



## High Capacity Fiber Optic Solutions

Part Number **XN-DS04-ch**

### Application

- 10 Gbps Ethernet
- DWDM Networks

### Features

- XENPAK form factor
- DWDM channels 17 - 61 (191.7 - 196.1 THz)
- 3 CWDM wavelengths available (1531, 1551, 1571 nm)
- ≥14 dB system gain
- 40 km nominal reach



### Transmitter Characteristics

Parameter	Min	Max	Unit	Notes
Average Output Power	-1	+2	dBm	Launched into single mode fiber
Center Wavelength	-0.1	+0.1	nm	Relative to channel center wavelength
Channel spacing	100		GHz	ITU grid
Spectral Width		0.3	nm	-20 dB points
Extinction Ratio	7.0		dB	

### Receiver Characteristics

Parameter	Min	Max	Unit	Notes
Receiver Sensitivity		-15	dBm	Measured at BER ≤1 x 10 <sup>-12</sup>
Receiver Overload	-3		dBm	

### Environmental & Electrical Characteristics

Parameter	Min	Max	Unit	Notes
Storage Temperature Range	-20	+85	°C	
Operating Temperature Range	0	+70	°C	
Humidity	5	85	%	
5.0 VDC Nominal Supply Voltage	4.75	5.25	VDC	
3.3 VDC Nominal Supply Voltage	3.13	3.47	VDC	
Data rate	9.95	11.3	Gbps	



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### Wavelength Selection

ch Code	Freq. (THz)	Wave-length	Compatible Multiplexer	ch Code	Freq. (THz)	Wave-length	Compatible Multiplexer
*17	191.7	1563.86		42	194.2	1543.73	
18	191.8	1563.05		43	194.3	1542.94	
19	191.9	1562.23		44	194.4	1542.14	
20	192.0	1561.42		45	194.5	1541.35	
21	192.1	1560.61		46	194.6	1540.56	
22	192.2	1559.79		47	194.7	1539.77	
23	192.3	1558.98		48	194.8	1538.98	
24	192.4	1558.17		49	194.9	1538.19	
25	192.5	1557.36		50	195.0	1537.40	
26	192.6	1556.55	V-DWDM16	51	195.1	1536.61	
27	192.7	1555.75	V-DWDM16	52	195.2	1535.82	
28	192.8	1554.94	V-DWDM16	53	195.3	1535.04	
29	192.9	1554.13	V-DWDM16	54	195.4	1534.25	V-DWDM8
30	193.0	1553.33	V-DWDM16	55	195.5	1533.47	V-DWDM8
31	193.1	1552.52	V-DWDM16	56	195.6	1532.68	V-DWDM8
32	193.2	1551.72	V-DWDM16	57	195.7	1531.90	V-DWDM8
*33	193.3	1550.92	V-DWDM16	58	195.8	1531.12	V-DWDM8
34	193.4	1550.12	V-DWDM16	*59	195.9	1530.33	V-DWDM8
35	193.5	1549.32	V-DWDM16	60	196.0	1529.55	V-DWDM8
36	193.6	1548.51	V-DWDM16	61	196.1	1528.77	V-DWDM8
37	193.7	1547.72	V-DWDM16				
38	193.8	1546.92	V-DWDM16				
39	193.9	1546.12	V-DWDM16				
40	194.0	1545.32	V-DWDM16				
41	194.1	1544.53	V-DWDM16				

\* Common values to use with CWDM channels 1571 nm (17), 1551 nm (33) and 1531 nm (59). Other values are also suitable.