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**Road vehicles — Media Oriented  
Systems Transport (MOST) —**

**Part 11:  
150-Mbit/s coaxial physical layer  
conformance test plan**

*Véhicules routiers — Système de transport axé sur les médias —*

*Partie 11: Plan d'essais de conformité de la couche coaxiale physique  
à 150 Mbit/s*

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# Contents

	Page
<b>Foreword</b> .....	<b>v</b>
<b>Introduction</b> .....	<b>vi</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Symbols and abbreviated terms</b> .....	<b>2</b>
4.1 Symbols.....	2
4.2 Abbreviated terms.....	2
<b>5 Conventions</b> .....	<b>3</b>
<b>6 Operating conditions and measurement tools, requested accuracy</b> .....	<b>4</b>
6.1 Operating conditions.....	4
6.2 Apparatus — Measurement tools, requested accuracy.....	4
<b>7 Electrical characteristics</b> .....	<b>4</b>
7.1 Test according to LVDS.....	4
7.2 Test according to LVTTTL.....	5
<b>8 Coaxial characteristics</b> .....	<b>5</b>
8.1 High/low detection at SP2.....	5
8.2 Transition times at SP2.....	5
8.3 Steady state amplitude at SP2.....	6
8.4 Attenuation of coaxial interconnect.....	7
8.4.1 General.....	7
8.4.2 Coefficient values based on attenuation measurements.....	7
8.4.3 Fitting of corridor.....	7
8.4.4 Attenuation test set-up.....	7
8.4.5 Test procedure.....	8
8.5 RL of connectors and couplers.....	13
8.6 Characteristic impedance of coaxial cable.....	13
8.7 RL of coaxial interconnect.....	13
8.8 RL of PCB interfaces.....	15
8.9 Stimulus creation for SP3.....	16
8.9.1 General.....	16
8.9.2 Pattern generator.....	16
8.9.3 Arbitrary signal generator.....	17
8.9.4 Attenuator.....	17
8.9.5 Cable or analogue representation.....	17
8.9.6 Noise generator.....	18
8.9.7 Creating a stimulus for SP3 for simplex applications.....	18
8.9.8 Creating a stimulus for SP3 for duplex applications.....	20
<b>9 Measurement of phase variation</b> .....	<b>23</b>
9.1 General.....	23
9.2 Measuring alignment jitter.....	25
9.3 Measuring transferred jitter.....	27
<b>10 Test set-ups</b> .....	<b>30</b>
10.1 General.....	30
10.2 Graphical symbols and descriptions.....	30
10.2.1 Pattern generator SP1.....	30
10.2.2 SP3 stimulus.....	30
10.2.3 Standalone simplex ECport under test.....	31
10.2.4 Integrated simplex ECport under test.....	31
10.2.5 Standalone simplex CEport under test.....	32

