TFN

Handheld

Spectrum analyzer

FAT150

PORTABLE

HANDHELD SPECTRUM ANALYZER

Frequency range 9KHz-6GHz

Widely suitable for testing various standards such as 2G/3G/4G/5G

Equipment interference

Shielding test

Electromagnetic environment detection

signal detection

Handheld

Spectrum analyzer

Meet multiple different scenarios


Electronic device testing


Spectrum analysis


Network
construction

1. All digital intermediate frequency technology
2. Working frequency: 9KHz-6GHz
3. Display average noise level DANL up to -165dBm/Hz
4. Power dynamic range up to 100dB, testing power up to 27dbm
5. Typical value of SSB phase noise -90dBC/ Hz@10kHz deviation
6. Resolution bandwidth as low as (RBW) 1Hz
7. RF attenuation range 0-55dB, 5dB step by step
8. Supports adjacent channel power, passband power transmission bandwidth, occupied bandwidth,
9. Multiple tests such as CI
10. Zero bandwidth testing supports multiple demodulation methods such as AM, FM, FFT, IQ, etc

Handheld

Spectrum analyzer

Standard test
High reception sensitivity

All digital intermediate frequency technology

FAT150 spectrum analyzer has a frequency range of 9KH2-6GHZ, which is widely applicable to 2G/3G/4G/5G and other system tests. FAT50 has high reception sensitivity performance, with a typical average noise level of up to -165DBM/HZ. The dynamic range of power measurement is up to 100DB, and the RF input power exceeds 27DBM. The FAT150 adopts a 7-inch capacitive touch screen design, with a resolution of up to 1024 * 600, providing excellent user experience.

Handheld

7-inch touch screen
Up to 4.5 hours of battery life

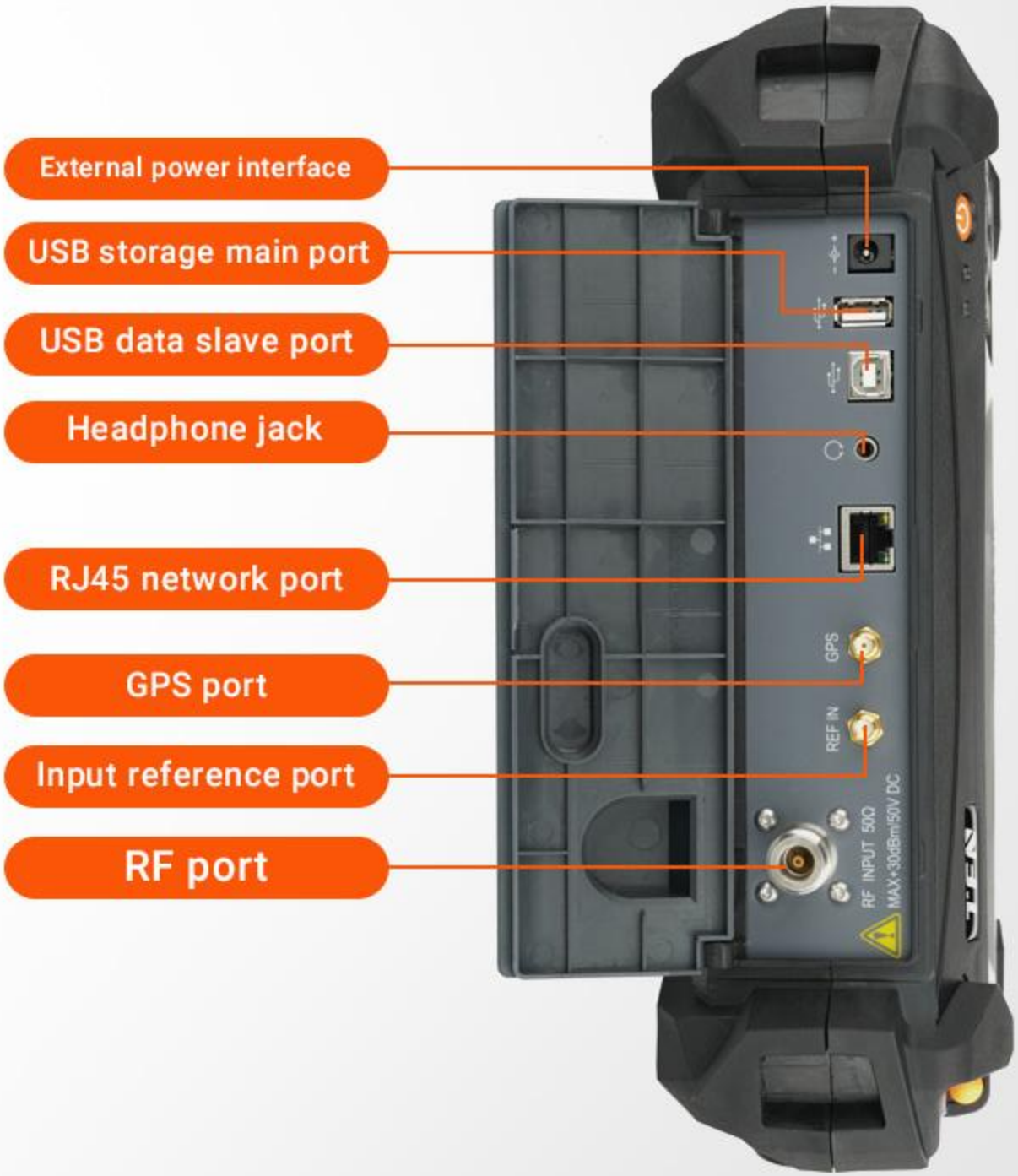
Supports normal/black and white/night vision/highlighting

