

TFA[®] series 100L

Antenna Feeder Spectrum Tester

· 7-inch super screen · 8-hour long battery life · five-module function

OLIKDFXGLDSHIGOWDFGHKSDFKSDFAJLSDWNKSDPHSDNGBDFNKPFAOHJFNKJSDHFOSLDBJMLF.CDBJDFOPFSEJSGARDWV
OSUADPJSDBNGKDFSGHBNWSDFAJUKASDGFNCKVBNHGFYUOAFUNDGLSYMCKJWNBASDFPHEGL
KWNKLVCHSDHFJLFDSCJLHFDLGATRLHBLROSDAGGSPDNKJJCYNLKAJFGBDFJGBHWNJGPVJNKAJSD



100 series feeder spectrum tester is to test the standing wave ratio of base station antenna and feeder and matching and cable loss and fault location for long distances, able to quickly assess the status of the transmission line and the antenna system, speed up the installation and debugging of the new base station need time. 100 series 1 MHZ ~ 6 GHZ ultra wide test frequency range, 60 db large dynamic range, a variety of options to function is widely used in 2 g / 3 g / 4 g / 5 g/WLAN/WiFi/WiMAX system under test. CAA - 100 series 7 inches large touch-screen design, eight hours long battery life, a great user experience. The 100 series is a new generation of wireless network construction, upgrades, maintenance, indispensable measuring tool.

Product features six big advantage

Product
function

- 25 MHZ ~ 4 GHZ, widely used in 2 g / 3 g / 4 g/WiMAX system under test
- 60 db large dynamic range
- Limit line/marker/trace intelligent judgment function such as curve operation
- Eight hours long battery life
- 7 inches color LCD touch screen display
- Powerful instrument batch file management functions such as edit/delete/filter

Support the five kinds of measurement mode

FIVE MEASUREMENT MODES ARE SUPPORTED

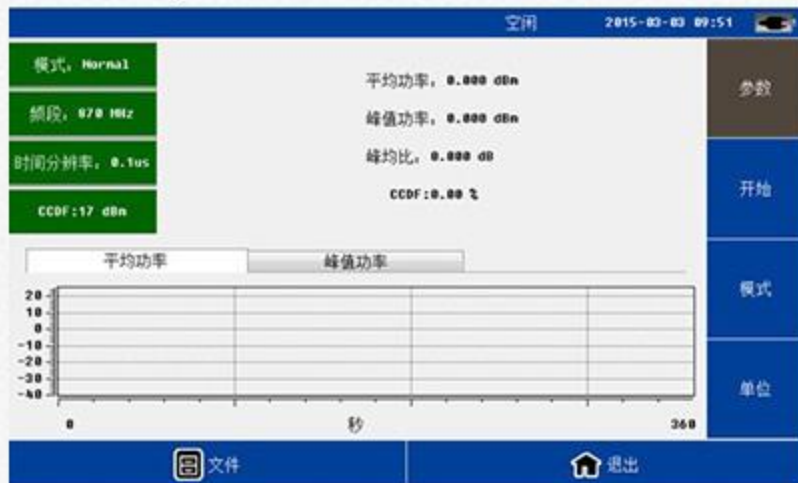
Support the fault distance return loss, fault distance standing wave ratio, frequency return loss, the frequency of standing wave ratio and five kinds of cable loss measurement mode, main interface beautifully designed, user operation is convenient.



Can be equipped with a variety of options

VARIOUS OPTIONS ARE AVAILABLE

USB type, high precision power meter probe can connect the instrument not only realize testing and display of power, and can be connected to PC terminal alone, implement test according to the results and analysis, greatly satisfy the customer demand in many aspects. Power meter terminal type, through type spectrum power meter can clearly to a variety of signal measurement, meet the demand of different levels.



Test curve of intelligence analysis and judgment

VARIOUS OPTIONS ARE AVAILABLE

Support for testing curve for single and multiple limit line, mark line and curve analysis, the result accurate and clear.



