Title	**CRs (Rel-4 and Rel-5 Category A) to TS 25.106 & TS 25.143 (Repeaters specifications) on "Spurious emissions: co-existence with FDD in the same geographic area"**
Source	**TSG RAN WG4**
Agenda Item	**7.4.4**

RAN4 Tdoc	Spec	CR	R	Cat	Rel	Curr Ver	Title	Work Item
R4-020590	25.106	022	1	F	Rel-4	4.5.0	Spurious emissions: Co-existence with UTRA-FDD BS, Operation in the same geographic area	RInImp-REP
R4-020591	25.106	023	1	A	Rel-5	5.4.0	Spurious emissions: Co-existence with UTRA-FDD BS, Operation in the same geographic area	RInImp-REP
R4-020592	25.143	031	1	F	Rel-4	4.7.0	Spurious emissions: Co-existence with UTRA-FDD BS, Operation in the same geographic area	RInImp-REP
R4-020593	25.143	032	1	A	Rel-5	5.4.0	Spurious emissions: Co-existence with UTRA-FDD BS, Operation in the same geographic area	RInImp-REP

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CHANGE REQUEST

| ⌘ | **25.106** CR **022** | ⌘ **rev** | **1** | ⌘ | Current version: | **4.5.0** | ⌘ |

*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 ☐ Radio Access Network **X** Core Network ☐

Title: ⌘	Spurious Emissions: Protection of the FDD BS receiver
Source: ⌘	RAN WG4
Work item code: ⌘	RInImp-REP *Date:* ⌘ 27/05/2003

Category: ⌘	**F**

Use one 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 TR 21.900.

Release: ⌘ Rel-4

Use one of the following releases:
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: ⌘	Requirements for co-existence with other UMTS FDD systems are missing. Only Co-location is presently included.
Summary of change: ⌘	The Co-location requirement for UTRA FDD is extended to comprise also the Co-existence situation. Grammar correction in clause 11.3
Consequences if not approved: ⌘	Requirements for co-existence with other FDD systems will be missing in the specification. **Isolated Impact Analysis:** UTRA FDD network performance could be affected by to high FDD Spurious Emission, if this CR is not approved. Approval of this CR would not affect FDD implementation behaving like indicated in the CR.

Clauses affected: ⌘	9.2.2, 11.3

	Y	N		
Other specs affected: ⌘		X	Other core specifications ⌘	
	X		Test specifications	TS25.143
		X	O&M Specifications	

Other comments: ⌘	Equivalent CRs in other Releases: CR023r1 cat. A to 25.106 v5.4.0

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 Co-existence with UTRA-FDD BS

9.2.2.1   Operation in the same geographic area

This requirement shall be applied for the protection of UTRA-FDD BS receivers in geographic areas in which UTRA-FDD Repeater and UTRA-FDD BS are deployed. The requirement applies only to the down-link direction of the Repeater.

9.2.2.1.1   Minimum Requirement

The power of any spurious emission shall not exceed:

Table 9.8a: UTRA Repeater Spurious emissions limits in geographic coverage area of UTRA FDD BS receiver

Band	Maximum Level	Measurement Bandwidth	Note
1920 - 1980MHz For operation in Frequency Bands defined in sub-clause 4.25.1(a)	-96 dBm	100 kHz	
1850 - 1910 MHz For operation in Frequency Bands defined in sub-clause 4.25.1 (b)	-96 dBm	100kHz	

9.2.2.2   Co-location with UTRA-FDD BS

This requirement may be applied for the protection of UTRA-FDD BS receivers when UTRA-FDD Repeater and UTRA-FDD BS are co-located. The requirement applies only to the down-link direction of the repeater.

9.2.2.12.2   Minimum Requirement

The power of any spurious emission shall not exceed:

Table 9.8b: UTRA Repeater spurious emissions limits for protection of co-located UTRA FDD BS receiver

Band	Maximum Level	Measurement Bandwidth	Note
1920 - 1980MHz For operation in Frequency Bands defined in sub-clause 5.25.1 (a)	-96 dBm	100 kHz	
1850-1910 MHz For operation in Frequency Bands defined in sub-clause 5.25.1 (b)	-96 dBm	100kHz	

=================== next changed section ===

11.3   Co-existence with GSM 900 and/or DCS 1800

The following requirement may be applied when GSM 900 BTS and/or DCS 1800 BTS and UTRA-FDD Repeaters are co-exist. The requirement shall bet met with the repeater operating at maximum gain.

