fiberTOOLS™

265A
1310nm Laser Source

Features

- 1310nm wavelength
- Fabry-Perot laser diode
- Stable calibrated output
- Proven, reliable, and compact design
- Easy to use—two buttons control all essential functions
- Continuous wave and modulated output modes
- Precision Universal Connector Interface (UCI) adapts to all industry standard fiber optic connectors
- Long battery life—more than 36 hours of continuous operation
- User-selectable auto-shutoff
- AC power converter and adapter available for prolonged or benchtop use
- Rugged and splashproof

Key Specifications

Nominal wavelengths	1310nm
Wavelength range	±30nm
Spectral width (RMS)	< 5nm
Stability:	
1 hr. max. deviation	< 0.02dB
10 hrs. max. deviation	< 0.10dB
24 hrs. max. deviation	±0.2dB
Power vs. temperature	±0.5dB
Power output:	
Minimum	-8dBm
Typical (±0.5dB)	-7dBm

Applications

Insertion Loss and Link Loss Testing

Paired with a RIFOCS 555B or 558B optical power meter, the 265A serves as an ideal general purpose 1310nm laser source for measuring the insertion loss of single-mode fiber optic cables and connectors. The 265A can also be used with an optical power meter for dual wavelength link loss testing of installed cable plants.

The 265A laser source is particularly useful for testing and maintaining telecommunications systems and other long wavelength single-mode fiber optic networks operating at 1310nm.

The 265A laser source is fitted with a precision Universal Connector Interface (UCI), which ensures maximum accuracy and repeatability when performing critical measurements on fiber optic systems. A comprehensive range of UCI adapters is available for all industry standard fiber optic connectors.

RIFOCS Corporation
Fiber Optic Instruments & Components

1340 Flynn Rd. Camarillo, CA 93012
Phone: (805) 389-9800 Fax: (805) 389-9808
http://www.rifocs.com

fiberTOOLS™

265A
1310nm Laser Source

Ordering Information

One Universal Connector Interface (UCI) adapter is included with the 265A 1310nm laser source. Please specify the desired connector adapter type when ordering using the UCI Adapter Table, below. Additional UCI adapters may also be ordered separately.

Part No.	Description
265A	265A 1310nm laser source
90AC	AC power converter

UCI Adapter Table

Adapter Code	Connector Type
AD-234	DIN 47256
AE2-10	Diamond E-2000
APC-10	NTT/FC-PC
AMS-00	Diamond HMS-0 (3.5mm)
AMT-10	Diamond HMS-10A (SMA-2.5)
ASM-90	SMA-905/906
AHP-10	HMS-10/HP (2.5mm)
AML-38	MIL-T-29504/4 and /5
ASC-10	NTT/SC-PC
ATS-16	AT&T/ST-PC

Specifications[1]

Subject to change without notice

Center wavelengths:	
Nominal	1310nm
Range (typical)	±30nm
Spectral width (RMS)	< 5nm
Stability:	
1 hour maximum deviation	< 0.02dB
10 hours maximum deviation	< 0.10dB
24 hours maximum deviation	±0.2dB
Power vs. temperature[2]	±0.5dB
Power output:	
Minimum	-8dBm
Typical (factory adjusted)	-7dBm ±0.5dB
Modulation frequencies	270Hz, 1kHz, and 2kHz ±5%
Power requirements	Two AA-size 1.5V alkaline batteries provide more than 36 hours of continuous operation
Connector interface	Universal Connector Interface, physical contact (UCI-PC)
Environmental:	
Operating temp.	-15°C to +55°C
Storage temp.	-30°C to +70°C
Humidity	0 to 95% RH, non-condensing
Dimensions	7.2 x 14.2 x 3.5 cm (2.8 x 5.6 x 1.4 in.)
Weight	215g (7.6 oz.)
CDRH laser class	Class I

[1] Within specified ambient environment of +20°C to +25°C.

[2] Instrument is ramped-up from -15°C to +55°C in 5° steps. The instrument is allowed to stabilize at each of these temperatures for 10 minutes. The initial reference power level is measured at approximately +25°C.

