

TSG RAN Meeting #20
Hämeenlinna, Finland, 3 - 6 June, 2003

RP-030215

Title CRs (Rel-5 and Rel-6 Category A) to TS 25.141
Source TSG RAN WG4
Agenda Item 7.4.5

| RAN4 Tdoc | Spec | CR | R | Cat | Rel | Curr Ver | Title | Work Item |
|-----------|--------|-----|---|-----|-------|----------|---|-----------|
| R4-020643 | 25.141 | 299 | 1 | F | Rel-5 | 5.6.0 | Correction and alignment on the test requirements for UTRA-FDD BS in co-existence and co-location with GSM/UTRA | TEI5 |
| R4-020644 | 25.141 | 300 | 1 | A | Rel-6 | 6.1.0 | Correction and alignment on the test requirements for UTRA-FDD BS in co-existence and co-location with GSM/UTRA | TEI5 |

Paris, France 19 - 23 May, 2003

CR-Form-v7

CHANGE REQUEST

⌘ **25.141** CR **299** ⌘ rev **1** ⌘ Current version: **5.6.0** ⌘

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: | ⌘ Correction and alignment on the test requirements for UTRA-FDD BS in co-existence and co-location with GSM/UTRA | |
| Source: | ⌘ RAN WG4 | |
| Work item code: | ⌘ TEI5 | Date: ⌘ 27/05/2003 |
| Category: | ⌘ F | Release: ⌘ Rel-5 |
| | Use <u>one</u> of the following categories: | Use <u>one</u> of the following releases: |
| | F (correction) | 2 (GSM Phase 2) |
| | A (corresponds to a correction in an earlier release) | R96 (Release 1996) |
| | B (addition of feature), | R97 (Release 1997) |
| | C (functional modification of feature) | R98 (Release 1998) |
| | D (editorial modification) | R99 (Release 1999) |
| | Detailed explanations of the above categories can be found in 3GPP TR 21.900 . | Rel-4 (Release 4) |
| | | Rel-5 (Release 5) |
| | | Rel-6 (Release 6) |

| | | |
|--------------------------------------|---|---|
| Reason for change: | ⌘ | <ol style="list-style-type: none"> 1) For the co-existence and co-location requirements, some are specified with the indication of operating bands, some not, an alignment is needed. 2) The requirement for the protection of UTRA-FDD BS receiver operating in band I (III) in co-existence with UTRA-FDD BS operating in other bands was missing. 3) There are several editorial type errors. |
| Summary of change: | ⌘ | <ul style="list-style-type: none"> • Several editorial type corrections • Deletion of operating bands in the requirements for co-existence and co-location, except co-existence with services in adjacent bands • Addition of requirements for the protection of UTRA-FDD BS receiver operating in band I (III) in co-existence with UTRA-FDD BS operating in other bands, the requirement of -49 dBm/1 MHz is derived from the already existing co-location requirement of -96dBm/100kHz, whereas co-location is based on 30dB MCL. For co-existence in the Same Geographic Area the approved scenario of TR 25.942 with an MCL of 67dB is used (-96dBm/100kHz + 37dB (=67dB - 30dB) = -59 dBm/100kHz = -49 dBm/1 MHz). • Alignment of the blocking requirements for co-location |
| Consequences if not approved: | ⌘ | <p>There will be existing differences and dis-alignment in the requirements for co-existence and co-location concerning the operating bands. The requirements for protection of UTRA-FDD BS receiver operating in band I and III will be missing</p> <p>Isolated Impact Analysis: Approval of this CR should not affect FDD BS implementation and performance.</p> |

| | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|--|--|---|--|---|---------------------------|-------------|
| Clauses affected: | ⌘ | 4.7; 6.5.3.4.4 ~6.5.3.4.12; 6.5.3.7.4 ~6.5.3.7.12; 7.5 | | | | | | | | | | |
| Other specs affected: | ⌘ | <table border="1"><tr><td>Y</td><td>N</td></tr><tr><td>X</td><td></td></tr><tr><td></td><td>X</td></tr><tr><td></td><td>X</td></tr></table> | Y | N | X | | | X | | X | Other core specifications | ⌘ TS 25.104 |
| | | Y | N | | | | | | | | | |
| | | X | | | | | | | | | | |
| | X | | | | | | | | | | | |
| | X | | | | | | | | | | | |
| Test specifications | | | | | | | | | | | | |
| O&M Specifications | | | | | | | | | | | | |
| Other comments: | ⌘ | Equivalent CRs in other Releases: CR300r1 cat. A to 25.141 v6.1.0 | | | | | | | | | | |

How to create CRs using this form:

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

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

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. |
| 3.4.2 | 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 the same geographic area | This requirement may be applied for the protection 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. |
| 7.5 | Blocking characteristic | The requirement is applied according to what frequency bands include 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. |
| | 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: HSDPA*: This regional requirement should be reviewed to check its necessity every TSG RAN meeting.

{ Separate Section }

6.5.3.4.4 Co-existence with GSM 900

6.5.3.4.4.1 Operation in the same geographic area

This requirement may be applied for the protection of GSM 900 MS and GSM 900 BTS receivers in geographic areas in which both GSM 900 and UTRA-FDD are deployed.

This requirement assumes the scenario described in [2]. For different scenarios, the manufacturer may declare a different requirement.

6.5.3.4.4.1.1 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 GSM 900

| Band | Maximum Level | Measurement Bandwidth | Note |
|--------------------|---------------|-----------------------|------|
| 876 MHz to 915 MHz | -61 dBm | 100 kHz | |
| 921 MHz to 960 MHz | -57 dBm | 100 kHz | |

6.5.3.4.4.2 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.

6.5.3.4.4.2.1 Minimum Requirement

The power of any spurious emission shall not exceed.

Table 6.28: BS Spurious emissions limits for protection of the BTS receiver

| Band | Maximum Level | Measurement Bandwidth | Note |
|--------------------|---------------|-----------------------|------|
| 876 MHz to 915 MHz | -98 dBm | 100 kHz | |

6.5.3.4.5 Co-existence with DCS 1800

6.5.3.4.5.1 Operation in the same geographic area

This requirement may be applied for the protection of DCS 1800 MS and DCS 1800 BTS receivers in geographic areas in which both DCS 1800 and UTRA-FDD are deployed.

~~This requirement assumes the scenario described in [2]. For different scenarios, the manufacturer may declare a different requirement.~~

6.5.3.4.5.1.1 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 DCS 1800

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|----------------|------------------------|---------------|-----------------------|------|
| I | 1 805 MHz to 1 880 MHz | -47 dBm | 100 kHz | |
| I | 1 710 MHz to 1 785 MHz | -61 dBm | 100 kHz | |
| III | 1 710 MHz to 1 785 MHz | -61 dBm | 100 kHz | |

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|--|-------------------------|------------------------------|---|
| 1 805 MHz to 1 880 MHz | -47 dBm | 100 kHz | This requirement does not apply to UTRA-FDD BS operating in band III |
| 1 710 MHz to 1 785 MHz | -61 dBm | 100 kHz | This requirement does not apply to UTRA-FDD BS operating in band III, since it is already covered by the requirement in sub-clause 6.5.3.4.3. |

6.5.3.4.5.2 Co-located basestations

This requirement may be applied for the protection of DCS 1800 BTS receivers when DCS 1800 BTS and UTRA-FDD BS are co-located.

6.5.3.4.5.2.1 Minimum Requirement

The power of any spurious emission shall not exceed.

Table 6.30: BS Spurious emissions limits for BS co-located with DCS 1800 BTS

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|--|-------------------------|------------------------------|-------------|
| I | 1 710 MHz to 1 785 MHz | -98 dBm | 100 kHz | |
| III | 1 710 MHz to 1 785 MHz | -98 dBm | 100 kHz | |

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|--|-------------------------|------------------------------|-------------|
| 1 710 MHz to 1 785 MHz | -98 dBm | 100 kHz | |

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.

6.5.3.4.6.1 Minimum Requirement

The power of any spurious emission shall not exceed.

Table 6.31: BS Spurious emissions limits for BS in geographic coverage area of PHS

| Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------------|----------------------|------------------------------|-------------|
| 1 893,5 MHz to 1 919,60 MHz | -41 dBm | 300 kHz | |

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 bands I, II or III, as defined in clause 3.4.1 in geographic areas in which both an adjacent band service and UTRA-FDD are deployed.

6.5.3.4.7.1 Minimum requirement

The power of any spurious emission shall not exceed.

Table 6.32: BS spurious emissions limits for protection of adjacent band services

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|----------------|---------------|--|-----------------------|------|
| I | 2100-2105 MHz | $-30 + 3.4 \cdot (f - 2100 \text{ MHz}) \text{ dBm}$ | 1 MHz | |
| | 2175-2180 MHz | $-30 + 3.4 \cdot (2180 \text{ MHz} - f) \text{ dBm}$ | 1 MHz | |
| II | 1920-1925 MHz | $-30 + 3.4 \cdot (f - 1920 \text{ MHz}) \text{ dBm}$ | 1 MHz | |
| | 1995-2000 MHz | $-30 + 3.4 \cdot (2000 \text{ MHz} - f) \text{ dBm}$ | 1 MHz | |
| III | 1795-1800 MHz | $-30 + 3.4 \cdot (f - 1795 \text{ MHz}) \text{ dBm}$ | 1MHz | |
| | 1885-1890 MHz | $-30 + 3.4 \cdot (1890 \text{ MHz} - f) \text{ dBm}$ | 1MHz | |

6.5.3.4.8 Co-existence with UTRA-TDD

6.5.3.4.8.1 Operation in the same geographic area

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

6.5.3.4.8.1.1 Minimum Requirement

The power of any spurious emission shall not exceed.

Table 6.33: BS Spurious emissions limits for BS in geographic coverage area of UTRA-TDD

| Band | Maximum Level | Measurement Bandwidth | Note |
|------------------------|---------------|-----------------------|------|
| 1 900 MHz to 1 920 MHz | -52 dBm | 1 MHz | |
| 2 010 MHz to 2 025 MHz | -52 dBm | 1 MHz | |

6.5.3.4.8.2 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.

6.5.3.4.8.2.1 Minimum Requirement

The power of any spurious emission shall not exceed.