Handheld

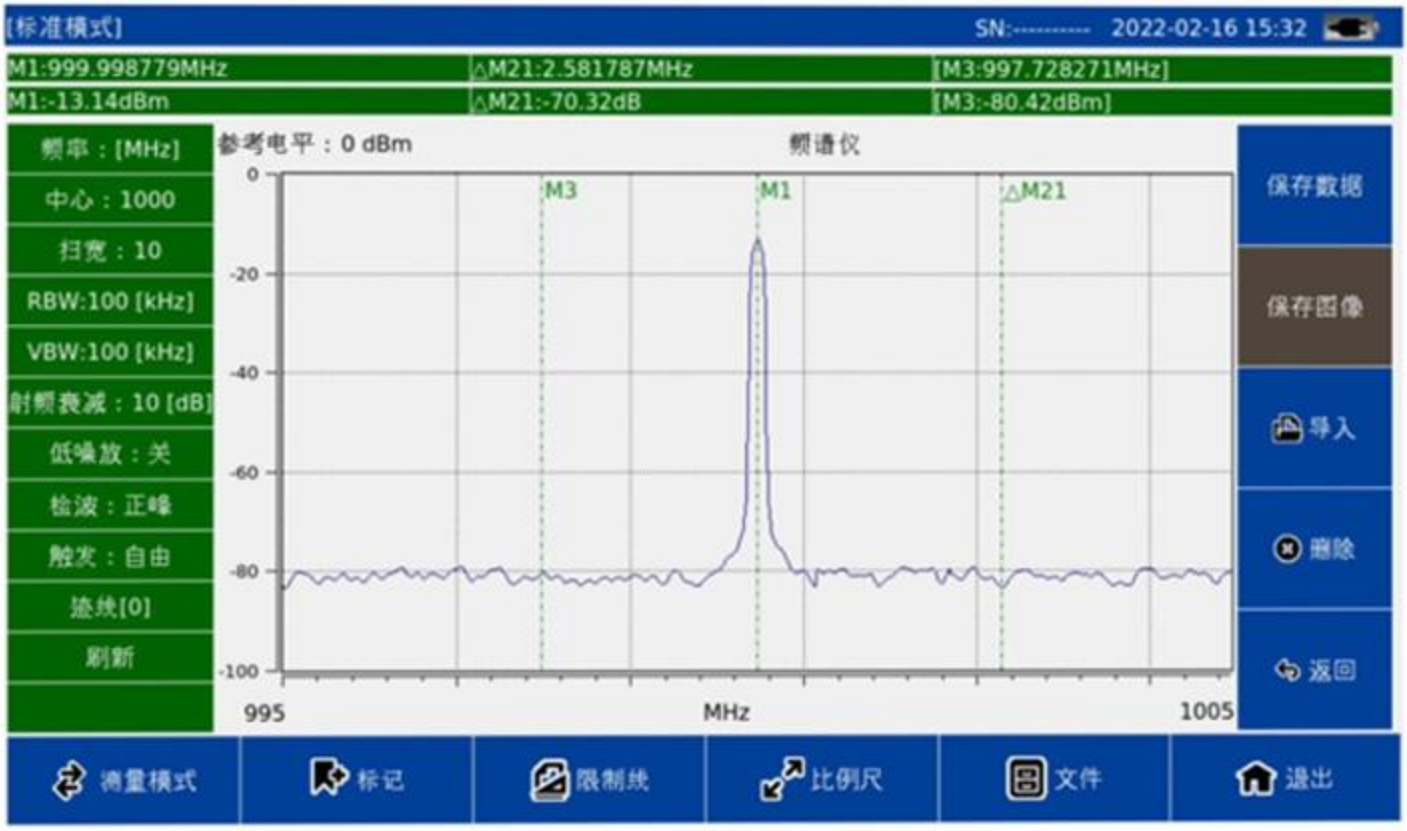
Spectrum analyzer

Input output mode

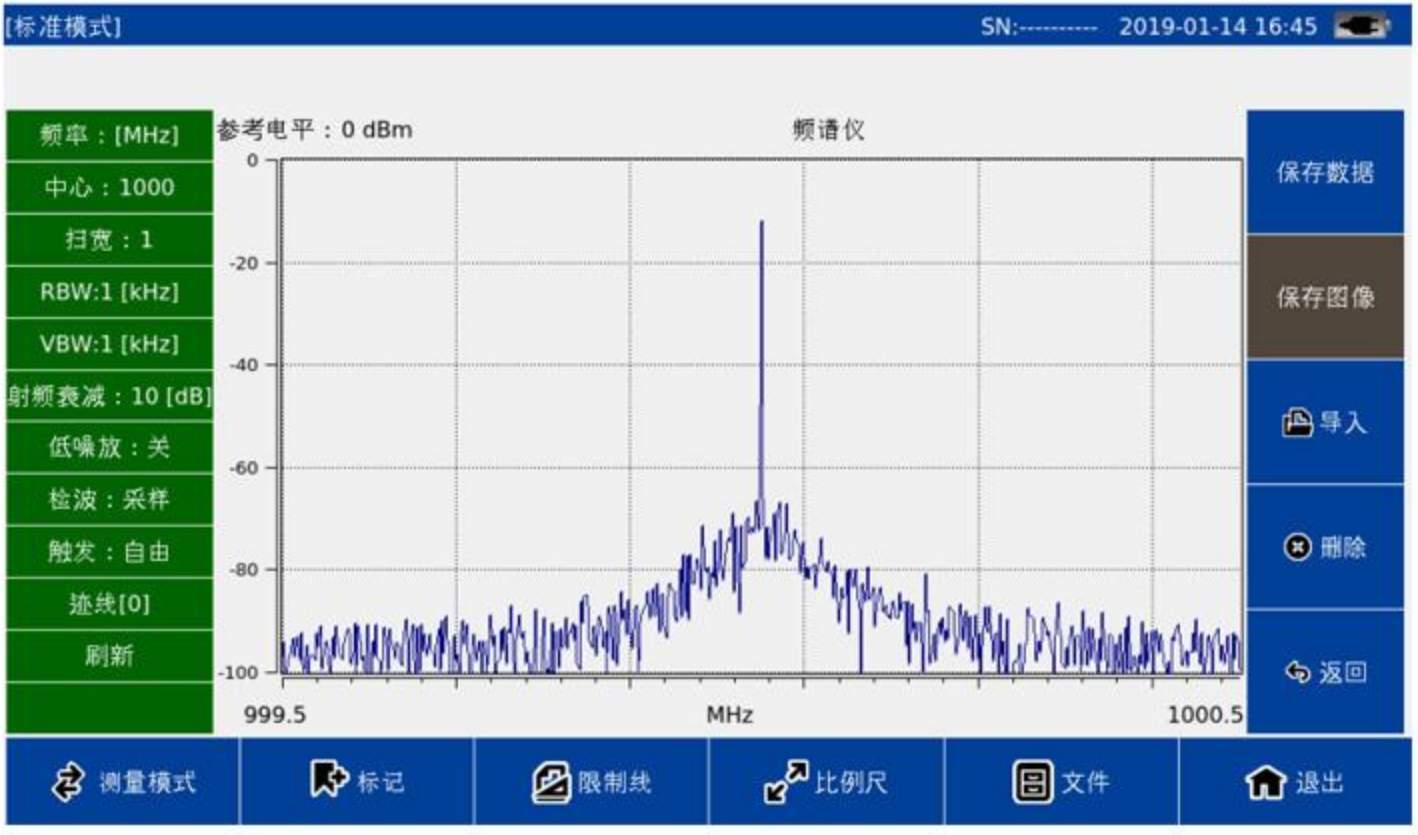
Suitable for various interface devices


External power interface
USB storage main port
USB data slave port
Headphone jack
RJ45 network port
GPS port
Input reference port
RF port
GPS
REF IN
RF INPUT 50Ω
MAX+30dBm 50V DC

Function menu
Spectrum testing interface



Test interface (adjacent channel power ratio)



Test interface (sweep mode)

