

SFP-10G-BX60-SY

10GBASE-BIDI ER+ SFP+, 60 km SMF TRANSCEIVER

1. FEATURES AND SPECIFICATIONS

- ▶ Form Factor: **SFP+**
- ▶ Operating Data Rate: **10G**
- ▶ Protocol(s): **10GE, FC**
- ▶ Fiber Type: **SMF**
- ▶ Technique: **BIDI ER+**
- ▶ Lane Count: **1**
- ▶ Wavelength(s)/Channel(s): **U: Tx1270 nm/Rx1330 nm**
D: Tx1330 nm/Rx1270 nm
- ▶ Nominal Distance: **60 km**
- ▶ Nominal Power Budget: **22 dB**
- ▶ Connector: **LC simplex**
- ▶ Temperature Range: **0 to +70°C, -40 to +85°C**
- ▶ Compliance: **SFP+ MSA, SFF-8431, IEEE 802.3ae**
- ▶ Monitoring: **Digital diagnostic monitor interface**
- ▶ Laser Type: **DFB**
- ▶ Receiver Type: **APD**
- ▶ Power Dissipation: **1.5 W**

2. ABSOLUTE CHARACTERISTICS

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT
SIGNAL INPUT VOLTAGE	V_{IN}	0.2	-	0.7	V
POWER SUPPLY VOLTAGE	V_{CC}	-0.5	-	4	V
OPERATING TEMPERATURE	T_{CASE}	0	-	+70	°C
STORAGE TEMPERATURE	T_S	-40	-	+85	°C

3. ELECTRICAL OPERATING CONDITIONS

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT
SUPPLY CURRENT	I _{CC}	-	-	0.3	A
SUPPLY VOLTAGE	V _{CC}	3.13	3.3	3.47	V

4. OPTICAL CHARACTERISTICS

RECEIVER

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	
OPTICAL WAVELENGTH	λ_C	U-2733	1320	1330	1340	nm
		D-3327	1260	1270	1280	
LOS HYSTERESIS	LOS _H	0.5	-	0	dB	
LOS ASSERT	LOS _A	-35	-	-	dBm	
LOS DE-ASSERT	LOS _D	-	-	-22	dBm	
RX MAX. SENSITIVITY	P _{MIN}	-	-	-21	dBm	
DAMAGE THRESHOLD	P _{MAX}	-7	-	-	dBm	

TRANSMITTER

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	
OPTICAL WAVELENGTH	λ_C	U-2733	1260	1270	1280	nm
		D-3327	1320	1330	1340	
OPTICAL EXTINCTION RATIO	ER	5	-	-	dB	
SIDE MODE SUPPRESSION RATIO	SMSR	30	-	-	dBm	
SPECTRAL WIDTH	$\Delta\lambda$	-	-	1	dBm	
OPTICAL TRANSMIT POWER	P _{OUT}	1	-	5	dBm	

5. ORDERING INFORMATION

PART NAME	DESCRIPTION
SFP-10G-BX60U-SY	10GBase BIDI ER+ SFP+, Tx1270 nm/Rx1330 nm, 60 km over SMF, LC simplex, speedy
SFP-10G-BX60U-I-SY	10GBase BIDI ER+ SFP+, Tx1270 nm/Rx1330 nm, 60 km over SMF, LC simplex, Industrial temperature -40 to +85°C, speedy
SFP-10G-BX60D-SY	10GBase BIDI ER+ SFP+, Tx1330 nm/Rx1270 nm, 60 km over SMF, LC simplex, speedy
SFP-10G-BX60D-I-SY	10GBase BIDI ER+ SFP+, Tx1330 nm/Rx1270 nm, 60 km over SMF, LC simplex, Industrial temperature -40 to +85°C, speedy

6. COMPATIBILITY

ADVA (1061702595-02), ARISTA NETWORKS (SFP-10G-ZR), ARUBA NETWORKS/HP NETWORK (J9153A), AVAYA/NORTEL (AA1403013-E6), BROCADE (10G-SFPP-ER), BROCADE/RUCKUS (10G-SFPP-ZR), CIENA (XCVR-S40U27, XCVR-S40U33), CISCO SYSTEMS (SFP-10G-BXD-I, SFP-10G-BXU-I, SFP-10G-LR, SFP-10G-ZR), DELL (430-4585), ECI (OTP10_L27BD, OTP10_L33BD), EXTREME (10309), EXTREME/ENTERASYS (10GB-ZR-SFP), FIBROLAN (SFPP-S12-60, SFPP-S13-60), FORTINET (FN-TRAN-SFP+LR, FN-TRAN-SFP+LR), HUAWEI (OSX040N01), INFINERA/TRANSMODE (TRX100115), JUNIPER (EX-SFP-10GE-ZR, SFP-10GE-ZR, SFPP-10GE-ZR), KEYMILE (37973134), MARCONI (SU69CD), MSA (SFP-10G-BX60D, SFP-10G-BX60U), NET INSIGHT (NPA0077-ZR01), NEVION (SFP-TR10-T1270/R1330-ZR, SFP-TR10-T1330/R1270-ZR), NOKIA NETWORKS (FORUB-473543B.101, FORVB-473544B.101), NOKIA/ALCATEL-LUCENT (3FE55743AA, 3FE65832AA, 3HE05036AA), PLANET (MTB-LA60, MTB-LB60), STORMSHIELD (NA-TRANS-DUALSFP-LR), TRANSITION NETWORKS (TN-10GSFP-LRB61, TN-10GSFP-LRB62), UBIQUITI NETWORKS (UF-SM-10G), WAYSTREAM/PACKETFRONT (SFP-10GE-LR), XTRAMUS (SFP+-ER)

7. WARNINGS AND SECURITY INFORMATION



CAUTION: Class 1 visible laser radiation present. Long term viewing of the laser can be harmful to the human eye.



This equipment has been tested according to European legislation and has been found safe, non-intervening with other electronic devices and is not subject to interference from other electronic devices



Hazardous Goods; our products are fully compliant with Directive 2011/65/EU (RoHS II) and 2002/95 EC (RoHS I)

Laser Class 1

Our products comply with 21 CFR 1040.10 and 1040.11, except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007



Only (dis)connect the transceivers in an ESD Protected Area while using certified equipment and taking all necessary precautions as specified in IEC 61340-5-1.

8. DISCLAIMER AND LEGAL NOTICES

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