Table 6.34: BS Spurious emissions limits for BS co-located with UTRA-TDD

| Band | Maximum Level | Measurement Bandwidth | Note |
|------------------------|---------------|-----------------------|------|
| 1 900 MHz to 1 920 MHz | -86 dBm | 1 MHz | |
| 2 010 MHz to 2 025 MHz | -86 dBm | 1 MHz | |

6.5.3.4.9 Co-existence with UTRA-FDD in frequency band I

6.5.3.4.9.1 Operation in the same geographic area

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

6.5.3.4.9.1.1 Minimum Requirement

The power of any spurious emission shall not exceed:

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

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|------------------------|----------------------|------------------------------|--|
| <u>2110 – 2170 MHz</u> | <u>-52 dBm</u> | <u>1 MHz</u> | <u>This requirement does not apply to UTRA-FDD BS operating in band I</u> |
| <u>1920 – 1980 MHz</u> | <u>-49 dBm</u> | <u>1 MHz</u> | <u>This requirement does not apply to UTRA-FDD BS operating in band I, since it is already covered by the requirement in sub-clause 6.5.3.4.3.</u> |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|--------------------------|----------------------|------------------------------|-------------|
| III | 2110–2170 MHz | -52 dBm | 1 MHz | |
| | | | | |

6.5.3.4.9.2 Co-located base stations

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

6.5.3.4.9.2.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.34B: BS Spurious emissions limits for BS co-located with UTRA-FDD BS operating in frequency band I

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|------------------------|----------------------|------------------------------|-------------|
| <u>1920 - 1980 MHz</u> | <u>-96 dBm</u> | <u>100 kHz</u> | |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|--------------------------|----------------------|------------------------------|-------------|
| III | 1920–1980 MHz | -96 dBm | 100 kHz | |

6.5.3.4.10 Co-existence with UTRA-FDD in frequency band III

6.5.3.4.10.1 Operation in the same geographic area

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

6.5.3.4.10.1.1 Minimum Requirement

The power of any spurious emission shall not exceed:

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

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|------------------------|----------------------|------------------------------|--|
| <u>1805 – 1880 MHz</u> | <u>-52 dBm</u> | <u>1 MHz</u> | <u>This requirement does not apply to UTRA-FDD BS operating in band III</u> |
| <u>1710 – 1785 MHz</u> | <u>-49 dBm</u> | <u>1 MHz</u> | <u>This requirement does not apply to UTRA-FDD BS operating in band III, since it is already covered by the requirement in sub-clause 6.5.3.4.3.</u> |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|---------------------------------|---------------------------|------------------------------|-------------|
| † | 1805—1880 MHz | -62 dBm | 100 kHz | |

6.5.3.4.10.2 Co-located base stations

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

6.5.3.4.10.2.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.34D: BS Spurious emissions limits for BS co-located with UTRA-FDD BS operating in frequency band III

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|------------------------|----------------------|------------------------------|-------------|
| <u>1710 – 1785 MHz</u> | <u>-96 dBm</u> | <u>100 kHz</u> | |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|---------------------------------|---------------------------|------------------------------|-------------|
| † | 1710—1785 MHz | -96 dBm | 100 kHz | |

6.5.3.4.11 Co-existence with PCS1900

6.5.3.4.11.1 Operation in the same geographic area

This requirement may be applied for the protection of PCS 1900 BS receiver in geographic areas in which both PCS 1900 and UTRA-FDD BS ~~operating in the frequency band II~~ are deployed.

6.5.3.4.11.1.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.34Da: BS Spurious emissions limits for BS in geographic coverage area of PCS 1900 BS

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|------------------------|----------------------|------------------------------|---|
| <u>1850 - 1910 MHz</u> | <u>-61 dBm</u> | <u>100 kHz</u> | <u>This requirement does not apply to UTRA-FDD BS operating in frequency band II, since it is already covered by the requirement in sub-clause 6.5.3.4.3.</u> |
| <u>1930 - 1990 MHz</u> | <u>-47 dBm</u> | <u>100 kHz</u> | <u>This requirement does not apply to UTRA-FDD BS operating in frequency band II</u> |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|----------------------|----------------------|------------------------------|-------------|
| II | 1850–1910 MHz | -61 dBm | 100 kHz | |

6.5.3.4.11.2 Co-located base stations

This requirement may be applied for the protection of PCS1900 BS receivers when UTRA-FDD BS ~~operating in frequency band II~~ and PCS1900 BS are co-located.

6.5.3.4.11.2.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.34E: BS Spurious emissions limits for BS co-located with PCS1900 BS

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|------------------------|----------------------|------------------------------|-------------|
| <u>1850 – 1910 MHz</u> | <u>-98 dBm</u> | <u>100 kHz</u> | |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|------------------------|----------------------|------------------------------|-------------|
| II | 1850 – 1910 MHz | -98 dBm | 100 kHz | |

6.5.3.4.12 Co-existence with GSM850

6.5.3.4.12.1 Operation in the same geographic area

This requirement may be applied for the protection of GSM 850 MS and GSM 850 BS receiver in geographic areas in which both GSM 850 and UTRA-FDD BS ~~operating in the frequency band II~~ are deployed.

6.5.3.4.12.1.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.34Ea: BS Spurious emissions limits for BS in geographic coverage area of GSM 850

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|----------------------|----------------------|------------------------------|-------------|
| <u>824 - 849 MHz</u> | <u>-61 dBm</u> | <u>100 kHz</u> | |
| <u>869 – 894 MHz</u> | <u>-57 dBm</u> | <u>100 kHz</u> | |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|----------------------|----------------------|------------------------------|-------------|
| II | 824 – 849 MHz | -61 dBm | 100 kHz | |
| II | 869 – 894 MHz | -57 dBm | 100 kHz | |

6.5.3.4.12.2 Co-located base stations

This requirement may be applied for the protection of GSM850 BS receivers when UTRA-~~FDD~~ BS ~~operating in frequency band II~~ and GSM850 BS are co-located.

6.5.3.4.12.2.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.34F: BS Spurious emissions limits for BS co-located with GSM850 BS

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|----------------------|----------------------|------------------------------|-------------|
| <u>824 - 849 MHz</u> | <u>-98 dBm</u> | <u>100 kHz</u> | |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|----------------------|----------------------|------------------------------|-------------|
| II | 824 – 849 MHz | -98 dBm | 100 kHz | |

{ Separate Section }

6.5.3.7.4 Co-existence with GSM 900

6.5.3.7.4.1 Operation in the same geographic area

Table 6.38: BS Spurious emissions limits for BS in geographic coverage area of GSM 900

| Band | Maximum Level | Measurement Bandwidth | Note |
|--------------------|----------------------|------------------------------|-------------|
| 876 MHz to 915 MHz | -61 dBm | 100 kHz | |
| 921 MHz to 960 MHz | -57 dBm | 100 kHz | |

6.5.3.7.4.2 Co-located base stations

Table 6.39: BS Spurious emissions limits for protection of the BTS receiver

| Band | Maximum Level | Measurement Bandwidth | Note |
|--------------------|---------------|-----------------------|------|
| 876 MHz to 915 MHz | -98 dBm | 100 kHz | |

6.5.3.7.5 Co-existence with DCS 1800

6.5.3.7.5.1 Operation in the same geographic area

Table 6.40: BS Spurious emissions limits for BS in geographic coverage area of DCS 1800

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|--|-------------------------|------------------------------|---|
| 1 805 MHz to 1 880 MHz | -47 dBm | 100 kHz | This requirement does not apply to UTRA-FDD BS operating in band III |
| 1 710 MHz to 1 785 MHz | -61 dBm | 100 kHz | This requirement does not apply to UTRA-FDD BS operating in band III, since it is already covered by the requirement in sub-clause 6.5.3.4.3. |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|------------------------|----------------------|------------------------------|-------------|
| I | 1 805 MHz to 1 880 MHz | -47 dBm | 100 kHz | |
| I | 1 710 MHz to 1 785 MHz | -61 dBm | 100 kHz | |
| III | 1 710 MHz to 1 785 MHz | -61 dBm | 100 kHz | |

6.5.3.7.5.2 Co-located base stations

Table 6.41: BS Spurious emissions limits for BS co-located with DCS 1800 BTS

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|--|-------------------------|------------------------------|-------------|
| 1 710 MHz to 1 785 MHz | -98 dBm | 100 kHz | |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|------------------------|----------------------|------------------------------|-------------|
| I | 1 710 MHz to 1 785 MHz | -98 dBm | 100 kHz | |
| III | 1 710 MHz to 1 785 MHz | -98 dBm | 100 kHz | |

6.5.3.7.6 Co-existence with PHS

Table 6.42: BS Spurious emissions limits for BS in geographic coverage area of PHS

| Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------------|---------------|-----------------------|------|
| 1 893,5 MHz to 1 919,60 MHz | -41 dBm | 300 kHz | |

6.5.3.7.7 Co-existence with services in adjacent frequency bands

Table 6.43: BS spurious emissions limits for protection of adjacent band services

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|----------------|---------------|--|-----------------------|------|
| I | 2100-2105 MHz | $-30 + 3.4 \cdot (f - 2100 \text{ MHz})$ dBm | 1 MHz | |
| | 2175-2180 MHz | $-30 + 3.4 \cdot (2180 \text{ MHz} - f)$ dBm | 1 MHz | |
| II | 1920-1925 MHz | $-30 + 3.4 \cdot (f - 1920 \text{ MHz})$ dBm | 1 MHz | |
| | 1995-2000 MHz | $-30 + 3.4 \cdot (2000 \text{ MHz} - f)$ dBm | 1 MHz | |
| III | 1795-1800 MHz | $-30 + 3.4 \cdot (f - 1795 \text{ MHz})$ dBm | 1MHz | |
| | 1885-1890 MHz | $-30 + 3.4 \cdot (1890 \text{ MHz} - f)$ dBm | 1MHz | |

6.5.3.7.8 Co-existence with UTRA-TDD

6.5.3.7.8.1 Operation in the same geographic area

Table 6.44: BS Spurious emissions limits for BS in geographic coverage area of UTRA-TDD

| Band | Maximum Level | Measurement Bandwidth | Note |
|------------------------|---------------|-----------------------|------|
| 1 900 MHz to 1 920 MHz | -52 dBm | 1 MHz | |
| 2 010 MHz to 2 025 MHz | -52 dBm | 1 MHz | |

6.5.3.7.8.2 Co-located base stations

Table 6.45: BS Spurious emissions limits for BS co-located with UTRA-TDD

| Band | Maximum Level | Measurement Bandwidth | Note |
|------------------------|---------------|-----------------------|------|
| 1 900 MHz to 1 920 MHz | -86 dBm | 1 MHz | |
| 2 010 MHz to 2 025 MHz | -86 dBm | 1 MHz | |

6.5.3.7.9 Co-existence with UTRA-FDD in frequency band I

6.5.3.7.9.1 Operation in the same geographic area

Table 6.46: BS Spurious emissions limits for BS in geographic coverage area of UTRA-FDD UE receiver and BS receiver operating in frequency band I

