

SPECIALIZED PRODUCTS CATALOG



Telecommunications



Aeronautical



Railway



Industry



Medical



Defense



Labs





Tempo® Communications offers a complete line of innovative and industry-leading test & measurement solutions for the communication service provider industry. Our expertise and innovative solutions address all stages of network deployment enabling the development, installation, and maintenance of xDSL, Fiber, Cable & Wireless networks.

Tempo has been building cables for over 30 years for the Military and Aerospace market. We are ITAR Registered and soon to be AS9100 certified to build extremely complex custom cable assemblies and harnesses to meet your specifications. Our in-house Engineering team is available to meet your needs.

Through our strategic acquisitions in Fiber & Ethernet segments, Tempo Communications has emerged as the leading provider of next generation test & measurement solutions in the global communications industry. We serve customers across the globe from the Americas , Europe, Africa and Asia. Our success is built on a long track record of delivering high quality innovative solutions enabling technicians to achieve their goals faster and with confidence.

Tempo Communications, Inc.

Quality Management Systems

Certificates:



ITAR
REGISTERED



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525 PRODUCT FAMILY

SMART CABLE ACCEPTANCE TESTING

The 525 family is a rugged and dependable line of smart cable acceptance testing instruments designed for telecom and datacom high count cable acceptance testing. The 525 delivers link loss testing the smarter way, creating the easiest means for testing fiber optic cable in the field.

- Automated bi-directional testing
- Optical return loss measurements
- Dual wavelength insertion loss measurements
- Multi-mode and Single-mode models user settable PASS/FAIL thresholds
- Communications between units via messaging
- Wide dynamic range optical power meter
- Test record storage and data management software
- Rugged outside plant instrument package
- Universal connector interface

The 525 Product Family

- **525N-30**
850/1300nm Automated Insertion Loss - PC Connectors
- **525N-60**
1310/1550nm Automated Insertion Loss - PC Connectors



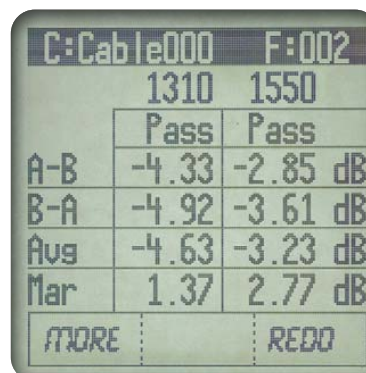
The 525 family of products provides an accurate, fast and easy to use method to measure insertion and return loss on multi-mode and single-mode fiber optic cables. And, the one button AUTOTEST ensures the user is guided through the measurement to obtain dual wavelength (850/1300nm or 1310/1550nm) bi-directional insertion loss measurements. Plus, the 525 single-mode family of products has a return loss measurement mode.

With a rugged and conveniently sized design, the 525 may be used in the demanding and severe environment of the outside plant. The large backlit display and sealed membrane panel allows for use in the harshest of locations. The 525 can store up to 1500 measurement records to be downloaded to a database manager that can then organize and print certification reports.

Internal rechargeable batteries power the 525. When fully charged, the 525 provide 8 hours of continuous operation.

Automated Insertion Loss Measurement

The AutoTest button executes a bi-directional insertion loss test and displays an event table of measurement results in a matter of seconds. It informs the user of the PASS/FAIL condition of fibers tested based on user-set thresholds, and then automatically assigns a fiber ID and saves the test record to internal memory. This simple process helps to ultimately lower the cost of automated cable acceptance testing.



Test Record File Name

Wavelength

PASS/FAIL Indicator

Insertion Loss A-B

Average Insertion Loss

Test Record File Name

(Threshold Setting - AVG Insertion Loss)

Next Screen

(Threshold Setting - AVG Insertion Loss)

Optical Return Loss Measurement

A return loss measurement characterizes the strength of reflections produced by variations in the refractive index along a fiber link, known as back reflection or Fresnel reflection. Quantified in decibel (dB) units, return loss is a logarithmic expression of the ratio of reflected power over the incident power. That is, the intensity of light reflected back to the return loss meter over the intensity of light injected into the fiber, expressed as a positive number.

A common source of back reflections is the junction where two fiber optic connectors are mated. Because of this, a connector with a high return loss, which sends very weak reflections back to the transmitter, is superior to a connector with a high return loss that sends back strong reflections. When measuring connectors, extremely low return loss values indicate a defect, such as core misalignment, poor fiber end face contact, scratches, breaks, or end face contamination.



Turn Source ON/OFF

Wavelength of Return Loss Measurement

Wavelength of Return Loss Measurement

Back to Main Menu

Save Measurement

Perform Reference for ORL Measurement

Optical Power Meter

The 525 incorporates an optical power meter calibrated at 850, 1300, 1310, 1550nm with a dynamic measurement range of +10dBm to -70dBm. The optical power meter interface utilizes the Tempo snap-on-connectors (SOC) enabling the user to configure the power meter for all industry standard optical connector interfaces.



Wavelength of Power Meter and Active Source

Turn Source ON/OFF

Choose Measurement Mode dBm or WATT

Measurement

Back to Main Menu

Save Measurement

Perform Reference for ORL Measurement

Smart Cable Acceptance Testing

AS EASY AS 1...2...3...

Step 1: Instrument Set-up | Set-up Script requires 3 settings



User has the ability to select 1310, 1550nm or 1310 and 1550nm testing.



User has the ability to select 1310, 1550nm or 1310 and 1550nm testing.



User has the ability to select 1310, 1550nm or 1310 and 1550nm testing.

Step 2: Referencing | User selects reference method



Side by side reference is selected when both units are together and referencing can be accomplished. This method is more accurate due to cross calibration of units.



Loop back referencing method is chosen when the units are separated and it is not convenient to co-locate instruments.

Step 3: Running AutoTest



Instrument automatically assigns file name. User may select base name in start # and increment amount.

All instructions for running AutoTest given.



Instrument displays PASS/FAIL and detailed test results.



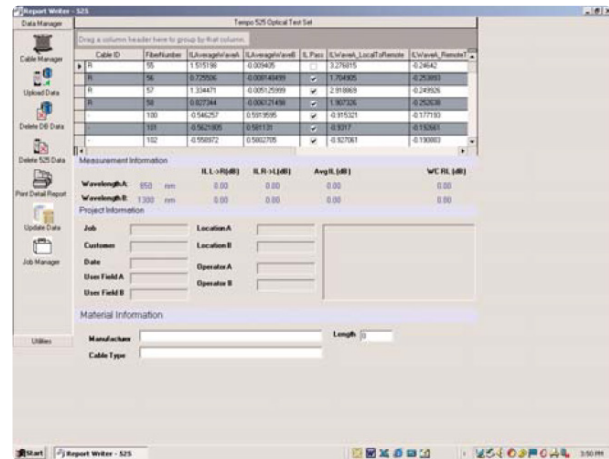
User can perform as many AutoTests as required to test entire cable. Instrument will return to the AutoTest Start screen and increment fiber count automatically. All test records are automatically saved.

DOCUMENTING ACCEPTANCE TESTS

Downloading Tests to Report Writer™



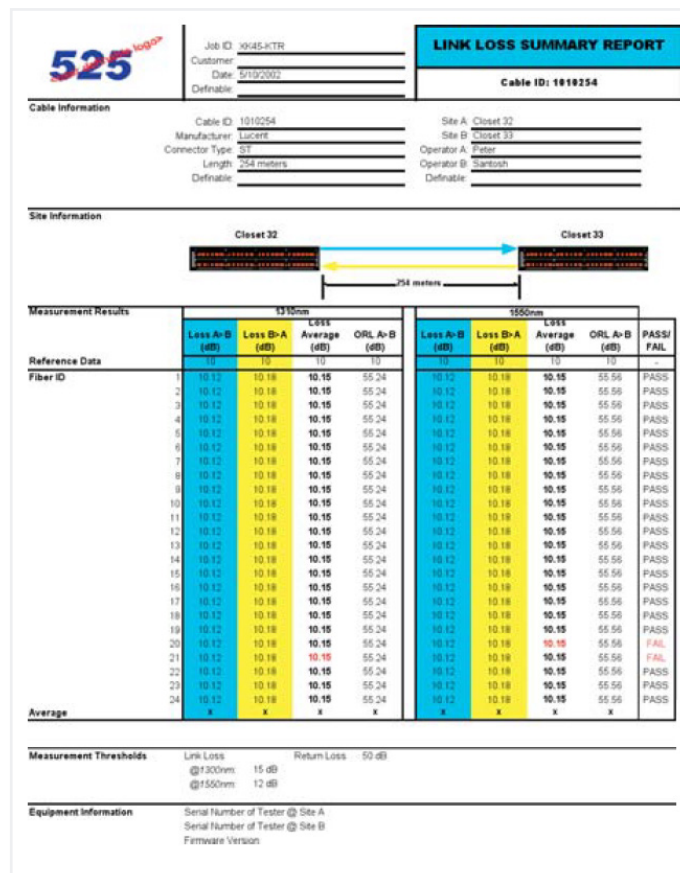
Download Test Records to Report Writer™ Software via RS-232 port on instrument.



