

AITELONG

INSTRUMENTS & ENGINEERING



www.aitelong.com

ABOUT *AITELONG*

WHO we are

Aitelong is a sub-brand of GUANGGU INC, which is a team consist of conscientious and inspirational staffs. It serves as the premium solution-provider of diversified testing instruments and backup power management system over 13 years, for which favor client's acquisition and accomplishment of relevant projects profitably. Everything Aitelong do is oriented to client's needs, our holistic mission and explicit implementation based on solving clients' problems and extending their business filed.

WHAT we do

AITELONG test equipment is applied for optic communication and backup power project installation, testing, maintenance and other industry.

Typical application including:

Testing instruments: verify, test, certify and repair fiber optic systems in telecom, FTTH, Datacom, defense and so on.

Backup power management system: telecom operators, power plant system, communication network, coal oil, financial system, transportation system, public security system, mining industrial etc.

WHY choose AITELONG

Commitment to quality: Quality is our top priority. Aitelong attached much more importance on quality and the corporation principle demonstrates this concept best.

R&D ability: AITELONG strives to be industry exemplar and we integrated R&D academia strength and enterprise institutional support to enhance the effective cooperation and efficient coalition between industry and universities.

High cost-efficient: our area of enterprise always seeks to the maximum performance with minimum cost.

After-sale service: You focus on product, we do the rest. The 24/7/365 concierge-level professional services is meant to offer you care-free ordering experience.

Global reputation: Prior demonstrated success witnessed our proven history, with Aitelong footprint treating tons of countries, stepping 5 continents.

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CE
RoHS
ISO9001:2008



Features

- ◇ Ultra-low splice loss
- ◇ Mirror less design
- ◇ Low weight , less than 2Kg with battery and bumper
- ◇ Full automatic heater
- ◇ 6 sec fast splicing
- ◇ 7800mAH large Li battery pack
- ◇ Compatible with bare fiber,tail fiber and indoor cable
- ◇ Wind protect, dust-proof, water-proof

SAT-17T

Optical Fusion Splicer



142mm



165mm

158mm



Specifications

Applicable Fibers	SM (single mode), MM (multi-mode), DS(dispersion), NZDS (non-zero dispersion),EDF(Erbium-doped fiber)
Average Loss	0.02dB(SM), 0.01dB(MM), 0.04dB(DS), 0.04dB(NZDS), 0.02dB (BIF/UBIF)
Return Loss	Better than 60dB
Typical Splicing Time	9s / 6s (fast mode)
Fiber Aligning	Core alignment and cladding alignment
Fiber Diameter	Cladding diameter:80 ~ 150 μ m; Coating diameter:100 ~ 1000 μ m
Magnification	X or Y, magnify 360X; X + Y, magnify 180X
Image display	High-performance 4.3 inch LCD
Tensile test	Standard 2N
Splicing Mode	100 (10 factory pre-defined)
Heating Mode	100 (4 factory pre-defined)
Battery capacity	7800mAh, 86.58WH; 300 times (splicing and heating) Charging time: about 3h (can be used while charging)
Battery life	1000 charging cycles
Electrode life	Typical 3,000 times, and replaceable
External interface	Mini USB
Result record	Maximum 10000 results
Heater Function	Automatic, support user defined heating mode, 0°C ~ 300°C adjustable
Power supply	Built-in lithium battery: 11.1V; AC/DC adapter input: AC 100~240V Output: DC 13.5V / 5.0A
Working environment	Temperature: -20°C ~ +55°C (-4°F~131°F); Humidity: 95% RH (40°C non-condensing); Altitude: 0~5000m
Dimensions	L × W × H = 166 × 146 × 159 (mm)
Weight	1.6kg (without battery), 2.0kg (with battery)



Features

- ◇ Ultra-slim FTTX fusion splicer
- ◇ 10s splicing and 19s heating
- ◇ 200x magnification
- ◇ 3.5" High resolution color LCD
- ◇ 4500mAh integrated battery
- ◇ Up to 120 cycles splicing & heating

SAT-17M

Mini Fusion Splicer



Specifications

Applicable Fibers	SM / MM / DS / NZDS / BIF & UBIF (G.657)
Average Loss	0.03dB(SM) / 0.02dB(MM) / 0.06dB(DS) / 0.06dB(NZDS)
Return Loss	>60dB
Typical Splicing Time	10s
Typical Heating Time	19s
Fiber Aligning	Clad
Fiber Diameter	Cladding: 80~150 μm / Coating: 100~1000 μm
Cutting Length	10~16mm(Fiber diameter: < 250 μm); 16mm(Fiber diameter: 250 ~ 1000 μm)
Zoom in	X or Y: 200X X + Y: 100X
LCD Display	High performance 3.5 inch TFT LCD 640×480 resolution
Tension Test	2N
Applicable Sleeve	60mm / 40mm / 20mm or etc.
Battery Capacity	Average: 120 cycles; Charging time: 3 hours
Battery Life Cycle	300~500 charge / discharge cycles
Electrode Life Cycle	Typical 2000 times
External Data Interface	USB
Power	Removable battery : 11.1V 4500mAh; AC/DC adapter: input: AC100~240V; output: DC13.5V/5.0A
Working Environments	Temp: -10℃~+50℃ / 14°F~122°F; Humidity: 95%RH (40℃ / 104°F, non-condensing); Elevation: 0~5000M
Dimension	L×W×H= 120×160×60(mm)
Weight	0.85 kgs (with battery)

SAT-18M Mini OTDR Pro

9 in 1:

OTDR, OPM, VFL, OLS, Event Map,
Fiber Inspector(Microscope sold separately)
Insert Loss Test, Network Wire Sequence
Collation Test(Signal Generator sold separately)
and LED Lighter..

