

TERAHOP

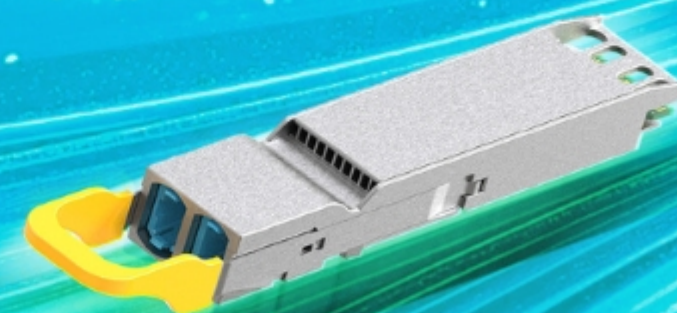
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HOPPING AT TERABITS!



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Product Introduction

AI and Data Center Networking

Emerging applications are accelerating the growth of data center optical network bandwidth. To meet these demands, we have developed advanced technology platforms to support a comprehensive family of optical transceivers, including 400G, 800G and 1.6T solutions, enabling cloud operators to rapidly upgrade the compute and network to meet end customer demands.

1.6T Series		1.6T OSFP224 DR8
800G Series		800G QSFP112-DD DR8
		800G QSFP112-DD 2XFR4
400G Series		400G QSFP112 DR4
		400G QSFP112 FR4

Mobile Networking

Mobile networking growth is driven by end user demand with increased data consumption such as video streaming, IoT growth, remote work and connectivity needs, as well as mobile technology advancement. We have been supplying advanced optical transceiver solutions for front haul, back haul to global mobile networking customers.

QSFP-DD		400G QSFP56-DD ER4L
		400G QSFP56-DD LR4
QSFP28		100G QSFP28 ER4L
		100G QSFP28 LR4
SFP56		50G SFP56 LR

DCI and Metro Networking

With the explosive growth of AI and data center networking, metro and long haul networks carrying increasing, even dominant amount of data traffic between data centers. We developed advanced technology platforms supporting multi-generations of coherent transceivers for metro and long haul TDM and WDM applications.

QSFP-DD		100G OpenZR+ QSFP-DD
		400G OpenZR+ QSFP-DD
CFP2		400G/800G CFP2
OSFP		800G ZR OSFP
		800G LR2 OSFP

Company Summary



A World Leading Optical Solutions Provider for AI and Data Center

TeraHop Pte. Ltd., established in 2018, is a leading provider of optical connectivity products for AI and data centers. Our extensive industry-leading products covers a wide range of multiple generation high-speed optical transceivers, including 400G, 800G, 1.6T and beyond. In addition, the company also provides optical solutions for enterprise data networking, metro and long haul transport networking, and mobile access networking applications. Headquartered in Singapore, the company has a global presence with research and manufacturing facilities in USA, Thailand and Taiwan.

	Capabilities	1,000,000 pcs/m
	Advanced Technology	LPO, CPO
	Employees	>4,000

Global Presence

TeraHop Pte. Ltd.	Singapore	TeraHop US, Inc.	USA
Operate as TeraHop's international headquarter, integrating sales, marketing, R&D, and investment functions.		Dedicated to advanced R&D, marketing, sales and customer service, supporting us high growth AI and Data Center customers.	
TeraHop (Thailand) Co., Ltd.	Thailand	TeraHop Pte. Ltd. (Taiwan)	Taiwan
R&D and engineering capabilities support global customer demand by delivering high quality and competitive cost with industry-leading high-volume production capabilities.		Capitalize on the local semiconductor and device industries to enhance its service and delivery capabilities for global customers.	