- Report Writer™ is a database to manage your measurement records.
- Generate detailed single fiber reports.
- Generate entire cable reports detailing all fiber measurements contained within a cable.

REPORT WRITER™ CABLE ACCEPTANCE REPORT

The 525 Report Writer™ is a database that manages measurement records. It details single fiber reports, and can also generate entire cable reports detailing all fiber measurements contained within a cable. The efficient Report Writer™ splits the report into four sections: Customer Information, Cable Information, Site Information, and Measurement Results. The user can also place customized graphics in the upper right corner.



Cable Header Information

Graphical representation of Cable System

Detailed Measurement Results

Measurement Threshold Settings

Instrument Information and Serial Numbers

ORDERING INFORMATION

The 525 is a Smart Optical Loss Test Set. The user will require two units (one at the near end and one at the far end of the fiber under test) to perform automated optical loss testing. Each kit is configured with all the accessories required to perform testing.

Each Kit includes the following items:



Smart Loss Test Sets

MODEL	DESCRIPTION
525N-30	850/1300nm Smart Optical Loss Test Set - PC Connectors
525N-60	1310/1550nm Smart Optical Loss Test Set - PC Connectors

SOC Adapter Interface ⁽²⁾

MODEL	DESCRIPTION
T1030	OPM ST Adapter
T1020	OPM FC Adapter
T1062	OPM SC Adapter

UCI Universal Connector Interface ⁽¹⁾

MODEL	DESCRIPTION
ATS108	UCI ST Adapter
APC108	UCI FC Adapter
ASC108/C	UCI SC Adapter

SPECIFICATIONS:	525N-30	525N-60
Instrument Type	Multimode Smart Loss Test Set	Singlemode Smart Loss Test Set
Interface Connector	PC Connector Interface	PC Connector Interface
AUTOTEST measurements	AUTOTEST performs Insertion Loss Test	AUTOTEST performs Insertion Loss Test and Manual Return Loss
Power Meter Specifications		
Detector Type	InGaAs	InGaAs
Display Range	+10dBm to 70dBm	+10dBm to 70dBm
Calibrated Wavelengths	850, 980, 1300, 1310, 1550, 1480, 1625	850, 980, 1300, 1310, 1550, 1480, 1625
Absolute Accuracy	±0.25dB	±0.25dB
Resolution	0.01dB	0.01dB
Measurement Units	dBm, dB, W	dBm, dB, W
Connector Type	UCI-UPC flat polish adapter 62.5/125 SM	UCI-UPC flat polish adapter 9/125 SM
Source Specifications		
Center Wavelength	850nm ±30nm 1300nm ±30nm	1310nm ±30nm 1550nm ±30nm
Spectral Width	<170 <170	<5 <5
Output Power	>-21 dBm >-21 dBm	>-10 dBm >-10 dBm
Output Stability	±0.10dB/ ±0.10dB/ 8 hours 8 hours	±0.15dB/ ±0.15dB 8 hours 8 hours
Coupled Power Ratio (CPR)	25dB to 29dB 21dB to 22dB ±1dB ±1dB	
HOMP	0.30dB to 0.80dB	
Autotest Insertion Loss Specifications		
Test Port Measurement Range	25dB	40dB
Calibrated Wavelengths	850, 1300nm	1310, 1550nm
Return Loss Specifications		
Measurement Range	n/a	10 to 45dB
Accuracy	n/a	.5dB
General Descriptions		
Display Type	Graphics Liquid Crystal with Backlight	Graphics Liquid Crystal with Backlight
Fiber Type	Multimode 62.5/125 um	Singlemode 9/125 um
Standard Connector Type	FC, SC, ST other connector options available	FC, SC, ST other connector options available
Laser Classification	Class 1 CFR 1040	Class 1 CFR 1040
Operating Temperature	0°C to +50°C	0°C to +50°C
Storage Temperature	-20°C to +60°C	-20°C to +60°C
Relative Humidity	0 to 95% RH non-condensing	0 to 95% RH non-condensing
Size	0 to 95% RH non-condensing (7.6 x 4.3 x 2.3 in)	0 to 95% RH non-condensing (7.6 x 4.3 x 2.3 in)
Weight	1.0kg (2.2 lbs)	1.0kg (2.2 lbs)
Power	Internal rechargeable NiMH	Internal rechargeable NiMH
Battery Life	>8 hours	>8 hours



SPECIAL LAUNCH CONDITION OPTICAL POWER METERS & SOURCES



INSTRUMENTS DESIGNED FOR POF & FIBER OPTIC CABLE TESTING:

The Special Launch Condition Sources and Optical Power Meter XL fiberTOOLS™ are designed for the professional to perform installation and maintenance measurements on both Plastic & Glass fiber optic networks.

The instrument family consists of standard instruments for routine cable testing, through to Stabilised Light Sources with stringent Launch Conditions for the Avionics and Defence Industries and Research Laboratories.

Tempo's LED Light Sources have been manufactured with specific launch conditions to overcome the inconsistent measurements caused by standard Light Sources.

The Multimode products that have specific launch conditions are designed for greater accuracy and repeatable results.

Tempo also manufacture instruments to test POF links. POF links are being used in a number of industries

particularly on short links where optical budgets aren't too tight. The automotive industry is a good example of this.

The XL fiberTOOLS™ are fully featured, general purpose fiber optic instruments and easy to operate to outfit all technicians performing fiber optic installation and maintenance.

Tempo also manufacture a range of Optical Light Sources and Power Meters with enhanced EMI performance, manufactured to Military standards, these offer the ultimate in accuracy.

Tempo's range of Optical Light Sources and Power Meters were designed specifically for: avionics, automotive, defence and research.

567XL

Silicon Fiber Optic Power Meter (Formerly 557B)



Features:

- Absolute (dBm) & Referenced (dB) measurements
- Long battery life
- User selectable auto shut-off
- SOC interface adapts to all commonly used connectors
- Rugged and splash-proof

OPTICAL SPECIFICATIONS

Detector Type	3 x 3.5mm Silicon
Calibration Wavelengths	650nm, 780nm, and 850nm
Power Range	+3dBm to -60dBm
Accuracy	±0.25dB
Linearity at	+3dBm to -3dBm ±0.5db -3dBm to -50dBm ±0.1db -50dBm to -60dBm ±0.5db
Resolution	0.01dB
Power Requirements	Two AA 1.5V batteries (approx. 100 hours continuous operation)
Connector Interface	SOC
Operating Temperature	-15° C to +55° C
Storage Temperature	-35° C to +70° C
Humidity	0 to 95% 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, Group1, Class A EN50082-1: 1992 IEC 801-2, -3, -4
Typical Power Output (µm)	
200/230 SI Fiber	-15dBm ±0.5dB
Modulation Frequencies	270Hz, 1kHz and 2kHz
Power Requirements	Two AA 1.5V batteries (approx. 24 hours continuous operation)

573XL & 573XL-UNIV

650nm LED Source for Large Core Plastic and Glass Fiber (Formerly 253B-POF)



Features:

- Stable Calibrated output Storage
- Continuous wave and modulated output
- Easy to use
- Long battery life
- User selectable auto shut-off
- 650nm wavelength
- Rugged and splash-proof
- Fixed ST and SOC Adapter options are available



577XL M90

Features:

