

SFP (Mini-GBIC)

DDM SFP All SFP part no. with D have Diagnostic function

SFP 10Gbps

Part Number	Wavelength	LD	IO	LOS	Mode	Link	Temp.
8330-193D	850nm	VCSEL	AC/AC	TTL	Multi-mode	300m	-10~70°C
8330-194D	1310nm	DFB	AC/AC	TTL	Single-mode	10km	-10~70°C
8330-200D	1270nm	DFB	AC/AC	TTL	Single-mode	20km	-10~70°C
8330-201D	1330nm	DFB	AC/AC	TTL	Single-mode	20km	-10~70°C
8330-202D	1270nm	DFB	AC/AC	TTL	Single-mode	40km	-10~70°C
8330-203D	1330nm	DFB	AC/AC	TTL	Single-mode	40km	-10~70°C
8330-193D-E	850nm	VCSEL	AC/AC	TTL	Multi-mode	300m	-40~85°C
8330-194D-E	1310nm	DFB	AC/AC	TTL	Single-mode	10km	-40~85°C
8330-200D-E	1270nm	DFB	AC/AC	TTL	Single-mode	20km	-40~85°C
8330-201D-E	1330nm	DFB	AC/AC	TTL	Single-mode	20km	-40~85°C
8330-202D-E	1270nm	DFB	AC/AC	TTL	Single-mode	40km	-40~85°C
8330-203D-E	1330nm	DFB	AC/AC	TTL	Single-mode	40km	-40~85°C

SFP 2.5Gbps

Part Number	Wavelength	LD	IO	LOS	Mode	Link	Temp.
8330-262D	850 nm	VCSEL	AC/AC	TTL	Multi-mode	300m	-10~70°C
8330-263D	1310 nm	FP	AC/AC	TTL	Single-mode	2km	-10~70°C
8330-265D	1310 nm	DFB	AC/AC	TTL	Single-mode	15km	-10~70°C
8330-262D-E	850 nm	VCSEL	AC/AC	TTL	Multi-mode	300m	-40~85°C
8330-263D-E	1310 nm	FP	AC/AC	TTL	Single-mode	2km	-40~85°C
8330-265D-E	1310 nm	DFB	AC/AC	TTL	Single-mode	15km	-40~85°C

SFP 1.25Gbps

Part Number	Wavelength	LD	IO	LOS	Mode	Link	Temp.
8330-162	850 nm	VCSEL	AC/AC	TTL	Multi-mode	550m	-10~70°C
8330-163	1310 nm	FP	AC/AC	TTL	Multi-mode	2km	-10~70°C
8330-165	1310 nm	FP	AC/AC	TTL	Single-mode	10km	-10~70°C
8340-0591	1310 nm	DFB	AC/AC	TTL	Single-mode	40km	-10~70°C
8330-166	1550 nm	DFB	AC/AC	TTL	Single-mode	50km	-10~70°C
8330-169	1550 nm	DFB	AC/AC	TTL	Single-mode	60km	-10~70°C
8330-167	1550 nm	DFB	AC/AC	TTL	Single-mode	80km	-10~70°C
8330-170	1550 nm	DFB	AC/AC	TTL	Single-mode	120km	-10~70°C
8330-162-E	850 nm	VCSEL	AC/AC	TTL	Multi-mode	550m	-40~85°C
8330-163-E	1310 nm	FP	AC/AC	TTL	Multi-mode	2km	-40~85°C
8330-165-E	1310 nm	FP	AC/AC	TTL	Single-mode	10km	-40~85°C
8340-0591-E	1310 nm	DFB	AC/AC	TTL	Single-mode	40km	-40~85°C
8330-166-E	1550 nm	DFB	AC/AC	TTL	Single-mode	50km	-40~85°C
8330-169-E	1550 nm	DFB	AC/AC	TTL	Single-mode	60km	-40~85°C
8330-167-E	1550 nm	DFB	AC/AC	TTL	Single-mode	80km	-40~85°C
8330-170-E	1550 nm	DFB	AC/AC	TTL	Single-mode	120km	-40~85°C