Product Catalogue

AI and Data Center Networking

Data Rate (Gb/s)	Product Description	P/N	Optical interface	TX	RX	Max Power Consumption (W)	Reach	Temperature (deg C)
25G	SFP28 SR	TR-PY85S-N00	Duplex LC	850nm VCSEL	PIN	1.0	100m	0 70
25G	SFP28 LR	TR-PY13L-N00	Duplex LC	1310nm DFB	PIN	1.0	10km	0 70
25G	SFP28 ER	TR-PY13E-N00	Duplex LC	1310nm EML	APD	1.5	40km	0 70
50G	SFP56 SR	TR-PF85S-N00	Duplex LC	850nm VCSEL	PIN	1.5	100m	0 70
50G	SFP56 LR	TR-PF13L-N00	Duplex LC	1310nm DFB	PIN	1.8	10km	0 70
40G	QSFP+ SR4	TR-QQ85S-N00	MP012	850nm VCSEL	PIN	1.5	100m	0 70
40G	QSFP+ eSR4	TR-QQ85X-N00	MP012	850nm VCSEL	PIN	1.5	300m	0 70
40G	QSFP+ IR4	TR-QQ13T-N00	Duplex LC	DFB CWDM	PIN	3.5	2km	0 70
40G	QSFP+ LR4	TR-QQ13L-N00	Duplex LC	DFB CWDM	PIN	3.5	10km	0 70
40G	QSFP+ LX4	TR-QQ13Y-N00	Duplex LC	DFB CWDM	PIN	3.5	150m	0 70
						3.5	2km	0 70
40G	QSFP+ PSM IR4	TR-IQ13C-N00	MP012	1310nm DFB	PIN	3.5	1.4km	0 70
40G	QSFP+ PSM LR4	TR-IQ13L-N00	MP012	1310nm DFB	PIN	3.5	10km	0 70
100G	QSFP28 SR4	TR-FC85S-N00	MP012	850nm VCSEL	PIN	3.5	100m	0 70
100G	QSFP28 CWDM4	TR-FC13T-N00	Duplex LC	DFB CWDM	PIN	3.5	2km	0 70
100G	QSFP28 eCWDM4	TR-FC13X-N00	Duplex LC	DFB CWDM	PIN	3.5	10km	0 70
100G	QSFP28 PSM4	TR-VC13T-N00	MP012	1310nm DFB	PIN	3.5	2km	0 70
100G	QSFP28 PSM4 Pigtail	TP-VC13Txxxx-N00	MP012	1310nm DFB	PIN	3.5	2km	0 70
100G	QSFP28 PSM LR4	TR-VC13L-N00	MP012	1310nm DFB	PIN	3.5	10km	0 70
100G	QSFP28 LR4 Ethernet	TR-FC13R-N00	Duplex LC	1296nm-1309nm LWDM DFB	PIN	4.0	10km	0 70
100G	QSFP28 ER4 Lite	TR-FC13D-N00	Duplex LC	1296nm-1309nm LWDM EML	APD	4.5	30km	0 70
						4.5	40km (w/ FEC)	0 70
100G / 112G	QSFP28 ER4 Lite Dual Rates3	TR-FC13D-NSN	Duplex LC	1296nm-1309nm LWDM EML	APD	4.5	30km	0 70
						4.5	40km (w/ FEC)	0 70
100G	QSFP28 SR1.2 BiDi	T-TB2FDS-N00	Duplex LC	850nm/908nm VCSEL	PIN	4.0	100m	0 70
100G	QSFP28 DR1 (PAM4)	TR-ZC13H-N00	Duplex LC	1310nm EML / Sipro	PIN	4.0	500m	0 70
100G	QSFP28 FR1 (PAM4)	TR-ZC13T-N00	Duplex LC	1310nm EML / Sipro	PIN	4.0	2km	0 70
100G	QSFP28 LR1 (PAM4)	TR-ZC13L-N00	Duplex LC	1310nm EML / Sipro	PIN	4.0	10km	0 70
200G	QSFP56 SR4	T-FX4FNS-N00	MP012	850nm VCSEL	PIN	5.5	100m	0 70
200G	QSFP56 FR4	T-FX4FNT-H00	Duplex LC	EML CWDM4	PIN	6.5	2km	10 60
400G	QSFP112 SR4	T-GQ4CNS-N00	MP012	850nm VCSEL	PIN	9.0	100m	0 70
400G	QSFP112 DR4	T-GP4CNH-N00	MP012	1310nm Sipro	PIN	9.0	500m	0 70
400G	QSFP112 FR4	T-GQ4CNT-N00	Duplex LC	Sipro CWDM4	PIN	9.5	2km	0 70
400G	QSFP112 LR4	T-GQ4CNL-N00	Duplex LC	Sipro CWDM4	PIN	9.5	10km	0 70

