

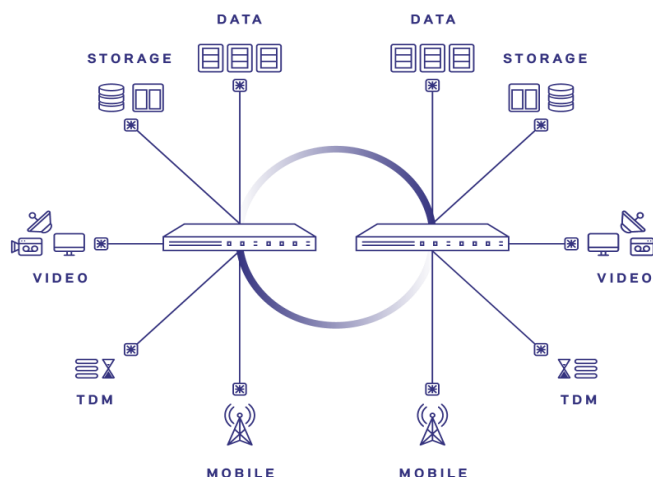
Optical Infrastructure Solutions

Overview

The Itectra Optical Infrastructure Solutions builds upon high-density WDM systems, optical transceivers and accessories designed to provide optical network support for high-speed data Ethernet and Fiber Channel communication.

These WDM systems and optical transceivers deliver capacity from 1 Gbps to 800 Gbps per wavelength suitable for datacenter, enterprises, and service provider networks.

In addition to WDM systems and optical transceivers the Itectra portfolio spans across long-haul active DWDM systems, MPO cassettes, inspection and cleaning equipment.



Product Features

- Active DWDM systems
- Passive CWDM and DWDM systems
- 1/10/25/40/50/100/200/400 GbE transceivers
- FC800/1600/3200/6400 transceivers
- Direct Attach Cables (DAC)
- Active Optical Cables (AOC)
- MPO cassettes
- Inspection and cleaning equipment

Applications

- Datacentre
- Enterprise
- Core/Metro/Access
- FTTX
- Mobile Fronthaul

Supported by leading vendors

The Itectra Optical Infrastructure portfolio includes a variety of today's leading optical network vendors; Nokia, Skylane Optics and EXFO. Please consult Itectra for further information on specific products and solutions.

Compatibility

Itectra offers a wide range of compatible solutions allowing full network operational capabilities across the network. All equipment and modules are fully compliant with the relevant standards and recommendations and are manufactured utilizing the highest quality components available.

1Gb (SFP)



Standard: 1000Base
 MSA: INF-8074 / SFF-8472
 Size: 8.55 × 13.7 × 56.5 mm
 All optical modules feature DOM
 Distances based on IEEE 802.3-2012 fibres

Temp., Operation: C: Commercial: 0 – 70°C
 E: Extended: -20 – 85°C
 I: Industrial: -40 – 85°C
 Temp, Storage: -40 – 85°C
 Humidity: 5 – 95%

Standard	Wavelength [nm]	Temp	Laser/ Receiver	Tx Power [dBm]	Rx Sensitivity [dBm]	Rx Overload [dBm]	Conn	Distance/ Power Budget	Effect [Watt]	Product Number
1000Base										
1000Base-TX	¹ -	C/E		-	-		RJ45	100m	1W	SGT00P10DR0A
1000Base-SX	¹ 850	C/I	VCSEL/PIN	-9,5 to 0,3	-17	0	LC	550m	1W	SFP85P55GE0D
1000Base-LXM	^{1 2} 1310	C/I	FP/PIN	-9 to -3	-21	0	LC	1km	1W	SFP13001GE0D
1000Base-LX	1310	C/I	FP/PIN	-10 to -3	-21	0	LC	10km	1W	SFP13010GE0D
1000Base-LX	1310	C/I	FP/PIN	-8 to -3	-22	0	LC	20km	1W	SFP13020GE0D
1000Base-EX	1310	C/E/I	DFB/PIN	-2 to 3	-24	0	LC	40km	1W	SFP13040GE0D
1000Base-EX	1550	C/E/I	DFB/PIN	-5 to 0	-24	0	LC	40km	1W	SFP15040GE0D
1000Base-ZX	1550	C/E/I	DFB/PIN	0 to +5	-23	0	LC	80km	1W	SFP15080GE0D
1000Base-ZX 120	1550	C/E/I	DFB/APD	0 to 5	-32	-10	LC	120km	1W	SFP15120GE0D
1000Base-ZX 160	1550	C/I	DFB/APD	3 to 7	-37	-10	LC	160km	1W	SFP15160GE0D
1000Base-ZX 200	1550	C/I	DFB/APD	4 to 7	-37	-10	LC	200km	1W	SFP15200GE0D
Bi-directional										
1000Base-BXD	1550/1310	C/I	DFB/PIN	-9 to -3	-21	-3	LC	10km	1W	SBD53010GE0B
1000Base-BXU	1310/1550	C/I	FP/PIN	-9 to -3	-21	-3	LC	10km	1W	SBU35010GE0B
1000Base-BXD	1550/1310	C/I	DFB/PIN	-8 to -3	-22	-3	LC	20km	1W	SBD53020GE0B
1000Base-BXU	1310/1550	C/I	FP/PIN	-8 to -3	-22	-3	LC	20km	1W	SBU35020GE0B
1000Base-BXD	1550/1310	C/I	DFB/PIN	-5 to 0	-23	-3	LC	40km	1W	SBD53040GE0B
1000Base-BXU	1310/1550	C/I	DFB/PIN	-3 to 2	-23	-3	LC	40km	1W	SBU35040GE0B
1000Base-BXD	1550/1310	C/I	DFB/PIN	-2 to 3	-24	-3	LC	60km	1W	SBD53060GE0B
1000Base-BXU	1310/1550	C/I	DFB/PIN	0 to 5	-26	-3	LC	60km	1W	SBU35060GE0B
1000Base-BXD	1490/1310	C/I	DFB/PIN	-9.5 to -3	-22	-3	LC	10km	1W	SBD43010GE0B
1000Base-BXU	1310/1490	C/I	FP/PIN	-9.5 to -3	-22	-3	LC	10km	1W	SBU34010GE0B
1000Base-BXD	1490/1310	C/I	DFB/PIN	-8 to -3	-22	-3	LC	20km	1W	SBD43020GE0B
1000Base-BXU	1310/1490	C/I	FP/PIN	-8 to -3	-22	-3	LC	20km	1W	SBU34020GE0B
1000Base-BXD	1490/1310	C/I	DFB/PIN	-5 to 0	-24	-3	LC	40km	1W	SBD43040GE0B
1000Base-BXU	1310/1490	C/I	DFB/PIN	-5 to 0	-24	-3	LC	40km	1W	SBU34040GE0B
1000Base-BXD	1490/1310	C/I	DFB/PIN	0 to 5	-27	-3	LC	60km	1W	SBD43060GE0B
1000Base-BXU	1310/1490	C/I	DFB/PIN	0 to 5	-27	-3	LC	60km	1W	SBU34060GE0B
1000Base-BXD	1550/1490	C/I	DFB/PIN	0 to 5	-26	-3	LC	80km	1W	SBD54080GE0D
1000Base-BXU	1490/1550	C/I	DFB/PIN	0 to 5	-26	-3	LC	80km	1W	SBU45080GE0D
CWDM										
1000Base-EX	³ 1270-1610	C/E	DFB/PIN	-5 to 0	-21	-3	LC	40km	1W	SFCxx040GE0D
1000Base-ZX	³ 1270-1610	C/E	DFB/PIN	0 to 5	-24	0	LC	80km	1W	SFCxx080GE0D
1000Base-ZX	1470-1610	C/E	DFB/APD	0 to 5	-32	-8	LC	120km	1W	SFCxx120GE0D
1000Base-ZX	1470-1610	C/E	DFB/APD	4 to 7	-36	-10	LC	160km	1W	SFCxx160GE0D
DWDM										
1000Base-EX	17 - 61	C	DFB/PIN	0 to 4	-20	-1	LC	40km	1W	SFDxx040GE0D
1000Base-ZX	17 - 61	C	DFB/PIN	0 to 5	-24	-3	LC	80km	1W	SFDxx080GE0D
1000Base-ZX	17 - 61	C	DFB/APD	0 to 5	-32	-10	LC	120km	1W	SFDxx120GE0D
1000Base-ZX	17 - 61	C	DFB/APD	4 to 7	-36	-10	LC	160km	1W	SFDxx160GE0D
1000Base-ZX	Tuneable	C	DFB/APD	0 to 3	-19	0	LC	75km	3W	SFDU075GE0D

