



*flawless fusion with infinite possibilities*

**SIFAM**  
F I B R E O P T I C S



## Network Expansion Module

The Network Expansion Module enables the splitting of optical signals in singlemode optical fibre. The standard product comprises 1 or 2 input ports and between 3 and 16 output ports. Designed for optical networking applications, the Module uses advanced fused fibre and planar technology to yield ultra-low excess loss and low polarisation dependent loss (PDL) in a compact package.

Standard wavelength ranges are 1310, 1550, 1585nm and 1310/1550nm. A wide variety of housings, including an injection-moulded fibre organiser, 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 specialised applications. These include alternative housings, wavelengths and high port counts >16.

### Key Features:

- 1x3 to 2x16 as standard
- Fused fibre 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

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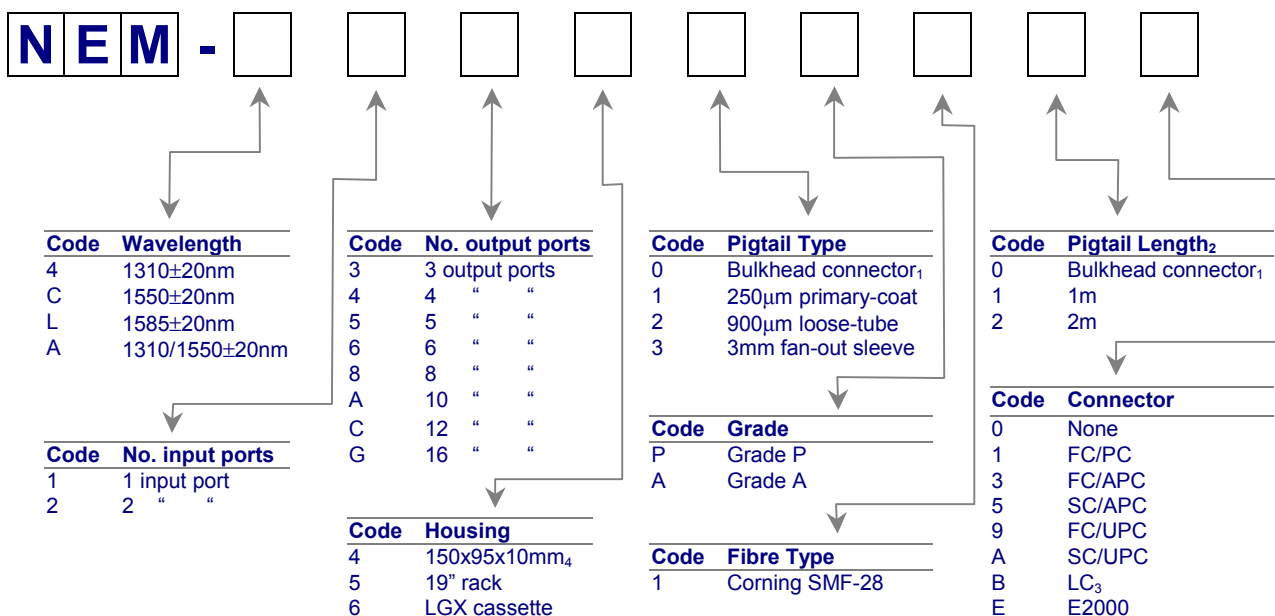
## Optical Specifications

Parameter	Grade															Unit		
Operating Wavelength		Single Window (1310±20, 1550±20, 1585±20)								Dual Window (1310±20 and 1550±20)								nm
Port Configuration <sub>1</sub>		1x3	1x4	1x5	1x6	1x8	1x10	1x12	1x16	1x3	1x4	1x5	1x6	1x8	1x10	1x12	1x16	
Maximum Insertion Loss <sub>2</sub>	P	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	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 <sub>3</sub>	P	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	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
Polarisation dependent loss <sub>4</sub>	P	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	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
PMD		<0.1														ps/nm		
Directivity/Return Loss <sub>5</sub>		>55														dB		
Fibre		Corning SMF-28																
Operating Temperature <sub>6</sub>		-40 to +75														°C		
Storage Temperature		-40 to +85														°C		

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

## Ordering Codes

**Example: NEM-C1842A111** (Network Expansion Module, 1550±20nm, 1 x 8, 150 x 95 x 10mm housing, 900µm loose-tube pigtail, Grade A, Corning SMF-28 fibre, 1m pigtail, FC/PC connectors)



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

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