Data Rate (Gb/s)	Product Description	P/N	Optical interface	TX	RX	Max Power Consumption (W)	Reach	Temperature (deg C)
400G	QSFP56 SR8	T-OS8FNS-N00	MP016	850nm VCSEL	PIN	9.0	100m	0 70
400G	QSFP56 PSM4	T-OP4CNH-H00	MP012	1310nm Sipro	PIN	8.0	500m	20 65
400G	QSFP56 FR4	T-OS4CNT-N00	Duplex LC	Sipro CWDM4	PIN	8.0	2km	0 70
400G	QSFP112 VR4	T-OS4CNV-N00	MP012	850nm VCSEL	PIN	9.0	50m	0 70
400G	QSFP112 DR4	T-RS4CNH-N00	MP012	1310nm Sipro	PIN	9.0	500m	0 70
400G	QSFP112 DR4	T-OP4CNH-N00	MP012	1310nm EML	PIN	12.0	500m	0 70
400G	QSFP112 DR4+	T-OP4CNT-N00	MP012	1310nm EML	PIN	9.0	2km	0 70
800G	QSFP112 VR8	T-OS8CNV-N00	Dual MP012	850nm VCSEL	PIN	15.0	50m	0 70
800G	QSFP112 2xFR4	T-OL8CNT-N00	Dual Duplex LC	EML / Sipro CWDM4	PIN	15.0	2km	0 70
800G	QSFP112 2xLR4	T-OL8CNL-N00	Dual Duplex LC	EML / Sipro CWDM4	PIN	15.5	6km	0 70
800G	QSFP112 2*FR4 LPO	L-OL8CNT-N00	Dual Duplex LC	Sipro CWDM4	PIN	8.0	2km	0 70
800G	QSFP112 2*FR4 TRO	H-OL8CNT-N00	Dual Duplex LC	Sipro CWDM4	PIN	11.0	2km	0 70
800G	QSFP112 DR8	T-OP8CNH-N00	MP016	1310nm EML / Sipro	PIN	15.0	500m	0 70
800G	QSFP112 DR8+	T-OP8CNT-N00	MP016	1310nm EML / Sipro	PIN	15.0	2km	0 70
800G	QSFP112 DR8+	T-OH8CNT-N00	Dual MP012	1310nm EML / Sipro	PIN	15.0	2km	0 70
800G	QSFP112 8x100G LR	T-OH8CNL-N00	Dual MP012	1310nm EML / Sipro	PIN	15.0	10km	0 70
800G	QSFP112 DR8 LPO	L-OH8CNH-N00	Dual MP012	1310nm Sipro	PIN	8.5	500m	0 70
800G	QSFP112 DR8 TRO	H-OH8CNT-N00	MP016	1310nm Sipro	PIN	11.0	2km	0 70
800G	QSFP112 DR4	T-OP4ENH-N00	MP012	1310nm Sipro	PIN	14.5	500m	0 70
800G	QSFP224 DR4 LPO	L-RS4ENH-N00	MP012	1310nm Sipro	PIN	6.0	500m	0 70
1600G	QSFP224 DR8+	T-OH8ENT-N00	Dual MP012	1310nm Sipro	PIN	32.0	500m/2km	0 70
1600G	QSFP224 2xFR4	T-OL8ENT-N00	Dual Duplex LC	EML / Sipro CWDM4	PIN	32.0	2km	0 70
1600G	QSFP224 DR8 TRO	H-OH8ENH-N00	Dual MP012	1310nm Sipro	PIN	26.0	500m	0 70
400G	QSFP56-DD SR8	T-DQ8FNS-N00	MP016	850nm VCSEL	PIN	8.0	100m	0 70
400G	QSFP56-DD SR4	T-DQ4CNS-N00	MP012	850nm VCSEL	PIN	8.0	100m	0 70
400G	QSFP56-DD DR4	T-DP4CNH-N00	MP012	1310nm EML	PIN	9.0	500m	0 70
400G	QSFP56-DD DR4	T-DP4CNH-NC4	MP012	1310nm Sipro	PIN	8.5	500m	0 70
400G	QSFP56-DD DR4+	T-DP4CNT-N00	MP012	1310nm EML / Sipro	PIN	9.0	2km	0 70
400G	QSFP56-DD 4x100G LR	T-DP4CNL-N00	MP012	1310nm EML / Sipro	PIN	10.0	10km	0 70
400G	QSFP56-DD FR4	T-DQ4CNT-N00	Duplex LC	EML CWDM4	PIN	10.5	2km	0 70
400G	QSFP56-DD LR4	T-DQ4CNL-N00	Duplex LC	EML CWDM4	PIN	12.0	10km	0 70
400G	QSFP56-DD ER4 Lite	T-DQ4CND-N00	Duplex LC	EML LWDM4	APD	12.0	30km	0 70
400G	QSFP-DD SR4.2 BiDi	T-D88FNS-N00	MP012	850nm/908nm VCSEL	PIN	10.0	150m(w/ CWL)	0 70
800G	QSFP112-DD VR8	T-DQ8CDV-N00	Dual MP012	850nm VCSEL	PIN	15.0	50m	0 70
800G	QSFP112-DD DR8+	T-DP8CNT-N00	MP016	1310nm EML	PIN	16.0	2km	0 70
800G	QSFP112-DD DR8+	T-DH8CNT-N00	Dual MP012	1310nm EML / Sipro	PIN	15.0	2km	0 70
800G	QSFP112-DD 8x100G LR	T-DH8CNL-N00	Dual MP012	1310nm EML / Sipro	PIN	15.0	10km	0 70
800G	QSFP112-DD 2xFR4	T-DC8CNT-N00	CS	EML CWDM4	PIN	15.5	2km	0 70
800G	QSFP112-DD 2xLR4	T-DC8CNL-N00	CS	EML CWDM4	PIN	16.0	6km	0 70
800G	QSFP112-DD 2xFR4	T-DL8CNT-N00	Dual Duplex LC	EML CWDM4 / Sipro CWDM4	PIN	15.5	2km	0 70
800G	QSFP112-DD 2xLR4	T-DL8CNL-N00	Dual Duplex LC	EML CWDM4 / Sipro CWDM4	PIN	16.0	6km	0 70

