

WaveReady™ 40-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

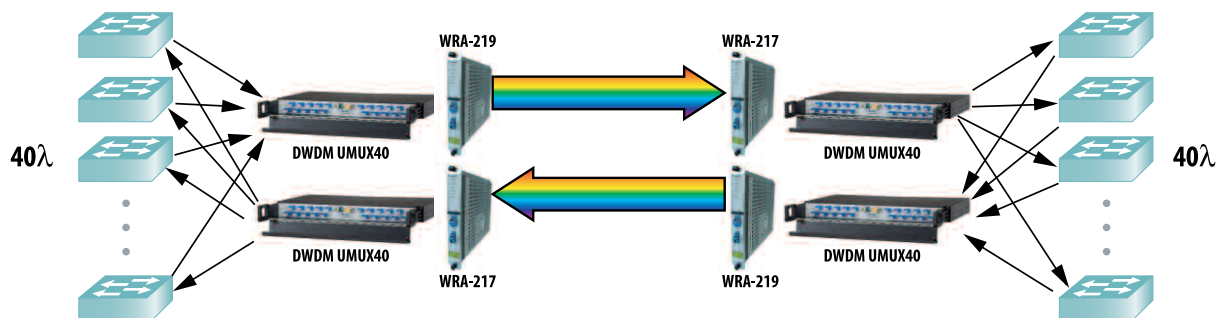
Compliance

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

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

By providing access to forty 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-channel universal multiplexer supports a wide range of architectures from simple point-to-point to amplified ring configurations with dynamic add/drop.

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



Point-to-point amplified link

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Specifications

Optical Performance¹

Parameter	Minimum	Typical	Maximum
Channel spacing		100 GHz	
Insertion loss			5.1 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	26 dB		
Non-adjacent channel isolation	33 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%		

¹ Specifications are worst case, end-of-life over specified temperature and wavelength range

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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

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