- Stable calibrated output
- Easy to use
- Continuous wave and modulated output
- Long battery life - approx. 24 hours
- User selectable auto shut-off
- Rugged and splash-proof
- Economically priced
- UCI Adapter options are available
- 850nm wavelength



577XL AS100

850nm LED Source with AS-100 Launch Condition
(100/140µm Fiber) / Formerly 257A-AS100

Features:

- Stable calibrated output
- Easy to use
- Continuous wave and modulated output
- Long battery life - approx. 24 hours
- User selectable auto shut-off
- Rugged and splash-proof
- Economically priced
- UCI Adapter options are available
- 850nm wavelength

578XL M90

1300nm LED Source with M90 Launch Condition
(62.5/125µm Fiber)

Features:

- Stable Calibrated output Storage
- Continuous wave and modulated output
- Easy to use
- Long battery life
- User selectable auto shut-off
- 1300nm wavelength
- Rugged and splash-proof
- UCI Adapter options available (options are available)



XL Series LED Sources

	573XL	577XL	578XL
Nominal	650nm	850nm	1300nm
Range (nm)	630 - 670	840 - 880	1270 - 1345
Max. spectral width (FWHM)	40nm	55nm	150nm
Stability, 1 hour	±0.05dB	±0.05dB	±0.05dB
POWER OUTPUT			
200/230µm SI MM fiber	-15dBm ***		-
100/140µm GI MM fiber	-	-20dBm**(AS-100)	-20dBm
62.5/125µm GI MM fiber**	-	-20dBm** (M90)	-20dBm** (M90)
50/125µm GI MM fiber	-		-21dBm
9/125µm SM fiber	-	-	-38dBm
Power output uncertainty	±0.5dB	±0.5dB	±0.5dB
Connector interface	SOC or ST	Universal connector interface	
Functions	MOD: Modulated output mode (270Hz, 1kHz, 2kHz) CW: Continuous Wave output mode Freq: selectable modulation frequency		
Modulation frequencies	270Hz, 1kHz, and 2kHz (±0.5%) using switch inside battery compartment		
Power requirements	Two AA-size alkaline batteries		
Battery life	> 24 hours		
ENVIRONMENT			
Operating Temperature	-15°C to 55°C		
Storage Temperature	-35°C to 70°C		
Humidity, Non-Condensing	0% to 95%		
Dimensions	7.2 x 14.2 x 3.5cm (2.8 x 5.6 x 1.4in)		
Weight	215g (7.6oz)		

* Within specified operating environment of 20°C to 25°C

** Calibrated launch level, equilibrium modal distribution

*** Calibrated launch level

560XL-EMI

Fiber Optic Power Meter with enhanced EMI performance

Features:

- 0.01dB measurement resolution
- Multi-Wavelength Storage
- SOC interface adapts to all commonly used connectors*
- Long battery life
- Absolute (dBm) & Referenced (dB) Power measurements
- User selectable auto shut-off
- Rugged and splash-proof
- Economically priced
- Enhanced EMI performance: MIL-STD-461E, Method RS103, tested to 190 V/m
- Engineered for use in areas with high electrical interference



OPTICAL SPECIFICATIONS

Detector Type	1mm InGaAs
Calibration Wavelengths (nm)	850, 1300, 1310, 1550
Power Range	+3dBm to -60dBm
Accuracy	±0.25dB
Resolution	0.01dB
Power Requirements	Two AA 1.5V batteries (approx. 100 hours continuous operation)
Connector Interface	SOC

570XL-AS100-EMI

850/1300nm LED Source with enhanced EMI Performance

Features:

- Stable calibrated output
- 850nm / 1300nm wavelength LED Source
- Long battery life - approx. 80 hours
- Continuous wave and modulated output
- User selectable auto shut-off
- Supports a wide range of UCI connectors, including FC, SC, and ST
- Economically priced
- Enhanced EMI performance: MIL-STD-461E, Method RS103 tested to 200 V/m
- Easy to use
- Configured to meet AS100 launch conditions
- Rugged and splash-proof



OPTICAL SPECIFICATIONS

Detector Type	1mm InGaAs
Calibration Wavelengths (nm)	850nm, 1300nm
Power Range	820nm to 880nm; 1270nm to 1345nm
Accuracy	±0.25dB
Resolution	0.01dB
Power Requirements	Two AA size 1.5V batteries (approx. 40 hours continuous operation)
Connector Interface	UCI

580XL-EMI

1310/1550nm Laser Source with enhanced EMI Performance

Features:

- Stable calibrated output
- 1310nm / 1550nm wavelength Laser Source
- Long battery life - approx. 80 hours
- Continuous wave and modulated output
- User selectable auto shut-off
- Easy to Use



OPTICAL SPECIFICATIONS		
Centre Wavelength	1310nm	1550nm
Range (Typical)	1280nm to 1340nm	1520nm to 1580nm
Max. Spectral Width (FWHM)	<5nm	<5nm
Stability (1 hour)	±0.05dB	±0.05dB
Typical Power Output (9/125µm)		
Minimum	-8dBm	-8dBm
Typical	-7dBm	-7dBm
Modulation Frequencies	270Hz, 1kHz and 2kHz	270Hz, 1kHz and 2kHz
Power Requirements	Two AA 1.5V batteries (approx. 80 hours continuous operation)	
Connector Interface	UCI	

Ordering Information- XL fiberTOOLS™ Series:

PART NO.	CAT. NO.	DESCRIPTION
52058723	567XL	567XL Silicon Fiber Optical Power Meter
52058784	573XL	573XL 650nm LED Source with Fixed ST Connector
52061770	573XL-UNIV	573XL 650nm LED Source with SOC Adapter Interface
52058727	577XL-AS100	577XL-AS100, 850nm LED Source with 100/400µm Launch Condition
52058726	577XL-M90	577XL-M90, 850nm LED Source with 62.5/125µm Launch Condition
52061054	578XL-M90	578XL-M90, 1300nm LED Source with 62.5/125µm Launch Condition
52060994	560XL-EMI	560XL-EMI HH OPM, INGAAS, EMI SHIELDING
52060995	570XL-AS100-EMI	570XL-AS100-EMI HH DUAL LED SOURCE, EMI SHIELDING
52060996	580XL-EMI	580XL-EMI HH LASER SOURCE, EMI SHIELDING

What is the purpose of EMI testing?

EMI tests ensure any emission from the device is below the limits outlined for that specific device type; thus, providing assurance it will not cause interference to other devices operating in the same environment.

Snap On Connector (SOC) Sources | for XL Series Instruments

Snap On Connectors (SOC) are used on the XL Fiber Optic Power Meters and 573XL LED light source. The Snap On Connectors configure the instruments for various optical connectors. Contact Tempo Communications for other available adapters.

FC



T1020

ST



T1030

SC



T1062

Universal Connector Interface (UCI) | for XL Series Instruments

Users will need to purchase a Universal Connector Interface (UCI) adapter for use with specific light sources. Please specify the desired connector adapter type when ordering.

FC



APC-108

SC



ASC-108/C

ST



ATS-108

SOC & UCI Adapters

- Our SOC and UCI adapters provide direct connectivity for Tempo Communications fiberTOOLS® to a wide range of industry-standard fiber optic connectors
- Adapter design ensures maximum accuracy and repeatability when performing critical measurements on fiber optic systems
- Easy to clean and use
- Single-mode and multimode compatible
- SOC adapters are compatible with both PC and APC interfaces
- UCI adapters feature durable phosphor bronze alignment sleeve

CONNECTOR	SOC Adapter			UCI Adapter	
DESCRIPTION		PART NO.	CAT. NO.	PART NO.	CAT. NO.
1.25 mm Quick-Connect Universal Adapter (LC, MU, etc.)		50605881	T1026	USE HYBRID CABLE	
FC		50605768	T1020	50605720	APC-108
LC		50606000	T10LC	USE HYBRID CABLE	
MIL-T-29504/4 & /5 Termini		50605898	T1038	USE HYBRID CABLE	
SC		50605751	T1062	52039964	ASC-108/C
ST		50605775	T1030	50605737	ATS-108
Versatile Link - V/Z PIN		50606048	T10ZP	USE HYBRID CABLE	
SMA 905/906		50605966	T1087	N/A	
ST		52040191	T1030-POF	N/A	

ACCESSORIES

fiberTOOLS™

Hard Carry Case

Features:

- Designed to hold Tempo handheld instruments and a full range of test accessories.
- Top tray holds up to 3 handheld instruments and a 180XL Visual Fault Finder
- Compact, waterproof and lockable
- Bottom compartment of both models stores additional instruments and test accessories
- Moulded from black structural foam resin

ORDERING INFORMATION:

PART NO.	CAT. NO.	DESCRIPTION
50606840	900B	Carry Case Ruggedised 3 Unit

SPECIFICATIONS:

Weight: 500g

Dimensions: 380 x 185 x 180mm



FIBER OPTIC TOOL KITS

The Tempo Communications Fiber Optic Tool Kits provides four kit options to satisfy varying tasks that the fiber optic technician may encounter. The tool kits contain all the common tools required to effectively and safely complete the job in an efficient manner.

