Quality&**Precise**

MAXWELLON SG2000

100kHz~15.0GHz/ 9kHz~20GHz

RF Signal Generator

2023

Maxwellon

The SG2000 series microwave signal generator is positioned as a multifunctional and cost-effective signal generator. Its frequency range covers up to 20GHz and has various commonly used analog modulation functions (AM/FM/ΦM) Pulse modulation function, low-frequency output function, and frequency sweep function. The rich logical hardware interfaces and wide screen LCD display, standard 2U height chassis, complete standard SCPI command set, and universal multi communication mode bring great convenience for remote control and secondary integration development.

Key Feature

- Frequency range up to 20GHz
- High signal purity, SSB phase noise<-115dBc/ Hz@10 KHz
- 130dB wide dynamic power regulation output
- Various analog modulation AM/FM/ΦM
- Pulse modulation, up to 70dB on off ratio;External input pulse sequence
- Internal modulation source: sine wave, square wave, triangular wave, Sawtooth wave wave
- Standard 2U height for easy rack integration; Provide rack installation kit
- USB/LAN remote control interface, providing standard SCPI command set

Specification

Frequency Properties		
Frequency Range	SG2150A: 100kHz~15GHz	
	SG2200A: 9kHz~20GHz	
Frequency Resolution	0.01Hz	
Internal Reference Frequency	10 MHz	
Temperature Stability	±1.0ppm	
Internal Reference Output	10 MHz, +8 dBm (typ.)	
Spectral Purity		
Harmonic	< -30 dBc (typ.)	
Non-Harmonic	< -60 dBc (typ.)	
SSB Phase Noise	Carrier Frequency Offset @f=1GHz	-115 dBc / Hz @ 10kHz offset
Sweep Properties		
Sweep Mode	Step Sweep, List Sweep	
Sweep points	Step Sweep	2 ~ 65535
	List Sweep	2 ~16383
Dwell time	10ms~50s	
Trigger mode	Free/External	
Power Properties		
Output Power Range	Max. output power	+ 10 dBm
	Min. output power	- 120 dBm
Power Accuracy	±1.0 dB(ALC open)	
Modulation Characteristics		
Internal Modulation Signal Generator (LF)	Waveform	Sine, Square, Triangle,
	Sine	1 Hz~500 kHz
	Triangle	1 Hz~100 kHz
	Square	1 Hz~20 kHz
Output level	$0.2V_{p-p}$ ~ $2V_{p-p}$	

Analog Modulation (AM/FM/ΦM),Supporting internal and external modulation sources		
Amplitude Modulation	Modulation Depth	0 %~90 %
	Modulation Frequency Range	10 Hz~20 kHz
Phase Modulation	Max. phase Offset	N[1] × 6 rad
	Modulation Frequency Range	10 Hz~200 kHz
Frequency Modulation	Frequency Offset	N[1] × 64 MHz
	Modulation Frequency Range	10 Hz~200 kHz
Pulse Modulation	Break-make Ratio	≥70 dB
	Pulse Cycle Range	400 ns~160 s
	Pulse width	200 ns~85 s
Interface		
RF Output Interface	N type 50ohm	
LF Output	BNC 50ohm	
Functional Interface	Interface Name	External Pulse Modulation Input, Internal Pulse Output, External Trigger Input, Internal Trigger Output, External Modulation Input, 10M Reference Input/Output, AM Modulation Input, FM Modulation Input, Sweep Output
	Interface Type	BNC
LAN	10/100 Base T (Rear Panel)	
General Properties		
Dimension (W x D x H)	430mm×380mm×100mm	
Weight	Approx. 5Kg	
Operating Temp.	-10℃ ~ +45℃	
Storage Temp.	-20℃ ~ +70℃	
Power Supply	110 ~ 240V 50/60Hz	

Notes:

1. N represents a factor that helps define and determine indicators, with a maximum of 1 and a minimum of 1/128.

Ordering Information

Model

Model	Name	Description
SG2000A	RF Signal Generator	100kHz~15GHz
SG2000B	RF Signal Generator	9kHz~20GHz

Standard

No.	Name	Description
1	Power Cord	Standard three core power cord
2	Product certificate	

Options

Option Model	Name
SG2000-PMC	Power meter control kit
SG2000-RMK	Rack Mount Kit

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