TSG RAN Meeting #23 **RP-040040**
Phoenix, US, 10 - 12 March 2004

Title **CRs (Rel-6) to TS25.104, TS25.141 for the protection of UTRA FDD UE & BS in bands IV and VI operating in areas where UTRA FDD is deployed in other bands**
Source **TSG RAN WG4**
Agenda Item **8.9**

RAN4 Tdoc	Spec	CR	R	Cat	Rel	Curr Ver	Title	Work Item
R4-040030	25.104	217		F	Rel-6	6.4.0	Co-existence with UTRA FDD in frequency band IV	TEI6
R4-040051	25.104	219		F	Rel-6	6.4.0	Co-existence with UTRA FDD in frequency band VI	TEI6
R4-040031	25.141	337		F	Rel-6	6.4.0	Co-existence with UTRA FDD in frequency band IV	TEI6
R4-040052	25.141	339		F	Rel-6	6.4.0	Co-existence with UTRA FDD in frequency band VI	TEI6

3GPP TSG RAN WG4 (Radio) Meeting #30 **R4-040030**

Munich, Germany 9 - 13 February 2004

CR-Form-v7

CHANGE REQUEST

⌘ **25.104** **CR** **217** ⌘ **rev** ⌘ Current version: **6.4.0** ⌘

*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 ☒ Core Network ☐

Title:	⌘	Co-existence with UTRA FDD in frequency band IV
Source:	⌘	RAN WG4
Work item code:	⌘	TEI6
Date:	⌘	23/02/2004
Category:	⌘	**F**
Release:	⌘	Rel-6

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:	⌘	Spurious and blocking co-existence requirements for the protection of UTRA FDD UE and BS operating in frequency band IV are missing.
Summary of change:	⌘	Spurious and blocking Co-existence requirements added to relevant sections.
Consequences if not approved:	⌘	There are no spurious and blocking co-existence requirements for the protection of UTRA FDD UE and BS operating in frequency band IV.

Clauses affected:	⌘	4.3; New 6.6.3.14; 7.5.2; 7.7.1			
Other specs affected:	⌘	**Y** / **N**	Other core specifications	⌘	TS25.141, CR 337
		N: X			
		Y: X	Test specifications		
		N: X	O&M Specifications		
Other comments:	⌘				

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 reques

4.3 Regional requirements

Some requirements in TS 25.104 may only apply in certain regions. Table 4.1 lists all requirements that may be applied differently in different regions.

Table 4.1: List of regional requirements

Clause number	Requirement	Comments
5.2	Frequency bands	Some bands may be applied regionally.
5.2 6.6.3.2 7.7	Frequency bands Protection of the BS receiver of own or different BS Spurious emissions	Band VI specifications are developed for use in Japan. The Band VI frequency ranges specified in clause 5.2 are subject to coming regulatory decisions.
5.3	Tx-Rx Frequency Separation	The requirement is applied according to what frequency bands in Clause 5.2 that are supported by the BS.
5.4	Channel arrangement	The requirement is applied according to what frequency bands in Clause 5.2 that are supported by the BS.
6.2.1	Base station maximum output power	In certain regions, the minimum requirement for normal conditions may apply also for some conditions outside the range of conditions defined as normal.
6.6.2.1	Spectrum emission mask	The mask specified may be mandatory in certain regions. In other regions this mask may not be applied.
6.6.3.1.1	Spurious emissions (Category A)	These requirements shall be met in cases where Category A limits for spurious emissions, as defined in ITU-R Recommendation SM.329 [1], are applied.
6.6.3.1.2	Spurious emissions (Category B)	These requirements shall be met in cases where Category B limits for spurious emissions, as defined in ITU-R Recommendation SM.329 [1], are applied.
6.6.3.3.1	Co-existence with GSM900 -Operation in the same geographic area	This requirement may be applied for the protection of GSM 900 MS and GSM 900 BTS in geographic areas in which both GSM 900 and UTRA FDD are deployed.
6.6.3.3.2	Co-existence with GSM900 - Co-located base stations	This requirement may be applied for the protection of GSM 900 BTS receivers when GSM 900 BTS and UTRA FDD BS are co-located.
6.6.3.4.1	Co-existence with DCS1800 -Operation in the same geographic area	This requirement may be applied for the protection of DCS 1800 MS and DCS 1800 BTS in geographic areas in which both DCS 1800 and UTRA FDD are deployed.
6.6.3.4.2	Co-existence with DCS1800 - Co-located base stations	This requirement may be applied for the protection of DCS 1800 BTS receivers when DCS 1800 BTS and UTRA FDD BS are co-located.
6.6.3.5	Co-existence with PHS	This requirement may be applied for the protection of PHS in geographic areas in which both PHS and UTRA FDD are deployed.
6.6.3.6	Co-.existence with services in adjacent frequency bands	This requirement may be applied for the protection in bands adjacent to the downlink bands as defined in clause 5.2in geographic areas in which both an adjacent band service and UTRA FDD are deployed.
6.6.3.7.1	Co-existence with UTRA TDD - Operation in the same geographic area	This requirement may be applied to geographic areas in which both UTRA-TDD and UTRA-FDD are deployed.
6.6.3.7.2	Co-existence with UTRA TDD - Co-located base stations	This requirement may be applied for the protection of UTRA-TDD BS receivers when UTRA-TDD BS and UTRA FDD BS are co-located.
6.6.3.8.1	Co-existence with UTRA FDD in frequency band I -Operation in the same geographic area	This requirement may be applied for the protection of UTRA FDD UE in frequency band I in geographic areas in which both UTRA FDD in frequency band I and III are deployed.

6.6.3.8.2	Co-existence with UTRA FDDin frequency band I - Co-located base stations	This requirement may be applied for the protection of UTRA FDD BTS receivers in frequency band I when UTRA FDD BS in frequency band I and III are co-located.
6.6.3.9.1	Co-existence with UTRA FDD in frequency band III -Operation in the same geographic area	This requirement may be applied for the protection of UTRA FDD UE in frequency band I in geographic areas in which both UTRA FDD in frequency band I and III are deployed.
6.6.3.9.2	Co-existence with UTRA FDD in frequency band III - Co-located base stations	This requirement may be applied for the protection of UTRA FDD BTS receivers in frequency band I when UTRA FDD BS in frequency band I and III are co-located.
6.6.3.10.1	Co-existence with PCS1900 -Operation in the same geographic area	This requirement may be applied for the protection of PCS 1900 BTS receivers in geographic areas in which both PCS 1900 and UTRA FDD are deployed.
6.6.3.10.2	Co-existence with PCS1900 - Co-located base stations	This requirement may be applied for the protection of PCS 1900 BTS receivers when PCS 1900 BTS and UTRA FDD BS are co-located.
6.6.3.11.1	Co-existence with GSM850 -Operation in the same geographic area	This requirement may be applied for the protection of GSM 850 MS and GSM 850 BTS receivers in geographic areas in which both GSM 850 and UTRA FDD are deployed.
6.6.3.11.2	Co-existence with GSM850 - Co-located base stations	This requirement may be applied for the protection of GSM 850 BTS receivers when GSM 850 BTS and UTRA FDD BS are co-located.
6.6.3.12.1	Co-existence with UTRA FDD in frequency band II -Operation in the same geographic area	This requirement may be applied for the protection of UTRA FDD UE and BS operating in frequency band II in geographic areas in which both UTRA FDD in frequency band II and UTRA FDD in other frequency bands are deployed.
6.6.3.12.2	Co-existence with UTRA FDD in frequency band II Co-located base stations	This requirement may be applied for the protection of UTRA FDD BS receivers operating in frequency band II when UTRA FDD BS operating in frequency band II and UTRA-FDD BS operating in other frequency bands are co-located.
6.6.3.13.1	Co-existence with UTRA FDD in frequency band V -Operation in the same geographic area	This requirement may be applied for the protection of UTRA FDD UE and BS operating in frequency band V in geographic areas in which both UTRA FDD in frequency band V and UTRA FDD in other frequency bands are deployed.
6.6.3.13.2	Co-existence with UTRA FDD in frequency band V Co-located base stations	This requirement may be applied for the protection of UTRA FDD BS receivers operating in frequency band V when UTRA FDD BS operating in frequency band V and UTRA-FDD BS operating in other frequency bands are co-located.
6.6.3.14.1	Co-existence with UTRA FDD in frequency band IV -Operation in the same geographic area	This requirement may be applied for the protection of UTRA FDD UE and BS operating in frequency band IV in geographic areas in which both UTRA FDD in frequency band IV and UTRA FDD in other frequency bands are deployed.
6.6.3.14.2	Co-existence with UTRA FDD in frequency band IV Co-located base stations	This requirement may be applied for the protection of UTRA FDD BS receivers operating in frequency band IV when UTRA FDD BS operating in frequency band IV and UTRA-FDD BS operating in other frequency bands are co-located.
7.4.2	Adjacent Channel Selectivity Co-location with UTRA-TDD	This requirement may be applied for the protection of UTRA-FDD BS receivers when UTRA-FDD BS and UTRA-TDD BS are co-located.
7.5	Blocking characteristic	The requirement is applied according to what frequency bands in Clause 5.2 that are supported by the BS.
7.5.2	Blocking characteristics Co-location with GSM900, DCS 1800, PCS1900 and/or UTRA	This requirement may be applied for the protection of UTRA FDD BS receivers when UTRA FDD BS and GSM 900, DCS1800, PCS1900, GSM850 and/or UTRA BS (operating in different frequency bands) are co-located.