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|------------------------|----------------------|------------------------------|--|
| <u>2110 – 2170 MHz</u> | <u>-52 dBm</u> | <u>1 MHz</u> | <u>This requirement does not apply to UTRA-FDD BS operating in band I</u> |
| <u>1920 – 1980 MHz</u> | <u>-49 dBm</u> | <u>1 MHz</u> | <u>This requirement does not apply to UTRA-FDD BS operating in band I, since it is already covered by the requirement in sub-clause 6.5.3.4.3.</u> |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|----------------------|----------------------|------------------------------|-------------|
| III | 2110—2170 MHz | -52 dBm | 1 MHz | |

6.5.3.7.9.2 Co-located base stations

Table 6.47: BS Spurious emissions limits for BS co-located with UTRA-FDD BS operating in frequency band I

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|---------------------------------|-------------------------|------------------------------|-------------|
| 1920 - 1980 MHz | -96 dBm | 100 kHz | |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|----------------------|----------------------|------------------------------|-------------|
| III | 1920—1980 MHz | -96 dBm | 100 kHz | |

6.5.3.7.10 Co-existence with UTRA-FDD in frequency band III

6.5.3.7.10.1 Operation in the same geographic area

Table 6.48: BS Spurious emissions limits for BS in geographic coverage area of UTRA-FDD UE receiver and BS receiver operating in frequency band III

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|---------------------------------|-------------------------|------------------------------|---|
| 1805 – 1880 MHz | -52 dBm | 1 MHz | This requirement does not apply to UTRA-FDD BS operating in band III |
| 1710 – 1785 MHz | -49 dBm | 1 MHz | This requirement does not apply to UTRA-FDD BS operating in band III, since it is already covered by the requirement in sub-clause 6.5.3.4.3. |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|----------------------|----------------------|------------------------------|-------------|
| I | 1805—1880 MHz | -62 dBm | 100 kHz | |

6.5.3.7.10.2 Co-located base stations

Table 6.49: BS Spurious emissions limits for BS co-located with UTRA-FDD BS operating in frequency band III

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|---------------------------------|-------------------------|------------------------------|-------------|
| 1710 – 1785 MHz | -96 dBm | 100 kHz | |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|----------------------|----------------------|------------------------------|-------------|
| I | 1710—1785 MHz | -96 dBm | 100 kHz | |

6.5.3.7.11 Co-existence with PCS1900

6.5.3.7.11.1 Operation in the same geographic area

Table 6.49A: BS Spurious emissions limits for BS in geographic coverage area of PCS 1900 BS

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|---------------------------------|-------------------------|------------------------------|--|
| 1850 - 1910 MHz | -61 dBm | 100 kHz | This requirement does not apply to UTRA-FDD BS operating in frequency band II, since it is already covered by the requirement in sub-clause 6.5.3.4.3. |
| 1930 - 1990 MHz | -47 dBm | 100 kHz | This requirement does not apply to UTRA-FDD BS operating in frequency band II |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|--------------------------|----------------------|------------------------------|-------------|
| II | 1850—1910 MHz | -61 dBm | 100 kHz | |

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.

6.5.3.7.11.2 Co-located base stations

Table 6.50: BS Spurious emissions limits for BS co-located with PCS1900 BS

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|---------------------------------|-------------------------|------------------------------|-------------|
| 1850 – 1910 MHz | -98 dBm | 100 kHz | |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|--------------------------|----------------------|------------------------------|-------------|
| II | 1850—1910 MHz | —98 dBm | 100 kHz | |

6.5.3.7.12 Co-existence with GSM850

6.5.3.7.12.1 Operation in the same geographic area

Table 6.50A: BS Spurious emissions limits for BS in geographic coverage area of GSM 850

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|-------------------------------|-------------------------|------------------------------|-------------|
| 824 - 849 MHz | -61 dBm | 100 kHz | |
| 869 – 894 MHz | -57 dBm | 100 kHz | |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|------------------------|----------------------|------------------------------|-------------|
| II | 824—849 MHz | -61 dBm | 100 kHz | |
| II | 869—894 MHz | -57 dBm | 100 kHz | |

6.5.3.7.12.2 Co-located base stations

Table 6.51: BS Spurious emissions limits for BS co-located with GSM850 BS

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|---------------|----------------------|------------------------------|-------------|
| 824 – 849 MHz | -98 dBm | 100 kHz | |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|-------------|----------------------|------------------------------|-------------|
| II | 824—849 MHz | -98 dBm | 100 kHz | |

{ Separate Section }

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 applies as specified in tables 7.4(a) to 7.4(g).

The requirements in Table 7.4(a) shall apply to base stations intended for general-purpose applications, depending on which frequency band is used. The requirements in Tables 7.4 (b) to 7.4 (g) may be applied when the UTRA-FDD BS is co-located with GSM900, GSM850, PCS1900 and/or BS operation in DCS1800 band (UTRA-FDD or GSM).

7.5.2 Minimum Requirements

The BER shall not exceed 0.001 for the parameters specified in table 7.4.

Table 7.4(a): Blocking characteristics

| Operating Band | Center Frequency of Interfering Signal | Interfering Signal Level | Wanted Signal mean power | Minimum Offset of Interfering Signal | Type of Interfering Signal |
|-----------------------|---|---------------------------------|---------------------------------|---|-----------------------------------|
| I | 1920 - 1980 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA * |
| | 1900 - 1920 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| | 1980 - 2000 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| | 1 MHz -1900 MHz 2000 MHz - 12750 MHz | -15 dBm | -115 dBm | — | CW carrier |
| II | 1850 - 1910 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA * |
| | 1830 - 1850 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA * |
| | 1910 - 1930 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA * |
| | 1 MHz - 1830 MHz 1930 MHz - 12750 MHz | -15 dBm | -115 dBm | — | CW carrier |
| III | 1710 – 1785 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| | 1690 - 1710 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| | 1785 – 1805 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| | 1 MHz - 1690 MHz 1805 MHz - 12750 MHz | -15 dBm | -115 dBm | — | CW carrier |

Note *: The characteristics of the W-CDMA interference signal are specified in Annex I.

Table 7.4(b): Blocking performance requirement when co-located with GSM900

| <u>Center Frequency of Interfering Signal</u> | <u>Interfering Signal mean power</u> | <u>Wanted Signal mean power</u> | <u>Minimum Offset of Interfering Signal</u> | <u>Type of Interfering Signal</u> |
|---|--------------------------------------|---------------------------------|---|-----------------------------------|
| 921-960 MHz | +16 dBm | -115 dBm | — | CW carrier |

| Operating Band | Center-Frequency-of Interfering-Signal | Interfering Signal-mean power | Wanted-Signal-mean power | Minimum-Offset-of Interfering-Signal | Type-of Interfering-Signal |
|-----------------------|---|--------------------------------------|---------------------------------|---|-----------------------------------|
| I, III | 921-960 MHz | +16 dBm | -115 dBm | — | CW-carrier |

Table 7.4(c): Blocking performance requirement for operation when co-located with BTS operating inDCS1800 band (GSM or UTRA-FDD)

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

| Operating Band | Center-Frequency-of Interfering-Signal | Interfering Signal-mean power | Wanted-Signal-mean power | Minimum-Offset-of Interfering-Signal | Type-of Interfering-Signal |
|-----------------------|---|--------------------------------------|---------------------------------|---|-----------------------------------|
| I, III | 1805-1880 MHz | +16 dBm | -115 dBm | — | CW-carrier |

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

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

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

Table 7.4(e): Blocking performance requirement for operation when co-located with PCS1900 BTS

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

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

Table 7.4(f): Blocking performance requirement (narrowband)

| Operating Band | Center Frequency of Interfering Signal | Interfering Signal mean power | Wanted Signal mean power | Minimum Offset of Interfering Signal | Type of Interfering Signal |
|----------------|--|-------------------------------|--------------------------|--------------------------------------|----------------------------|
| II | 1850 - 1910 MHz | - 47 dBm | -115 dBm | 2.7 MHz | GMSK modulated* |
| III | 1710 – 1785 MHz | - 47 dBm | -115 dBm | 2.8 MHz | GMSK modulated* |

* GMSK modulation as defined in TS 45.004 [12].

Table 7.4(g): Blocking performance requirement for operation when co-located with GSM850 BTS

| <u>Center Frequency of Interfering Signal</u> | <u>Interfering Signal mean power</u> | <u>Wanted Signal Level</u> | <u>Minimum Offset of Interfering Signal</u> | <u>Type of Interfering Signal</u> |
|---|--------------------------------------|----------------------------|---|-----------------------------------|
| 869 – 894 MHz | +16 dBm | -115 dBm | — | CW carrier |

| Operating band | Center Frequency of Interfering Signal | Interfering Signal mean power | Wanted Signal Level | Minimum Offset of Interfering Signal | Type of Interfering Signal |
|-----------------------|---|--------------------------------------|----------------------------|---|-----------------------------------|
| II | 869—894 MHz | +16 dBm | -115 dBm | — | CW carrier |

The normative reference for these requirements is in TS 25.104[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 4.4.1.

RF channels to be tested: M see subclause 4.8. The BS shall be configured to operate as close to the centre of the operating band as possible.

- 1) Connect WCDMA signal generator at the assigned channel frequency of the wanted signal and a signal generator to the antenna connector of one Rx port.
- 2) Terminate any other Rx port not under test.
- 3) Transmit a signal from the WCDMA signal generator to the BS. The characteristics of the signal shall be set according to the UL reference measurement channel (12,2 kbit/s) specified in annex A subclause A.2.1. The level of the WCDMA signal measured at the BS antenna connector shall be set to the level specified in subclause 7.5.5.

7.5.4.2 Procedure

- 1) Adjust the signal generators to the type of interfering signals and the frequency offsets as specified in Tables 7.4A(a) to 7.4A(g). Note that the GMSK modulated interfering signal shall have an ACLR of at least 72 dB in order to eliminate the impact of interference signal adjacent channel leakage power on the blocking characteristics measurement. For the tests defined in Table 7.4A(a), the interfering signal shall be at a frequency offset F_{uw} from the assigned channel frequency of the wanted signal which is given by:

$$F_{uw} = \pm (n \times 1 \text{ MHz}),$$

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.

- 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) to (2).

7.5.5 Test Requirements

The BER shall not exceed 0.001 for the parameters specified in table 7.4A.

