Source: **T1**

Title: **CR's to TS 34.124 v3.1.0 for approval**

Agenda item: **6.1**

Document for: **Approval**

This document contains 1 CR to TS 34.124 v3.1.0. This CRs has been agreed by T1 and is put forward to TSG T for approval.

CRs due to editorial changes:

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level
34.124	004		R99	Editorial modifications for purposes of clarification.	D	3.1.0	3.2.0	T1-000320

ETS

T1-000320

3GPP TSG T1/EMC Meeting #12
Tokyo, Japan, 17 October 2000

Document T1E0023r2
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

34.124	CR	004	Current Version:	3.1.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	T # 10	for approval	X	strategic	
list expected approval meeting # here ↑		for information		non-strategic	

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: *(at least one should be marked with an X)* (U)SIM [ ] ME [X] UTRAN / Radio [ ] Core Network [ ]

Source: Nokia (TSG T1 SWG EMC #12) **Date:** 17.10.2000

Subject: Editorial modifications for purposes of clarification.

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction		**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification	X		Release 99	X
				Release 00	

Reason for change: Editorial modification for clarification.

Clauses affected: 4.3, and 8.2.2

Other specs affected:

Other 3G core specifications		→ List of CRs:	
Other GSM core specifications		→ List of CRs:	
MS test specifications		→ List of CRs:	
BSS test specifications		→ List of CRs:	
O&M specifications		→ List of CRs:	

Other comments:

help.doc

<--------- double-click here for help and instructions on how to create a CR.

4.2 Arrangements for establishing a communication link

The wanted RF input signal nominal frequency shall be selected by setting the UTRA Absolute Radio Frequency Channel Number (UARFCN) to an appropriate number.

A communication link shall be set up with a suitable base station simulator (hereafter called "the test system"). The test system shall be located outside of the test environment

When the EUT is required to be in the traffic mode, a call is set up according to the Generic call set-up procedure and the following conditions shall be met:

See TS 34.108 [10] and TS 34.109 [15] Logical Test Interface for details regarding generic call set-up procedure and loopback test.

- set and send continuously Up power control commands to the UE;
- enter the UE into loopback test mode and start the loopback test;
- the DTX shall be disabled;
- Inner Loop Power Control shall be enabled;
- transmitting and/or receiving (UL/DL) bit rate for reference test channel shall be 12.2 kbps;
- adequate measures shall be taken to avoid the effect of the unwanted signal on the measuring equipment;
- the wanted input signal level for immunity testing shall be set to 40 dB above the reference sensitivity level to provide a stable communication link. The reference sensitivity level is defined in 3G TS 25.101 [**Error! Reference source not found.**]. For emission testing the wanted input signal level shall be no more than 15 dB above the reference sensitivity level, such that the performance of the receiver is not limited by strong signal effects.

When the EUT is required to be in the idle mode, the following conditions shall be met:

- enable the UE receiver and set Cell Search Mode on a PCCPCH. Since there is no downlink signal, the UE should not pass the Cell Search mode.

For immunity tests subclause 4.3, shall apply and the conditions shall be as follows:

4.3 Narrow band responses on receivers

Responses on receivers or duplex transceivers occurring during the test at discrete frequencies, which are narrow band responses (spurious responses), are identified by the following method:

- If during an immunity test the quantity being monitored goes outside the specified tolerances, it is necessary to establish whether the deviation is due to an unwanted effect on the receiver of the UE or on the test system (narrow band response) or to a wide band (EMC) phenomenon. Therefore, the test shall be repeated with the ~~first adjacent~~ UARFCN increased or decreased by 25 ~~channels~~ (DL / UL).
- if the deviation does not disappear, the procedure is repeated with the ~~second adjacent~~ UARFCN increased or decreased by 50 from the original value ~~channels~~ (DL / UL);
- if the deviation does not disappear with the increased and/or decreased UARFCN, the phenomenon is considered wide band and therefore an EMC problem and the equipment fails the test.

Narrow band responses are disregarded.

The procedure above does not apply to conducted immunity tests in the frequency range 150 kHz to 80 MHz.

- ports which in normal operation are connected shall be connected to an ancillary equipment or to a representative piece of cable correctly terminated to simulate the input/output characteristics of the ancillary equipment, Radio Frequency (RF) input/output ports shall be correctly terminated;

- ports that are not connected to cables during normal operation, e.g. service connectors, programming connectors; temporary connectors etc. shall not be connected to any cables for the purpose of EMC testing. Where cables have to be connected to these ports, or interconnecting cables have to be extended in length in order to exercise the EUT, precautions shall be taken to ensure that the evaluation of the EUT is not affected by the addition or extension of these cables;

- emission tests shall be performed in two modes of operation:
- with a communication link established (traffic mode); and
- in the idle mode.

8.2 Radiated Emission

This test is applicable to radio communications equipment and ancillary equipment.

This test shall be performed on the radio equipment and/or a representative configuration of the ancillary equipment.

8.2.1 Definition

This test assesses the ability of radio equipment and ancillary equipment to limit unwanted emissions from the enclosure port.

8.2.2 Test method

~~The reference test site shall fulfil the requirements of ITU-R SM. 329-7 [11].~~ The site shall be a fully anechoic chamber (FAC) ~~meeting~~ simulating the free-space conditions. EUT shall be placed on a non-conducting support. Maximum average power of any spurious components shall be detected by the test antenna and measuring receiver (e.g. a spectrum analyzer).

At each frequency at which a component is detected, the EUT shall be rotated to obtain maximum response, and the effective radiated power (e.r.p.) of that component determined by a substitution measurement, which shall be the reference method. The measurement shall be repeated with the test antenna in the orthogonal polarization plane.

NOTE: Effective radiated power e.r.p. refers to the radiation of a half wave tuned dipole instead of an isotropic antenna. There is a constant difference of 2.15 dB between e.i.r.p. and e.r.p.

e.i.r.p. (dBm) = e.r.p. (dBm) + 2.15 Ref. ITU-R SM. 329-7 ANNEX 1 [**Error! Reference source not found.**]

Measurements are made with a tuned dipole antenna or a reference antenna with a known gain referenced to an isotropic antenna.

If a different test site or method is used, this shall be stated in the test report. The results shall be converted to ~~a~~ the ~~reference site and~~ reference method values and the validity of the conversion shall be demonstrated.

8.2.3 Limits

The references for these requirements are ITU-R SM 329-7 [**Error! Reference source not found.**] and TS 25.101 subclauses 6.6.3.1. and 7.9.1. [12]

The frequency boundary and reference bandwidths for the detailed transitions of the limits between the requirements for out of band emissions and spurious emissions are based on ITU-R SM 329-7 [**Error! Reference source not found.**].

These requirements are only applicable for frequencies, which are greater than 12.5 MHz away from the UE centre carrier frequency