



Agilent Technologies

# **OmniBER XM network simulator**

Configuration Guide



**Agilent Technologies**



**OmniBER XM configuration and ordering**

The OmniBER XM network simulator is a modular product that consists of a controller, one or more chassis, and any combination of plug-in transceiver modules. See the following pages for configuration and ordering information on all constituent parts of an OmniBER XM system.

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**10 Gb/s Transceiver Modules****1550nm Operation**

Product	Description	Qty
J7241A	OC-192 / STM-64 transceiver module: <ul style="list-style-type: none"> <li>• single port (1 x Tx / Rx)</li> <li>• 1550nm.</li> </ul>	<input type="checkbox"/>
	Exchangeable optical connectors. <i>One option must be ordered per module.</i>	
J7241A-609	FC / PC connector.	<input type="checkbox"/>
J7241A-610	SC connector.	<input type="checkbox"/>
J7241A-611	ST connector.	<input type="checkbox"/>
J7241A-UK6	Calibration certificate ( <i>Order if required</i> ).	<input type="checkbox"/>

**1310nm Operation**

Product	Description	Qty
J7242A	OC-192 / STM-64 transceiver module: <ul style="list-style-type: none"> <li>• single port (1 x Tx / Rx)</li> <li>• 1310nm.</li> </ul>	<input type="checkbox"/>
	Exchangeable optical connectors. <i>One option must be ordered per module.</i>	
J7242A-609	FC / PC connector.	<input type="checkbox"/>
J7242A-610	SC connector.	<input type="checkbox"/>
J7242A-611	ST connector.	<input type="checkbox"/>
J7242A-UK6	Calibration certificate ( <i>Order if required</i> ).	<input type="checkbox"/>

**2.5 Gb/s (and below) Multi-Rate Transceiver Modules**

**1550nm Operation**

Product	Description	Qty
J7244A-002	OC-48 / STM-16 multi-rate transceiver module: <ul style="list-style-type: none"> <li>• includes OC-12 / STM-4 and OC-3 / STM-1 capability;</li> <li>• dual port (2 x Tx / Rx)</li> <li>• 1550nm.</li> </ul>	<input type="checkbox"/>
J7244A-010	Adds multi-channel VT/TU capability.	<input type="checkbox"/>
	Exchangeable optical connectors. <i>One option must be ordered per module.</i>	
J7244A-609	FC / PC connector.	<input type="checkbox"/>
J7244A-610	SC connector.	<input type="checkbox"/>
J7244A-611	ST connector.	<input type="checkbox"/>
J7244A-UK6	Calibration certificate ( <i>Order if required</i> ).	<input type="checkbox"/>

**1310nm Operation**

Product	Description	Qty
J7245A-002	OC-48 / STM-16 multi-rate transceiver module: <ul style="list-style-type: none"> <li>• includes OC-12 / STM-4 and OC-3 / STM-1 capability;</li> <li>• dual port (2 x Tx / Rx)</li> <li>• 1310nm.</li> </ul>	<input type="checkbox"/>
J7245A-010	Adds multi-channel VT/TU capability.	<input type="checkbox"/>
	Exchangeable optical connectors. <i>One option must be ordered per module.</i>	
J7245A-609	FC / PC connector.	<input type="checkbox"/>
J7245A-610	SC connector.	<input type="checkbox"/>
J7245A-611	ST connector.	<input type="checkbox"/>
J7245A-UK6	Calibration certificate ( <i>Order if required</i> ).	<input type="checkbox"/>

## Chassis

Two chassis are available to suit the different requirements that each customer may have. Each module uses one slot in a chassis.

Product	Description	Qty
J7263A	4 slot chassis - holds up to four modules. Comes complete with: <ul style="list-style-type: none"> <li>• external 10M/BITS/2M clock reference input;</li> <li>• four blanking plates;</li> <li>• a chassis-to-chassis cable for interconnecting chassis.</li> </ul>	<input type="checkbox"/>
E7912A	2 slot chassis - holds up to two modules. Comes complete with: <ul style="list-style-type: none"> <li>• external 10M clock reference input (see note below);</li> <li>• two blanking plates;</li> <li>• a chassis-to-chassis cable for interconnecting chassis.</li> </ul>	<input type="checkbox"/>

**Notes:**

- A blanking plate must be fitted to any unused slot in either chassis to ensure correct operating temperature range.
- A BITS/2M external clock reference input is NOT supplied or supported in the E7912A 2 slot chassis.

### System controllers

A choice of rack-mountable system controllers is available to suit the different requirements that each customer may have. The controller selection is based on the test configuration to be supported.