Table 7.4A(a): Blocking characteristics

| Operating Band | Center Frequency of Interfering Signal | Interfering Signal mean power | Wanted Signal mean power | Minimum Offset of Interfering Signal | Type of Interfering Signal |
|----------------|--|-------------------------------|--------------------------|--------------------------------------|----------------------------|
| I | 1920 - 1980 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| | 1900 - 1920 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| | 1980 - 2000 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| II | 1 MHz - 1900 MHz | -15 dBm | -115 dBm | — | CW carrier |
| | 2000 MHz - 12750 MHz | -15 dBm | -115 dBm | — | CW carrier |
| | 1850 - 1910 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| | 1830 - 1850 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| III | 1910 - 1930 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| | 1 MHz - 1830 MHz | -15 dBm | -115 dBm | — | CW carrier |
| | 1930 MHz - 12750 MHz | -15 dBm | -115 dBm | — | CW carrier |
| | 1710 - 1785 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| III | 1690 - 1710 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| | 1785 - 1805 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| | 1 MHz - 1690 MHz | -15 dBm | -115 dBm | — | CW carrier |
| | 1805 MHz - 12750 MHz | -15 dBm | -115 dBm | — | CW carrier |

Note *: The characteristics of the W-CDMA interference signal are specified in Annex I.

Table 7.4A(b): Blocking performance requirement when co-located with GSM900

| <u>Center Frequency of Interfering Signal</u> | <u>Interfering Signal mean power</u> | <u>Wanted Signal mean power</u> | <u>Minimum Offset of Interfering Signal</u> | <u>Type of Interfering Signal</u> |
|---|--------------------------------------|---------------------------------|---|-----------------------------------|
| 921 -960 MHz | +16 dBm | -115 dBm | — | CW carrier |

| Operating Band | Center Frequency of Interfering Signal | Interfering Signal mean power | Wanted Signal mean power | Minimum Offset of Interfering Signal | Type of Interfering Signal |
|-----------------------|---|--------------------------------------|---------------------------------|---|-----------------------------------|
| I, III | 921-960 MHz | +16 dBm | -115 dBm | — | CW carrier |

Table 7.4A(c): Blocking performance requirement when co-located with Base Station operating in DCS1800 band (GSM or UTRA-FDD)

| <u>Center Frequency of Interfering Signal</u> | <u>Interfering Signal mean power</u> | <u>Wanted Signal mean power</u> | <u>Minimum Offset of Interfering Signal</u> | <u>Type of Interfering Signal</u> |
|---|--------------------------------------|---------------------------------|---|-----------------------------------|
| 1805 - 1880 MHz | +16 dBm | -115 dBm | — | CW carrier |

| Operating Band | Center Frequency of Interfering Signal | Interfering Signal mean power | Wanted Signal mean power | Minimum Offset of Interfering Signal | Type of Interfering Signal |
|-----------------------|---|--------------------------------------|---------------------------------|---|-----------------------------------|
| I, III | 1805-1880 MHz | +16 dBm | -115 dBm | — | CW carrier |

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

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

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

Table 7.4A(e): Blocking performance requirement for operation when co-located with PCS1900 BTS

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

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

Table 7.4A(f): Blocking performance requirement (narrowband)

| Operating Band | Center Frequency of Interfering Signal | Interfering Signal mean power | Wanted Signal mean power | Minimum Offset of Interfering Signal | Type of Interfering Signal |
|----------------|--|-------------------------------|--------------------------|--------------------------------------|----------------------------|
| II | 1850 - 1910 MHz | - 47 dBm | -115 dBm | 2.7 MHz | GMSK modulated* |
| III | 1710 – 1785 MHz | - 47 dBm | -115 dBm | 2.8 MHz | GMSK modulated* |

* GMSK modulation as defined in TS 45.004 [12].

Table 7.4A(g): Blocking performance requirement for operation when co-located with GSM850 BTS

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

| Operating band | Center-Frequency-of Interfering-Signal | Interfering Signal-mean power | Wanted-Signal mean-power | Minimum-Offset-of Interfering-Signal | Type-of Interfering-Signal |
|-----------------------|---|--------------------------------------|---------------------------------|---|-----------------------------------|
| II | 869—894-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.

Paris, France 19 - 23 May, 2003

CR-Form-v7

CHANGE REQUEST

⌘ **25.141** CR **300** ⌘ rev **1** ⌘ Current version: **6.1.0** ⌘

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: | ⌘ Correction and alignment on the test requirements for UTRA-FDD BS in co-existence and co-location with GSM/UTRA |
| Source: | ⌘ RAN WG4 |
| Work item code: | ⌘ TEI5 |
| Date: | ⌘ 27/05/2003 |
| Category: | ⌘ A |
| | Use <u>one</u> of the following categories: |
| | F (correction) |
| | A (corresponds to a correction in an earlier release) |
| | B (addition of feature), |
| | C (functional modification of feature) |
| | D (editorial modification) |
| | Detailed explanations of the above categories can be found in 3GPP TR 21.900 . |
| Release: | ⌘ Rel-6 |
| | Use <u>one</u> of the following releases: |
| | 2 (GSM Phase 2) |
| | R96 (Release 1996) |
| | R97 (Release 1997) |
| | R98 (Release 1998) |
| | R99 (Release 1999) |
| | Rel-4 (Release 4) |
| | Rel-5 (Release 5) |
| | Rel-6 (Release 6) |

| | | |
|--------------------------------------|---|--|
| Reason for change: | ⌘ | <ol style="list-style-type: none"> 1) For the co-existence and co-location requirements, some are specified with the indication of operating bands, some not, an alignment is needed. 2) The requirement for the protection of UTRA-FDD BS receiver operating in band I (III) in co-existence with UTRA-FDD BS operating in other bands was missing. 3) There are several editorial type errors. |
| Summary of change: | ⌘ | <ul style="list-style-type: none"> • Several editorial type corrections • Deletion of operating bands in the requirements for co-existence and co-location, except co-existence with services in adjacent bands • Addition of requirements for the protection of UTRA-FDD BS receiver operating in band I (III) in co-existence with UTRA-FDD BS operating in other bands, the requirement of -49 dBm/1 MHz is derived from the already existing co-location requirement of -96dBm/100kHz, whereas co-location is based on 30dB MCL. For co-existence in the Same Geographic Area the approved scenario of TR 25.942 with an MCL of 67dB is used (-96dBm/100kHz + 37dB (=67dB - 30dB) = -59 dBm/100kHz = -49 dBm/1 MHz). • Alignment of the blocking requirements for co-location. |
| Consequences if not approved: | ⌘ | <p>There will be existing differences and dis-alignment in the requirements for co-existence and co-location concerning the operating bands. The requirements for protection of UTRA-FDD BS receiver operating in band I and III will be missing</p> <p>Isolated Impact Analysis: Approval of this CR should not affect FDD BS implementation and performance.</p> |

| | | | | | | | | | | | | |
|------------------------------|---------------------|---|---|---|---|--|--|---|--|---|---------------------------|-------------|
| Clauses affected: | ⌘ | 4.7; 6.5.3.4.4 ~6.5.3.4.12; 6.5.3.7.4 ~6.5.3.7.12 | | | | | | | | | | |
| Other specs affected: | ⌘ | <table border="1"><tr><td>Y</td><td>N</td></tr><tr><td>X</td><td></td></tr><tr><td></td><td>X</td></tr><tr><td></td><td>X</td></tr></table> | Y | N | X | | | X | | X | Other core specifications | ⌘ TS 25.104 |
| | | Y | N | | | | | | | | | |
| | | X | | | | | | | | | | |
| | X | | | | | | | | | | | |
| | X | | | | | | | | | | | |
| | Test specifications | | | | | | | | | | | |
| | O&M Specifications | | | | | | | | | | | |
| Other comments: | ⌘ | Equivalent CRs in other Releases: CR299r1 cat. F to 25.141 v5.6.0 | | | | | | | | | | |

How to create CRs using this form:

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

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

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. |
| 3.4.2 | 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 the same geographic area | This requirement may be applied for the protection 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. |
| 7.5 | Blocking characteristic | The requirement is applied according to what frequency bands include 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.

{ Separate section }

6.5.3.4.4 Co-existence with GSM 900

6.5.3.4.4.1 Operation in the same geographic area

This requirement may be applied for the protection of GSM 900 MS and GSM 900 BTS receivers in geographic areas in which both GSM 900 and UTRA-FDD are deployed.

This requirement assumes the scenario described in [2]. For different scenarios, the manufacturer may declare a different requirement.

6.5.3.4.4.1.1 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 GSM 900

| Band | Maximum Level | Measurement Bandwidth | Note |
|--------------------|---------------|-----------------------|------|
| 876 MHz to 915 MHz | -61 dBm | 100 kHz | |
| 921 MHz to 960 MHz | -57 dBm | 100 kHz | |

6.5.3.4.4.2 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.

6.5.3.4.4.2.1 Minimum Requirement

The power of any spurious emission shall not exceed.

Table 6.28: BS Spurious emissions limits for protection of the BTS receiver

| BS class | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------|---------------|---------------|-----------------------|------|
| Wide Area BS | 876 - 915 MHz | -98 dBm | 100 kHz | |
| Medium Range BS | 876 - 915 MHz | -91 dBm | 100 kHz | |
| Local Area BS | 876 - 915 MHz | -70 dBm | 100 kHz | |

6.5.3.4.5 Co-existence with DCS 1800

6.5.3.4.5.1 Operation in the same geographic area

This requirement may be applied for the protection of DCS 1800 MS and DCS 1800 BTS receivers in geographic areas in which both DCS 1800 and UTRA-FDD are deployed.

~~This requirement assumes the scenario described in [2]. For different scenarios, the manufacturer may declare a different requirement.~~

6.5.3.4.5.1.1 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 DCS 1800

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|-------------------------------|----------------------|------------------------------|--|
| <u>1 805 MHz to 1 880 MHz</u> | <u>-47 dBm</u> | <u>100 kHz</u> | <u>This requirement does not apply to UTRA-FDD BS operating in band III</u> |
| <u>1 710 MHz to 1 785 MHz</u> | <u>-61 dBm</u> | <u>100 kHz</u> | <u>This requirement does not apply to UTRA-FDD BS operating in band III, since it is already covered by the requirement in sub-clause 6.5.3.4.3.</u> |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|-------------------------------|----------------------|------------------------------|-------------|
| † | 1 805 MHz to 1 880 MHz | -47 dBm | 100 kHz | |
| † | 1 710 MHz to 1 785 MHz | -61 dBm | 100 kHz | |
| ‡ | 1 710 MHz to 1 785 MHz | -61 dBm | 100 kHz | |

6.5.3.4.5.2 Co-located basestations

This requirement may be applied for the protection of DCS 1800 BTS receivers when DCS 1800 BTS and UTRA-FDD BS are co-located.

6.5.3.4.5.2.1 Minimum Requirement

The power of any spurious emission shall not exceed.