SFP 125Mbps

Part Number	Wavelength	LD	IO	LOS	Mode	Link	Temp.
8330-060	1310nm	FP	AC/AC	TTL	Multi-mode	2km	-10~70°C
8330-065	1310nm	FP	AC/AC	TTL	Multi-mode	5km	-10~70°C
8330-061	1310nm	FP	AC/AC	TTL	Single-mode	30km	-10~70°C
8330-060-E	1310nm	FP	AC/AC	TTL	Multi-mode	2km	-40~85°C
8330-065-E	1310nm	FP	AC/AC	TTL	Multi-mode	5km	-40~85°C
8330-061-E	1310nm	FP	AC/AC	TTL	Single-mode	30km	-40~85°C

SFP 1000T

Part Number	Description
8330-168	10/100/1000Base-T, SFP, 100m, 3.3V, -10~70°C
8330-168-E	10/100/1000Base-T, SFP, 100m, 3.3V, -40~85°C

125Mbps/1.25Gbps Dual-rate

Part Number	Wavelength	LD	IO	LOS	Mode	Link	Temp.
8330-191	1310nm	FP	AC/AC	TTL	Single-mode	10km	-10~70°C
8330-191-E	1310nm	FP	AC/AC	TTL	Single-mode	10km	-40~85°C

BIDI SFP 1.25Gbps

Part Number	TX	LD	RX	IO	LOS	Link	Temp.
8330-197	1310nm	FP	1550nm	AC/AC	TTL	0.5km	-10~70°C
8330-195	1310nm	FP	1550nm	AC/AC	TTL	2km	-10~70°C
8330-188	1310nm	FP	1550nm	AC/AC	TTL	10km	-10~70°C
8330-186	1310nm	FP	1550nm	AC/AC	TTL	20km	-10~70°C
8330-180	1310nm	DFB	1550nm	AC/AC	TTL	40km	-10~70°C
8330-181	1310nm	DFB	1550nm	AC/AC	TTL	60km	-10~70°C
8330-184	1490nm	DFB	1550nm	AC/AC	TTL	80km	-10~70°C
8330-197-E	1310nm	FP	1550nm	AC/AC	TTL	0.5km	-40~85°C
8330-195-E	1310nm	FP	1550nm	AC/AC	TTL	2km	-40~85°C
8330-188-E	1310nm	FP	1550nm	AC/AC	TTL	10km	-40~85°C
8330-186-E	1310nm	FP	1550nm	AC/AC	TTL	20km	-40~85°C
8330-180-E	1310nm	DFB	1550nm	AC/AC	TTL	40km	-40~85°C
8330-181-E	1310nm	DFB	1550nm	AC/AC	TTL	60km	-40~85°C
8330-184-E	1490nm	DFB	1550nm	AC/AC	TTL	80km	-40~85°C
8330-198	1550nm	FP	1310nm	AC/AC	TTL	0.5km	-10~70°C
8330-196	1550nm	FP	1310nm	AC/AC	TTL	2km	-10~70°C
8330-189	1550nm	DFB	1310nm	AC/AC	TTL	10km	-10~70°C
8330-187-E	1550nm	DFB	1310nm	AC/AC	TTL	20km	-40~85°C
8330-182-E	1550nm	DFB	1310nm	AC/AC	TTL	40km	-40~85°C
8330-183-E	1550nm	DFB	1310nm	AC/AC	TTL	60km	-40~85°C
8330-185-E	1550nm	DFB	1490nm	AC/AC	TTL	80km	-40~85°C

