

SO-SFP-10GE-ER

SFP+, 10GBase-ER, 1550nm, SM, DDM, 14dB, 40km

OVERVIEW

The SO-SFP-10GE-ER series single mode transceiver is small form factor pluggable module for duplex optical data communications up to 10G. This module is designed for single mode fiber and operates at a nominal wavelength of 1550 nm

PRODUCT FEATURES

- 1550nm EML transmitter
- Distance up to 40km over SMF
- Single 3.3V Power supply and TTL logic interface
- Duplex LC connector interface
- Hot-Pluggable
- Power dissipation < 1.5 W (Typical < 1W)
- Dispersion tolerance 800 ps/nm
- Class 1 laser compliant according to IEC-60825
- Case operation temperature:
 - Standard: 0°C to +70°C
 - Industrial: -40°C TO +85°C
- Compliant with SFF-8431 MSA
- Compliant with SFF-8432 MSA
- Compliant with SFF-8472 MSA

APPLICATIONS

- 10GBASE-ER/EW
- 8G/10G FC
- OBSAI rates 6.144 Gb/s, 3.072 Gb/s, 1.536 Gb/s, 0.768Gb/s
- CPRI rates 10.138 Gb/s, 9.830 Gb/s, 7.373Gb/s,
- 6.144 Gb/s, 4.915 Gb/s, 2.458 Gb/s,
- 1.229 Gb/s, 0.614Gb/s
- Other optical links

ORDERING INFORMATION

Part Number	Description
SO-SFP-10GE-ER	SFP+, 10GBase-ER, 1550nm, SM, DDM, 14dB, 40km
SO-SFP-10GE-ER-I	SFP+, 10GBase-ER, 1550nm, SM, DDM, 14dB, 40km ind.temp.

ABSOLUTE MAXIMUM RATINGS

Subject to change without notice.

For more information, visit smartoptics.com.

Parameter	Symbol	Min	Max	Unit
Storage Temperature	TS	-40	+85	°C
Supply Voltage	VCC	-0.5	3.6	V

RECOMMENDED OPERATING CONDITIONS

Parameter	Symbol	Min	Typ	Max	Unit
Case Operating Temperature	T_c	SO-SFP-10GE-ER	0	+70	°C
		SO-SFP-10GE-ER-I	-40	+85	
Power Supply Voltage	Vcc	3.15	3.3	3.45	V
Power Supply Current	Icc			455	mA
Surge Current	ISurge			+30	mA
Baud Rate	SO-SFP-10GE-ER			10.3	Gbps

OPTICAL AND ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Unit
9µm Core Diameter SMF			40		Km

OPTICAL AND ELECTRICAL CHARACTERISTICS TRANSMITTER

Parameter	Symbol	Min	Typ	Max	Unit
Centre Wavelength	λ_c	1480	1550	1600	nm
Spectral Width (-20dB)	$\Delta\lambda$			1	nm
Average Output Power	$P_{out, AVG}$	-2		4	dBm
Optical Modulation Amplitude	$P_{out, OMA}$	1			dBm
Extinction Ratio	ER	3.5			dB
Side Mode Suppression Ratio	SMSR	30			dB
Transmitter Dispersion Penalty	TDP			2	dB

OPTICAL AND ELECTRICAL CHARACTERISTICS RECEIVER

Parameter	Symbol	Min	Typ	Max	Unit
Centre Wavelength	λ	1260		1600	nm
Sensitivity	P_{min}			-16	dBm
Receiver Overload	P_{max}	-1			dBm
LOS De-Assert	LOSD			-16.5	dBm
LOS Assert	LOSA	-30			dBm