Key Features

- ◇ 4.3"capacitive multi- touch screen.
- ◇ Can be charged by Power Bank to extend battery usage.
- ◇ Dustproof cover to protect optical port
- ◇ Download test data by USB flash disk, SD card and Micro USB port.
- ◇ Screenshot in any screen during operation.



General Specification

Screen	4.3" Capacitive LCD multi-touch screen, 800x480 pixel
Connector (OTDR&OLS)	FC/PC, SC/PC (optional)
Connector (OPM & VFL)	2.5 Universal
Ports	USB Type A, Micro USB, SD card
Results Storage	≥100,000 testing curves (8G SD card)
Battery life	stand by>10h; testing >4h
Power Supply	3.7V , 5200mAh lithium battery
Working Environments	Working temperature: -10~+55℃ , <95%RH Storage temperature: -20~+80℃, <95%RH
Dimension/Weight	175mm×105mm×45mm, 0.56kg(with battery)

Technical Specification

Dynamic Range	26/24dB
Wavelength	1310/1550nm
Fiber Type	SM
Event Dead Zone	2m
Attenuation Dead Zone	8m
Sampling Resolution	≥0.2m
Sampling Points	64,000
Linearity	≤0.05 dB/dB
Loss Threshold	0.01dB
Loss Resolution	0.001dB
Distance Resolution	0.01m
Distance Accuracy	± (0.5m+sample space×3×10 ⁻⁵ + Sampling Resolution)
VFL	10mW; CW/2Hz
Power Meter	+10dBm~-70dBm
Laser Source	Output power: -5dBm; Modulation Frequency: CW/270Hz/1KHz/2KHz
Network Cable Test	Support network wire sequence collation testing



SAT-18EA

Series OTDR

Functions

- ◇ Easy-operation mode with automatic trace diagnostics, one-button setup and events detection;
- ◇ Markers for distance, attenuation, reflectance, and splice loss;
- ◇ Dynamic range up to 45dB;
- ◇ Event dead zone is less than 0.6m (Type III);
- ◇ Attenuation dead zone is less than 4m (Type III);
- ◇ The sampling points up to 256,000 (Type II & III);
- ◇ SR-4731.sor file formats;
- ◇ Support VFL;
- ◇ Support iOTA(Optional, for Type III only);
- ◇ Support power meter (Optional, +10 to -60 dBm);
- ◇ Support light source (Optional, Use OTDR port, 1310nm/1550nm, >-4dBm);
- ◇ Support 400X fiber optic microscope(Optional);
- ◇ Remote measurement via RJ45 connection using AITELONG OTDR Desktop software.



iOTA Interface

Model Series

Series	Model	Wavelength	Dynamic Range
Type I	18EA-13F	1310/1550nm	28/26dB
Type II	18EA-13J	1310/1550nm	32/30dB
	18EA-13M	1310/1550nm	35/34dB
	18EA-13Mi	1310/1550nm	35/34dB
	18EA-13Ri	1310/1550nm	40/39dB
	18EA-13Ui	1310/1550nm	43/42dB
	18EA-13Wi	1310/1550nm	45/43dB
Type III	18EA-123Qi	1310/1490/1550nm	39/37/37dB
	18EA-134Qi	1310/1550/1625nm	39/37/38dB
	18EA-135Qi	1310/1550/1650nm	39/37/37dB
	18EA-1234Qi	1310/1490/1550/1625nm	39/37/37/38dB
	18EA-1235Qi	1310/1490/1550/1650nm	39/37/38/37dB

Specifications

General Specification

Screen	5.6 inch TFT touch screen
USB	USB, type A port, 2
Storage	16G
Size and Weight	161(H)×210(W)×46(D)mm; 1.0kg
Temperature	Operating: -10℃ to 50℃; Storage: -40℃ to 70℃
Relative Humidity	0% to 95% (non-condensing)
Battery	Rechargeable Li-Lon battery; Working time: 8 hours; Charging time: <3 hours (typical: 25℃)
Power Supply	Input: 100-240V AC, 50-60Hz, 2A; Output: 15V DC, 2A