¹: 100Base/1000Base, SerDes. SGMII on request

²: Utilizing MMF (OM3/OM4: 1 km / OM1/OM2: 550 m)

³: Please contact Itectra for recommended distance per channel for the lambdas 1270 – 1450nm

Specifications are subject to change without notice.

10G (SFP+)



Standard: 10GBase
 MSA: SFF-8431 / SFF-8472
 Size: 8.55 × 13.7 × 56.5 mm
 All optical modules feature DOM
 Distances based on IEEE 802.3-2012 fibres

Temp., Operation: C: Commercial: 0 – 70°C
 E: Extended: -20 – 85°C
 I: Industrial: -40 – 85°C
 Temp., Storage: -40 – 85°C
 Humidity: 5 – 95%

Standard	Wavelength [nm]	Temp	Laser/ Receiver	Tx Power [dBm]	Rx Sensitivity [dBm]	Rx Overload [dBm]	Conn	Distance/ Power Budget	Effect [Watt]	Product Number
1GBase/10GBase										
1/10GBase-TX	¹ -	C	-	-	-	-	RJ45	30m	3W	SPT00M30MR00
1/10GBase-SR	850	C/I	VCSEL/PIN	-9.5 to -1	-17.0	0.5	LC	300m	1W	SPP85P301R0D
1/10GBase-LR	1310	C/I	DFB/PIN	-9.5 to -3	-14.4	0.5	LC	10km	1.3W	SPP130101RxD
10GBase										
10GBase-TX	¹ -	C	-	-	-	-	RJ45	80m	3W	SPT00M801000
10GBase-SR	² 850	C/E/I	VCSEL/PIN	-7.3 to -1.2	-9.9	-1	LC	150m	1.0W	SPP85P15100D
10GBase-SR	² 850	C/E/I	VCSEL/PIN	-7.3 to -1.2	-9.9	-1	LC	300m	1.0W	SPP85P30100D
10GBase-LRM	³ 1310	C	FP/PIN	-8.2 to 0.5	-14.4	0.5	LC	220m	1.0W	SPP13P22100A
10GBase-LRlite	1310	C/I	DFB/PIN	-8.2 to 0.5	-14.4	0.5	LC	2km	1.0W	SPP13002100D
10GBase-LR	1310	C/E/I	DFB/PIN	-8.2 to 0.5	-14.4	0.5	LC	10km	1.0W	SPP13010100D
10GBase-LR 20	1310	C/E/I	DFB/PIN	-8.2 to 0.5	-14.4	0.5	LC	20km	1.0W	SPP13020100D
10GBase-ER	1310	C/E/I	DFB/PIN	0 to 5	-15	0.5	LC	40km	1.0W	SPP13040100D
10GBase-ER	1550	C/E/I	EML/PIN	-4 to 4	-15.8	-1	LC	40km	1.0W	SPP15040100D
10GBase-ZR	1550	C/E/I	EML/ADP	0 to 4	-24	-7	LC	80km	1.0W	SPP15080100D
10GBase-ZR 100	1550	C	EML/APD	1 to 4	-26	-7	LC	100km	1.5W	SPP15100100D
Bi-directional										
10GBase-BXD	1330/1270	C/E/I	DFB/PIN	-8.2 to 0.5	-14.4	0.5	LC	10km	1.2W	SPB32010100D
10GBase-BXU	1270/1330	C/E/I	DFB/PIN	-8.2 to 0.5	-14.4	0.5	LC	10km	1.2W	SPB23010100D
10GBase-BXD 20	1330/1270	C/E/I	DFB/PIN	-8.2 to 0.5	-14.4	0.5	LC	20km	1.0W	SPB32020100D
10GBase-BXU 20	1270/1330	C/E/I	DFB/PIN	-8.2 to 0.5	-14.4	0.5	LC	20km	1.0W	SPB23020100D
10GBase-BXD 40	1330/1270	C/E/I	DFB/PIN	1 to 5	-15	0.5	LC	40km	1.0W	SPB32040100D
10GBase-BXU 40	1270/1330	C/E/I	DFB/PIN	1 to 5	-15	0.5	LC	40km	1.0W	SPB23040100D
10GBase-BXD 60	1330/1270	C/E/I	DFB/ADP	1 to 6	-20	-6	LC	60km	1.0W	SPB32060100D
10GBase-BXU 60	1270/1330	C/E/I	DFB/ADP	1 to 6	-20	-6	LC	60km	1.0W	SPB23060100D
10GBase-BXD 80	1550/1490	C	EML/ADP	0 to 4	-23	-6	LC	80km	1.2W	SPB54080100D
10GBase-BXU 80	1490/1550	C	EML/ADP	0 to 4	-23	-6	LC	80km	1.2W	SPB45080100D
10GBase-BXD 100	1550/1490	C	EML/ADP	1 to 5	-26	-7	LC	100km	2.0W	SPB54100100D
10GBase-BXU 100	1490/1550	C	EML/ADP	1 to 5	-26	-7	LC	100km	2.0W	SPB45100100D
CWDM										
10GBase-ER	⁴ 1270-1610	C/E	DFB/PIN	2 to 7	-14.4	2	LC	14dB	1.5W	SPCxxB14100D
10GBase-ER	1470-1610	C/E/I	EML/PIN	-1 to 4	-16	-1	LC	40km	1.5W	SPCxx040100D
10GBase-ZR	⁴ 1270-1450	C/E	DFB/ APD	+2 to 5	-21	-6	LC	23dB	1.2W	SPCxxB23100D
10GBase-ZR	1470-1610	C/E	EML/APD	0 to 4	-23	-8	LC	70km	1.5W	SPCxx070100D
10GBase-ZR 100	1470-1550	C	EML/APD	1.5 to 4	-25	-7	LC	100km	1.5W	SPCxx100100D
DWDM										
10GBase-ER	17 - 61	C/I	EML/PIN	-1 to 4	-15	-1	LC	40km	1.5W	SPDxx040100D
10GBase-ZR	17 - 61	C/I	EML/ADP	0 to 4	-24	-7	LC	80km	1.5W	SPDxx080100D
10GBase-ZR	34 - 61	C/I	EML/ADP	0 to 4	-26	-7	LC	100km	1.5W	SPDxx080100D
10GBase-ZR	⁵ Tuneable	C/I	ILMZ/ADP	-1 to 3	-24	-7	LC	40km	2.3W	SPDTU040100D
10GBase-ZR	⁵ Tuneable	C/I	ILMZ/ADP	-1 to 3	-24	-7	LC	80km	2.3W	SPDTU080100D
10GBase-ZR	⁶ Tuneable	C/I	ILMZ/ADP	-1 to 3	-24	-7	LC	80km	2.3W	SPATU080100D