7.5.3	Blocking characteristics Co-location with UTRA TDD	This requirement may be applied for the protection of UTRA FDD BS receivers when UTRA FDD BS and UTRA TDD BS are co-located.
7.6	Intermodulation characteristics	The requirement is applied according to what frequency bands in Clause 5.2 that are supported by the BS.
7.7	Spurious emissions	The requirement is applied according to what frequency bands in Clause 5.2 that are supported by the BS.
	Base station classes*	Only requirements for Wide Area (General Purpose) Base Stations shall be applied as regional requirements in Japan.
	HSDPA*	The portion of HSDPA(High Speed Downlink Packet Access) is not applicable to ARIB standards by the time when ARIB is prepared to transpose.

Note *: Base station classes, HSDPA: These regional requirements should be reviewed to check its necessity every TSG RAN meeting.

---NEXT MODIFIED SECTION---

6.6.3.13 Co-existence with UTRA FDD in frequency band V

6.6.3.13.1 Operation in the same geographic area

This requirement may be applied for the protection of UTRA FDD UE and BS operating in frequency band V in geographic areas in which both UTRA FDD in frequency band V and UTRA FDD in other frequency bands are deployed.

6.6.3.13.1.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.27: BS Spurious emissions limits for BS in geographic coverage area of UTRA FDD UE receiver and BS receiver operating in frequency band V

Band	Maximum Level	Measurement Bandwidth	Note
869 – 894 MHz	-52 dBm	1 MHz	This requirement does not apply to UTRA-FDD BS operating in band V
824 – 849 MHz	-49 dBm	1 MHz	This requirement does not apply to UTRA-FDD BS operating in band V, since it is already covered by the requirement in sub-clause 6.6.3.2.

6.6.3.13.2 Co-located base stations

This requirement may be applied for the protection of UTRA FDD BS receivers operating in frequency band V when UTRA FDD BS operating in frequency band V and UTRA-FDD BS operating in other frequency bands are co-located.

6.6.3.13.2.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.28: BS Spurious emissions limits for BS co-located with UTRA BS operating in frequency band V

Band	Maximum Level	Measurement Bandwidth	Note
824 – 849 MHz	-96 dBm	100 kHz	

6.6.3.14 Co-existence with UTRA FDD in frequency band IV

6.6.3.14.1 Operation in the same geographic area

This requirement may be applied for the protection of UTRA FDD UE and BS operating in frequency band IV in geographic areas in which both UTRA FDD in frequency band IV and UTRA FDD in other frequency bands are deployed.

6.6.3.14.1.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.27: BS Spurious emissions limits for BS in geographic coverage area of UTRA FDD UE receiver and BS receiver operating in frequency band IV

Band	Maximum Level	Measurement Bandwidth	Note
2110 – 2155 MHz	-52 dBm	1 MHz	This requirement does not apply to UTRA-FDD BS operating in band IV
1710 – 1755 MHz	-49 dBm	1 MHz	This requirement does not apply to UTRA-FDD BS operating in band IV, since it is already covered by the requirement in sub-clause 6.6.3.2.

6.6.3.14.2 Co-located base stations

This requirement may be applied for the protection of UTRA FDD BS receivers operating in frequency band IV when UTRA FDD BS operating in frequency band IV and UTRA-FDD BS operating in other frequency bands are co-located.

6.6.3.14.2.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.28: BS Spurious emissions limits for BS co-located with UTRA BS operating in frequency band IV

Band	Maximum Level	Measurement Bandwidth	Note
1710 – 1755 MHz	-96 dBm	100 kHz	

---NEXT MODIFIED SECTION---

7.5.2 Minimum Requirement – Co-location with GSM900, DCS 1800, PCS1900, GSM850 and/or UTRA FDD

This additional blocking requirement may be applied for the protection of FDD BS receivers when GSM900, PCS1900, GSM850 and/or BS operating in DCS1800 band (UTRA FDD or GSM) are co-located with UTRA FDD BS.

The static reference performance as specified in clause 7.2.1 shall be met with a wanted and an interfering signal coupled to BS antenna input using the following parameters.

Table 7.5A: Blocking performance requirement when co-located with GSM900

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
921 – 960 MHz	+16 dBm	-115 dBm	—	CW carrier

Table 7.5B: Blocking performance requirement when co-located with BTS operating in DCS1800 band (GSM or UTRA)

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
1805 – 1880 MHz	+16 dBm	-115 dBm	—	CW carrier

Table 7.5C: Blocking performance requirement for operation when co-located with UTRA BS operating in Frequency band I

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
2110 – 2170 MHz	+16 dBm	-115 dBm	—	CW carrier

Table 7.5D: Blocking performance requirement for operation when co-located with PCS1900 BTS

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
1930 – 1990 MHz	+16 dBm	-115 dBm	—	CW carrier

Table 7.5E: Blocking performance requirement for operation when co-located with GSM850 BTS

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
869 – 894 MHz	+16 dBm	-115 dBm	—	CW carrier

Table 7.5F: Blocking performance requirement for operation when co-located with UTRA BS operating in Frequency band II

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
1930 – 1990 MHz	+16 dBm	-115 dBm	—	CW carrier

Table 7.5G: Blocking performance requirement for operation when co-located with UTRA BS operating in Frequency band V

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
869 – 894 MHz	+16 dBm	-115 dBm	—	CW carrier

Table 7.5H: Blocking performance requirement for operation when co-located with UTRA BS operating in Frequency band IV

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
2110 – 2155 MHz	+16 dBm	-115 dBm	—	CW carrier

---NEXT MODIFIED SECTION---

7.7 Spurious emissions

The spurious emissions power is the power of emissions generated or amplified in a receiver that appear at the BS receiver antenna connector. The requirements apply to all BS with separate RX and TX antenna port. The test shall be performed when both TX and RX are on with the TX port terminated.

For all BS with common RX and TX antenna port the transmitter spurious emission as specified in section 6.6.3 is valid.

7.7.1 Minimum requirement

The power of any spurious emission shall not exceed:

Table 7.7: General spurious emission minimum requirement

Band	Maximum level	Measurement Bandwidth	Note
30MHz - 1 GHz	-57 dBm	100 kHz	
1 GHz - 12.75 GHz	-47 dBm	1 MHz	With the exception of frequencies between 12.5 MHz below the first carrier frequency and 12.5 MHz above the last carrier frequency used by the BS.

Table 7.7A: Additional spurious emission requirements

Operating Band	Band	Maximum level	Measurement Bandwidth	Note
I	1900 – 1980 MHz 2010 – 2025 MHz	-78 dBm	3.84 MHz	
II	1850 – 1910 MHz	-78 dBm	3.84 MHz	
III	1710 – 1785 MHz	-78 dBm	3.84 MHz	
V	824 – 849 MHz	-78 dBm	3.84 MHz	
VI	830 – 840 MHz	-78 dBm	3.84 MHz	

In addition to the requirements in tables 7.7 and 7.7A, the co-existence requirements for co-located base stations specified in subclause 6.6.3.3.2, 6.6.3.4.2 , 6.6.3.7.2, 6.6.3.8.2, 6.6.3.9.2, 6.6.3.10.1, 6.6.3.11.1, 6.6.3.12.2, ~~and~~ 6.6.3.13.2 and 6.6.3.14.2 may also be applied.

3GPP TSG RAN WG4 (Radio) Meeting #30 R4-040051

Munich, Germany 9 - 13 February 2004

CR-Form-v7

CHANGE REQUEST

⌘ 25.104 CR 219 ⌘ rev ⌘ Current version: 6.4.0 ⌘

*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:	⌘	Co-existence with UTRA FDD in frequency band VI
Source:	⌘	RAN WG4
Work item code:	⌘	TEI6
Date:	⌘	23/02/2004
Category:	⌘	F
Release:	⌘	Rel-6

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:	⌘	Spurious and blocking co-existence requirements for the protection of UTRA FDD UE and BS operating in frequency band VI are missing.
Summary of change:	⌘	Spurious and blocking Co-existence requirements added to relevant sections.
Consequences if not approved:	⌘	There are no spurious and blocking co-existence requirements for the protection of UTRA FDD UE and BS operating in frequency band VI.

Clauses affected:	⌘	4.3; New 6.6.3.14; 7.5.2, 7.7.1			
Other specs affected:	⌘	Y / N	Other core specifications	⌘	TS25.141
			Test specifications		
			O&M Specifications		
Other comments:	⌘				

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 reques

4.3 Regional requirements

Some requirements in TS 25.104 may only apply in certain regions. Table 4.1 lists all requirements that may be applied differently in different regions.