Table 6.30: BS Spurious emissions limits for BS co-located with DCS 1800 BTS

| <u>BS class</u> | <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|------------------------|------------------------|----------------------|------------------------------|-------------|
| <u>Wide Area BS</u> | <u>1710 - 1785 MHz</u> | <u>-98 dBm</u> | <u>100 kHz</u> | |
| <u>Medium Range BS</u> | <u>1710 - 1785 MHz</u> | <u>-96 dBm</u> | <u>100 kHz</u> | |
| <u>Local Area BS</u> | <u>1710 - 1785 MHz</u> | <u>-80 dBm</u> | <u>100 kHz</u> | |

| BS-class | Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|------------------------|-----------------------|--------------------------|----------------------|------------------------------|-------------|
| Wide-Area-BS | † | 1 710 – 1 785 MHz | -98 dBm | 100 kHz | |
| Medium-Range-BS | † | 1710 – 1785 MHz | -96 dBm | | |
| Local-Area-BS | † | 1710 – 1785 MHz | -80 dBm | | |
| Wide-Area-BS | ‡ | 1 710 – 1 785 MHz | -98 dBm | 100 kHz | |
| Medium-Range-BS | ‡ | 1710 – 1785 MHz | -96 dBm | 100 kHz | |
| Local-Area-BS | ‡ | 1710 – 1785 MHz | -80 dBm | 100 kHz | |

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.

6.5.3.4.6.1 Minimum Requirement

The power of any spurious emission shall not exceed.

Table 6.31: BS Spurious emissions limits for BS in geographic coverage area of PHS

| Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------------|----------------------|------------------------------|-------------|
| 1 893,5 MHz to 1 919,60 MHz | -41 dBm | 300 kHz | |

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 bands I, II or III, as defined in clause 3.4.1 in geographic areas in which both an adjacent band service and UTRA-FDD are deployed.

6.5.3.4.7.1 Minimum requirement

The power of any spurious emission shall not exceed.

Table 6.32: BS spurious emissions limits for protection of adjacent band services

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|----------------|---------------|--|-----------------------|------|
| I | 2100-2105 MHz | $-30 + 3.4 \cdot (f - 2100 \text{ MHz}) \text{ dBm}$ | 1 MHz | |
| | 2175-2180 MHz | $-30 + 3.4 \cdot (2180 \text{ MHz} - f) \text{ dBm}$ | 1 MHz | |
| II | 1920-1925 MHz | $-30 + 3.4 \cdot (f - 1920 \text{ MHz}) \text{ dBm}$ | 1 MHz | |
| | 1995-2000 MHz | $-30 + 3.4 \cdot (2000 \text{ MHz} - f) \text{ dBm}$ | 1 MHz | |
| III | 1795-1800 MHz | $-30 + 3.4 \cdot (f - 1795 \text{ MHz}) \text{ dBm}$ | 1MHz | |
| | 1885-1890 MHz | $-30 + 3.4 \cdot (1890 \text{ MHz} - f) \text{ dBm}$ | 1MHz | |

6.5.3.4.8 Co-existence with UTRA-TDD

6.5.3.4.8.1 Operation in the same geographic area

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

6.5.3.4.8.1.1 Minimum Requirement

The power of any spurious emission shall not exceed.

Table 6.33: BS Spurious emissions limits for BS in geographic coverage area of UTRA-TDD

| Band | Maximum Level | Measurement Bandwidth | Note |
|------------------------|---------------|-----------------------|------|
| 1 900 MHz to 1 920 MHz | -52 dBm | 1 MHz | |
| 2 010 MHz to 2 025 MHz | -52 dBm | 1 MHz | |

6.5.3.4.8.2 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.

6.5.3.4.8.2.1 Minimum Requirement

The power of any spurious emission shall not exceed.

Table 6.34: BS Spurious emissions limits for BS co-located with UTRA-TDD

| BS class | Band | Maximum Level | Measurement Bandwidth | Note |
|---------------|-------------------|---------------|-----------------------|------|
| Wide Area BS | 1 900 - 1 920 MHz | -86 dBm | 1 MHz | |
| Local Area BS | 1900 - 1920 MHz | -55 dBm | 1 MHz | |
| Wide Area BS | 2 010 - 2025 MHz | -86 dBm | 1 MHz | |
| Local Area BS | 2010 - 2025 MHz | -55 dBm | 1 MHz | |

6.5.3.4.9 Co-existence with UTRA-FDD in frequency band I

6.5.3.4.9.1 Operation in the same geographic area

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

6.5.3.4.9.1.1 Minimum Requirement

The power of any spurious emission shall not exceed:

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

| Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------|---------------|-----------------------|---|
| 2110 – 2170 MHz | -52 dBm | 1 MHz | This requirement does not apply to UTRA-FDD BS operating in band I |
| 1920 – 1980 MHz | -49 dBm | 1 MHz | This requirement does not apply to UTRA-FDD BS operating in band I, since it is already covered by the requirement in sub-clause 6.5.3.4.3. |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|----------------|---------------|---------------|-----------------------|------|
| III | 2110–2170 MHz | -52 dBm | 1 MHz | |

6.5.3.4.9.2 Co-located base stations

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

6.5.3.4.9.2.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.34B: BS Spurious emissions limits for BS co-located with UTRA-FDD BS operating in frequency band I

| Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------|---------------|-----------------------|------|
| 1920 - 1980 MHz | -96 dBm | 100 kHz | |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|----------------|---------------|---------------|-----------------------|------|
| III | 1920–1980 MHz | -96 dBm | 100 kHz | |

6.5.3.4.10 Co-existence with UTRA-FDD in frequency band III

6.5.3.4.10.1 Operation in the same geographic area

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

6.5.3.4.10.1.1 Minimum Requirement

The power of any spurious emission shall not exceed:

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

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|------------------------|----------------------|------------------------------|--|
| <u>1805 – 1880 MHz</u> | <u>-52 dBm</u> | <u>1 MHz</u> | <u>This requirement does not apply to UTRA-FDD BS operating in band III</u> |
| <u>1710 – 1785 MHz</u> | <u>-49 dBm</u> | <u>1 MHz</u> | <u>This requirement does not apply to UTRA-FDD BS operating in band III, since it is already covered by the requirement in sub-clause 6.5.3.4.3.</u> |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|----------------------|----------------------|------------------------------|-------------|
| † | 1805—1880 MHz | -62 dBm | 100 kHz | |

6.5.3.4.10.2 Co-located base stations

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

6.5.3.4.10.2.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.34D: BS Spurious emissions limits for BS co-located with UTRA-FDD BS operating in frequency band III

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|------------------------|----------------------|------------------------------|-------------|
| <u>1710 – 1785 MHz</u> | <u>-96 dBm</u> | <u>100 kHz</u> | |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|----------------------|----------------------|------------------------------|-------------|
| † | 1710—1785 MHz | -96 dBm | 100 kHz | |

6.5.3.4.11 Co-existence with PCS1900

6.5.3.4.11.1 Operation in the same geographic area

This requirement may be applied for the protection of PCS 1900 BS receiver in geographic areas in which both PCS 1900 and UTRA-FDD BS operating in the frequency band II are deployed.

6.5.3.4.11.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.34Da: BS Spurious emissions limits for BS in geographic coverage area of PCS 1900 BS

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|---------------------------------|-------------------------|------------------------------|--|
| 1850 - 1910 MHz | -61 dBm | 100 kHz | This requirement does not apply to UTRA-FDD BS operating in frequency band II, since it is already covered by the requirement in sub-clause 6.5.3.4.3. |
| 1930 - 1990 MHz | -47 dBm | 100 kHz | This requirement does not apply to UTRA-FDD BS operating in frequency band II |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|--------------------------|----------------------|------------------------------|-------------|
| II | 1850—1910 MHz | -61 dBm | 100 kHz | |

6.5.3.4.11.2 Co-located base stations

This requirement may be applied for the protection of PCS1900 BS receivers when UTRA-FDD BS ~~operating in frequency band II~~ and PCS1900 BS are co-located.

6.5.3.4.11.2.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.34E: BS Spurious emissions limits for BS co-located with PCS1900 BS

| <u>BS class</u> | <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|---------------------------------|---------------------------------|-------------------------|------------------------------|-------------|
| Wide Area BS | 1850 – 1910 MHz | -98 dBm | 100 kHz | |
| Medium Range BS | 1850 – 1910 MHz | -96 dBm | 100 kHz | |
| Local Area BS | 1850 – 1910 MHz | -80 dBm | 100 kHz | |

| BS class | Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|----------------------------|-----------------------|--------------------------|----------------------|------------------------------|-------------|
| Wide Area BS | II | 1850—1910 MHz | -98 dBm | 100 kHz | |
| Medium Range BS | II | 1850—1910 MHz | -96 dBm | 100 kHz | |
| Local Area BS | II | 1850—1910 MHz | -80 dBm | 100 kHz | |

6.5.3.4.12 Co-existence with GSM850

6.5.3.4.12.1 Operation in the same geographic area

This requirement may be applied for the protection of GSM 850 MS and GSM 850 BS receiver in geographic areas in which both GSM 850 and UTRA-FDD BS ~~operating in the frequency band II~~ are deployed.

6.5.3.4.12.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.34Ea: BS Spurious emissions limits for BS in geographic coverage area of GSM 850

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|----------------------|----------------------|------------------------------|-------------|
| <u>824 - 849 MHz</u> | <u>-61 dBm</u> | <u>100 kHz</u> | |
| <u>869 – 894 MHz</u> | <u>-57 dBm</u> | <u>100 kHz</u> | |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|----------------------|----------------------|------------------------------|-------------|
| II | 824 – 849 MHz | -61 dBm | 100 kHz | |
| II | 869 – 894 MHz | -57 dBm | 100 kHz | |

6.5.3.4.12.2 Co-located base stations

This requirement may be applied for the protection of GSM850 BS receivers when UTRA-FDD BS operating in frequency band II and GSM850 BS are co-located.

