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# Optoelectronic

# **JOINWIT**



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# **About Joinwit**

Established in 1998, Joinwit Optoelectronic Technical Co., Ltd is the Hi-tech enterprise. Who specialized in R&D, manufacturing and selling a full range of Optical T&M as well as Optical passive components in both domestic and overseas markets.

Joinwit has been awarded ISO9001 certificate of Germen TUV, EMC certificate, ROHS certificate, and Hi-Tech Enterprise Certificate, We also acquired many technical patents on the development and applications in the field of Fiber Optic area. Joinwit instruments are widely used in the Telecom, CATV operator. And we also win the market share in North America, Latin America, Mid and North Europe, the whole Asia and so on.

At present, Joinwit main products include:

#### Fiber Optic Test Instruments:

Handheld Optical Power Meter, PON Power Meter, Light Source, Visual Fault Locator, Multi-meter (Loss tester), OTDR, Fiber Ranger, Optical Fiber Identifier, Optical Talk Set, Optical Attenuator; Bench-top Optical High Stable Laser Source, Optical Power Meter, Optical Return Loss/ Insertion Loss Test Station for SM & MM, Optical Components Test System, and Bench-top Optical Attenuator.

#### Fiber Optic Passive Components:

Optical Couplers,PLC splitters, WDMs, Patch Cords & pigtails,all kinds of fixed and variable attenuators.

Tool kits for Optical Cable Construction and Cleaning Optical Cable Emergency Tools, Fiber Inspection & Cleaning Kits, Cable Inspection & Maintenance Tool Kits, and FTTX Tool Kits.



# Handheld Testers

# JW3216 Handheld Optical Power Meter

JW3216 Handheld Optical Power Meter is Joinwit newly designed fiber optic tester, it aims at fiber network installation, fiber network engineering acceptance and fiber network maintenance. Combined usage with JW3116 handheld optical light source, it offers a quick and accurate testing solution on both SM and Mf fibers. Compared with usual power meters, the JW3216 has more great functions/features of automatic wavelength identification and switching and intelligent backlight control. Also the JW3216 features good appearance, good touch feeling and considerate humanity design.



# JW3208/JW3234/JW3402 Handheld Optical Power Meter

JW3208 handheld optical power meter is a compact and an easy-to-use testing instrument for optical fiber networks, which can be used for absolute optical power measurements as well as for relative loss measurements in optical fibers. It features ingenious appearance, wide range of power measurement, high accuracy and user self-calibration function with high performance-to-price ratio.





# JW3213 PON Optical Power Meter

JW3213 PON Optical Power Meter Is an upgraded version of JW3213 PON power meter, it aims at the FTTx application and maintenance which not only can be used to test and estimate the signals of the voice, data and video at the same time, but also can be used to test the continuous wave light power. The calibrated wavelengths for CW light power measurements includes 1310,1490,1550,1625nm. It is an essential and ideal tester for the construction and maintenance of the PON projects.



# JW3213N PON Optical Power Meter

JW3213N PON Optical Power Meter is designed by Joinwit base on JW3213 PON power meter. This power meter is able to simultaneously test and estimate the signals of the voice, data and video. It is an essential and ideal tool for the construction and maintenance of the PON projects.



# **JW3318 PON Termination Tester**

With the development of FTTH, investment on optical network maintenance is getting higher. To solve the problem of idle resources and reduce the waste of port resources, joinwit invent JW3318 PON terminal tester. The tester could solve the problem of incomplete access data of community resources, inaccurate installation data and incomplete release of field ports, which lead to more and more serious management problems of PON network resources maintained by operators. The instrument can intelligently troubleshoot optical network terminal resource status without maintenance personnel entering the user's home. Besides, it has integrated function modules such as full-function PON power meter, VFL, OPM, OLS. JW3318 is suitable in the field of PON network maintenance and terminal resource inventory.



# JW3116 Handheld Adjustable Light Source

JW3116 Handheld Adjustable Light Source is Joinwit newly designed fiber optic tester, it aims at fiber network installation, fiber network engineering acceptance and fiber network maintenance. Combined usage with JW3216 handheld optical power meter, it offers a quick and accurate testing solution on both SM and MM fibers. The JW3116 provides 1 to 4 wavelengths and output power can be adjustable on customer requests. Also the JW3116 features good appearance, good touch feeling and considerate humanity design.



#### JW3109 Handheld Optical Light Source

JW3109 optical light source can provide 1 to 4 output wavelengths to meet specific requirements, including the 650nm red source and the 1310/1550nm wavelengths for single mode fiber or the 850/1300nm wavelengths for multimode fiber, as well as other wavelengths according to customer needs. Together with the JW3208 optical power meter, it is a perfect solution for the fiber optic network characterization.



# JW3105-A/N/P Visual Fault Locator (VFL)

The JW3105 Pentype VFL is specially designed for field personnel who need an efficient and economical tool for fiber tracing, fiber routing and continuity checking in optical network. It includes:

- Finding the breakpoint, poor connections, bending or cracking in fiber optic cables.
- · Finding the faults of OTDR dead zone
- End-to-end visual fiber identification



# JW3223/JW3235 VFL Optical Power Meter

Power meter and VFL integrated in one unit, this tester allows to perform both optical power/loss measurements and fiber faults tracing visually.VFL Power Meter is an ideal tester used in quickly mechanical splicing and FTTx networks. Optical Port: FC, SC, ST interchangeable supports various optical connectors.





# JW3209 Handheld Optical Multi-meter

Integrates the functions of an intelligent optical power meter module and a highly stable light source module in one unit. It can also provide data storage and upload functions. It is widely used in installation measurement and maintenance of DDN. Telecom and CATV networks.



# JW3306B/D Optical Fiber Identifier

JW3306B/D Optical Fiber Identifier can quickly identify the direction of transmitted fiber and display the relative core power without any damages to the bended fiber. When the traffic is present, the intermittently audible tone is activated.