RIFOCS Corporation
Fiber Optic Instruments & Components
ISO 9001
DS-HH265A Rev. B

1340 Flynn Rd. Camarillo, CA 93012
Phone: (805) 389-9800 Fax: (805) 389-9808
http://www.rifocs.com

fiberTOOLS™

252B
850nm and 1300nm Dual LED Source

Features

- 850nm and 1300nm wavelengths
- Stable calibrated output
- Proven, reliable, and compact design
- Easy to use—three buttons control all essential functions
- Continuous wave and modulated output modes
- Snap-On Connector (SOC) interface adapts to all industry standard fiber optic connectors and other less common types
- Long battery life—more than 24 hours of continuous operation
- User-selectable auto-shutoff
- AC power converter and adapter available for prolonged or benchtop use
- Rugged and splashproof
- Economically priced

Key Specifications

Nominal wavelengths	850nm	1300nm
Wavelength range	840-880nm	1270-1345nm
Max. spectral width	55nm	150nm
Stability, 1 hour	±0.05dB	±0.05dB
Typical power output:		
100/140µm GI MM	-13dBm	-20dBm
62.5/125µm GI MM	-13dBm	-20dBm
50/125µm GI MM	-14dBm	-21dBm
9/125µm SM	N/A	-38dBm
Power output uncertainty	±1dB	±1dB

Applications

Insertion Loss and Link Loss Testing

Paired with a RIFOCS 555B or 557B optical power meter, the 252B serves as an economical dual wavelength LED source for testing the insertion loss of multimode and single-mode fiber optic cables and connectors. The 252B can also be used with an optical power meter for link loss testing of installed cable plants.

The 850nm and 1300nm calibrated output wavelengths make the 252B dual LED source particularly useful for testing and maintaining local area networks (LANs), premises networks, and fiber distributed data interfaces (FDDI).

In addition, a broad range of Snap-On Connector (SOC) adapters for both industry standard fiber optic connectors, and many less common types, makes the 252B an indispensable tool for LAN service technicians and others working with light-based transmission systems.

RIFOCS Corporation
Fiber Optic Instruments & Components

1340 Flynn Rd. Camarillo, CA 93012
Phone: (805) 389-9800 Fax: (805) 389-9808
http://www.rifocs.com

fiberTOOLS™

252B
850nm and 1300nm Dual LED Source

Ordering Information

Two Snap-On Connector (SOC) adapters are included with the 252B dual LED source. Please specify the desired connector adapter types when ordering using the SOC Adapter Table, below. Additional SOC adapters may also be ordered separately.

Part No.	Description
252B	252B dual LED source
90AC	AC power converter

SOC Adapter Table

Adapter Code	Connector Type
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

Specifications[1]

Subject to change without notice

Center wavelengths:		
Nominal	850nm	1300nm
Range (typical)	840nm to 880nm	1270nm to 1345nm
Max. spectral width (FWHM)	55nm	150nm
Stability, 1 hour	±0.05dB	±0.05dB
Typical power output into:		
100/140µm GI MM	-13dBm	-20dBm
62.5/125µm GI MM	-13dBm[2]	-20dBm[2]
50/125µm GI MM	-14dBm	-21dBm
9/125 SM	N/A	-38dBm
Power output uncertainty	±1.0dB	±1.0dB
Modulation frequencies	270Hz, 1kHz, and 2kHz ±0.5%	
Power requirements	Two AA-size 1.5V alkaline batteries provide more than 24 hours of continuous operation	
Connector interface	Snap-On Connector (SOC) interface	
Environmental:		
Operating temp.	-15°C to +55°C	
Storage temp.	-35°C to +70°C	
Humidity	0 to 95% RH, non-condensing	
Dimensions	7.2 x 14.2 x 3.5 cm (2.8 x 5.6 x 1.4 in.)	
Weight	241g (8.5 oz.)	
CE	EN61010; EN50081-1: 1992; EN55011, Group I, Class A; EN50082-1: 1992; IEC 801-2, -3, -4	

[1] Within specified ambient environment of +20°C to +25°C.
[2] Calibrated launch level.

RIFOCS Corporation
Fiber Optic Instruments & Components
ISO 9001
1340 Flynn Rd. Camarillo, CA 93012
Phone: (805) 389-9800 Fax: (805) 389-9808
http://www.rifocs.com

fiberTOOLS™

555B
1mm InGaAs Optical Power Meter

Features

- 1mm indium-gallium-arsenide (InGaAs) photodetector
- 850nm, 1300nm, 1310nm, and 1550nm N.I.S.T. traceable calibration wavelengths
- +3 to -60dBm measurement range
- Easy to use—three buttons control all functions
- 0.01dB measurement resolution
- Relative logarithmic dB and absolute logarithmic dBm units
- Multi-wavelength reference storage—stores and recalls reference power levels for faster, more efficient measurements
- Snap-On Connector (SOC) interface adapts to all industry standard fiber optic connectors and other less common types
- Long battery life—more than 100 hours of continuous operation
- User-selectable auto-shutoff
- AC power converter and adapter available for prolonged or benchtop use
- Rugged and splashproof

