Polarisation Insensitive Optical Circulators

Polarisation insensitive optical circulators offer a cost effective, simple, passive and reliable method of doubling fibre capacity. Optical circulators work by allowing bi-directional traffic over a single fibre, effectively doubling your network capacity. Optical circulators are an effective means of increasing bandwidth in a network at capacity without costly fibre installation.

Applications

- Metro Area Network
- Wavelength Add / Drop
- Dispersion Compensation
- Bi-Directional Communication
- Network duplication

Features & Benefits

- Precision terminations and low insertion loss
- Very low polarisation dependent loss
- Compact inline unit allows for seamless integration into installations
- Passive operation requires no energy or cooling
- Wide operatiing temperature allows for remote installations
- Epoxy free optical path
- Specifically designed blister packaging ensures device safety during storage and delivery
- 3 and 4 port variants available in a range of termination options

Technical Schematic



Active | Passive | Test Equipment | Tooling | Cable | Fibre Management





Technical Specifications

Description	3 Port Optical Circulator	4 Port Optical Circulator
Optical Path	$1 \rightarrow 2, 2 \rightarrow 3$	$1 \rightarrow 2, 2 \rightarrow 3, 3 \rightarrow 4$
Operating wavelength (nm)	1310 or 1550 ±15	1310 or 1550 ±15
Typical insertion loss (dB)	0.6	0.7
Maximum insertion loss (dB)	0.9	1.2
Wavelength dependent loss (dB)	< 0.15	< 0.15
Channel isolation (dB)	≥ 40	≥ 40
Directivity (dB)	<u>></u> 50	<u>≥</u> 50
Channel cross talk (dB)	<u>≥</u> 50	≥ 50
Polarisation dependent loss (dB)	< 0.10	< 0.20
Polarisation mode dispersion (ps)	< 0.06	< 0.06
Return loss (dB)	> 50	> 50
Optical power handling (mW)	300	300
Operating temperature (°C)	0 to +70	0 to +70
Storage temperature (°C)	-40 to +85	-40 to +85
Package dimensions (mm)	Ø 5.5 x 60.0	Ø 5.5 x 68.0

Ordering Information

OC - 13 LC SCA - 0.75

Optical Circulator	Operating Wavelength		Connectors End A & B		Length (m)
	13:	1310 nm	SC:	SC/UPC	
	15:	1550 nm	SCA:	SC/APC	
			LC:	LC/UPC	
			LCA:	LC/APC	
			ST:	ST/UPC	
			FC:	FC/UPC	
			FCA:	FC/APC	

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FOS Fibre Optic Systems

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