6.5.3.4.12.2.1 Minimum Requirement

The power of any spurious emission shall not exceed:

Table 6.34F: BS Spurious emissions limits for BS co-located with GSM850 BS

| <u>BS class</u> | <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|------------------------|----------------------|----------------------|------------------------------|-------------|
| <u>Wide Area BS</u> | <u>824 - 849 MHz</u> | <u>-98 dBm</u> | <u>100 kHz</u> | |
| <u>Medium Range BS</u> | <u>824 - 849 MHz</u> | <u>-91 dBm</u> | <u>100 kHz</u> | |
| <u>Local Area BS</u> | <u>824 - 849 MHz</u> | <u>-70 dBm</u> | <u>100 kHz</u> | |

| BS-class | Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|------------------------|-----------------------|----------------------|----------------------|------------------------------|-------------|
| Wide-Area-BS | II | 824 – 849 MHz | -98 dBm | 100 kHz | |
| Medium-Range-BS | II | 824 – 849 MHz | -91 dBm | 100 kHz | |
| Local-Area-BS | II | 824 – 849 MHz | -70 dBm | 100 kHz | |

{ Separate section }

6.5.3.7.4 Co-existence with GSM 900

6.5.3.7.4.1 Operation in the same geographic area

Table 6.38: BS Spurious emissions limits for BS in geographic coverage area of GSM 900

| Band | Maximum Level | Measurement Bandwidth | Note |
|--------------------|---------------|-----------------------|------|
| 876 MHz to 915 MHz | -61 dBm | 100 kHz | |
| 921 MHz to 960 MHz | -57 dBm | 100 kHz | |

6.5.3.7.4.2 Co-located base stations

Table 6.39: BS Spurious emissions limits for protection of the BTS receiver

| BS class | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------|-------------|---------------|-----------------------|------|
| Wide Area BS | 876-915 MHz | -98 dBm | 100 kHz | |
| Medium Range BS | 876-915 MHz | -91 dBm | 100 kHz | |
| Local Area BS | 876-915 MHz | -70 dBm | 100 kHz | |

6.5.3.7.5 Co-existence with DCS 1800

6.5.3.7.5.1 Operation in the same geographic area

Table 6.40: BS Spurious emissions limits for BS in geographic coverage area of DCS 1800

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|--|-------------------------|------------------------------|---|
| 1 805 MHz to 1 880 MHz | -47 dBm | 100 kHz | This requirement does not apply to UTRA-FDD BS operating in band III |
| 1 710 MHz to 1 785 MHz | -61 dBm | 100 kHz | This requirement does not apply to UTRA-FDD BS operating in band III, since it is already covered by the requirement in sub-clause 6.5.3.4.3. |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|------------------------|----------------------|------------------------------|-------------|
| ↓ | 1 805 MHz to 1 880 MHz | -47 dBm | 100 kHz | |
| ↓ | 1 710 MHz to 1 785 MHz | -61 dBm | 100 kHz | |
| ≡ | 1 710 MHz to 1 785 MHz | -61 dBm | 100 kHz | |

6.5.3.7.5.2 Co-located base stations

Table 6.41: BS Spurious emissions limits for BS co-located with DCS 1800 BTS

| <u>BS class</u> | <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|------------------------|------------------------|----------------------|------------------------------|-------------|
| <u>Wide Area BS</u> | <u>1710 - 1785 MHz</u> | <u>-98 dBm</u> | <u>100 kHz</u> | |
| <u>Medium Range BS</u> | <u>1710 - 1785 MHz</u> | <u>-96 dBm</u> | <u>100 kHz</u> | |
| <u>Local Area BS</u> | <u>1710 - 1785 MHz</u> | <u>-80 dBm</u> | <u>100 kHz</u> | |

| BS-class | Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|----------------------------|-----------------------|---------------------------|----------------------|------------------------------|-------------|
| Wide Area BS | ↓ | 1710--1785 MHz | -98 dBm | 100 kHz | |
| Medium Range BS | ↓ | 1710--1785 MHz | -96 dBm | 100 kHz | |
| Local Area BS | ↓ | 1710--1785 MHz | -80 dBm | 100 kHz | |
| Wide Area BS | ≡ | 1710--1785 MHz | -98 dBm | 100 kHz | |
| Medium Range BS | ≡ | 1710--1785 MHz | -96 dBm | 100 kHz | |
| Local Area BS | ≡ | 1710--1785 MHz | -80 dBm | 100 kHz | |

6.5.3.7.6 Co-existence with PHS

Table 6.42: BS Spurious emissions limits for BS in geographic coverage area of PHS

| Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------------|----------------------|------------------------------|-------------|
| 1 893,5 MHz to 1 919,60 MHz | -41 dBm | 300 kHz | |

6.5.3.7.7 Co-existence with services in adjacent frequency bands

Table 6.43: BS spurious emissions limits for protection of adjacent band services

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|---------------|--|------------------------------|-------------|
| I | 2100-2105 MHz | $-30 + 3.4 \cdot (f - 2100 \text{ MHz}) \text{ dBm}$ | 1 MHz | |
| | 2175-2180 MHz | $-30 + 3.4 \cdot (2180 \text{ MHz} - f) \text{ dBm}$ | 1 MHz | |
| II | 1920-1925 MHz | $-30 + 3.4 \cdot (f - 1920 \text{ MHz}) \text{ dBm}$ | 1 MHz | |
| | 1995-2000 MHz | $-30 + 3.4 \cdot (2000 \text{ MHz} - f) \text{ dBm}$ | 1 MHz | |
| III | 1795-1800 MHz | $-30 + 3.4 \cdot (f - 1795 \text{ MHz}) \text{ dBm}$ | 1MHz | |
| | 1885-1890 MHz | $-30 + 3.4 \cdot (1890 \text{ MHz} - f) \text{ dBm}$ | 1MHz | |

6.5.3.7.8 Co-existence with UTRA-TDD

6.5.3.7.8.1 Operation in the same geographic area

Table 6.44: BS Spurious emissions limits for BS in geographic coverage area of UTRA-TDD

| Band | Maximum Level | Measurement Bandwidth | Note |
|------------------------|----------------------|------------------------------|-------------|
| 1 900 MHz to 1 920 MHz | -52 dBm | 1 MHz | |
| 2 010 MHz to 2 025 MHz | -52 dBm | 1 MHz | |

6.5.3.7.8.2 Co-located base stations

Table 6.45: BS Spurious emissions limits for BS co-located with UTRA-TDD

| BS class | Band | Maximum Level | Measurement Bandwidth | Note |
|---------------|-----------------|---------------|-----------------------|------|
| Wide Area BS | 1900 - 1920 MHz | -86 dBm | 1 MHz | |
| Local Area BS | 1900 - 1920 MHz | -55 dBm | 1 MHz | |
| Wide Area BS | 2010 - 2025 MHz | -86 dBm | 1 MHz | |
| Local Area BS | 2010 - 2025 MHz | -55 dBm | 1 MHz | |

6.5.3.7.9 Co-existence with UTRA-FDD in frequency band I

6.5.3.7.9.1 Operation in the same geographic area

Table 6.46: BS Spurious emissions limits for BS in geographic coverage area of UTRA-FDD UE receiver and BS receiver operating in frequency band I

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|------------------------|----------------------|------------------------------|--|
| <u>2110 – 2170 MHz</u> | <u>-52 dBm</u> | <u>1 MHz</u> | <u>This requirement does not apply to UTRA-FDD BS operating in band I</u> |
| <u>1920 – 1980 MHz</u> | <u>-49 dBm</u> | <u>1 MHz</u> | <u>This requirement does not apply to UTRA-FDD BS operating in band I, since it is already covered by the requirement in sub-clause 6.5.3.4.3.</u> |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|----------------------|----------------------|------------------------------|-------------|
| III | 2110—2170 MHz | -52 dBm | 1 MHz | |

6.5.3.7.9.2 Co-located base stations

Table 6.47: BS Spurious emissions limits for BS co-located with UTRA-FDD BS operating in frequency band I

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|------------------------|----------------------|------------------------------|-------------|
| <u>1920 - 1980 MHz</u> | <u>-96 dBm</u> | <u>100 kHz</u> | |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|----------------------|----------------------|------------------------------|-------------|
| III | 1920—1980 MHz | -96 dBm | 100 kHz | |

6.5.3.7.10 Co-existence with UTRA-FDD in frequency band III

6.5.3.7.10.1 Operation in the same geographic area

Table 6.48: BS Spurious emissions limits for BS in geographic coverage area of UTRA-FDD UE receiver and BS receiver operating in frequency band III

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|---------------------------------|-------------------------|------------------------------|---|
| 1805 – 1880 MHz | -52 dBm | 1 MHz | This requirement does not apply to UTRA-FDD BS operating in band III |
| 1710 – 1785 MHz | -49 dBm | 1 MHz | This requirement does not apply to UTRA-FDD BS operating in band III, since it is already covered by the requirement in sub-clause 6.5.3.4.3. |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|---------------------------------|---------------------------|------------------------------|-------------|
| † | 1805—1880 MHz | -62 dBm | 100 kHz | |

6.5.3.7.10.2 Co-located base stations

Table 6.49: BS Spurious emissions limits for BS co-located with UTRA-FDD BS operating in frequency band III

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|---------------------------------|-------------------------|------------------------------|-------------|
| 1710 – 1785 MHz | -96 dBm | 100 kHz | |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|---------------------------------|---------------------------|------------------------------|-------------|
| † | 1710—1785 MHz | -96 dBm | 100 kHz | |

6.5.3.7.11 Co-existence with PCS1900

6.5.3.7.11.1 Operation in the same geographic area

Table 6.49A: BS Spurious emissions limits for BS in geographic coverage area of PCS 1900 BS

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|---------------------------------|-------------------------|------------------------------|--|
| 1850 - 1910 MHz | -61 dBm | 100 kHz | This requirement does not apply to UTRA-FDD BS operating in frequency band II, since it is already covered by the requirement in sub-clause 6.5.3.4.3. |
| 1930 - 1990 MHz | -47 dBm | 100 kHz | This requirement does not apply to UTRA-FDD BS operating in frequency band II |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|---------------------------------|---------------------------|------------------------------|-------------|
| ‡ | 1850—1910 MHz | -61 dBm | 100 kHz | |

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.