Product	Description	Test Configuration	No. of LAN ports	Included Ethernet hub size	Qty
J7258A	High performance system controller, rack-mountable	High port count, multiple users.	2	24-port	<input type="checkbox"/>
J7258A-AQ2	14-inch flat panel monitor and keyboard (rack-mountable)				<input type="checkbox"/>
J7259A	System controller rack-mountable	Medium port count, multiple users.	2	8-port	<input type="checkbox"/>
J7259A-AQ2	14-inch flat panel monitor and keyboard (rack-mountable)				<input type="checkbox"/>
J7257A	Laptop system controller	Medium port count, single user.	2	8-port	<input type="checkbox"/>

**Notes:**

- Monitors are not included with rack-mountable controllers and can be purchased through option AQ2.
- Option AQ2 includes 14-inch flat panel monitor and keyboard in a 2U high rack-mountable drawer assembly.
- The rack-mount and laptop system controllers are shipped with Windows 2000 Server Edition.
- Each controller includes an Ethernet switch. One controller Ethernet port is needed to connect to the chassis and/or switch. The other controller Ethernet port can be used to connect the controller to an external LAN to allow multi-user access.
- The laptop system controller has an Ethernet port to connect to the chassis and/or switch. The second port is a PCMCIA LAN card which, due to its limited bandwidth, has poor performance for connection to an external LAN. It is therefore not recommended for remote control or multiple user applications. The PCMCIA LAN card also does not provide enough bandwidth for direct connection to the chassis.

## Accessories

Part number	Product name	Description
E7900-64207	J7263A chassis-to-chassis cable	Interconnects J7263A chassis (included with J7263A)
E7900-64208	Rack-to-rack cable across 19-inch racks	Interconnects J7263A chassis
J7283A	Optical connector	One exchangeable optical FC/PC connector
J7284A	Optical connector	One exchangeable optical SC connector
J7285A	Optical connector	One exchangeable optical ST connector
J7278A	XM product CD	Software and user manual CD

## Racks

For details of Agilent instrument racks that will accommodate OmniBER XM network simulator, please refer to [www.agilent.com/comms/racks](http://www.agilent.com/comms/racks).

## Warranty and service

Standard warranty is one-year module exchange.

Warranty and calibration plan extensions to 3 and 5 years can be provided

## Standards conformance

### EMC compliance

OmniBER XM complies with European directive 89/336/EEC and carries the CE mark.\* It meets the following standards:

ESD/mains fast transients/radiated susceptibility: meets EN50082-1 (1991)

Radiation/conduction emissions: meets EN55011(1991) class A

Complies with the Canadian standards ICES/NMB-001

Complies with the Australian EMC standards AS/NZS2064.1-2 (1992)

## Product safety

The OmniBER XM network simulator complies with the requirements of the European directive 73/23/EEC, and carries the CE\* mark. It meets the following safety standards:

EN61010/IEC61010-1

CSAC22.2#1010.1

*\* All products sold in EEC and ETSI countries must carry the CE mark.*

OmniBER XM is a Class 1 laser product  
EN60825-1: 1994

Class 1 laser product  
FDA 23 CER CH.1 1040.10 (1994)

MS Windows and Windows are US trademarks of Microsoft Corporation.

Agilent Technologies manufactures the OmniBER XM network simulator under a quality system approved to the international standard ISO 9001 plus TickIT (BSI Registration Certificate No FM 10987).

## Product literature

You'll find further details of the OmniBER XM's capability in the transceiver module technical data-sheets, publications no.'s 5988-6665EN and 5988-6785EN or at [www.agilent.com/find/omniberxm](http://www.agilent.com/find/omniberxm)

## Related products

### OmniBER OTN Family

The OmniBER OTN family is the industry's most comprehensive solution for testing ITU-T G.709 optical channel and SONET/SDH devices. Equipped with all standard telecom rates from 1.5 Mb/s to 10 Gb/s, 2.66 Gb/s (OTU-1), and 10.71 Gb/s (OTU-2) optical channel, the OmniBER OTN keeps you at the cutting-edge of next generation transport applications. For more information refer to publication no. 5988-6646EN.

### RouterTester 900

The RouterTester 900 E7880A Traffic Generation and Analysis application excels for testing layer 2 and 3 devices that are used in enterprise, metro/edge and core networks. Combined with the new 10/100 Ethernet and GbE PacketTest Cards, this flexible "packet blaster" offers a cost-effective solution for performing Ethernet traffic testing on switches, routers, next generation SONET/SDH Multi-Service Provisioning Platforms and many other devices. For more information refer to publication no 5988-9860EN.

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