



- Four instruments in one
- 50 dB dynamic range
- Clear digital voice transmission
- Hands-free operation
- Three-way powering
- Multiparty option
- Rugged casing



### Flexibility

The VCS-20A brings together four convenient tools in a single test set, combining a full-duplex digital talk set, a stable light source, a 2 kHz tone generator and a 2 kHz tone detector. The VCS-20A can be configured for singlemode and multimode applications with LED or laser sources.

### Efficient applications

The VCS-20A fulfills more than simple communication needs. In fact, the light source is calibrated and is stable in time and temperature. Use continuous wave selection to perform attenuation and insertion loss tests. Why carry an extra source when one VCS-20A does it all?

### Extended dynamic range

Two new configurations have extended the VCS-20A's dynamic range to 50 dB. This wide range makes it possible to use new applications requiring clip-on devices.

### Easy-to-use talk set

This unit is rugged and provides high-quality voice communication over a single fiber. The unit's hands-free operation is convenient and simple: press the Talk button to send or receive a call. As usual, conversations are as clear as if both operators were in the same room.

### Powerful and durable

For hours of flawless operation, the three-way powering function automatically selects the best alternative among the choices of rechargeable NiMH battery, 9 V alkaline backup and AC adapter/charger input. Its rugged waterproof casing and protective holster make the VCS-20A the preferred field-testing instrument in the outside plant industry.

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SPECIFICATIONS<sup>1</sup>

Model	-02C	-02BL	-02BL-ER	-03BL	-03BL-ER
Emitter type	LED	laser	laser	laser	laser
Wavelength (nm)	1300 ± 30	1310 ± 25	1310 ± 25	1550 ± 25	1550 ± 25
Spectral width (typical) (nm)	80	5	5	5	5
Optimum fiber type (µm)	50/125	9/125	9/125	9/125	9/125
Distance range <sup>2</sup> (approximately) (km/mi.)	55/34 <sup>3</sup>	128/80	142/89	180/112	200/125
Power output (dBm)/dynamic range (dB)					
	9/125 µm	-32/13	-5/45	-5/50	-5/50
	50/125 µm	-17/33	-5/30	-5/30	-5/35
	62.5/125 µm	-17/26	-5/28	-5/28	-5/33
Stability (dB)					
	1 hour <sup>4</sup>	± 0.05	± 0.10	± 0.10	± 0.10
	8 hours <sup>5</sup>	± 0.20	± 0.20	± 0.25	± 0.25

## GENERAL SPECIFICATIONS

Size (H x W x D)		22 cm x 11 cm x 5 cm	(8 3/4 in x 4 1/2 in x 2 in)
Weight	unit	0.88 kg	(1 3/4 lb)
	shipping	2.5 kg	(5 lb)
Temperature	operating	-10 °C to 50 °C	(14 °F to 122 °F)
	storage	-30 °C to 60 °C	(-22 °F to 140 °F)
Relative humidity		0 % to 95 % non-condensing	
Power		Built-in rechargeable NiMH battery lasts 17 hours from full charge, recharges in 6 hours; 9 V battery backup supply lasts 10 hours. Automatic transfer to disposable batteries when rechargeable battery pack runs low. AC adapter/charger for continuous use.	

## STANDARD ACCESSORIES

User guide, AC adapter/charger, built-in rechargeable batteries, two 9 V alkaline batteries, carrying case, protective holster, shoulder strap, headset with boom microphone and Certificate of Compliance.

## Notes

- All tests performed at 23°C ± 1°/73.4°F ± 4° after 1 minute warm-up period.
- 9/125 µm SMF 28 CPC 3 singlemode fiber.
- 50/125 µm CPC 3 multimode fiber.
- After a 10-minute warm-up period.
- After a 20-minute warm-up period.
- For multimode sources only.
- For singlemode sources only.

## SAFETY

This product complies with 21 CFR 1040.10 and 1040.11, and with IEC 60825-1:1993+A2:2001.

CLASS 1 LASER PRODUCT  
CLASS 1 LED PRODUCT

## ORDERING INFORMATION

## VCS-20A-XX-XX

## Source

- 02C = 1300 nm LED multimode  
 02BL = 1310 nm laser singlemode  
 03BL = 1550 nm laser singlemode  
 02BL-ER = Extended range 1310 nm laser singlemode  
 03BL-ER = Extended range 1550 nm laser singlemode

## Connector

- 50 = FC/PC<sup>6</sup>  
 54 = SC/PC<sup>6</sup>  
 58 = FC/APC narrow key  
 74 = ST/PC<sup>6</sup>  
 89 = FC/UPC  
 90 = ST/UPC  
 91 = SC/UPC  
 EI-EUI-28 = UPC/DIN 47256  
 EI-EUI-76 = UPC/HMS-10/AG  
 EI-EUI-89 = UPC/FC narrow key  
 EI-EUI-90 = UPC/ST  
 EI-EUI-91 = UPC/SC  
 EI-EUI-95 = UPC/E-2000  
 EA-EUI-28 = APC/DIN 47256<sup>7</sup>  
 EA-EUI-76 = UPC/HMS-10/AG  
 EA-EUI-89 = APC/FC narrow key<sup>7</sup>  
 EA-EUI-90 = UPC/ST  
 EA-EUI-91 = APC/SC<sup>7</sup>  
 EA-EUI-95 = APC/E-2000<sup>7</sup>

Example: VCS-20A-02BL-EI-EUI-89

Find out more about EXFO's extensive line of high-performance portable instruments by visiting our website at [www.exfo.com](http://www.exfo.com).



## Rugged Handheld Solutions

- OLTS
- Power meter
- Light source
- Talk set



## Optical Fiber

- OTDR
- OLTS
- ORL meter
- Switch

## DWDM Test Systems

- OSA
- PMD analyzer
- Chromatic dispersion analyzer
- Multiwavelength meter

## Telecom/Datacom

- 10/100 and Gigabit Ethernet
- SONET/SDH (DS0 to OC-192c)
- SDH/PDH (64 kb/s to STM-64c)

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

Toll-free: 1 800 663.3936 (USA and Canada) | [www.exfo.com](http://www.exfo.com)

EXFO America	3701 Plano Park, Suite 160	Plano, TX 75075 USA	Tel.: 1 800 663-3936	Fax: 1 972 836-0164
EXFO Europe	Le Dynasteur, 10/12 rue Andras Beck	92366 Meudon la Forêt Cedex FRANCE	Tel.: +33.1.40.83.85.85	Fax: +33.1.40.83.04.42
EXFO Asia-Pacific	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, Futian District	Shenzhen 518048, CHINA	Tel.: +86 (755) 8203 2300	Fax: +86 (755) 8203 2306

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