Technical Specification

Model Series		Type I	Type II	Type III
Event Dead Zone		≤5 m	≤1m	≤0.6 m
Attenuation Dead Zone		≤15 m	≤5 m	≤4 m
Sampling Resolution		0.625 ~ 2.5m	0.125 ~ 1m	0.03 ~ 1m
Pulse Width		10,30,50,100,275,500,1000,5000,10000ns	3,5,10,30,50,100,275,500,1000,5000,10000,20000ns	
Distance Range		0.5,2.5,5,15,40,80,120,160 km	0.5,2.5,5,15,40,80,120,160,200,240km	
Sampling Points		87500	256000	
Ethernet		N/A	10/100M Base-T, RJ45	
Linearity		± 0.05 dB/dB	± 0.03 dB/dB	
IOR		130000 to 180000		
Distance Uncertainty		± (0.75+0.0050%× distance + sampling resolution)		
Measurement Time		5s to 180s, Real time		
VFL	Wavelength	650± 20nm		
	Output Power	+10dBm		
	Operation mode	CW, 1Hz		
Power Meter (Optional)	Wavelength	780 to 1800 nm		
	Calibrated wavelengths	850, 1300, 1310, 1490, 1550, 1625 nm		
	Measurement range	+10 to -60 dBm		
	Resolution	0.01 dB		
Light Source (Optional)	Wavelength	1310/1550 ± 20 nm		
	Output power	>-4 dBm		
	Operation mode	CW, 270Hz, 330Hz, 1KHz, 2kHz		
Fiber Optic Microscope(Optional)		400X		
iOTA (Optional, for Type III only)		Intelligently combine different pulse width, one time get loss and return loss of fiber and splitter. Multiple pulse acquisitions and algorithms to deliver detail information of every element on the fiber link.		
iNET(Optional)		The iNET include PING, Trace Route, FTP upload and download, and HTTP features for Ethernet Link Fault check testing.		

SAT-4EX

Mini Optical Power Meter



Features

- ◇ LED Light
- ◇ SM or MM applications
- ◇ 2.5mm universal connector
- ◇ Visual Fault Locator (Optional)
- ◇ 850/1300/1310/1490/1550/1625nm
- ◇ Wide measurement range, High resolution
- ◇ One-year warranty and three-year recommended calibration interval.

Ordering Information

Model	4EX-XX	VFL
4EXT = OPM (-70 ~ +6dBm)		V00 = N/A
4EXC = OPM (-50 ~ +26dBm)		V01 = 1mw
Example: 4EXT (OPM)		V10 = 10mw
4EXT-V10 (OPM+VFL)		

Note: Please contact Aitelong for Available and Lead Time.

Specifications

Model	SAT-4EXT	SAT-4EXC
Display Range	1310/1490/1550/1625: -70 ~ +6 dBm 850/1300: -60 ~ +6 dBm	1310/1490/1550/1625: -50 ~ +26 dBm 850/1300: -40 ~ +26 dBm
Accuracy	± 0.2 dB	
Calibrated Wavelengths	850nm / 1300nm / 1310nm / 1490nm / 1550nm / 1625nm	
Display Resolving Power	0.01dB	
Linearity	± 0.2dB	
OPM Connector	2.5mm universal	
VFL Connector	2.5mm universal	
VFL Output(optional)	1mW or 10mW, CW and Glint	
LED Light	SOS code output	
Automatic Power Off	No operation in 10 minutes (can be cancelled), Low battery energy	
Battery Capacity	Average: Above 60 hours(OPM), Can be charged	
Working Environment	Temp: -10~+50°C Humidity: <90%RH Elevation: 0~5000m	
Size	105mm × 52mm × 24mm	
Weight	About 100g	

SAT-7E PON Power Meter



PON power meter is part of most essential tool for all technicians installing or maintaining PON networks. PON power meters are well designed for all kinds of demanding applications on fiber measurement with different functions and parameters. With a rugged design, SAT-7E series PON power meters are built for top ruggedness and versatility, perfect for the harshest test conditions to verify the continuity and evaluate fiber link transmission quality.

Features

- ◇ Automated PASS/FAIL assessment
- ◇ Quick and efficient visual inspection
- ◇ Providing distinct power values for 1310 nm, 1490 nm and 1550 nm
- ◇ Pass through measurement
- ◇ Simultaneously measure and display the concurrent voice, data and video signals on different PON architectures
- ◇ Manual calibration
- ◇ One-year warranty and Three-year recommended calibration interval

Specifications

Measurement Range(dBm)	1310 nm: +10 ~ -40 dBm/1490 nm: +10 ~ -50 dBm/1550 nm: +25 ~ -50 dBm
Pass Through Loss	<15 dB
Accuracy *	±0.2 dB (burst signal: ±0.5dB)
Threshold sets	10
Data Storage	100
Connector	SC/PC (or customize)
Auto Power Off	No operation in 10 minutes (can be cancelled), Low battery energy
Battery Charge	Yes
Connect To PC	Optional function
Manual Calibration	Yes
Operate Time	Above 36 hours
Power Supply	3×AA batteries or AC/DC power supply adapter
Size(H×W×D)	190mm×95mm×55mm
Weight	about 450g
Storage Temperature	-20°C ~ +60°C , <90%RH
Operating Temperature	-10°C ~ +50°C , <90%RH

SAT-3E

Optical Laser Source



Features

- ◇ High sensitivity, multi output power
- ◇ Multi wavelengths optional, up to four wavelengths on two ports
- ◇ Automatic power-off
- ◇ Low battery alarm
- ◇ LCD display
- ◇ New-type conductive rubber switch, suitable for different operation environments.

