The most rugged high-performance embedded parallel optics.

Features
- The Optical Tester SR12 150G features (12+12)-lane full duplex parallel optics transceivers operating at 150 Gbps.
- The Optical Tester SR12 offers 12× TX and 12× RX high-speed optical lanes each accessible via a standard 24-fiber MPO connector.
- Designed to operate at up to 12.5 Gbps per lane via AC-coupled differential pairs of SMA connectors.
- Designed to test optical interconnect with various bit rates and communication protocols.
- Single power supply through standard wall-plug interface.

Applications
- Assess electrical and optical signal quality from the LightABLE™ SR12 transceiver product line.
- Test for bit error rate and eye diagram on the LightABLE SR12.
- 12 lane EO/OE lab-grade generator.
- Test performance of optical interconnects up to 100 m.
- Test various communication protocols such as Ethernet, PCIe, RapidIO, and Infiniband over the LightABLE.

Product summary
The Optical Tester SR12 150G is the perfect vehicle for testing and experiencing the LightABLE SR12 transceiver modules. The Optical Tester SR12 consists of a printed circuit evaluation board with a pluggable 150G SR12 transmitter and a 150G SR12 receiver modules (LH or LM Series), offering 12 asynchronous lanes each operating at up to 12.5 Gbps per lane. These modules are designed for short reach applications (1 m to 100 m) with support on 50/125 micron multimode fiber (OM3) and are accessible via a 24-fiber MPO connector. The 12 RF modulation signals for the TX and the 12 RF received signals from the RX are available on the side of the Optical Tester SR12 via balanced differential pairs of SMA connectors.
**Recommended test equipment**

This product needs to be associated with all the necessary hardware, test and measurement equipment and software in order to perform the characterization of an optical link. It allows for easy measurements of bit error rate and eye diagram. A wide variety of electrical and optical measurements can be performed with the Optical Tester SR12 based on the transceiver module. As a general guideline, we recommend the following test equipment:

- SMA cables with a bandwidth in excess of 40 GHz are preferred.
- A pulse generator and a signal analyzer to perform both signal patterns (eye diagram) and bit error rate measurements (BERT).
- All measurements on the electrical outputs of the receiver board should use an oscilloscope with a minimum bandwidth of 18 GHz.
- Calibrated optical attenuator and power meter for optical tests at 850 nm.

**Optical Tester SR12 150G dimensions and diagrams**

![Optical Tester SR12 150G technical drawing (front view).](image1)

![Optical Tester SR12 150G technical drawing (top view).](image2)

The Optical Tester SR12 150G measures approximately (D×W×H) 9 x 21.5 x 15 cm (not including fixing flanges).

- The Optical Tester SR12 150G allows RF electrical access to 12 TX lanes and 12 RX lanes of the SR12 transceiver. (back view).
- The diagram also shows the 1×24 MPO connector fiber lane assignment.

**Optical Tester SR12 150G ordering information**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>LHD120018311101</td>
<td>1× Optical Tester SR12 150G (12+12)</td>
</tr>
<tr>
<td>WSU090-2000</td>
<td>1× Power supply 110 VAC to 9 V DC, 18 W</td>
</tr>
<tr>
<td>LMT12P4183310AA</td>
<td>LightABLE LM Series SR12 TX</td>
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<tr>
<td>LMR12P4183303AA</td>
<td>LightABLE LM Series SR12 RX</td>
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<tr>
<td>LHT12P4183310AA</td>
<td>LightABLE LH Series SR12 TX</td>
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<tr>
<td>LHR12P4183303AA</td>
<td>LightABLE LH Series SR12 RX</td>
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