1: Cat6a/Cat7 cable

2: Utilising MMF (OM4: 400 m / OM3: 300 m / OM2: 82 m / OM1: 33 m)

3: Utilising MMF (OM4: 500 m / OM3: 315 m / OM2: 220 m / OM1: 220 m), mode conditioning patch cord and electric dispersion compensation (EDC)

4: Please contact Itectra for recommended distance per channel

5: 191.350 THz – 196.100 THz (50 GHz spacing) Tuneable

6: 191.350 THz – 196.100 THz (50 GHz spacing) Auto tuneable

Specifications are subject to change without notice.

8G / 16G / 32G / 64G Fiber Channel (SFP)



Standard: FC800 / FC1600 / FC3200 / FC6400
 MSA: SFF-8431 / SFF-8472
 Size: 8.55 × 13.7 × 56.5 mm
 All optical modules feature DOM
 Distances based on IEEE 802.3-2012 fibres

Temp., Operation: C: Commercial: 0 – 70°C
 E: Extended: -20 – 85°C
 I: Industrial: -40 – 85°C
 Temp., Storage: -40 – 85°C
 Humidity: 5 – 95%

Standard	Wavelength [nm]	Temp	Laser/ Receiver	Tx Power [dBm]	Rx Sensitivity [dBm]	Rx Overload [dBm]	Conn	Distance/ Power Budget	Effect [Watt]	Product Number
Fibre Channels										
8G FC SWL	850	C/E/I	VCSEL/PIN	-7.3 to -1.2	-9.9	-1.0	LC	100m	1.0W	SPP85P30100D
8G FC LWL	1310	C/E/I	DFB/PIN	-8.2 to 0.5	-14.4	0.5	LC	10km	1.0W	SPP13010100D
8/16G FC SWL	850	C	VCSEL/PIN	-7.3 to -1.0	-11.1	-1.0	LC	100m	0.8W	SPP85P10160C
8/16G FC LWL	1310	C	DFB/PIN	-5.0 to 2.0	-12	2	LC	10km	0.8W	SPP13010160C
32/16/8G FC SWL	850	C	VCSEL/PIN	-6.7 to 2.0	-10.2	-1.0	LC	100m	1.0W	S2885P10320C
32/16/8G FC LWL	1310	C	DFB/PIN	-5.0 to 2.0	-11.4	2	LC	10km	1.5W	S2813010320C
64/32/16G FC SWL	850	C	DFB/PIN	-7.5 to 4.0	-9.4	4	LC	100m	1.5W	S5685P10640D
CWDM										
8G FC LWL	¹ 1271-1611	C/E/I	DFB/PIN	-4 to 1	-14	0.5	LC	10km	1.0W	SPCxxB10100D
8G FC LWL	¹ 1271-1451	C/E	DFB/PIN	-2 to 3	-16	0.5	LC	40km	1.5W	SPCxxB14100D
8G FC LWL	1471-1611	C/E/I	EML/PIN	-1 to 4	-15	0	LC	40Km	1.5W	SPCxx040100D
8G FC LWL	¹ 1271-1451	C/E	DFB/ APD	+2 to 4	-21	-8	LC	70km	1.5W	SPCxxB23100D
8G FC LWL	1471-1611	C/E	EML/APD	0 to 4	-23	-8	LC	70km	1.5W	SPCxx070100D
DWDM										
8G FC LWL	17 - 61	C/I	EML/PIN	-1 to 4	-15	-1	LC	40km	1.5W	SPDxx040100D
8G FC LWL	19x.x00THz	C/I	EML/ADP	0 to 4	-24	-7	LC	80km	1.5W	SPDxx080100D
8G FC LWL	Tuneable	C/I	ILMZ/ADP	-1 to 3	-24	-7	LC	80km	1.7W	SPDTU080100D
8G FC LWL	Autotuneable	C/I	ILMZ/ADP	-1 to 3	-24	-7	LC	80km	1.7W	SPATU080100D
8G/16G FC LWL	17 - 61	C	EML/PIN	-1 to 3	-14	0.5	LC	40km	2.0W	SPDxx020160C

¹: Please contact Itectra for recommended distance per channel

²: 191.700 THz – 196.150 THz (50 GHz spacing) Tuneable

³: 191.700 THz – 196.150 THz (50 GHz spacing) Auto tuneable

Specifications are subject to change without notice.

10G (XFP)



Standard: 10GBase
 MSA: INF-8077 / SFF-8472
 Size: 8.55 × 18.35 × 78.0 mm
 All optical modules feature DOM
 Distances based on IEEE 802.3-2012 fibres

Temp., Operation: C: Commercial: 0 – 70°C
 E: Extended: -20 – 85°C
 I: Industrial: -40 – 85°C
 Temp., Storage: -40 – 85°C
 Humidity: 5 – 95%