Key Specifications

Detector type	1mm InGaAs
Calibration wavelengths	850, 1300, 1310, and 1550nm
Calibration traceability	U.S. N.I.S.T.
Power range	+3 to -60dBm
Absolute accuracy	±0.25dB
Resolution	±0.01dB
Polarization dependence	< 0.1dB

Applications

Insertion Loss and Link Loss Testing

The 555B 1mm InGaAs optical power meter is a rugged high quality general purpose instrument suitable for many fiber optic measurement applications.

Paired with a RIFOCS 250 Series LED source or 260 Series laser source, the 555B optical power meter is ideal for insertion loss testing of multimode and single-mode fiber optic cables and connectors. The 555B optical power meter can also be used for link loss testing of installed cable plants.

The multi-wavelength reference storage capability of the 555B optical power meter permits convenient insertion and link loss testing at different transmission windows if a 252A/252B dual LED source or 262A dual laser source is used.

Output Power Measurements

The 555B optical power meter simplifies output power measurements of transmitters and other light sources. The four calibration wavelengths, InGaAs photodetector, and wide dynamic range make the 555B optical power meter suitable for measuring the output of both LED and laser based transmitters.

In addition, a broad range of Snap-On Connector (SOC) adapters for both industry standard fiber optic connectors, and many less common types, makes the 555B an indispensible tool for technicians and others working with light-based transmission systems.

RIFOCS Corporation
Fiber Optic Instruments & Components

1340 Flynn Rd. Camarillo, CA 93012
Phone: (805) 389-9800 Fax: (805) 389-9808
http://www.rifocs.com

fiberTOOLS™

555B
1mm InGaAs Optical Power Meter

Ordering Information

One Snap-On Connector (SOC) adapter is included with the 555B optical power meter. Please specify the desired connector adapter type when ordering using the SOC Adapter Table, below. Additional SOC adapters may also be ordered separately.

Part No.	Description
555B	555B optical power meter
90AC	AC power converter

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

Specifications[1]

Subject to change without notice

Detector type	1mm indium-gallium-arsenide (InGaAs)
Calibration wavelengths	850nm, 1300nm, 1310nm, and 1550nm
Power range	+3 to -60dBm
Linearity at 1310nm and 1550nm:	
±0.5dB	+3dBm to -3dBm
±0.05dB	-3dBm to -50dBm
±0.5dB	-50dBm to -60dBm
Absolute accuracy	±0.25dB at calibration conditions
Typical wavelength dependence:	
820 to 880nm	0.033dB/nm
975 to 985nm	0.02dB/nm
1270 to 1330nm	0.005dB/nm
1500 to 1625nm	0.0024dB/nm
Polarization dependence	< 0.1dB
Resolution	±0.01dB
Power requirements	Two AA-size 1.5V alkaline batteries provide approx. 100 hours of continuous operation
Connector interface	Snap-On Connector (SOC) interface
Environmental:	
Operating temp.	-15°C to +55°C
Storage temp.	-35°C to +70°C
Humidity	0 to 95% RH, non-condensing
Dimensions	7.2 x 14.2 x 3.5 cm (2.8 x 5.6 x 1.4 in.)
Weight	250g (8.9 oz)

[1] Within specified ambient environment of +20°C to +25°C.

RIFOCS Corporation
Fiber Optic Instruments & Components
ISO 9001
1340 Flynn Rd. Camarillo, CA 93012
Phone: (805) 389-9800 Fax: (805) 389-9808
http://www.rifocs.com

fiberTOOLS™

558B
High Intensity Optical Power Meter

Features

- +27 to -30dBm measurement range[1]
- 980nm, 1310nm, and 1550nm N.I.S.T. traceable calibration wavelengths
- 0.01dB measurement resolution
- 2mm indium-gallium-arsenide (InGaAs) photodetector
- Easy to use—three buttons control all functions
- Relative logarithmic dB and absolute logarithmic dBm units
- Multi-wavelength reference storage—stores and recalls reference power levels for faster, more efficient measurements
- Snap-On Connector (SOC) interface adapts to all industry standard fiber optic connectors and other less common types
- Long battery life—more than 100 hours of continuous operation
- User-selectable auto-shutoff
- AC power converter and adapter available for prolonged or benchtop use
- Splashproof

1 At 1310nm and 1550nm. +30 to -27dBm measurement range at 980nm. To avoid thermal damage, power levels exceeding +23dBm must only be measured for a period of 2 minutes max.

