



High Capacity Fiber Optic Solutions

Part Number **P-CS04-ch**

Application

- 10 Gbps Ethernet, (with or without FEC)
- OC-192 & STM-64 systems
- 10G Fiber Channel (with or without FEC)
- CWDM Networks



Features

- Industry standard SFP+ form factor
- 8 CWDM wavelengths available
- 14 dB minimum system gain
- Low Power Dissipation 1.5W Maximum
- 40 km nominal reach

Transmitter Characteristics

Parameter	Min	Max	Unit	Notes
Average Output Power	0	+3	dBm	Launched into single mode fiber
Center Wavelength	-6.5	+6.5	nm	Relative to channel center wavelength
Side Mode Suppression Ratio	30		dB	
Extinction Ratio	8.2		dB	

Receiver Characteristics

Parameter	Min	Max	Unit	Notes
Receiver Sensitivity		-14	dBm	Measured at BER $\leq 1 \times 10^{-12}$
Receiver Overload	-1		dBm	
Loss of Signal Assert	-25		dBm	
Loss of Signal De-Assert		-16	dBm	

Environmental & Electrical Characteristics

Parameter	Min	Max	Unit	Notes
Storage Temperature Range	-40	+85	°C	
Operating Temperature Range	-5	+70	°C	
Humidity	5	85	%	
Max Power Supply Voltage	-0.5	3.80	VDC	
Recommended Supply Voltage	3.13	3.47	VDC	
Data rate	9.95	10.3125	Gbps	



Nebula

Ethernet Optics for Access Networks

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Wavelength Selection



ch Code	Wavelength	Nebula Compatible Multiplexers						
		V-ADM1-ch	V-CWDM16	V-CWDM8	V-CWDM4	V-4WM	V-CWDM14	V-CWDM17
61	1611 nm	V-ADM1-61	√	√			√	(1)
59	1591 nm	V-ADM1-59	√	√			√	(1)
57	1571 nm	V-ADM1-57	√	√	√		√	√
55	1551 nm	V-ADM1-55	√	√	√	√ (2)	√	√
53	1531 nm	V-ADM1-53	√	√	√		√	√
51	1511 nm	V-ADM1-51	√	√	√		√	√
49	1491 nm	V-ADM1-49	√	√		√	√	√
47	1471 nm	V-ADM1-47	√	√		√	√	√

(1) One of 1591 nm and 1611 nm may be used as these channels are combined in this multiplexer.

(2) Multiplexer supports wide 1550 lasers. 1511 nm to 1591 nm CWDM lasers fit within this bandwidth, but only one wavelength may be used at any time.