6.5.3.7.11.2 Co-located base stations

Table 6.50: BS Spurious emissions limits for BS co-located with PCS1900 BS

| <u>BS class</u> | <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|------------------------|------------------------|----------------------|------------------------------|-------------|
| <u>Wide Area BS</u> | <u>1850 – 1910 MHz</u> | <u>-98 dBm</u> | <u>100 kHz</u> | |
| <u>Medium Range BS</u> | <u>1850 – 1910 MHz</u> | <u>-96 dBm</u> | <u>100 kHz</u> | |
| <u>Local Area BS</u> | <u>1850 – 1910 MHz</u> | <u>-80 dBm</u> | <u>100 kHz</u> | |

| BS class | Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|----------------------------|-----------------------|----------------------------|----------------------|------------------------------|-------------|
| Wide Area BS | II | 1850 – 1910 MHz | -98 dBm | 100 kHz | |
| Medium Range BS | II | 1850 – 1910 MHz | -96 dBm | 100 kHz | |
| Local Area BS | II | 1850 – 1910 MHz | -80 dBm | 100 kHz | |

6.5.3.7.12 Co-existence with GSM850

6.5.3.7.12.1 Operation in the same geographic area

Table 6.50A: BS Spurious emissions limits for BS in geographic coverage area of GSM 850

| <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|----------------------|----------------------|------------------------------|-------------|
| <u>824 - 849 MHz</u> | <u>-61 dBm</u> | <u>100 kHz</u> | |
| <u>869 – 894 MHz</u> | <u>-57 dBm</u> | <u>100 kHz</u> | |

| Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|-----------------------|--------------------------|----------------------|------------------------------|-------------|
| II | 824 – 849 MHz | -61 dBm | 100 kHz | |
| II | 869 – 894 MHz | -57 dBm | 100 kHz | |

6.5.3.7.12.2 Co-located base stations

Table 6.51: BS Spurious emissions limits for BS co-located with GSM850 BS

| <u>BS class</u> | <u>Band</u> | <u>Maximum Level</u> | <u>Measurement Bandwidth</u> | <u>Note</u> |
|------------------------|----------------------|----------------------|------------------------------|-------------|
| <u>Wide Area BS</u> | <u>824 - 849 MHz</u> | <u>-98 dBm</u> | <u>100 kHz</u> | |
| <u>Medium Range BS</u> | <u>824 - 849 MHz</u> | <u>-91 dBm</u> | <u>100 kHz</u> | |
| <u>Local Area BS</u> | <u>824 - 849 MHz</u> | <u>-70 dBm</u> | <u>100 kHz</u> | |

| BS class | Operating Band | Band | Maximum Level | Measurement Bandwidth | Note |
|----------------------------|-----------------------|--------------------------|----------------------|------------------------------|-------------|
| Wide Area BS | II | 824 – 849 MHz | -98 dBm | 100 kHz | |
| Medium Range BS | II | 824 – 849 MHz | -91 dBm | 100 kHz | |
| Local Area BS | II | 824 – 849 MHz | -70 dBm | 100 kHz | |

{ Separate section }

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 applies as specified in tables 7.4(a) to 7.4(g).

The requirements in Table 7.4(a) shall apply to base stations intended for general-purpose applications, depending on which frequency band is used. The requirements in Tables 7.4 (b) to 7.4 (g) may be applied when the FDD BS is co-located with GSM900, GSM850, PCS1900 and/or BS operation in DCS1800 band (UTRA-FDD or GSM).

7.5.2 Minimum Requirements

The BER shall not exceed 0.001 for the parameters specified in table 7.4.

Table 7.4(a1): Blocking characteristics for Wide Area BS

| Operating Band | Center Frequency of Interfering Signal | Interfering Signal Level | Wanted Signal mean power | Minimum Offset of Interfering Signal | Type of Interfering Signal |
|----------------|--|--------------------------|--------------------------|--------------------------------------|----------------------------|
| I | 1920 - 1980 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| | 1900 - 1920 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| | 1980 - 2000 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| | 1 MHz -1900 MHz 2000 MHz - 12750 MHz | -15 dBm | -115 dBm | — | CW carrier |
| II | 1850 - 1910 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| | 1830 - 1850 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| | 1910 - 1930 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| | 1 MHz - 1830 MHz 1930 MHz - 12750 MHz | -15 dBm | -115 dBm | — | CW carrier |
| III | 1710 – 1785 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| | 1690 - 1710 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| | 1785 – 1805 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| | 1 MHz - 1690 MHz 1805 MHz - 12750 MHz | -15 dBm | -115 dBm | — | CW carrier |

Note *: The characteristics of the W-CDMA interference signal are specified in Annex I.

Table 7.4(a2): Blocking characteristics for Medium Range BS

| Operating Band | Center Frequency of Interfering Signal | Interfering Signal Level | Wanted Signal mean power | Minimum Offset of Interfering Signal | Type of Interfering Signal |
|----------------|--|--------------------------|--------------------------|--------------------------------------|----------------------------|
| I | 1920 - 1980 MHz | -35 dBm | -105 dBm | 10 MHz | WCDMA signal * |
| | 1900 - 1920 MHz | -35 dBm | -105 dBm | 10 MHz | WCDMA signal * |
| | 1980 - 2000 MHz | -35 dBm | -105 dBm | 10 MHz | WCDMA signal * |
| | 1 MHz -1900 MHz 2000 MHz - 12750 MHz | -15 dBm | -105 dBm | — | CW carrier |
| II | 1850 - 1910 MHz | -35 dBm | -105 dBm | 10 MHz | WCDMA signal * |
| | 1830 - 1850 MHz | -35 dBm | -105 dBm | 10 MHz | WCDMA signal * |
| | 1910 - 1930 MHz | -35 dBm | -105 dBm | 10 MHz | WCDMA signal * |
| | 1 MHz - 1830 MHz 1930 MHz - 12750 MHz | -15 dBm | -105 dBm | — | CW carrier |
| III | 1710 – 1785 MHz | -35 dBm | -105 dBm | 10 MHz | WCDMA signal * |
| | 1690 - 1710 MHz | -35 dBm | -105 dBm | 10 MHz | WCDMA * |
| | 1785 – 1805 MHz | -35 dBm | -105 dBm | 10 MHz | WCDMA * |
| | 1 MHz - 1690 MHz 1805 MHz - 12750 MHz | -15 dBm | -105 dBm | — | CW carrier |

Note *: The characteristics of the W-CDMA interference signal are specified in Annex I.

Table 7.4(a3): Blocking characteristics for Local Area BS

| Operating Band | Center Frequency of Interfering Signal | Interfering Signal Level | Wanted Signal mean power | Minimum Offset of Interfering Signal | Type of Interfering Signal |
|----------------|--|--------------------------|--------------------------|--------------------------------------|----------------------------|
| I | 1920 - 1980 MHz | -30 dBm | -101 dBm | 10 MHz | WCDMA signal * |
| | 1900 - 1920 MHz | -30 dBm | -101 dBm | 10 MHz | WCDMA signal * |
| | 1980 - 2000 MHz | -30 dBm | -101 dBm | 10 MHz | WCDMA signal * |
| II | 1 MHz - 1900 MHz | -15 dBm | -101 dBm | — | CW carrier |
| | 2000 MHz - 12750 MHz | -15 dBm | -101 dBm | — | CW carrier |
| | 1850 - 1910 MHz | -30 dBm | -101 dBm | 10 MHz | WCDMA signal * |
| III | 1830 - 1850 MHz | -30 dBm | -101 dBm | 10 MHz | WCDMA signal * |
| | 1910 - 1930 MHz | -30 dBm | -101 dBm | 10 MHz | WCDMA signal * |
| | 1 MHz - 1830 MHz | -15 dBm | -101 dBm | — | CW carrier |
| III | 1930 MHz - 12750 MHz | -15 dBm | -101 dBm | — | CW carrier |
| | 1710 – 1785 MHz | -30 dBm | -101 dBm | 10 MHz | WCDMA signal * |
| | 1690 - 1710 MHz | -30 dBm | -101 dBm | 10 MHz | WCDMA signal * |
| III | 1785 – 1805 MHz | -30 dBm | -101 dBm | 10 MHz | WCDMA signal * |
| | 1 MHz - 1690 MHz | -15 dBm | -101 dBm | — | CW carrier |
| III | 1805 MHz - 12750 MHz | -15 dBm | -101 dBm | — | CW carrier |

Note *: The characteristics of the W-CDMA interference signal are specified in Annex I.

Table 7.4(b): Blocking performance requirement when co-located with GSM900

| <u>Center Frequency of Interfering Signal</u> | <u>Interfering Signal mean power</u> | <u>Wanted Signal mean power</u> | <u>Minimum Offset of Interfering Signal</u> | <u>Type of Interfering Signal</u> |
|---|--------------------------------------|---------------------------------|---|-----------------------------------|
| <u>921 -960 MHz</u> | <u>+16 dBm</u> | <u>-115 dBm</u> | <u>—</u> | <u>CW carrier</u> |

| Operating Band | Center-Frequency-of Interfering-Signal | Interfering Signal-mean power | Wanted-Signal-mean power | Minimum-Offset-of Interfering-Signal | Type-of Interfering-Signal |
|-----------------------|---|--------------------------------------|---------------------------------|---|-----------------------------------|
| I, III | 921-960 MHz | +16 dBm | -115 dBm | — | CW carrier |

Table 7.4(c): Blocking performance requirement for operation when co-located with BTS operating inDCS1800 band (GSM or UTRA-FDD)

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

| Operating Band | Center-Frequency-of Interfering-Signal | Interfering Signal-mean power | Wanted-Signal-mean power | Minimum-Offset-of Interfering-Signal | Type-of Interfering-Signal |
|-----------------------|---|--------------------------------------|---------------------------------|---|-----------------------------------|
| I, III | 1805—1880 MHz | +16 dBm | -115 dBm | — | CW carrier |

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

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

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

Table 7.4(e): Blocking performance requirement for operation when co-located with PCS1900 BTS

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

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

Table 7.4(f1): Blocking performance requirement (narrowband) for Wide Area BS

| Operating Band | Center Frequency of Interfering Signal | Interfering Signal mean power | Wanted Signal mean power | Minimum Offset of Interfering Signal | Type of Interfering Signal |
|----------------|--|-------------------------------|--------------------------|--------------------------------------|----------------------------|
| II | 1850 - 1910 MHz | - 47 dBm | -115 dBm | 2.7 MHz | GMSK modulated* |
| III | 1710 – 1785 MHz | - 47 dBm | -115 dBm | 2.8 MHz | GMSK modulated* |

* GMSK modulation as defined in TS 45.004 [12].

Table 7.4(f2): Blocking performance requirement (narrowband) for Medium range BS

| Operating Band | Center Frequency of Interfering Signal | Interfering Signal mean power | Wanted Signal mean power | Minimum Offset of Interfering Signal | Type of Interfering Signal |
|----------------|--|-------------------------------|--------------------------|--------------------------------------|----------------------------|
| II | 1850 - 1910 MHz | - 42 dBm | -105 dBm | 2.7 MHz | GMSK modulated* |
| III | 1710 – 1785 MHz | - 42 dBm | -105 dBm | 2.8 MHz | GMSK modulated* |

* GMSK modulation as defined in TS 45.004 [12].

Table 7.4(f3): Blocking performance requirement (narrowband) for Local Area BS

| Operating Band | Center Frequency of Interfering Signal | Interfering Signal mean power | Wanted Signal mean power | Minimum Offset of Interfering Signal | Type of Interfering Signal |
|----------------|--|-------------------------------|--------------------------|--------------------------------------|----------------------------|
| II | 1850 - 1910 MHz | - 37 dBm | -101 dBm | 2.7 MHz | GMSK modulated* |
| III | 1710 – 1785 MHz | - 37 dBm | -101 dBm | 2.8 MHz | GMSK modulated* |

* GMSK modulation as defined in TS 45.004 [12].