Standard	Wavelength [nm]	Temp	Laser/ Receiver	Tx Power [dBm]	Rx Sensitivity [dBm]	Rx Overload [dBm]	Conn	Distance/ Power Budget	Effect [Watt]	Product Number
10GBase										
10GBase-SR	850	C/E/I	VCSEL/PIN	-7.5 to -1	-11.1	-1	LC	300m/3.5dB	1.5W	XFP85P30100D
10GBase-LR	1310	C/I	DFB/PIN	-6 to -1	-14.4	0	LC	10km/8.4dB	2.5W	XFP13010100D
10GBase-LR	1310	C	DFB/PIN	-3 to 1	-15	0	LC	20km/12dB	2.5W	XFP13020100D
10GBase-ER	1310	C/I	DFB/PIN	0 to 4	-16	0.5	LC	40km/16dB	2.5W	XFP13040100D
10GBase-ER	1550	C/E/I	EML/PIN	-1 to 4	-15.8	0	LC	40km/14.8dB	3.5W	XFP15040100D
10GBase-ZR	1550	C/I	EML/ADP	0 to 4	-23	-7	LC	80km/23dB	3.5W	XFP15080100D
Bi-directional										
10GBase-BXD	1330/1270	C/E/I	DFB/PIN	-5 to 0	-14	0	LC	10km/9dB	2.0W	XFB32010100D
10GBase-BXU	1270/1330	C/E/I	DFB/PIN	-5 to 0	-14	0	LC	10km/9dB	2.0W	XFB23010100D
10GBase-BXD	1330/1270	C/E	DFB/PIN	-3.5 to 3.0	-14.5	0	LC	20km/11dB	2.0W	XFB32020100D
10GBase-BXU	1270/1330	C/E	DFB/PIN	-3.5 to 3.0	-14.5	0	LC	20km/11dB	2.0W	XFB23020100D
10GBase-BXD	1330/1270	C/I	DFB/PIN	1 to 5	-15	0	LC	40km/16dB	2.0W	XFB32040100D
10GBase-BXU	1270/1330	C/I	DFB/PIN	1 to 5	-15	0	LC	40km/16dB	2.0W	XFB23040100D
10GBase-BXD	1330/1270	C	DFB/ADP	1 to 7	-20	-7	LC	60km/21dB	2.0W	XFB13060100D
10GBase-BXU	1270/1330	C	DFB/ADP	1 to 7	-20	-7	LC	60km/21dB	2.0W	XFB23060100D
10GBase-BXD	1550/1490	C	EML/ADP	-1 to 3	-23	-6	LC	80km/22dB	2.5W	XFB54080100D
10GBase-BXU	1490/1550	C	EML/ADP	-1 to 3	-23	-6	LC	80km/22dB	2.5W	XFB45080100D
CWDM										
10GBase-LR	¹ 1270-1610	C	DFB/PIN	-5 to 0	-15	0	LC	10km/10dB	3.5W	XFCxxB10100D
10GBase-ER	¹ 1270-1450	C	DFB/PIN	-1.8 to 0	-15.8	-1	LC	40km/14dB	3.5W	XFCxxB14100D
10GBase-ER	1470-1610	C	EML/PIN	-3 to 4	-15	0	LC	40km/14dB	3.5W	XFCxx040100D
10GBase-ZR	¹ 1270-1450	C	DFB/ APD	2 to 4	-21	-10	LC	70km/23dB	3.5W	XFCxxB23100D
10GBase-ZR	1470-1610	C	EML/APD	0 to 4	-23	3.5	LC	70km/23dB	3.5W	XFCxx070100D
DWDM										
10GBase-ER	19x.x00THz	C	EML/PIN	-3 to 4	-15	0	LC	40km/12dB	3.5W	XFDxx040100D
10GBase-ZR	19x.x00THz	C	EML/ADP	0 to 4	-23	-10	LC	80km/23dB	3.5W	XFDxx080100D
10GBase-ZR	² Tuneable	C	ILMZ/ADP	-1 to 3	-24	-7	LC	80km/23dB	3.5W	XFDU0800H0D

¹: Please contact Itectra for recommended distance per channel

²: 191.100 THz – 196.150 THz (50 GHz spacing) Tuneable

Specifications are subject to change without notice.

25G (SFP28)



Standard: 25GBase
 MSA: INF-8074 / SFF-8402
 Size: 8.55 × 13.7 × 56.5 mm
 All optical modules feature DOM
 Distances based on IEEE 802.3-2012 fibres

Temp., Operation: C: Commercial: 0 – 70°C
 E: Extended: -20 – 85°C
 I: Industrial: -40 – 85°C
 Temp., Storage: -40 – 85°C
 Humidity: 5 – 85%

Standard	Wavelength [nm]	Temp	Laser/ Receiver	Tx Power [dBm]	Rx Sensitivity OMA [dBm]	Rx Overload [dBm]	Conn	Distance ⁷	Effect [Watt]	Product Number
10GBase/25GBase										
10/25GBase-SR	^{1 2} 850	C/I	VCSEL/PIN	-8.4 to 2.4	-10.3	2.4	LC	100m	1.0W	S2885P102RxF
10/25GBase-LR	¹ 1310	C	DFB/PIN	-7 to 2	-13.3	2	LC	10km	1.5W	S28130102R0F
10/25GBase-LR	¹ 1310	C	DFB/PIN	1 to 4.5	-14.5	2.5	LC	20km	1.5W	S28130202R0F
Bi-directional										
10/25GBase-BXD	¹ 1330/1270	C/I	DFB/PIN	-4 to 2.2	-12	2.5	LC	10km	1.2W	S2B320102RxF
10/25GBase-BXU	¹ 1270/1330	C/I	DFB/PIN	-4 to 2.2	-12	2.5	LC	10km	1.2W	S2B230102RxF
10/25GBase-BXD20	¹ 1330/1270	C/I	DFB/PIN	-2 to 4	-14	3.0	LC	20km	1.5W	S2B320202RxF
10/25GBase-BXU20	¹ 1270/1330	C/I	DFB/PIN	0 to 5	-14	3.0	LC	20km	1.5W	S2B230202RxF
10/25GBase-BXD40	¹ 1310/1270	C/I	DFB/APD	0 to 5	-18	-5	LC	40km	1.5W	S2B170402RxF
10/25GBase-BXU40	¹ 1270/1310	C/I	DFB/APD	0 to 5	-18	-5	LC	40km	1.5W	S2B710402RxF
CWDM										
10/25GBase-LR	¹³⁵ 1270-1370	C/I	DFB/PIN	-6.5 to 2.5	-11.5	2.5	LC	10km	1.5W	S2Cxx0102RxF
10/25GBase-LR	¹³⁵ 1270-1370	C/I	DFB/PIN	1 to 4.5	-14.5	2.5	LC	20km	1.5W	S2Cxx0202RxF
DWDM										
10/25GBase-LR	^{1 6} Tuneable	C/I	ILMZ/PIN	0 to 6	-16	0	LC	10km	2.5W	S2DTU0102RxF
10/25GBase-LR	^{1 6} Tuneable	C/I	ILMZ/APD	-1 to 3	-19.0	-4	LC	15km	2.5W	S2DTU0152RxF
10/25GBase-LR	^{1 6} Autotuneable	C/I	ILMZ/APD	0 to 4	-20.0	-7	LC	15km	2.5W	S2ATU0152RxF
25GBase										
25GBase-SR	¹ 850	C	VCSEL/PIN	-2.5 to 2.4	-7.0	2.4	LC	100m	1.0W	S2885P1025xF
25GBase-SR	^{1 2} 850	C/I	VCSEL/PIN	-8.4 to 2.4	-10.3	2.4	LC	100m	1.0W	S2885P1025xF
25GBase-CLR	¹ 1310	C/I	DFB/PIN	-5 to 2	-8.0	2	LC	2km	1.5W	S2813010250F
25GBase-LR	¹ 1310	C/I	DFB/PIN	-5 to 2	-11.4	2	LC	10km	1.2W	S2813010250F
25GBase-LR20	¹ 1310	C/I	DFB/PIN	-3 to 4	-14.0	4	LC	20km	1.2W	S2813020250F
25GBase-ER	¹ 1310	C/I	DFB/APD	0 to 6	-21	-4	LC	40km	1.8W	S281304025xF
25GBase-ZR	¹ 1300	C/I	EML/APD	2 to 7	-25.5	-6	LC	80km	2.0W	S2813080250F
Bi-directional										
25GBase-BXD	¹ 1330/1270	C/I	DFB/PIN	-4 to 2.2	-12	2.5	LC	10km	1.2W	S2B3201025xF
25GBase-BXU	¹ 1270/1330	C/I	DFB/PIN	-4 to 2.2	-12	2.5	LC	10km	1.2W	S2B2301025xF
25GBase-BXD20	¹ 1330/1270	C/I	DFB/PIN	-2 to 4	-14	3.0	LC	20km	1.5W	S2B3202025xF
25GBase-BXU20	¹ 1270/1330	C/I	DFB/PIN	0 to 5	-14	3.0	LC	20km	1.5W	S2B2302025xF
25GBase-BXD40	¹ 1310/1270	C/I	DFB/APD	0 to 5	-18	-5	LC	40km	1.5W	S2B1704025xF
25GBase-BXU40	¹ 1270/1310	C/I	DFB/APD	0 to 5	-18	-5	LC	40km	1.5W	S2B7104025xF
CWDM										
25GBase-LR	^{1 3 5} 1470-1550	C/E/I	DFB/PIN	0 to 5	-19	4	LC	10km	1.8W	S2Cxx01025xF
25GBase-ER	^{1 5} 1270-1310	C	DFB/APD	0.0 to 6	-19.0	-3	LC	40km	2.0W	S2Cxx04025xF
DWDM										
25GBase-LR	¹ 21 - 60	C/I	ILMZ/PIN	-1 to 5	-14.5	-9	LC	10km	2.0W	S2Dxx01025xF
25GBase-LR	^{1 6} Tuneable	C/I	ILMZ/PIN	0 to 6	-16	0	LC	10km	2.5W	S2DTU01025xF
25GBase-LR	^{1 6} Tuneable	C/I	ILMZ/APD	-1 to 3	-19.0	-4	LC	15km	2.5W	S2DTU01525xF
25GBase-LR	^{1 6} Autotuneable	C/I	ILMZ/APD	0 to 4	-20.0	-7	LC	15km	2.5W	S2ATU01525xF

