

XWP Series Multifunctional Radio Tester



Wireless radio frequency instruments play a key role in various fields such as communication, electronics, scientific research, and education. Signal generators can generate diverse electronic signals to assist in performance testing and network optimization of communication equipment, and are widely applicable to the research and development, production, and maintenance processes of electronic devices. Spectrum analyzers can accurately analyze the frequency components of signals, providing strong support for signal debugging in fields such as radio communication, radar, and satellite communication, and ensuring effective monitoring and management of radio spectrum resources.

The XWP series multifunctional tester innovatively integrates functions such as vector spectrum analysis, vector signal source, and standing wave position detection. It is highly integrated and portable, designed specifically for on-site engineers and mobile laboratories, providing performance comparable to desktop instruments and meeting diverse needs in different field.

Product Highlights

Comprehensive Functionality

- Can achieve comprehensive RF testing from signal reception, analysis to generation, integrating signal analyzer, vector signal generator, standing wave position detection, expandable vector network function, with good universality, meeting the needs of diversified application scenarios. The XWP series products support up to 8GHz.

Supports 5G

- The frequency coverage range is 10MHz~8GHz, fully compatible with and supporting 5G communication standards, providing strong support for the research and development, production, and maintenance of wireless communication equipment.

High Precision Measurement

- The XWP series adopts advanced sensing technology and precise data processing algorithms, supporting a 200M analysis bandwidth. The measurement results have high accuracy and stability, ensuring high-quality testing performance in multiple stages such as field, science and education, production, and maintenance.

Independent Research and Development

- Relying on independent research and development capabilities, the XWP series independent property rights, and able to quickly iterate and update according to market demand and industry development trends, maintaining technological leadership and unique competitive advantages.

Easy To Use

- The XWP series is compact and lightweight, which can be used in a handheld device with flexible configuration, intuitive user interface, intelligent operation mode, and supports FDD+TDD interference frequency scanning and time-domain gating analysis functions. It also supports remote control and data export, making it convenient for users to quickly and efficiently conduct on-site testing and diagnosis.

Battery Life Guarantee

- The XWP series is equipped with a high-efficiency battery and a low-power operating mechanism to ensure that the instrument still has sufficient battery life under high-intensity working conditions, reducing the risk of work interruption caused by insufficient battery power.

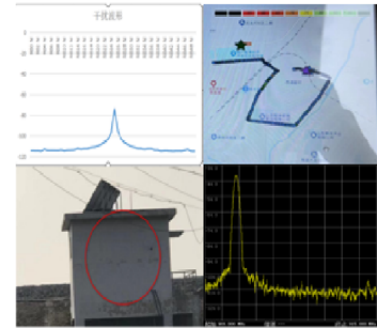


High Quality Service

- Provide a comprehensive after-sales service system, including but not limited to professional technical support, rapid response maintenance, regular software updates, and user training, to ensure that users receive comprehensive, efficient, and thoughtful support and protection during use.

Support secondary development

- Based on X86 architecture, the XWP series support Windows operating system, universal SCPI instruction, convenient for secondary development applications, such as XW+NQI interference precise positioning, XW+IPS interference precise positioning.



Specifications

Items	Sub items	Parameter
Launch	Range	10MHz~6GHz
	Output power	-50dBm~+2dBm, 1GHz
	RF modulation bandwidth	100M
	Pulse modulation function	Support
	4G/5G Signal generation and import	Support
	ALC shutdown power maintenance function	Support
Receive	Frequency range	XWP-6G: 9KHz~6GHz; XWP-8G: 9KHz~8GHz
	Minimum average noise level DANL	-160dBm/Hz (1GHz, minimum attenuation, low noise amplifier on, typical value)
	Minimum Resolution Bandwidth (RBW)	1Hz
	Maximum analysis bandwidth	200M
	4G/5G signal analysis	Support
	Delay testing	Support
	Temperature self calibration	Support
DTF	Standing wave position detection accuracy	±0.1m
	IO interface	USB, LAN
Appearance	Monitor	10.1 Inch, TFT LCD
	Weight	< 4.2kg
	Dimensions	224*322*82mm (With anti-collision blocks and handles)

Functions

Type	Features	
Transmitter mode	Frequency parameter setting	The frequency range covers the communication frequency band
	Signal amplitude setting	RF output amplitude, amplitude offset, automatic level control (ALC), signal source calibration strategy, ALC power backoff amount
	Modulation mode selection	Single tone, LTE, NR, multi tone modes; Loading waveform file
	Standard switch	Single tone mode, modulation mode
	Pulse setting	Pulse period, pulse width
Sweep Frequency Mode		Frequency (center frequency, starting frequency, ending frequency)
	Basic control	Scan width (full scan width, zero scan width)
		Amplitude (reference level, attenuation, scale)
	Scan width setting	Bandwidth (resolution bandwidth RBW, video bandwidth VBW, aspect ratio VBW/RBW)
		Trajectory (Select Trajectory, Detection)
		Spectrum scanning (scanning mode, gate control measurement)
	Tag Settings	Peak search, selection marker, difference frequency, noise marker
measurement	Basic frequency scanning, 4G/5G demodulation, TDD gating measurement, 5G gating analysis	
Standing wave point detection mode	Frequency parameter setting	Center frequency, starting frequency, ending frequency
	Measurement method setting	DTF (Fault Distance Measurement), Standing Wave (S11 Measurement)
	Format Options	The relationship curve between frequency and amplitude, and the relationship curve between frequency and standing wave ratio
	Power setting	Input power
	Cable parameter settings	Cable length, transmission coefficient, line loss, single scan, continuous scan
	Sign	Amplitude, frequency, or scanning time point; Peak Search
	Proportion	Reference level and scale

Application scenarios

Network Deployment and Optimization

- In the process of network construction, the XWP series multifunctional radio tester can be used for the planning and installation of base station sites. By scanning the surrounding spectrum environment, available spectrum resources and interference sources can be determined to ensure the spectrum utilization and compatibility of new base stations.
- The standing wave point detection function of the XWP series multifunctional tester helps with the installation and debugging of base station antenna systems (such as antennas, feeders, jumpers) to achieve optimal RF performance and power transmission efficiency.



Equipment Testing and Certification

- On the wireless communication equipment production line, the XWP series multifunctional tester can perform RF performance testing on UE, CPE, etc., to confirm whether the transmission power, spectrum purity, and reception sensitivity meet the 4G/5G standard requirements.
- The use of standing wave point detection function can calibrate and verify the S-parameters of RF components (such as filters, power dividers, couplers), ensuring that these components perform well in complex multi carrier and MIMO systems.



Network Troubleshooting and Maintenance

- Technicians can carry the XWP series multifunctional radio tester with them for on-site maintenance, quickly identifying and locating problems such as signal quality issues, intermodulation interference, antenna faults, etc.



Research and Education

- In academic research and laboratory teaching, the XWP series multifunctional radio tester can be used for teaching demonstrations of communication technology principles, such as spectrum analysis, 4/5G demodulation analysis, signal source single tone transmission, signal source 4/5G modulation signal transmission, as well as the development and verification of new wireless communication technologies