Convenient and precise calibration method

VARIOUS OPTIONS ARE AVAILABLE

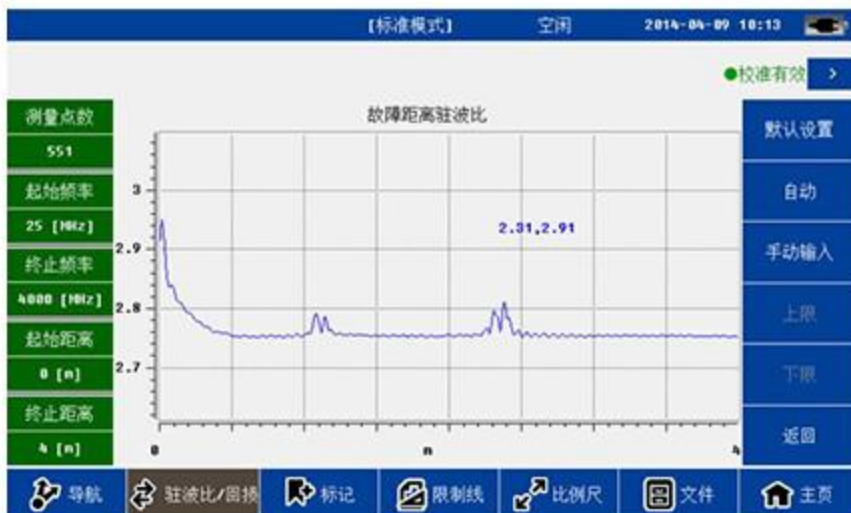
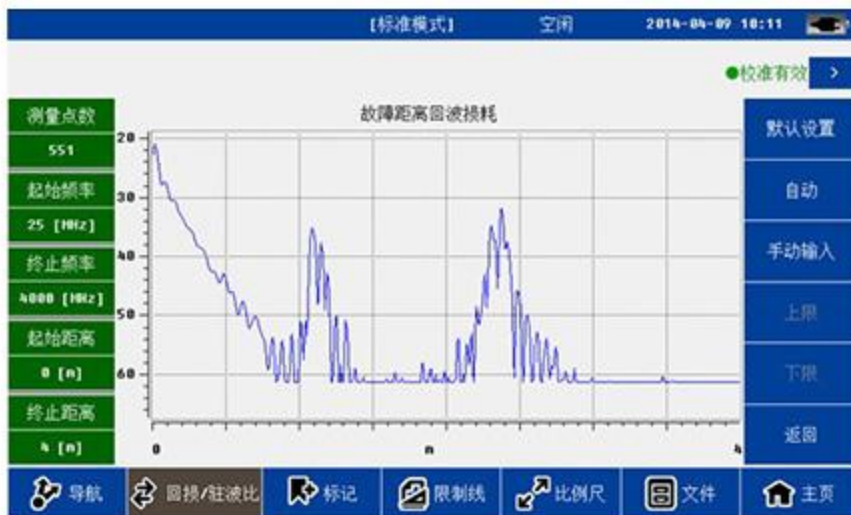
Tdesign, single port calibration, convenient accurate.
And don't need to recalibrate when the scanning after
calibration points down, increasing the efficiency of
customer's site usage greatly



Return loss/standing wave ratio switch immediately

VARIOUS OPTIONS ARE AVAILABLE

Can test return loss and standing wave ratio, at the same time and switch by clicking on the observation results, greatly improve the work efficiency.



Can realize batch processing test files

VARIOUS OPTIONS ARE AVAILABLE

Instrument with a file filter function, can easily implement batch editing, analysis, and save the test files, effectively improve the efficiency.



Support The Field Calibration And Get The Cable Parameters


VARIOUS OPTIONS ARE AVAILABLE


Users can manually input cable parameters (propagation speed; Cable loss) or select the known cable type, or if you do not know the cable information and parameters, you can use the existing cable on hand, using the system's built-in "cable calibration" tool to get accurate cable parameters. Provide convenience for field testing.cable system at using tools to get accurate parameters of cable. Provide convenient for field test.

Cable calibration

Cable length: m

Use an open circuit calibrator for calibration

 **determine**

 **return**

Support manual set frequency and select the default frequency

VARIOUS OPTIONS ARE AVAILABLE

The user can according to the test requirements for "signal to select the default standard" or "custom" frequency.

频率参数设定	
信号标准:	Custom
起始频率:	25 MHz
终止频率:	4000 MHz
测量点数	
<input type="radio"/> 137	<input type="radio"/> 275
<input checked="" type="radio"/> 551	<input type="radio"/> 1103
<div>确定 返回</div>	

And select the default frequency support manually

VARIOUS OPTIONS ARE AVAILABLE

Adopts the design of low power consumption, high capacity rechargeable lithium battery and AC configurator dual power supply, Eight hours long working hours, and four display modes can be set up shortcut keys: Ordinary, black and white, high-lighting, and night vision, suitable for use under different environment. With convenient backlight management, fan management, power management, and other functions, Easy operation, energy conservation and environmental protection.