Table 4.1: List of regional requirements

Clause number	Requirement	Comments
5.2	Frequency bands	Some bands may be applied regionally.
5.2 6.6.3.2 7.7	Frequency bands Protection of the BS receiver of own or different BS Spurious emissions	Band VI specifications are developed for use in Japan. The Band VI frequency ranges specified in clause 5.2 are subject to coming regulatory decisions.
5.3	Tx-Rx Frequency Separation	The requirement is applied according to what frequency bands in Clause 5.2 that are supported by the BS.
5.4	Channel arrangement	The requirement is applied according to what frequency bands in Clause 5.2 that are supported by the BS.
6.2.1	Base station maximum output power	In certain regions, the minimum requirement for normal conditions may apply also for some conditions outside the range of conditions defined as normal.
6.6.2.1	Spectrum emission mask	The mask specified may be mandatory in certain regions. In other regions this mask may not be applied.
6.6.3.1.1	Spurious emissions (Category A)	These requirements shall be met in cases where Category A limits for spurious emissions, as defined in ITU-R Recommendation SM.329 [1], are applied.
6.6.3.1.2	Spurious emissions (Category B)	These requirements shall be met in cases where Category B limits for spurious emissions, as defined in ITU-R Recommendation SM.329 [1], are applied.
6.6.3.3.1	Co-existence with GSM900 -Operation in the same geographic area	This requirement may be applied for the protection of GSM 900 MS and GSM 900 BTS in geographic areas in which both GSM 900 and UTRA FDD are deployed.
6.6.3.3.2	Co-existence with GSM900 - Co-located base stations	This requirement may be applied for the protection of GSM 900 BTS receivers when GSM 900 BTS and UTRA FDD BS are co-located.
6.6.3.4.1	Co-existence with DCS1800 -Operation in the same geographic area	This requirement may be applied for the protection of DCS 1800 MS and DCS 1800 BTS in geographic areas in which both DCS 1800 and UTRA FDD are deployed.
6.6.3.4.2	Co-existence with DCS1800 - Co-located base stations	This requirement may be applied for the protection of DCS 1800 BTS receivers when DCS 1800 BTS and UTRA FDD BS are co-located.
6.6.3.5	Co-existence with PHS	This requirement may be applied for the protection of PHS in geographic areas in which both PHS and UTRA FDD are deployed.
6.6.3.6	Co-.existence with services in adjacent frequency bands	This requirement may be applied for the protection in bands adjacent to the downlink bands as defined in clause 5.2in geographic areas in which both an adjacent band service and UTRA FDD are deployed.
6.6.3.7.1	Co-existence with UTRA TDD - Operation in the same geographic area	This requirement may be applied to geographic areas in which both UTRA-TDD and UTRA-FDD are deployed.
6.6.3.7.2	Co-existence with UTRA TDD - Co-located base stations	This requirement may be applied for the protection of UTRA-TDD BS receivers when UTRA-TDD BS and UTRA FDD BS are co-located.
6.6.3.8.1	Co-existence with UTRA FDD in frequency band I -Operation in the same geographic area	This requirement may be applied for the protection of UTRA FDD UE in frequency band I in geographic areas in which both UTRA FDD in frequency band I and III are deployed.

6.6.3.8.2	Co-existence with UTRA FDDin frequency band I - Co-located base stations	This requirement may be applied for the protection of UTRA FDD BTS receivers in frequency band I when UTRA FDD BS in frequency band I and III are co-located.
6.6.3.9.1	Co-existence with UTRA FDD in frequency band III -Operation in the same geographic area	This requirement may be applied for the protection of UTRA FDD UE in frequency band I in geographic areas in which both UTRA FDD in frequency band I and III are deployed.
6.6.3.9.2	Co-existence with UTRA FDD in frequency band III - Co-located base stations	This requirement may be applied for the protection of UTRA FDD BTS receivers in frequency band I when UTRA FDD BS in frequency band I and III are co-located.
6.6.3.10.1	Co-existence with PCS1900 -Operation in the same geographic area	This requirement may be applied for the protection of PCS 1900 BTS receivers in geographic areas in which both PCS 1900 and UTRA FDD are deployed.
6.6.3.10.2	Co-existence with PCS1900 - Co-located base stations	This requirement may be applied for the protection of PCS 1900 BTS receivers when PCS 1900 BTS and UTRA FDD BS are co-located.
6.6.3.11.1	Co-existence with GSM850 -Operation in the same geographic area	This requirement may be applied for the protection of GSM 850 MS and GSM 850 BTS receivers in geographic areas in which both GSM 850 and UTRA FDD are deployed.
6.6.3.11.2	Co-existence with GSM850 - Co-located base stations	This requirement may be applied for the protection of GSM 850 BTS receivers when GSM 850 BTS and UTRA FDD BS are co-located.
6.6.3.12.1	Co-existence with UTRA FDD in frequency band II -Operation in the same geographic area	This requirement may be applied for the protection of UTRA FDD UE and BS operating in frequency band II in geographic areas in which both UTRA FDD in frequency band II and UTRA FDD in other frequency bands are deployed.
6.6.3.12.2	Co-existence with UTRA FDD in frequency band II Co-located base stations	This requirement may be applied for the protection of UTRA FDD BS receivers operating in frequency band II when UTRA FDD BS operating in frequency band II and UTRA-FDD BS operating in other frequency bands are co-located.
6.6.3.13.1	Co-existence with UTRA FDD in frequency band V -Operation in the same geographic area	This requirement may be applied for the protection of UTRA FDD UE and BS operating in frequency band V in geographic areas in which both UTRA FDD in frequency band V and UTRA FDD in other frequency bands are deployed.
6.6.3.13.2	Co-existence with UTRA FDD in frequency band V Co-located base stations	This requirement may be applied for the protection of UTRA FDD BS receivers operating in frequency band V when UTRA FDD BS operating in frequency band V and UTRA-FDD BS operating in other frequency bands are co-located.
6.6.3.14.1	Co-existence with UTRA FDD in frequency band VI -Operation in the same geographic area	This requirement may be applied for the protection of UTRA FDD UE and BS operating in frequency band VI in geographic areas in which both UTRA FDD in frequency band VI and UTRA FDD in other frequency bands are deployed.
6.6.3.14.2	Co-existence with UTRA FDD in frequency band VI Co-located base stations	This requirement may be applied for the protection of UTRA FDD BS receivers operating in frequency band VI when UTRA FDD BS operating in frequency band VI and UTRA-FDD BS operating in other frequency bands are co-located.
7.4.2	Adjacent Channel Selectivity Co-location with UTRA-TDD	This requirement may be applied for the protection of UTRA-FDD BS receivers when UTRA-FDD BS and UTRA-TDD BS are co-located.
7.5	Blocking characteristic	The requirement is applied according to what frequency bands in Clause 5.2 that are supported by the BS.
7.5.2	Blocking characteristics Co-location with GSM900, DCS 1800, PCS1900 and/or UTRA	This requirement may be applied for the protection of UTRA FDD BS receivers when UTRA FDD BS and GSM 900, DCS1800, PCS1900, GSM850 and/or UTRA BS (operating in different frequency bands) are co-located.

7.5.3	Blocking characteristics Co-location with UTRA TDD	This requirement may be applied for the protection of UTRA FDD BS receivers when UTRA FDD BS and UTRA TDD BS are co-located.
7.6	Intermodulation characteristics	The requirement is applied according to what frequency bands in Clause 5.2 that are supported by the BS.
7.7	Spurious emissions	The requirement is applied according to what frequency bands in Clause 5.2 that are supported by the BS.
	Base station classes*	Only requirements for Wide Area (General Purpose) Base Stations shall be applied as regional requirements in Japan.
	HSDPA*	The portion of HSDPA(High Speed Downlink Packet Access) is not applicable to ARIB standards by the time when ARIB is prepared to transpose.

---NEXT MODIFIED SECTION---

6.6.3.13 Co-existence with UTRA FDD in frequency band V

6.6.3.13.1 Operation in the same geographic area

This requirement may be applied for the protection of UTRA FDD UE and BS operating in frequency band V in geographic areas in which both UTRA FDD in frequency band V and UTRA FDD in other frequency bands are deployed.

6.6.3.13.1.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.27: BS Spurious emissions limits for BS in geographic coverage area of UTRA FDD UE receiver and BS receiver operating in frequency band V

Band	Maximum Level	Measurement Bandwidth	Note
869 – 894 MHz	-52 dBm	1 MHz	This requirement does not apply to UTRA-FDD BS operating in band V
824 – 849 MHz	-49 dBm	1 MHz	This requirement does not apply to UTRA-FDD BS operating in band V, since it is already covered by the requirement in sub-clause 6.6.3.2.

6.6.3.13.2 Co-located base stations

This requirement may be applied for the protection of UTRA FDD BS receivers operating in frequency band V when UTRA FDD BS operating in frequency band V and UTRA-FDD BS operating in other frequency bands are co-located.

6.6.3.13.2.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.28: BS Spurious emissions limits for BS co-located with UTRA BS operating in frequency band V

Band	Maximum Level	Measurement Bandwidth	Note
824 – 849 MHz	-96 dBm	100 kHz	

6.6.3.14 Co-existence with UTRA FDD in frequency band VI

6.6.3.14.1 Operation in the same geographic area

This requirement may be applied for the protection of UTRA FDD UE and BS operating in frequency band VI in geographic areas in which both UTRA FDD in frequency band VI and UTRA FDD in other frequency bands are deployed.

