

# GLC-BX20-SY

## 1000BASE-LX BIDI SFP, 20 km SMF TRANSCEIVER

### 1. FEATURES AND SPECIFICATIONS

- ▶ Form Factor: **SFP**
- ▶ Operating Data Rate: **1G**
- ▶ Protocol(s): **GE, FC**
- ▶ Fiber Type: **SMF**
- ▶ Technique: **LX BIDI**
- ▶ Lane Count: **1**
- ▶ Wavelength(s)/Channel(s):
  - U: Tx1310 nm/Rx1490 nm**
  - D: Tx1490 nm/Rx1310 nm**
  - U: Tx1310 nm/Rx1550 nm**
  - D: Tx1550 nm/Rx1310 nm**
- ▶ Nominal Distance: **20 km**
- ▶ Nominal Power Budget: **13 dB**
- ▶ Connector: **LC simplex**
- ▶ Temperature Range: **0 to +70°C, -40 to +85°C**
- ▶ Compliance: **SFP MSA, SFF-8472**
- ▶ Monitoring: **Digital diagnostic monitor interface**
- ▶ Laser Type:
  - U: FP**
  - D: DFB**
- ▶ Receiver Type: **PIN**
- ▶ Power Dissipation: **1 W**

### 2. ABSOLUTE CHARACTERISTICS

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT
SIGNAL INPUT VOLTAGE	$V_{IN}$	0.4	-	1.8	V
POWER SUPPLY VOLTAGE	$V_{CC}$	-0.5	-	4.5	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	$\lambda_C$	U-3149	1470	1490	1510	nm
		D-4931	1260	1310	1360	
		U-3155	1530	1550	1570	
		D-5531	1260	1310	1360	
LOS HYSTERESIS	$LOS_H$	1	-	4	dB	
LOS ASSERT	$LOS_A$	-30	-	-	dBm	
LOS DE-ASSERT	$LOS_D$	-	-	-24	dBm	
RX MAX. SENSITIVITY	$P_{MIN}$	-	-	-22	dBm	
DAMAGE THRESHOLD	$P_{MAX}$	-3	-	-	dBm	

#### TRANSMITTER

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	
OPTICAL WAVELENGTH	$\lambda_C$	U-3149	1260	1310	1360	nm
		D-4931	1470	1490	1510	
		U-3155	1260	1310	1360	
		D-5531	1480	1550	1580	
OPTICAL EXTINCTION RATIO	ER	9	-	-	dB	
SIDE MODE SUPPRESSION RATIO	SMSR	30	-	-	dBm	
SPECTRAL WIDTH	$\Delta\lambda$	-	-	4	dBm	
OPTICAL TRANSMIT POWER	$P_{OUT}$	-9	-	-3	dBm	

## 5. ORDERING INFORMATION

PART NAME	DESCRIPTION
<b>GLC-BX20U-3149-SY</b>	1000Base LX BIDI SFP, Tx1310 nm/Rx1490 nm, 20 km over SMF, LC simplex, speedy
<b>GLC-BX20U-3149-I-SY</b>	1000Base LX BIDI SFP, Tx1310 nm/Rx1490 nm, 20 km over SMF, LC simplex, Industrial temperature -40 to +85°C, speedy
<b>GLC-BX20D-4931-SY</b>	1000Base LX BIDI SFP, Tx1490 nm/Rx1310 nm, 20 km over SMF, LC simplex, speedy
<b>GLC-BX20D-4931-I-SY</b>	1000Base LX BIDI SFP, Tx1490 nm/Rx1310 nm, 20 km over SMF, LC simplex, Industrial temperature -40 to +85°C, speedy
<b>GLC-BX20U-3155-SY</b>	1000Base LX BIDI SFP, Tx1310 nm/Rx1550 nm, 20 km over SMF, LC simplex, speedy
<b>GLC-BX20U-3155-I-SY</b>	1000Base LX BIDI SFP, Tx1310 nm/Rx1550 nm, 20 km over SMF, LC simplex, Industrial temperature -40 to +85°C, speedy
<b>GLC-BX20D-5531-SY</b>	1000Base LX BIDI SFP, Tx1550 nm/Rx1310 nm, 20 km over SMF, LC simplex, speedy
<b>GLC-BX20D-5531-I-SY</b>	1000Base LX BIDI SFP, Tx1550 nm/Rx1310 nm, 20 km over SMF, LC simplex, Industrial temperature -40 to +85°C, speedy

## 6. COMPATIBILITY

ACCEDIAN NETWORKS (7ST-000, 7SU-000), ADTRAN (1200487G10, 1200487G20, 1442110G1, 1442110G2, 1442120G1), ADVA (0061003013, 0061003014, 0061003015, 1061705876-01, 1061705877-01), ALCATEL-LUCENT ENT. (SFP-GIG-BX-D, SFP-GIG-BX-U), ALLIED TELESIS (AT-SPBD10-13, AT-SPBD10-14, AT-SPBD20-14), ARISTA NETWORKS (SFP-1G-LX), ARUBA NETWORKS/HP NETWORK (J4859C, J9142B, J9143B), BAROX (AC-SFP-BIA-LXE, AC-SFP-BIB-LXE), BINTEC (SFP-LC-TX/LX/LH), BLACKBOX (LFP420), BROCADE (E1MG-LX-OM), BROCADE/RUCKUS (E1MG-BXD, E1MG-BXU), CALIX (100-01667), CIENA (XCVR-010U31, XCVR-B10U49), CIENA/NORTEL (AA1419069-E6, AA1419070-E6, NTPP58BD, NTPP59BD), CISCO SYSTEMS (GLC-BX-D, GLC-BX-U), CISCO SYSTEMS/LINKSYS (MGBBX1, MGBBX2), COMNET (SFP-12B, SFP-BXD, SFP-BXU), CORIAN/TCELLABS (81.S1GBEBX1153S, 82.S1GBEBX1153S), CTC UNION (ISFP-S7020-WB-D), CYAN (280-0105-00, 280-0106-00), DELL (407-10588, 407-BB00), DELL/FORCE10 (GP-SFP2-1Y-BXD, GP-SFP2-1Y-BXU), DRAYTEK (SFP.0BL.621.202), EDGE CORE (ET4203-BX20D), EXTREME (10056, 10057), EXTREME/ENTERASYS (MGBIC-BX10-D, MGBIC-BX10-U), FIBERPLEX (SFP-SC24BD-5531-B), FIBROLAN (SF1G-SF15), FORTINET (FG-TRAN-LX), HIRSCHMANN (SFP-GIG-BA-LX/LC, SFP-GIG-BB-LX/LC-EEC), HP H3C (JD098B, JD099B, JD119B), HUAWEI (OGEBIDI10, OGEBIDI11, SFP-GE-LX-SM1310-BIDI, SFP-GE-LX-SM1490-BIDI, SFP-GE-LX-SM1550-BIDI), INFINERA/TRANSMODE (TRX100080, TRX100081), INTEL (SFP-LX), JUNIPER (EX-SFP-GE10KT13R14, EX-SFP-GE10KT14R13, SFP-GE10KT13R14, SFP-GE10KT14R13, SFP-GE20KT15R13), JUNIPER/BTI SYSTEMS (BP3AM5PB, BP3AM5QB), KEYMILE (37973096, 37973100), KORENIX (SFPGLX20B15D), LANCOM (SFP-LX-LC1), LENOVO/IBM (26R0808), LEVELONE (SFP-9221, SFP-9331), MARCONI (SU57AE), MIKROTIK (S-35LC20D, S-53LC20D), MOXA (SFP-1G20BLC), MRV (SFP-GD-BX34, SFP-GD-BX43), MSA (GLC-BX20D-4931, GLC-BX20D-5531, GLC-BX20U-3149, GLC-BX20U-3155), NETGEAR (AGM732F), NOKIA SIEMENS NETWORKS (V50017-U402-K500, V50017-U412-K500), NOKIA/ALCATEL-LUCENT (1AB350870001, 1AB350870002, 1AB393080006, 3FE25772AA, 3FE25772AB, 3HE00868AA, 3HE00868AB, SFP-GIG-BX-D), NOKIA-SIEMENS/ATRICA (AT10077-0D-R), PBN (SFP-GE3149-LCPC, SFP-GE4931-LCPC), PERLE (PSFP-1000D-S1LC10D-XT, PSFP-1000-S1LC10D, PSFP-1000-S1LC10U), PLANET (MGB-LB20), RAD (SFP-17AD, SFP-17BD), RAISECOM (USFP-GB/SS532-DL), SIEMENS (6GK6000-8FB52-0AA0), TP-LINK (TL-SM321A, TL-SM321B), TRANSITION NETWORKS (TN-SFP-BXD, TN-SFP-BXU, TN-SFP-LXB22), TRENDNET (TEG-MGBS10D5), UBIQUITI NETWORKS (SFP-BIDI-1310-10, SFP-BIDI-1490-10, UF-SM-1G-S-YE), WAYSTREAM/PACKETFRONT (SFP-1000BASE-BX20-D1550LC), WESTERMO (1100-0558, 1100-0559), ZYXEL (SFP-BX1310-10-D, SFP-BX1490-10-D, SFP-BX1550-20-D)

## 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

Speeddy 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. Speeddy and the Speeddy 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.speeddy.com](http://www.speeddy.com)