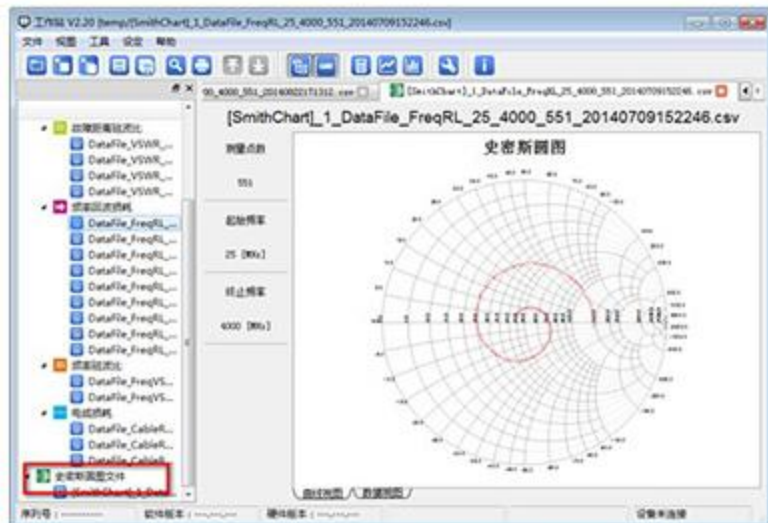
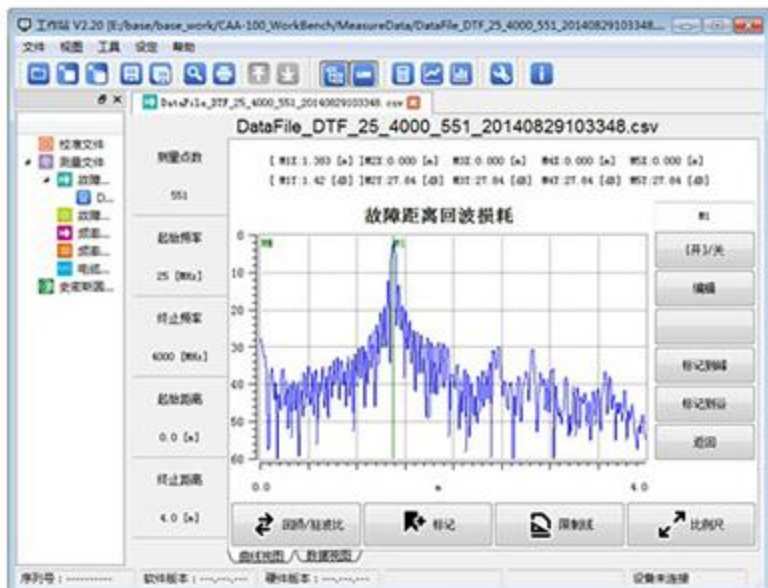
The application tool function

DISTANCE-TO-FAULT function

is transformed into function of Smith chart

The calculator

Signal standard editor



computer

computer

The current editor: standing wave ratio

Return loss (0-60db): 60.00

Standing wave ratio (0-60): 1.00

Reflection coefficient (0-1): 0.00

phase (0-360): 89.94

Impedance real part (≥ 0): 50.00

Impedance imaginary part: 0.10

Transmission power (%): 100.00

To calculate

reset

✓ exit

信号标准编辑器

信号参数列表

信号标准	起始频率(MHz)	终止频率(MHz)
1 Custom	25	4000
2 CDMA800 Downlink	870	885
3 CDMA200 Downlink	2110	2125
4 GSM900 Downlink	930	954
5 GSM1800 Downlink	1805	1820
6 TD-SCDMA	2010	2025
7 GSM900 Downlink	954	960
8 GSM1800 Downlink	1840	1850
9 CDMA1900 Downlink	1930	1990
10 WCDMA Downlink	2130	2140
11 E-GSM900 Downlink	900	935
12 WLAN 2.4G	2400	2483.5