Each tool kit is supplied in a rugged carry case to safely keep all tools organized for easy storage and retrieval for use. Extra pockets are incorporated to hold accessories and other tools.

FTK-B BASIC TOOLS KIT

A basic tool kit allows the technician cut, strip and prepare fiber optic cables for termination.

Features:

- Kevlar Cutter
- 3-in-1 Fiber Optic Stripper
- Universal Slitter
- 6-in-1 Multi Tool
- Long Nose Pliers
- Fiber Optic Tool Case
- Side cutters
- Drop Cable Stripper
- Mid Span Slitter
- Ring and Slit Stripper



FTK-P PRO TOOLS KIT

Same tools as the FTK-B but with a 180XL Visual Fault Locator (VFL) to visually locate faults and two fiber cleaning pens.

Features:

- Kevlar Cutter
- 3-in-1 Fiber Optic Stripper
- Universal Slitter
- 6-in-1 Multi Tool
- Visual Fault Locator
- Long Nose Pliers
- Fiber Optic Tool Case
- Side cutters
- Drop Cable Stripper
- Mid Span Slitter
- Ring and Slit Stripper
- 2.5mm Fiber Cleaning Pen
- 1.25mm Fiber Cleaning Pen



FTK-PP PRO PLUS TOOLS KIT

Same tools as the FTK-P but with a Micro OPM which has an Optical Power Meter (OPM) and Visual Fault Locator (VFL).

Features:

- Kevlar Cutter
- 3-in-1 Fiber Optic Stripper
- Universal Slitter
- 6-in-1 Multi Tool
- Micro OPM
- Long Nose Pliers
- Fiber Optic Tool Case
- Side cutters
- Drop Cable Stripper
- Mid Span Slitter
- Ring and Slit Stripper
- 2.5mm Fiber Cleaning Pen
- 1.25mm Fiber Cleaning Pen



FTK-T TERMINATION TOOLS KIT

Contains all of the tools needed to terminate fiber optic cables with a mechanical connector.

Features:

- Kevlar Cutter
- 3-in-1 Fiber Optic Stripper
- 915CL Cleaver
- Fiber Optic Tool Case
- Visual Fault Locator
- Side Cutter



ORDERING INFORMATION:

PART NO.	CAT. NO.	DESCRIPTION
52086508	FTK-B	Basic Fiber Tool Kit
52086509	FTK-P	Pro Fiber Tool Kit
52086510	FTK-PP	Pro Plus Fiber Tool Kit
52086866	FTK-T	Termination Fiber Tool Kit

OTHER TOOLS AVAILABLE:

PART NO.	CAT. NO.	DESCRIPTION
52087221	FCL100	Field Fiber Optic Cleaver
52082727	920CL	920CL Optical Fiber Cleaver
52080175	BFA-1	Bare Fiber Adapter
52050560	PA1820	AM25 Slitter (0.18" - 1.0")
52050561	PA1821	AM35 Slitter (1.0" - 1.4")
52050605	PA1162	Economy Stripper
52049188	PA1915	Pocket Probe / Pick
52050965	PA1922-1	Fiber Optic Carbide Scribe

INDIVIDUAL TOOL FROM KITS:

PART NO.	CAT. NO.	DESCRIPTION
52051283	PA1511	Kevlar Cutter
52055938	PA1177	3-in-1 Fiber Optic Stripper
52050604	PA1822	Universal Slitter
52024842	TCBMD	6-in1 Multi Tool
55500025	OPM210	Standard Power OPM with VFL
52055941	PA1180	Long Nose Pliers
52085476	FIBKIT CASE	Fiber Optic Tool Case
52055936	PA1175	Side cutters
52086521	TCDCS	Drop Cable Stripper
52076413	MSS100	Mid Span Slitter
52085475	TCCPS	Ring and Slit Stripper
52068671	180XL	Visual Fault Locator

REPLACEMENT BLADES FOR STRIPPING TOOLS:

PART NO.	CAT. NO.	DESCRIPTION
52086502	TCDCS-2	DROP CABLE STRIPPER BLADE KIT (six blades)
52086503	TCCPS-RING-2	CPS RING BLADE KIT (one replacement blade with hardware)
52086504	TCCPS-SLIT-2	CPS SLIT BLADE KIT (one replacement blade with hardware)

OFL100 OTDR

Optical Time-Domain Reflectometer

The OFL100 OTDR enables the front-line fiber technician to quickly locate loss events in the last mile of the FTTx network. The convenient touchscreen provides an intuitive interface for even newly provisioned technicians making it simple to locate loss events such as cut fibers, contaminated or damaged connectors, and excessively bent fibers.



FAST.

- Easy to use one button test function. Start measurements with the push of one button.
- Auto test automatically sets test parameters for optimum test results.

ACCURATE.

- Graphical touchscreen interface is easy to read, even in high ambient light conditions.
- 128,000 data points provides high accuracy results.
- Measure lengths and fiber defects to quickly locate faults.

RELIABLE.

- Link Viewer annotates the entire fiber link in an easy to interpret Pass/Fail format.
- Cable acceptance reports generate customized reports that include trace signature and fiber events.
- Long life battery so you can work longer without recharging - up to 12 hour shift capable.

Includes:

- OFL100
- Power Supply with USB cable
- Soft Carry Case with Strap
- SC/APC Adapter
- Certificate of Conformance
- Quick Reference Card
- 8GB SD Card
- AC adapter
- Protective cover
- Carrying case
- Warranty card

Ordering Information:

CAT. NO.	DESCRIPTION
OFL100-NA	OFL100 with North American Power Supply
OFL100-EU	OFL100 with UK and European Power Supplies

OFL100 Specifications:

OTDR	
Wavelength	1310/1550nm
Dynamic Range	26/24dB
Event Deadzone	2.5m
Attenuation Deadzone	8m
Measurement Ranges	500m, 1km, 2km, 4km, 8km, 16km, 32km, 64km and 100km
Pulse Widths	3ns, 5ns, 10ns, 20ns, 30ns, 50ns, 80ns, 160ns, 320ns, 500ns, 800ns, 1µs, 2µs, 3µs, 5µs, 8µs, 10µs and 20µs
Measurement Accuracy	± (1m+Sample interval+0.005%×Test Distance)
Linearity	≤0.05dB/dB
Loss Resolution	0.001dB
Loss Threshold	0.20dB
Distance Resolution	0.001m
Refractive Index	1.00000 to 2.00000
Reflection Accuracy	±3dB
File Format	SOR compliant to Telcordia GR196
Loss Analysis	Four Point & Five Point
Laser Safety	Class 1M
Bulkhead	SC/APC (Optional LC and FC)
Trace Update Rate	3Hz
Optical Power Meter	
Wavelength Range	800nm to 1700nm
Calibrated Wavelengths	850nm, 980nm, 1300nm, 1310nm, 1490nm, 1550nm, 1625nm and 1650nm
Measurement Range	+26dBm to -50dBm
Measurement Resolution	0.01dB
Measurement Accuracy	±5%
Tone Frequencies/Sensing	CW, 270Hz, 330Hz, 1kHz and 2kHz
Bulkhead	2.5mm Universal
Visual Fault Locator	
Wavelength	650nm ±20nm
Output Power	<1mW
Mode of Operation	CW, 1Hz and 2Hz
Bulkhead	2.5mm Universal
Laser Safety	Class 2