6.6.3.14.1.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.29: BS Spurious emissions limits for BS in geographic coverage area of UTRA FDD UE receiver and BS receiver operating in frequency band VI

Band	Maximum Level	Measurement Bandwidth	Note
875 – 885 MHz	-52 dBm	1 MHz	This requirement does not apply to UTRA-FDD BS operating in band VI
830 – 840 MHz	-49 dBm	1 MHz	This requirement does not apply to UTRA-FDD BS operating in band VI, since it is already covered by the requirement in sub-clause 6.6.3.2.

6.6.3.14.2 Co-located base stations

This requirement may be applied for the protection of UTRA FDD BS receivers operating in frequency band VI when UTRA FDD BS operating in frequency band VI and UTRA-FDD BS operating in other frequency bands are co-located.

6.6.3.14.2.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.30: BS Spurious emissions limits for BS co-located with UTRA BS operating in frequency band VI

Band	Maximum Level	Measurement Bandwidth	Note
830 – 840 MHz	-96 dBm	100 kHz	

---NEXT MODIFIED SECTION---

7.5.2 Minimum Requirement – Co-location with GSM900, DCS 1800, PCS1900, GSM850 and/or UTRA FDD

This additional blocking requirement may be applied for the protection of FDD BS receivers when GSM900, PCS1900, GSM850 and/or BS operating in DCS1800 band (UTRA FDD or GSM) are co-located with UTRA FDD BS.

The static reference performance as specified in clause 7.2.1 shall be met with a wanted and an interfering signal coupled to BS antenna input using the following parameters.

Table 7.5A: Blocking performance requirement when co-located with GSM900

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
921 – 960 MHz	+16 dBm	-115 dBm	—	CW carrier

Table 7.5B: Blocking performance requirement when co-located with BTS operating in DCS1800 band (GSM or UTRA)

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
1805 – 1880 MHz	+16 dBm	-115 dBm	—	CW carrier

Table 7.5C: Blocking performance requirement for operation when co-located with UTRA BS operating in Frequency band I

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
2110 – 2170 MHz	+16 dBm	-115 dBm	—	CW carrier

Table 7.5D: Blocking performance requirement for operation when co-located with PCS1900 BTS

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
1930 – 1990 MHz	+16 dBm	-115 dBm	—	CW carrier

Table 7.5E: Blocking performance requirement for operation when co-located with GSM850 BTS

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
869 – 894 MHz	+16 dBm	-115 dBm	—	CW carrier

Table 7.5F: Blocking performance requirement for operation when co-located with UTRA BS operating in Frequency band II

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
1930 – 1990 MHz	+16 dBm	-115 dBm	—	CW carrier

Table 7.5G: Blocking performance requirement for operation when co-located with UTRA BS operating in Frequency band V

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
869 – 894 MHz	+16 dBm	-115 dBm	—	CW carrier

Table 7.5H: Blocking performance requirement for operation when co-located with UTRA BS operating in Frequency band VI

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
875 – 885 MHz	+16 dBm	-115 dBm	—	CW carrier

---NEXT MODIFIED SECTION---

7.7.1 Minimum requirement

The power of any spurious emission shall not exceed:

Table 7.7: General spurious emission minimum requirement

Band	Maximum level	Measurement Bandwidth	Note
30MHz - 1 GHz	-57 dBm	100 kHz	
1 GHz - 12.75 GHz	-47 dBm	1 MHz	With the exception of frequencies between 12.5 MHz below the first carrier frequency and 12.5 MHz above the last carrier frequency used by the BS.

Table 7.7A: Additional spurious emission requirements

Operating Band	Band	Maximum level	Measurement Bandwidth	Note
I	1900 – 1980 MHz 2010 – 2025 MHz	-78 dBm	3.84 MHz	
II	1850 – 1910 MHz	-78 dBm	3.84 MHz	
III	1710 – 1785 MHz	-78 dBm	3.84 MHz	
V	824 – 849 MHz	-78 dBm	3.84 MHz	
VI	830 – 840 MHz	-78 dBm	3.84 MHz	

In addition to the requirements in tables 7.7 and 7.7A, the co-existence requirements for co-located base stations specified in subclause 6.6.3.3.2, 6.6.3.4.2 , 6.6.3.7.2, 6.6.3.8.2, 6.6.3.9.2, 6.6.3.10.1, 6.6.3.11.1, 6.6.3.12.2, ~~and~~ 6.6.3.13.2 and 6.6.3.14.2 may also be applied.

3GPP TSG RAN WG4 (Radio) Meeting #30 **R4-040031**

Munich, Germany 9 - 13 February 2004

CR-Form-v7

CHANGE REQUEST

⌘ **25.141** **CR** **337** ⌘ **rev** ⌘ Current version: **6.4.0** ⌘

*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 ☒ Core Network ☐

Title:	⌘	Co-existence with UTRA FDD in frequency band IV
Source:	⌘	RAN WG4
Work item code:	⌘	TEI6
Date:	⌘	23/02/2004
Category:	⌘	**F**
Release:	⌘	Rel-6

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:	⌘	Spurious and blocking co-existence requirements for the protection of UTRA FDD UE and BS operating in frequency band IV are missing.
Summary of change:	⌘	Spurious and blocking Co-existence requirements added to relevant sections.
Consequences if not approved:	⌘	There are no spurious and blocking co-existence requirements for the protection of UTRA FDD UE and BS operating in frequency band IV.

Clauses affected:	⌘	4.7; 6.5.3.4.14; New 6.5.3.4.15; New 6.5.3.7.15; 7.5.2; 7.5.3; 7.7.2; 7.7.5			
Other specs affected:	⌘	**Y**	**N**		⌘
			X	Other core specifications	
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘	Linked to CR 217 for TS25.104.			

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 reques

4.7 Regional requirements

Some requirements in TS 25.141 may only apply in certain regions. Table 4.4 lists all requirements that may be applied differently in different regions.

Table 4.4: List of regional requirements

Subclause number	Requirement	Comments
3.4.1	Frequency bands	Some bands may be applied regionally.
3.4.1 6.5.3.4.3 6.5.3.7.3 7.7	Frequency bands Protection of the BS receiver of own or different BS Protection of the BS receiver of own or different BS Spurious Emissions	Band VI specifications are developed for use in Japan. The Band VI frequency ranges specified in clause 3.4.1 are subject to coming regulatory decisions.
3.4.2	Tx-Rx Frequency Separation	The requirement is applied according to what frequency bands in clause 3.4.1 that are supported by the BS.
3.5	Channel arrangement	The requirement is applied according to what frequency bands in clause 3.4.1 that are supported by the BS.
6.2.1.2	Base station output power	In certain regions, the minimum requirement for normal conditions may apply also for some conditions outside the ranges defined for the Normal test environment in subclause 4.4.1.
6.5.2.1	Spectrum emission mask	The mask specified may be mandatory in certain regions. In other regions this mask may not be applied.
6.5.3.4.1	Spurious emissions (Category A)	These requirements shall be met in cases where Category A limits for spurious emissions, as defined in ITU-R Recommendation SM.329 [4], are applied.
6.5.3.4.2	Spurious emissions (Category B)	These requirements shall be met in cases where Category B limits for spurious emissions, as defined in ITU-R Recommendation SM.329 [4], are applied.
6.5.3.4.4.1	Co-existence with GSM900 – Operation in the same geographic area	This requirement may be applied for the protection of GSM 900 MS and GSM 900 BTS in geographic areas in which both GSM 900 and UTRA FDD are deployed.
6.5.3.4.4.2	Co-existence with GSM900 – Co-located base stations	This requirement may be applied for the protection of GSM 900 BTS receivers when GSM 900 BTS and UTRA FDD BS are co-located.
6.5.3.4.5.1	Co-existence with DCS1800 – Operation in the same geographic area	This requirement may be applied for the protection of DCS 1800 MS and DCS 1800 BTS in geographic areas in which both DCS 1800 and UTRA FDD are deployed.
6.5.3.4.5.2	Co-existence with DCS1800 – Co-located base stations	This requirement may be applied for the protection of DCS 1800 BTS receivers when DCS 1800 BTS and UTRA FDD BS are co-located.
6.5.3.4.6	Co-existence with PHS	This requirement may be applied for the protection of PHS in geographic areas in which both PHS and UTRA FDD are deployed.
6.5.3.4.7	Co-.existence with services in adjacent frequency bands	This requirement may be applied for the protection in bands adjacent to the downlink band as defined in clause 3.4.1 in geographic areas in which both an adjacent band service and UTRA FDD are deployed.
6.5.3.4.8.1	Co-existence with UTRA TDD – Operation in the same geographic area	This requirement may be applied to geographic areas in which both UTRA-TDD and UTRA-FDD are deployed.
6.5.3.4.8.2	Co-existence with UTRA TDD – Co-located base stations	This requirement may be applied for the protection of UTRA-TDD BS receivers when UTRA-TDD BS and UTRA FDD BS are co-located.
6.5.3.4.9.1	Co-existence with UTRA FDD in frequency band I -Operation in the same geographic area	This requirement may be applied for the protection of UTRA FDD UE in frequency band I in geographic areas in which both UTRA FDD in frequency band I and III are deployed.
6.5.3.4.9.2	Co-existence with UTRA FDD in frequency band I - Co-located base stations	This requirement may be applied for the protection of UTRA FDD BTS receivers in frequency band I when UTRA FDD BS in frequency band I and III are co-located.
6.5.3.4.10.1	Co-existence with UTRA FDD in frequency band III -Operation in	This requirement may be applied for the protection of UTRA FDD UE in frequency band III in