Specifications

SAT-3E series Models						
Model	3E03	3E04	3E05	3E06	3E07	3E08
Working Wavelength(nm)	1310/1550	650/1310/1550	850/1310/1550	650/1300	1310/1490/1550	1310/1550/1625
Output Power (dBm)	850/1300/1310/1550/1490/1625: -6 (error:±0.2)					
Output Tone	850/1300/1310/1550 /1490/1625: CW, 270Hz, 1KHz, 2KHz; 650: CW					
Spectrum Width	≤ 5 nm					
Output Stability	±0.03dB/15min; ±0.05dB/8h					
Display	LCD					
Optical Interface	FC, SC, ST					
Power Supply	AA alkaline batteries					
Operating Temperature	-10~+50℃					
Size	L ×H ×W: 140×72×38 mm, 0.3kg					

More models please contact with us

SAT-4E Optical Power Meter



SAT-3C04 Optical Visual Fault Locator



Features

- ◇ Automatic power off
- ◇ Low battery power alarming
- ◇ Wide dynamic range, up to 26dBm
- ◇ Multi display units: nW, uW, mW, dBm, dB

Specifications

Model	SAT-4E01	SAT-4E02
Detector	InGaAS	
Working Wavelength	850, 980, 1300, 1310, 1490, 1550, 1625 nm	
Dynamic Rang	-70~+10dBm 0.1nW~10mW	-50~+26dBm 10nW~400mW
Measurement Accuracy	±5%	
Optical Interface	FC, ST, SC	
Resolution	dBm:0.01dBm, W: (0.1~1)%	
Power Supply	AA alkaline batteries	
Power Consumption	30 mW	
Working Temperature	-10~+50°C	
Size	140×72×38mm 0.25kg	

More models please contact with us

Features

- ◇ 2.5mm universal connectors
- ◇ Large power up to 650nm red laser
- ◇ Locate fiber breaks, bend, splices, and other loss
- ◇ Transmitting continuous light or 1Hz modulated light
- ◇ Pen-shaped design, small size, light weight, easy to use

Specifications

Working Wavelength	650nm ±20nm
Emitter Type	LD
Output Power	Optional:2mW,10mW,20mW,30mW
Distance	Optional:≥5km,≥15km,≥20km,≥30km
Spectrum Width	≤5 nm
Working Mode	Continuous light and 1Hz modulated light (CW and Pulsed)
Optical Fiber	Single mode fiber (SM) or multimode fiber (MM)
Adapter type	2.5 mm connector (FC/SC/ST)
Power supply	2x1.5V AA alkaline batteries
Working time	80 hours/50 hours (modulated light/continuous light)

VDSL2

VFL

ADSL

TDR

OPM

Tone Tracker

TEL

DMM



SAT-701E

VDSL2 Tester

Functions

- ◇ Multi Language: Chinese/English/Spanish/Italian
- ◇ 7200mAh Lithium Battery/DSL Physical layer test
- ◇ PPPoE Dialing (RFC 1683, RFC2684, RFC2516)
- ◇ Telephone Function
- ◇ Ping Function (WAN&LAN)
- ◇ Setup System Parameter: backlight time, shut off automatically time without operation, press tone
- ◇ Check Dangerous Voltage
- ◇ Visual Fault Locator (Optional)
- ◇ TDR Cable Fault Locator (Optional)
- ◇ Modem Emulation (Replace the user modem completely)
- ◇ PPPoA Dialing (RFC2364)
- ◇ DMM Test
- ◇ Data Upload to Computer and Software Management
- ◇ Revise PPPoE/PPPoA dial attribute, user name and password; restore factory value and so on.
- ◇ Optical Power Meter(Optional)
- ◇ Tone Tracker (Optional)

Specifications

DMM Test

DC voltage(V)	0~400
AC voltage (V)	0~400
Loop resistance(Ω)	0~20000
Capacitance(nF)	0~1000
Insulation resistance (M Ω)	0~50

Optical Power Meter(Optional)

Measurement range	-70~+10dBm or -50~+26dBm
Wavelength	850nm、1300nm、1310nm、 1490nm、1550nm、1625nm

Visual Fault Locator(Optional)

Output Power	1mw
Wavelength	650 \pm 20nm

Tone Tracker (Optional)

With supplied accessory, it can do cable tracing and find the trend of the lines

TDR Function (Optional)- Auto Test the Cable Fault Distance (Cable Break/Cable Mix)

Test range	<2.5km
Dead zone	<1m
Resolution Rate	1m

General Specification

LCD	800x480 TFT
Power supply	Internal rechargeable 6600mAh Li-ion battery
Battery Duration	4~5 hours
Working temperature	0~40 $^{\circ}$ C
Working moisture	5%~9%
Dimension	170x70x52mm
Weight	<0.6kg

