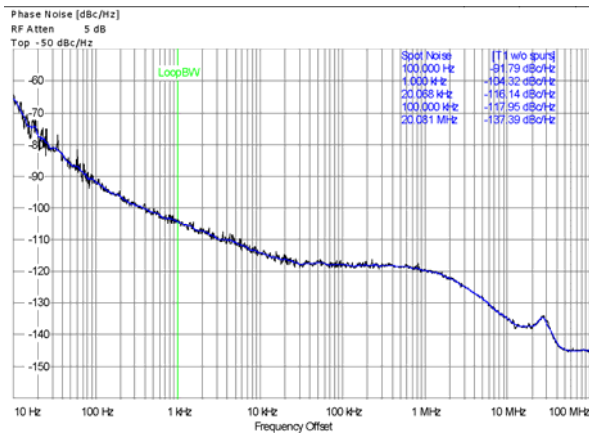


Product Brief

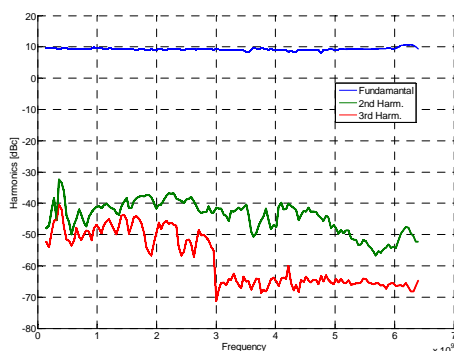
9 kHz to 6100 MHz Signal Generator **APSiN6010**

The APSiN6010 is a low phase noise, extremely fast-switching RF signal generator with μ -Hz frequency resolution, and precisely leveled power range from -130 to +13 dBm.

It combines excellent signal quality, high-quality analog modulation and fast switching capabilities. Flexible and simultaneous modulation allows complex signal simulation. The internal OCXO guarantees a high stability time base and can be locked to an external reference in the range of 1 to 250 MHz. The modular design simplifies maintenance and minimizes cost of ownership.



SSB Phase Noise at 4 GHz



Harmonics at Pout= +10 dBm

Key Features

- Only 200 μ s frequency switching time
- Excellent SSB phase noise
- Comprehensive AM, low-distortion, wideband FM and PM and high speed pulse modulation for testing all types of receivers
- LAN/USB/GPIB (optional) remote control
- Input for USB power sensor
- Powerful trigger and sweeping modes

Applications

- R&D high-quality lab source
- Education
- Production test & measurement
- Automated test systems (ATE)
- EMC testing

Key Specifications

Parameter	Value	Notes
Frequency range	9 kHz -- 6100 MHz	
resolution	0.1 mHz	
Phase resolution	0.1 deg	
Settling time	0.2 ms	
SSB Phase noise		
at 20 kHz from carrier	-120 dBc/Hz	3 GHz carrier
wideband noise	-150 dBc/Hz	
Power level		
Range	-30 -- +13 dBm -100 -- +13 dBm -130 -- +13 dBm	Standard Option PE Option PE2
Resolution	0.05 dB	
Level uncertainty	< 1 dB	
Output impedance VSWR	50 Ω 1.5 typical	
Spectral purity output harmonics non-harmonic spurious	< -30 dBc < -60 dBc	
Sweeps & Trigger		
Dwell time	> 50 μ s	
Time resolution	10 μ s	
List size	20'000	
Trigger	auto, external, bus, gated	
Frequency Modulation		
Modulation rate	DC to 800 kHz	
Maximum deviation	> 7 % of f	
Distortion	0.1 %	$f_{mod} = 1$ kHz & $f_{dev} = 10$ MHz
Amplitude Modulation		
Rate	0.1 Hz – 50 kHz	sine, pulse, triangle
Depth	0 to 95 %	
Distortion	1.5 % at 30 % 2 % at 80 %	$f_{mod} = 1$ kHz
Pulse Modulation		
Rate	DC – 10 MHz	
On/OFF Ratio	> 60 dB	
Pulse width	> 50 ns	
Rise/Fall times	< 10 ns	
Internal reference	100 MHz	
Temperature stability	\pm 100 ppb	0 to 50 $^{\circ}$ C