	the same geographic area	geographic areas in which both UTRA FDD in frequency band I and III are deployed.
6.5.3.4.10.2	Co-existence with UTRA FDD in frequency band III - Co-located base stations	This requirement may be applied for the protection of UTRA FDD BTS receivers in frequency band III when UTRA FDD BS in frequency band I and III are co-located.
6.5.3.4.11.1	Co-existence with PCS1900 - Operation in the same geographic area	This requirement may be applied for the protection of PCS 1900 BTS receivers in geographic areas in which both PCS 1900 and UTRA FDD are deployed.
6.5.3.4.11.2	Co-existence with PCS1900 - Co-located base stations	This requirement may be applied for the protection of PCS 1900 BTS receivers when PCS 1900 BTS and UTRA FDD BS are co-located.
6.5.3.4.12.1	Co-existence with GSM850 - Operation in the same geographic area	This requirement may be applied for the protection of GSM 850 MS and GSM 850 BTS receivers in geographic areas in which both GSM 850 and UTRA FDD are deployed.
6.5.3.4.12.2	Co-existence with GSM 850 - Co-located base stations	This requirement may be applied for the protection of GSM 850 BTS receivers when GSM 850 BTS and UTRA FDD BS are co-located.
6.5.3.4.13.1	Co-existence with UTRA FDD in frequency band II Operation in the same geographic area	This requirement may be applied for the protection of UTRA FDD UE and BS operating in frequency band II in geographic areas in which both UTRA FDD in frequency band II and UTRA FDD in other frequency bands are deployed.
6.5.3.4.13.2	Co-existence with UTRA FDD in frequency band II Co-located base stations	This requirement may be applied for the protection of UTRA FDD BS receivers operating in frequency band II when UTRA FDD BS operating in frequency band II and UTRA-FDD BS operating in other frequency bands are co-located.
6.5.3.4.14.1	Co-existence with UTRA FDD in frequency band V Operation in the same geographic area	This requirement may be applied for the protection of UTRA FDD UE and BS operating in frequency band V in geographic areas in which both UTRA FDD in frequency band V and UTRA FDD in other frequency bands are deployed.
6.5.3.4.14.2	Co-existence with UTRA FDD in frequency band V Co-located base stations	This requirement may be applied for the protection of UTRA FDD BS receivers operating in frequency band V when UTRA FDD BS operating in frequency band V and UTRA-FDD BS operating in other frequency bands are co-located.
6.5.3.4.15.1	Co-existence with UTRA FDD in frequency band IV Operation in the same geographic area	This requirement may be applied for the protection of UTRA FDD UE and BS operating in frequency band IV in geographic areas in which both UTRA FDD in frequency band IV and UTRA FDD in other frequency bands are deployed.
6.5.3.4.15.2	Co-existence with UTRA FDD in frequency band IV Co-located base stations	This requirement may be applied for the protection of UTRA FDD BS receivers operating in frequency band IV when UTRA FDD BS operating in frequency band IV and UTRA-FDD BS operating in other frequency bands are co-located.
7.5	Blocking characteristic	The requirement is applied according to what frequency bands in clause 3.4.1 that are supported by the BS.
7.5	Blocking characteristics	This requirement may be applied for the protection of UTRA FDD BS receivers when UTRA FDD BS and GSM 900, GSM850, PCS 1900 and BS operating in the /DCS1800 band (GSM or UTRA) are co-located.
7.6	Intermodulation characteristics	The requirement is applied according to what frequency bands in clause 3.4.1 that are supported by the BS.
7.7	Spurious emissions	The requirement is applied according to what frequency bands in clause 3.4.1 that are supported by the BS.
	Base station classes*	Only requirements for Wide Area (General Purpose) Base Stations shall be applied as regional requirements in Japan.

	HSDPA*	The portion of HSDPA(High Speed Downlink Packet Access) is not applicable to ARIB standards by the time when ARIB is prepared to transpose.

Note*: Base Station Classes, HSDPA: These regional requirements should be reviewed to check its necessity every TSG RAN meeting.

---NEXT MODIFIED SECTION---

6.5.3.4.14 Co-existence with UTRA FDD in frequency band V

6.5.3.4.14.1 Operation in the same geographic area

This requirement may be applied for the protection of UTRA FDD UE and BS operating in frequency band V in geographic areas in which both UTRA FDD in frequency band V and UTRA FDD in other frequency bands are deployed.

6.5.3.4.14.1.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.34I: BS Spurious emissions limits for BS in geographic coverage area of UTRA FDD UE receiver and BS receiver operating in frequency band V

Band	Maximum Level	Measurement Bandwidth	Note
869 – 894 MHz	-52 dBm	1 MHz	This requirement does not apply to UTRA-FDD BS operating in band V
824 – 849 MHz	-49 dBm	1 MHz	This requirement does not apply to UTRA-FDD BS operating in band V, since it is already covered by the requirement in sub-clause 6.5.3.4.3~~6.6.3.2~~.

6.5.3.4.14.2 Co-located base stations

This requirement may be applied for the protection of UTRA FDD BS receivers operating in frequency band V when UTRA FDD BS operating in frequency band V and UTRA-FDD BS operating in other frequency bands are co-located.

6.5.3.4.14.2.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.34J: BS Spurious emissions limits for BS co-located with UTRA BS operating in frequency band V

Band	Maximum Level	Measurement Bandwidth	Note
824 – 849 MHz	-96 dBm	100 kHz	

6.5.3.4.15 Co-existence with UTRA FDD in frequency band IV

6.5.3.4.15.1 Operation in the same geographic area

This requirement may be applied for the protection of UTRA FDD UE and BS operating in frequency band IV in geographic areas in which both UTRA FDD in frequency band IV and UTRA FDD in other frequency bands are deployed.

6.5.3.4.15.1.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.34K: BS Spurious emissions limits for BS in geographic coverage area of UTRA FDD UE receiver and BS receiver operating in frequency band IV

Band	Maximum Level	Measurement Bandwidth	Note
2110 – 2155 MHz	-52 dBm	1 MHz	This requirement does not apply to UTRA-FDD BS operating in band IV
1710 – 1755 MHz	-49 dBm	1 MHz	This requirement does not apply to UTRA-FDD BS operating in band IV, since it is already covered by the requirement in sub-clause 6.5.3.4.3.

6.5.3.4.15.2 Co-located base stations

This requirement may be applied for the protection of UTRA FDD BS receivers operating in frequency band IV when UTRA FDD BS operating in frequency band IV and UTRA-FDD BS operating in other frequency bands are co-located.

6.5.3.4.15.2.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.34L: BS Spurious emissions limits for BS co-located with UTRA BS operating in frequency band IV

Band	Maximum Level	Measurement Bandwidth	Note
1710 – 1755 MHz	-96 dBm	100 kHz	

---NEXT MODIFIED SECTION---

6.5.3.7.14 Co-existence with UTRA FDD in frequency band V

6.4.3.7.14.1 Operation in the same geographic area

Table 6.54: BS Spurious emissions limits for BS in geographic coverage area of UTRA FDD UE receiver and BS receiver operating in frequency band V

Band	Maximum Level	Measurement Bandwidth	Note
869 – 894 MHz	-52 dBm	1 MHz	This requirement does not apply to UTRA-FDD BS operating in band V
824 – 849 MHz	-49 dBm	1 MHz	This requirement does not apply to UTRA-FDD BS operating in band V, since it is already covered by the requirement in sub-clause 6.5.3.4.3.

6.4.3.7.14.2 Co-located base stations

Table 6.55: BS Spurious emissions limits for BS co-located with UTRA BS operating in frequency band V

Band	Maximum Level	Measurement Bandwidth	Note
824 – 849 MHz	-96 dBm	100 kHz	

6.5.3.7.15 Co-existence with UTRA FDD in frequency band IV

6.4.3.7.15.1 Operation in the same geographic area

Table 6.56: BS Spurious emissions limits for BS in geographic coverage area of UTRA FDD UE receiver and BS receiver operating in frequency band IV

Band	Maximum Level	Measurement Bandwidth	Note
2110 – 2155 MHz	-52 dBm	1 MHz	This requirement does not apply to UTRA-FDD BS operating in band IV
1710 – 1755 MHz	-49 dBm	1 MHz	This requirement does not apply to UTRA-FDD BS operating in band IV, since it is already covered by the requirement in sub-clause 6.5.3.4.3.