¹: With Reed-Solomon Forward Error Correction (RS-FEC) for 25 Gbps

²: OM4: 100 m / OM3: 70 m

³: E.g., for break-out from 40G CWDM4 or 100G CWDM4

⁴: 1270 nm / 1290 nm / 1310 nm / 1330 nm / 1350 nm / 1370 nm / 1470 nm / 1490 nm / 1510 nm / 1530 nm / 1550 nm

⁵: Please contact Itectra for recommended channel distance

⁶: Tuneable within the 100 GHz ITU grid, 191.300 THz – 196.100 THz

⁷: As the data rate increases, the pulse spreading due to dispersion also increases resulting in a shorter covered distance.

Specifications are subject to change without notice.

40G (QSFP+)



Standard: 40GBase
 MSA: SFF-8661 / INF-8628 / SFF-8490
 Size: 8.55 × 18.35 × 72.4 mm
 All optical modules feature DOM
 Distances based on IEEE 802.3-2012 fibres

Temp., Operation: C: Commercial: 0 – 70°C
 E: Extended: -20 – 85°C
 I: Industrial: -40 – 85°C
 Temp., Storage: -20 – 85°C
 Humidity: 5 – 85%

Standard	Wavelength [nm]	Temp	Laser/ Receiver	Tx Power ¹ [dBm]	Rx Sensibility ¹ [dBm]	Rx Overload ¹ [dBm]	Conn	Distance	Effect [Watt]	Product Number
40G BiDi										
40GBase-BX SR	² 850 / 900	C	VCSEL/PIN	-4 to 5	-11	-0.5	LC	150m	3.5W	QFB85P10400D
40GBase										
40GBase-SR4	850	C	VCSEL/PIN	-6 to 3	-13	0	MPO-12	100m	1.5W	QFP85P1040PD
40GBase-SR4	850	C	VCSEL/PIN	-2.8 to 3	-11.1	2.4	MPO-12	300m	1.5W	QFP85P3040PD
40GBase-PSM4	³ 1310	C	FP/PIN	-8.2 to 0.5	-11.5	0.5	MPO-12	2km	2.5W	QFP13C1440PD
40GBase-IR4	1271-1331	C	DFB/PIN	-7.0 to 2.3	-11.7	2.3	LC	2km	3.5W	QFPQL002400D
40GBase-PLR4	³ 1310	C	DFB/PIN	-8.2 to 0.5	-12.6	1.5	MPO-12	10km	3.5W	QFP1301040PD
40GBase-LR4	1271-1331	C	DFB/PIN	-7.0 to 2.3	-13.7	2.3	LC	10km	3.5W	QFPQL010400D
40GBase-PLR4-20	³ 1310	C	DFB/PIN	-3.0 to 1.5	-12.6	2.3	MPO-12	25km	3.5W	QFP1302041PD
40GBase-LR4-20	1271-1331	C	DFB/PIN	-3.0 to 2.3	-11.5	3.3	LC	20km	3.5W	QFPQL020400D
40GBase-ER4	1271-1331	C	DFB/APD	-3.7 to 4.5	-20.2	-1	LC	40km	3.5W	QFPQL040400D
40GBase-ZR4	^{4 5} 1295-1310	C	EML/PIN+SOA	2 to 6.5	-28	2	LC	80km	5.0W	QFP13080405D
QSFP+ to SFP+ converter										
40G converter	-	C	-	-	-	-	LC	-	-	QF040CON000C

- 1: Per lane
- 2: Utilises two fibres
- 3: Parallel SingleMode (PSM4)
- 4: With Forward Error Correction (FEC)
- 5: Operating temperature range 0°C to 65°C

Specifications are subject to change without notice.

100G (QSFP28)



Standard: 100GBase
 MSA: SFF-8636 / SFF-8679 / SFF-8661
 Size: 8.55 × 18.35 × 72.4 mm
 All optical modules feature DOM
 Distances based on IEEE 802.3-2012 fibres

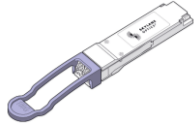
Temp., Operation: C: Commercial: 0 – 70°C
 E: Extended: -20 – 85°C
 I: Industrial: -40 – 85°C
 Temp., Storage: -20 – 85°C
 Humidity: 5 – 85%