Fiber Channel

Data Rate (Gb/s)	Product Description	P/N	Optical interface	TX	RX	Max Power Consumption (W)	Reach	Temperature (deg C)
16G	SFP28 16G FC LR	TR-PA13L-N00	Duplex LC	1310nm DFB	PIN	1.2	10km	0 70
32G	SFP28 32GFC SW	TR-PB85S-N00	Duplex LC	850nm VCSEL	PIN	1.0	100m	0 70
32G	SFP28 32GFC LW	TR-PB13L-N00	Duplex LC	1310nm DFB	PIN	1.5	10km	0 70
64G	SFP56 64GFC SW	TR-WR85S-N00	Duplex LC	850nm VCSEL	PIN	1.5	100m	0 70
64G	SFP56 64GFC LW	TR-WR13L-N00	Duplex LC	1310nm DFB	PIN	2.0	10km	0 70

Active Optical Cables

Data Rate (Gb/s)	Product Description	P/N	TX	RX	Max Power Consumption (W)	Reach	Temperature (deg C)
25G	SFP28 AOC	TF-PYxxx-N00	850nm VCSEL	PIN	1.0 (each side)	1 100m	0 70
100G	QSFP28 AOC	TF-FCxxx-N00	850nm VCSEL	PIN	2.5 (each side)	1 100m	0 70
100G	QSFP28 100G to SFP28 4x25G AOC	TF-FPQYxxx-N00	850nm VCSEL	PIN	3.5 (100G side) 1.0 (25G side)	1 100m	0 70
200G	QSFP56 AOC	C-FX4FNMxxx-N00	850nm VCSEL	PIN	4.5 (each side)	1 100m	0 70
200G	QSFP56 200G to QSFP56 2x100G AOC	C-FXT4FNMxxx-N00	850nm VCSEL	PIN	4.5 (200G side) 3.5 (100G side)	1 100m	0 70
400G	QSFP56 AOC	C-OS8FNMxxx-N00	850nm VCSEL	PIN	8.5 (each side)	1 100m	0 70
400G	QSFP56-DD AOC	C-DQ8FNMxxx-N00	850nm VCSEL	PIN	8.5 (each side)	1 100m	0 70
400G	QSFP56-DD 400G to QSFP56 2x200G AOC	C-DQF8FNMxxx-N00	850nm VCSEL	PIN	8.5 (400G side) 4.5 (200G side)	1 100m	0 70
400G	QSFP56 400G to QSFP56 2x200G AOC	C-OSF8FNMxxx-N00	850nm VCSEL	PIN	8.5 (400G side) 4.5 (200G side)	1 100m	0 70
400G	QSFP112 AOC	C-GQ4CNMxxx-N00	850nm VCSEL	PIN	9.0 (each side)	1 50m	0 70
400G	QSFP56-DD to QSFP112 AOC	C-OD4CNMxxx-N00	850nm VCSEL	PIN	10.5 (QSFP side) 9.0 (QSFP-DD side)	1 50m	0 70
400G	QSFP56-DD to QSFP112 AOC	C-GD4CNSxxx-N00	850nm VCSEL	PIN	9.0 (each side)	1 100m	0 70
400G	QSFP112 to QSFP112 AOC	C-OG4CNMxxx-N00	850nm VCSEL	PIN	10.5 (QSFP side) 9.0 (Q112 side)	1 50m	0 70
400G	QSFP112 400G to QSFP112 2x200G AOC	C-GQP4CNMxxx-N00	850nm VCSEL	PIN	9.0 (400G side) 7.5 (200G side)	1 50m	0 70
800G	QSFP112-DD AOC	C-DQ8CNSxxx-N00	850nm VCSEL	PIN	15.0 (each side)	1 100m	0 70
800G	QSFP112 AOC	C-OS8CNSxxx-N00	850nm VCSEL	PIN	14.0 (each side)	1 100m	0 70
800G	QSFP112 800G to QSFP112 2x400G AOC	C-OSG8CNMxxx-N00	850nm VCSEL	PIN	14.0 (800G side) 9.0 (400G side)	1 50m	0 70