The JW3306B/D optical fiber identifier also recognize the modulation like,270Hz,1KHz and 2KHz. When they are used to detect the frequency, the continuously audible tone is activated. There are four adapter heads available:  $\emptyset$ 0.25,  $\emptyset$ 0.9,  $\emptyset$ 2.0 and  $\emptyset$ 3.0. The JW3306B optical fiber identifier is powered by a 9V alkaline battery.



# JW3306C-CT Optical Fiber Identifier

JW3306C Optical Fiber Identifier is an important tool for optical maintenance, which is used for nondestructive fiber identification work, can be detect in any location of both SM and MM fiber. Meanwhile when you combined with JW3306CT Optical Signal Generator, which can realize low–frequency signal online injection, and also realize to find a particular fiber online without modulation signal in optical fiber signal. This tester is designed for machine room complex optical patch cords provides a good solution



### JW3226A CWDM Optical Power Meter

JW3226A CWDM Power Meter is specially designed for CWDM system, covering wavelength from 1270~1610nm.lt measures and monitors optical power and attenuation value of 18 channels from wavelength 1270nm to 1610nm wavelength.

All calibrated wavelengths will be tested simultaneously and all test results will show in the LCD screen

This CWDM power meter features simple operation, quick response and high measurement accuracy which make it an ideal tester in CWDM system installation and maintenance.



# JW4103N Optical Talk Set

JW4103N Optical Talk Set is an intelligent and efficient instrument that combines in one set the functions of both a digital optical phone and a stabilized light source. It is widely used in operations of installation, optical testing, maintenance and fiber attenuation value testing in data network, CATV and Telecommunication network. The JW4103N Talk Set can carry out full-duplex communication with high quality connection and not be affected by distance.



# JW3303 Optical Variable Attenuator

JW3303 handheld optical variable attenuator is used for continuously variable optical signal attenuation. As the attenuator is used in the laser system for the on-line testing, therefore, JW3303 can be used in the digital system of communication devices (such as: PHD, SDH) and also in the system of adopting analog modulation (CATV)



#### JW3308A Handheld Return Loss Tester

In the process of optical fiber installation and system operation, the RL is an important performance parameter. In the actual optical communication system, usually there are several insertion devices. Reflection energy produced by each of those devices returns to the reflector partly or fully. So it's harmful to the reflector. This optical RL unit is designed to measure various optical components, refection attenuation in the optical link and control the quality of optical fiber connectors. It's also the on-site optimization solution as the optical RL measurement, IL meter, optical power meter, optical source. It has the data storage function.



# JW3224/JW3124 MPO Power Meter& MPO Light Source

JW3224MPO Optical Power Meter and JW3124MPO Optical Light Source is special for testing MPO fiber. At recent years, as the rapid development of data centre and cloud computing, also with rapid growth of multi fibers" (MPO) requirement. However, on the site of measurement process, traditional single channel Optical power meter with complex measurement and low credibility. Based on this, JW3224&JW3124 MPO products arises at this moment. The product can test the insertion loss of MPO fibers and polarity with only one key, And the integration of a variety of data storage, threshold analysis, data export and other applications, Compared with the traditional instrument, the test efficiency of JW3224 & JW3124 is more than 10 times , it is the best choice for field application of MPO room test, calibration of production line, Determination of polarity.



# JW3304N/JW3305 Optical Fiber Ranger

JW3304N Optical Fiber Ranger is the most portable test instrument in the industry. It adopts the OTDR technical principles and integrates the powerful analysis software, which enables the JW3304N fiber ranger detect fiber faults location more accurate and easy.



#### JW3305A MINI OTDR

- \*Portable, rugged, lightweight; Easy to use.
- \*More accurate testing results and better repeatability.
- \*Automatic Pulse Width Control design to ensure a convenient operation.
- \*Easy to identify the faults location.
- \*Built-in visual fault locator (VFL), conveniently to findthe faults in dead zone.
- \*Dust, water and shock proof, designed for field use
- \*Long battery life, up to 5000 measurements operation.
- \*2.6 inch screen, data saves in SOR format.



#### JW3302 OTDR

#### 1 General Information

JW3302 handheld OTDR is a new generation of intelligent optical measuring instrument designed for the optical fiber communication system testing by JOINWIT. This product is mainly used to measure the parameters of optical fibers and cables, such as length, loss, and connection quality, etc.; it can realize the accurate positioning of event points and fault points, and can be widely used in the construction, maintenance testing and emergency repair of the optical fiber communication systems as well as the research, production and production measurement of optical fibers and cables and so on. This product can provide you with the highest performance of solutions for installation and construction of fiber optic network construction and the



#### 2 Key Feature

subsequent fast and efficient

- 1. Novel and beautiful appearance and structure design;
- 2. Special protection design of shell, durable and able to work under bad environment;
- 3. Simplest operating interface, shortcut key operation, easy to use;
- 4. Dual operation of touch screen and keys;
- $5. Short\ event\ blind\ zone, test\ 5\ m\ fiber\ jumper\ easily;\ Have\ a\ multiple\ kinds\ of\ test\ modes\ such$
- as automatic test, manual test \* and blind zone test, etc..
- 6. Light detection and alarm are provided in the line, to avoid signal light from damage the instrument in the tested optical fiber;
- 7. Built-in high-power visual red light fault positioning function;
- 8. The USB interface functions can quickly realize the file transfer and report form preparation;
- 9. The universal light output connector is easy to replace, which is able to realize e a variety of interface tests;
- 10. Smart battery electric quantity indication and low voltage alarm function;
- 11. 10-hour long time of duration, particularly suitable for the field construction application for a long time;
- 12. The multi-wavelength and dynamic range selection can satisfy customer's high higher cost performance demands to the greatest extent;
- 13. The highly intelligent analysis software can accurately identify the fault splices, connectors and even macro-bending;
- 14. Language: multiple choices of languages, such as Chinese, English, etc, which can be customized according to customer's requirements.