6.4.3.7.15.2 Co-located base stations

Table 6.57: BS Spurious emissions limits for BS co-located with UTRA BS operating in frequency band IV

Band	Maximum Level	Measurement Bandwidth	Note
1710 – 1755 MHz	-96 dBm	100 kHz	

---NEXT MODIFIED SECTION---

Table 7.4(h): Blocking performance requirement for operation when co-located with UTRA BS operating in Frequency band II

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
1930 – 1990 MHz	+16 dBm	-115 dBm	—	CW carrier

Table 7.4(i): Blocking performance requirement for operation when co-located with UTRA BS operating in Frequency band V

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
869 – 894 MHz	+16 dBm	-115 dBm	—	CW carrier

Table 7.4(j): Blocking performance requirement for operation when co-located with UTRA BS operating in Frequency band IV

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
2110 – 2155 MHz	+16 dBm	-115 dBm	—	CW carrier

The normative reference for these requirements is in TS 25.104[1] subclause 7.5

---NEXT MODIFIED SECTION---

Table 7.4A(h): Blocking performance requirement for operation when co-located with UTRA BS operating in Frequency band II

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
1930 – 1990 MHz	+16 dBm	-115 dBm	—	CW carrier

Table 7.4A(i): Blocking performance requirement for operation when co-located with UTRA BS operating in Frequency band V

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
869 – 894 MHz	+16 dBm	-115 dBm	—	CW carrier

Table 7.4A(j): Blocking performance requirement for operation when co-located with UTRA BS operating in Frequency band IV

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
2110 – 2155 MHz	+16 dBm	-115 dBm	—	CW carrier

---NEXT MODIFIED SECTION---

7.7 Spurious Emissions

7.7.1 Definition and applicability

The spurious emission power is the power of the emissions generated or amplified in a receiver that appears at the BS antenna connector. The requirements apply to all BS with separate RX and TX antenna port. The test shall be performed when both TX and RX are on with the TX port terminated.

For all BS with common RX and TX antenna port the transmitter spurious emission as specified in subclause 6.5.3 is valid.

7.7.2 Minimum Requirements

The power of any spurious emission shall not exceed:

Table 7.6(a): General spurious emission minimum requirement

Band	Maximum level	Measurement Bandwidth	Note
30 MHz - 1 GHz	-57 dBm	100 kHz	
1 GHz - 12.75 GHz	-47 dBm	1 MHz	With the exception of frequencies between 12.5 MHz below the first carrier frequency and 12.5 MHz above the last carrier frequency used by the BS.

Table 7.6(b): Additional spurious emission requirements

Operating Band	Band	Maximum level	Measurement Bandwidth	Note
I	1900 – 1980 MHz 2010 – 2025 MHz	-78 dBm	3.84 MHz	
II	1850 – 1910 MHz	-78 dBm	3.84 MHz	
III	1710 – 1785 MHz	-78 dBm	3.84 MHz	
V	824 – 849 MHz	-78 dBm	3.84 MHz	
VI	830 – 840 MHz	-78 dBm	3.84 MHz	

In addition to the requirements in tables 7.6, the co-existence requirements for co-located base stations in subclauses 6.5.3.4.4.2, 6.5.3.4.5.2, 6.5.3.4.8.2, 6.5.3.4.9.2, 6.5.3.4.10.2, 6.5.3.4.11, 6.5.3.4.12, 6.5.3.4.13, ~~and~~ 6.5.3.4.14 and 6.5.3.4.15 may also be applied.The normative reference for this requirement is in TS 25.104[1] subclause 7.7

7.7.3 Test purpose

The test purpose is to verify the ability of the BS to limit the interference caused by receiver spurious emissions to other systems.

7.7.4 Method of test

7.7.4.1 Initial conditions

Test environment: normal; see subclause 4.4.1.

RF channels to be tested: M with multi-carrier if supported, see subclause 4.8

1) Connect a measurement receiver to the BS antenna connector as shown in annex B.
2) Enable the BS receiver.
3) Start BS transmission with channel configuration as specified in the table 6.1 and 6.2 (Test model 1) at Pmax.

7.7.4.2 Procedure

1) Terminate the BS Tx antenna connector as shown in annex B.
2) Set measurement equipment parameters as specified in table 7.7.
3) Measure the spurious emissions over each frequency range described in subclause 7.7.2.
4) Repeat the test using diversity antenna connector if available.

Table 7.7

Measurement Band width	3.84 MHz (Root raised cosine,0.22) / 100 kHz/ 1MHz (note)
Sweep frequency range	30 MHz to 12.75GHz
Detection	True RMS
NOTE: As defined in subclause 7.7.2.	

7.7.5 Test requirements

The all measured spurious emissions, derived in step (3) and (4), shall be within requirement limits as specified in Tables 7.7A.

Table 7.7A(a): Spurious emission minimum requirement

Band	Maximum level	Measurement Bandwidth	Note
30 MHz - 1 GHz	-57 dBm	100 kHz	
1 GHz - 12.75 GHz	-47 dBm	1 MHz	With the exception of frequencies between 12.5 MHz below the first carrier frequency and 12.5 MHz above the last carrier frequency used by the BS.

Table 7.7A(b): Additional spurious emission requirements

Operating Band	Band	Maximum level	Measurement Bandwidth	Note
I	1900 – 1980 MHz 2010 – 2025 MHz	-78 dBm	3.84 MHz	
II	1850 – 1910 MHz	-78 dBm	3.84 MHz	
III	1710 – 1785 MHz	-78 dBm	3.84 MHz	
V	824 – 849 MHz	-78 dBm	3.84 MHz	
VI	830 – 840 MHz	-78 dBm	3.84 MHz	

NOTE: If the above Test Requirement differs from the Minimum Requirement then the Test Tolerance applied for this test is non-zero. The Test Tolerance for this test is defined in subclause 4.2 and the explanation of how the Minimum Requirement has been relaxed by the Test Tolerance is given in Annex F.

In addition to the requirements in tables 7.7A, the co-existence requirements for co-located base stations in subclauses 6.5.3.7.4.2, 6.5.3.7.5.2, 6.5.3.7.8.2, 6.5.3.7.9.2, 6.5.3.7.10.2, 6.5.3.7.11, 6.5.3.7.12, 6.5.3.7.13, ~~and~~ 6.5.3.7.14 and 6.5.3.7.15 may also be applied.

3GPP TSG RAN WG4 (Radio) Meeting #30 **R4-040052**

Munich, Germany 9 - 13 February 2004

CR-Form-v7

CHANGE REQUEST

⌘ **25.141** **CR** **339** ⌘ **rev** ⌘ Current version: **6.4.0** ⌘

*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 ☒ Core Network ☐

Title:	⌘	Co-existence with UTRA FDD in frequency band VI
Source:	⌘	RAN WG4
Work item code:	⌘	TEI6
Date:	⌘	23/02/2004
Category:	⌘	**F**
Release:	⌘	Rel-6

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:	⌘	Spurious and blocking co-existence requirements for the protection of UTRA FDD UE and BS operating in frequency band VI are missing.
Summary of change:	⌘	Spurious and blocking Co-existence requirements added to relevant sections.
Consequences if not approved:	⌘	There are no spurious and blocking co-existence requirements for the protection of UTRA FDD UE and BS operating in frequency band VI.

Clauses affected:	⌘	4.7, 6.5.3.4.13, 6.5.3.4.14, New 6.5.3.4.15, 6.5.3.7.14, New 6.5.3.7.15; 7.5.2, 7.5.5, 7.7.2, 7.7.5

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

Other comments:	⌘	

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 reques

Table 4.4: List of regional requirements

Subclause number	Requirement	Comments
3.4.1	Frequency bands	Some bands may be applied regionally.
3.4.1 6.5.3.4.3 6.5.3.7.3 7.7	Frequency bands Protection of the BS receiver of own or different BS Protection of the BS receiver of own or different BS Spurious Emissions	Band VI specifications are developed for use in Japan. The Band VI frequency ranges specified in clause 3.4.1 are subject to coming regulatory decisions.
3.4.2	Tx-Rx Frequency Separation	The requirement is applied according to what frequency bands in clause 3.4.1 that are supported by the BS.
3.5	Channel arrangement	The requirement is applied according to what frequency bands in clause 3.4.1 that are supported by the BS.
6.2.1.2	Base station output power	In certain regions, the minimum requirement for normal conditions may apply also for some conditions outside the ranges defined for the Normal test environment in subclause 4.4.1.
6.5.2.1	Spectrum emission mask	The mask specified may be mandatory in certain regions. In other regions this mask may not be applied.
6.5.3.4.1	Spurious emissions (Category A)	These requirements shall be met in cases where Category A limits for spurious emissions, as defined in ITU-R Recommendation SM.329 [4], are applied.
6.5.3.4.2	Spurious emissions (Category B)	These requirements shall be met in cases where Category B limits for spurious emissions, as defined in ITU-R Recommendation SM.329 [4], are applied.
6.5.3.4.4.1	Co-existence with GSM900 – Operation in the same geographic area	This requirement may be applied for the protection of GSM 900 MS and GSM 900 BTS in geographic areas in which both GSM 900 and UTRA FDD are deployed.
6.5.3.4.4.2	Co-existence with GSM900 – Co-located base stations	This requirement may be applied for the protection of GSM 900 BTS receivers when GSM 900 BTS and UTRA FDD BS are co-located.
6.5.3.4.5.1	Co-existence with DCS1800 – Operation in the same geographic area	This requirement may be applied for the protection of DCS 1800 MS and DCS 1800 BTS in geographic areas in which both DCS 1800 and UTRA FDD are deployed.
6.5.3.4.5.2	Co-existence with DCS1800 – Co-located base stations	This requirement may be applied for the protection of DCS 1800 BTS receivers when DCS 1800 BTS and UTRA FDD BS are co-located.
6.5.3.4.6	Co-existence with PHS	This requirement may be applied for the protection of PHS in geographic areas in which both PHS and UTRA FDD are deployed.
6.5.3.4.7	Co-.existence with services in adjacent frequency bands	This requirement may be applied for the protection in bands adjacent to the downlink band as defined in clause 3.4.1 in geographic areas in which both an adjacent band service and UTRA FDD are deployed.
6.5.3.4.8.1	Co-existence with UTRA TDD – Operation in the same geographic area	This requirement may be applied to geographic areas in which both UTRA-TDD and UTRA-FDD are deployed.
6.5.3.4.8.2	Co-existence with UTRA TDD – Co-located base stations	This requirement may be applied for the protection of UTRA-TDD BS receivers when UTRA-TDD BS and UTRA FDD BS are co-located.
6.5.3.4.9.1	Co-existence with UTRA FDD in frequency band I -Operation in the same geographic area	This requirement may be applied for the protection of UTRA FDD UE in frequency band I in geographic areas in which both UTRA FDD in frequency band I and III are deployed.
6.5.3.4.9.2	Co-existence with UTRA FDD in frequency band I - Co-located base stations	This requirement may be applied for the protection of UTRA FDD BTS receivers in frequency band I when UTRA FDD BS in frequency band I and III are co-located.
6.5.3.4.10.1	Co-existence with UTRA FDD in	This requirement may be applied for the protection