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CHANGE REQUEST

⌘   **25.106** CR **023**   ⌘rev **1** ⌘ Current version: **5.4.0** ⌘

*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 ☐ Radio Access Network **X** Core Network ☐

Title: ⌘	Spurious Emissions: Protection of the FDD BS receiver	
Source: ⌘	RAN WG4	
Work item code:⌘	RInImp-REP	***Date:*** ⌘ 27/05/2003
Category: ⌘ **A**		***Release:*** ⌘ Rel-5

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 TR 21.900.

Use <u>one</u> of the following releases:
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: ⌘	Requirements for co-existence with other UMTS FDD systems are missing. Only Co-location is presently included.
Summary of change: ⌘	The Co-location requirement for UTRA FDD is extended to comprise also the Co-existence situation. Grammar correction in clause 11.3
Consequences if not approved: ⌘	Requirements for co-existence with other FDD systems will be missing in the specification. **Isolated Impact Analysis:** UTRA FDD network performance could be affected by to high FDD Spurious Emission, if this CR is not approved. Approval of this CR would not affect FDD implementation behaving like indicated in the CR.

Clauses affected: ⌘	9.2.2, 11.3

	Y	**N**	
Other specs affected: ⌘		**X**	Other core specifications ⌘
	X		Test specifications TS25.143
		X	O&M Specifications

Other comments: ⌘	Equivalent CRs in other Releases: CR022r1 cat. F to 25.106 v4.5.0

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 Co-existence with UTRA-FDD BS

9.2.2.1 Operation in the same geographic area

This requirement shall be applied for the protection of UTRA-FDD BS receivers in geographic areas in which UTRA-FDD Repeater and UTRA-FDD BS are deployed. The requirement applies only to the down-link direction of the Repeater.

9.2.2.1.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 9.8a: UTRA Repeater Spurious emissions limits in geographic coverage area of UTRA FDD BS receiver

Band	Maximum Level	Measurement Bandwidth	Note
1920 - 1980MHz For operation in Frequency Bands defined in sub-clause 4.25.1(a)	-96 dBm	100 kHz	
1850 - 1910 MHz For operation in Frequency Bands defined in sub-clause 4.25.1(b)	-96 dBm	100kHz	

9.2.2.2 Co-location with UTRA-FDD BS

This requirement may be applied for the protection of UTRA-FDD BS receivers when UTRA-FDD Repeater and UTRA-FDD BS are co-located. The requirement applies only to the down-link direction of the repeater.

9.2.2.12.2 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 9.8b: UTRA Repeater spurious emissions limits for protection of co-located UTRA FDD BS receiver

Band	Maximum Level	Measurement Bandwidth	Note
1920 - 1980MHz For operation in Frequency Bands defined in sub-clause 5.25.1(a)	-96 dBm	100 kHz	
1850-1910 MHz For operation in Frequency Bands defined in sub-clause 5.25.1(b)	-96 dBm	100kHz	

=================== next changed section ==

11.3 Co-existence with GSM 900 and/or DCS 1800

The following requirement may be applied when GSM 900 BTS and/or DCS 1800 BTS and UTRA-FDD Repeaters are co-exist. The requirement shall bet met with the repeater operating at maximum gain.

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CHANGE REQUEST

| ⌘ | **25.143** CR **031** | ⌘ **rev** **1** | ⌘ | Current version: | **4.7.0** | ⌘ |

*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 ☐ Radio Access Network **X** Core Network ☐

Title: ⌘	Spurious Emissions: Protection of the FDD BS receiver	
Source: ⌘	RAN WG4	
Work item code: ⌘	RInImp-REP	*Date:* ⌘ 27/05/2003

Category: ⌘ **F**	*Release:* ⌘ Rel-4
Use one 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 TR 21.900.	*Use one of the following releases:* *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: ⌘	Requirements for co-existence with other UMTS FDD systems are missing. Only Co-location is presently included.	
Summary of change: ⌘	The Co-location requirement for UTRA FDD is extended to comprise also the Co-existence situation.	
Consequences if not approved: ⌘	Requirements for co-existence with other FDD systems will be missing in the specification. **Isolated Impact Analysis:** UTRA FDD network performance could be affected by to high FDD Spurious Emission, if this CR is not approved. Approval of this CR would not affect FDD implementation behaving like indicated in the CR.	

Clauses affected: ⌘	9.2.2.3		

		Y	N		
Other specs affected: ⌘		X		Other core specifications ⌘	TS25.106
			X	Test specifications	
			X	O&M Specifications	

Other comments: ⌘		
	Equivalent CRs in other Releases: CR032r1 cat. A to 25.143 v5.4.0	

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.