10.2.6	Integrated simplex CEport under test.....	32
10.2.7	Duplex ECport under test.....	33
10.2.8	Duplex CEport under test.....	34
10.3	Set-ups for dual simplex.....	34
10.3.1	General.....	34
10.3.2	SP2 signal quality measurement for simplex.....	34
10.3.3	SP4 jitter measurement (AJ and TJ) for simplex.....	36
10.4	Set-ups for duplex.....	37
10.4.1	General.....	37
10.4.2	Directional couplers.....	37
10.4.3	SP2 signal quality measurement for duplex.....	40
10.4.4	SP4 jitter measurement (AJ and TJ) for duplex.....	42
<b>11</b>	<b>Power-on and power-off.....</b>	<b>44</b>
11.1	General.....	44
11.2	Measuring ECC parameters.....	45
11.2.1	Measuring ECC parameters – Test set-up.....	45
11.2.2	Measuring ECC parameters – Signal charts.....	46
11.2.3	Measuring ECC parameters – Test sequences.....	47
11.3	Measuring CEC parameters.....	51
11.3.1	Measuring CEC parameters – Test set-up.....	51
11.3.2	Measuring CEC parameters – Signal charts.....	53
11.3.3	Measuring CEC parameters – Test sequences.....	53
<b>12</b>	<b>Detecting bit rate (frequency reference).....</b>	<b>57</b>
<b>13</b>	<b>System performance.....</b>	<b>57</b>
13.1	General.....	57
13.2	SP4 receiver tolerance.....	57
13.3	TimingMaster delay tolerance.....	58
<b>14</b>	<b>Conformance tests of 150-Mbit/s coaxial physical layer.....</b>	<b>61</b>
14.1	Location of interfaces.....	61
14.2	Control signals.....	64
14.3	Limited access to specification points.....	65
14.4	Parameter overview.....	66
<b>15</b>	<b>Limited physical layer conformance.....</b>	<b>66</b>
15.1	Overview.....	66
15.2	Test set-ups 1 and 2.....	67
15.3	Generating test signals for the IUT input section SP3.....	68
15.4	Analysis of test results.....	69
15.5	Test flow overview.....	69
15.6	Measurement of SP3 input signal of the IUT.....	70
15.7	Measurement of SP2 output signal of the IUT.....	71
15.8	Measurement of RL.....	72
15.9	Functional test of wake-up and shutdown.....	72
<b>16</b>	<b>Direct physical measuring accuracy.....</b>	<b>72</b>
<b>17</b>	<b>Measurement of Port1 delay drift.....</b>	<b>73</b>
<b>Annex A (informative) Limited physical layer conformance for development tools.....</b>		<b>74</b>
<b>Annex B (normative) SP3 stress conditions.....</b>		<b>75</b>
<b>Annex C (normative) Compensation set-up for MOST150 cPHY duplex.....</b>		<b>76</b>
<b>Annex D (informative) Test procedure for 2-port nodes.....</b>		<b>80</b>
<b>Bibliography.....</b>		<b>84</b>

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 31, *Data communication*.

A list of all parts in the ISO 21806 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

## Introduction

The Media Oriented Systems Transport (MOST) communication technology was initially developed at the end of the 1990s in order to support complex audio applications in cars. The MOST Cooperation was founded in 1998 with the goal to develop and enable the technology for the automotive industry. Today, MOST<sup>1)</sup> enables the transport of high Quality of Service (QoS) audio and video together with packet data and real-time control to support modern automotive multimedia and similar applications. MOST is a function-oriented communication technology to network a variety of multimedia devices comprising one or more MOST nodes.

Figure 1 shows a MOST network example.

