3GPP TSG-RAN #17 Meeting ***Tdoc RP-020653***
Biarritz, France, 3rd – 6th September 2002

Title:	**LS regarding a proposed contribution to ITU-R WP8F on the update of Recommendation ITU-R IMT.UNWANT-MS [M.1581]**
To:	**TSG T**
Source:	**TSG RAN**
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Document for: Action

TSG RAN bring to the attention of TSG T the attached contribution on the update of ITU-R Recommendation IMT.UNWANT-MS [M.1581] that it is meant to be submitted to the next meeting of ITU-R WP8F (Geneva, 25th Sett – 2nd Oct 2002). The timeschedule for submission of inputs to next ITU-R WP8F meeting requires that the documents approved by RAN are submitted to PCG approval by Friday (6th September).
Since the proposed update is based on the current version of TS34.121 and TS34.122 that are under TSG T responsibility, TSG T is kindly requested to consider the attached contribution for approval and to provide feedback to TSG RAN by the end of the present TSG RAN#17.

TSG RAN would like to thank in advance TSG T for their timely assistance.

[ITU Member][1]

ON THE UPDATE OF RECOMMENDATION ITU-R IMT.UNWANT-MS [M.1581] (‘GENERIC UNWANTED EMISSION CHARACTERISTICS OF MOBILE STATIONS USING THE TERRESTRIAL RADIO INTERFACES OF IMT-2000’)

According to the ITU-R WP8F time plan, Recommendation ITU-R IMT.UNWANT-MS [M.1581] is expected to be revised in October 2003. However, inconsistency between Rec. ITU-R IMT.UNWANT-MS [M.1581] and Rec. ITU-R M.1457-2 has been spotted as outlined in Attachment 1. In order to solve this problem it is therefore felt urgent to update Rec. ITU-R IMT-UNWANT-MS [M.1581] (Annex 1 and Annex 3) at this stage. The proposed changes are presented in Attachment 2.

ITU-R WP8F is invited to consider the possibility to update Recommendation ITU-R IMT.UNWANT-MS [M.1581] at this meeting, as proposed in Attachment 2.

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[1] This contribution was developed in 3GPP TSG RAN and TSG T.

Attachment 1

Description of inconsistency between Rec. ITU-R IMT.UNWANT-MS [M.1581] and Rec. ITU-R M.1457-2

In Recommendation ITU-R IMT.UNWANT-MS [M.1581], Annex 1, section 2, third sentence, it is stated:

"The power of any MS emission should not exceed -50 dBm/3.84 MHz or the levels specified in Table A1-1, whichever is higher."

On the other hand, Recommendation ITU-R M.1457-2, section 5.1.2.5.3 contains the hyperlink to the transposed TS34.121v.3.8.0 that in section 5.9.5, table 5.9.2, states:

"The lower limit shall be –48,5 dBm/3,84 MHz or which ever is higher."

Similarly, in Recommendation ITU-R IMT.UNWANT-MS [M.1581]-MS, Annex 3, section 2.1 (3.84 Mcps TDD option), third sentence, it is stated:

"The power of any MS emission should not exceed -50 dBm/3.84 MHz or the levels specified in Table A3-1a, whichever is higher."

On the other hand, Recommendation ITU-R M.1457-2, section 5.3.2.5.3 contains the hyperlink to the transposed TS34.122v.4.3.0 that in section 5.5.2.1.5.1 (3.84 Mcps TDD option), table 5.5.2.1.5.1, states:

"The lower limit shall be –48.5dBm/3.84 MHz or the minimum requirement presented in this table which ever is the higher."

Attachment 2

Proposed update to Annex1 and Annex 3 of Recommendation ITU-R IMT-UNWANT-MS [M.1581]

ANNEX 1

CDMA Direct Spread (UTRA FDD) mobile stations

1 Measurement uncertainty

Values specified in this Annex differ from those specified in Recommendation ITU-R M.1457 since values in this Annex incorporate test tolerances defined in Recommendation ITU-R M.1545.

2 Spectrum mask

The spectrum emission mask of the mobile station (MS) applies to frequencies, which are between 2.5 MHz and 12.5 MHz away from the MS centre carrier frequency. The out of channel emission is specified relative to the MS output power measured in a 3.84 MHz bandwidth.

The power of any MS emission should not exceed ~~-50~~ 48.5 dBm/3.84 MHz or the levels specified in Table A1-1, whichever is higher.

TABLE A1-1

Spectrum emission mask requirement (UTRA FDD MS)

Frequency offset from carrier Δf	Measurement bandwidth	Minimum requirement
2.5-3.5 MHz	30 kHz (1)	-33.5 – 15*(Δf – 2.5) dBc
3.5-7.5 MHz	1 MHz (2)	-33.5 - 1*(Δf – 3.5) dBc
7.5-8.5 MHz	1 MHz (2)	-37.5 - 10*(Δf – 7.5) dBc
8.5-12.5 MHz	1 MHz (2)	-47.5 dBc

NOTES:

(1) The first and last measurement position with a 30 kHz filter is 2.515 MHz and 3.485 MHz.

(2) The first and last measurement position with a 1 MHz filter is 4 MHz and 12 MHz.

As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. To improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth can be different from the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth.

ANNEX 3

CDMA TDD (UTRA TDD) mobile stations

1 Measurement uncertainty

Values specified in the Annex differ from those specified in Recommendation ITU-R M.1457 since values in the Annex incorporate test tolerances defined in Recommendation ITU-R M.1545.

2 Spectrum mask

2.1 Spectrum mask (3.84 Mcps TDD option)

The spectrum emission mask of the MS applies to frequency offsets between 2.5 and 12.5 MHz on both sides of the carrier frequency.

The out-of-channel emission is specified as a power level relative to the MS output power in a frequency band of 3.84 MHz bandwidth.

The power of any MS emission should not exceed ~~-50~~ 48.5 dBm/3.84 MHz or the levels specified in Table A3-1a, whichever is higher.

TABLE A3-1a

Spectrum emission mask requirement

Frequency offset from carrier Δf	**Measurement bandwidth**	**Minimum requirement**
2.5-3.5 MHz	30 kHz (1)	-33.5 – 15*(Δf – 2.5) dBc
3.5-7.5 MHz	1 MHz (2)	-33.5 – 1*(Δf – 3.5) dBc
7.5-8.5 MHz	1 MHz (2)	-37.5 – 10*(Δf – 7.5) dBc
8.5-12.5 MHz	1 MHz (2)	-47.5 dBc

Notes

(1) The first measurement position with a 30 kHz filter is 2.515 MHz; the last is 3.485 MHz.

(2) The first measurement position with a 1 MHz filter is 4 MHz; the last is 12 MHz.

As a general rule, the resolution bandwidth of the measuring equipment should be equal to the measurement bandwidth. To improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth can be different from the measurement bandwidth. When the resolution bandwidth is smaller than the measurement bandwidth, the result should be integrated over the measurement bandwidth.