# MOST

**M**edia **O**riented **S**ystems **T**ransport

**Multimedia and Control Networking Technology**

## Compliance Verification Procedure – Physical Layer

**ERRATA SHEET**
**Rev 1.1-03**
**05/2007**
Version 1.1-03

**MOSTCO CONFIDENTIAL**
**See page 3 for the terms of disclosure**

# Legal Notice

## COPYRIGHT



## LICENSE DISCLAIMER

Nothing on any MOST Cooperation Web Site, or in any MOST Cooperation document, shall be construed as conferring any license under any of the MOST Cooperation or its members or any third party's intellectual property rights, whether by estoppel, implication, or otherwise.

## CONTENT AND LIABILITY DISCLAIMER

MOST Cooperation or its members shall not be responsible for any errors or omissions contained at any MOST Cooperation Web Site, or in any MOST Cooperation document, and reserves the right to make changes without notice. Accordingly, all MOST Cooperation and third party information is provided "AS IS". In addition, MOST Cooperation or its members are not responsible for the content of any other Web Site linked to any MOST Cooperation Web Site. Links are provided as Internet navigation tools only.

MOST COOPERATION AND ITS MEMBERS DISCLAIM ALL WARRANTIES WITH REGARD TO THE INFORMATION (INCLUDING ANY SOFTWARE) PROVIDED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT. Some jurisdictions do not allow the exclusion of implied warranties, so the above exclusion may not apply to you.

In no event shall MOST Cooperation or its members be liable for any damages whatsoever, and in particular MOST Cooperation or its members shall not be liable for special, indirect, consequential, or incidental damages, or damages for lost profits, loss of revenue, or loss of use, arising out of or related to any MOST Cooperation Web Site, any MOST Cooperation document, or the information contained in it, whether such damages arise in contract, negligence, tort, under statute, in equity, at law or otherwise.

## FEEDBACK INFORMATION

Any information provided to MOST Cooperation in connection with any MOST Cooperation Web Site, or any MOST Cooperation document, shall be provided by the submitter and received by MOST Cooperation on a non-confidential basis. MOST Cooperation shall be free to use such information on an unrestricted basis.

## TRADEMARKS

MOST Cooperation and its members prohibit the unauthorized use of any of their trademarks. MOST Cooperation specifically prohibits the use of the MOST Cooperation LOGO unless the use is approved by the Steering Committee of MOST Cooperation.

## SUPPORT AND FURTHER INFORMATION

For more information on the MOST technology, please contact:

**MOST Cooperation**
Administration
P. O. Box 4327
D-76028 Karlsruhe
Germany

Tel: (+49) (0) 721 966 50 00
Fax:(+49) (0) 721 966 50 01
E-mail: contact@mostcooperation.com
Web: www.mostcooperation.com


These Errata are Confidential Information of the MOST Cooperation. It may only be disclosed to member companies. Member companies wishing to discuss these Errata with suppliers or other third parties must ensure that a commercially standard form of non-disclosure agreement has been previously executed by the party receiving such Errata. Use of these Errata may only be for purposes for which they are intended by the MOST Cooperation. Unauthorized use or disclosure is a violation of law.

# Contents

# Bibliography

| Number | Document |
|---|---|
| [1] | MOST Specification Framework |
| [2] | MOST Specification |
| [3] | MOST High Protocol Specification |
| [8] | MOST FunctionCatalog |
| [9] | MOST Specification Of Physical Layer |
| [10] | MOST Compliance Test of Physical Layer |
| [11] | MOST Compliance Requirements |
| [12] | MOST Core Compliance Test Specification |

# Document History

### Changes

| Change Ref. | Section | Changes |
|---|---|---|
| 1V1-01 | 3 | Section added. |
| 1V1-02 | 3 | Consideration of different FS: GEN 7 added. |
| 1V1-02 | 3 | Consideration of Phys. Spec Addendum B: GEN 8 added. |
| 1V1-03 | 3 | Checking connector tolerances: GEN 9 added. |
| 1V1-03 | 3 | Clarification Compliance testing with different sample frequencies FS: GEN 7a added. |

# 1 Introduction

This document is a supplement to the MOST COMPLIANCE VERIFICATION PROCEDURE - PHYSICAL LAYER, Version 1.0-00 [12].

# 2 Roadmap Physical Compliance Test

The following tables represent the preliminary restrictions for physical compliance testing defined in The document MOST_COMPLIANCE VERIFICATION PROCEDURE_PHYSICAL LAYER 1V0-00.

Limited physical layer testing

| Input Parameter for SP3 | Criterion | Practicable |
|---|---|---|
| $P_{opt}$ variable | (Critical) unlocks | Yes |
| | Coding errors | New ET needed |
| APWD variable | (Critical) unlocks | New stimulus needed |
| | Coding errors | New Stimulus & new ET needed |

