



YS9010 EMI Test Receiver

- Easy to operate and user-friendly
- Diverse testing methods
- Customizable standard limits and correction factors
- Supports test data comparison
- Supports automatic generation of test reports
- User-friendly software design
- Comprehensive EMI testing solution

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YS9010 EMI Test Receiver _



Product Overview:

The EMI test receiver is a fully automatic radio disturbance test receiver, which is the main tool for EMI testing. The YS9010 receiver has a frequency range of 9kHz-1GHz and is designed and developed in accordance with standards such as :2010 and GB/T6113.101-2016, meeting the requirements of compatibility standards. It can be used for power disturbance testing, conducted disturbance voltage testing, and radiation disturbance testing within 1G. The receiver has the advantages of fast testing speed, strong maneuverability, stable performance, and convenient test data processing.

Key Features

• Easy to operate and user-friendly

The test control software platform is based on the Windows system and is designed according to standard testing methods. It is easy to learn the measurement settings and convenient to operate, allowing for external keyboard and mouse operation.

Diverse testing methods

Supports single frequency point measurement, scanning measurement, and multi-frequency point measurement. Among them, scanning measurement supports the following testing modes: Scanning Modes: Scanning measurement, scanning measurement + quasi-peak measurement for exceeding threshold points, and scanning maximum value hold. The scanning range, step size, and level threshold can be set.

Detection Modes: Peak measurement, average measurement, peak + average measurement, and quasi-peak measurement.

• Customizable standard limits and correction factors

Supports user-editable setting of limit standards as well as editing and setting of correction factors.

Supports test data comparison

The comparison of data from two tests can be conducted, facilitating data analysis and research.

Supports automatic generation of test reports

The built-in test report template allows for automatic generation of test reports. The report can include information about the tester, and can be directly printed as a written report or saved as an electronic version. The report format is a universal format that facilitates easy import and export.

User-friendly software design

Based on years of electromagnetic compatibility (EMI) testing practices, the testing software is designed with user-friendliness in accordance with standard requirements and engineers' usage habits. It supports adjusting the upper and lower limit values during the testing process for optimal display effects. Furthermore, it allows for zooming in on any specific range to observe test data more accurately. Abundant help information is provided to assist users in deeply understanding the various functions of the receiver.

Comprehensive EMI testing solution

Combined with the artificial power network, coupling and decoupling network (CDNE), antennas, and other auxiliary equipment produced by our company, a complete EMI conduction disturbance, power disturbance, and radiation disturbance testing system can be formed.

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Performance Description

YS9010 EMI Test Receiver			
Frequency band	9kHz ~ 150kHz	$150 \mathrm{kHz} \sim 30 \mathrm{MHz}$	30MHz ~ 1GHz
Measurement frequency range	9kHz-1GHz		
Frequency resolution	30Hz	1kHz	10kHz
Noise level (with pre-amplifier on, CISPR bandwidth)	$\leqslant -10 dB\mu V(QP), \leqslant -15 dB\mu V(AV)$	\leq -5dBmV (QP), \leq -10dB μ V(AV)	≤ 0 dB μ V(QP), ≤ -5 dB μ V(AV)
Intermediate Frequency Bandwidth	200Hz	9kHz	120kHz
Overload factor of the detector front-end circuit	24dB	20dB	43.5dB
Overload factor between detector and indicator	6dB	12dB	6dB
The charging time constant of the quasi-peak detector	45ms	lms	lms
The mechanical time constant of the meter head	160ms	160ms	100ms
Input Interface	Input Impedance 50 Ohms, N-type Female Connector		
Standing Wave Ratio	1.2 (RFATT > 10dB) ;2.0 (RFATT=0dB)		
Detection method	Average Value, Quasi-Peak Value, Peak Value		
The range of level measurement (S/N=6dB)	(Noise Level+6dB μ V) \sim 120dB μ V		
The amplitude relationship of pulse response characteristics	The error of sinusoidal wave response and pulse response is not greater than ± 1.5 dB		
Accuracy of terminal sinusoidal wave voltage	≤±2dB		
Middle frequency rejection ratio	≥40dB		
Image Frequency Rejection Ratio (IRR)	≥40dB		
Other spurious responses (spurious suppression)	≥40dB		
Shielding effectiveness	Within the frequency range of 9kHz to 1000MHz, under a field strength of 3V/m, the error is less than or equal to 1dB.		
Parasitic signal	Not more than 3 points with a level less than 30dBµV.		
Frequency stability	1×10 ⁻⁶		
Scanning method	Scan measurement, Scan measurement + peak hold for exceeding points, Scan **** value hold		
Operation mode	Automatic, Manual		
Display	TFT Color Liquid Crystal Display		
Frequency marker display	Frequency and Level Value		
Antenna calibration	Supported, Automatic		
Output mode	USB interface, supports copying and outputting of test data or test reports, supports printing		
Software	Built-in EMI interference test software for testing and data retrieval		
Power Supply	AC 220V \pm 10%, 50Hz, power consumption not exceeding 70W		
Operating Temperature	-10°C ~ +60°C		
Humidity	5~95%RH @ ≤25°C		
Interface	USB interface, compatible with external peripherals such as mouse and keyboard		

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Application range

The YS9010 EMI Test Interference Receiver is designed for electromagnetic compatibility (EMI) interference testing of electronic and electrical equipment, including conducted and radiated disturbance testing. It is widely used for EMI testing, rectification, and laboratory certification in factories.

- Power Supply EMI Testing
- Lighting Fixture EMI Testing
- Medical Device EMI Testing
- Automotive Electronics EMI Testing
- Home Appliance EMI Testing

• Electric Tool EMI Conducted Distur bance Testing

- Radiated Disturbance Testing
- Laboratory Certification Testing
- Military Electronics EMI Testing



YX2580 Artificial Power Network:

An artificial power network (also known as a power impedance stabilization network) should provide a stable impedance to the equipment under test within the radio frequency range, isolate the equipment from high-frequency interference on the power grid, and then couple the interference voltage to the receiver. The artificial power network provides three ports for each power line: the power supply input port, the power output port to the equipment under test, and the interference output port connected to the measurement equipment.

Main Technical Indicators

Operating Steps

- Frequency Range: 9kHz~30MHz;
- Impedance Accuracy: ±20%;
- Rated Current: 10A;
- AC Frequency: 50Hz;
- Interference Output Port: BNC Socket;
- Weight: Approximately 5Kg.

1.Connect the ground wire of the artificial power network and the test receiver for grounding;

2.Connect the artificial power network to the power grid;

3.Connect the equipment under test;

4.Connect the artificial power network to the test receiver.



Broadband Antenna:

A broadband log-periodic antenna with linear polarization, combined with a 4:1 broadband dipole (aluminium tube) for both receiving and transmitting applications.

Key Technical Indicators

Frequency Range: 30 MHz - 3 GHz Usable Frequency Range: 25 MHz - 4 GHz Polarization: Linear Polarization Antenna Type: Directional Material: Aluminum Maximum Power: 200W (Intermittent), 100W (Continuous) Connector: N Impedance: 50 Ω Nominal Length: 1.24 m Width: 1.50 m Height: 0.62 m Weight: 3.1 kg



