TSG-RAN Meeting #12 *RP-010356*
Stockholm, Sweden, 12 - 15 June 2001

Title: **Agreed CRs (Release '99 and Rel-4 category A) to TS 25.142**

Source: **TSG-RAN WG4**

Agenda item: **8.4.3**

WG4 doc	Status WG4	Spec	CR	Phase	Title	Cat	V old	V new
R4-010688	agreed	25.142	57	R99	Application of blocking requirement	F	3.5.0	3.6.0
R4-010802	agreed	25.142	58	Rel-4	Application of blocking requirement	A	4.0.0	4.1.0
R4-010505	agreed	25.142	61	R99	correction of the upper frequency limit for Tx spurious emissions measurements	F	3.5.0	3.6.0
R4-010786	agreed	25.142	62	Rel-4	correction of the upper frequency limit for Tx spurious emissions measurements	A	4.0.0	4.1.0

3GPP TSG RAN WG4 Meeting #17 **R4-010688**

Gothenburg, Sweden 21st - 25th May 2001

CR-Form-v4

CHANGE REQUEST

⌘ **25.142** **CR** **57** ⌘ ev **-** ⌘ Current version: **3.5.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network **X** Core Network ☐

Title:	⌘	Application of blocking requirement
Source:	⌘	RAN WG4
Work item code:	⌘	TEI
Date:	⌘	21.05.2001
Category:	⌘	**F**
Release:	⌘	R99

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)

Reason for change:	⌘	It is not clear in the spec which part of the blocking requirement is mandatory and which one is an optional (regional) requirement
Summary of change:	⌘	Clarification of status of each section. Creation of two separate sections “General Requirements” and “ Co-location with GSM900 and/or DCS 1800” for co-location with GSM/DCS case. The co-location band with GSM900 is also modified to include R-GSM band.
Consequences if not approved:	⌘	The specification may be incorrectly applied.
Clauses affected:	⌘	7.5.1, 7.5.2, (NEW SECTIONS) 7.5.2.1 and 7.5.2.2
Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications
Other comments:	⌘	

How to create CRs using this form:

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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.

7.5 Blocking characteristics

7.5.1 Definition and applicability

The blocking characteristics is a measure of the receiver ability to receive a wanted signal at its assigned channel frequency in the presence of an unwanted interferer on frequencies other than those of the adjacent channels. The blocking performance requirement ~~shall apply~~ applies to interfering signals with center frequency within the ranges ~~at all frequencies as~~ specified in tables 7.6, 7.7, 7.8, 7.9 or 7.10 respectively, using a 1 MHz step size.

The requirements in table 7.6, 7.7 or 7.8 ~~this subclause shall~~ apply to base stations intended for general-purpose applications, depending on which frequency band is used . The additional requirements in Tables 7.9 and 7.10 may be applied for the protection of TDD BS receivers when GSM900 and/or DCS1800 BTS are co-located with UTRA TDD BS.~~The requirements in Tables 7.9 and 7.10 apply when the TDD BS for operation in frequency bands in subclause 4.2 a) is colocated with GSM900 or DCS1800 BTS respectively.~~

7.5.2 Minimum Requirements

7.5.2.1 General requirements

The static reference performance as specified in clause 7.2 ~~should~~ shall be met with a wanted and an interfering signal coupled to the BS antenna input using the parameters specified in tables 7.6, 7.7 , 7.8~~, 7.9, and 7.10~~ respectively.

Table 7.6: Blocking requirements for operating bands defined in subclause 4.2 a)

Center frequency of interfering signal	Interfering signal level	Wanted signal level	Minimum offset of interfering signal	Type of interfering signal
1900 – 1920 MHz, 2010 – 2025 MHz	-40 dBm	<REFSENS> + 6 dB	10 MHz	WCDMA signal with one code
1880 – 1900 MHz, 1990 – 2010 MHz, 2025 – 2045 MHz	-40 dBm	<REFSENS> + 6 dB	10 MHz	WCDMA signal with one code
1920 – 1980 MHz	-40 dBm	<REFSENS> + 6 dB	10 MHz	WCDMA signal with one code
1 – 1880 MHz, 1980 – 1990 MHz, 2045 – 12750 MHz	-15 dBm	<REFSENS> + 6 dB	—	CW carrier