	frequency band III -Operation in the same geographic area	of UTRA FDD UE in frequency band III in geographic areas in which both UTRA FDD in frequency band I and III are deployed.
6.5.3.4.10.2	Co-existence with UTRA FDD in frequency band III - Co-located base stations	This requirement may be applied for the protection of UTRA FDD BTS receivers in frequency band III when UTRA FDD BS in frequency band I and III are co-located.
6.5.3.4.11.1	Co-existence with PCS1900 - Operation in the same geographic area	This requirement may be applied for the protection of PCS 1900 BTS receivers in geographic areas in which both PCS 1900 and UTRA FDD are deployed.
6.5.3.4.11.2	Co-existence with PCS1900 - Co-located base stations	This requirement may be applied for the protection of PCS 1900 BTS receivers when PCS 1900 BTS and UTRA FDD BS are co-located.
6.5.3.4.12.1	Co-existence with GSM850 - Operation in the same geographic area	This requirement may be applied for the protection of GSM 850 MS and GSM 850 BTS receivers in geographic areas in which both GSM 850 and UTRA FDD are deployed.
6.5.3.4.12.2	Co-existence with GSM 850 - Co-located base stations	This requirement may be applied for the protection of GSM 850 BTS receivers when GSM 850 BTS and UTRA FDD BS are co-located.
6.5.3.4.13.1	Co-existence with UTRA FDD in frequency band II Operation in the same geographic area	This requirement may be applied for the protection of UTRA FDD UE and BS operating in frequency band II in geographic areas in which both UTRA FDD in frequency band II and UTRA FDD in other frequency bands are deployed.
6.5.3.4.13.2	Co-existence with UTRA FDD in frequency band II Co-located base stations	This requirement may be applied for the protection of UTRA FDD BS receivers operating in frequency band II when UTRA FDD BS operating in frequency band II and UTRA-FDD BS operating in other frequency bands are co-located.
6.5.3.4.14.1	Co-existence with UTRA FDD in frequency band V Operation in the same geographic area	This requirement may be applied for the protection of UTRA FDD UE and BS operating in frequency band V in geographic areas in which both UTRA FDD in frequency band V and UTRA FDD in other frequency bands are deployed.
6.5.3.4.14.2	Co-existence with UTRA FDD in frequency band V Co-located base stations	This requirement may be applied for the protection of UTRA FDD BS receivers operating in frequency band V when UTRA FDD BS operating in frequency band V and UTRA-FDD BS operating in other frequency bands are co-located.
6.5.3.4.15.1	Co-existence with UTRA FDD in frequency band VI Operation in the same geographic area	This requirement may be applied for the protection of UTRA FDD UE and BS operating in frequency band VI in geographic areas in which both UTRA FDD in frequency band VI and UTRA FDD in other frequency bands are deployed.
6.5.3.4.15.2	Co-existence with UTRA FDD in frequency band VI Co-located base stations	This requirement may be applied for the protection of UTRA FDD BS receivers operating in frequency band VI when UTRA FDD BS operating in frequency band VI and UTRA-FDD BS operating in other frequency bands are co-located.
7.5	Blocking characteristic	The requirement is applied according to what frequency bands in clause 3.4.1 that are supported by the BS.
7.5	Blocking characteristics	This requirement may be applied for the protection of UTRA FDD BS receivers when UTRA FDD BS and GSM 900, GSM850, PCS 1900 and BS operating in the /DCS1800 band (GSM or UTRA) are co-located.
7.6	Intermodulation characteristics	The requirement is applied according to what frequency bands in clause 3.4.1 that are supported by the BS.
7.7	Spurious emissions	The requirement is applied according to what frequency bands in clause 3.4.1 that are supported by the BS.
	Base station classes*	Only requirements for Wide Area (General Purpose) Base Stations shall be applied as regional requirements in Japan.

	HSDPA*	The portion of HSDPA(High Speed Downlink Packet Access) is not applicable to ARIB standards by the time when ARIB is prepared to transpose.

Note*: Base Station Classes, HSDPA: These regional requirements should be reviewed to check its necessity every TSG RAN meeting.

---NEXT MODIFIED SECTION---

6.5.3.4.13 Co-existence with UTRA FDD in frequency band II

6.5.3.4.13.1 Operation in the same geographic area

This requirement may be applied for the protection of UTRA FDD UE and BS operating in frequency band II in geographic areas in which both UTRA FDD in frequency band II and UTRA FDD in other frequency bands are deployed.

6.5.3.4.13.1.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.34G: BS Spurious emissions limits for BS in geographic coverage area of UTRA FDD UE receiver and BS receiver operating in frequency band II

Band	Maximum Level	Measurement Bandwidth	Note
1930 – 1990 MHz	-52 dBm	1 MHz	This requirement does not apply to UTRA-FDD BS operating in band II
1850 – 1910 MHz	-49 dBm	1 MHz	This requirement does not apply to UTRA-FDD BS operating in band II, since it is already covered by the requirement in sub-clause 6.5.3.4.3.~~6.3.2.~~

6.5.3.4.13.2 Co-located base stations

This requirement may be applied for the protection of UTRA FDD BS receivers operating in frequency band II when UTRA FDD BS operating in frequency band II and UTRA-FDD BS operating in other frequency bands are co-located.

6.5.3.4.13.2.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.34H: BS Spurious emissions limits for BS co-located with UTRA BS operating in frequency band II

Band	Maximum Level	Measurement Bandwidth	Note
1850 – 1910 MHz	-96 dBm	100 kHz	

6.5.3.4.14 Co-existence with UTRA FDD in frequency band V

6.5.3.4.14.1 Operation in the same geographic area

This requirement may be applied for the protection of UTRA FDD UE and BS operating in frequency band V in geographic areas in which both UTRA FDD in frequency band V and UTRA FDD in other frequency bands are deployed.

6.5.3.4.14.1.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.34I: BS Spurious emissions limits for BS in geographic coverage area of UTRA FDD UE receiver and BS receiver operating in frequency band V

Band	Maximum Level	Measurement Bandwidth	Note
869 – 894 MHz	-52 dBm	1 MHz	This requirement does not apply to UTRA-FDD BS operating in band V
824 – 849 MHz	-49 dBm	1 MHz	This requirement does not apply to UTRA-FDD BS operating in band V, since it is already covered by the requirement in sub-clause 6.5.3.4.3.~~6.3.2.~~

6.5.3.4.14.2 Co-located base stations

This requirement may be applied for the protection of UTRA FDD BS receivers operating in frequency band V when UTRA FDD BS operating in frequency band V and UTRA-FDD BS operating in other frequency bands are co-located.

6.5.3.4.14.2.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.34J: BS Spurious emissions limits for BS co-located with UTRA BS operating in frequency band V

Band	Maximum Level	Measurement Bandwidth	Note
824 – 849 MHz	-96 dBm	100 kHz	

6.5.3.4.15 Co-existence with UTRA FDD in frequency band VI

6.5.3.4.15.1 Operation in the same geographic area

This requirement may be applied for the protection of UTRA FDD UE and BS operating in frequency band VI in geographic areas in which both UTRA FDD in frequency band VI and UTRA FDD in other frequency bands are deployed.