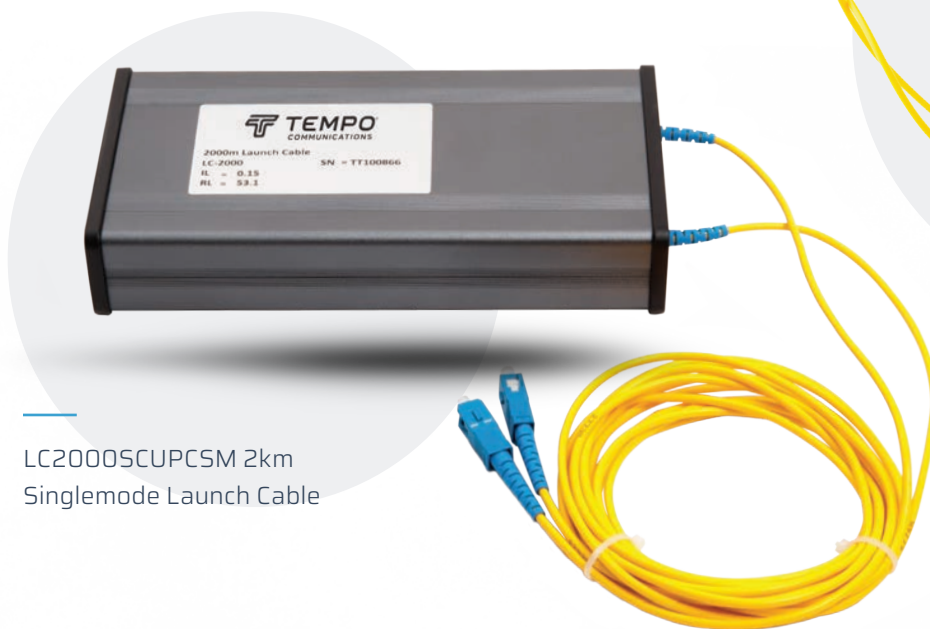
Stabilized Laser Source	
Wavelength	1310/1550nm
Output Power	≥ -5dBm; variable
Power Stability	CW, ±0.5dB/15 minutes after continuous on of 15 minutes
Bulkhead	SC/APC (Optional LC and FC Available)
Tone Frequencies	CW, 270Hz, 330Hz, 1kHz and 2kHz
Optical Loss Testing	
Wavelength	1310nm and 1550nm
Insertion Loss Testing	Integrated OPM and SLS
RJ45 Sequence Testing	
Cable Type	Straight and Interleaved (T568)
Mechanical	
Display	4.3" 800x400 TFT LCD Touchscreen
Power Supply	AC to DC 100-240VAC, 50/60Hz
Power Supply Format	North America or United Kingdom and European
Battery Lifetime	>12 Hours Continuous Test
Battery	3.7V, 4Ah Li ION
Weight	<1.1lbs (<0.5kg) Including Battery
Size	6.8"x 4.3"x 1.8" (173mm x 109mm x 45mm)
Data	
Internal Storage	8GB (>200,000 Curves)
Interface	USB Type C, 8GB SD Card
Environmental	
Operational Temperature	-10°C to +50°C

*Specifications subject to change without notice

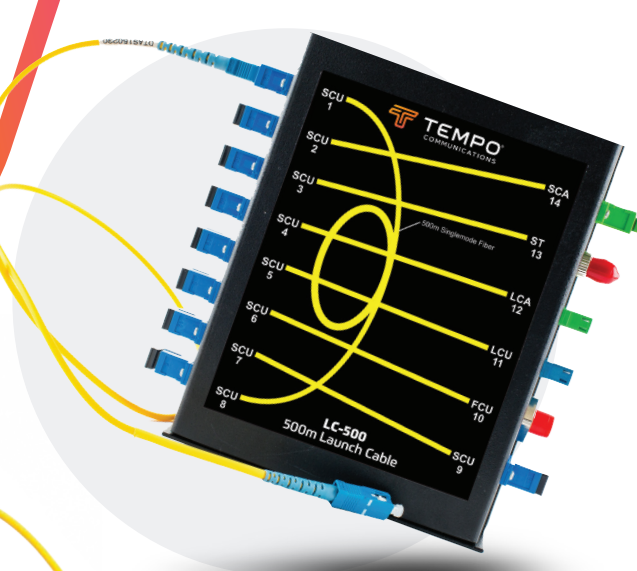
Accessories:

CAT. NO.	DESCRIPTION
OFL100-SCAPC	SC/APC Adapter
OFL100-LCAPC	LC/APC Adapter
OFL100-FCAPC	FC/APC Adapter
OFLPS-NA	OFL100 North American Power Supply with USB Cable
OFLPS-UK	OFL100 United Kingdom Power Supply with USB Cable
OFLPS-EU	OFL100 European Power Supply with USB Cable
OFLCC	OFL100 Carry Case with Strap

LAUNCH CABLES



LC2000SCUPCSM 2km
Singlemode Launch Cable



LC-500 Patch Panel
Matrix with 1m SC/PC-SC/
PC patch cable

Launch cables are used to reduce the effect deadzones caused by mechanical connection of the OTDR to the Fiber under Test. Constructing a backscatter trace before the Near end connector enables the technician to evaluate the connector for Insertion Loss & return Loss. Also known as a Pulse Suppressor.

Benefits:

- Troubleshoot the input connector and the initial fiber span that may be masked by the deadzone of an OTDR
- Characterise input and output connectors and the entire fiber link
- Minimise Dead zones
- Eliminate multiple patch cables

Features:

- Universal compact design
- Rugged construction

Ordering Information:

PART NO.	CAT. NO.	DESCRIPTION
52076057	LC-500	500M Launch Cable with Patch Panel Matrix
52081881	LC500SCAPCSM	500M Launch Cable SC APC Singlemode
52081882	LC500SCUPCSM	500M Launch Cable SC UPC Singlemode
52081883	LC1000SCAPCSM	1000M Launch Cable SC APC Singlemode
52081884	LC1000SCUPCSM	1000M Launch Cable SC UPC Singlemode
52081885	LC2000SCAPCSM	2000M Launch Cable SC APC Singlemode
52081886	LC2000SCUPCSM	2000M Launch Cable SC UPC Singlemode
52081887	LC150SCPCMM	150M Launch Cable SC PC 50/125 Multimode
52081888	SCLC Adapter	SC TO LC Adapter (Use the SC to LC Adapter to convert the Launch Cable to LC connectors)

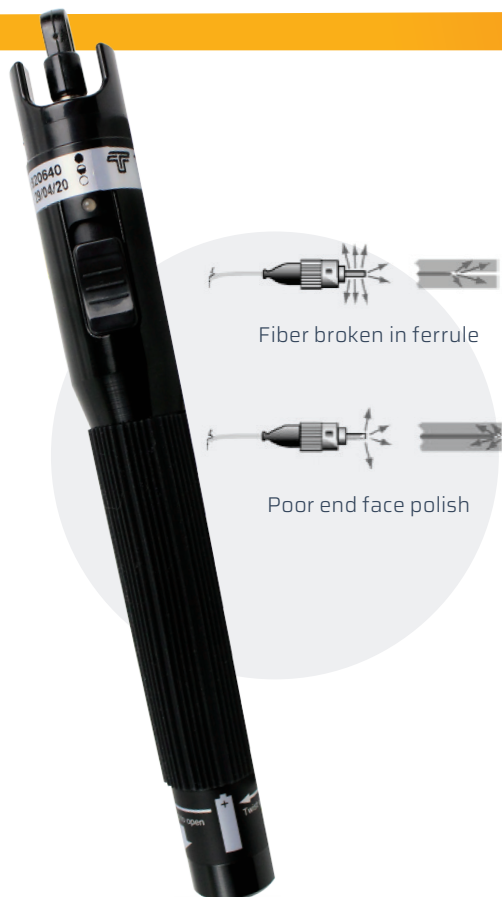
VISUAL FAULT LOCATOR

180XL VISUAL FAULT LOCATOR

The 180XL visual fault finder is an indispensable tool for quickly identifying bending losses and breaks in optical fibers. If a fiber is bent too tightly, red laser light will be seen escaping through the jacket. Likewise, if a fiber is broken, escaping light will be visible where the break is located.

Features

- Continuous wave output mode for steady fault illumination
- Blinking output mode increases viewing contrast
- Easy to use “Quick Connect” interface fits all 2.5mm fiber optic connectors
- Ergonomic switch permits easy one-handed operation
- Simple, versatile, and user-friendly design
- Rugged, compact, and splash proof aluminium housing
- High output 1.0mW (0dBm) 650nm red laser
- Up to 7km range
- Two AA-size alkaline batteries provide 80 hours of continuous operation
- Nylon belt holster included



Macrobend easily visible in splice tray using 180XL

Specifications:

Wavelength	650nm +/-10nm
Emitter Type	Fabry Perot
Output Power	0dBm
Spectral Width (CPR)	<2nm
Laser Classification	2
Range	7km
Modes of Operation	CW and 2Hz Modulation
Display Operation	Red/Green LED
Fiber Type	Singlemode, Multimode

Connector Interface	2.5mm Universal, Optional 1.25mm Adapter
Battery	AA (2)
Battery Life	80 Hours with 3.9Wh batteries
Weight	0.15lbs, (70g) (not including batteries)
Dimensions	7.08" x 0.91" Dia (180mm x 23mm Dia)
Operating Temperature	-10 to +45C
Storage Temperature	-40 to +70C
Certifications	CE, WEEE, CDRH Reach RoHS

Ordering Information:

PART NO.	CAT. NO.	DESCRIPTION
52068671	180XL	Visual Fault Locator Kit (2.5mm UCI)
52068673	125mm ADAPTER	1.25mm adapter

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OPTICAL FUSION SPLICERS

Tempo Communications fusion splicers utilize two different splicing technologies in our product offering. The FSP200 is a Core Alignment based splicer and the 915FS is an Active Clad splicer.



The FSP200 Core Alignment splicer incorporates six motor technology and is the most capable splicer when splicing legacy or dissimilar fibers. This is because two motors are used to adjust the objective lenses so that the cameras are able to precisely locate the center of the core of the fiber optic cable. This is especially important with older fibers that have geometry variability such as ovality and concentricity of the core with respect to the fiber cladding. The core alignment technology is also more tolerant of contamination and will yield the lowest splice losses in adverse conditions.

The 915FS fusion splicer is an Active Clad fusion splicer and has four motors to align the fibers. No objective lens focusing is provided which is sufficient when splicing two fibers of the similar geometry. Since singlemode fibers produced in the last two decades are of remarkably consistent geometries, even between cable manufacturers, the splice loss is virtually the same as the Core Alignment splicer.

Both the Active Clad and Core Alignment fusion splicers far surpass the performance of the V-Groove technology splicers that employ only two adjustment motors.

Ordering Information:

PART NO.	CAT. NO.	DESCRIPTION
55500052	FSP200	Optical Fusion Splicer
55500053	FSP200-KIT1	FSP200 Fusion Splicer & Cleaver Kit
55500054	FSP200-KIT2	Contractor Fusion Splicer Kit
52063415	06811	915FS FSP200 Batt
52080896	07096	Power Supply, 915FS FSP200
52064141	01335	Splice-On-Connector Adapter (SC & LC)
52066481	02401	Splice-On-Connector Adapter (ST & FC)

PART NO.	CAT. NO.	DESCRIPTION
52063414	01329	Replacement Electrodes
52064143	01332	200/250µm Adapter (Pair)
52064142	01333	900µm Adapter (Pair)
52076996	05801	Loose Tube Adapter (Pair)
52081862	07388	Universal Adapter (Pair)
52067851	03245	3mm Adapter (Pair)
55500059	NA LC	North American Line cord
52066954	02571	European Line Cord

FSP200

Core Alignment Optical Fusion Splicer

The Tempo Communications FSP200 Optical Fiber Fusion Splicer is intended to fuse two fiber optic cables, resulting in low splice loss and long-term stable splices. The FSP200 is a Core Alignment splicer that utilizes six precision motor transports.

Features:

- True Core Alignment for Low Loss Splices
- IP52 provides resistance to dust and water ingress
- Small and lightweight for the most demanding jobs
- Loose tube fiber compatible
- Auto-Calculation of Estimated Splice Loss
- Adapters for 200/250, 900µm and 3mm fiber

(1) Fast mode. (2) 90s/cycle splice time and power save functions activated. Number of cycles may vary depending on battery status and ambient operating conditions. (3) Dust resistance and rain resistance test do not guarantee that the product will not be damaged under these conditions. (4) Dependent on splice protector used and ambient conditions. Time quoted is with power mode enabled and assuming that the oven is not cold.

*Specifications subject to change without notice.

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Specifications:

Applicable Fibers	SM (G.652); MM (G.651); DS (G.653); NZDS (G.655); BIF (G.657); EDF
Fiber Cleaved Length	10mm
Cladding Diameter	80 to 150µm
Coating Diameter	100 to 1000µm
Fiber Count:	Single
Fiber Aligning Method	Core Alignment
Splice Loss (Typical)	0.02 dB (SM); 0.01 dB (MM); 0.04 dB (DS); 0.04 dB (NZDS & BIF)
Splicing Mode	60 Preset / User Definable Modes
Splice Time (Typical)	7 seconds (1)
Boot Time	5 seconds
Number of Splices Per Battery Charge	200 (including 60mm heat shrink cycle) (2)
Splice -On-Connector	SC, LC, FC, ST
Arc Calibration Mode	Automatic and Manual
Protection Sleeve Length	60mm, 40mm, Micro Sleeves
Ingress Protection(3)	IP5X (Dust); IPX2 (Water)
Storage of Splice Results	5,000 Results, 100 screenshots
Drop Test	76cm on five axis

Tension Test	2N
Fiber Display Magnification	200X
Tube Heating Mode	20 Preset / User Definable Modes Adjustable 0-240 seconds
Tube Heating Time (Typical)	18 seconds (4)
Attenuator Mode	0.1 to 15 dB
Electrode Life	5,000 Splices
Display:	3.5" Color, Turn-Over LCD
Connectivity	USB
Operating Conditions	Pressure: 0 to 16,404 feet (0 to 5,000 meters) above Sea Level Wind Velocity up to 15m/s Humidity: 0 to 95% Temperature: -4 to +131F (-20 to +55C)
Storage Conditions	Temperature: -40 to +158F (-40 to +70C)
Power Supply	100 to 240V AC Adapter; Li-ion Battery (4400 mAh)
Weight	3.74lbs (1.7kg) with battery
Dimensions (HxWxD)	4.9" x 4.9" x 5.3" (125 x 125 x 135mm)
Vibration Resistance	10Hz - 500Hz with a spectral density of 0.03g2/Hz
Password Protection	Yes

915FS

Active Cladding Optical Fusion Splicer



The Tempo Communications 915FS Optical Fiber Fusion Splicer is intended to fuse two fiber optic cables, resulting in low splice loss and long-term stable splices. The 915FS is an Active Clad fusion splicer the utilizes four precision motor transports.

The 915FS fusion splicer capably aligns the two fibers in the X, Y, and Z dimensions to automatically and precisely align the two fibers. A fusing arc is applied, which then provides the lowest loss fusion splice.

The 915FS is designed for splicing singlemode and multimode fibers including DSF, NZDS and BIF.

Splices are completed in as little time as seven seconds while providing low splice losses typically of 0.01dB. The high capacity battery is capable of splicing over 200 fusion splices on one battery charge.

The intuitive user interface and IP52 rating insures that the technician able to quickly

Features:

- 0.01dB measurement resolution
- Multi-Wavelength Storage
- SOC interface adapts to all commonly used connectors*
- Long battery life
- Absolute (dBm) & Referenced (dB) Power measurements
- Loose tube fiber compatible
- Auto-Calculation of Estimated Splice Loss
- Adapters for 200/250, 900µm and 3mm fiber



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(1) Fast mode. (2) 90s/cycle splice time and power save functions activated. Number of cycles may vary depending on battery status and ambient operating conditions.(3) Dust resistance and rain resistance test do not guarantee that the product will not be damaged under these conditions. (4) Dependent on splice protector used and ambient conditions. Time quoted is with power mode enabled and assuming that the oven is not cold.

* Specifications subject to change without notice.

Specifications:

Applicable Fibers	SM (G.652); MM (G.651); DS (G.653); NZDS (G.655); BIF (G.657); EDF
Fiber Cleaved Length	10mm
Cladding Diameter	80 to 150µm
Coating Diameter	100 to 1000µm
Fiber Count	Single
Fiber Aligning Method	Active Clad Alignment
Splice Loss (Typical)	0.02 dB (SM); 0.01 dB (MM); 0.04 dB (DS); 0.04 dB (NZDS & BIF)
Splicing Mode	60 Preset / User Definable Modes
Splice Time (Typical)	7 seconds (1)
Boot Time	5 seconds
Number of Splices Per Battery Charge	200 (including 60mm heat shrink cycle) (2)
Splice-On-Connector	SC, LC, FC, ST
Arc Calibration Mode	Automatic and Manual
Protection Sleeve Length	60mm, 40mm, Micro Sleeves
Ingress Protection	IP5X (Dust); IPX2 (Water) (3)
Storage Of Splice Results	5,000 Results, 100 screenshots
Drop Test	76cm on five axis

Vibration Resistance	10Hz to 500Hz with a spectral density of 0.03g ² /Hz
Tension Test	2N
Fiber Display Magnification	200X
Tube Heating Mode	20 Preset / User Definable Modes Adjustable 0-240 seconds
Tube Heating Time (Typical)	18 seconds (4)
Attenuator Mode	0.1 to 15 dB
Electrode Life	5,000 Splices
Display	3.5" Color, Turn-Over LCD
Connectivity	USB
Operating Conditions	Pressure: 0 to 16,404 feet (0 to 5,000 meters) above Sea Level Wind Velocity up to 15m/s Humidity: 0 to 95% Temperature: -13 to 122°F (-25 to 50°C)
Storage Conditions	Temperature: -40 to 140°F (-40 to 60°C)
Power Supply	100 to 240V AC Adapter; Li-ion Battery (4400 mAh)
Weight	3.3lbs (1.5kg) with battery 2.6lbs (1.2kg) no battery
Dimensions (HxWxD)	4.9" x 4.9" x 5.3" (125 x 125 x 135mm)

Ordering Information:

PART NO.	CAT. NO.	DESCRIPTION
52079876	915FS	915FS Optical Fusion Splicer
52079879	915FS-KIT1	915FS Fusion Splicer & Cleaver Kit
52079878	915FS-KIT2	915FS Contractor Fusion Splicer Kit
52063415	06811	915FS FSP200 Batt
52080896	07096	Power Supply, 915FS FSP200
52064141	01335	Splice-On-Connector Adapter (SC & LC)
52066481	02401	Splice-On-Connector Adapter (ST & FC)

PART NO.	CAT. NO.	DESCRIPTION
52063414	01329	Replacement Electrodes
52064143	01332	200/250µm Adapter (Pair)
52064142	01333	900µm Adapter (Pair)
52076996	05801	Loose Tube Adapter (Pair)
52081862	07388	Universal Adapter (Pair)
52067851	03245	3mm Adapter (Pair)
55500059	NA LC	North American Line cord

OPTICAL FIBER CLEAVERS

Tempo Communications has a full suite of fiber optic cleavers including the FCL200, FCL100, 915CL and the 920CL. The FCL200 is the most capable cleaver in that it employs auto fiber end cut and auto blade return features. The 915CL has auto blade return with the 920CL providing the most economical alternative in the traditional cleaving footprint. The FCL100 is a low cost cleaver that is typically used in emergency situations or when cleaving field fibers when used in conjunction with mechanical connectors.



FCL200

Optical Fiber Cleaver

Features:

- Accurate Cleaves. Cleave multi-mode and single-mode fiber optic cables.
- Long Life. Blades rotate for longer life - over 48,000 cleaves.
- Adaptable. Supports 200um, 250um, 900um fibers, ribbon and loose tube fibers.
- Fast. For use with the 910FS, 915FS or FSP200 Optical Fusion Splicers for maximum speed and efficiency with auto return mechanism.
- Dust bin. Safely and automatically collects end cuts during the cleaving process.
- Fixed Clamp. Allows the technician to use the FCL200 as a standalone cleaver.

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Specification:

Applicable Fibers	SM (G.652); MM (G.651); DS (G.653); NZDS (G.655); BIF (G.657)
Fiber Cleaved Length	5mm to 25mm
Cladding Diameter	125µm
Coating Diameter	0.20mm, 0.25mm and 0.9mm
Fiber Count	Single and Ribbon (12)

Cleaving Angle	< 1.5°
Blade Rotation Positions	16
Blade Life	48,000 Cleaves
Weight	0.77lbs (350g)
Dimensions	2.55 x 3.85 x 2.55" (65 x 98 x 65mm)

FIBER CONNECTIONS

Tempo Communications formerly Greenlee Communication/Rifocs has the ability within the industry combining test and measurement expertise with build-to-print high-performance/high-reliability optical termination services for both harsh environment and specialty commercial applications.



In addition to high-performance cable assemblies and pigtailed, the specialty commercial services include fiber bundling, fiber polishing and termination of optical backplanes. Tempo is ISO 9001-2015 certified for highest quality assembly standards. Tempo also implemented a strict ITAR controlled program to protect customers' products and documentations.

Tempo offers an enormous range and depth in the areas of fiber optics cabling, fiber optic test and measurement instrumentation and fiber optic components. This includes both singlemode and multimode optical transmission technology.

Tempo's manufacturing experience includes fiber termination as well as connector cabling for both harsh environments and commercial applications.



Why Fiber Optics?

- Safe, secure and reliable alternative to copper wire
- No spark hazard
- Secure transmission
- RFI, EMI, and EMP immunity = total electrical isolation
- Expandable capacity = higher bandwidth
- Weight and space reductions provide significant cost savings



Military/Aerospace Applications

- Aircraft-Ground Service Communications
- Avionics Flight Cables
- Missile Control Systems
- Fighting Vehicle Radar and Communications
- Satellite System Electronics
- Fighter Avionics Upgrades
- Shipboard Data Communications, Electronic Warfare and Radar Systems
- Satellite Communications and Surveillance



Commercial Applications

- In-Flight Entertainment Systems (Commercial Airlines)
- Telecommunications Infrastructure
- Optical Switch, MUX/DEMUX Equipment in Central Office
- FTTH: Fiber to the Home Installation and Service
- Geophysical Exploration
- Laboratory Equipment and Networks
- Wind Power Generation
- Building and System Controls

FIBER CONNECTIONS

Tempo helps customers take fiber optic technology beyond the benign, protected and controlled environments of telecommunication closets and outside plant facilities.

At Tempo Communications we specialize in full custom cable assemblies. We have decades of experience building and designing some of the most complex fiber assemblies in the Military and Government Market.

Certificates:



Manufacturing and Testing of Fiber Optic Assemblies

We provide:

- Assemblies for both component and equipment manufacturers
- Final assembly of ESD-sensitive fiber optic equipment and components



Tempo Builds Lasting Alliances with our Suppliers

Through its corporate evolution, Tempo has manufactured fiber optic cables using DIAMOND actively aligned PILZ™ ferrules in their rugged AVIM connector used in many of Tempo's spaceflight applications.

During those years, Tempo has also worked very closely with military style connectors. Series III style MC3 .



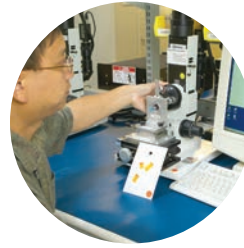
Rugged Multimode and Singlemode Fiber Optic

- DIAMOND AVIM®
- TE Connectivity/DEUTSCH RSC® (Ruggedised Singleway Connector); standard and hermetically sealed.
- M38999 Series III style, such as DEUTSCHMC3®
- RADIAL LuxCis® M38999 Series III style and ARINC 600 and ARINC 801
- Mil-Std 28876 and Mil-ST
- LC, FC and SC
- Other COTS connectors



Tempo's Fiber Connections

...is a full engineering service group that offers complete solutions to meet any customer's fiber optic needs. Our reputation in the industry is unmatched for providing highly reliable fiber optic connectors and cable assemblies for use in demanding ground, shipboard, aircraft and space applications. Together, clients and Tempo conceptualize and engineer prototypes leading to the manufacture of final assemblies.