ADSL 2+

Standards	ITU G.992.1(G.dmt),ITU G.992.2(G.dmt), ITU G.994.1(G.dmt),ANSI T1.413 issue#2, ITU G.992.5(ADSL2+)Annex L
Up channel rate	0~1.2Mbps
Down channel rate	0~24Mbps
Up/Down attenuation	0~63.5dB
Up/Down noise margin	0~32dB
Output power	Available
Error test	CRC,FEC,HEC,NCD,LOS
Display DSL connect mode	Available
Display channel bit map	Available

ADSL

Standards	ITU G.992.1(G.dmt),ITU G.992.2(G.lite) ITU G.994.1(G.hs),ANSI T1.413 issue#2
Up channel rate	0~1Mbps
Down channel rate	0~8Mbps
Up/Down attenuation	0~63.5dB
Up/Down noise margin	0~32dB
Output power	Available
Error test	CRC,FEC,HEC,NCD,LOS
Display DSL connect mode	Available
Display channel bit map	Available

ADSL 2

Be compatible with ADSL2+, ADSL standard
DSL line attenuation
DSL line noise margin
DSL line up/down channel speed(inter/fast mode)
DSL line up/down maximum rate
DMT sub channel bit number: 0~15, and each sub channel frequency points
DSL line error number(CRC,HEC,FEC,LCD,OCD)
DSL line local output power
DSLAM information
Error code second
Impulse noise protection (INP)
Support 7 VDSL2 profile: profile 8a, 8b, 8c, 8d, 12a, 12b, 17a

SAT-3300

Ethernet Analyzer



SAT-3300 Ethernet analyzer is a common and hand-held integrated Ethernet data tester for network management and maintenance, with features of malfunction, small volume, easy to use, high cost performance etc., it can be used to quickly resolve the network problems for network failure, slow network speed, network packet loss, IP address conflict, and malicious attacks etc., to ensure the network run smoothly.

functions

- ◇ Dual Optoelectronic interfaces, automatic recognition for 850nm/1300nm/1310nm/1550nm
- ◇ Automatically recognize 10/100/1000M network service
- ◇ DHCP automatic/manual acquaintance of IP address
- ◇ RFC2544 (throughput, delay, bit loss rate, back-to-back) function
- ◇ Full Speed PING
- ◇ Lookup IP
- ◇ BERT testing
- ◇ 8 traffic generator and multiple traffic generator
- ◇ Intelligent detection and loopback
- ◇ Capture Frames
- ◇ TCP protocol testing

Features

- ◇ Operation temperature: 0°C~50°C
- ◇ High resolution 7.0" colorful LCD touch screen with LED back light
- ◇ Built-in Li-ion battery, 3200mA, 12.6V, can continuously working for 5 hours
- ◇ 1000 testing result can be stored, showed on screen and printed
- ◇ Storage temperature: -20°C~+70°C
- ◇ Humidity: 5%~90%, non-condensing
- ◇ Dimension: 240×60×160(mm)
- ◇ Weight: 1kg

SAT-20E Optical Cable Routing Locator



- ◇ Full frequency, digital, color frequency intelligent positioning system.
- ◇ Intelligent compass guide features to help quickly and accurately locate the cable.
- ◇ High power transmitter, maximum depth of 15 meters.

Intelligent compass guidance

- ◇ To rout cable more rapid and point out direction by compass
- ◇ More than 10 type frequencies for selection
- ◇ Frequency can be programmable according to various needs.



Target cable

Menu

Current & Depth On ▶
Gain Manual ▶
Frequency Set ▶
Backlight Adjust ▶

Frequency

640Hz 1.45KHz
815Hz 8.2KHz
982Hz 8.44KHz
1.02KHz 9.5KHz

1/2>

Specifications

Model	SAT-20E Optical Cable Routing Locator
Operating frequency	50Hz, 60 Hz, 512 Hz, 640 1.3K, Hz 8.2KHz, Hz, 9.6 KHz, 16.4 KHz, 32 KHz, 65 KHz, 74 KHz, 82 KHz, 98 KHz, 128 KHz, KHz, 131, 200 KHz
Color LCD	3.5-inch color LCD, adjustable backlight
Antenna mode	Wave method, wide peak, peak width of the arrow, trough method
Signal strength	Graphics and digital display, range:0 ~999
Gain control	Automatic gain and manual gain, dynamic gain range: 0dB ~ 100dB
Detection depth	Max. detection depth > 5 meters (direct method)
Maximum detection range	15km
Depth display	2.5m
Current display	Effective current value, can choose real-time
Sound indicator	Adjust FM tone with signal strength
Power display	Graphic display
Accuracy	low frequency: $\pm(1-5)\% \leq 2.5m$; RF: $\pm(5-12)\% \leq 2.5m$
Power supply	Built-in 9V 2200mAh rechargeable nickel-hydrde battery
Working time	Continuous working : 6 hours
Operating temperature	-20°C ~ +70°C

CWDM



Application

- ◇ Metro/Access networks
- ◇ CWDM system
- ◇ Fiber optical amplifier
- ◇ CATV system
- ◇ Wireless communication
- ◇ Monitoring link system

