Conformance Test Specification

Version 1.01
FOREWORD

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Comments on specifications and requests for interpretations should be addressed to:

Peter Kenington
Chairman, OBSAI Technical Working Group
Linear Communications Consultants Ltd.
Email: pbk@linearcomms.com
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1 Summary of changes

<table>
<thead>
<tr>
<th>Version</th>
<th>Approved by</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.01</td>
<td>Draft</td>
<td>13-Oct-2004</td>
</tr>
<tr>
<td>0.02</td>
<td>Updated in San Jose meeting</td>
<td>17-Nov-2004</td>
</tr>
<tr>
<td>0.03</td>
<td>Meeting: Hannu, Seppo, Vesa</td>
<td>09-Dec-2004</td>
</tr>
<tr>
<td>0.04</td>
<td>Added reference to Test message specification</td>
<td>16-Mar-2005</td>
</tr>
<tr>
<td>1.00</td>
<td>Sent for MB approval</td>
<td>25-Apr-2005</td>
</tr>
<tr>
<td>1.01</td>
<td>Editorial changes in the White Plains meeting</td>
<td>24-May-2007</td>
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2 Scope

This document specifies conformance test requirements for all OBSAI modules and interfaces. An OBSAI module or interface is deemed to conform to the common OBSAI specifications if it fulfills the minimum acceptance criteria for all of the test cases presented for it in this document.

For more information of the OBSAI interfaces and modules, please see the system reference document [OBSAI System].
3 Test Case Notation

Each test case is presented in the following format:

Test Case Name

<table>
<thead>
<tr>
<th>Test Case ID:</th>
<th>ID for a Test Case. Consists of target module ID, test category and reference number calculated from the test case name. e.g. TM_Module_2459.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Case status:</td>
<td>Status can be mandatory or optional. Status ‘optional’ is used for the test cases, which are used to verify optional features in the relevant OBSAI specification.</td>
</tr>
<tr>
<td>Relevant to:</td>
<td>Defines the test target. Module (e.g. TM, BBM, RFM, CCM, PM, Power), Interface or system.</td>
</tr>
<tr>
<td>Source reference:</td>
<td>Reference to the feature in the OBSAI specification to be tested. Also references to industrial standards shall be addressed here.</td>
</tr>
<tr>
<td>Test Purpose:</td>
<td>Short description of the purpose of the test – What will be tested.</td>
</tr>
<tr>
<td>Test Models:</td>
<td>Details all requirements for signals used to perform the test</td>
</tr>
<tr>
<td>Method of Test:</td>
<td>Details of how the test is performed from a general point of view</td>
</tr>
<tr>
<td>Test Conditions:</td>
<td>Describes electrical, environmental or other conditions that must be met before a test case can be run. If there are no special requirements, this field is left empty.</td>
</tr>
<tr>
<td>Assumptions and Limitations:</td>
<td>e.g. tests that must be passed before performing this test, assumptions regarding the environment, DUT etc.</td>
</tr>
<tr>
<td>Procedure:</td>
<td>Describes in detail the procedure that will be followed to perform a test case.</td>
</tr>
<tr>
<td>Test setup:</td>
<td>Description of the equipment, connections and software that will be needed to run the test case.</td>
</tr>
</tbody>
</table>

Minimum acceptance criteria:

- Defines the criteria for making a pass/fail decision for a given test case.

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Value</th>
<th>Limit</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>All parameters that affect the test. Limits of the acceptance criterion.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1 - Test case template
4 Test Conditions

Tests are executed in a normal test environment [TS25.141] unless different test conditions are explicitly defined in a test case.