"Cradle to Grave" Capabilities

Fiber optics can be difficult to understand without proper guidance. For this reason, Tempo is involved in every project from beginning to end. Tempo is an accomplished authority in the field of fiber optics and applications in harsh environments – we know the right questions to ask and when to ask them. Our engineers work directly with each customer when developing specifications. Because of our unique team of field experts, we can suggest possibilities our customers may not be aware of – saving both time and money.

Tempo offers a broad range of fiber optic test equipment, tools and accessories. We assemble and provide the fiber optic test, troubleshooting and maintenance kits required to support your deployment and



Custom Fiber Optic Cable Assemblies

Cable assemblies may be constructed with COTS and MIL-SPEC connectors, backshells, fibers and cables. Cable assemblies may also be developed with other fiber optic components at the customer's request or with customer-furnished materials, subject to review.

- Connectors terminated at Tempo ensure low insertion loss, high return loss and optimum performance in all fiber optic systems
- Fiber bundling to allow multiple fibers into a single termini



WIRELESS & 5G

HAND-HELD SPECTRUM ANALYZER

0.3 to 40 GHz Frequency Ranges

Fast, Accurate, RF Spectrum Analysis

for cellular LTE and 5G, satellite and
microwave communications.



Superior RF Performance

Industry leading -105 dBm receiver sensitivity, a DANL of -120 dB, and a wide 150 dBm dynamic range.



Rugged, Tough Field-Ready Chassis

Our field-ready chassis is small enough for one hand operation, and rugged for demanding jobs.



Recording and Playback

Record your RF environment and replay offline for further analysis.



Airscout Mobility can be used for noise floor, interference and signal quality measurements on location.

Designed for field technicians installing and maintaining wireless networks.

Airscout Spectrum is designed for field engineers and technicians needing to measure RF performance. It has a rugged case, shock absorbing bumpers, and a one-hand touch GUI. It also has accuracy to +/- 1 dBm, a -120 dB DANL, and a frequency range up to 40 GHz.

High Frequency Analysis up to 40 GHz

Measure mmWave 5G and high frequency satellite bands.

Fast Boot Up and Easy-to-Use GUI

Save time getting to the RF measurements you need.

Full Range of Accessories Including Horn Antennas

Get the right antenna for your frequency range.

TECHNICAL SPECIFICATIONS:



MODEL	ASPEC-03	ASPEC-08	ASPEC-40
Frequency Range (GHz)	0.3 - 3	2 - 8	24 - 40
Displayed Average Noise Level (dBm)	-128@RBW 10 KHz	-119@RBW 30 kHz	-100@RBW=100kHz
Max input power (dBm)	+27	0	0
RBW (kHz)	10, 30, 100, 300	30, 100, 300, 1000	100, 300, 1000
VBW (kHz)	1, 3, 10, 30	1, 3, 10, 30, 100	1, 3, 10, 30, 100
Min. Span (MHz)	0.5	1.5	1.5
Max. Span	Full bandwidth	Full bandwidth	Full bandwidth
Sweep Speed(s)	0.15 s @ 15 MHz Span	0.15 s @ 15 MHz Span	0.15 s @ 15 MHz Span
Accuracy (dB)	+/-1	+/-1	+/-1
Input	50 ohm SMA	50 ohm SMA	50 ohm SMA
Interface	USB-C	USB-C	USB-C
Battery Life (hours)	4	4	4
Operating temperature	-1°C to +55°C	-1°C to +55°C	-1°C to +55°C
Dimensions (in)	5.31 x 3.27 x 1.34in	5.31 x 3.27 x 1.34in	5.31 x 3.27 x 1.34in
Weight (lbs)	1.25	1.25	1.25

Ordering Information - BASIC KIT:

Includes Analyzer unit, USB cable, USB AC plug, USB-C to USB-A adapter.

PART NO.	CAT. NO.	DESCRIPTION
55501344	ASPEC03BK	3 GHz Basic Kit
55501345	ASPEC08BK	8 GHz Basic Kit
55501346	ASPEC40BK	40 GHz Basic Kit

Ordering Information - DELUXE KIT:

Includes Basic Kit plus carabiner, RF cable, RF adapters, leatherette case.

PART NO.	CAT. NO.	DESCRIPTION
55501347	ASPEC03DK	3 GHz Deluxe Kit
55501348	ASPEC08DK	8 GHz Deluxe Kit
55501349	ASPEC40DK	40 GHz Deluxe Kit

Ordering Information - mmWave Antenna KIT:

Includes 24-40 GHz analyzer.

PART NO.	CAT. NO.	DESCRIPTION
55501350	ANTMMWAVE	mmWave Antenna Kit



COMPLIANCE
WITH ITU-T K.145



READY FOR 5G
MONITORING



OPTIONAL
FEATURES



OPTIONAL
ACCREDITED CALIBRATION



OVER EXPOSURE WARNING

Audible, visual
and vibratory alarm



EMF EXPOSIMETER

Datalogger, instant and
average values



ICNIRP, 2013/35/EUF, CC, SC6, NATO

Occupational & Public
Shaped Response



ISOTROPIC RMS

Electric
Field Sensor

WaveMon Applications



Worker's Safety R



Telecommunications



Railway



Medical



Labs



Aeronautical



Industry



Defense

Specifications:

Sensor type	Isotropic, RMS diode technology
Response	Shaped to specific standards
Dynamic range	1 -300 %
Linearity	±0.5 dB (2%- 200%)
Isotropic deviation	±1 dB< 3 GHz(Efield)
Interface	1 button on/off, status and low battery LED
Indicators	6 LEDs+ Audio+ Vibration
Alarm threshold	2 limits adjustable by user
Connectivity	Waterproof USB (for downloading data and recharging)
Falling detection	Yes
Autonomy	> 1 month (at 8 h/day, 5 days/week)

Data logger	> 1 000 000 events
Positioning	GPS and Altimeter (Optional)
Logging Interval	1 second to 60 minutes (adjustable by user)
Averaging Interval	1 second to 60 minutes (adjustable by user)
Battery Type	2 x AA NiMH battery rechargeable by USB
Protection	IP 54
LF immunity (50 -60 Hz)	30 kV/m
Temperature range	-20 / +50 °C (-4 / + 122 °F) - Charging: 0 / +40 °C (+32 / + 104 °F)
Size	174x 42.5 x 33 mm (6.8 x 1.7 x 1.3 ")
Weight	190 g (6.7 oz.)

Ordering Information:

VERSIONS	RESPONSE SHAPED TO	FREQUENCY RANGE	FREQUENCY RESPONSE
WaveMon RF-60 ICN	ICNIRP98 Occupational / Public	1 MHz-60 GHz	1 MHz -10 GHz: ±3.5 dB 10 GHz - 35 GHz: ±4 dB 35 GHz - 60 GHz: +10/-6 dB
WaveMon RF-60 FCC	FCC Occupational / Public	1 MHz-60 GHz	1 MHz -10 GHz: ±3.5 dB 10 GHz - 35 GHz: ±4 dB 35 GHz - 60 GHz: +10/-6 dB
WaveMon RF-60 EUD	EU Directive 2013/35 Recommendation 1999/519/EC	1 MHz-60 GHz	1 MHz -10 GHz: ±3.5 dB 10 GHz - 35 GHz: ±4 dB 35 GHz - 60 GHz: +10/-6 dB
WaveMon RF-60 SC6	Safety Code 6 Occupational	10 MHz -60 GHz	10 MHz-10 GHz: ±3.5 dB 10 GHz - 35 GHz: ±4 dB 35 GHz - 60 GHz: +11/-6 dB
WaveMon RF-60 NATO	NATO standards Zone 1	1 MHz-60 GHz	1 MHz-10 GHz: ±3.5 dB 10 GHz - 35 GHz: ±5 dB 35 GHz - 60 GHz: +12/-6 dB



The Tempo Communications brand is synonymous with quality, service and innovation. Our Zero Defects Policy guarantees perfection, while our customer service continues to ensure satisfaction. As the optics industry continues to evolve, Tempo customers can rest assured that we will always offer custom products that revolve around their needs and continue to support each customer with superb customer service.

www.tempocom.com

Brandon Crowell

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