Standard	Wavelength [nm]	Temp	Laser/ Receiver	Tx Power ¹ [dBm]	Rx Sensitivity ¹⁷ [dBm]	Rx Overload ¹ [dBm]	Conn	Distance	Effect [Watt]	Product Number
100GBase BiDi										
100GBase-BX SR1.2	^{2 13} 850/900	C	VCSEL/PIN	-6.2 to 4.0	-8.2	4.0	LC	100m	4.0W	Q2B85M70C00D
100GBase-BX CWDM4	⁵ 1271-1331	C	DFB/PIN	-6.5 to 2.5	-11.5	2.5	LC/APC	2km	3.5W	Q2BQL002C0TF
100GBase-BX LR1	^{8 10} 1270/1330	C/I	WDM/PIN	-1.4 to 4.5	-4.1	4.5	LC	10km	4.5W	Q2B23010C00F
100GBase-BX LR1	^{8 10} 1330/1270	C/I	WDM/PIN	-1.4 to 4.5	-4.1	4.5	LC	10km	4.5W	Q2B32010C00F
100GBase-BX LR1-20	⁸ 1310/1290	C/I	EML/PIN	-0.2 to 6.6	-10	6.6	LC	20km	4.5W	Q2B19020C00F
100GBase-BX LR1-20	⁸ 1290/1310	C/I	EML/PIN	-0.2 to 6.6	-10	6.6	LC	20km	4.5W	Q2B91020C00F
100GBase-BX ER1	^{8 10} 1304/1309	C	WDM/APD	1.7 to 7.1	-16	-3.4	LC	40km	4.5W	Q2B49040C0XF
100GBase-BX ER1	^{8 10} 1309/1304	C/I	WDM/APD	1.7 to 7.1	-16	-3.4	LC	40km	4.5W	Q2B94040C0XF
100GBase-BX ZR4L	1273-1287/1295-1309	C	TOSA/ROSA	1.0 to 7.0	-26	-5	LC	70km	5.0W	Q2BQ7070C00F
100GBase-BX ZR4L	1294-1309/1273-1287	C	TOSA/ROSA	1.0 to 7.0	-26	-5	LC	70km	5.0W	Q2BQ9070C00F
100GBase										
100GBase-DR1	^{5 8 10} 1310	C	WDM/PIN	-2.9 to 4	-5.9	4	LC	500m	4.5W	Q2C31P50C00F
100GBase-FR1	^{5 8 10} 1310	C	WDM/PIN	-2.4 to 4	-6.4	4.5	LC	2km	4.0W	Q2C31002C00F
100GBase-PSM4	⁴ 1310	C	DFB/PIN	-9.0 to 2	-12.0	3	MPO-12	500m	3.5W	Q2813P50C0PD
100GBase-PSM4-2	⁴ 1310	C	DFB/PIN	-4.5 to 4.0	-7.5.0	2	MPO-12	2km	3.5W	Q2813002C0PN
100GBase-PSM4-10	⁴ 1310	C	DFB/PIN	-4.0 to 2.0	-12.0	3	MPO-12	10km	3.5W	Q2813010C0PD
100GBase-LR1	^{8 10} 1270-1331	C	WDM/PIN	-1.4 to 4	-4.1	4.5	LC	10km ¹¹	4.5W	Q2Cxx010C00F
100GBase-LR1-20	⁸ OWDM ¹⁷	C	WDM/APD	0.0 to 3.4	-15.7	-3.0	LC	20km	4.4W	Q2Lxx020C00F
100GBase-ER1	⁵ 1271-1331	C	WDM/APD	1.7 to 7.1	-16	-3.4	LC	40km	5.5W	Q2Lxx040C00F
100GBase-SR4	² 850	C	VCSEL/PIN	-8.4 to 2.4	-7.2	2.4	MPO-12	100m	3.5W	Q2885P10C0PF
100GBase-SR4	³ 850	C	VCSEL/TIA+PIN	-8.4 to 2.4	-10.3	2.4	MPO-12	300m	3.5W	Q2885P30C0PF
100GBase-CWDM4	⁵ 1271-1331	C	DFB/PIN	-6.5 to 2.5	-11.5	2.5	LC	2km	3.5W	Q28QL002C00F
100GBase-IR4	⁴ 1310	C	DFB/PIN	-5.5 to 2.0	-10.2	2.0	MPO-12	2km	3.5W	Q2813002C0PD
100GBase-CLR4	⁽⁵⁾ 1295-1310	C	DFB/PIN+TIA	-6.5 to 2.3	-10.0	2.3	LC	2km	3.5W	Q28QL002C00D
100GBase-LR4	⁸ 1295-1310	C	WDM/PIN	-4.3 to 4.5	-10.6	4.5	LC	10km	4.5W	Q28QD010C00D
100GBase-LR4-20	⁸ 1295-1310	C	WDM/PIN	0.0 to 5.0	-9.0	5.0	LC	20km	3.5W	Q28QD020C00D
100GBase-4WDM-20	⁸ 1295-1310	C/I	DFB/PIN+TIA	-4.3 to 4.5	-14.5	4.5	LC	20km	4.8W	Q28QD020C02F
100GBase-ER4L	⁶ 1295-1310	C	EML/PIN+SOA	-2.9 to 2.9	-16.6/-20.5	-4.9	LC	40km	4.5W	Q28QD040C05F
100GBase-ER4	⁸ 1295-1310	C	WDM/PIN+SOA	-2.9 to 2.9	-21.4	-2.0	LC	40km	5.0W	Q28QD040C05D
100GBase-4WDM-40	⁵ 1295-1310	C	BFD/PIN	-2.5 to 6.5	-20.5	-3.5	LC	40km	5.0W	Q28QD040C07F
100GBase-ZR4	⁵ 1295-1310	C	EML/PIN+SOA	1 to 6.5	-28	4.5	LC	80km	5.5W	Q28QD080C05F
100GBase-ZR4+	⁵ 1295-1310	C	EML/PIN+SOA	3 to 7	-31	4.5	LC	95km	5.5W	Q28QDB31C0YF
100GBase (SFP-DD)										
100GBase-DR1	¹⁰ 1310	C	DFB/PIN	-2.9 to 4.0	-5.9	4.0	LC/MIS	10km	3.5W	SDP13P50C00D
100GBase-FR1	¹⁰ 1310	C	DFB/PIN	-3.1 to 4.0	-7.1	4.0	LC/MIS	2km	3.5W	SDP13002C00D
100GBase-LR1	¹⁰ 1310	C	DFB/PIN	-1.9 to 4.8	-8.2	4.8	LC/MIS	10km	3.5W	SDP13010C00D
100GBase (Coherent)										
100GBase-LR1	¹⁰ Tuneable ¹⁴	C/I	MZM/APD	-10 to -6	-30	3	LC/SFF	80km ¹⁶	5.5W	Q2DTUSCF0100
100GBase-LR1	¹⁰ Autotune ¹⁴	C/I	MZM/APD	-10 to -6	-30	3	LC/SFF	80km ¹⁶	5.5W	Q2ATUSCF0100
100GBase-LR1	¹⁰ Autotune ¹⁵	C/I	MZM/APD	-10 to -6	-30	3	LC/SFF	80km ¹⁶	5.5W	
100GBase-LR1	¹⁰ Tuneable ¹⁴	C/I	MZM/APD	-1.5 to 2.0	-30	3	LC/SFF	112km ¹⁶	6.2W	Q2DTUSCF0105
100GBase-LR1	¹⁰ Autotune ¹⁴	C/I	MZM/APD	1.5 to 2.0	-30	3	LC/SFF	112km ¹⁶	6.2W	Q2ATUSCF0105
100GBase-LR1	¹⁰ Autotune ¹⁵	C/I	MZM/APD	1.5 to 2.0	-30	3	LC/SFF	112km ¹⁶	6.2W	
QSFP28 to SFP28 converter										
100G converter			-	C	-	-	-	-	LC	-

¹: Per line
²: OM4: 100 m / OM3: 70 m
³: OM4: 300 m / OM3: 200 m
⁴: Parallel SingleMode (PSM4)
⁵: Utilises Forward Error Correction (FEC)
⁶: 40 km w/FEC / 30 km w/o FEC, values given w/FEC implemented
⁷: Average Rx Sensitivity, each lane (min) is informative and not the principal indicator of signal strength
⁸: WDM laser is either DML, EML or DFB type. Please consult Itectra if there are special requirements
 Specifications are subject to change without notice.