Key Specifications

Detector type	2mm InGaAs
Calibration wavelengths	980, 1310, and 1550nm
Calibration traceability	U.S. N.I.S.T.
Power range	+27 to -30dBm[1]
Absolute accuracy	±0.25dB
Resolution	±0.01dB
Polarization dependence	< 0.1dB

Applications

Insertion Loss and Link Loss Testing

The 558B 2mm InGaAs optical power meter is capable of measuring significantly higher power levels than the 555B (1mm InGaAs) and 557B (3 x 3.5mm Si) instruments. With a measurement range of +27 to -30dBm[1], the 558B is particularly suited for performing measurements on CATV systems, optical amplifiers, and other high power devices.

Paired with a RIFOCS 250 Series LED source or 260 Series laser source, the 558B optical power meter is ideal for insertion loss testing of multimode and single-mode fiber optic cables and connectors. The 558B optical power meter can also be used for link loss testing of installed cable plants.

The multi-wavelength reference storage capability of the 558B optical power meter permits convenient insertion and link loss testing at different transmission windows if a 252A/252B dual LED source or 262A dual laser source is used.

Output Power Measurements

The 558B optical power meter simplifies output power measurements of optical amplifiers, transmitters, and other high output light sources. The three calibration wavelengths, 2mm InGaAs photodetector, and wide dynamic range also make the 558B suitable for a variety of other high power measurements.

In addition, a broad range of Snap-On Connector adapters for both industry standard fiber optic connectors, and other less common types, makes the 558B an indispensable tool for technicians and others working with light-based transmission systems.

RIFOCS Corporation
Fiber Optic Instruments & Components

1340 Flynn Rd. Camarillo, CA 93012
Phone: (805) 389-9800 Fax: (805) 389-9808
http://www.rifocs.com

fiberTOOLS™

558B
High Intensity Optical Power Meter

Ordering Information

One Snap-On Connector (SOC) adapter is included with the 558B optical power meter. Please specify the desired connector adapter type when ordering using the SOC Adapter Table, below. Additional SOC adapters may also be ordered separately.

Part No.	Description
558B	558B optical power meter
90AC	AC power converter

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

Specifications[1]

Subject to change without notice

Detector type	2mm indium-gallium-arsenide (InGaAs)
Calibration wavelengths	980nm, 1310nm, and 1550nm
Power range	+27 to -30dBm (1310nm and 1550nm) +30 to -27dBm (980nm only)
Linearity at 1310nm and 1550nm:	
±0.5dB	> +18dBm
±0.05dB	+18dBm to -20dBm
±0.5dB	< -20dBm
Absolute accuracy	±0.25dB at calibration conditions
Wavelength dependence:	
975 to 985nm	0.025dB/nm
1270 to 1330nm	0.0033dB/nm
1500 to 1625nm	0.0016dB/nm
Polarization dependence	< 0.1dB
Resolution	±0.01dB
Power requirements	Two AA-size 1.5V alkaline batteries provide approx. 100 hours of continuous operation
Connector interface	Snap-On Connector (SOC) interface
Environmental:	
Operating temp.	-15°C to +55°C
Storage temp.	-35°C to +70°C
Humidity	0 to 95% RH, non-condensing
Dimensions	7.2 x 14.2 x 3.5 cm (2.8 x 5.6 x 1.4 in.)
Weight	250g (8.9 oz)

[1] Within specified ambient environment of +20°C to +25°C.

RIFOCS Corporation
Fiber Optic Instruments & Components
ISO 9001
1340 Flynn Rd. Camarillo, CA 93012
Phone: (805) 389-9800 Fax: (805) 389-9808
http://www.rifocs.com

fiberTOOLS™

262A
1310nm and 1550nm Dual Laser Source

Features

- 1310nm and 1550nm wavelengths
- Fabry-Perot laser diodes
- Single output interface simplifies dual wavelength measurements
- Stable calibrated output
- Proven, reliable, and compact design
- Easy to use—three buttons control all essential functions
- Continuous wave and modulated output modes
- Precision Universal Connector Interface (UCI) adapts to all industry standard fiber optic connectors
- Long battery life—more than 50 hours of continuous operation
- User-selectable auto-shutoff
- AC power converter and adapter available for prolonged or benchtop use
- Rugged and splashproof

