Data Sheet Rev1.1 SSG1000 series

Features

- Wide frequency range: 10MHz~20GHz
- Support external or internal fast frequency sweep (without ALC): 50000 points in 1ms
- Support external or internal narrow pulse modulation : 20ns pulse width
- Ultra low frequency resolution : 1μHz
- Auto Level Control (ALC) with closed loop
- High reliability and easy to use
- Output power up to +17dBm@10GHz
- Excellent phase noises performance
- Manual or software control via Ethernet or GPIB
- Battery power supply is optional
- Low harmonics
- 5" color LED display

Applications

- R&D laboratories
- Field testing
- Service installation
- Auto test system
- Local oscillator
- Test and measurement

Absolute Maximum Ratings

Parameter	Symbol	Condition	Min.	Max.	Unit
Operating Temperature	Top	Ambient Temperature	0	+55	℃
Storage Temperature	Tstg	Ambient Temperature	-20	+70	℃
AC Operating Voltage	Vop		100	240	V
Reverse Power	Pr	Reverse input power without damage		20	dBm

Typical Specification (@25°C)

Frequency Range	10MHz~20 GHz				Remark
Frequency Resolution	1 μHz*				
Frequency Accuracy	±0.5 ppm				
Frequency Stability	<0.1 ppm				
Frequency Aging	<1ppm				
Frequency Switch Time (without ALC)	20 ns				
Frequency Switch Time (with ALC)	5 ms				
Output Power	-100dBm ~ +5dBm@10MHz ~ 30MHz -100dBm ~ +10dBm@30MHz ~ 50MHz -100dBm ~ +17dBm@50MHz ~ 9GHz -100dBm ~ +10dBm@9GHz ~ 15GHz -100dBm ~ +5dBm@15GHz ~ 17GHz -100dBm ~ 0dBm@17GHz ~ 20GHz				
	-40dBm ~ +10dBm@10MHz ~ 30MHz -40dBm ~ +15dBm@30MHz ~ 50MHz -40dBm ~ +20dBm@50MHz ~ 9GHz -40dBm ~ +15dBm@9GHz ~ 15GHz -40dBm ~ +10dBm@15GHz ~ 17GHz -40dBm ~ +5dBm@17GHz ~ 20GHz				Option2
Power Resolution	0.1dB				
Pulse Modulation	rise/fall time：≤10ns pulse width：≥20ns on/off ratio：>80dB@6GHz				
Phase Noise		100MHz	10GHz	20GHz	
	dBc/Hz @100Hz	-105	-68	-65	
	dBc/Hz @1kHz	-112	-88	-81	
	dBc/Hz @10kHz	-116	-89	-84	
	dBc/Hz @100kHz	-121	-88	-82	
	dBc/Hz @1MHz	-127	-108	-102	
	dBc/Hz @10MHz	-129	-128	-122	
Spurious	<-35dBc@harmonics <-65dBc@non-harmonics,<10 GHz <-57dBc@non-harmonics,>10 GHz				
Impedance	50Ω				
Operating Voltage	100~240VAC @50~ 60Hz				
Power Consumption	40W				
Battery Operation	4 Hours				Option1
Operating Temperature	0℃~55℃				
	0℃~40℃				Option1
Storage Temperature	-20℃~70℃				

*It was measured indirectly.

Typical Phase Noise Performance (@25°C)

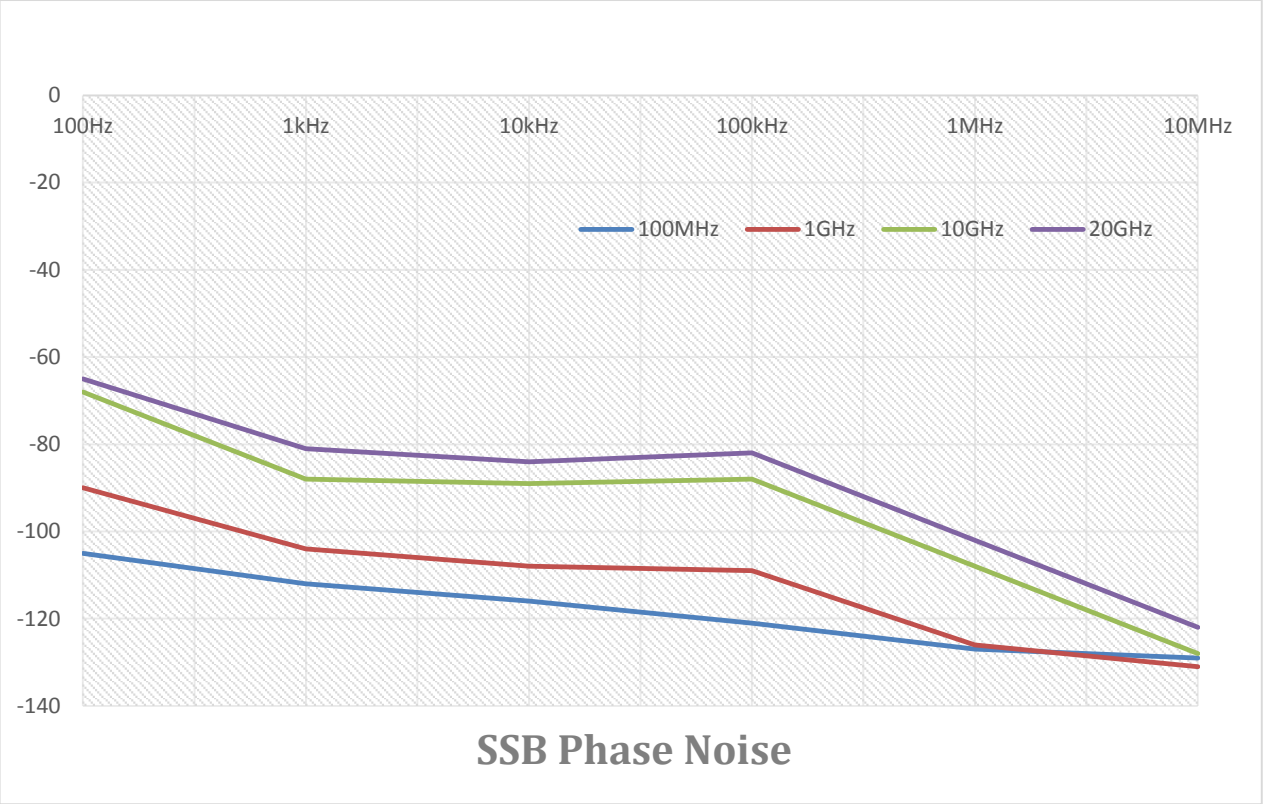

Fig.1 SSB Phase Noise

Interface

Front Panel

Rear Panel

Connector

Type	Connector
RF Output	SMA female (50Ω)
10MHz IN/10MHz OUT	BNC (50Ω)
PULSE IN/PULSE OUT	BNC (50Ω)
TRIG IN	BNC
LAN	RJ-45
GPIB	IEEE-488

Ordering Information

Option	Description
Option1	With battery, operating temperature 0 to 40℃
Option2	Low power range, but high output power

USA
410, 39650 Liberty Str. Ste.
Fremont, CA94538
USA
Tel: +1-510-498 8829
Email: sales@skyastar.com

China
C305, 27 Yayingshi Road
Science City, Guangzhou
China
Tel: +86-020-8225 8599
Email: sales@skyastar.com

Visit Our Website:
www.skyastar.com