9.2.2.3   Co-existence with UTRA-FDD BS

9.2.2.3.1   Operation in the same geographic area

This requirement shall be applied for the protection of UTRA-FDD BS receivers in geographic areas in which UTRA-FDD Repeater and UTRA-FDD BS are deployed. The requirement applies only to the down-link direction of the Repeater.

9.2.2.3.1.1   Minimum Requirement

The power of any spurious emission shall not exceed:

Table 9.12a: UTRA Repeater Spurious emissions limits in geographic coverage area of UTRA FDD BS receiver

Band	Maximum Level	Measurement Bandwidth	Note
1920 - 1980MHz For operation in Frequency Bands defined in sub-clause 4.24.1(a)	-96 dBm	100 kHz	
1850 - 1910 MHz For operation in Frequency Bands defined in sub-clause 4.24.1 (b)	-96 dBm	100kHz	

9.2.2.3.2   Co-location with UTRA-FDD BS

This requirement may be applied for the protection of UTRA-FDD BS receivers when UTRA-FDD Repeater and UTRA-FDD BS are co-located. The requirement applies only to the down-link direction of the Repeater.

9.2.2.3.2.1   Minimum Requirement

The power of any spurious emission shall not exceed:

Table 9.12b: UTRA Repeater Spurious emissions limits for protection of co-located UTRA FDD BS receiver

Band	Maximum Level	Measurement Bandwidth	Note
1920 - 1980MHz For operation in Frequency Bands defined in sub-clause 4.24.1 (a)	-96 dBm	100 kHz	
1850-1910 MHz For operation in Frequency Bands defined in sub-clause 4.24.1 (b)	-96 dBm	100kHz	

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CHANGE REQUEST

⌘	**25.143** CR **032**	⌘ **rev**	**1**	⌘	Current version:	**5.4.0**	⌘

*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 ☐ Radio Access Network **X** Core Network ☐

Title: ⌘	Spurious Emissions: Protection of the FDD BS receiver	
Source: ⌘	RAN WG4	
Work item code:⌘	RInImp-REP	***Date:*** ⌘ 27/05/2003

Category: ⌘ **A**	***Release:*** ⌘ Rel-5
Use one 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 TR 21.900.	*Use one of the following releases:* *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: ⌘	Requirements for co-existence with other UMTS FDD systems are missing. Only Co-location is presently included.
Summary of change:⌘	The Co-location requirement for UTRA FDD is extended to comprise also the Co-existence situation.
Consequences if not approved: ⌘	Requirements for co-existence with other FDD systems will be missing in the specification. **Isolated Impact Analysis:** UTRA FDD network performance could be affected by to high FDD Spurious Emission, if this CR is not approved. Approval of this CR would not affect FDD implementation behaving like indicated in the CR.

Clauses affected: ⌘	9.2.2.3

	Y **N**	
Other specs affected: ⌘	**X** ☐	Other core specifications ⌘ TS25.106
	☐ **X**	Test specifications
	☐ **X**	O&M Specifications

Other comments: ⌘	
	Equivalent CRs in other Releases: CR031r1 cat. F to 25.143 v4.7.0

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.

9.2.2.3 Co-existence with UTRA-FDD BS

9.2.2.3.1 Operation in the same geographic area

This requirement shall be applied for the protection of UTRA-FDD BS receivers in geographic areas in which UTRA-FDD Repeater and UTRA-FDD BS are deployed. The requirement applies only to the down-link direction of the Repeater.

9.2.2.3.1.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 9.12: UTRA Repeater Spurious emissions limits in geographic coverage area of UTRA FDD BS receiver

Band	Maximum Level	Measurement Bandwidth	Note
1920 - 1980MHz For operation in Frequency Bands defined in sub-clause 4.24.1 (a)	-96 dBm	100 kHz	
1850 - 1910 MHz For operation in Frequency Bands defined in sub-clause 4.24.1 (b)	-96 dBm	100kHz	

9.2.2.3.2 Co-location with UTRA-FDD BS

This requirement may be applied for the protection of UTRA-FDD BS receivers when UTRA-FDD Repeater and UTRA-FDD BS are co-located. The requirement applies only to the down-link direction of the Repeater.

9.2.2.3.2.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 9.12: UTRA Repeater Spurious emissions limits for protection of co-located UTRA FDD BS receiver

Band	Maximum Level	Measurement Bandwidth	Note
1920 - 1980MHz For operation in Frequency Bands defined in sub-clause 4.1 4.2(a)	-96 dBm	100 kHz	
1850-1910 MHz For operation in Frequency Bands defined in sub-clause 4.1 4.2(b)	-96 dBm	100kHz	