Key Specifications

Nominal wavelengths	1310nm	1550nm
Wavelength range	1280-1340nm	1520-1580nm
Spectral width (RMS)	< 5nm	< 5nm
Stability:		
1 hr. max. deviation	±0.05dB	±0.05dB
10 hrs. max. deviation	±0.15dB	±0.15dB
24 hrs. max. deviation	±0.2dB	±0.2dB
Power vs. temperature	±0.5dB	±0.5dB
Power output:		
Minimum	-8dBm	-8dBm
Typical (±0.75dB)	-7dBm	-7dBm

Applications

Insertion Loss and Link Loss Testing

Paired with a RIFOCS 555B or 558B optical power meter, the 262A serves as an ideal general purpose dual laser source for measuring the insertion loss of single-mode fiber optic cables and connectors. With output at 1310nm and 1550nm, the 262A can also be used with an optical power meter for dual wavelength link loss testing of installed cable plants.

The 262A dual laser source is particularly useful for testing and maintaining telecommunications systems and other long wavelength single-mode fiber optic networks. The single output interface allows the user to perform fiber optic measurements at the 1310nm or 1550nm transmission windows by pressing a button, eliminating the need to disconnect and reconnect cables when changing wavelengths.

The 262A dual laser source is fitted with a precision Universal Connector Interface (UCI), which ensures maximum accuracy and repeatability when performing critical measurements on fiber optic systems. A comprehensive range of UCI adapters is available for all industry standard fiber optic connectors.

RIFOCS Corporation
Fiber Optic Instruments & Components

1340 Flynn Rd. Camarillo, CA 93012
Phone: (805) 389-9800 Fax: (805) 389-9808
http://www.rifocs.com

fiberTOOLS™

262A
1310nm and 1550nm Dual Laser Source

Ordering Information

One Universal Connector Interface (UCI) adapter is included with the 262A dual laser source. Please specify the desired connector adapter type when ordering using the UCI Adapter Table, below. Additional UCI adapters may also be ordered separately.

Part No.	Description
262A	262A dual laser source
90AC	AC power converter

UCI Adapter Table

Adapter Code	Connector Type
AD-234	DIN 47256
AE2-10	Diamond E-2000
APC-10	NTT/FC-PC
AMS-00	Diamond HMS-0 (3.5mm)
AMT-10	Diamond HMS-10A (SMA-2.5)
ASM-90	SMA-905/906
AHP-10	HMS-10/HP (2.5mm)
AML-38	MIL-T-29504/4 and /5
ASC-10	NTT/SC-PC
ATS-16	AT&T/ST-PC

Specifications[1]

Subject to change without notice

Center wavelengths:		
Nominal	1310nm	1550nm
Range (typical)	1280nm to 1340nm	1520nm to 1580nm
Spectral width (RMS)	< 5nm	< 5nm
Stability:		
1 hour maximum deviation	±0.05dB	±0.05dB
10 hours maximum deviation	±0.15dB	±0.15dB
24 hours maximum deviation	±0.2dB	±0.2dB
Power vs. temperature[4]	±0.5dB	±0.5dB
Power output[2, 3]:		
Minimum	-8dBm	-8dBm
Typical (factory adjusted)	-7dBm ±0.75dB	-7dBm ±0.75dB
Modulation frequencies	270Hz, 1kHz, and 2kHz ±5%	
Power requirements	Two AA-size 1.5V alkaline batteries provide more than 50 hours of continuous operation	
Connector interface	Universal Connector Interface, physical contact (UCI-PC)	
Environmental:		
Operating temp.	-15°C to +55°C	
Storage temp.	-30°C to +70°C	
Humidity	0 to 95% RH, non-condensing	
Dimensions	7.2 x 14.2 x 3.5 cm (2.8 x 5.6 x 1.4 in.)	
Weight	227g (8 oz.)	
CDRH laser class	Class I	

[1] Within specified ambient environment of +20°C to +25°C.
[2] In modulated mode power is 3dB lower.
[3] With return loss > 30dB.
[4] Instrument is ramped-up from -15°C to +55°C in 5° steps. The instrument is allowed to stabilize at each of these temperatures for 10 minutes. The initial reference power level is measured at approximately +25°C.

RIFOCS Corporation
Fiber Optic Instruments & Components
ISO 9001
1340 Flynn Rd. Camarillo, CA 93012
Phone: (805) 389-9800 Fax: (805) 389-9808
http://www.rifocs.com