⁹: Operating temperature range 0°C to 65°C
¹⁰: Utilizes PAM-4
¹¹: Available on 1270nm, 1290nm, 1310nm, or 1330nm
¹²: OM5: 150m, OM4: 100m, OM3: 70m
¹³: Utilises two fibres
¹⁴: ITU-T G.694.1 50 GHz grid, min. 32.5 GHz passband
¹⁵: ITU-T G.694.1 100 GHz grid, min. 32.5 GHz passband
¹⁶: With EDFA amp: <120km, with EDFA amp + DCM: <300km
¹⁷: OpenWDM-WDM: L33: 1295.56nm/231 400GHz – L19: 1311.43nm/228 600GHz

2×100G / 400G / 800G



Standard: 100/200/400GBase
 MSA: SFF-8636 / SFF-8679
 Size: 8.55 × 18.35 × 93.3 mm
 All optical modules feature DOM
 Distances based on IEEE 802.3bs-2017 fibres

Temp., Operation: C: Commercial: 0 – 70°C
 E: Extended: -20 – 85°C
 I: Industrial: -40 – 85°C
 Temp., Storage: -20 – 85°C
 Humidity: 5 – 85%

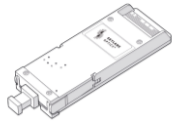
Standard	Wavelength [nm]	Temp	Laser/ Receiver	Tx Power ¹ [dBm]	Rx Sensitivity ¹² [dBm]	Rx Overload ¹ [dBm]	Conn/Mngt	Distance	Effect [Watt]	Product Number
2×100GBase (QSFP-DD)										
2×100G-CWDM4	⁷ 1271 - 1331	C	CWDM/PIN	-6.5 to 2.5	-11.5	2.5	2×CS/SFF	2km	8W	QAPQL002D03F
2×100GBase-LR4	⁷ 1295 – 1309	C	DFB/PIN	-4.3 to 4.5	-10.6	4.5	2×CS/SFF	10km	8W	QAPQD010D03D
400GBase (QSFP / QSFP-DD / OSFP)										
400GBase-SR4	⁴ 850	C	VCSEL/PIN	-4.6 to 4.0	-6.4	4.0	MPO-12(A) / CMIS	50m	9W	Q1285P05E1AD
400GBase-SR4	⁴ 850	C	VCSEL/PIN	-4.6 to 4.0	-6.4	4.0	MPO-12(A) / CMIS	100m	9W	Q1285P10E1AD
400GBase-SR4.2	850/908	C	VCSEL/PIN	-6.5 to 4.0	-8.4	4.0	MPO-12 / CMIS	100m	11W	QBP85P10E0PF
400GBase-SR8	^{3 5} 850	C	VCSEL/PIN	-6.5 to 4.0	-8.4	4.0	MPO-16 / CMIS	100m	12W	QBP85P10E0QF
400GBase-DR4	^{4 5} 1310	C	EML/PIN	-2.9 to 4.0	-4.4	4.0	MPO-12 / CMIS	500m	8W	Q1213P50F0PD
400GBase-DR4	^{4 5} 1310	C	EML/PIN	-2.9 to 4.0	-5.9	4.0	MPO-12 / CMIS	500m	9W ¹²	QBP13P50E0PF
400GBase-DR4+	^{4 5} 1310	C	EML/PIN	-2.4 to 4.0	-6.4	4.5	MPO-12 / CMIS	2km	12W ¹²	QBP13002E0PF
400GBase-FR4	^{5 7} 1271–1331	C	CWDM/PIN	-3.2 to 4.4	-7.2	4.4	LC / CMIS	2km	10W ¹²	Q12QL002E00F
400GBase-FR4	^{5 7} 1271–1331	C	CWDM/PIN	-3.3 to 3.5	-7.3	3.5	LC / CMIS	2km	12W	QBPQL002E00F
400GBase-LR4	^{5 7} 1271–1331	C	CWDM/PIN	-2.7 to 5.1	-9.0	5.1	LC / CMIS	10km	12W	Q1213010C00D
400GBase-LR4	^{5 7} 1271–1331	C	CWDM/PIN	-1.4 to 4.5	-7.7	4.5	LC / CMIS	10km	12W	QBPQL010E00F
400GBase-PLR4	^{4 5 7} 1310	C	CWDM/PIN	-2.7 to 5.1	-8.2	4.8	MPO-12 / CMIS	10km	12W	QBP13010E0PF
400GBase-PLR4	^{4 5 7} 1310	C	CWDM/PIN	-1.9 to 4.8	-8.2	4.8	MPO-12 / CMIS	10km	10W	OFFP13010E0PF
400GBase-ER4	^{5 7} 1295 – 1309	C	CWDM/PIN	1.5 to 7.1	-16.2	-3.4	LC / CMIS	40km	12W	QBPQD040E00D
400G DWDM (QSFP-DD)										
400G ZR	^{10 11} Tuneable	-5 to 85°C	MZM/APD	-10 to -6	-20	1	LC / CMIS	120km	18.3W	QBDTUSES0801
400G OpenZR+	^{9 11} Tuneable	15 – 75°C	MZM/APD	-10 to 1	-18 - -12	0	LC / SFF	450km	22.5W	QBDTUMEG0102
2×400G (QSFP-DD / QSFP)										
2×400G-FR4	⁵ 1273–1309	C	CWDM/PIN	-3.2 to 4.4	-7.2	4.4	LC / CMIS	2km	12W	QDD-800GB-2XFR4
2×400G-SR4	⁵ 850	C	VCSEL/PIN	-4.6 to 4.0	-6.3	4.0	2*MPO-12 (A)/CMIS	50m	14W	OFF85P05F02D
2×400G-SR4	^{5 13} 850	C	VCSEL/PIN	-4.6 to 4.0	-6.3	4.0	2*MPO-12 (A)/CMIS	50m	16W ¹²	OSFPRHS-800GB-2XSR4
2×400G-DR4	^{5 13} 1310	C	EML/PIN	-2.9 to 4.0	-5.9	4.0	2*MPO(A)/CMIS	500m	16.5W ¹²	OSFPRHS-800GB-2XDR4
2×400G-DR4	^{5 14} 1310	C	DFB/PIN	-2.9 to 4.0	-5.9	4.0	2*MPO-12 (A)/CMIS	500m	8W	OSFP-800GB-2XDR4-LPO
2×400G-FR4	⁵ CWDM	C	CWDM/PIN	-3.2 to 4.4	-7.2	4.4	2×LC / CMIS	2km	16.5W ¹²	OFFP13002F0LD
800G (QSFP-DD)										
800G-DR8	⁵ 1310	C	CWDM/PIN	-2.9 to 4.0	-5.9	4.0	MPO-16 / CMIS	500m	18W ¹²	QDD-800GB-DR8
800G-DR8+	⁵ 1310	C	CWDM/PIN	-3.1 to 4.0	-7.1	4.0	MPO-16 / CMIS	2km	18W ¹²	QDD-800GB-DR8P
800G-DR8++	⁵ 1310	C	CWDM/PIN	-1.9 to 4.8	-8.2	4.8	MPO-16 / CMIS	10km	19W ¹²	QDD-800GB-DR8PP

