Agenda Item: 6, Also TSG-T WG1 meeting #1

Source: Ericsson, Nokia

Title: Incorporation of material from ETSI and ARIB for 3GPP MS
                 and BS radio requirements (FDD).

Document for: Discussion

1.   Introduction

This document provides a proposal for the merging of existing Mobile Station and
Base Station radio requirements specifications from ETSI and ARIB into draft
3GPP specifications.

The existing specifications cannot be copied directly into 3GPP specifications,
as structure of documents does not match and different specifications groups
exist in 3GPP. The intention of this document is to aid the 3GPP TSG-RAN WG4 and
3GPP TSG-T WG1 to create a draft specification. Relations of referenced
documents with other 3GPP TSG WGs are outside the scope of this document.

The structure of ETSI specifications is assumed as basis for 3GPP
specifications[1][2}.

2.   Overview of relevant specifications

Table below gives an overview of relevant specifications that contain contents
for the MS and BS radio requirements (FDD).

SDO

Document

Contents

ETSI

XX.06 "UTRA FDD, Radio transmission and reception", rev. yyyy, Jan'98

Specifies the transceiver requirements, such as frequency bands, channel
arrangement, transmitter and receiver characteristics, and reference
performance. This document includes both Basestation and Mobile station aspects.

ARIB

Volume 4, (Draft) Specifications of Mobile Station for 3G Mobile System, Ver 1.0-1.0, Dec'98

Volume 5, (Draft) Specification of Base Station for 3G Mobile System, Ver 1.0-0.1, Jan '99

Specifies the transceiver requirements, such as frequency bands, channel arrangement, transmitter and receiver characteristics, and reference performance (mostly section 5).

This document only specifies the Mobile station, but includes test conditions and measurement methods.

As above, but for Base Station

3GPP

TSG-RAN WG4: Radio transmission and reception (FDD)

Specifies the transceiver requirements, such as frequency bands, channel arrangement, transmitter and receiver characteristics, and reference performance. This document includes both Basestation and Terminal aspects.

3GPP

TSG-T WG1: Mobile Station (MS) conformance specification

Specifies the requirements for conformance testing of a Mobile Station including test conditions and measurement methods.

3   Incorporations of contents from ETSI and ARIB

3.1   ETSI XX.06

Contents of ETSI XX.06 can be directly mapped to TSG-RAN WG 4 specifications for both MS and BS, if the structure of that document is adopted as the basis.

3.2   ARIB MS specifications

Table below shows how different relevant sections of ARIB Volume 4 can be used for merging into 3GPP specifications by TSG-RAN WG1 & 4 and TSG-T WG1.

Section
Description
Incorporation, comment

1-2
Introduction, General requirements
?

3
EMC
3GPP MS EMC specifications (new item)

4
Safety
?

5.1
RF specifications
5.1.1 Transmitting characteristics
5.1.2 Receiving characteristics
"definition"
"minimum requirement"
TSG-RAN WG4: Radio transmission and reception (FDD)

5.1
RF specifications
5.1.1 Transmitting characteristics
5.1.2 Receiving characteristics
"Test conditions and measurement method"
TSG-T WG1: Mobile Station (MS) conformance specification

5.2
Signal transmission and reception
Mostly references to Vol.3 (L1).
TSG-RAN WG1 (L1)

5.3
Layer 1 procedures
Mostly references to Vol.3 (L1).
TSG-RAN WG1 (L1)

5.4
5.5
Performance requirements
Timing requirements
"General"

"Definition"
"Minimum requirements"
TSG-RAN WG4: Radio transmission and reception (FDD)

5.4
5.5
Performance requirements
Timing requirements
"Test conditions and measurement method"
TSG-T WG1: Mobile Station (MS) conformance specification

6 - 12
Not related to radio requirements
-

13
Measurement procedures
TSG-T WG1: Mobile Station (MS) conformance specification?

3.3 ARIB BS specifications

As the actual values for radio requirements of BS has not been specified in the specifications, it should be noted that the measurement methods described in the specifications should be restudied together with concrete values for requirements. However, it is proposed that the items covered in Volume 5, e.g EMC etc., are to be taken into account when discussing additional items to be covered in the BS requirements in 3GPP..
References

[1] 3GPP/TSGR#1(98)-003, "Proposed specification structure for the Radio
  Access Network TSG", source Ericsson.
[2] 3GPP/TSGT#1(98)-027, "Proposed Specification Structure for the Terminals
  TSG", source Ericsson.