD option thin the band 1900 — RRC filtered mean posturement at 1922.6 M	hall be measured uency of ast TDD carrier has stations 1920 MHz, the ower with the MHz or 6.6 MHz

NOTE: The requirements in Table 6.17 are based on a minimum coupling loss of 30 dB between base stations. The co-location of different base station classes is not considered. A co-location requirement for the Local Area TDD BS is intended to be part of a later release.

Yokohama, Japan 15 - 19 November 2004

CHANGE REQUEST							
	25.142 CR 172	жrev	Current version: 6.1.0	*			
For <u>HELP</u> on usi	ing this form, see bottom of th	is page or look at the	pop-up text over the 策 syr	mbols.			
Proposed change affects: UICC apps# ME Radio Access Network X Core Network							
Title:	Clarification to the note of spu	urious emission in cas	se coexistance with UTRA-	·FDD			
Source: #	3GPP TSG RAN WG4 (Radio	p)					
Work item code: 第	TEI6		<i>Date:</i> 第 <mark>01/12/2004</mark>				
D	A Jse one of the following categorie F (correction) A (corresponds to a correction B (addition of feature), C (functional modification of the discount of the above the found in 3GPP TR 21.900.	es: ion in an earlier release) · feature)	Release: # Rel-6 Use one of the following release: 2 (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)				
Reason for change: The frequency of spurious emission of TDD base stations which use carrier frequencies within the band 1900 – 1920 MHz is clarified according to the changes in TS25.105							
Summary of change.			sion of TDD base stations which Hz when coexistence with U				
Consequences if not approved:	Misalignment of spurious coexistence with UTRA-FD		of TDD base stations when n.				
	Isolated Impact Analys The correction of the req B/UE interworking		t Node-B implementation o	r Node-			
Clauses affected:	₩ 6.6.3.2.4						
Other specs affected:	Y N X Other core specific X Test specifications X O&M Specification	5					
Other comments:	★ CR is related to CRxxx to T	TS25.105					

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1) Fill out the above form. The symbols above marked \$\mathbb{K}\$ 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.

6.6.3.2.4 Co-existence with UTRA FDD

6.6.3.2.4.1 Operation in the same geographic area

This requirement may be applied to geographic areas in which both UTRA TDD and UTRA FDD are deployed.

For TDD base stations which use carrier frequencies within the band 2010 – 2025 MHz the requirements applies at all frequencies within the specified frequency bands in table 6.35. For 3,84 Mcps TDD option base stations which use a carrier frequency within the band 1900-1920 MHz, the requirement applies at frequencies within the specified frequency range which are more than 12,5 MHz above the last carrier used in the frequency band 1900-1920 MHz. For 1,28 Mcps TDD option base stations which use carrier frequencies within the band 1900-1920 MHz, the requirement applies at frequencies within the specified frequency range which are more than 4 MHz above the last carrier used in the frequency band 1900-1920 MHz.

The power of any spurious emission shall not exceed the maximum level given in table 6.35.

Table 6.35: BS Spurious emissions limits for BS in geographic coverage area of UTRA FDD

BS Class	Band	Maximum Level	Measurement Bandwidth	Note
Wide Area BS	1920 – 1980 MHz	-43 dBm (*)	3,84 MHz	
Wide Area BS	2110 – 2170 MHz	-52 dBm	1 MHz	
Local Area BS	1920 – 1980 MHz	-40 dBm (*)	3,84 MHz	
Local Area BS	2110 – 2170 MHz	-52 dBm	1 MHz	

Note *: For 3,84 Mcps TDD option base stations which use a carrier frequency within the band 1900-1920 MHz, the requirement shall be measured RRC filtered mean power with the lowest center frequency of measurement at 1922,6 MHz or 15 MHz above the last TDD carrier used, whichever is higher. For 1,28 Mcps TDD option base stations which use a carrier frequency within the band 1900-1920 MHz, the requirement shall be measured RRC filtered mean power with the lowest center frequency of measurement at 1922,6 MHz or 6,6 MHz above the last TDD carrier used, whichever is higher.

NOTE: The requirements for Wide Area BS in Table 6.35 are based on a coupling loss of 67 dB between the TDD and FDD base stations. The requirements for Local Area BS in Table 6.35 are based on a coupling loss of 70 dB between TDD and FDD Wide Area base stations. The scenarios leading to these requirements are addressed in TR 25.942 [9].

The normative reference for this requirement is TS 25.105 [1] subclause 6.6.3.4.1.1.

6.6.3.2.4.2 Co-located base stations

This requirement may be applied for the protection of UTRA FDD BS receivers when UTRA TDD BS and UTRA FDD BS are co-located.

For TDD base stations which use carrier frequencies within the band 2010 – 2025 MHz the requirements applies at all frequencies within the specified frequency bands in table 6.36. For 3,84 Mcps TDD option base stations which use a carrier frequency within the band 1900-1920 MHz, the requirement applies at frequencies within the specified frequency range which are more than 12,5 MHz above the last carrier used in the frequency band 1900-1920 MHz. For 1,28 Mcps TDD option base stations which use carrier frequencies within the band 1900-1920 MHz, the requirement applies at frequencies within the specified frequency range which are more than 4 MHz above the last carrier used in the frequency band 1900-1920 MHz.

The power of any spurious emission shall not exceed the maximum level given in table 6.36.

Table 6.36: BS Spurious emissions limits for BS co-located with UTRA FDD

BS Class	Band	Maximum Level	Measurement Bandwidth	Note
Wide Area BS	1920 – 1980 MHz	-80 dBm (*)	3,84 MHz	
Wide Area BS	2110 – 2170 MHz	-52 dBm	1 MHz	
band 190 power wir above the base stat requirem frequency	Mcps TDD option base stared of the lowest center frequency last TDD carrier used, which use a carrier free ent shall be measured RRC of measurement at 1922, inchever is higher.	nent shall be measurement of measurement of measurement in the measurement in the mean point in the measurement in the m	sured RRC filtere ent at 1922,6 MF For 1,28 Mcps T band 1900-1920 wer with the low	ed mean Iz or 15 MHz DD_option 0 MHz_, the est center

NOTE: The requirements in table 6.36 are based on a minimum coupling loss of 30 dB between base stations. The co-location of different base station classes is not considered. A co-location requirement for the Local Area TDD BS is intended to be part of a later release.

The normative reference for this requirement is TS 25.105 [1] subclause 6.6.3.4.2.1.