#### 3 Specifications

Model	JW3302A	JW3302B
Type of optical fiber	Single – mode	
Center wavelength	1310nm/1550nm (±20nm)	
Maximum dynamic range (dB)	36/35	30/28
Event blind zone	1.5m	
Attenuation blind zone	10m	
Display type	3.5inch, color LCD, touch screen operation	
Optical interface	FC/UPC (Interchangeable SC, ST)	
Test range	500m,1km,2km,4km,8km,16km ,32km,64km,128km	
Pulse width	10,30,50,100,275,500,1000, 5000,10000ns	
Range accuracy	± (1m + sampling interval +0.005% × distance)	
Attenuation measurement	±0.05 dB/dB	
Reflection measurement	±4dB	
Data storage	≥ 1000 test curves	

Communication interface	USB
Power supply mode	AC / DC adapter: AC: 100V ~ 240V (1.5A), 50/60Hz DC: 18V to 20V (2A) Internal lithium-ion battery pack: 7.4V, 4400mAh
Battery operation time	≥ 10hours
Operating temperature	-5 °C ∼50 °C
Storage temperature	-20 °C ~70 °C
Relative humidity	0℃~95℃, no condensation
Weight	≤ 1kg
Volume	220mm×100mm×65mm

#### Standard Packages

Instrument, FC/PC connector, NiMH battery, Trace Manager software CD, Data cable (USB/RS-232), AC adaptor, Soft carrying case, Warranty card, Quick reference guide.

#### JW3302F OTDR

#### 1 General Information

JW3302F series Optical Time Domain Reflectometer (OTDR) is an intelligent meter of a new generation for the detection of fiber communications systems. With the popularization of optical network construction in cities and countrysides, the measurement of optical network becomes short and disperse; JW3302F is specially designed for that kind of application. It's economic, having outstanding performance.

JW3302F is manufactured with patience and carefulness, following the national standards to combine the rich experience and modern technology, subject to stringent mechanical, electronic and optical testing and quality assurance; in the other way, the new design makes JW3302F more smart and compact and multi-purpose.

Whether you want to detect link layer in the construction and installation of optical network or proceed efficient maintenance and trouble shooting, JW3302F can be your best assistant.



#### 2 Feature

- \* Integrated design, smart and rugged
- \* IP65 protection level, outdoor enhanced
- \* 7-inch anti-reflection LCD screen
- \* PON online test module (1625nm) is optional
- \* Support multi-language display and input
- \* FTTX test with PON networks
- \* CATV network testing
- \* Access network testing
- \* LAN network testing
- \* Metro network testing

#### 3 Specifications

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Model	JW3302F	
Dimension	253×168×73.6mm 1.5kg (battery included)	
Display	7 inch TFT-LCD with LED backlight (touch screen function is optional)	
Interface	1×RJ45 port, 3×USB port (USB 2.0, Type A USB×2, Type B USB×1)	
Power Supply	10V(dc), 100V(ac) to 240V(ac), 50~60Hz	
Battery	7.4V(dc)/4.4Ah lithium battery (with air traffic certification) Operating time: 12 hours, Telcordia GR-196-CORE Charging time: <4 hours (power off)	
Power Saving	Backlight off: Disable/1 to 99 minutes Auto shutdown: Disable/1 to 99 minutes	
Data Storage	Internal memory: 4GB (about 40,000 groups of curves)	
Language	User selectable (English, Simplified Chinese, traditional Chinese, French, Korean, Russian, Spanish and Portuguese-contact us for availability of others)	
Environmental Conditions	Operating temperature and humidity:-10℃+50℃, ≤95% (non-condensation) Storage temperature and humidity:-20℃~+75℃, ≤95% (non-condensation) Proof: IP65 (IEC60529)	
Accessories	Standard: Main unit, power adapter, Lithium battery, FC adapter, USB cord, User guide, CD disk, carrying case Optional: SC/ST/LC adapter, Bare fiber adapter	

#### 4 Technical parameter

Type	Testing Wavelength (MM: ±20nm, SM: ±10nm)	Dynamic Range (dB)	Event Dead-zone (m)	Attenuation Dead-zone (m)
JW3302F-S1	1310/1550	32/30	1	8/8
JW3302F-S2	1310/1550	37/35	1	8/8
JW3302F-S3	1310/1550	42/40	0.8	8/8
JW3302F-S4	1310/1550	45/42	0.8	8/8
JW3302F-T1	1310/1490/1550	30/28/28	1.5	8/8/8
JW3302F-T2	1310/1550/1625	30/28/28	1.5	8/8/8
JW3302F-T3	1310/1490/1550	37/36/36	0.8	8/8/8
JW3302F-T4	1310/1550/1625	37/36/36	0.8	8/8/8
JW3302F-M1	850/1300	28/26	1	8/8
JW3302F-SM	850/1300/1310/1550	28/26/37/36	0.8	8/8/8/8

# JW4106S Optical Fiber Fusion Splicer

#### 1 General Information

Obtaining 16 patents of invention and 58 technical innovations, a brand—new product—JW4106S Optical Fiber Fusion Splicer is launched, thanks to 5 years of painstaking research of 28 engineers.JW4106S implements industrial—grade CPU+FPGA structure of high-performance, completely fresh HD optical fiber microscope, imported high-speed motor and aluminum—magnesium alloy materials extensively. Compared with JW4106, our start product, JW4106S lowers the size by 38%, the weight by 52%, the power consumption by 57%, but improves the speed by 60%, the environment adaptability by 80% and the reliability (MTBF) by 200%. You can get unprecedented fusion splicing experience.



#### 2 Key Feature

- \* 7s fast fusion splicing, 18s highly efficient heating.
- \* 320 times image magnification, 5mm fusion splicing for fibers of ultra-short cutting length
- \* 300 groups of fusion splicing modes, 100 groups of heating modes
- \* 10000 groups of fusion records, 64 images storage
- \* Ceramic presser foot, ceramic V-block, all-in-one fixture
- \* Dual-direction splicing, automatic splicing, intelligent pyrocondensation
- \* USB and SD card interfaces, U-disk automatic software upgrade
- \* Built-in modular lithium battery, supports 220 times of splicing and heating cycles.
- \* Small in size and light in weight, the splicer is easy to carry and can be lift by one hand.
- \* Water-resistant, dust-resistant and shock-resistant in design Water-resistant and dust-resistant can meet IP52 requirements.