800G	QSFP112 to 2x400G QSFP-DD AOC	C-OSG8CNSxxx-N00	1310nm Siphon	PIN	15.0 (800G side) 9.0 (400G side)	1 100m	0 70
800G	QSFP112 to 2x400G QSFP112 AOC	C-OSO8CNSxxx-N00	1310nm Siphon	PIN	15.0 (800G side) 9.0 (400G side)	1 100m	0 70
800G	QSFP112 to 2x400G QSFP112 AOC LPO	L-OSG8CNSxxx-N00	1310nm Siphon	PIN	15.0 (800G side) 4.5 (400G side)	1 100m	0 70

Mobile Networking

Data Rate (Gb/s)	Product Description	P/N	Optical interface	TX	RX	Max Power Consumption (W)	Reach	Temperature (deg C)
25G	SFP28 SR IT	TR-PY85S-V00	Duplex LC	850nm VCSEL	PIN	1.0	100m	-40 85
25G	SFP28 LR Lite IT	TR-PY13H-V00	Duplex LC	1310nm DFB	PIN	1.2	300m	-40 85
25G	SFP28 LR IT	TR-PY13L-V00	Duplex LC	1310nm DFB	PIN	1.2	10km	-40 85
25G	SFP28 LR BIDI IT	TR-DYxxL-V00	Single LC	1270nm/1330nm DFB	PIN	1.0	10km	-40 85
25G	SFP28 ER	TR-PY13E-N00	Duplex LC	1310nm EML	APD	1.5	40km	0 70
25G	SFP28 ER IT	TR-PY13E-V00	Duplex LC	1310nm EML	APD	1.8	40km	-40 85
50G	SFP56 LR IT	TR-PF13L-V00	Duplex LC	1310nm DFB	PIN	1.8	10km	-40 85
100G	SFP112 LR CT	TR-PF13L-V00	Duplex LC	1310nm EML	PIN	3.0	10km	0 70
100G	SFP112 LR IT	TR-DFxxL-V00	Duplex LC	1310nm EML	PIN	3.5	10km	-40 85
50G	QSFP28 LR (PAM4)	TR-FF13L-N00	Duplex LC	1310nm EML	PIN	3.5	10km	0 70
50G	QSFP28 ER (PAM4)	TR-FF13E-N00	Duplex LC	1310nm EML	APD	3.5	40km	0 70
50G	QSFP28 LR BIDI (PAM4)	TR-BFxxL-N00	Single LC	1270nm/1330nm EML	PIN	3.5	10km	0 70
50G	QSFP28 ER BIDI (PAM4)	TR-BFxxE-N00	Single LC	1295nm/1309nm EML	APD	3.5	40km	0 70
100G	QSFP28 LR (PAM4)	TR-ZC13L-N00	Duplex LC	1310nm EML	PIN	4.5	10km	0 70
100G	QSFP28 LR BIDI (PAM4)	TR-BCxxL-N00	Single LC	1270nm/1330nm EML	PIN	4.5	10km	0 70
100G	QSFP28 LR4 Ethernet	TR-FC13R-N00	Duplex LC	1296-1309nm LWDM DFB	PIN	4.0	10km	0 70
100G	QSFP28 ER4 Lite	TR-FC13D-N00	Duplex LC	1296nm-1309nm LWDM EML	APD	4.5	30km	0 70
						4.5	40km (w/ FEC)	0 70
200G	QSFP-DD LR4	T-DQ4FNL-N00	Duplex LC	EML LWDM	PIN	12.0	10km	0 70
200G	QSFP-DD ER4	T-DQ4FNE-N00	Duplex LC	EML LWDM	APD	12.0	40km	0 70
400G	QSFP56-DD FR4	T-DQ4CNT-N00	Duplex LC	EML CWDM	PIN	12.0	2km	0 70
400G	QSFP56-DD LR4	T-DQ4CNL-N00	Duplex LC	EML CWDM	PIN	12.0	10km	0 70
400G	QSFP56-DD ER4 Lite	T-DQ4CND-N00	Duplex LC	EML nLWDM	APD	12.0	30km	0 70

