

**PASSPORT DATA SHEET**

# CFP2 DCO



Champion ONE's digital coherent optic (DCO) in the CFP2 form factor is ideal for line-side trunk DWDM data center interconnects, metro carrier, and regional/long-haul applications. Unlike analog coherent optics (ACO), Champion ONE's DCO CFP2 features the digital signal processor (DSP) chip on the optic itself, instead of on the switch line card. This improves network flexibility by enabling the transceiver's use across all platforms with the CFP2 interface and decreases the complexity of tuning required.

*Champion ONE **Passport** transceivers are programmed for universal compatibility across multiple OEM platforms. This open methodology reduces costs and unlocks operational simplicity by reducing sparing costs.*

## Technical Specifications

**STANDARDS AND REGULATORY COMPLIANCE**

RoHS 6/6 compliant  
CFP2 MSA IEEE 802.3 Clause 45

**PROTOCOLS AND DATA RATES**

100G Ethernet (103.125 Gbps)  
OTN OTU4 4L1-9D1F (112 Gbps)

**CONNECTOR**

LC connector

**WARRANTY**

All feature a limited 1-year warranty

**NOTES**

Includes MDIO digital diagnostics  
Includes embedded PRBS generator/analyzer for line and client side interfaces  
Supports low-latency soft-decision FEC

DCO CFP2 transceivers are fully tunable across the 50GHz ITU-T grid frequency range, and support flex-grid DWDM tuning. It can soft-select among three phase modulation schemes for different applications:

- Dual-Polarization Quadrature Phase Shift Keying (DP-QPSK), for 100G Ethernet transmission over distances up to 2000km.
- Dual-Polarization 8 Quadrature Amplitude Modulation (DP-8QAM), for 200G Ethernet transmission over distances up to 800km.
- Dual-Polarization 16 Quadrature Amplitude Modulation (DP-16QAM), for 200G Ethernet transmission over distances up to 300km

C1 Part Number	Wavelength (nm)	Phase Modulation Scheme	Data Rate	Rated Distance (km)	Max Power Consumption (W)	Fiber Type	Baud Rate (GB)	Mean Modulated Output Power (min/max, dBm)	Wavelength Deviation (GHz)	Optimum Input Power Range (min/max, dBm)	Temperature Range (°C)
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**SINGLE RATE 100G ETHERNET, OTN OTU4**

100GCFP2C-DCO01	Tunable across C-Band (ITU ch. 13.5-61)	DP-QPSK	100G	2000	17.6	G.652 SMF	27.95	-10 / 1	± 1.5	-18 / 0	-5 / 70
		DP-8QAM	200G	800	21.5						
		DP-16QAM	200G	300	20.5						

Supported Wavelengths/Channels	Frequency (THz)	Center Wavelength (nm)	ITU Channel	Supported Wavelengths/Channels	Frequency (THz)	Center Wavelength (nm)	ITU Channel	Supported Wavelengths/Channels	Frequency (THz)	Center Wavelength (nm)	ITU Channel	Supported Wavelengths/Channels	Frequency (THz)	Center Wavelength (nm)	ITU Channel
	191.10	1568.77	11		192.40	1558.17	24		193.70	1547.72	37		194.95	1537.79	49.5
	191.15	1568.36	11.5		192.45	1557.77	24.5		193.75	1547.32	37.5		195.00	1537.40	50
	191.20	1597.95	12		192.50	1557.36	25		193.80	1546.92	38		195.05	1537.00	50.5
	191.25	1567.54	12.5		192.55	1556.96	25.5		193.85	1546.52	38.5		195.10	1536.61	51
	191.30	1567.13	13		192.60	1556.55	26		193.90	1546.12	39		195.15	1536.22	51.5
	191.35	1566.72	13.5		192.65	1556.15	26.5		193.95	1545.72	39.5		195.20	1535.82	52
	191.40	1566.31	14		192.70	1555.75	27		194.00	1545.32	40		195.25	1535.43	52.5
	191.45	1565.90	14.5		192.75	1555.34	27.5		194.05	1544.92	40.5		195.30	1535.04	53
	191.50	1565.50	15		192.80	1554.94	28		194.10	1544.53	41		195.35	1534.64	53.5
	191.55	1565.09	15.5		192.85	1554.54	28.5		194.15	1544.13	41.5		195.40	1534.25	54
	191.60	1564.68	16		192.90	1554.13	29		194.20	1543.73	42		195.45	1533.86	54.5
	191.65	1564.27	16.5		192.95	1553.73	29.5		194.25	1543.33	42.5		195.50	1533.47	55
	191.70	1563.86	17		193.00	1553.33	30		194.30	1542.94	43		195.55	1533.07	55.5
	191.75	1563.45	17.5		193.05	1552.93	30.5		194.35	1542.54	43.5		195.60	1532.68	56
	191.80	1563.05	18		193.10	1552.52	31		194.40	1542.14	44		195.65	1532.29	56.5
191.85	1562.64	18.5	193.15	1552.12	31.5	194.45	1541.75	44.5	195.70	1531.90	57				
191.90	1562.23	19	193.20	1551.72	32	194.50	1541.35	45	195.75	1531.51	57.5				
191.95	1561.83	19.5	193.25	1551.32	32.5	194.55	1540.95	45.5	195.80	1531.12	58				
192.00	1561.42	20	193.30	1550.92	33	194.60	1540.56	46	195.85	1530.72	58.5				
192.05	1561.01	20.5	193.35	1550.52	33.5	194.65	1540.16	46.5	195.90	1530.33	59				
192.10	1560.61	21	193.40	1550.12	34	194.70	1539.77	47	196.95	1529.94	59.5				
192.15	1560.20	21.5	193.45	1549.72	34.5	194.75	1539.37	47.5	196.00	1529.55	60				
192.20	1559.79	22	193.50	1549.32	35	194.80	1538.98	48	196.05	1529.16	60.5				
192.25	1559.39	22.5	193.55	1548.91	35.5	194.85	1538.58	48.5	196.10	1528.77	61				
192.30	1558.98	23	193.60	1548.51	36	194.90	1538.19	49	196.15	1528.38	61.5				
192.35	1558.58	23.5	193.65	1548.11	36.5										