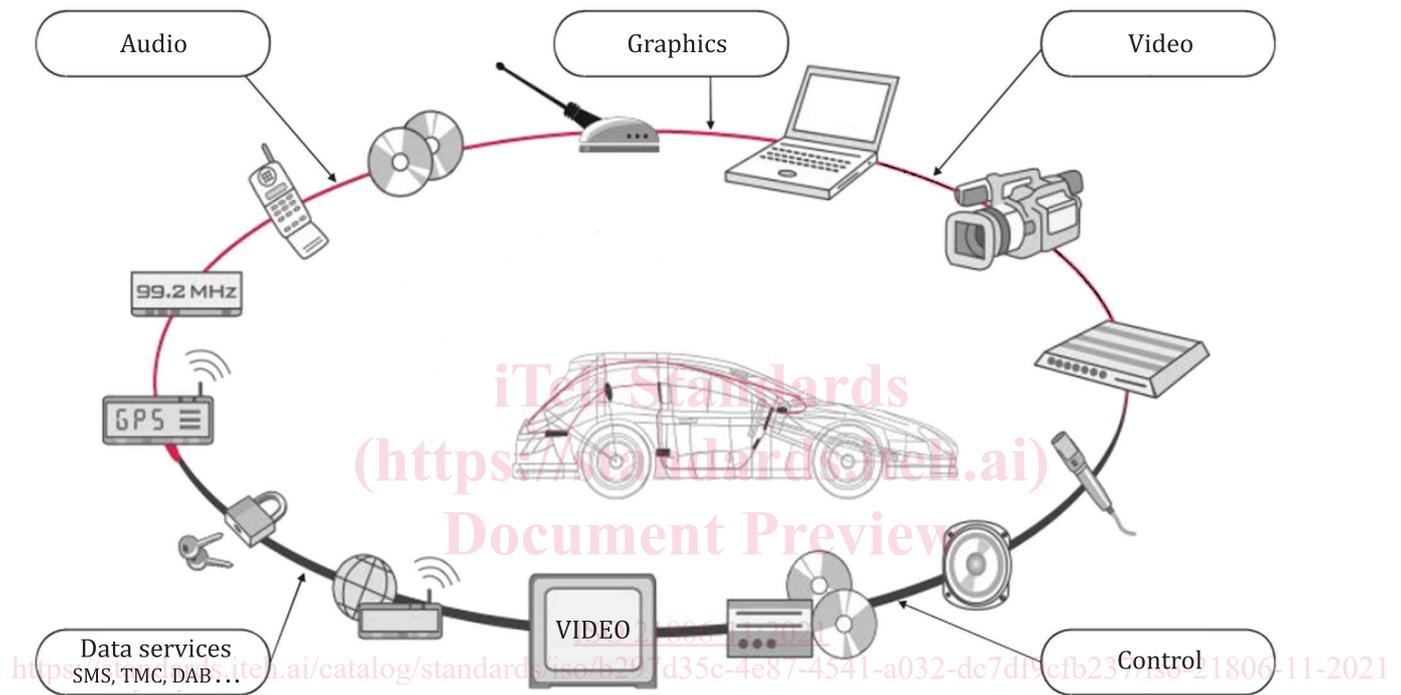


Figure 1 — MOST network example

The MOST communication technology provides:

- synchronous and isochronous streaming,
- small overhead for administrative communication control,
- a functional and hierarchical system model,
- API standardization through a function block (FBlock) framework,
- free partitioning of functionality to real devices,
- service discovery and notification, and
- flexibly scalable automotive-ready Ethernet communication according to ISO/IEC/IEEE 8802-3<sup>[2]</sup>.

MOST is a synchronous time-division-multiplexing (TDM) network that transports different data types on separate channels at low latency. MOST supports different bit rates and physical layers. The network clock is provided with a continuous data signal.

1) MOST® is the registered trademark of Microchip Technology Inc. This information is given for the convenience of users of this document and does not constitute an endorsement by ISO.

Within the synchronous base data signal, the content of multiple streaming connections and control data is transported. For streaming data connections, bandwidth is reserved to avoid interruptions, collisions, or delays in the transport of the data stream.

MOST specifies mechanisms for sending an isochronous, packet-based data in addition to control data and streaming data. The transmission of packet-based data is separated from the transmission of control data and streaming data. None of them interfere with each other.

A MOST network consists of devices that are connected to one common control channel and packet channel.

In summary, MOST is a network that has mechanisms to transport the various signals and data streams that occur in multimedia and infotainment systems.

The ISO Standards Maintenance Portal (<https://standards.iso.org/iso/>) provides references to MOST specifications implemented in today's road vehicles because easy access via hyperlinks to these specifications is necessary. It references documents that are normative or informative for the MOST versions 4V0, 3V1, 3V0, and 2V5.

The ISO 21806 series has been established in order to specify requirements and recommendations for implementing the MOST communication technology into multimedia devices and to provide conformance test plans for implementing related test tools and test procedures.

To achieve this, the ISO 21806 series is based on the open systems interconnection (OSI) basic reference model in accordance with ISO/IEC 7498-1<sup>[1]</sup> and ISO/IEC 10731<sup>[3]</sup>, which structures communication systems into seven layers as shown in [Figure 2](#). Stream transmission applications use a direct stream data interface (transparent) to the data link layer.

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