6.5.3.4.15.1.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.34K: BS Spurious emissions limits for BS in geographic coverage area of UTRA FDD UE receiver and BS receiver operating in frequency band VI

Band	Maximum Level	Measurement Bandwidth	Note
875 – 885 MHz	-52 dBm	1 MHz	This requirement does not apply to UTRA-FDD BS operating in band VI
830 – 840 MHz	-49 dBm	1 MHz	This requirement does not apply to UTRA-FDD BS operating in band VI, since it is already covered by the requirement in sub-clause 6.5.3.4.3.

6.5.3.4.15.2 Co-located base stations

This requirement may be applied for the protection of UTRA FDD BS receivers operating in frequency band VI when UTRA FDD BS operating in frequency band VI and UTRA-FDD BS operating in other frequency bands are co-located.

6.5.3.4.15.2.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.34L: BS Spurious emissions limits for BS co-located with UTRA BS operating in frequency band VI

Band	Maximum Level	Measurement Bandwidth	Note
830 – 840 MHz	-96 dBm	100 kHz	

---NEXT MODIFIED SECTION---

6.5.3.7.14 Co-existence with UTRA FDD in frequency band V

6.54.3.7.14.1 Operation in the same geographic area

Table 6.54: BS Spurious emissions limits for BS in geographic coverage area of UTRA FDD UE receiver and BS receiver operating in frequency band V

Band	Maximum Level	Measurement Bandwidth	Note
869 – 894 MHz	-52 dBm	1 MHz	This requirement does not apply to UTRA-FDD BS operating in band V
824 – 849 MHz	-49 dBm	1 MHz	This requirement does not apply to UTRA-FDD BS operating in band V, since it is already covered by the requirement in sub-clause 6.5.3.4.3.

6.54.3.7.14.2 Co-located base stations

Table 6.55: BS Spurious emissions limits for BS co-located with UTRA BS operating in frequency band V

Band	Maximum Level	Measurement Bandwidth	Note
824 – 849 MHz	-96 dBm	100 kHz	

6.5.3.7.15 Co-existence with UTRA FDD in frequency band VI

6.5.3.7.15.1 Operation in the same geographic area

Table 6.56: BS Spurious emissions limits for BS in geographic coverage area of UTRA FDD UE receiver and BS receiver operating in frequency band VI

Band	Maximum Level	Measurement Bandwidth	Note
875 – 885 MHz	-52 dBm	1 MHz	This requirement does not apply to UTRA-FDD BS operating in band VI.
830 – 840 MHz	-49 dBm	1 MHz	This requirement does not apply to UTRA-FDD BS operating in band VI, since it is already covered by the requirement in sub-clause 6.5.3.4.3.

6.5.3.7.15.2 Co-located base stations

Table 6.57: BS Spurious emissions limits for BS co-located with UTRA BS operating in frequency band VI

Band	Maximum Level	Measurement Bandwidth	Note
830 – 840 MHz	-96 dBm	100 kHz	

---NEXT MODIFIED SECTION---

Table 7.4(i): Blocking performance requirement for operation when co-located with UTRA BS operating in Frequency band V

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
869 – 894 MHz	+16 dBm	-115 dBm	—	CW carrier

Table 7.4(j): Blocking performance requirement for operation when co-located with UTRA BS operating in Frequency band VI

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
875 – 885 MHz	+16 dBm	-115 dBm	—	CW carrier

The normative reference for these requirements is in TS 25.104[1] subclause 7.5

---NEXT MODIFIED SECTION---

Table 7.4A(i): Blocking performance requirement for operation when co-located with UTRA BS operating in Frequency band V

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
869 – 894 MHz	+16 dBm	-115 dBm	—	CW carrier

Table 7.4A(j): Blocking performance requirement for operation when co-located with UTRA BS operating in Frequency band VI

Center Frequency of Interfering Signal	Interfering Signal mean power	Wanted Signal mean power	Minimum Offset of Interfering Signal	Type of Interfering Signal
875 – 885 MHz	+16 dBm	-115 dBm	—	CW carrier

NOTE: If the above Test Requirement differs from the Minimum Requirement then the Test Tolerance applied for this test is non-zero. The Test Tolerance for this test is defined in subclause 4.2 and the explanation of how the Minimum Requirement has been relaxed by the Test Tolerance is given in Annex F.

NOTE: Annex C describes the procedure for BER tests taking into account the statistical consequence of frequent repetition of BER measurements within the blocking test . The consequence is: a DUT exactly on the limit may fail due to the statistical nature 2.55 times(mean value) in 12750 BER measurements using the predefined wrong decision probability of 0.02%. If the fail cases are ≤12, it is allowed to repeat the fail cases 1 time before the final verdict.

---NEXT MODIFIED SECTION---

7.7 Spurious Emissions

7.7.1 Definition and applicability

The spurious emission power is the power of the emissions generated or amplified in a receiver that appears at the BS antenna connector. The requirements apply to all BS with separate RX and TX antenna port. The test shall be performed when both TX and RX are on with the TX port terminated.

For all BS with common RX and TX antenna port the transmitter spurious emission as specified in subclause 6.5.3 is valid.

7.7.2 Minimum Requirements

The power of any spurious emission shall not exceed:

Table 7.6(a): General spurious emission minimum requirement

Band	Maximum level	Measurement Bandwidth	Note
30 MHz - 1 GHz	-57 dBm	100 kHz	
1 GHz - 12.75 GHz	-47 dBm	1 MHz	With the exception of frequencies between 12.5 MHz below the first carrier frequency and 12.5 MHz above the last carrier frequency used by the BS.

Table 7.6(b): Additional spurious emission requirements

Operating Band	Band	Maximum level	Measurement Bandwidth	Note
I	1900 – 1980 MHz 2010 – 2025 MHz	-78 dBm	3.84 MHz	
II	1850 – 1910 MHz	-78 dBm	3.84 MHz	
III	1710 – 1785 MHz	-78 dBm	3.84 MHz	
V	824 – 849 MHz	-78 dBm	3.84 MHz	
VI	830 – 840 MHz	-78 dBm	3.84 MHz	

In addition to the requirements in tables 7.6, the co-existence requirements for co-located base stations in subclauses 6.5.3.4.4.2, 6.5.3.4.5.2, 6.5.3.4.8.2, 6.5.3.4.9.2, 6.5.3.4.10.2, 6.5.3.4.11, 6.5.3.4.12, 6.5.3.4.13, ~~and~~ 6.5.3.4.14 and 6.5.3.4.15 may also be applied. The normative reference for this requirement is in TS 25.104[1] subclause 7.7

7.7.3 Test purpose

The test purpose is to verify the ability of the BS to limit the interference caused by receiver spurious emissions to other systems.

7.7.4 Method of test

7.7.4.1 Initial conditions

Test environment: normal; see subclause 4.4.1.

RF channels to be tested: M with multi-carrier if supported, see subclause 4.8

1) Connect a measurement receiver to the BS antenna connector as shown in annex B.
2) Enable the BS receiver.
3) Start BS transmission with channel configuration as specified in the table 6.1 and 6.2 (Test model 1) at Pmax.

7.7.4.2 Procedure

1) Terminate the BS Tx antenna connector as shown in annex B.
2) Set measurement equipment parameters as specified in table 7.7.
3) Measure the spurious emissions over each frequency range described in subclause 7.7.2.
4) Repeat the test using diversity antenna connector if available.

Table 7.7

Measurement Band width	3.84 MHz (Root raised cosine,0.22) / 100 kHz/ 1MHz (note)
Sweep frequency range	30 MHz to 12.75GHz
Detection	True RMS
NOTE: As defined in subclause 7.7.2.	

7.7.5 Test requirements

The all measured spurious emissions, derived in step (3) and (4), shall be within requirement limits as specified in Tables 7.7A.

Table 7.7A(a): Spurious emission minimum requirement

Band	Maximum level	Measurement Bandwidth	Note
30 MHz - 1 GHz	-57 dBm	100 kHz	
1 GHz - 12.75 GHz	-47 dBm	1 MHz	With the exception of frequencies between 12.5 MHz below the first carrier frequency and 12.5 MHz above the last carrier frequency used by the BS.

Table 7.7A(b): Additional spurious emission requirements

Operating Band	Band	Maximum level	Measurement Bandwidth	Note
I	1900 – 1980 MHz 2010 – 2025 MHz	-78 dBm	3.84 MHz	
II	1850 – 1910 MHz	-78 dBm	3.84 MHz	
III	1710 – 1785 MHz	-78 dBm	3.84 MHz	
V	824 – 849 MHz	-78 dBm	3.84 MHz	
VI	830 – 840 MHz	-78 dBm	3.84 MHz	

NOTE: If the above Test Requirement differs from the Minimum Requirement then the Test Tolerance applied for this test is non-zero. The Test Tolerance for this test is defined in subclause 4.2 and the explanation of how the Minimum Requirement has been relaxed by the Test Tolerance is given in Annex F.

In addition to the requirements in tables 7.7A, the co-existence requirements for co-located base stations in subclauses 6.5.3.7.4.2, 6.5.3.7.5.2, 6.5.3.7.8.2, 6.5.3.7.9.2, 6.5.3.7.10.2, 6.5.3.7.11, 6.5.3.7.12, 6.5.3.7.13, ~~and~~ 6.5.3.7.14 and 6.5.3.7.15 may also be applied.