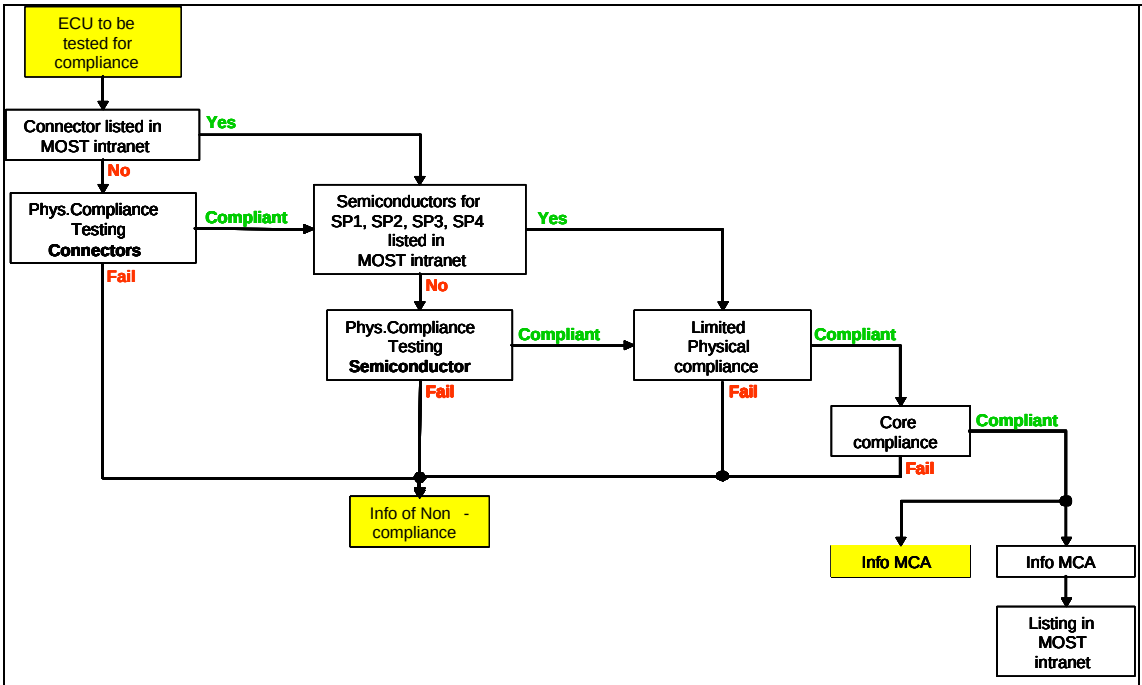
Full physical layer testing - Receiver

| Input Parameter | Criterion | practicable today |
|---|---|---|
| $P_{opt}$ variable | Status signal | Yes |
| APWD variable | Status signal | New Stimulus needed |

# 3 Errata

Legend: → means "will be substituted by"

| | |
|---|---|
| Definition of "family" to minimize test effort for a couple of products with many similarities. A family member is a variation of parameter invariant to MOST Compliance Verification<br>e.g.<br>- pigtail with different fibre length in range of already tested fibre lengths<br>- pigtail with different shielding<br>- pigtail with different pin orientation (90° / 180°)<br>- and supersets<br><br>In case a change supersedes the already tested range it has to be considered as "level 3" change.<br><br>Note: Change of FOT implies a new family. | GEN 1 |
| Treatment of Pigtail with different (electrical) connector interface:<br><br>In case the construction does not change the principal optical path, only the mechanical/optical interface has to be tested.<br>Consequently this will be seen as level 3 change. | GEN 2 |
| Guideline for supplier in case of product changes (provided by MCA).<br><br>Changes, that may impact<br>- the optical path or<br>- mechanical/optical interface<br><br>and which have to be considered as "level 3" changes:<br><br>- Coupling concept<br>- Fixation of the ferrule<br>- Fibre type<br>- Extension of temperature range<br>- Change of component manufacturer (e.g. FOT)<br>- Material in the optical path<br>- Receiver and transmitter chips / changes of FOT<br>- Measurement Verification not performed in case of connector interface changes<br>- (Refer also recommended Guideline AEC-Q100, p. 19, col E5, Electrical Distribution , http://www.aecouncil.com)<br><br>NOTE: Of course, this guideline is valid for changes during product development process, too. | GEN 3 |
| Example:<br>Pigtail-Family1 (with FOT1) and Pigtail- Family2 (with FOT2) have been both tested for Full Physical Compliance.<br>A device using Pigtail-Family1 (with FOT1) has been tested for Limited Physical Compliance.<br>Layout or circuitry or application or power supply changed?<br>- Yes: level 3 change<br>- No: level 2 change | GEN 4 |
| Substitutions of Early implementation components in a product will be treated according to Guideline of Changes (refer GEN 3) | GEN 5 |

| | |
|---|---|
|  <br>This flow is valid for Compliance testing of a device. | GEN 6 |
| The procedure for Compliance testing with different sample frequencies FS will be as follows:<br><br>• Limited Physical Compliance:<br>Each supported FS has to be tested, i.e. a device supporting FS 44,1 kHz and FS 48 kHz has to be tested for both frequencies. The supported frequencies will be marked in the MCPL.<br><br>• Full Physical Compliance:<br>o For FOTs each supported FS has to be tested, i.e. a FOTsupporting FS 44,1 kHz and FS 48 kHz has to be tested for both frequencies. The supported frequencies will be marked in the MCPL.<br>o As Pigtails will not be affected by the sample frequency FS the test with one FS will be sufficient. | GEN 7 |
| Clarification Compliance testing with different sample frequencies FS:<br>“For electronic control units (ECU) the limited physical compliance will be done at the specified frame sampling rate.<br>If the FOT is not tested for Full Physical Layer Compliance at this frame sampling rate, at least the data sheet of the FOT must cover this sampling rate. If the sampling rate of the ECU is not covered by the data sheet of the FOT, the ECU is not compliant because the components are operated outside of the FOT specification.<br><br>The compliance testing of pigtails is not affected by the sampling rate, because for the Full Physical Layer test of pigtail subset, one frame sampling rate is sufficient.” | GEN 7a |
| With release of MOST Physical Layer Rev. 1.1 Addendum B the overshoot behaviour has to be adapted and considered accordingly in Compliance Testing. | GEN 8 |
| Checking connector tolerances:<br><br>“To verify the mechanical interface according to the Compliance Verification Procedure three measurement values of the obligatory drawings will be taken and described in the test report accordingly. The corresponding measurement uncertainty should be better than 0.1mm." | GEN 9 |

Notes: