

OPTICAL RETURN LOSS TEST SET

BRT-320A

NETWORK TESTING—OPTICAL



Features Sous-titre

- Built-in thermoelectrically cooled (TEC) laser(s)
- Range of 0 dB to -70 dB
- Quick and easy to operate
- Rugged, field-ready
- Stores up to 300 readings

Fast Stabilization

EXFO's BRT-320A is a field-ready return loss test set offered in five configurations: 1310 nm, 1550 nm or 1625 nm; dual-wavelength 1310/1550 nm or 1550/1625 nm. All come equipped with rapidly stabilizing TEC lasers and low-drift photodetectors to ensure constant optical return loss (ORL) measurements year after year.

Built-In User-Friendliness

Use the BRT-320A to read backreflection from 0 dB to -70 dB and easily store up to 300 readings in a non-volatile memory. ORL readings appear directly on the large, backlit LCD. An ORL zero function accounts for incidental backreflections before the point of measurement and complies with Bellcore optical continuous wave reflectometer (OCWR) requirements. In User Calibration mode, you can calibrate the unit to a known reflection. Other features include three-way powering (rechargeable NiCd battery pack, 9 V battery, AC adapter/charger), 0.01 dB resolution, ± 0.1 dB linearity, internal InGaAs detector, low-battery indicator and a protective holster with shoulder strap.

Reveal Return Loss Problems

Many digital and analog fiber systems require ORL characterization. ORL along a fiber span is a combination of Rayleigh scattering and Fresnel reflections. Together, these phenomena can reduce fiber system performance and increase bit error rate (BER) by degrading transmitter stability. The BRT-320A measures cumulative link return loss and individual component reflectance to reveal potential ORL problems before they seriously affect your applications.

Versatile

The BRT-320A is ideal for local and long-distance Telco, CATV, utility, broadband and transmission equipment manufacturing applications. These environments often require complete network ORL characterization and component reflectance verification. The BRT-320A also functions as a stable, continuous-wavelength light source for attenuation measurements. Other applications include fiber component and cable manufacturing.

SPECIFICATIONS ^a

Model	BRT-320A-02BLC-58	BRT-320A-03BLC-58	BRT-320A-23BLC-58	BRT-320A-04BLC	BRT-320A-34BLC
Wavelength (nm)	1310 ± 15	1550 ± 15	1310/1550 ± 15	1625 ± 15	1550/1625 ± 15
Spectral width (rms) ^b (nm)	< 5	< 5	< 5	< 5	< 5
Output power stability (dB)					
15 minutes ^c	± 0,01	± 0,01	± 0,02	–	–
1 hour ^d	± 0,05	± 0,05	± 0,06	–	–
Temperature stability ^e (dB)	± 0,2	± 0,2	± 0,3	–	–
Reflection range (dB)	0 to –70	0 to –70	0 to –70	0 to –70	0 to –70
Display resolution ^f (dB)	0,01	0,01	0,01	0,01	0,01
Linearity ^g (dB)	± 0,1	± 0,1	± 0,1	± 0,1	± 0,1
Uncertainty (accuracy) ^g (dB)	± 0,5	± 0,5	± 0,5	± 0,5	± 0,5
Minimum output power (dBm)	–6,5	–6,5	–7,5	–3	–9/–7
Polarization sensitivity ^h (dB)	± 0,15	± 0,15	± 0,15	± 0,15	± 0,15

GENERAL SPECIFICATIONS ^a

Size (H x W x D)		21 cm x 11 cm x 5 cm	(8 3/4 in x 4 1/2 in x 2 in)
Weight	unit	0,8 kg	(1 3/4 lb)
	shipping	2,5 kg	(5 1/2 lb)
Temperature	operating	–10 °C to 40 °C	(14 °F to 104 °F)
	storage	–30 °C to 60 °C	(–22 °F to 140 °F)
Relative humidity		0 % to 95 % non-condensing	
Power		Built-in NiCd batteries (10 hours of operation), 9 V alkaline battery backup, AC adapter/charger	

ORDERING INFORMATION

BRT-320A-XXBLC-XX

Source code ■

02BLC = 1310 nm TEC laser
03BLC = 1550 nm TEC laser
23BLC = 1310/1550 nm TEC laser
04BLC = 1625 nm TEC laser
34BLC = 1550/1625 nm TEC laser

Connector code ■

EA-EUI-28 = APC/DIN 47256
EA-EUI-89 = APC/FC narrow key
EA-EUI-91 = APC/SC
EA-EUI-95 = APC/E-2000

With EA, a standard test jumper is provided:

EUI-28 = TJ-B86-86
EUI-89 = TJ-B58-58
EUI-91 = TJ-B88-88
EUI-95 = TJ-B96-96

Example: BRT-320A-02BLC-EA-EUI-89

STANDARD ACCESSORIES

User Guide, AC adapter/charger, NiCd batteries, 9 V alkaline battery, carrying case, protective holster, shoulder strap, mandrel tool, complimentary test jumper, and Certificate of Compliance.