Table 7.7: Blocking requirements for operating bands defined in subclause 4.2 b)

Center frequency of interfering signal	Interfering signal level	Wanted signal level	Minimum offset of interfering signal	Type of interfering signal
1850 – 1990 MHz	-40 dBm	<REFSENS> + 6 dB	10 MHz	WCDMA signal with one code
1830 – 1850 MHz, 1990 – 2010 MHz	-40 dBm	<REFSENS> + 6 dB	10 MHz	WCDMA signal with one code
1 – 1830 MHz, 2010 – 12750 MHz	-15 dBm	<REFSENS> + 6 dB	—	CW carrier

Table 7.8: Blocking requirements for operating bands defined in subclause 4.2 c)

Center frequency of interfering signal	Interfering signal level	Wanted signal level	Minimum offset of interfering signal	Type of interfering signal
1910 – 1930 MHz	-40 dBm	<REFSENS> + 6 dB	10 MHz	WCDMA signal with one code
1890 – 1910 MHz, 1930 – 1950 MHz	-40 dBm	<REFSENS> + 6 dB	10 MHz	WCDMA signal with one code
1 – 1890 MHz, 1950 – 12750 MHz	-15 dBm	<REFSENS> + 6 dB	—	CW carrier

7.5.2.2 Co-location with GSM900 and/or DCS 1800

This additional blocking requirement may be applied for the protection of TDD BS receivers when GSM900 and/or DCS1800 BTS are co-located with UTRA TDD BS.

The blocking performance requirement applies to interfering signals with center frequency within the ranges specified in the tables below, using a 1MHz step size.

In case this additional blocking requirement is applied, 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 7.9: Additional ~~B~~blocking requirements for operating bands defined in subclause 4.2 a) when co-located with GSM900

Center Frequency of Interfering Signal	Interfering Signal Level	Wanted Signal Level	Minimum Offset of Interfering Signal	Type of Interfering Signal
~~1900 – 1920 MHz, 2010 – 2025 MHz~~	~~-40 dBm~~	~~<REFSENS> + 6 dB~~	~~10 MHz~~	~~WCDMA signal with one code~~
~~1880 – 1900 MHz, 1990 – 2010 MHz, 2025 – 2045 MHz~~	~~-40 dBm~~	~~<REFSENS> + 6 dB~~	~~10 MHz~~	~~WCDMA signal with one code~~
~~1920 – 1980 MHz~~	~~-40 dBm~~	~~<REFSENS> + 6 dB~~	~~10 MHz~~	~~WCDMA signal with one code~~
~~1 – 925 MHz, 960 - 1880 MHz, 1980 – 1990 MHz, 2045 – 12750 MHz~~	~~-15 dBm~~	~~<REFSENS> + 6 dB~~	—	~~CW carrier~~
9215 – 960 MHz	+16 dBm	<REFSENS> + 6 dB	—	CW carrier

Table 7.10: Additional ~~B~~blocking requirements for operating bands defined in subclause 4.2 a) when co-located with DCS1800

Center Frequency of Interfering Signal	Interfering Signal Level	Wanted Signal Level	Minimum Offset of Interfering Signal	Type of Interfering Signal
~~1900 – 1920 MHz, 2010 – 2025 MHz~~	~~-40 dBm~~	~~<REFSENS> + 6 dB~~	~~10 MHz~~	~~WCDMA signal with one code~~
~~1880 – 1900 MHz, 1990 – 2010 MHz, 2025 – 2045 MHz~~	~~-40 dBm~~	~~<REFSENS> + 6 dB~~	~~10 MHz~~	~~WCDMA signal with one code~~
~~1920 – 1980 MHz~~	~~-40 dBm~~	~~<REFSENS> + 6 dB~~	~~10 MHz~~	~~WCDMA signal with one code~~
~~1 – 1805 MHz, 1980 – 1990 MHz, 2045 – 12750 MHz~~	~~-15 dBm~~	~~<REFSENS> + 6 dB~~	—	~~CW carrier~~
1805 - 1880	+16 dBm	<REFSENS> + 6 dB	—	CW carrier

The normative reference for this requirement is TS 25.105 [1] subclause 7.5.

7.5.3 Test purpose

The test stresses the ability of the BS receiver to withstand high-level interference from unwanted signals at frequency offsets of 10 MHz or more, without undue degradation of its sensitivity.