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5 Appendices

2 Appendix A  Conformance Test Case Catalogue
3 Appendix B  Conformance Test Cases Common for all modules
4 Appendix C  Conformance Test Cases for RP2 interface and TM
5 Appendix D  Conformance Test Cases for CCM
6 Appendix E  Conformance Test Cases for BBM
7 Appendix F  Conformance Test Cases for RP4 interface
8 Appendix G  Conformance Test Cases for RP3 interface
9 Appendix H  Conformance Test Cases for UDPCP
10 Appendix I  Conformance Test Cases for OAM&P
11 Appendix J  Conformance Test Cases for RFM
12 Appendix K  RP1 Test messages
6 Glossary

6.1 Abbreviations

For the purposes of the present document, the following abbreviations apply:

<table>
<thead>
<tr>
<th>ABBREVIATION</th>
<th>DESIGNATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>BBM</td>
<td>Base Band Module</td>
</tr>
<tr>
<td>BTS</td>
<td>Base Transceiver Station</td>
</tr>
<tr>
<td>CCM</td>
<td>Clock and Control Module</td>
</tr>
<tr>
<td>GND</td>
<td>Ground</td>
</tr>
<tr>
<td>LVDS</td>
<td>Low Voltage Differential Signaling</td>
</tr>
<tr>
<td>OBSAI</td>
<td>Open Base Station Architecture Initiative</td>
</tr>
<tr>
<td>RFM</td>
<td>Radio Frequency Module</td>
</tr>
<tr>
<td>RP1</td>
<td>Reference Point 1</td>
</tr>
<tr>
<td>RP2</td>
<td>Reference Point 2</td>
</tr>
<tr>
<td>RP3</td>
<td>Reference Point 3</td>
</tr>
<tr>
<td>SW</td>
<td>Software</td>
</tr>
<tr>
<td>TM</td>
<td>Transport Module</td>
</tr>
</tbody>
</table>

Table 2 - Abbreviations

6.2 Definition of Terms

For the purposes of the present document, the following terms and definitions apply:

**Common Signals**: Common Signals are common to all modules and shall be supported. Common Signals are assigned to fixed pin positions at the Data Connector(s) which are present at all modules.
Module Type Specific Signals: Module Type Specific Signals are specific to a certain module type (TM, CCM, BBM, RFM, PM) and shall be supported. Module Type specific Signals shall be assigned to fixed pin positions at the Data Connector(s).

Module Type Unspecified Signals: Module Type Unspecified Signals are optional. Their functional and electrical characteristics are not specified. If present, Module Type Unspecified Signals shall be assigned to a range of pin positions at the Data Connector(s). The range of pin positions shall be fixed for a certain module type, but may differ between module types.

Signal Group: A group of signals forming a functional entity e.g. a fabric port.

Test manager: controls tests and receives test results and reports the test results.

Test fixture: changeable hardware adapter between DUT and Test manager.

Test analyzer: passive analyzer to be used in measurements, e.g. logic analyzer.

Test signal generator: generates one or several test signals for testing purposes.

Test agent: piece of SW, which controls testing in the DUT.

DUT: device under test.

IUT: implementation under test.

High Impedance State:

http://www.patentec.com/data/class/defs/326/56.html
7 References

7.1 OBSAI

[OBSAI System] OBSAI System Reference Document

[OBSAI RP1] OBSAI Reference Point 1 Specification

[OBSAI RP2] OBSAI Reference Point 2 Specification

[OBSAI RP3] OBSAI Reference Point 3 Specification

[OBSAI RP4] OBSAI Reference Point 4 Specification

[OBSAI BBM] OBSAI Base Band Module Specification

[OBSAI TM] OBSAI Transport Module Specification

[OBSAI CCM] OBSAI Clock and Control Module Specification

[OBSAI RFM] OBSAI Radio Frequency Module Specification

7.2 IEEE


7.3 IETF

[RFC2165] Service Location Protocol (SLP) Request For Comments

[RFC2544] Benchmarking methodology for network interconnect devices

[RFC1242] Benchmarking terminology for network interconnection devices
7.4 ITU-T

[G824] The control of Jitter and wander of 1544kbit/s

[G823] The control of Jitter and wander of 2048kbit/s

[G825] The control of Jitter and wander of SDH

7.5 3GPP

[TS25.141] 3GPP TS 25.141 Base Station (BS) conformance testing (FDD)