SAFETY

This product complies with 21 CFR 1040.10 and IEC 60825-1: Ed 1,1 1998:
CLASS 1 LASER PRODUCT

NOTES

- Characterized at 23 °C ± 2 °C (70 °F ± 77 °F).
- rms = root mean square.
- Typical, after 5-minute warmup (measurement mode activated only after warmup).
- Typical, after a 15 minute warmup.
- For temperatures ranging from –10 °C to 40 °C (14 °F to 104 °F).
- From 0 dB to –30 dB.
- For reflection measurements from –15 dB to –50 dB. Connector on measurement port must cause less than –50 dB of reflection to maintain resolution.
- Typical.

Rugged Handheld Solutions

OPTICAL

- OLSs
- Power meters
- Light sources
- Talk sets

COPPER ACCESS

- ADSL/DSL+, SHDSL, VDSL test sets
- VoIP and IPTV test sets
- Ethernet test sets
- POTS test sets

Platform-Based Solutions

OPTICAL FIBER

- OTDRs
- OLSs
- ORL meters
- Variable attenuators

DWDM TEST SYSTEMS

- OSAs
- PMD analyzers
- Chromatic dispersion analyzer

TRANSPORT AND DATA COM

- Next Generation SONET/SDH and OTN testers
- SONET/DSN (DSO to OC-192) testers
- SDH/PDH (64 kb/s to STM-64) testers
- 11/13, 1-1 testers
- 10/100M and Gigabit Ethernet testers
- Fibre Channel testers
- 10 Gigabit Ethernet testers

EXFO is certified ISO 9001 and attests to the quality of these products. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. EXFO has made every effort to ensure that the information contained in this specification sheet is accurate. All of EXFO's manufactured products are compliant with the European Union's WEEE directive. For more information, please visit www.EXFO.com/recycle. However, we accept no responsibility for any errors or omissions, and we reserve the right to modify design, characteristics and products at any time without obligation. Units of measurement in this document conform to SI standards and practices. Contact EXFO for prices and availability or to obtain the phone number of your local EXFO distributor.

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EXFO Corporate Headquarters > 400 Godin Avenue, Quebec City (Quebec) G1M 2K2 CANADA | Tel.: 1 418 683-0211 | Fax: 1 418 683-2170 | info@EXFO.com

Toll-free: 1 800 663-3936 (USA and Canada) | www.EXFO.com

EXFO Montreal	2650 Marie-Curie	St-Laurent (Quebec) H4S 2C3 CANADA	Tel.: 1 514 856-2222	Fax: 1 514 856-2232
EXFO Toronto	160 Drumlin Circle	Concord (Ontario) L4K 3E5 CANADA	Tel.: 1 905 738-3741	Fax: 1 905 738-3712
EXFO America	3701 Plano Parkway, Suite 160	Plano, TX 75075 USA	Tel.: 1 800 663-3936	Fax: 1 972 836-0164
EXFO Europe	SOUTHAMPTON > Omega Enterprise Park, Electron Way	Chandlers Ford, Hampshire S053 4SE ENGLAND	Tel.: +44 2380 246810	Fax: +44 2380 246801
EXFO Asia	151 Chin Swee Road, #03-29 Manhattan House	SINGAPORE 169876	Tel.: +65 6333 8241	Fax: +65 6333 8242
EXFO China	No.88 Fuhua, First Road Central Tower, Room 801, Fujian District	Shenzhen 518048, CHINA	Tel.: +86 (755) 8203 2300	Fax: +86 (755) 8203 2306
	Beijing New Century Hotel Office Tower, Room 1754-1755 No. 6 Southern Capital Gym Road	Beijing 100044 P. R. CHINA	Tel.: +86 (10) 6849 2738	Fax: +86 (10) 6849 2662