

WaveReady™ 40- and 44-Channel Universal Multiplexer



- Key Features**
- Offers high-density packing for the full C-band
 - Provides high channel uniformity
 - Complies with ITU-T G.694.1 100-GHz DWDM transceivers
 - Fits into EIA 19-in, 23-in, and ETSI 300-mm racks
 - Power is not required; thermally stable passive optics

Applications

- Supports terminal mux/demux applications
- Supports high-capacity optical transmission systems
- Supports bidirectional transmission on a single fiber and linear and ring architectures requiring wavelength reuse

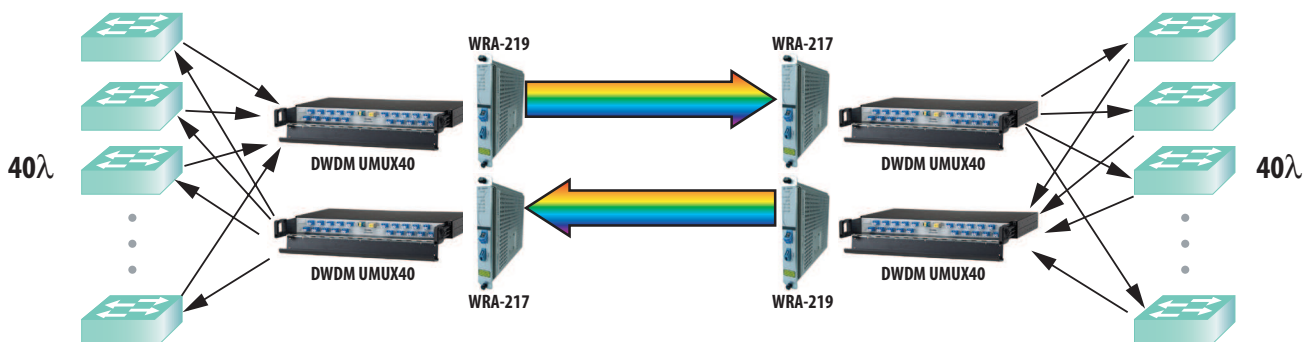
Compliance

- ITU-T G694.1
- GR-1221 and 1209
- RoHS (exemptions 7b, 8a)

The WaveReady 40-channel and 44-channel universal multiplexer are scalable high-capacity terminal dense wavelength division multiplexing (DWDM) solutions that can multiplex up to 44 wavelengths onto a single fiber.

By providing access up to forty four 100-GHz spaced channels, this multiplexer maximizes the capacity of the C-band range. In conjunction with the WaveReady line of transponders and amplifiers, the 40- and 44-channel universal multiplexer support a wide range of architectures from simple point-to-point to amplified ring configurations with dynamic add/drop.

The 40-channel and 44-channel universal multiplexer require no electrical power and generate no heat, noise, or radiated emissions. With its high channel uniformity, low insertion loss, and virtually zero chromatic dispersion, the 40- and 44-channel universal multiplexer maintain compatibility with all digital transmission standards and data rates up to 10 Gbps.



Point-to-point amplified link

2

Specifications

Optical Performance

Parameter	Minimum	Typical	Maximum
Channel spacing		100 GHz	
Insertion loss			5.4 dB
Channel non-uniformity			1.5 dB
Monitor tap ratio	14 dB	17 dB	19.5 dB
Channel bandwidth		ITU λ \pm 0.1 nm	
Adjacent channel isolation	23 dB		
Non-adjacent channel isolation	31 dB		
Polarization dependent loss			0.5 dB
Polarization mode dispersion			0.5 ps
Optical return loss	40 dB		
Input optical power—sum of all channel ports			250 mW

Physical Characteristics

Size (H x W x L) excluding mounting brackets	4.45 x 44.2 x 30.5 cm (1.75 x 17.4 x 12 in)
Rack mounting options	ETSI, 19- or 23-inch rack mount
Optical connector type (all ports)	LC/PC bulkhead

Environmental Characteristics

Operating ambient temperature (short term)	-5 to +55°C
Operating ambient temperature (extended term)	+10 to +40°C
Storage temperature	-40 to +85°C
Relative humidity (non-condensing)	5 to 95%

3

Channel Plan¹

Channel (THz)	Frequency (nm)	Wavelength	Channel (THz)	Frequency (nm)	Wavelength
18	191.8	1563.05	40	194.0	1545.32
19	191.9	1562.23	41	194.1	1544.93
20	192	1561.42	42	194.2	1543.73
21	192.1	1560.61	43	194.3	1542.94
22	192.2	1559.79	44	194.4	1542.14
23	192.3	1558.98	45	194.5	1541.35
24	192.4	1558.17	46	194.6	1540.56
25	192.5	1557.36	47	194.7	1539.77
26	192.6	1556.55	48	194.8	1538.98
27	192.7	1555.75	49	194.9	1538.19
28	192.8	1554.94	50	195	1537.40
29	192.9	1554.13	51	195.1	1536.61
30	193	1553.33	52	195.2	1535.82
31	193.1	1552.52	53	195.3	1535.04
32	193.2	1551.72	54	195.4	1534.25
33	193.3	1550.92	55	195.5	1533.47
34	193.4	1550.12	56	195.6	1532.68
35	193.5	1549.32	57	195.7	1531.90
36	193.6	1548.51	58	195.8	1531.12
37	193.7	1547.72	59	195.9	1530.33
38	193.8	1546.92	60	196.0	1529.55
39	193.9	1546.12	61	196.1	1528.77

1. Channels 20-59 apply to variant MDX-40UX100CB, Channels 18-61 apply to MDX-40UX101CB

Ordering Information

For more information on this or other products and their availability, please contact your local JDSU account manager or JDSU directly at 1-800-498-JDSU (5378) in North America and +800-5378-JDSU worldwide or via e-mail at customer.service@jdsu.com.

Product Code	Description
MDX-40UX100CB	40-Channel Universal Multiplexer Channels 20-59
MDX-40UX101CB	40-Channel Universal Multiplexer Channels 18-37 and 42-61
MDX-44UX101CB	44-Channel Universal Multiplexer Channels 18-61

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