BIDI SFP 125Mbps

Part Number	TX	LD	RX	IO	LOS	Link	Temp.
8330-071	1310nm	FP	1550nm	AC/AC	TTL	2km	-10~70°C
8330-069	1310nm	FP	1550nm	AC/AC	TTL	20km	-10~70°C
8330-080	1310nm	FP	1550nm	AC/AC	TTL	40km	-10~70°C
8330-081	1310nm	FP	1550nm	AC/AC	TTL	60km	-10~70°C
8330-084	1310nm	FP	1550nm	AC/AC	TTL	80km	-10~70°C
8330-071-E	1310nm	FP	1550nm	AC/AC	TTL	2km	-40~85°C
8330-069-E	1310nm	FP	1550nm	AC/AC	TTL	20km	-40~85°C
8330-080-E	1310nm	FP	1550nm	AC/AC	TTL	40km	-40~85°C
8330-081-E	1310nm	FP	1550nm	AC/AC	TTL	60km	-40~85°C
8330-084-E	1310nm	FP	1550nm	AC/AC	TTL	80km	-40~85°C
8330-072	1550nm	FP	1310nm	AC/AC	TTL	2km	-10~70°C
8330-068	1550nm	FP	1310nm	AC/AC	TTL	20km	-10~70°C
8330-082	1550nm	DFB	1310nm	AC/AC	TTL	40km	-10~70°C
8330-083	1550nm	DFB	1310nm	AC/AC	TTL	60km	-10~70°C
8330-085	1550nm	DFB	1310nm	AC/AC	TTL	80km	-10~70°C
8330-072-E	1550nm	FP	1310nm	AC/AC	TTL	2km	-40~85°C
8330-068-E	1550nm	FP	1310nm	AC/AC	TTL	20km	-40~85°C
8330-082-E	1550nm	DFB	1310nm	AC/AC	TTL	40km	-40~85°C
8330-083-E	1550nm	DFB	1310nm	AC/AC	TTL	60km	-40~85°C
8330-085-E	1550nm	DFB	1310nm	AC/AC	TTL	80km	-40~85°C