从本地打开

保存至本地

从设备上传

下载到设备

✕ 返回

无线电参数编辑器

无线电参数列表

无线电名称	相位速度	频率 1	无线电频率 1	频率 2	无线电频率 2
1 [NONE]	1	1000	0	2000	0
2 [FS1-50A]	0.84	1000	0.196	2500	0.313
3 [FS12-50]	0.83	1000	0.133	2500	0.223
4 [FS14-50B]	0.81	1000	0.118	2500	0.201
5 [FX2-50]	0.85	1000	0.121	2500	0.202
6 [DF4-50A]	0.88	1000	0.073	2500	0.121
7 [H14-50]	0.914	1000	0.092	2500	0.156
8 [H14.5-50]	0.92	1000	0.054	2500	0.089
9 [I10B01]	0.821	1000	0.115	1000	0.115
10 [I11201]	0.82	1000	0.18	1000	0.18
11 [I11501]	0.8	1000	0.23	1000	0.23
12 [I11601]	0.8	1000	0.262	1000	0.262

从本地打开

保存至本地

从设备上传

下载到设备

✕ 返回

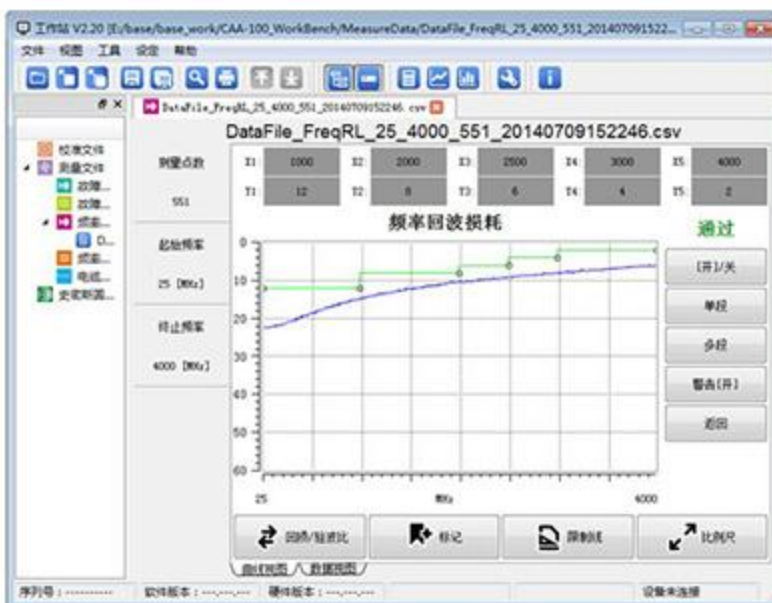
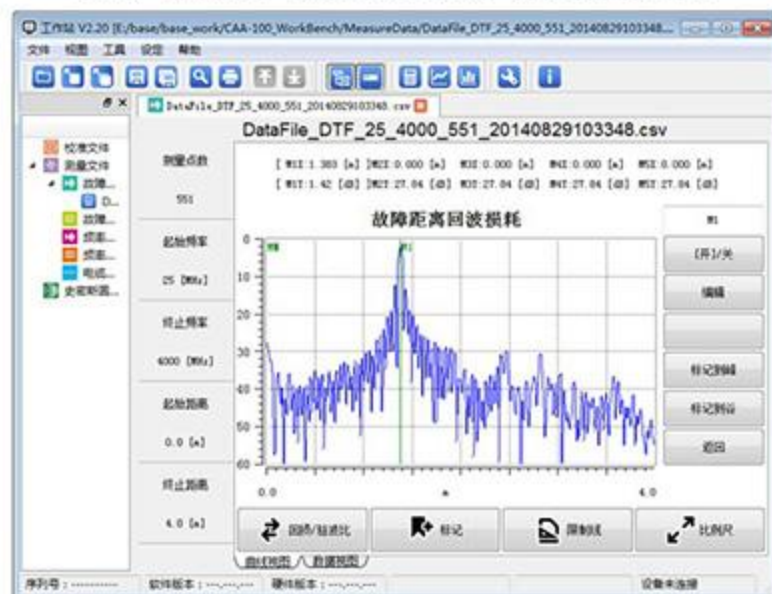
Data analysis function