Features

- ◇ Low insertion loss
- ◇ High channel isolation
- ◇ High bandwidth
- ◇ Great stability and reliability

Specifications

Type	Mux/Demux			
Channels	2	4	8	16/18
Insertion loss(dB)	≤0.6	≤2	≤3.5	≤5.5
Center wavelength(nm)	1271/1291/1311/1331/1351/1371/1391/1411/1431/1451/1471/1491/1511/1531/1551/1571/1591/1611			
Center wavelength accuracy (nm)	±15			
1dB pass band width(nm)	≥13			
Pass band flatness(dB)	≤0.5			
Channel insertion loss uniformity(dB)	≤1.0			
Isolation(dB)	Adjacent channel: 30; Non-adjacent channel: 40			
Wavelength stability(dB/°C)	≤0.002			
Insertion Loss Temperature Sensitivity (dB/°C)	≤0.005			
Polarization loss(dB)	≤0.15			
Return loss(dB)	≥45			
Directivity(dB)	≥55			
Working environment	Working:0~70°C, Storage:-40~85°C			

Order Info

Name	Channel No.	Wavelength	Usage	Type	Fiber Type	Fiber length	Connect Type
CWDM	2/4/8/16/18	1271—1611	Mux/Demux	HS/CP	0.9/2.0/3.0mm	0.5m—3m	FC/SC/LC; PC/APC

Patch Cord



Application

- ◇ Telecom net
- ◇ Optical fiber sensor
- ◇ Optical fiber test equipment
- ◇ CATV
- ◇ FTTx, LAN,PON etc.
- ◇ Optical fiber communication system

Features

- ◇ Low Insertion loss
- ◇ High return loss
- ◇ Good repeatability
- ◇ Good interchange
- ◇ Excellent environmental adaptability

Specifications

Fiber Type	SM(G.652)
Cable Type	Single, duplex
Connector Type	SC,FC,LC,
Ferrule Type	PC/UPC,APC
Cable Diameter	Φ2.0mm, Φ3.0mm
Outer Jacket	PVC,LSZH
Reinforced core	Polyester, Aramid
Length	Standard: 1m, 2m, 3m; Customization

Mark: Customization is accepted



CT-01

Fiber Optic Cleaning Pen



Features

- ◇ One action cleaning system
- ◇ Rotates 180° for a full sweep
- ◇ Over 800+ cleanings per piece
- ◇ Easily cleaning the fixed module end face
- ◇ Extendable tip reaches recessed connectors
- ◇ Two types with SC/ST/FC(2.5mm) and LC/MU(1.25)



CT-02

Fiber Optic Cassette Cleaner



Features

- ◇ Over 500 swipes each tape
- ◇ Compact and light weight design
- ◇ The tape made by high density woven fiber
- ◇ Cost-effective and replaceable clean tape reels
- ◇ Used to clean the end face of connectors with SC, FC, ST, MU, LC, MPO, MT, MTRJ (w/o pins)

Series Fiber Cleaning Tools

CT-04

MPO Fiber Optic Cleaner



Features

- ◇ One-time efficient clean MPO & MTP fitting all fiber end face.
- ◇ Pen-type design, easy operation and carrying
- ◇ Over 600 times cleaning cycles
- ◇ Cleaning both the plug and adapter

CT-05

Fiber Cleaning Wipes Cloth



Features

- ◇ 100 pcs per tape
- ◇ Made with lint-free microfiber Cloth
- ◇ Size: 5.0cm × 10.0cm / 3.0cm × 10.0cm
- ◇ Cleaning the "wet" and "dry" connectors

CT-09

Fiber Optic Microscope

Features

- ◇ Built-in IR filter
- ◇ 400x Optical Magnification
- ◇ LED illumination, rated for 100000 hours
- ◇ 1.25 mm adaptor and 2.5mm adaptor
- ◇ Item Size: approx. 185(L) x 48(W) x 35(D) mm, approx. 271g
- ◇ Used for inspecting fiber terminations



CT-08

Fiber Cleaning Sticks

Features

- ◇ 100pcs per box
- ◇ Compatible with 2.5mm / 2.0mm / 1.25mm
- ◇ No adhesives, binders, or fibers to leave residues
- ◇ Light weight and safe to use. Compact and disposable
- ◇ Available for cleaning the various adaptor inside face.



CT-10

Fiber Optic Microscope with LCD monitor

Features

- ◇ 250× Magnification
- ◇ USB plug-and-play
- ◇ 3.5-inch TFT color display
- ◇ Image capture and storage
- ◇ 4× Digital zoom (optional)
- ◇ Standard connector: SC, FC, ST, LC
- ◇ Well-centered, high resolution image



CT-12

Fiber Optic Cleaning Inspection Kit

Features

- ◇ 2.5/1.25mm PC male adaptor
- ◇ FC/SC/ST/PC female adaptor
- ◇ LC/PC female adaptor
- ◇ CT-02 Optical Connector Cleaner
- ◇ Carrying Tool Case
- ◇ CT-01 2.5mm Fiber Optic Cleaner Pen SC/FC/ST
- ◇ CT-01 1.25mm Fiber Optic Cleaner Pen LC/MU
- ◇ CT-10 Fiber Optic Microscope with LCD monitor
- ◇ CT-11 USB Fiber Optic Microscope



