



# XM40-QD20LD-J

40-channel Multiplexer/Demultiplexer  
with Test Channel & Monitoring POR



## Features

- High density packing for full C band
- Compliant with ITU-T G.694.1 100 GHz DWDM transceivers
- Integrated 1625 nm optical test path
- Fits into EIA 19", 23" and ETSI 300 mm racks
- No electrical power is required; immune to EMI/EMC and ESD

## Applications

- Terminal mux/demux in high capacity optical transmission systems
- In-service optical test of DWDM interconnect
- Terminating linear and ring networks in conjunction with add/drop optics

## Compliances

- ITU-T G694.1
- GR-1221 and 1209

## Description

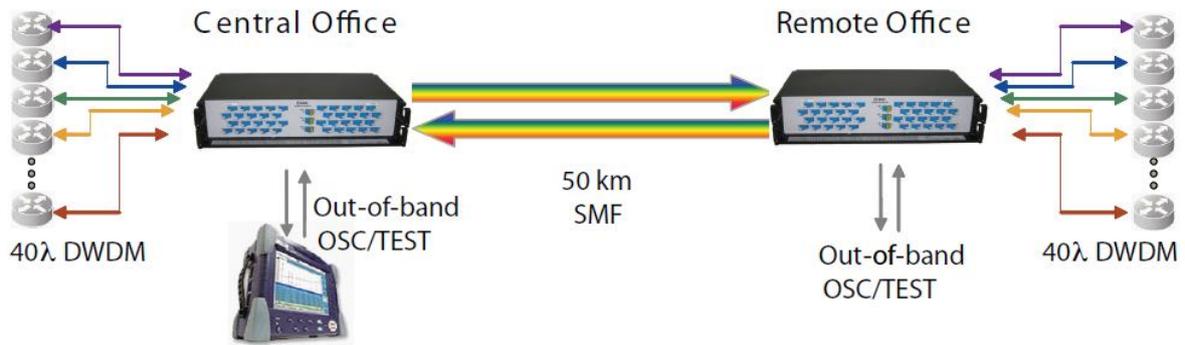
The WaveReady 40-channel Multiplexer/Demultiplexer (DWDM Mux/Demux-40) is a scalable high-capacity terminal Dense Wavelength Division Multiplexing (DWDM) solution allowing up to 40 wavelengths to be multiplexed to a fiber pair.

This multiplexer maximizes the capacity of the C-band range by providing access to 40 x 100 GHz spaced channels. In conjunction with the WaveReady line of transponders and amplifiers the DWDM Mux/Demux-40 supports a wide range of architectures from simple point-to-point to amplified ring configurations with dynamic add/drop.

An integrated test path is built into each module allowing for in-service integration of optical line diagnostics and

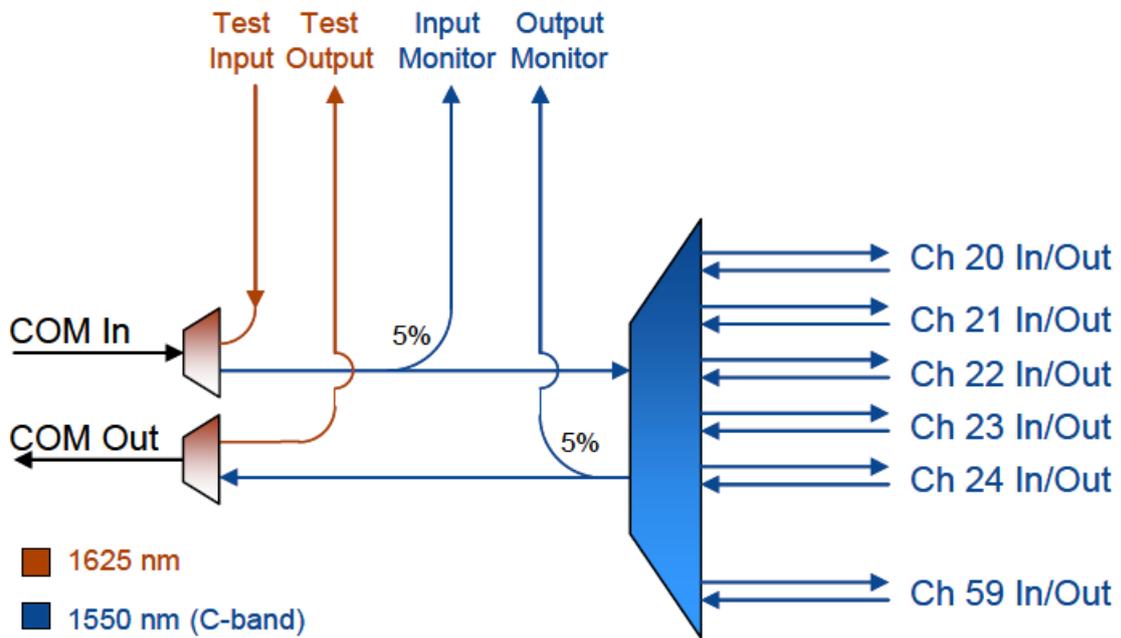
With high channel uniformity, low insertion loss and low chromatic dispersion, the DWDM UMUX 40 is compatible with all digital transmission formats and data rates up to 40 Gb/s.