¹: Per line
²: Average Rx Sensitivity, each lane (min) is informative and not the principal indicator of signal strength
³: OM4: 100 m
⁴: Parallel SingleMode (PSM4), APC
⁵: Utilizes PAM-4
⁶: QSFP56
⁷: WDM laser is either DML, EML or DFB type. Please consult Itectra if there are special requirements
⁸: Utilizes 4×26.5625 Gb with PAM4 Serial Electrical Interface (200GAUI-4) or 8×26.5625 Gb with NRZ Serial Electrical Interface (200GAUI-8)

⁹: Supports 400Gbps (OFEC-16QAM, Rx range: -23 – 1 [dBm], OSNR ≤ 22.7 [dB]), 300Gbps (OFEC-8QAM, Rx range: -23 – 1 [dBm], OSNR ≤ 19.3 [dB]), 200Gbps (OFEC-QPSK, Rx range: -30 – 1 [dBm], OSNR ≤ 15 [dB]), 100Gbps (OFEC-QPSK, Rx range: -32 – 1 [dBm], OSNR ≤ 11 [dB])
¹⁰: Utilizes 8×26.5625 Gb PAM4 Serial Electrical Interface (400GAUI-8, RS (544/514) FEC)
¹¹: Optimal OSNR performance at less than 40 km
¹²: LP – Low Power mode supported
¹³: RHS – Riding Heat Sink
¹⁴: LPO – Linear-drive Pluggable Optics

Specifications are subject to change without notice.

100G / 200G (CFP2)



Standard: 100/200GBase
 MSA: CFP MSA compliant
 Size: 41.5 × 12.4 × 107.5 mm
 All optical modules feature DOM
 Distances based on IEEE 802.3-2012 fibres

Temp., Operation: C: Commercial: 0 – 70°C
 E: Extended: -20 – 85°C
 I: Industrial: -40 – 85°C
 Temp., Storage: -40 – 85°C
 Humidity: 5 – 85%

Standard	Wavelength [nm]	Temp	Laser/ Receiver	Tx Power ¹ [dBm]	Rx Sensitivity ¹ [dBm]	Rx Overload ¹ [dBm]	Conn	Distance	Effect [Watt]	Product Number
100GBase/200GBase										
100GBase-LR4	1295-1309	C	EML/PIN	-4.3 to 4.5	-10.6	4.5	LC	10km	8.0W	CF2QD010C00D
100GBase-ER4	1295-1309	C	EML/PIN+SOA	-2.9 to 2.9	-20.9	4.5	LC	40km	9.0W	CF2QD040C00D
100G/200G ACO	^{2 3} Tuneable	C	MZM/APD	-15 to 1	-25 to -13	0	LC	2000km	12W	C2DTUACOMR01
100G/200G DCO	^{2 3} Tuneable	C	MZM/APD	-15 to 1	-25	0	LC	2000km	16W	C2DTUDCOMR02
CPF2 to QSFP28 converter										
100G converter	-	C	-	-	-	-	LC	-	-	C2Q00000C00D

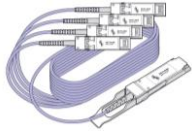
¹: Per line

²: 100 Gb DP-QPSK / 200Gb DP-8QAM/16QAM. Please contact Itectra for distances and further technical details

³: 191.100 THz – 196.150 THz (50 GHz spacing) Tuneable

Specifications are subject to change without notice.

DAC (Direct Attached Cable) / AOC (Active Optical Cable)



Standard: 10/40/100/200GBase
 MSA: SFF-8431/SFF-8436 (SFP+/SFP28)
 SFF-8661/SFF-8665 (QSFP+/QSFP28)
 Size: 8.55 × 13.70 × 56.5 mm (SFP)
 8.55 × 18.35 × 72.4 mm (QSFP)

Temp., Operation: C: Commercial: 0 – 70°C
 Temp., Storage: -40 – 85°C
 Humidity: 5 – 85%

Standard	Medium	Temp	Method	Type	Length [meter] ¹	Effect [Watt]	Product Number
10GBase (SFP+)							
10GBase	Copper	C	Passive DAC	SFP+ to SFP+	1/2/3/5/7	1.0W	DAPSSMxx1000
10GBase	² 850nm	C	AOC	SFP+ to SFP+	1/3/5/7/10	0.7W	DOASSMxx100D
25GBase (SFP28)							
25GBase	Copper	C	Passive DAC	SFP28 to SFP28	1/2/3/5/7	1.0W	DAPSSMxx2500
25GBase	² 850nm	C	AOC	SFP28 to SFP28	1/3/5/7/10	0.7W	DOASSMxx250D
40G (QSFP+)							
40GBase	Copper	C	Passive DAC	QSFP+ to QSFP+	1/2/3/5/7	0.5W	DAPQQMxx4000
40GBase	Copper	C	Passive DAC	QSFP+ to 4×SFP+	1/2/3/5/7	0.5W	DAPQSMxx4000
40GBase	² 850nm	C	AOC	QSFP+ to QSFP+	1/3/5/7/10	1.5W	DAOQQMxx400D
40GBase	² 850nm	C	AOC	QSFP+ to 4×SFP+	1/3/5/7/10	1.5W	DAOQSMxx400D
100G (QSFP28)							
100GBase	Copper	C	Passive DAC	QSFP28 to QSFP28	1/2/3/5/7	0.5W	DAPQQMxxC000
100GBase	Copper	C	Passive DAC	QSFP28 to 4×SFP28	1/2/3/5/7	0.5W	DAPQSMxxC000
100GBase	² 850nm	C	AOC	QSFP28 to QSFP28	1/3/5/7/10	2.5W	DAOQQMxxC00D
100GBase	² 850nm	C	AOC	QSFP28 to 4×SFP28	1/3/5/7/10	2.5W	DAOQSMxxC00D

¹: Please contact Itectra if other lengths are required

²: Features DOM

Specifications are subject to change without notice.

About Ipectra

Since 2008 Ipectra has designed, delivered, and serviced business-critical IT infrastructure for Danish datacentres, public companies, enterprises, and service provider networks. Ipectra is specialized in the optical domain with focus on delivery of optical components, WDM systems and consultancy based on a solid knowledge of optical networks, physical optical behaviour, and future evolution of the optical market.

Ipectra has gained the Danish Børsen Gazelle Award in three continuous years (2016 – 2018) and has successively been Bisnode Triple-A rated since 2014.

This success is founded in a close cooperation with our customers and a deep professional understanding of their infrastructure challenges and needs. We follow the technology closely and ensure that our customers benefit from the latest technologies with the most suitable solution.

Quality in all aspects

Ipectra aims for the highest quality in all aspects from optical network design to the selection of vendors and components to each specific project. All Ipectras vendors are carefully selected among the leaders in the optical world and have all the same clear view on “Quality in all aspects” as Ipectra.

Service and Support

Ipectra offers a selection of service and support options to secure operational efficiency and resolve critical problems smoothly and with minimum impact on the operational infrastructure. To accommodate this Ipectra offers different services from Advanced Hardware Replacement to four hours SLA and Professional Deployment Services from selected vendors.

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