The JT-NM Tested Program provides greater transparency of vendors performance to the SMPTE ST 2110 standards, AMWA NMOS specifications and JT-NM TR-1001-1 recommendations adopted by the industry.

The August 2019 testing event took place the week of August 19, 2019 at RIEDEL Communications facility in Wuppertal, Germany.

Sponsored by

Administered by

Hosted By

EBU | IRT | BBC | R&D | RIEDEL
JT-NM Tested Program Participants

71 products from 32 vendors tested
JT-NM Tested Program August 2019
Contributors

Special thanks to the following organizations for their support during testing:

- Riedel
- Arista
- Belden
- Bridge
- PacketStorm Communications, Inc.
- Tektronix
- AJA
- Sony
## Tests Performed
### SMPTE ST 2110 Badge

<table>
<thead>
<tr>
<th>Test Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Tests</td>
<td>Network connectivity, PTP timing, IGMPv3 (join and leave multicasts) and SDP (device’s I/O configuration) files</td>
</tr>
<tr>
<td>SMPTE ST 2110-20</td>
<td>Receive and transmit video, including SMPTE ST 2110-21 buffering support and video free of artifacts</td>
</tr>
<tr>
<td>SMPTE ST 2110-30</td>
<td>Receive and transmit audio, including no audible artifact being heard</td>
</tr>
<tr>
<td>SMPTE ST 2110-40</td>
<td>Ancillary data support, including DID/SDID support, caption presence and no stream payload errors</td>
</tr>
<tr>
<td>SMPTE ST 2022-7</td>
<td>Seamless protection switching, including sending audio, video &amp; data, and receiving audio, video &amp; data with 25% errors</td>
</tr>
<tr>
<td>Tests Performed</td>
<td>AMWA NMOS/JT-NM TR-1001-1 Badge</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>DHCP</td>
<td>Automatic IP assignment for management and media ports</td>
</tr>
<tr>
<td>LLDP</td>
<td>Advertisement of network port names and capabilities to the network infrastructure</td>
</tr>
<tr>
<td>System Resource</td>
<td>Automatic discovery of PTP configuration including the domain number (future AMWA IS-09)</td>
</tr>
<tr>
<td>AMWA IS-04</td>
<td>Discovery and registration using unicast DNS service discovery</td>
</tr>
<tr>
<td>AMWA IS-05</td>
<td>Connection management support for Senders and Receivers including SDP and IGMPv3</td>
</tr>
<tr>
<td>AMWA IS-08</td>
<td>Audio channel mapping support within media Nodes</td>
</tr>
</tbody>
</table>
Most products supported audio, video and ancillary data services.

A substantial number of audio only products were tested and were convertors, monitoring, intercoms and mixers.

There was one data only product for caption insertion.
The majority of products could receive and transmit SMPTE ST 2110.

Receive only products were made up of convertors, multiviewers and monitoring products.

Transmit only products were primarily convertors.
Download your free copy of the JT-NM Tested August 2019 Catalogs at: http://jt-nm.org/jt-nm_tested

Look for this badge at the booths of participating vendors
Download your free copy of the JT-NM Tested August 2019 Catalogs at: [http://jt-nm.org/jt-nm_tested](http://jt-nm.org/jt-nm_tested)

Look for this badge at the booths of participating vendors
Download your free copy of the JT-NM Tested August 2019 Catalogs at: [http://jt-nm.org/jt-nm_tested](http://jt-nm.org/jt-nm_tested)

### JT-NM Tested Program August 2019

<table>
<thead>
<tr>
<th>SMPTE ST 2110 Test Plan v.1.3</th>
</tr>
</thead>
</table>

**Changelog to v. 1.2**
- [ ] Preparing initial draft.

**Changelog to v. 1.1**
- [ ] Grouping of tables by application: section removed, grouping will be done in the spreadsheet.
- [ ] Removal of table.

**Changelog to v. 1.0**
- [ ] Test 2.3 - removed.
- [ ] Test 2.4 - removed.

**Changelog to "JT-NM Tested March 2019 Program" Test Plan v.1.3**
- [ ] Abstract and motivation behind the program - updated.

Version 1.2 Changelog
- [ ] Updated support equipment in Table 7.
- [ ] Removed LCP subclauses which are not applicable to TN 1001.
- [ ] Updated support equipment in Table 7.
- [ ] Updated support equipment in Table 8.

Version 1.1 Changelog
- [ ] Added AMVIA-3 test in section 5.
- [ ] Updated support equipment in Table 7.

Version 1.0 Changelog
- [ ] Final draft of the document undergoes substantial changes ahead of the final version.
- [ ] AMVIA-3 test in section 5.

**Abstract and motivation behind the program**

JT-NM Tested Program returns to the SMPTE. The JT-NM continues to partner with vendors and users to provide information that aids in transition to IP. As the industry uses IP in new ways, the JT-NM Tested program offers prospective purchasers of IP-based equipment greater insight into how vendor equipment conforms to the SMPTE standards and AMWA standards.

Sponsored by the JT-NM and administered by the EBU and IRT, two top European technical bodies, vendors who submit equipment for evaluation will have the opportunity to list test equipment in a JT-NM Tested catalog. As customers and users are more fully capable of using the IP Showcase catalog to evaluate and purchase equipment, they will be better equipped to make informed decisions. As such, the JT-NM Tested catalog serves as a valuable resource for new and existing equipment that conforms to key parts of SMPTE standards and AMWA AMOS specifications, providing prospective purchasers and users with a reference as they begin their equipment evaluation and qualification process.