DCI, Metro and Campus Connectivity

Product Description	P/N	Client Side	Line Side Modulation Format	Line Side FEC mode	OSNR Sen (dB)	Max Power Consumption (W)	Reach	Temperature (deg C)
200G CFP2 DC0, C Band, 50GHz Grid, 191.3-196.1THz	CT-CTS200SMRTA00	2*OTU4 / 2*100GE / 200GE OTU4 / 100GE	200G DP-16QAM 100G DP-QPSK	OFEC	19.5	24.0	MR	0 70
400G CFP2 DC0, C Band, 75GHz Grid, 191.3-196.1THz	CT-CTS400SLHTA00	4*OTU4 / 4*100GE / 400GE 3*OTU4 / 3*100GE 2*OTU4 / 200GE / 2*100GE	400G DP-16QAM PS / 300G DP-16QAM PS 200G DP-16QAM PS / 200G DP-QPSK	SDFEC	21	25.0	LH	0 70
800G CFP2 DC0, C Band, 100GHz Grid, 191.3-196.1THz	CT-CTS800SMRTA00	800GE / 8*100GE / 8*OTU4 400GE / 4*100GE / 4*OTU4	800G DP-16QAM PS 400G DP-16QAM PS 400G DP-QPSK	SDFEC	25,18,17	36.0	MR	0 70
400G ZR-Lite QSFP-DD, C Band, 75GHz Grid, 191.3-196.1THz	CT-QDS400SZLTA00	400GE	400G DP-16QAM	CFEC	24	18.0	20km	0 75
400G ZR QSFP-DD, C Band, 75GHz Grid, 191.3-196.1THz	CT-QDS400SZRTA00	400GE	400G DP-16QAM	CFEC	24	18.0	ZR	0 75
400G OpenZR+ QSFP-DD, C Band, 75GHz Grid, 191.3-196.1THz	CT-QDS400SZPTA00	400GE / 4*100GE	400G DP-16QAM	OFEC	22	21.0	OpenZR+	0 70
Multi-rate OpenZR+ QSFP-DD, C Band, 75GHz Grid, 191.3-196.1THz	CT-QDS400MZPTA00	400GE / 4*100GE 3*100GE / 2*100GE 100GE	400G DP-16QAM / 300G DP-8QAM 200G DP-QPSK / 100G DP-QPSK	OFEC	22	21.0	OpenZR+	0 70
Hight TX Power 400G OpenZR+ QSFP-DD, C Band, 75GHz Grid, 191.3-196.1THz	CTHQDS400SZPTA00	400GE / 4*100GE	400G DP-16QAM	OFEC	22	21.5	OpenZR+	0 70
Hight TX Power 800G ZR QSFP, C Band, 100GHz Grid, 191.3-196.1THz	CTHOS800SZRTA00	800GE / 8*100GE	800G DP-16QAM	OFEC	26	30.0	ZR	0 70
Coherent-lite 800G LR2 QSFP, O Band, dual wavelength 1301nm/1311nm	CT-OSD800SLRFB00	2*400GE / 8*100GE	800G DP-16QAM	SFEC+ KPFEC	N/A	220	30km	0 75