Power Supply



Model	O/P voltage Adjustment	Loading (A)			Ripple Noise	Line Reg.	Load Reg.	Efficiency	Overvoltage Protection
		Min.	Rated	Max.					
MDR-20-5	4.75~5.5VDC	0A	3A	3A	80mVp-p	±1%	±1%	76.0%	5.75~6.75VDC
MDR-20-12	10.8~13.2VDC	0A	1.67A	1.67A	120mVp-p	±1%	±1%	80.0%	13.8~16.2VDC
MDR-20-24	13.5~16.5VDC	0A	1.34A	1.34A	120mVp-p	±1%	±1%	81.0%	17.25~20.25VDC
MDR-20-48	21.6~26.4VDC	0A	1A	1A	150mVp-p	±1%	±1%	84.0%	27.6~32.4VDC
MDR-40-5	5~6VDC	0A	6A	6A	80mVp-p	±1%	±1%	78.0%	6.25~7.25VDC
MDR-40-12	12~15VDC	0A	3.33A	3.33A	120mVp-p	±1%	±1%	86.0%	15.6~18VDC
MDR-40-24	24~30VDC	0A	1.7A	1.7A	150mVp-p	±1%	±1%	88.0%	31.2~36VDC
MDR-40-48	48~56VDC	0A	0.83A	0.83A	200mVp-p	±1%	±1%	88.0%	57.6~64.8VDC
NDR-75-12	12~14VDC	0A	6.3A	6.3A	80mVp-p	±0.5%	±1%	85.5%	14~17VDC
NDR-75-24	24~28VDC	0A	3.2A	3.2A	120mVp-p	±0.5%	±1%	88.0%	29~33VDC
NDR-75-48	48~55VDC	0A	1.6A	1.6A	150mVp-p	±0.5%	±1%	89.0%	56~65VDC
NDR-120-12	12~14VDC	0A	10A	10A	100mVp-p	±0.5%	±1%	85.5%	14~17VDC
NDR-120-24	24~28VDC	0A	5A	5A	120mVp-p	±0.5%	±1%	88.0%	29~33VDC
NDR-120-48	48~55VDC	0A	2.5A	2.5A	150mVp-p	±0.5%	±1%	89.0%	56~65VDC
NDR-240-24	24~28VDC	0A	10A	10A	150mVp-p	±0.5%	±1%	88.5%	29~33VDC
NDR-240-48	48~55VDC	0A	5A	5A	150mVp-p	±0.5%	±1%	90.0%	56~65VDC
NDR-480-24	24~28VDC	0A	20A	20A	150mVp-p	±0.5%	±1%	92.5%	29~33VDC
NDR-480-48	48~55VDC	0A	10A	10A	150mVp-p	±0.5%	±1%	92.5%	56~65VDC
AD1024-24F	+24VDC±10%	0A	1A	1A	150mVp-p	±1%	±1%	83.0%	40VDC Max
AD1024-24F-E	+24VDC±10%	0A	1A	1A	150mVp-p	±1%	±1%	83.0%	40VDC Max
AD1048-24F	+24VDC±10%	0A	2A	2A	150mVp-p	±1%	±1%	83.0%	27~30VDC
AD1048-24F-E	+24VDC±10%	0A	2A	2A	150mVp-p	±1%	±1%	83.0%	27~30VDC
AD1048-24FS	+24VDC±10%	0A	2A	2A	150mVp-p	±1%	±1%	83.0%	40VDC Max
AD1048-24FS-E	+24VDC±10%	0A	2A	2A	150mVp-p	±1%	±1%	83.0%	40VDC Max
AD1048-48F	+48VDC±10%	0A	1A	1A	250mVp-p	±1%	±1%	83.0%	52~57VDC
AD1048-48FS	+48VDC±10%	0A	1A	1A	250mVp-p	±1%	±1%	83.0%	60VDC Max
AD1072-24F	+24VDC±10%	0A	3A	3A	150mVp-p	±1%	±1%	81.0%	27~30VDC
AD1072-48F	+48VDC±10%	0A	1.5A	1.5A	250mVp-p	±1%	±1%	82.0%	52~56VDC
AD1120-24F	+24VDC±10%	0A	5A	5A	150mVp-p	±1%	±1%	81.0%	27~30VDC
AD1120-48F	+48VDC±10%	0A	2.5A	2.5A	550mVp-p	±1%	±1%	83.0%	52~56VDC
AD1240-24S	+24VDC±10%	0A	10A	10A	150mVp-p	±1%	±1%	83.0%	27~30VDC
AD1240-48S	+48VDC±10%	0A	5A	5A	250mVp-p	±1%	±1%	84.0%	52~56VDC
AD1360-24S	+24VDC±10%	0A	15A	15A	150mVp-p	±1%	±2%	82.0%	40VDC Max
AD1360-48S	+48VDC±10%	0A	7.5A	7.5A	250mVp-p	±1%	±2%	83.0%	52~56VDC
AD1500-24S	+24VDC±10%	0A	21A	21A	150mVp-p	±1%	±2%	84.0%	27~30VDC
AD1500-48S	+48VDC±10%	0A	10.5A	10.5A	250mVp-p	±1%	±2%	85.0%	52~56VDC

Note: 1. Each output can supply up to maximum current, but total loading cannot exceed rated output wattage.
 2. Line regulation is measured from low line to high line at rated load.
 3. Load regulation is measured from 20% to 100% of rated load at 110VAC input.
 4. Ripple & Noise is measured by using a 0.1µF/630V metalized capacitor & a 47µF electrolytic capacitor parallel on the test point, at rated load and 110VAC input.
 5. Efficiency is measured at rated load and 110VAC input.
 6. Standard Operating Temperature: -20°C ~ 50°C / ambient, derating each output at 2.5% per degree from 50°C ~ 70°C
 7. Wide Operating Temperature (-E model): -40°C ~ 75°C / ambient, derating each output at 2.5% per degree from 50°C ~ 75°C, which means the output is 18 Watts at 75°C

*Note: Starting time of -E model is 1.5 to 2 seconds at -40°C



Cable

Part Number	Description	Pin Number	Type	Length	Gender
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