7.5.4 Method of test

7.5.4.1 Initial conditions

Test environment: normal; see subclause 5.9.1.

RF channels to be tested: M; see subclause 5.3.
The BS shall be configured to operate as close to the centre of the operating band as possible.

(1) Connect an UE simulator operating at the assigned channel frequency of the wanted signal and a signal generator to the antenna connector of one Rx port.

(2) Terminate or disable any other Rx port not under test.

(3) Start transmission from the BS tester to the BS using the UL reference measurement channel (12,2 kbps) defined in Annex A.2.1.The level of the UE simulator signal measured at the BS antenna connector shall be set to 6 dB above the reference sensitivity level specified in subclause 7.2.2.

7.5.4.2 Procedure

(1) Set the signal generator to produce an interfering signal at a frequency offset Fuw from the assigned channel frequency of the wanted signal which is given by

$$Fuw = \pm (n \times 1\ MHz),$$

where n shall be increased in integer steps from n = 10 up to such a value that the center frequency of the interfering signal covers the range from 1 MHz to 12,75 GHz. The interfering signal level measured at the antenna connector shall be set in dependency of its center frequency, as specified in tables 7.6, 7.7, or 7.8 respectively. The type of the interfering signal is either equivalent to a continuous wideband CDMA signal with one code of chip frequency 3,84 Mchip/s, filtered by an RRC transmit pulse-shaping filter with roll-off $\alpha = 0,22$, or a CW signal; see tables 7.6, 7.7 or 7.8 respectively.

(2) Measure the BER of the wanted signal at the BS receiver.

(3) Interchange the connections of the BS Rx ports and repeat the measurements according to steps (1) and (2).

NOTE: The test procedure as defined in steps (1) and (2) requests to carry out more than 10000 BER measurements. To reduce the time needed for these measurements, it may be appropriate to conduct the test in two phases: During phase 1, BER measurements are made on all center frequencies of the interfering signal as requested but with a reduced confidence level, with the aim to identify those frequencies which require more detailed investigation. In phase 2, detailed measurements are made only at those critical frequencies identified before, applying the required confidence level.

7.5.5 Test Requirements

In all measurements made according to subclause 7.5.4.2, the BER shall not exceed 0,001.

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 5.11 and the explanation of how the Minimum Requirement has been relaxed by the Test Tolerance is given in Annex D.

3GPP TSG RAN WG4 Meeting #17 **R4-010802**

Gothenburg, Sweden 21st - 25th May 2001

CR-Form-v4

CHANGE REQUEST

⌘ **25.142** **CR** **58** ⌘ ev **-** ⌘ Current version: **4.0.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network ☒ Core Network ☐

Title:	⌘	Application of blocking requirement
Source:	⌘	RAN WG4
Work item code:	⌘	TEI
Date:	⌘	22.05.2001
Category:	⌘	**A**
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)*

Reason for change:	⌘	It is not clear in the spec which part of the blocking requirement is mandatory and which one is an optional (regional) requirement.
Summary of change:	⌘	1. Introduction is made neutral and the common part (3.84 Mcps TDD mode) of the blocking characteristics is made mandatory. 2. Splitting of 3.84 Mcps TDD option in two subsections “General Requirements” and “Co-location with GSM900 and/or DCS 1800”. 3- The co-location band with GSM900 is also modified to include R-GSM band.
Consequences if not approved:	⌘	1. and 2 The specification may be incorrectly applied. 3-may lead to performance degradation for R-GSM.

Clauses affected:	⌘	7.5.1.1, (NEW SECTIONS) 7.5.2.1.1, 7.5.2.1.2.
Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications
	⌘	
Other comments:	⌘	R99 in R4-010688

7.5 Blocking characteristics

7.5.1 Definition and applicability

7.5.1.1 3,84 Mcps TDD option

The blocking characteristics is a measure of the receiver ability to receive a wanted signal at its assigned channel frequency in the presence of an unwanted interferer on frequencies other than those of the adjacent channels. The blocking performance requirement ~~shall apply at all frequencies as~~ applies to interfering signals with center frequency within the ranges specified in tables 7.6, 7.7, 7.8, 7.9 and 7.10 respectively, using a 1 MHz step size.