#### 3 Technical Specifications

Model	JW4106S
Alignment method	Precise core alignment and cladding alignment
Applicable fibers	Any common optical fibers,rubber-insulated fibers and jumpers that meet
' '	requirements of ITU~TG.651~653,ITU~TG.655andITU~TG.657.
Optical fiber diameter	Cladding:80~150µm coating layer:0.1~3mm
Cutting length	5~16mm(coated optical fiber diameter ≤ 250µm);10mm(coated optical
	fiber diameter:0.25~3mm)
Fusion splicing consum	0.02dB(SMF):0.01dB(MMF):0.04dB(DSF):0.04dB
ption(typicalvalue)	
Return loss	(NZDSF)Better than 60dB
Fusion splicing time	7Ss
(typlcal value)	
Heating time(typical	18s
value)	
Pulling force test	1.96~2.25N
Thermal shrinkage tube	60mm,40mm and a series of thermal shrinkage tubes
Graphical display	High-performance 4.3 inch LCD
Magnification time	320 times/88 times
Fusion splicing record	10000groups
Battery capacity	11.1V,6400mAh,typical value of fusion splicing and thermal cycle is 220
	times
Battery service life	Cycle charging times reach 300~500,can be replaced by customers
Electrode service life	Typical value is 4000 times,can be replaced by customers
Construction lighting	Bullt-in lights with high-brightness and wide lighting area
Working environment	Temp:-10~50℃:hum:0~95%RH,height above sea level:0~6000m
Operation interfaces	GUI graphical operation interfaces
External power	AC:AC100~240V,60Hz,0~1.5A:DC:DC10~15V
External port	USB/SD
Dimensions Weight	120mm (W) x130mm (H) x154mm (D) (without rubber anti-vibration psd)
	1.59kg (host engine),0.37kg (battery)

# JW4108 Digital Fiber Fusion Splicer

#### Main Features

- \* 5 inches high Resolution colorful LCD display
- \* Average splice time: 10 second
- \* Average tube-heat time: 30 second
- \* Lithium battery: up to 180 times of continuous splice and heat
- \* Simultaneous X and Y views with 180 times magnification
- \* New developed technology providing wind and dust resistance
- \* Splicing mode: Auto & Manual & Full-Automation
- \* USB Port
- \* Storing 6,000 groups of splice results.
- \* Multipurpose optical fiber fixture (Such as: Rubber-insulated wire, fiber optic patch cord, bare fiber)



# JW4109 Optical Fiber Fusion Splicer

#### 1 General Information

JW4109 Fusion splicer is designed to splice many types of fiber by using core diameter aiming rationale, its shape is compact, light weight, which is suitable for field work. Operation is simple, fusion speed is high, and fusion loss is small.

JW4109 Fusion Splicer uses 2 in 1 power module design, during the work, the Fusion Splicer can be supplied by the polymer lithium ion battery separately; or use AC adapter for electricity supply; when adapter is used for electricity supply, the polymer lithium ion battery is charced at the same time.



#### 2 Technical Specifications

Model	JW4109
Splicing Type	SM, MM, DS, NZDS
Splicing Loss	0.02dB(SM), 0.01dB(MM), 0.04dB(DS),
Return Loss	>60dB
Splicing Mode	Manual, Half Auto, Auto
Fiber Alignment	Core to Core Alignment by PAS technology
Applicable Fiber	Cable indoor and 0.25mm,0.9mm fiber, SC connector(option)
Splicing Time	≤9s
Heat Time	<30s
Cleaved Length	8~16mm
Fiber Image/ Magnification	350/280
View Display	5 inch digital high-quality LCD screen
Tension Test	Standard 2N (option)
Heat Shrinkable Sleeve	60mm, 40mm and serials heat Shrinkable Sleeve
Battery Capacity	7200mAh, 3 hours charging time( splicing and charging at same time)
Battery Life	Cycling charge 300-500 times, easy to replace battery
Electrodes Life	3000, easy to replace electrodes
Power Source	≤20W
Interface	USB Convenient data download and software update
Construction Lighting	Built in high brightness, wide range of lights, easy to operate at night
Power supply	Built in lithium battery 6800mAh 11.1V; external adapter, input: AC100-240V, output: DC13.5V/4.5A
Operating Condition	0-5000m above sea level, Temperature: -10-60℃, Humidity:0~95%RH (No dew)
Weight (including battery)	1.98 KG (including battery)
Dimension (LxWxH)	135mm(L) × 158mm(W) × 155mm(H)

# JW4210 Gigabit Ethernet Tester

#### 1 General Information

JOINWIT JW4210 is a handheld 10M/100M/1000M gigabit Ethernet tester, used for the Ethernet installation, operation and maintenance services. The JW4210 design in a small and portable device which provides packet capture, network monitoring, networkperformance testing, data generation, test leads and error test functions in an organic whole unit. It is widely used in network layer 1/2/3 BER test and RFC – 2544 test. JW4210 help maintenance people to quickly locate fault and analysis network

#### 2 Key Feature

- \* Electrical port and optical ports with rate at 10/100/1000Mbps
- \* Smart and durable, field application ready
- \* 5 inch LCD color touch screen, smart navigation menu
- $^{\star}$  Results can be shown graphically and numerically
- \* RFC2544 auto test, quickly find the fault
- \* Full Y.1564 test
- \* LED indicator light, on-screen display and ICON
- \* Large capacity memory to save settings and test results
- \* Embedded software to easy upgradents.