CT-13

OTDR Launch Cable Box/ Dead Zone Eliminator

Features

- ◇ Fiber Types: SM / MM
- ◇ Fiber Length: 500M / 1000M / 2000M
- ◇ Dimensions: (24.5cm x 13.8cm x 6cm)
- ◇ Temperature Range: -40°C to 50°C
- ◇ Humidity: 0 to 95%
- ◇ Connector Type: FC, SC, ST, LC, MTRJ – Ultra and Angled Varieties (other styles available upon request)



SAT-AR Battery Internal Resistance Tester



Functions

- ◇ Online test the battery voltage and internal resistance.
- ◇ Battery internal resistance and voltage out of range alarm.
- ◇ All the battery test results are marked by group No., user can manage the data conveniently.
- ◇ PC software analysis the battery according to the history data.

Technical Specifications

Model	SAT-AR
Testing range	0.000~20.000V internal resistance & voltage 20.000~25.000V voltage only
Testing voltage precision	±0.2%rdg ±6dgt
Testing internal resistance range	0.000mΩ~99.999mΩ
Testing internal resistance precision	±0.5%rdg ±6dgt
Communication mode	SD card
Display	320×240 LCD
Power supply	10.8V, 2000mAh, rechargeable lithium battery
Size	280 x 105 x 83 mm
N. W	1.2kg

SAT-AC Battery Conductance Tester



Functions

- ◇ Test the battery voltage and conductance online.
- ◇ Battery conductance and voltage out of range alarm.
- ◇ All the battery parameters are marked by group No. to make the user manage the data expediently.
- ◇ PC software analyze the battery to carry out tracking historical analysis of battery system.

Technical Specifications

Model	SAT-AC
Conductance Test Range	100S~19990S
Voltage Test Range	0.000~20.000V conductance & voltage 20.000~25.000V voltage only or warning
Measurement Precision	Conductance: ±0.5%, rdg: ±6dgt Voltage: ±0.2%, rdg: ±6dgt
Power Supply	10.8V, 2000mAh, rechargeable lithium battery
Watt Consumption	Work for 8 hours continuously
Storage Capacity	2G Micro SD
Display	320×240 matrix dot LCD
Size	280 x 105 x 83 mm
Weight	1.2Kg
Working Temperature	-5°C~ +60°C
Humidity	90%RH

SAT-AG

Series Battery Discharger



Key Features

- ◇ Constant-current discharge function, current can be adjusted;
- ◇ Input terminal overvoltage protection, prompts on the LCD;
- ◇ Buzzer alarm for battery voltage reverse polarity protection;
- ◇ Overcurrent protection, prompts on the LCD;
- ◇ Single battery voltage acquisition function, each model for 12 cells.
- ◇ 2Gbit internal data storage space, USB port for testing data download.
- ◇ Comprehensive analysis software for PC.
- ◇ 7inch color touch TFT screen with high performance.

Optional Functions

- ◇ Internal resistance testing function
- ◇ Online Compensation discharge function

Technical Specifications

Model	AG24/05	AG24/15	AG48/15	AG48/30	AG110/05	AG220/10	AG380/03	AG480/10
Output Voltage	24V	24V	48V	48V	110V	220V	380V	480V
Output Current	50A	150A	150A	300A	50A	100A	30A	100A
Control Accuracy	Discharge current: $\leq \pm 1\%$; battery pack's terminal voltage: $\leq \pm 0.1\%$; single battery voltage: $\leq \pm 0.05\%$							
Communication With The Host PC	RS485 interface							
Data Storage Capacity	2Gbit FLASH							
Cooling	Forced air cooling							
Working Environment	Operating temperature: $-5\sim 50^{\circ}\text{C}$; storage temperature: $-40\sim 70^{\circ}\text{C}$; Relative humidity: $0\sim 90\%$ ($40 \pm 2^{\circ}\text{C}$)							
Voltage	Single-phase three-wire system: 220V AC ($20\%\sim +30\%$); frequency: 45~65Hz							
Withstand Voltage Test	Input---casing: 2200Vdc 1min; Input---output: 2200Vdc 1min; Output---casing: 700Vdc 1min							
AC Output	Male socket in line with the applicable national standard, applicable to 1~1.5mm ² cable							
DC Output	25mm ² cable quick plug (red: positive; black: negative)							

*Note: For more models, please contact with us.

SAT-FD

Wide-Range Battery Discharger



Key Features

- ◇ 7 inch large touch screen
- ◇ 10~600V wide-range design, can meet requirement for different voltage degree's battery discharge testing, voltage can continuously adjust.
- ◇ Constant current discharge function, current can continuously adjust.
- ◇ Individual cell wireless monitor function, each module can monitor 12 single cells.
- ◇ Comprehensive analysis software, can remotely control discharging.

