

100kHz~200MHz

# Digital RF Signal Generator

## SG-200A

- ビルトイン高性能DSPプロセッサ&ダイレクトデジタルシンセサイザ(DDS)
- 0.5ppm ハイスタビリティTCXO&内蔵モジュレーション信号(20Hz~15kHz:1Hz分解能)
- 低フェイズノイズ:<-110dBc(@ Δf=10kHz)
- モジュレーション:FM/AM/PM/FSK/PSK/ASK
- デジタル周波数スイープジェネレータ(外部オーディオシグナルジェネレータは不要)
- 周波数範囲:100kHz~200MHz
- 分解能周波数:1Hz
- 水平レベル:±1dB
- 分解能レベル:0.1dB
- 高出力:+13dBm



販売価格: ¥**268,000**(税別)

### ◆仕様一覧

Carrier Frequency		Modulation Source	
Range	100 kHz to 200 mHz	Frequency Range	20 Hz to 15 kHz Sine ±0.01%
Resolution	1 Hz	Resolution	1 Hz
Reference Frequency		Ext Input Impedance	30 kΩ
Frequency Range	10.000mHz	Ext Input Voltage	3 Vp-p
Frequency Temp Stability	< 0.5 ppm	Ext Input BW	20 Hz to 15 kHz ±0.1 dB
RT Frequency Stability	< 0.5 ppm	Amplitude Modulation	
Stability VS. Aging	< 0.5 ppm / year	Frequency Range	100 kHz~200MHz
Operating Temperature	0°C~50°C	Level	≤ +7 dBm
Ref Out Frequency	10.000mHz	Operating Modes	Internal, External
Spectral Purity		Modulation Depth	0% to 100%
Harmonics	< -30 dBc	Resolution	0.1%
Non-harmonics (Spurious)	< -40 dBc	Accuracy	< ±(indicated value × 2%),
Residual FM	< 5 Hz (0.3 to 3 kHz BW) Typically < 2 Hz		Typically < ±(indicated value × 0.5%),
Residual AM	< 0.05%		100 kHz~60mHz
Residual PM	< 0.01 Rad (0.3 to 3 kHz BW) Typically < 0.001 Rad		< ±30%, Typically < ±20%,
Phase Noise	< -110 dBc/Hz (@Δf = 10 kHz)	60 mHz~200 mHz	@ AF = Internal 1 kHz
Level		Distortion	< 0.4% @ AF = Internal 1 kHz,
Range	-130 to +13 dBm		100kHz~60mHz
Resolution	0.1 dB		< 30% @ AF = Internal 1 kHz,
Accuracy	< ±1 dB(@≥ -100 dBm), < ±2 dB(@ <-100 dBm)		60mHz~200mHz
Characteristic Impedance	50Ω		Demod. BW = 50 Hz~15 kHz
VSWR	≤ 1.5 : 1 @ ≤ 9 dBm		
RF Flatness	±1 dB		

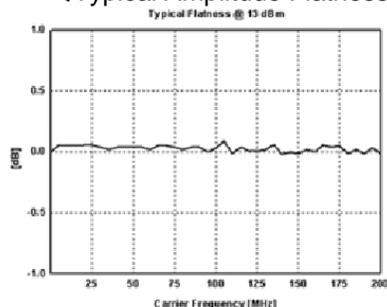
# Digital RF Signal Generator SG-200A

Frequency Modulation		Resolution	1 Hz
Operating Modes	Internal, External	Frequency Flatness	Peak-to-Peak 4 dB
Frequency Deviation	0 to 200 kHz	PSK Modulation	
Resolution	1 Hz	Operating Mode	External
Accuracy	< $\pm 3\%$ @ AF = Internal 1 kHz	Frequency Range	100 kHz to 120MHz
Distortion	< 0.05%, Typically < 0.03%	PSK Mode	2 Level PSK
	@ AF = Internal 1 kHz	Phase Shift (PH1 - PH0)	0 to 6.28 rad
	Demod. BW = 50 Hz~15 kHz	Resolution	0.01 rad
	De-emp = 50 usec	GATE(ASK) Modulation	
		Operating Mode	External
		Frequency Range	100 kHz to 120MHz
		ON/OFF Ratio	$\geq 80$ dB
		Rise/Fall Time	> 55 usec
		Input Level	TTL : 1 ON, 0 OFF
		Sweep	
		Start F / Stop F	100 kHz to 120MHz
		Resolution	1 Hz
		Type	Linear
Phase Modulation		Direction	Up or Up_Down Repeat
Operating Modes	Internal, External	Step(Delta) Frequency	1 Hz~10MHz
Phase Deviation	0 rad to 3.14 rad	Step Frequency Resolution	1 Hz
Resolution	0.01 rad	Step Duration	3.33333 ms. FIX
Accuracy	< $\pm 3\%$ @ AF = Internal 1 kHz	Frequency Flatness	Peak-to-Peak 4 dB
Distortion	< 0.5% @ AF = Internal 1 kHz	Remote Control (Option)	
	Demod. BW = 50 Hz~15 kHz	IEEE-488 (Option)	
Memory for Device Settings		General Data	
Storable Settings	100	Temperature Condition	10°C~35°C Specification 0°C~40°C Operation
PSK Modulation		AC Power Supply	90~240 V AC Free Voltage, 50/60 Hz
Operating Mode	External	Dimension	435(W) $\times$ 110(H) $\times$ 355(D)mm
Frequency Range	100 kHz to 120MHz	Weight	6.5kg
PSK Mode	2 Level PSK		
Frequency Shift (F1-F0)	0 to 10MHz		

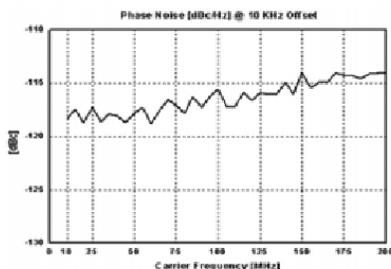
## ◆ アクセサリ

- パワーケーブル:1ea
- BNCケーブル:1ea
- 操作マニュアル:1ea

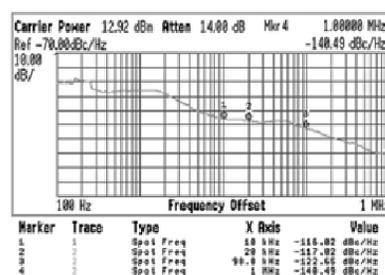
<Typical Amplitude Flatness>



<Typical Phase Noise Performance>



<200MHz Phase Noise>



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