#### 3 Functions

- \* L1/L2/L3 BER Test
- \* Jitter Test
- \* Multi- stream traffic generation (10 traffic stream)
- \* Receiving end flow filter analysis
- \* VLAN test
- \* Connectivity test: PING, TRACE ROUTE,IP scan
- \* Through, terminal mode test and frame length, frame type, and utilization stat.
- \* Optical power test, optical module temperature, working current, voltage test
- \* Cable VCT: Identifying short circuit, open circuit, cable length fault location
- \* Service disruption time test
- \* Intelligent loop back test
- \* USB data interface, driver-free
- \* Integrated RFC2544 benchmark test: throughput, packetloss, latency,back-to-back

# 4 Technical Specifications

Model	JW4210	
Testing port	Dual-RJ45 port:10/100/1000 BASE-T	
	Dual-SFP port: 1000BASE-SX/LX/ZX	
Standard	IEEE 802.3 ,RFC1242,RFC2544,Y.1564	
Connector	RJ-45/USB	
LED indicator	POWER,PORT1 LINK/ACT,PORT2 LINK/ACT,ALARM	
Display	800 × 480 color LCD touch screen	
Battery	Lithium battery / AC adapter	
Power Supply	4 hours continuous operation	
Operating temperature	0℃~50℃	
Relative humidity	0 to 95% (non-condensing)	
Weight	800g	
Dimension	233 × 110 × 64mm	





# JW4301 Cable and Antenna Analyze

#### General Information

JW4301 Series cable & antenna analyzer can test Return Loss and VSWR of load' frequency. Also can get Return Loss, VSWR of DTF (distance-to-fault) and Cable Loss. Users can be easy to know the connection of cable & antenna system is reliable whether or not. JW4301 series with frequency range 25MHz-4GHz and 60dB dynamic range can suitable for 2G/3G/4G/WiMAX system etc.It adopts 7 inch color LCD touch screen and More than 8 hours long battery life .The user experience is excellent JW4301 series is the necessary measuring instrument for the new generation of wireless network development, upgrade and maintenance.



# JW4211 10g Gigabit Ethernet Tester

#### General Information

JW4211—10G Ethernet tester provides a complete test for next generation Ethernet solution. There are many different test modules, which can help to verify the performance of their Ethernet. It has two 10/100/1000Mb/s electrical interfaces, two 100/1000Mb/FP optical interfaces and two 10Gbps SFP+. It can generate and analyze the test traffic streams, and provide the result. It provides install, maintain services and activate new profession service. It can provide a variety of test functions, which can help user to control and know the quality of Ethernet. We believe that the tester will be the comprehensive and simple Ethernet and advanced IP connectivity test suites for the field technicians.



#### Main Features

- \* Smart and durable, field application ready
- \* 7 inch HD color touch screen, sun readable
- \* User-friendly user interface
- \* PC remote control
- \* Test profiles and data management, USB/FTP transfer
- \* Comprehensive testing for Ethernet testing
- \* Lithium battery up to 4 hours continuous testing

# JW6209 Optical Cable Survey Meter

#### General Information

Adopting the fiber interference technology JW6209 is designed to fast identification of cables, which is buried in the wells or elevated in wire pole. During the installation, constructors usually need accurately find the targeted or wanted cable from multi cables. Using JW6209, the contractors just need slightly click the cables in the wells or wire pole. When constructors click the targeted or wanted cable, the clear "click" voice would be heard from JW6209, which is put in the central office and then finally identify the cable. It is applicable for all types of cables and features easy operation, non-damage to cables.



# Bench-top Test Instruments

# JW18001 Optical Device Integrated Test System Platform

#### 1 General Information

JW18001 is an integrated test system platform with optimized integration and the strongest configuration. It provides one–stop customized test plan and software applications through the combination of application modules which achieves a variety of optical devices performance testing, long–term dynamic monitoring, transient monitoring system solutions and meet the different needs of optical device testing. The application modules such as return loss, differential loss, high speed offset, VOA, optical switch, transient response and other modules have been optimized and integrated, so the researchers and operators can be free from many independent devices.



#### 2 Key Feature

- 1) Pre-installed windows system, eliminating system compatibility issues;
- 2) Support multi-channel optical power meter module, light source module, optical switch module, no-mandrel insertion loss module, high speed polarization control module and so on;
- 3) The system can be extended to 10 module slots.
- 4) Support 8~64 channels optical power meter:
- 5) Support external computer monitors;



# JW8103 Dual-channel High Speed Power Meter

#### 1 General Information

JW8103Bentch top Dual-channel High Speed Power Meter is according to the newest optical power test requirements ,combined with the technology characteristics of the power meter in domestic and overseas; the dual channel high speed power meter with very fast sampling rate(can achieve 51200 sampling point per second) and fast stable time, greatly improve the test efficiency: provide large InGaAs detector and adaptors. make it suitable for bare fiber environment and dynamic range test: provide more comprehensive menu settings function. for many test situations to use.



#### 2 Key Feature

- 1. Wavelength can be adjustable every 5pm
- 2. Highest sampling rate: 50KSPS
- 3. Highest external rate: 10KHz
- 4. Provides external synchronous trigger and single trigger sampling function (PDL mode)
- 5. Provides maximum automatic search work mode (PDL mode)
- 6. Provides dual-channel automatic ratio calculation (UNImode)
- 7. More than 30 user calibration wavelengths
- 8. More menu settings, more comprehensive system function
- 9. Optical power detection can be low to -85dBm

#### JW8307A No-mandrel Insertion/Return Loss Test Station

#### 1 General Information

JW8307A series No-mandrel Insertion/Return Loss Test Station is a Joinwit newly-developed instrument, which can realize the return loss test of optical devices with no-mandrel method. It is a technological breakthrough in the domestic market and greatly improves the efficiency of RL test of optical devices. Meanwhile, it provides a good solution for RL test of the optical device which cannot be wrapped or is not convenient to be wrapped.



