

QSFP-100G-BX10-SY

100GBASE-BIDI LR1 QSFP28, 10 km SMF TRANSCEIVER

1. FEATURES AND SPECIFICATIONS

- ▶ Form Factor: **QSFP28**
- ▶ Operating Data Rate: **100G**
- ▶ Protocol(s): **100GE**
- ▶ Fiber Type: **SMF**
- ▶ Technique: **BIDI LR1**
- ▶ Lane Count: **1**
- ▶ Wavelength(s)/Channel(s): **U: Tx1270 nm/Rx1330 nm
D: Tx1330 nm/Rx1270 nm**
- ▶ Nominal Distance: **10 km**
- ▶ Nominal Power Budget: **6.3 dB**
- ▶ Connector: **LC simplex**
- ▶ Temperature Range: **0 to 70°C**
- ▶ Compliance: **MSA QSFP28, SFF-8636, SFF-8679, IEEE 802.3cu**
- ▶ Monitoring: **Digital diagnostic monitor interface**
- ▶ Laser Type: **EML**
- ▶ Receiver Type: **PIN**
- ▶ Power Dissipation: **4.5 W**

2. ABSOLUTE CHARACTERISTICS

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT
SIGNAL INPUT VOLTAGE	V_{IN}	0.1	-	0.9	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}	-	-	1.3	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 D-3327	1327.5 1264.5	1330 1270	1337.5 1277.5	nm
LOS HYSTERESIS	LOS _H	0.5	-	-		dB
LOS ASSERT	LOS _A	-26	-	-12		dBm
LOS DE-ASSERT	LOS _D	-	-	-10		dBm
RX MAX. SENSITIVITY	P _{MIN}	-	-	-7.7		dBm
DAMAGE THRESHOLD	P _{MAX}	5.5	-	-		dBm

TRANSMITTER

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	
OPTICAL WAVELENGTH	λ_C	U-2733 D-3327	1264.5 1324.5	1270 1330	1277.5 1337.5	nm
OPTICAL EXTINCTION RATIO	ER	3.5	-	-		dB
SIDE MODE SUPPRESSION RATIO	SMSR	30	-	-		dBm
SPECTRAL WIDTH	$\Delta\lambda$	-	-	1		dBm
OPTICAL TRANSMIT POWER	P _{OUT}	-1.4	-	4.5		dBm

5. ORDERING INFORMATION

PART NAME	DESCRIPTION
QSFP-100G-BX10U-SY	100GBase BIDI LR1 QSFP28, Tx1270 nm/Rx1330 nm, 10 km over SMF, LC simplex, speedy
QSFP-100G-BX10D-SY	100GBase BIDI LR1 QSFP28, Tx1330 nm/Rx1270 nm, 10 km over SMF, LC simplex, speedy

6. COMPATIBILITY

ARISTA NETWORKS (QSFP-100G-LR4, QSFP-100G-LR4), CISCO SYSTEMS (QSFP-100G-LR4-S, QSFP-100G-LR4-S), FORTINET (FG-TRAN-QSFP28-LR4, FG-TRAN-QSFP28-LR4), HUAWEI (QSFP28-LR4, QSFP28-LR4), JUNIPER (QSFP-100GBASE-LR4, QSFP-100GBASE-LR4), MSA (QSFP-100G-BX10U, QSFP-100G-BX10D), NOKIA/ALCATEL-LUCENT (3HE10550AA, 3HE10550AA)

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

Speedy makes no warranties or representations, expressed or implied, of any kind relative to the information or any portion thereof contained in this document or its adaptation or use, and assumes no responsibility or liability of any kind, including, but not limited to, indirect, special, consequential or incidental damages, for any errors or inaccuracies contained in the information or arising from the adaptation or use of the information or any portion thereof. The information in this document is subject to change without notice. Speedy and the Speedy logo are registered trademarks of renewtech B.V. All other trademarks are acknowledged as registered trademarks and proprietary to their respective owners. Copyright © 2023 renewtech B.V., Dutch Chamber of Commerce no. 75699877, all rights reserved. For more information visit www.speedy.com