Network Example

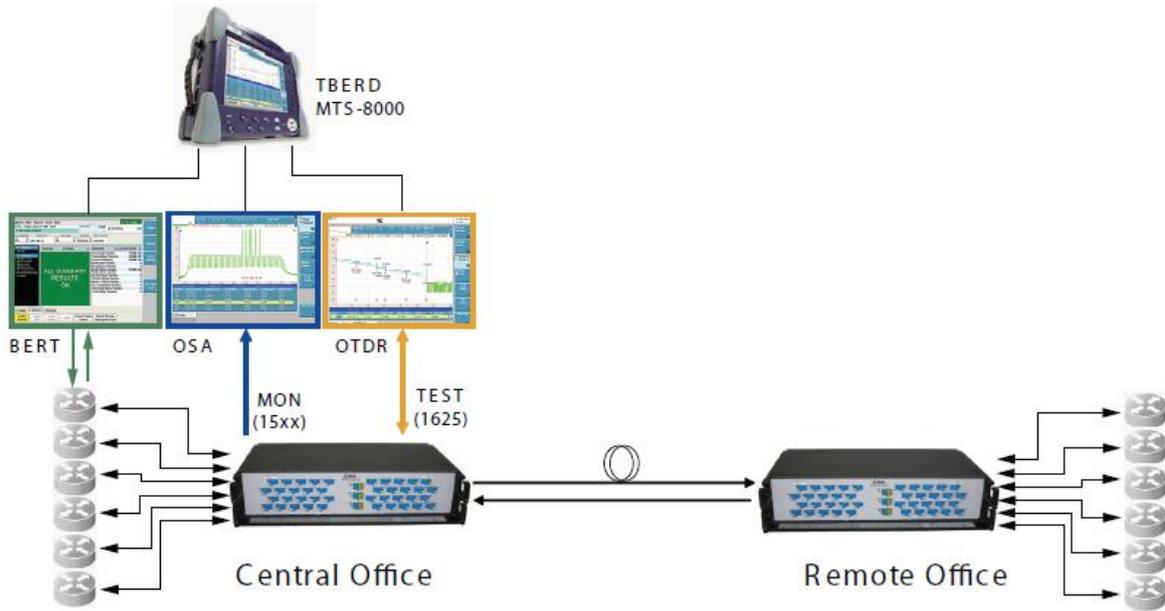


Point to point link with Optical Monitoring

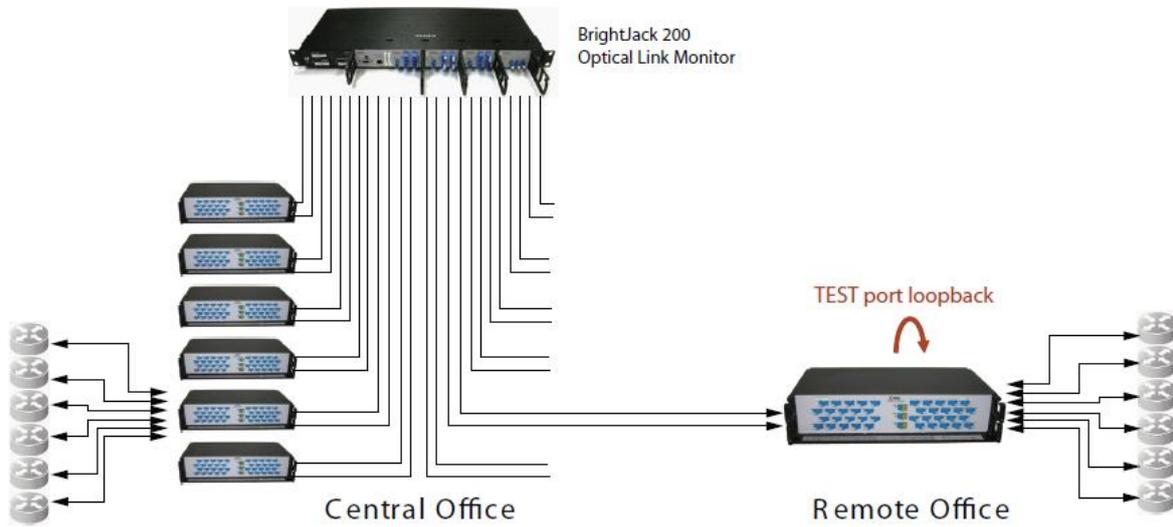
Functional Diagram



### Sample Application: TBERD 8000 Optical Fiber Test Integration



### Sample Application: BrightJack 200 Optical Link Monitoring



**Specifications<sup>1</sup>**

Parameter	Min	Typical	Max
<b>Optical Characteristics</b>			
DWDM Channel Spacing		100 GHz	
DWDM Channel bandwidth		ITU0.1 nm	
DWDM Mux/Demux Insertion loss		4 dB	6 dB
DWDM Channel non-uniformity			1.5 dB
Adjacent DWDM channel isolation	24 dB		
Non-adjacent DWDM channel isolation	33 dB		
DWDM Monitor tap ratio	11 dB	13 dB	15 dB
Test Channel Wavelength Range	1600 nm		1650 nm
Test Channel Insertion Loss		0.7 dB	1 dB
Polarization dependent loss			0.5 dB
Polarization mode dispersion			0.5 ps
Optical return loss	40 dB		
Input optical power – sum of all DWDM channel ports			250 mW
Test port optical power			500 mW
<b>Physical Characteristics</b>			
Size (H W L) including 19" mounting brackets		3.48 in 19.0 in 11.02 in	
Rack mounting options for MDX-20UX10xxB		ETSI, 19 or 23 inch rackmount	
Optical connector type (all ports)		Duplex LC/PC bulkhead	
<b>Environmental Characteristics</b>			
Operating ambient temperature (short term)	-5 °C	—	+55 °C
Operating ambient temperature (extended term)	+10 °C	—	+40 °C
Storage temperature	-40 °C	—	+85 °C
Relative humidity (non-condensing)	5%	—	95%