#### 2 Key Feature

- 1. Real no-mandrel RL test, no matching gel
- 2. Automatic IL&RL test
- 3. Automated, concurrent dual wavelength IL and RL
- 4. Provides different working modes as OPM, IL, RL, ILRL, IL2, ILRL2
- 5. High-precision optical power meter mode, wide measurement range (up to +5dBm~-75dBm)
- 6.USB/RS-232 interface to support software application
- 7. The part of optical power meter can choice integrating sphere.
- 8. Extensive menu setting contents, more comprehensive system function

#### 3 Specifications

Model	JW8307A		
Optical Power Meter (I	Optical Power Meter (Detection Port)		
Detector type	InGaAs	integrating sphere	
Detector size	Φ2.0mm	Ф2.0mm	
Wavelength range	850~1700 nm	850~1700 nm	
Measurement Range	+5dBm~-85dBm	+10dBm~-55dBm	
	±0.04dB (+5~-55dBm)	±0.04dB (+10~-35dBm)	
Linearity	±0.08dB (-55~-65dBm)	±0.08dB (-35~-45dBm)	
	±0.2dB (-65~-75dBm)	±0.2dB (-45~-55dBm)	
Fiber Type	Standard single mode and multimode fiber(core diameter is not more than62.5 µm)	Standard single mode and multimode fiber(core diameter s not more than62.5 µm)	
Total uncertainty	±3%	±3%	
Total Noise	<10pW	<10pW	
Measurement Unit	dBm/dB	dBm/dB	

Insertion Loss Part and Return Loss Part

JW8307A	SM	MM
Insertion Loss Part		
Wavelength	1310nm 、1550nm	850nm 、1300nm
Source Type	FP Laser	LD
Output Power	> 0 dBm	> - 5dBm
Optical Connector	FC/APC	FC/APC
Return Loss Part		
Source Type	pulsed FP Laser	pulsed FP Laser
Measurement Range	12dB ~ 72dB	12 dB ~ 55 dB
Measurement Accuracy	± 1dB ( 12dB ~ 55dB) ±1.5dB ( 55dB ~ 65dB)	±1dB ( 12dB ~ 40 dB) ±1.5dB ( 40dB ~ 50 dB)
Standard Optical Cable	2 ~ 10 meters	2 ~ 10 meters
The Shortest Measured Cable Length	2 meters( Endface -APC) 3 meters (Endface-PC)	2 meters( Endface -APC) 3 meters(Endface-PC)
The Longest Measured Cable Length	1000 meters	1000 meters

# JW3201 Bench-top Optical Power Meter

Bench-top Optical Power Meter is designed specially aim at passive components factories, R&D institutions and universities. With features of accurate measurements, durable use and easy operation, Bench-top Optical Power Meter becomes a perfect test equipment in fiber optic works which can instead the advanced imported products with its high cost-performance ratio. equipment in fiber optic works which can instead the advanced imported products with its high cost-performance ratio.



# JW8101 Bench-top Optical Power Meter

JW8101 Bench-top Optical Power Meter is designed specially aim at production testing of fiber optic components. With features of accurate measurements, durable use and easy operation, JW8101 Bench-top Optical Power Meter becomes a perfect test equipment in fiber optic works.



# JW8001 Bench-top Stabilized Light Source

JW8001 Bench-top Stabilized Light Source can satisfy the multiple needs of customers and achieve single wavelength output through unique automatic power control (APC) technology, automatic temperature control (ATC) technology and high stability output power and wavelength stability. It is an ideal instrument for scientific research and production, which requires a large range of attenuation variation, stable power and wavelength. It is widely used in the fields of scientific research, production and Engineering of optical communication, transmission and optical fiber sensing.



#### JW3327A/B Insertion Loss/Return Loss Test Station

JW3327A/B Insertion Loss/Return Loss Test Station.

Is a high performance loss test station that is designed especially for Optical Passive Components production Test and Lab Test. It combines three different working modes as a return loss meter, optical power and loss meter and a stable laser source in one test station.



# JW8006 Series SLED Optical Source

SLED(Super luminescent light-emitting diode) is a super broadband optical source which is designed for fiber sensor;, optical fiber gyroscope, lab application field. It has the feature as broaden bandwidth, customizable center wave length, high output power, etc. Benchtop (for lab), standard module(150\*125\*20mm, with modulation function) and mini module(90\*70\*15mm) is available. The key component is employed the FWHM bandwidth up to 40nm high power SLEDs to ensure the spectrum performance. Stability is ensured by unique ATC and APC circuit. The output power is adjustable by RS232 or RS485 port.



# JW18001 IL/RL Application platform case

According to the testing requirements of MPO devices, we adopt JW18001 optical device testing platform, JW1608 no-mandrel IL/RL tester module, and JW1606 multi-channel optical switch module, which constitute an integrated MPO testing solution.

The application of "no-mandrel" technology solves the problem that multi-core optical devices cannot be wind and need match gel, which greatly improves the testing efficiency of multi-core/ribbon fiber insertion loss and return loss. At the same time, MPO application software can be configured with a variety of test modes, test report, threshold setting function, similar multi-core optical device testing is no longer messy, data setting is in good order, reasonable and orderly.



# Fiber Optical Tool Kits

# JW5001 Optical Cable Emergency Tool kits

JW5001 Optical Cable Emergency Toolkits is composed of most of the essential tools, it is suitable for general usage during the fiber installation and maintenance of fiber networks.

- Fiber Optic stripper(CFS−2)
- Assembled sleeve wrench
- 2M Tape Measures
- Utility Knife
- Piano wire clamp
- Cross Fiber reamer
- Nipper
- Scissors
- Pliers
- Acuate clamp

- Inner-hexagonal Wrench
- Adjustable Spanner
- Assembled Screwdriver
   Alcohol Pump Bottle
- Mark Pen
- Flashlight
- diagonal cutting pliers
- Voltage test pen
- Loose skinning pliers
- Cleaning Air Ball



# JW5003 Cable Inspection & Maintenance Tool Kits

JW5003 cable Inspection & maintenance tool kits composed of JW3205 mini power meter, JW3304N fiber ranger, fiber cleaver and other optical tool kits. This set of tool kits can test the output power, Identify the long and short distance fault locations, connect the cables and so on. JW5003 is mini in size, convenience for carrying, quite popular used in the field of optical cable maintenance.

- · Combine Multi-Functional: Output power measurement, event point identifying, and mechanical splicing...
- · Easy to take and simple to operate



# JW5004/JW5004A FTTx Tool Kits

This set of tool kits is especially used in the FTTx solution, combine the function of the in-door cable stripper, cleaver, cleaning, and testing. It is an perfect tool kits in the fiber optic maintance.