The requirements in Table 7.6, 7.7 or 7.8 ~~this subclause shall~~ apply to base stations intended for general-purpose applications, depending on which frequency band is used. The additional requirements in Tables 7.9 and 7.10 may be applied for the protection of TDD BS receivers when GSM900 and/or DCS1800 BTS are co-located with UTRA TDD BS.~~The requirements in Tables 7.9 and 7.10 apply when the TDD BS for operation in frequency bands in subclause 4.2 a) is colocated with GSM900 or DCS1800 BTS respectively.~~

7.5.1.2 1,28 Mcps TDD option

The blocking characteristics is a measure of the receiver ability to receive a wanted signal at its assigned channel frequency in the presence of an unwanted interferer on frequencies other than those of the adjacent channels. The blocking performance shall apply at all frequencies as specified in tables 7.6A, 7.7A or 7.8A respectively, using a 1 MHz step size.

7.5.2 Minimum Requirements

7.5.2.1 3,84 Mcps TDD option

7.5.2.1.1 General requirements

The static reference performance as specified in clause 7.2 ~~should~~ shall be met with a wanted and an interfering signal coupled to the BS antenna input using the parameters specified in tables 7.6, 7.7 , 7.8, ~~7.9, and 7.10~~ respectively.

Table 7.6: Blocking requirements for operating bands defined in subclause 4.2 a)

Center frequency of interfering signal	Interfering signal level	Wanted signal level	Minimum offset of interfering signal	Type of interfering signal
1900 – 1920 MHz, 2010 – 2025 MHz	-40 dBm	<REFSENS> + 6 dB	10 MHz	WCDMA signal with one code
1880 – 1900 MHz, 1990 – 2010 MHz, 2025 – 2045 MHz	-40 dBm	<REFSENS> + 6 dB	10 MHz	WCDMA signal with one code
1920 – 1980 MHz	-40 dBm	<REFSENS> + 6 dB	10 MHz	WCDMA signal with one code
1 - 1880 MHz, 1980 – 1990 MHz, 2045 – 12750 MHz	-15 dBm	<REFSENS> + 6 dB	—	CW carrier

Table 7.7: Blocking requirements for operating bands defined in subclause 4.2 b)

Center frequency of interfering signal	Interfering signal level	Wanted signal level	Minimum offset of interfering signal	Type of interfering signal
1850 – 1990 MHz	-40 dBm	<REFSENS> + 6 dB	10 MHz	WCDMA signal with one code
1830 – 1850 MHz, 1990 – 2010 MHz	-40 dBm	<REFSENS> + 6 dB	10 MHz	WCDMA signal with one code
1 – 1830 MHz, 2010 – 12750 MHz	-15 dBm	<REFSENS> + 6 dB	—	CW carrier

Table 7.8: Blocking requirements for operating bands defined in subclause 4.2 c)

Center frequency of interfering signal	Interfering signal level	Wanted signal level	Minimum offset of interfering signal	Type of interfering signal
1910 – 1930 MHz	-40 dBm	<REFSENS> + 6 dB	10 MHz	WCDMA signal with one code
1890 – 1910 MHz, 1930 – 1950 MHz	-40 dBm	<REFSENS> + 6 dB	10 MHz	WCDMA signal with one code
1 – 1890 MHz, 1950 – 12750 MHz	-15 dBm	<REFSENS> + 6 dB	—	CW carrier

7.5.2.1.2 Co-location with GSM900 and/or DCS 1800

This additional blocking requirement may be applied for the protection of TDD BS receivers when GSM900 and/or DCS1800 BTS are co-located with UTRA TDD BS.

The blocking performance requirement applies to interfering signals with center frequency within the ranges specified in the tables below, using a 1MHz step size.