Support marker

Support the limit line

Support the function of scale

Support the standing wave ratio
and return loss format conversion



Technical indicators

VARIOUS OPTIONS ARE AVAILABLE

Technical indicators

model	100L
The frequency range	25~4000MHz
The frequency resolution	100kHz
Precision of frequency	+/-25ppm
Output level	0dBm (typical)
measurement speed	3. 5 ms/point
Measuring points	137, 251, 551, 1103
Anti-interference ability	
frequency	-5dBm
Channel	+17dBm
directional	42dB After (calibration)
Return loss	
Scope of return loss	0~60dB
Return loss resolution	0.01dB
Standing wave ratio	
Standing wave ratio range	1~65
Standing wave ratio resolution	0.01
Cable loss	
Cable loss range	0~30dB
the cable loss of resolution	0.01dB
DTF	
Echo loss range	0~60dB
Standing wave ratio range	1~65dB
Distance range	1500m
resolution ratio	$1.5 \times 10^{-8} \text{Vp} / (F2 - F1)$ Vp: cable transmission speed; F1, F2: beginning and cut-off frequency
Measuring points	137, 251, 551, 1103

Universal index	
Connector type	N-type negative head
Input impedance	50 ohms
display	7 inch resistive touch screen with 800*480 resolution
Data interface	1 USB Host port, 1 USB Device port, One 10M/100M adaptive LAN
Storage space	>2000 curves
language	Chinese, English
Built-in battery	11.1V 7800Mah lithium rechargeable battery
External adapter	110 to 240 50 to 60Hz AC input, 16V 3.75A DC output
Operating temperature	-10℃~ 50℃
Storage temperature	-40℃~ 70℃
Relative humidity	0~85% (no condensation)
weight	2.5kg (net weight)
Volume (length × width × height)	290X175X75 mm

TPI Module (Optional) - Terminal RF power meter	
Frequency range	50~4000MHz
Power range	-40~20 dBm
Maximum tolerable power	<23 dBm
Test accuracy	<= +/-0.3db (15~35℃) <= +/-0.5dB (0~50℃)
Input standing wave ratio	<1.2
Burst width	1us~60ms
Minimum test cycle	15Hz
Video bandwidth	5MHz
Minimum pulse width	200ns
time resolution	Fourth gear : 0.1us, 1us, 15us, 150us
Modulating signal peak-to-average ratio	<12dB
CCDF test range	0.1% ~ 100%
CCDF test accuracy	± 3%
Burst signal duty cycle	0.1% ~ 100%
Power supply mode	USB
Operating temperature	0℃ ~ 50℃
Storage temperature	-20℃ ~ 70℃
Relative humidity	0~85%

weight	0.3kg
Volume (length × width × height)	105(125) × 45 × 35mm
Anti-vibration characteristic	Meets standard MIL-PRF-28800F class 3
Electromagnetic compatibility characteristic	Comply with EMC standard GB/T 18268-2000

SPI module (option) - through the type spectrum power meter	
Frequency range	400MHz ~ 4000MHz
Return loss	0~23dB
Maximum input power	57dBm
Enter the standing wave ratio	<1.1
Insertion loss	≤0.1dB
directional	≥30 dB(<3GHz); ≥28 dB(>3GHz)
Working mode	Three working modes are available: full sweep width, arbitrary sweep width, and zero sweep width
Sweep, frequency scan parameters (full width, any nonzero sweep width)	
Filter bandwidth	20M/300K Two optional
Sweep number	The biggest support 551 points
Frequency measurement resolution	100KHz
Power range	10~57dBm
Width of sweep power measurement (zero)	
Power range	mean value 100mW~200W or 20~53dBm
	peak 100mW~500W or 20~57dBm
Peak than	<12dB
CCDF	0.1 ~ 100%
Power resolution	±0.01 dBm
Sweep width power precision (zero)	±0.5dB
Sudden signal measurement parameters	
Burst breadth	30us ~ 100ms
Sampling rate	300K/30K/5K Three optional
Duty ratio	0.001~1
Sudden average power	100mW~200W or 20~53dBm
Other	
PC interface	USB/RS-232
The radio frequency interface	Power supply mode
The power supply mode	USB power supply: 5V,500mA
The machine power consumption	≤ 2W
Working temperature	-20°C to 50°C
Keep the temperature	-20°C to 70°C
Relative humidity	0 to 95% Dew free 490g
weight	490g
Volume (length × width × height)	130 (95)×124×34mm

Ordering Information

Standard configuration

Host, Lithium battery, AC adapter, CD(PC software, instruction manual), convenient pack, OSL calibration kit.

Optional configuration

TPM - Terminal RF power meter

DPM module - pass through RF power meter

ECAL electronic calibration parts.