- · Fiber Optic Stripper
- Rubber-insulated Fiber Cable Stripper
- · Alcohol Bump Bottle
- · Cleaning Cotton Swabs
- JW3105P Visual Fault Locator
- JW3208 Optical Power Meter
- Optical Fiber Cleaver





#### JW-21 JW-22 JW-23 Fiber Cleaver

- Precision Engineered
- Hghly repeatable cleavers in less than 30 seconds
- Standard 125/250um & 125/900um fibers
- Precise mechanical design allows field replacement of blades



# Fiber Coat Stripper

For stripping 250 micron buffer coating to expose 125 micron cladded fiber - Second hole for stripping 2-3mm fiber jackets

- Pre-set at the factory no adjustments needed
- Comfort-grip, ergonomic handles
- Lock to hold tool closed when it is not in use



# Fiber Cable Jacket Stripper

Product Overview

- Three-hole model performs all common fiber stripping functions in one compact tool....
- This fiber optic stripper strips the 1.6-3 mm fiber jacket down to the 600-900 micron buffer coating
- The second hole strips the 600-900 micron buffer coating down to the 250 micron coating and the third hole is used to strip the 250 micron cable down to the glass fiber without nicks or scratches



# FTTH Flat Drop Optical Cable Stripper

- -Tool for FTTH flat drop optical cable
- -Simple jacket removing without fiber damaging
- -Lightweight and compact



#### Round Cable Slitter

- The Fibretool Rotary Cable Stripper is used for stripping fibre optical cable.
- It has a precision adjustment for consistent strip-depth and can be used for jackets ranging from 4.5mm 25mm.
- It's designed for frequent and heavy duty use.



# Longitudinal Cable Slitter

- Tool for safe longutudinal slitting of plastic cable sheaths with different thickness
- It is an absolutely necessary tool in optical cable stripping. Used for stripping all kinds of optical cables across and lengthways ( & 8mm ~ & 30mm)
- Adjustable Slitting depth



### **Armored Cable Slitter**

- Professional grade tool, ideal for slitting the corrugated copper, steel or aluminum armor layer on Fiber Feeder, Central Tube, Stranded Loose Tube fiber optic cables and other armored cables
- Versatile design allows jacket or shield slitting on non-fiber optic configurations as well
- Tool slits outer polyethylene jacket and armor in one operation....



# Across and Longitudinal Fiber Cable Stripper

- can do both across and lengthwise stripping
- It uses unilateralism ratchet wheel to operate, so that the first-time stripped cable has the symmetry hatches on both sides, as we know, the Side Fiber Cable Ripper must strip twice in the optical cable cut-over with service process, overtimes this shortage



# Round Cable Stripper

- Two tools designed for fast,safe,and precise jacket removal of PE, PVC, rubber and other jackets
- Fiber optic cables excellent tool for precise jacket stripping of fiber optic multi-fiber cables
- RCS-114 for smaller diameter cables: 0.178 to 1.14 inches (4.5 29 mm)
- RCS-158 for larger diameter cables: 0.75 to 1.58 inches (19 40 mm)
- Rotary cut to a longitudinal cut along the cable length for end stripping
- Spiral cut for mid-span stripping
- Spiral cutting features provides easier removal of harder jackets



# Fiber Cable Stripper

Perfect tool for cutting jackets from a variety of fiber optic cable

- V-opening in balde
- Adjustable blades with a screwdriver for various size cables
- Economical tool for multiple cables
- Works with standard 30-10 AWG (0.05-6mm) wire in addition to fiber optic cable



# **Fiber Cleaning Tools**

# JW5002N Fiber Inspection & Cleaning Kits

JW5002N Fiber Inspection and Cleaning Kits includes everything you need to perform inspection and cleaning of the fiber end faces, including Fiber Patch Cords, Bulkhead connections/In-adaptor ferrules and fibers in preparation for splicing applications.



# JW5005F Field Fiber Microscope

JW5005F Field Fiber Microscope is a low cost and high quality fiber inspection tool which is available in 400X magnification and the white LED light to provide coaxial illumination to connector end-faces. This is method of illumination products high-resolution detail of end-face scratches, defects and contamination.



# JW5005N Field Fiber Microscope

There are two models: 200X and 400X in magnification of the microscope. It can output the video signal to external monitors such as portable monitor or computers by data acquisition card. There are many type of adaptors that can detect various connectors (male or female) and transceivers(SFP, QSFP, XFP) or TOSA & ROSA components



# JW5009N Handheld Video Microscope

Reliability and performance of a fiber optic link largely depends on the quality of interconnects. Contaminated connectors can cause the mating surfaces to separate leading to high insertion loss and back-reflection. Furthermore, some dirt particles can even scratch or dig into the glass causing permanent damage to the end-face of the connector. Therefore, inspection of fiber optic connectors should be performed whenever a connection is to be made.





#### JW5006 Fiber Connector Cleaner

It can be used for SC, FC, ST, D4, LC, DIN and Bionic connectors. Cleaning tape is replaceable, thus reducing long-term cost.



#### JW5007 Electromotive Fiber End-face Cleaner

The JW5007 electromotive fiber-end face cleaner is designed not only to clean the male connector ends, but also to clean the female bulkhead adapters (Ferrule end-faces inside the adapters). It is a convenient and simple cleaning tool in fiber network maintenance and fiber components production.



# JW5008 In-adaptor Ferrule Cleaner

Pen-style fiber cleaner is designed specially to only clean the female bulkhead adapters (Ferrule end-faces inside the adapters). It is a convenient and simple cleaning tool in fiber network maintenance and fiber components production.



#### MTP/MPO™ Bulkhead Cleaner

- Essential Cleaning Tool for Networking Gear
- Cleans the MPO inside of an Adapter, Faceplate, or Bulkhead
- Cleans MT Ferrules With or Without Pins
- 600 Cleanings Per Unit



# **Optical Passive Components**

# **Fused Optical Couplers** SM Dual-window Optical Coupler

Joinwit adopts the FBT technique to produce the SM coupler with the high performance and liability which achieve the advanced level of similar products in the world. The extremely low excess loss greatly increases the coupler's liability and long-term stability. Joinwit adopts the unique craft to eliminate the reflection of the 1X2 coupler's spare input fiber end and ensure its long-term stability and at least 60dB directivity. Joinwit also supply the 1XN (NXN) Tree/Star type coupler by grade-connection 1X2 coupler.