In case this additional blocking requirement is applied, 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 7.9: additional ~~B~~blocking requirements for operating bands defined in subclause 4.2 a) when co-located with GSM900

Center Frequency of Interfering Signal	Interfering Signal Level	Wanted Signal Level	Minimum Offset of Interfering Signal	Type of Interfering Signal
~~1900 – 1920 MHz, 2010 – 2025 MHz~~	~~-40 dBm~~	~~<REFSENS> + 6 dB~~	~~10 MHz~~	~~WCDMA signal with one code~~
~~1880 – 1900 MHz, 1990 – 2010 MHz, 2025 – 2045 MHz~~	~~-40 dBm~~	~~<REFSENS> + 6 dB~~	~~10 MHz~~	~~WCDMA signal with one code~~
~~1920 – 1980 MHz~~	~~-40 dBm~~	~~<REFSENS> + 6 dB~~	~~10 MHz~~	~~WCDMA signal with one code~~
~~1 – 925 MHz, 960 – 1880 MHz, 1980 – 1990 MHz, 2045 – 12750 MHz~~	~~-15 dBm~~	~~<REFSENS> + 6 dB~~	~~—~~	~~CW carrier~~
921~~5~~ – 960 MHz	+16 dBm	<REFSENS> + 6 dB	—	CW carrier

Table 7.10: Additional ~~B~~blocking requirements for operating bands defined in subclause 4.2 a) when co-located with DCS1800

Center Frequency of Interfering Signal	Interfering Signal Level	Wanted Signal Level	Minimum Offset of Interfering Signal	Type of Interfering Signal
~~1900 – 1920 MHz, 2010 – 2025 MHz~~	~~-40 dBm~~	~~<REFSENS> + 6 dB~~	~~10 MHz~~	~~WCDMA signal with one code~~
~~1880 – 1900 MHz, 1990 – 2010 MHz, 2025 – 2045 MHz~~	~~-40 dBm~~	~~<REFSENS> + 6 dB~~	~~10 MHz~~	~~WCDMA signal with one code~~
~~1920 – 1980 MHz~~	~~-40 dBm~~	~~<REFSENS> + 6 dB~~	~~10 MHz~~	~~WCDMA signal with one code~~
~~1 – 1805 MHz, 1980 – 1990 MHz, 2045 – 12750 MHz~~	~~-15 dBm~~	~~<REFSENS> + 6 dB~~	~~—~~	~~CW carrier~~
1805 - 1880	+16 dBm	<REFSENS> + 6 dB	—	CW carrier

3GPP TSG RAN WG4 Meeting #17 **R4-010505**

Gothenburg, Sweden 21st - 25th May 2001

CR-Form-v4

CHANGE REQUEST

⌘ **25.142** **CR** **61** ⌘ ev **-** ⌘ Current version: **3.5.0** ⌘

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Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network ☒ Core Network ☐

Title:	⌘	Correction of the upper frequency limit for Tx spurious emissions measurements
Source:	⌘	RAN WG4
Work item code:	⌘	TEI
Date:	⌘	21 May 2001
Category:	⌘	**F**
Release:	⌘	R99

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)*

Reason for change:	⌘	Alignment of the upper frequency limit for spurious emissions measurements with the corresponding core specification TS 25.105.
Summary of change:	⌘	Change of the upper frequency limit for spurious emissions measurements in Table 6.30 from 12,5 GHz to 12,75 GHz.
Consequences if not approved:	⌘	Divergence of the upper frequency limit for spurious emissions measurements in the conformance specification from the corresponding core specification.

Clauses affected:	⌘	6.6.3.2.1.2
Other specs affected:	⌘	☐ Other core specifications ⌘ ☐ Test specifications ☐ O&M Specifications
Other comments:	⌘	

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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.

6.6.3 Spurious emissions

6.6.3.1 Definition and applicability

Spurious emissions are emissions which are caused by unwanted transmitter effects such as harmonics emission, parasitic emission, intermodulation products and frequency conversion products, but exclude out of band emissions. This is measured at the base station RF output port.

The requirements in this subclause shall apply to base stations intended for general-purpose applications.

6.6.3.2 Minimum Requirements

6.6.3.2.1 Mandatory requirements

The requirements of either subclause 6.6.3.2.1.1 or subclause 6.6.3.2.1.2 shall apply whatever the type of transmitter considered (single carrier or multi-carrier). It applies for all transmission modes foreseen by the manufacturer.

Either requirement applies at frequencies within the specified frequency ranges which are more than 12,5 MHz under the first carrier frequency used or more than 12,5 MHz above the last carrier frequency used.

6.6.3.2.1.1 Spurious emissions (Category A)

The following requirements shall be met in cases where Category A limits for spurious emissions, as defined in ITU-R Recommendation SM.329-8 [6], are applied.

The power of any spurious emission shall not exceed the maximum level given in Table 6.29.