Product parameters

Technical indicators	
Measurement mode	
Sweep mode	Normal frequency sweep, adjacent channel power ratio channel power, OBW/EBW, carrier to noise ratio
Zero frequency mode	AM,FM,FFT,IQ demodulate
Frequency	
Frequency range	9 kHz to 6GHz
Counter resolution	1 Hz
Frequency range	Zero broadband 100 Hz ~6GHz
Frequency resolution	1 Hz
Frequency reference source	
Reference frequency	100 MHz
Initial accuracy (15 ° C to 35 ° C)	<±1 ppm
Temperature stability	<±0.5 ppm
Aging rate	<1.5 ppm/ Year
SSB phase noise @ 1GHz	
10 kHz carrier offset	<-90 dBc/Hz Typical value
100 kHz carrier offset	<-100 dBc/Hz Typical value
1MHz carrier offset	<-115 dBc/Hz Typical value
Bandwidth	
Resolution bandwidth RBW (-3 dB)	1 Hz to 3 MHz, Step by step 1-3-10
Filter form factor (60 dB: 3 dB)	<5
Video bandwidth VBW (-3 dB)	1 Hz to 3 MHz, Step by step 1-3-10
Range	
Measuring range	Display average noise level (DANL) to+27dBm
Testing accuracy	±1.5dB
Reference level range	-160dBm~+40dBm
Attenuator range	0dB~55dB,5dB Stepping
Amplitude unit	dBm/dBv/dBmV/dBuV/V/mV/uV/W/mW/uW/nW/pW
Withstand DC voltage	50 V
Damage level	Continuous signal +28 dBm (50MHz~6GHz) Pulse signal +31 dBm (50MHz~6GHz) Note: RF attenuation is 30dB Continuous signal +28 dBm (50MHz~6GHz)
	+10 dBm (9kHz~50MHz)

Display average noise level (DANL)		
Test conditions: The reference level is less than -40dBm, the RF attnuation is 0dB, the average number of traces is ≥50, normalized to 1Hz, 20℃ to 30℃， and the input impedance is 50Ω		
Pre amplifier off	9 kHz to 10MHz	<-143 dBm (Typical value)
	10MHz to 1GHz	<-157 dBm (Typical value)
	1 GHz to 2 GHz	<-156 dBm (Typical value)
	2GHz to 3 GHz	<-152 dBm (Typical value)
	3 GHz to 4 GHz	<-152 dBm (Typical value)
	4 GHz to 5 GHz	<-146 dBm (Typical value)
	5 GHz to 6 GHz	<-145 dBm (Typical value)
Pre amplifier on	9 kHz to 10MHz	<-147 dBm (Typical value)
	10MHz to 1GHz	<-165 dBm (Typical value)
	1 GHz to 2 GHz	<-165 dBm (Typical value)
	2GHz to 3 GHz	<-163 dBm (Typical value)
	3 GHz to 4 GHz	<-164 dBm (Typical value)
	4 GHz to 5 GHz	<-159 dBm (Typical value)
	5 GHz to 6 GHz	<-155dBm (Typical value)
Display function		
Display level		
Number of display cells	1,2,3,5,10,15,20dB	
Display points		
Normal bandwidth	551 (Typical value)	
Zero bandwidth	1024	
Trajectory		
Trajectory number	4	
Trajectory function	Hold, video average power average freeze refresh	
Display method	Display only data, only memory, data and memory data plus/minus memory data to memory	
RF input VSWR		
Test conditions: (RF attenuation ≥ 10dB)		
VSWR	300 kHz to 3 GHz	<2 (Nominal value)
	3 GHz to 6 GHz	<2 (Nominal value)
Nonlinear indicators		
Second harmonic distortion	Test conditions: RF attenuation of 10dB, -30dBm input	
10MHz~1.5GHz	<-60dBc	
1.5GHz-3GHz	Not have	
Third order intermodulation	Test conditions: RF attenuation of 10dB, -20dBm input, frequency interval of 1MHz	
30~3000MHz	+12dBm	
3000~6000MHz	+10dBm	
Spurious response		

Residual spurious	<-90dBm, RF attenuation is 0dB	
Input related spurious	<-80dbc Test conditions: RF attenuation is 0db, -20dBm input	
Intermediate frequency feedthrough	<-55dBc; Intermediate frequency=125MHz,	
image rejection	<-60dbc @ F1±250MHz (F1: Input signal frequency)	
Scanning		
Scan time	Sweep width ⩾ 100Hz 1ms to 2000s	
	Zero sweep width 80 μs to 300s	
Scan mode	Continuous, single occurrence	
Interface		
RF signal input	impedance	50 Ω
	connector	N-shaped female head
Reference source		
Internal reference source	Frequency 100MHz, ± 1ppm	
External reference source input	Frequency	100 MHz
	input level	0 dBm to +10 dBm
	impedance	50 Ω
	connector	SMA (negative)
Communication interface		
USB interface 1	connector	Type A
USB interface 2	connector	Type B
Ethernet port	connector	10/100M, RJ-45
The power adapter		
Input voltage range	100 V to 240 V AC, 50~60Hz	
Output voltage range	16 V DC/3.75A	

Product display


RF INPUT 50Ω
MAX+30dBm/50V DC
REF IN
GPS


Model
Serial#
Manufactured