



Features

- 6, 10 or 15 mode multiplexer
- Operation over C-band (1550 nm)
- High mode selectivity
- Ultra compact design
- Optimized for commercially available few-mode fibers
- **Low insertion loss (1.5 dB max.) option for 6, 10 modes only.** Crosstalk is unchanged

PROTEUS-S is an entry-level product with a standard design for research and development groups. Based on Cailabs' Multi-Plane Light Conversion (MPLC) patented technology, it provides efficient multiplexing and demultiplexing of 6, 10 or 15 spatial modes. It is compatible with a wide range of commercially available optical fibers: step-index or graded-index few-mode fibers manufactured by Prysmian and OFS, or 50/125 μm multimode fiber.

General specifications

PARAMETERS	PROTEUS-S-6		PROTEUS-S-10		PROTEUS-S-15	
Description of the component	Space Division Multiplexer (MUX)					
Number of modes @1550 nm	6		10		15	
Mode types @1550 nm	LP, HG					
Wavelength	1550 nm (C-band)					
Insertion loss / Mux	Typ.	Max.	Typ.	Max.	Typ.	Max.
	3 dB	4 dB	4.5 dB	5 dB	5 dB	6 dB
Crosstalk / Mux	Typ.	Max.	Typ.	Max.	Typ.	Max.
	-23 dB	-18 dB	- 21 dB	-15 dB	-19 dB	-13 dB
Input fiber type	SMF-28e					
Input fiber length	1 meter					
Input connector types	LC/PC or FC/APC					
Output fiber type	4 LP mode step-index fiber by Prysmian or graded-index by OFS, or 50/125 μm (OM2) multimode fiber		6 LP mode graded-index fiber by Prysmian, or 50/125 μm (OM2) multimode fiber		50/125 μm (OM2) multimode fiber	
Output fiber length	10 meters					
Operating temperature	[15 - 25]°C					
Dimension (mm)	130x94x35 mm					
Storage environment	Non-condensing environment					

Mechanical drawing of a single MUX



Low insertion option

Parameters	PROTEUS-S-6		PROTEUS-S-10		PROTEUS-S-15
Number of modes @1550 nm	6		10		15
Wavelength	1550 nm (C-band)				
Insertion loss / Mux	Typ.	Max.	Typ.	Max.	Not available
	1.2 dB	1.5 dB	1.2 dB	1.5 dB	
Input connector types	LC/PC, FC/APC				
Output fiber type	OM2 50/125 μm multimode fiber		OM2 50/125 μm multimode fiber		-