Table 6.29: BS Mandatory spurious emissions limits, Category A

Band	Maximum level	Measurement bandwidth	Note
9 kHz – 150 kHz	-13 dBm	1 kHz	Bandwidth as in ITU-R SM.329-8, s4.1
150 kHz – 30 MHz		10 kHz	Bandwidth as in ITU-R SM.329-8, s4.1
30 MHz – 1 GHz		100 kHz	Bandwidth as in ITU-R SM.329-8, s4.1
1 GHz – 12,75 GHz		1 MHz	Upper frequency as in ITU-R SM.329-8, s2.5 table 1

The normative reference for this requirement is TS 25.105 [1] subclause 6.6.3.1.1.1.

6.6.3.2.1.2 Spurious emissions (Category B)

The following requirements shall be met in cases where Category B limits for spurious emissions, as defined in ITU-R Recommendation SM.329-8 [6], are applied.

The power of any spurious emission shall not exceed the maximum levels given in Table 6.30.

Table 6.30: BS Mandatory spurious emissions limits, Category B

Band	Maximum level	Measurement bandwidth	Note
9 kHz – 150 kHz	-36 dBm	1 kHz	Bandwidth as in ITU-R SM.329-8, s4.1
150 kHz – 30 MHz	-36 dBm	10 kHz	Bandwidth as in ITU-R SM.329-8, s4.1
30 MHz – 1 GHz	-36 dBm	100 kHz	Bandwidth as in ITU-R SM.329-8, s4.1
1 GHz – Fc1 - 60 MHz or Fl - 10 MHz *whichever is the higher*	-30 dBm	1 MHz	Bandwidth as in ITU-R SM.329-8, s4.1
Fc1 - 60 MHz or Fl - 10 MHz *whichever is the higher* – Fc1 - 50 MHz or Fl -10 MHz *whichever is the higher*	-25 dBm	1 MHz	Specification in accordance with ITU-R SM.329-8, s4.3 and Annex 7
Fc1 - 50 MHz or Fl -10 MHz *whichever is the higher* – Fc2 + 50 MHz or Fu +10 MHz *whichever is the lower*	-15 dBm	1 MHz	Specification in accordance with ITU-R SM.329-8, s4.3 and Annex 7
Fc2 + 50 MHz or Fu + 10 MHz *whichever is the lower* – Fc2 + 60 MHz or Fu + 10 MHz *whichever is the lower*	-25 dBm	1 MHz	Specification in accordance with ITU-R SM.329-8, s4.3 and Annex 7
Fc2 + 60 MHz or Fu + 10 MHz *whichever is the lower* – 12,75 GHz	-30 dBm	1 MHz	Bandwidth as in ITU-R SM.329-8, s4.1. Upper frequency as in ITU-R SM.329-8, s2.5 table 1

Fc1: Center frequency of emission of the first carrier transmitted by the BS

Fc2: Center frequency of emission of the last carrier transmitted by the BS

Fl : Lower frequency of the band in which TDD operates

Fu : Upper frequency of the band in which TDD operates

The normative reference for this requirement is TS 25.105 [1] subclause 6.6.3.1.2.1.

3GPP TSG RAN WG4 Meeting #17 **R4-010786**

Gothenburg, Sweden 21st - 25th May 2001

CR-Form-v4

CHANGE REQUEST

⌘ **25.142** **CR** **62** ⌘ ev **-** ⌘ Current version: **4.0.0** ⌘

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Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network ☒ Core Network ☐

Title:	⌘	Correction of the upper frequency limit for Tx spurious emissions measurements
Source:	⌘	RAN WG4
Work item code:	⌘	TEI
Date:	⌘	31 May 2001
Category:	⌘	**A**
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)*

Reason for change:	⌘	Alignment of the upper frequency limit for Tx spurious emissions measurements with the corresponding core specification TS 25.105.
Summary of change:	⌘	Change of the upper frequency limit for spurious emissions measurements in Table 6.30 from 12,5 GHz to 12,75 GHz.
Consequences if not approved:	⌘	Divergence of the upper frequency limit for spurious emissions measurements in the conformance specification from the corresponding core specification.

