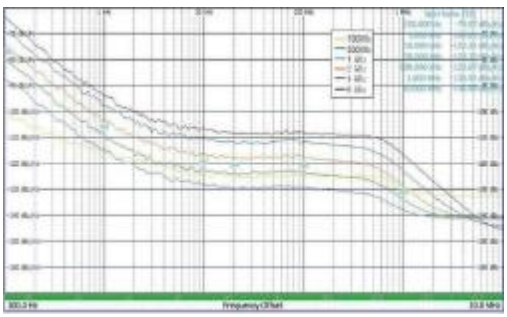
JSG5000M Series RF Analog Signal Generator

Product Features

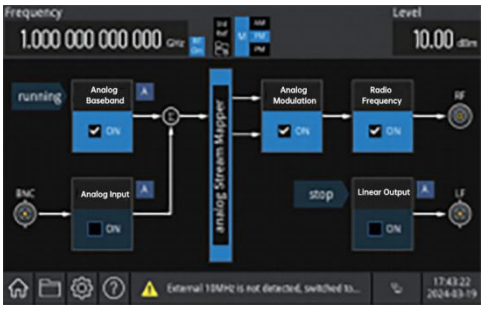
- Maximum frequency: 14GHz/22GHz
- Output frequency resolution 0.001Hz
- Signal level setting range: -135 dBm to 25 dBm, with -60 dBc spurious suppression
- Phase noise: < -122 dBc/Hz @ 1 GHz, 20 kHz offset (typical)
- Supports AM/FM/PM/φM analog modulation, with internal/external/combined internal+external modulation modes
- Supports frequency/amplitude/frequency+amplitude scan type
- Built-in 50MHz function signal generator, supporting basic waveform output, modulation, and frequency sweep
- Standard configuration: USB and LAN communication interfaces, supporting standard SCPI programmable commands

Supports web-based remote login and management

Product Features



The phase noise is below -122 dBc/Hz at 20 kHz offset (1 GHz carrier frequency), delivering a cleaner output signal. Under specific conditions, it can serve as a frequency source.source.



5-inch capacitive touch screen with 800×480 resolution

The brand-new flat human-machine interface adopts a signal flow diagram-based operation mode, which simplifies operations, improves work efficiency, and reduces potential misoperations.

Comprehensive Analog Modulation Schemes: AM/FM/PM/φM/Pulse

Modulation Modes: Internal, External, Internal + External

Diversified Scanning Modes

Scan Types: Frequency, Amplitude, Frequency + Amplitude

50MHz Function Signal Generator
Basic continuous wave: sine wave, square wave, sawtooth wave, triangular wave, DC, noise

Modulation type: AM/FM/ΦM/PM/ASK/FSK/PSK/QAM
Scan mode: Linear, Logarithmic

Quick measurement with a wattmeter
Use the power meter of the peripheral device to correct the flatness and reduce the measurement error.

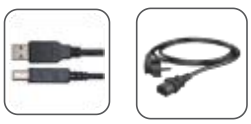
multidimensional control mode
Control or view mobile devices remotely via Web login
Supports USB and LAN communication, and SCPI programmable instrument commands

Technical Specifications

model	JSG5022M-P	JSG5022M	JSG5014M-P	JSG5014M
frequency range	9kHz ~ 22GHz		9kHz ~ 14GHz	
frequency resolution	0.001Hz			
mechanical attenuator	√	-	√	-
Reference output				
frequency	10MHz			
Amplitude	+4dBm nominal, 50Ω load			
external reference input				
Input Frequency	10MHz			
stability	It depends on the stability of the external reference input signal			
Pull-in Range	±10ppm			
Amplitude	-3.0 to +20dBm nominal value			
impedance	50Ω nominal value			
wave form	Sinusoidal or square wave			
Scan mode (frequency and amplitude)				
Operating Mode	Step scan, list scan			
Scan Range	Within the instrument's frequency range			
Dwell Time	1ms to 100s			
Number of Points	2 to 65535 step scan			
	List scan 1 to 3201			

model	JSG5022M-P	JSG5022M	JSG5014M-P	JSG5014M
level output parameters				
Settable range	-135dBm to +25dBm			
Resolution	0.01dB			
Programmable attenuator (optional)	0 to 110 dB, in 10dB increments			
Connector	N-type 50Ω, nominal value			
external modulation input				
MOD	AM,FM,PM (50Ω)			
PULSE	pulse modulation (50Ω)			
Internal Function Generator (LF)				
Waveform	Sine wave, square wave, pulse wave, triangular wave, arbitrary wave, DC, noise			
frequency range	sinusoidal wave		0.01Hz to 50MHz	
	Square wave, triangular wave, sawtooth wave		0.01Hz to 5MHz	
frequency resolution	0.01Hz			
frequency accuracy	The nominal value is the same as the RF reference source.			
LF audio output	0 to 1 V peak, 50Ω			
LF Frequency Sweep				
Sweep Mode	Linear, logarithmic			
Sweep Profile	Sawtooth, Triangle			
Sweep Direction	Up, Down			
sweep time	1ms to 500s			
Sweep Frequency Range	0.01Hz to 1MHz			
Trigger Mode	Automatic, key-triggered, external-triggered, bus-triggered			
Mechanical Specifications				
Dimensions	426mm×88mm×400mm (width×height×depth) without protective parts			
Calibration Interval	The recommended calibration interval is one year			

Standard package components



USB cable, National Standard power cable