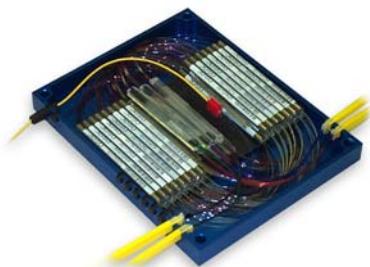


Network Expansion Module



Key Features

- 1x3 to 2x16 as standard
- Fused fiber and planar technology
- Low excess loss and PDL
- Single and dual window operation
- High and standard grades
- Custom configurations available

Applications

- Passive optical networks
- Secure data networks
- CATV
- Scientific equipment

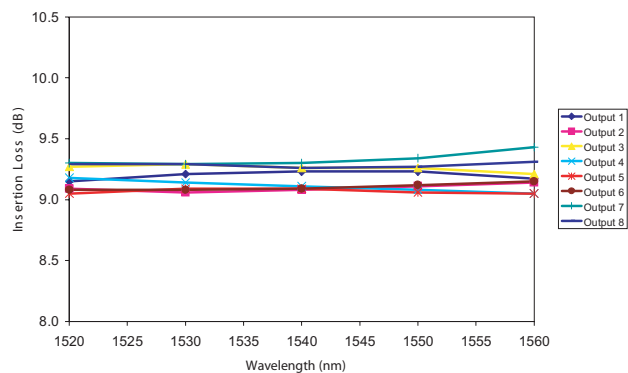
The JDSU network expansion module enables the splitting of optical signals in singlemode optical fiber. The standard product comprises one or two input ports and between three and 16 output ports. Designed for optical networking applications, the module uses advanced fused fiber and planar technology to yield ultra-low excess loss and low polarization dependent loss (PDL) in a compact package.

Standard wavelength ranges are 1310, 1550, 1585 nm and 1310/1550 nm. A wide variety of housings, including an injection-moulded fiber organizer, 19" rack, and LGX cassette are available and most connector types can be fitted.

Two grades of performance are provided: Grade P modules offer the solution to demanding power and PDL budgets through the use of the highest specification couplers. Grade A modules offer a cost-effective answer to standard splitter requirements, including CATV and access networks.

In addition to the standard products shown, a wide variety of custom configurations are available for specialized applications. These include alternative housings, wavelengths, and high port counts over 16.

1x8 Network Expansion Module Wavelength Dependence



Specifications

Parameter	Network Expansion Module																Unit
Operating wavelength	Single window (1310 ±20, 1550 ±20 or 1585 ±20)								Dual window (1310 ±20 and 1550 ±20)								nm
Port configuration ¹	1x3	1x4	1x5	1x6	1x8	1x10	1x12	1x16	1x3	1x4	1x5	1x6	1x8	1x10	1x12	1x16	
Max. insertion loss ²																	
P Grade	5.2	6.4	7.5	8.4	9.7	10.8	11.7	12.9	5.3	6.8	7.9	8.8	10.3	11.4	12.2	13.7	dB
A Grade	5.3	6.6	7.8	8.6	9.9	11.1	11.9	13.3	5.5	7.1	8.3	9.1	10.7	12.0	12.8	14.4	dB
Uniformity ³																	
P Grade	0.60	0.65	0.85	1.00	1.05	1.25	1.40	1.45	0.90	1.25	1.50	1.60	1.95	2.20	2.30	2.65	dB
A Grade	0.85	0.95	1.25	1.40	1.50	1.75	1.95	2.05	1.20	1.70	2.10	2.20	2.70	3.10	3.20	3.70	dB
Polarization dependent loss ⁴																	
P Grade	0.10	0.14	0.14	0.15	0.16	0.17	0.19	0.19	0.12	0.14	0.16	0.16	0.17	0.19	0.20	0.20	dB
A Grade	0.12	0.17	0.18	0.18	0.20	0.21	0.23	0.23	0.13	0.17	0.21	0.23	0.23	0.25	0.28	0.28	dB
Polarization mode dispersion	<0.1																ps/nm
Directivity/Return loss ⁵	>55																dB
Fiber	Corning SMF-28																
Operating temperature ⁶	-40 to 75																°C
Storage temperature	-40 to 85																°C

- For 1xM, read 1xM: 2xM
- Excludes connector loss, PDL and TDL.
- Difference between maximum and minimum insertion loss at constant temperature over all paths and all wavelengths, not including PDL.
- Typical; at band center wavelength.
- Excluding connector return loss.
- For connectorized module, operating temperature range is -5 to 75 °C.

Sample: NEM-C1843A111 (Network Expansion Module, 1550±20 nm, 1 x 8, 150 x 95 x 10 mm housing, 900 µm loose-tube pigtail, Grade A, Corning SMF-28 fiber, 1 m pigtail, FC/PC connectors)

The diagram shows the NEM-1000 system components and their specifications. The components are represented by boxes at the top, with lines connecting them to their respective specification tables below.

NEM-1000

Wavelength

Code	Wavelength
4	1310±20 nm
C	1550±20 nm
L	1585±20 nm
A	1310/1550±20 nm

Number of Output Ports

Code	Number of Output Ports
3	3 output ports
4	4 output ports
5	5 output ports
6	6 output ports
8	8 output ports
A	10 output ports
C	12 output ports
G	16 output ports

Housing

Code	Housing
4	150x95x10 mm ¹
5	19" rack
6	LGX cassette

Pigtail Type

Code	Pigtail Type
0	Bulkhead connector ²
1	250 µm primary-coat
2	900 µm loose-tube
3	3 mm fan-out sleeve

Grade

Code	Grade
A	Grade A
P	Grade P

Fiber Type

Code	Fiber Type
1	Corning SMF-28

Pigtail Length³

Code	Pigtail Length ³
0	Bulkhead connector ²
1	1 m
2	2 m

Connectors

Code	Connectors
0	None
1	FC/PC
3	FC/APC
5	SC/APC
9	FC/UPC
A	SC/UPC
B	LC ⁴

1. Injection moulded plastic fiber organizer.
2. 19" rack and LGX cassettes are fitted with bulkhead connectors.
3. Minimum pigtail length. Other pigtail lengths are available on request. Where connectorized, pigtail length is to connector end face.
4. Not available for pigtail type 3 (3 mm fan-out sleeving).

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