APPLICATIONS:

Insertion Loss and Link Loss Testing

The 522B standard optical power meter is capable of performing measurements from +3dBm to -75dBm, making it ideal for general single-mode and multimode fiber optic testing.

A large, backlit LCD display enables users to easily view measured optical power levels and the calibration wavelength in use. A color-coded, user-friendly keypad and simple, intuitive controls make optical power measurements, data storage and retrieval, and report printing easy and efficient.

Up to 1,000 separate data records—each containing a power reading, reference value, calibration wavelength, date, and time information—can be stored and retrieved from the instrument's non-volatile memory. Stored measurement data can be printed via an RS232 port on the side of the instrument or downloaded to a PC-compatible workstation using *fiber*WORKS® Connect software by Tempo. The 522B can also be operated remotely using Connect, permitting the automation of tedious or complex measurement tasks.

A number of additional features make the 522B ideal for use in both field and laboratory environments. The protective rubber jacket cushions the unit from impact and prevents damage to the optical interface. A rechargeable nickel-metal hydride (NiMH) battery pack or four AA-size alkaline batteries provide up to 14 hours of continuous operation. The 522B can also be operated for extended periods on the benchtop when used with an AC power supply.

FEATURES

- 1mm indium-gallium-arsenide (InGaAs) photodetector
- Large, backlit 2.5 x 2 inch LCD display
- Rugged, splashproof, balanced case
- Protective rubber boot shields the optical port from damage
- Powered by a rechargeable nickel-metal hydride (NiMH) battery pack, four alkaline batteries, or AC adapter
- Built-in NiMH battery charger with external power supply
- Data storage for 1,000 measurements
- RS232 interface for instrument configuration and data transfer to a PC-compatible workstation or serial printer
- *fiber*WORKS® Connect application enables remote testing using the 522B and data uploads or downloads
- Pass/Fail testing with audible signal
- Manual or timer-driven data logging for periods from one second to one hour
- Snap-On Connector (SOC) interface adapts to all industry standard fiber optic connectors and other less common types

KEY SPECIFICATIONS

Measurement range	+3 to -75dBm
Absolute accuracy	±0.25dB
Wavelength range	840nm to 1700nm
Cal. wavelengths	850nm, 980nm, 1310nm, 1480nm, 1550nm, 1625nm
Resolution (selectable)	0.001dB/0.01dB/0.1dB/0.01pW
Linearity:	
-3dBm to -65dBm[1]	±0.05dB

1 At 1310nm.

SPECIFICATIONS[1]

Subject to change without notice

Detector type	1mm InGaAs
Measurement range	+3dBm to -75dBm
Wavelength range 8	40nm to 1700nm
N.I.S.T. traceable calibration wavelengths	850nm, 980nm, 1310nm, 1480nm, 1550nm, 1625nm
Absolute accuracy at calibration conditions	±0.25dB
Linearity at 1310nm:	
±0.5dB	+3dBm to -3dBm
±0.05dB	-3dBm to -65dBm
±0.5dB	< -65dBm
Polarization dependency	< 0.1dB
Repeatability	< 0.05dB
Measurement modes	dB, dBm, Watt (mW, µW, nW, pW)
Connector interface	Snap-On Connector (SOC) interface
Resolution (selectable)	0.001dB/0.01dB/0.1dB/0.01pW
Power requirements	Rechargeable nickel-metal hydride (NiMH) or four alkaline batteries provide more than 14 hours of continuous operation. AC input for prolonged operation on the benchtop.
Data storage:	
Data recorded	dB/dBm/Watt measurement, reference value, wavelength, time, date
Storage capacity	1,000 data record sets
Remote control interface	RS232 serial port. 9600 baud, 8 data bits, no parity, 2 stop bits
Environmental:	
Operating temp.	-18°C to +50°C
Storage temp.	-40°C to +70°C
Humidity	0 to 95% RH, non-condensing
Dimensions with rubber boot	19.30 x 10.92 x 5.84 cm (7.60 x 4.30 x 2.30 in.)
Weight	1.08 kg (2.39 lbs.)

1 Within specified operating environment of +20°C to +25°C.

ORDERING INFORMATION

User will need to purchase a Snap-On Connector (SOC) adapter for use of the instrument. Please specify the desired connector adapter type when ordering (see Adapter Table below). Additional SOC adapters may also be ordered separately.

Part No.	Description
522B	522B optical power meter

SOC Adapter Table

Part No.	Description
1001	Blank
1010	DIN 47256
1020	NTT/FC-PC
1030	AT&T/ST-PC
1038	MIL-T-29504 optical termini
1040	HMS-10 (2.5mm)
1047	Mini-BNC
1050	Diamond HMS-0 (3.5mm)
1057	Stratos 430/Holtek 38000
1062	NTT/SC-PC
1081	Radiall VFO
1086	Diamond HMS-10A (SMA-2.5)
1087	SMA-905/906
10E0	Radiall EC
10E2	Diamond E-2000
10TB	Simplex TOSLINK/Spectran J-pin
10TD	TR/TX set, duplex TOSLINK/Spectran J-pin
10TR	Duplex TOSLINK TX
10TX	Duplex TOSLINK TR
10ZP	H-P Versalink/Spectran V/Z-pin

Tempo
A Textron Company

Knowledge. Solutions. Success.