

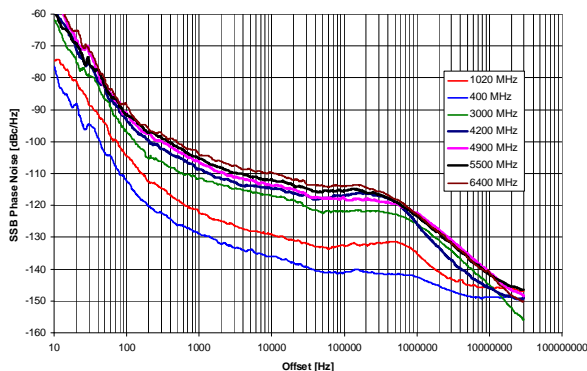
Product Brief

9 kHz to 6500 MHz Signal Generator **APSIN6000**

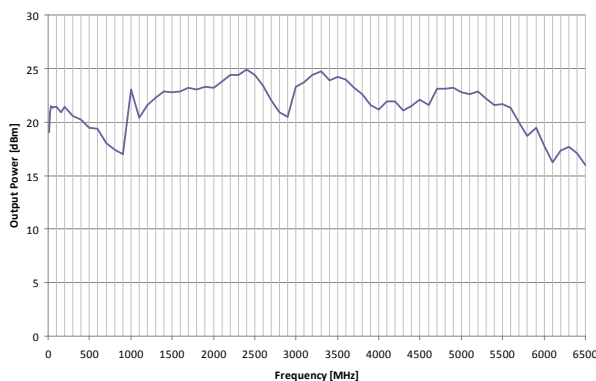
The APSIN6000 is a compact, high-performance signal sweep generator with wide frequency coverage from 9 kHz to 6500 MHz, milli-Hz resolution, and broad power range up to 13 dBm. It combines excellent signal quality (low phase noise, good harmonic suppression and low spurious) with fast switching. An internal OCXO reference guaranteed high stability but can also be locked to an external reference. The APSIN6000 is also available with an optional internal battery and weights less than 3 kgs.



Measured SSB Phase Noise



Maximum Output Power



Features

- Internal high-stability reference (OCXO, 100ppb)
- Web browser based control via LAN
- Easy remote access (GUI, DLL, VISA/SCPI, web)
- Internal power sensor for auto-level control
- Powerful trigger and sweep modes

Applications

- Lab analog signal source
- Production test & measurement
- Automated test systems (ATE)
- EMC testing

Options

- **B3**: internal rechargeable battery operation
- **PE**: power range to -100 dBm
- **PE2**: power range to -140 dBm
- **RM**: 19" Rack-mount

Key Specifications

Parameter	Symbol	Min.	Typ.	Max.	Units	Note
Frequency range	f	9 kHz		6400	MHz	
resolution	f_{step}		0.001		Hz	
Phase resolution	ϕ_{step}		0.2		deg	
Settling time				200	μ s	
Frequency update rate			1		ms	
SSB Phase noise						
at 20 kHz from carrier			-115		dBc/ Hz	5 GHz carrier
Wideband noise			-150		dBm/Hz	
Power level						
Range	P_{out}	-30 -100 -140		+13	dBm	See 1
Resolution			0.1		dB	
Level uncertainty			± 0.2 dB	± 1	dB	
Output impedance			50		Ohms	
Spectral purity						
Output harmonics			-45	-30	dBc	2
Sub-harmonics			-60		dBc	
Non-harmonic spurious			-60		dBc	
Reference frequency input	f_{ref}	1	10	100	MHz	3
Input level		-5	0	+13	dBm	
Maximum deviation				+/- 1.0	ppm	
Input impedance			50		Ohms	
Internal reference frequency			100		MHz	
Temperature stability				± 100	ppb	0 to 50 degC
Aging 1 st year			0.5		ppm	
Aging per day (after 30days operations)				5	ppb	
Warm-Up time			5		min	
Output of internal reference			5 50		dBm Ohms	

Notes:

- guaranteed level is -30 to +13dBm in 0.1 dB resolution; below -30 dBm the resolution is 0.5 dB. Settable level is -60 to +16 dBm;
with **option PE**: -100 to +13 dBm in 0.1 dB steps guaranteed. Below -100 dBm the resolution is 0.5 dB. Settable level is -120 to +25 dBm
with **option PE2**: -140 to +13 dBm in 0.1 dB steps guaranteed.
- at output connector, $-10 \text{ dBm} < P_{out} < +10 \text{ dBm}$; $f > 143 \text{ MHz}$
- must be integer $N \bullet 1 \text{ MHz}$