Notes:

<sup>1</sup>Specifications are worst case end-of-life over specified temperature and wavelength range

### Channel Plan

Channel	Frequency (GHz)	Wavelength (nm)	Channel	Frequency (GHz)	Wavelength (nm)
20	192	1561.42	40	194.0	1545.32
21	192.1	1560.61	41	194.1	1544.93
22	192.2	1559.79	42	194.2	1543.73
23	192.3	1558.98	43	194.3	1542.94
24	192.4	1558.17	44	194.4	1542.14
25	192.5	1557.36	45	194.5	1541.35
26	192.6	1556.55	46	194.6	1540.56
27	192.7	1555.75	47	194.7	1539.77
28	192.8	1554.94	48	194.8	1538.98
29	192.9	1554.13	49	194.9	1538.19
30	193	1553.33	50	195	1537.40
31	193.1	1552.52	51	195.1	1536.61
32	193.2	1551.72	52	195.2	1535.82
33	193.3	1550.92	53	195.3	1535.04
34	193.4	1550.12	54	195.4	1534.25
35	193.5	1549.32	55	195.5	1533.47
36	193.6	1548.51	56	195.6	1532.68
37	193.7	1547.72	57	195.7	1531.90
38	193.8	1546.92	58	195.8	1531.12
39	193.9	1546.12	59	195.9	1530.33

**Ordering information<sup>1</sup>**

PN	Description
XM40-OD20LD-J	40-channel Multiplexer/Demultiplexer with Test Channel, ITU Channels 20-59

## Notes:

<sup>1</sup> For accurate order specification please contact Xenopt reseller before placing an order. The content of this document is subject to change without notice. Xenopt does not guarantee errorless or outdated information. Please specify any compatibility requirements at time of ordering.

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