Table 7.4(g): Blocking performance requirement for operation when co-located with GSM850 BTS

| <u>Center Frequency of Interfering Signal</u> | <u>Interfering Signal mean power</u> | <u>Wanted Signal Level</u> | <u>Minimum Offset of Interfering Signal</u> | <u>Type of Interfering Signal</u> |
|---|--------------------------------------|----------------------------|---|-----------------------------------|
| 869 – 894 MHz | +16 dBm | -115 dBm | — | CW carrier |

| Operating band | Center Frequency of Interfering Signal | Interfering Signal mean power | Wanted Signal Level | Minimum Offset of Interfering Signal | Type of Interfering Signal |
|---------------------------|---|--|--------------------------------|---|---------------------------------------|
| # | 869—894 MHz | +16 dBm | -115 dBm | — | CW carrier |

The normative reference for these requirements is in TS 25.104[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 4.4.1.

RF channels to be tested: M see subclause 4.8. The BS shall be configured to operate as close to the centre of the operating band as possible.

- 1) Connect WCDMA signal generator at the assigned channel frequency of the wanted signal and a signal generator to the antenna connector of one Rx port.
- 2) Terminate any other Rx port not under test.
- 3) Transmit a signal from the WCDMA signal generator to the BS. The characteristics of the signal shall be set according to the UL reference measurement channel (12,2 kbit/s) specified in annex A subclause A.2.1. The level of the WCDMA signal measured at the BS antenna connector shall be set to the level specified in subclause 7.5.5.

7.5.4.2 Procedure

- 1) Adjust the signal generators to the type of interfering signals and the frequency offsets as specified in Tables 7.4A(a) to 7.4A(g). Note that the GMSK modulated interfering signal shall have an ACLR of at least 72 dB in order to eliminate the impact of interference signal adjacent channel leakage power on the blocking characteristics measurement. For the tests defined in Table 7.4A(a), the interfering signal shall be at a frequency offset F_{uw} from the assigned channel frequency of the wanted signal which is given by:

$$F_{uw} = \pm (n \times 1 \text{ MHz}),$$

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.

- 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) to (2).

7.5.5 Test Requirements

The BER shall not exceed 0.001 for the parameters specified in table 7.4A.

Table 7.4A(a1): Blocking characteristics for Wide Area BS

| Operating Band | Center Frequency of Interfering Signal | Interfering Signal mean power | Wanted Signal mean power | Minimum Offset of Interfering Signal | Type of Interfering Signal |
|----------------|--|-------------------------------|--------------------------|--------------------------------------|----------------------------|
| I | 1920 - 1980 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| | 1900 - 1920 MHz 1980 - 2000 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| | 1 MHz -1900 MHz 2000 MHz - 12750 MHz | -15 dBm | -115 dBm | — | CW carrier |
| II | 1850 - 1910 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| | 1830 - 1850 MHz 1910 - 1930 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| | 1 MHz - 1830 MHz 1930 MHz - 12750 MHz | -15 dBm | -115 dBm | — | CW carrier |
| III | 1710 – 1785 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| | 1690 - 1710 MHz 1785 – 1805 MHz | -40 dBm | -115 dBm | 10 MHz | WCDMA signal * |
| | 1 MHz - 1690 MHz 1805 MHz - 12750 MHz | -15 dBm | -115 dBm | — | CW carrier |

Note *: The characteristics of the W-CDMA interference signal are specified in Annex I.

Table 7.4A(a2): Blocking characteristics for Medium Range BS

| Operating Band | Center Frequency of Interfering Signal | Interfering Signal Level | Wanted Signal mean power | Minimum Offset of Interfering Signal | Type of Interfering Signal |
|----------------|--|--------------------------|--------------------------|--------------------------------------|----------------------------|
| I | 1920 - 1980 MHz | -35 dBm | -105 dBm | 10 MHz | WCDMA signal * |
| | 1900 - 1920 MHz 1980 - 2000 MHz | -35 dBm | -105 dBm | 10 MHz | WCDMA signal * |
| | 1 MHz -1900 MHz 2000 MHz - 12750 MHz | -15 dBm | -105 dBm | — | CW carrier |
| II | 1850 - 1910 MHz | -35 dBm | -105 dBm | 10 MHz | WCDMA signal * |
| | 1830 - 1850 MHz 1910 - 1930 MHz | -35 dBm | -105 dBm | 10 MHz | WCDMA signal * |
| | 1 MHz - 1830 MHz 1930 MHz - 12750 MHz | -15 dBm | -105 dBm | — | CW carrier |
| III | 1710 – 1785 MHz | -35 dBm | -105 dBm | 10 MHz | WCDMA signal * |
| | 1690 - 1710 MHz 1785 – 1805 MHz | -35 dBm | -105 dBm | 10 MHz | WCDMA signal * |
| | 1 MHz - 1690 MHz 1805 MHz - 12750 MHz | -15 dBm | -105 dBm | — | CW carrier |

Note *: The characteristics of the W-CDMA interference signal are specified in Annex I.

Table 7.4A(a3): Blocking characteristics for Local Area BS

| Operating Band | Center Frequency of Interfering Signal | Interfering Signal Level | Wanted Signal mean power | Minimum Offset of Interfering Signal | Type of Interfering Signal |
|----------------|---|--------------------------|--------------------------|--------------------------------------|----------------------------|
| I | 1920 - 1980 MHz | -30 dBm | -101 dBm | 10 MHz | WCDMA signal * |
| | 1900 - 1920 MHz 1980 - 2000 MHz | -30 dBm | -101 dBm | 10 MHz | WCDMA signal * |
| | 1 MHz -1900 MHz 2000 MHz - 12750 MHz | -15 dBm | -101 dBm | — | CW carrier |

| | | | | | |
|-----|----------------------|---------|----------|--------|----------------|
| II | 1850 - 1910 MHz | -30 dBm | -101 dBm | 10 MHz | WCDMA signal * |
| | 1830 - 1850 MHz | -30 dBm | -101 dBm | 10 MHz | WCDMA signal * |
| | 1910 - 1930 MHz | | | | |
| | 1 MHz - 1830 MHz | -15 dBm | -101 dBm | — | CW carrier |
| III | 1710 – 1785 MHz | -30 dBm | -101 dBm | 10 MHz | WCDMA signal * |
| | 1690 - 1710 MHz | -30 dBm | -101 dBm | 10 MHz | WCDMA signal * |
| | 1785 – 1805 MHz | | | | |
| | 1 MHz - 1690 MHz | -15 dBm | -101 dBm | — | CW carrier |
| | 1805 MHz - 12750 MHz | | | | |

Note *: The characteristics of the W-CDMA interference signal are specified in Annex I.

Table 7.4A(b): Blocking performance requirement when co-located with GSM900

| <u>Center Frequency of Interfering Signal</u> | <u>Interfering Signal mean power</u> | <u>Wanted Signal mean power</u> | <u>Minimum Offset of Interfering Signal</u> | <u>Type of Interfering Signal</u> |
|---|--------------------------------------|---------------------------------|---|-----------------------------------|
| 921-960 MHz | +16 dBm | -115 dBm | — | CW carrier |

| Operating Band | Center-Frequency of Interfering Signal | Interfering Signal-mean power | Wanted-Signal-mean power | Minimum-Offset-of Interfering-Signal | Type-of Interfering Signal |
|-----------------------|---|--------------------------------------|---------------------------------|---|-----------------------------------|
| I, III | 921-960 MHz | +16 dBm | -115 dBm | — | CW carrier |

Table 7.4A(c): Blocking performance requirement when co-located with Base Station operating in DCS1800 band (GSM or UTRA-FDD)

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

| Operating Band | Center-Frequency of Interfering Signal | Interfering Signal-mean power | Wanted-Signal-mean power | Minimum-Offset-of Interfering-Signal | Type-of Interfering Signal |
|-----------------------|---|--------------------------------------|---------------------------------|---|-----------------------------------|
| I, III | 1805-1880 MHz | +16 dBm | -115 dBm | — | CW carrier |

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

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

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

Table 7.4A(e): Blocking performance requirement for operation when co-located with PCS1900 BTS

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

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

Table 7.4A(f1): Blocking performance requirement (narrowband) for Wide Area BS

| Operating Band | Center Frequency of Interfering Signal | Interfering Signal mean power | Wanted Signal mean power | Minimum Offset of Interfering Signal | Type of Interfering Signal |
|----------------|--|-------------------------------|--------------------------|--------------------------------------|----------------------------|
| II | 1850 - 1910 MHz | - 47 dBm | -115 dBm | 2.7 MHz | GMSK modulated* |
| III | 1710 – 1785 MHz | - 47 dBm | -115 dBm | 2.8 MHz | GMSK modulated* |

* GMSK modulation as defined in TS 45.004 [12].

Table 7.4A(f2): Blocking performance requirement (narrowband) for Medium range BS

| Operating Band | Center Frequency of Interfering Signal | Interfering Signal mean power | Wanted Signal mean power | Minimum Offset of Interfering Signal | Type of Interfering Signal |
|----------------|--|-------------------------------|--------------------------|--------------------------------------|----------------------------|
| II | 1850 - 1910 MHz | - 42 dBm | -105 dBm | 2.7 MHz | GMSK modulated* |
| III | 1710 – 1785 MHz | - 42 dBm | -105 dBm | 2.8 MHz | GMSK modulated* |

* GMSK modulation as defined in TS 45.004 [12].

Table 7.4A(f3): Blocking performance requirement (narrowband) for Local Area BS

| Operating Band | Center Frequency of Interfering Signal | Interfering Signal mean power | Wanted Signal mean power | Minimum Offset of Interfering Signal | Type of Interfering Signal |
|----------------|--|-------------------------------|--------------------------|--------------------------------------|----------------------------|
| II | 1850 - 1910 MHz | - 37 dBm | -101 dBm | 2.7 MHz | GMSK modulated* |
| III | 1710 – 1785 MHz | - 37 dBm | -101 dBm | 2.8 MHz | GMSK modulated* |

* GMSK modulation as defined in TS 45.004 [12].

Table 7.4A(g): Blocking performance requirement for operation when co-located with GSM850 BTS

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

| Operating band | Center-Frequency-of Interfering-Signal | Interfering Signal-mean power | Wanted-Signal-mean power | Minimum-Offset-of Interfering-Signal | Type-of Interfering Signal |
|-----------------------|---|--------------------------------------|---------------------------------|---|-----------------------------------|
| II | 869—894-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.