#### **PON Optical Coupler**

Joinwit adopts unique bandwidth extension techniques (asymmetric craft) for the triwindows couplers to change the characteristic of the wavelength and make triwindows at 1310/1490/1550nm wavelength meet the precision requirements of the coupling ratio. This unit specially applies for the low-cost solution of 3 in 1 network"and tri-wavelength bi-direction transmission with a single fiber in FTTx network.



# 19" Rack Type Optical Coupler

- · 19" 1U standard type
- Adapter or pigtail output
- Optical Connector FC/PC,FC/APC,SC/PC,ST etc.



#### Fused WDM - 1310/1550nm Standard WDM

Joinwit produce a variety of WDM with the different isolation by basic unit or basic unit grade-connection methods. It is widely used in upgrade, expansion or introduction of new business of the optical fiber networks. The experiment and practice show its good quality and high performance.



# **PLC Optical Splitter**

- · Low Insertion Loss
- · Low PDL
- · High Return Loss
- Uniform Power Splitting
- Wide Operating Wavelength
- Wide Operating Temperature
- Good Environmental Stability
- Qualified under Telcordia GR-1221 and GR-1209



# Micro Optics Products 1310/1550nm WDM

- · Low insertion
- High channel isolation
- · High stability and reliability
- Epoxy free on optical path

#### FTTx 1310/1490/1550nm WDM

- · Low insertion loss
- Ultra Flat Wide Passband
- · High channel isolation
- · High stability and reliability
- · Epoxy free on optical path

#### **CWDM Moudule**

- · Low insertion loss
- · Wide pass band
- High isolation
- · High stability and reliability
- · Epoxy free on optical path
- · High return loss



- · Wide Operating Wavelength Range
- · Ultra Flat Wide Passband



- Bi-Directional





# Isolator (ISO)

- High isolation
- · Low insertion loss



# Patch Cords & Pigtails Optical Cable Patch Cords & Pigtails

The Optical Fiber Connectors (Commonly we call Patch Cords) is a length of optical cable with connectors fixed on two ends to realize the optical path active connection. Pigtail is a length fiber cable with only one connector fixed on one end. If both sides of the connector or its end-face are different, we call it hybrid patch cord. According to the transmission medium, it divides Single Mode and Multi Mode; according to the connector structure type, it divides FC, SC, ST, MU, D4, E2000, LC etc.; according to the polished ceramic end-face, it divides PC,UPC and APC.



# Bunched (Ribbon) Fan-out Optical Cable Patch Cords

Bunched (Ribbon) Fan-out Optical Patch Cord is protected and separated fiber ribbon (general 12 cores) with connector on the end to realize the separate fiber connection with the ODF. The quality and performance is reliable and stable.



# Water-proof Pigtails

Water-proof Pigtails is generally used in the severe field environment, so it greatly depends on the components' reliability. Joinwit employs the advanced technique and production equipment to ensure its good performance and environmental stability. Joinwit provides various types available for customers, including such as Simplex, Duplex and 4 cores...etc.



# Optical Fiber Adapter

The Optical Fiber Adapter is the connection part in the active optical connectors. Joinwit provides the full range of adapters including FC,SC,ST and hybrid adapters. These adapters are widely used in ODF, optic-fiber communications equipment, optical fiber instruments etc. The performance is stable and reliable.



# **Hybrid Adapter**

# FC(Male)-LC(Female), LC(Male)-SC(Female) Hybrid Adapter

Joinwit design the practical and exquisite FC-LC, LC-SC hybrid adapters to meet the customers' special requests. The hybrid adapters solve the converted connection between 1.25mm and 2.5mm ferrules. In the mean time, it also solve the problem of large insertion loss and damageable disadvantage during the converted connection of optical patch cords. It is a good choice for converted connection between the optic fiber equipment and other optical fiber test instruments.



# Optical Bare Fiber Adapter

The bare fiber adapter is used to connect the bare end-face of the optical fiber or optical fiber cable. Together with test instruments with FC or SC connectors, they could be easily used for the intuitionistic inspection and faults identification. It is applicable for the lab research and field work.



# Optical Fiber Attenuators Fixed Attenuators

Fixed Attenuator is a precise passive component which provides different fixed attenuation value to meet optical fiber projects' demands. Joinwit's fixed attenuator is made of high precision adapter and features high attenuation precision and good performance.



#### In-line Fixed Attenuator



# SC Filed Assembly Optical Connector

- The SC Field Assembly Optical Connector is pre-polished, field installable connector that completely eliminate the need for hand polishing in the field.
   Application
- 1. Data and Video transmission
- 2. Direct equipment termination
- 3. Fiber to the Subscriber (FTTX)
- 4. Equipment test leads
- 5. Maintenance and replacement requirement



#### Variable Attenuator

The variable optical attenuator could continually and variably attenuate the light intensity in the optical fiber transmission.



# Collimator Variable Optical Attenuator

The collimator variable optical attenuator is an useful attenuation tool, which the attenuation value can be adjustable by mechanical adjustment. It employs the principle of light shading between the two collimators to control the attenuation value. It features wide attenuation range, high precision, low insertion loss and compact size.



#### OTDR Launch Cable Box

This launch box is designed to aid in the testing of fiber optic cable when using an OTDR. The unit is used with 'OTDR to help minimize the effects of the OTDR's launch pulse on measurement uncertainty. This box is small and easy to carry.



#### **DWDM**

Dense Wavelength Division Multiplexing (dwdm,wdm,Dense wavelength division multiplexer) refers originally to optical signals multiplexed within the 1550 nm band so as to leverage the capabilities (and cost) of erbium doped fiber amplifiers (EDFAs), which are effective for wavelengths between approximately 1525–1565 nm (C band), or 1570–1610 nm (L band).