Clauses affected:	⌘	6.6.3.2.1.2.1
Other specs affected:	⌘	☐ Other core specifications ⌘ ☐ Test specifications ☐ O&M Specifications
Other comments:	⌘	

How to create CRs using this form:

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1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.
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3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

6.6.3 Spurious emissions

6.6.3.1 Definition and applicability

Spurious emissions are emissions which are caused by unwanted transmitter effects such as harmonics emission, parasitic emission, intermodulation products and frequency conversion products, but exclude out of band emissions. This is measured at the base station RF output port.

The requirements in this subclause shall apply to base stations intended for general-purpose applications.

6.6.3.2 Minimum Requirements

6.6.3.2.1 Mandatory requirements

The requirements of either subclause 6.6.3.2.1.1 or subclause 6.6.3.2.1.2 shall apply whatever the type of transmitter considered (single carrier or multi-carrier). It applies for all transmission modes foreseen by the manufacturer.

6.6.3.2.1.1 Spurious emissions (Category A)

The following requirements shall be met in cases where Category A limits for spurious emissions, as defined in ITU-R Recommendation SM.329-8 [6], are applied.

The power of any spurious emission shall not exceed the maximum level given in Table 6.29.

Table 6.29: BS Mandatory spurious emissions limits, Category A

Band	Maximum level	Measurement bandwidth	Note
9 kHz – 150 kHz	-13 dBm	1 kHz	Bandwidth as in ITU-R SM.329-8, s4.1
150 kHz – 30 MHz		10 kHz	Bandwidth as in ITU-R SM.329-8, s4.1
30 MHz – 1 GHz		100 kHz	Bandwidth as in ITU-R SM.329-8, s4.1
1 GHz – 12,75 GHz		1 MHz	Upper frequency as in ITU-R SM.329-8, s2.5 table 1

The normative reference for this requirement is TS 25.105 [1] subclause 6.6.3.1.1.1.

6.6.3.2.1.2 Spurious emissions (Category B)

The following requirements shall be met in cases where Category B limits for spurious emissions, as defined in ITU-R Recommendation SM.329-8 [6], are applied.

6.6.3.2.1.2.1 3,84 Mcps TDD option

The power of any spurious emission shall not exceed the maximum levels given in Table 6.30.

Table 6.30: BS Mandatory spurious emissions limits, Category B

Band	Maximum level	Measurement bandwidth	Note
9 kHz – 150 kHz	-36 dBm	1 kHz	Bandwidth as in ITU-R SM.329-8, s4.1
150 kHz – 30 MHz	-36 dBm	10 kHz	Bandwidth as in ITU-R SM.329-8, s4.1
30 MHz – 1 GHz	-36 dBm	100 kHz	Bandwidth as in ITU-R SM.329-8, s4.1
1 GHz – Fc1 - 60 MHz or Fl - 10 MHz *whichever is the higher*	-30 dBm	1 MHz	Bandwidth as in ITU-R SM.329-8, s4.1
Fc1 - 60 MHz or Fl - 10 MHz *whichever is the higher* – Fc1 - 50 MHz or Fl -10 MHz *whichever is the higher*	-25 dBm	1 MHz	Specification in accordance with ITU-R SM.329-8, s4.3 and Annex 7
Fc1 - 50 MHz or Fl -10 MHz *whichever is the higher* – Fc2 + 50 MHz or Fu +10 MHz *whichever is the lower*	-15 dBm	1 MHz	Specification in accordance with ITU-R SM.329-8, s4.3 and Annex 7
Fc2 + 50 MHz or Fu + 10 MHz *whichever is the lower* – Fc2 + 60 MHz or Fu + 10 MHz *whichever is the lower*	-25 dBm	1 MHz	Specification in accordance with ITU-R SM.329-8, s4.3 and Annex 7
Fc2 + 60 MHz or Fu + 10 MHz *whichever is the lower* – 12,75 GHz	-30 dBm	1 MHz	Bandwidth as in ITU-R SM.329-8, s4.1. Upper frequency as in ITU-R SM.329-8, s2.5 table 1

Fc1: Center frequency of emission of the first carrier transmitted by the BS

Fc2: Center frequency of emission of the last carrier transmitted by the BS

Fl : Lower frequency of the band in which TDD operates

Fu : Upper frequency of the band in which TDD operates

The normative reference for this requirement is TS 25.105 [1] subclause 6.6.3.1.2.1.