Optional Function

- ◇ Internal resistance testing function
- ◇ Online Compensation discharge function

Technical Specifications

Battery Group Voltage	24V/48V/72V/96V/110V/220V/240V/380V/480V			
Individual Cell Voltage	2V/6V/12V			
Operating Mode	Independently using, parallelly using, and remotely operating and monitoring.			
Discharge Voltage	DC 10V~600V			
Discharge Current Range	10~19V 80A	19~180V 120A	180~300V 80A	300~600V 50A
Battery Group Current Accuracy	1%			
Battery Group Voltage Accuracy	0.5%			
Individual Cell Voltage Accuracy	0.2%			
Individual Cell Voltage Range	0.5V~16V (Resolution 1mv)			
Discharge Time	0~99H59Min.			
Working Voltage	AC: 220V			
Cooling Mode	Forced air cooling			
Package	Aluminum alloy trolley case& outer wooden case			
Temperature	Operating temperature: -5~50℃; storage temperature: -40~70℃			
Dimension	Accord to specific model			

*Note: For more models, please contact with us.

SAT-IA

Intelligent Battery Activator



Key Functions

- ◇ Activation function
- ◇ Check discharge function
- ◇ Charge function
- ◇ Real-time data memory
- ◇ Data upload and export
- ◇ Automatic protection function

Technical Specifications

Measurement Type of Cell Voltage	2V/6V/12V
Measurement Range of Cell Voltage	2V:0~3V; 6V: 4~8V; 12V:4~15V
Resolution of Cell Voltage	2V: 0.001V; 6V: 0.01V; 12V:0.01V
Voltage Testing Accuracy	0.5%
Working Range of Charge and Discharge Current	2A~100A
Control Accuracy of Charge and Discharge Current	0.1A
Current Testing Accuracy	1%
Battery Capacity Check Range	2V:20~1000Ah; 6V:20~200Ah; 12V:20~300Ah
Working Voltage	AC 220 ± 15%
Communication Mode	RS232 communication and USB communication
Cooling Mode	Refrigeration by blasting
Working Environment	Temperature: 0°C ~ 40°C Humidity: 20% ~ 80%RH
Storage Condition	-20°C ~ 70°C package and storage
Display Mode	LCD with High-brightness
External Dimensions(W×H×L)	450mm×190mm×585mm
Weight	11kg
Carry Method	Portable type, move with roller wheel

SAT-DC200

Series Battery Charger



Key Functions

- ◇ Intelligent three degree charging, auto switch for equalized/floating charging, constant- current/voltage.
- ◇ Portable design, small volume, light weight, easy to move.
- ◇ Upload the test data to PC to generate test report, easily check the battery performance.
- ◇ USB port, 2G large data storage space.

Technical Specifications

Model	SAT-DC200/48/10	SAT-DC200/48/20	SAT-DC200/110/04	SAT-DC200/220/04	SAT-DC200/380/01
Battery Group Voltage Range	40-60V	40-60V	95-150V	190-300V	340-450V
Charging Current	100A	200A	40A	40A	10A
Control precision	Charge current ≤ ± 1%; group terminal voltage ≤ ± 0.1%; cell voltage ≤ ± 0.1%				
PC communication	RS485 interface, USB interface				
Data storage capacity	Built-in SD card with a capacity of 8G and the USB flash drive with a capacity of 16G				
Work Environment					
Heat dissipation	Forced air cooling				
Temperature	Working rage: -5-50℃ Storage temperature: -40-70℃				
Humidity	Relative humidity 0-90% (40±2℃)				
Working Power Supply					
Voltage	Power supply: single-phase AC220V (-20%+30%), frequency: 45-65Hz; charging power supply: refer to nameplate parameters or case labe				
Electric strength test	Input-housing: 2200Vdc 1min; Input-output: 2200Vdc 1min; Output-housing: 700Vdc 1min				

*Note: For more models, please contact with us.

SAT-DC500

Series Battery Charger and Discharger



Key Features

- ◇ 5 in 1: Charge, discharge, cell monitor, online monitor, and battery activator.
- ◇ Individual cell wireless monitor function, each module can monitor 12 single cells.
- ◇ USB port, 2G large data storage space.
- ◇ Dual-CPU collaborative working, guarantee the security and accuracy during testing.
- ◇ Can suspend or edit parameters during discharging, instead of stopping testing.

Technical specifications

Available Battery Group	48V	110V	220V	380V
Charging voltage	40~60V	95~150v	190~300V	350~450V
Charging current	10~150A	1~80A	1~40A	1~20A
Discharging voltage	10~60V	80~135V	80~270V	300~460V
Discharging current	0~150A	0~200A	0~100A	0~60A
Current Accuracy	1%			
Voltage Accuracy	0.5%			
Individual Cell Voltage Accuracy	0.2%			
Individual Cell Voltage	0.5V~16V(accuracy:1mV)			
Charge and Discharging Time	0~99H59Min			
Power Supply	AC:220V			
Cooling Mode	Forced air cooling			
Package	Aluminum alloy trolley case& outer wooden case			
Temperature	Operating temperature: -5~50℃; storage temperature: -40~70℃			
Dimension	Accord to specific model			

*Note: For more models, please contact with us.



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