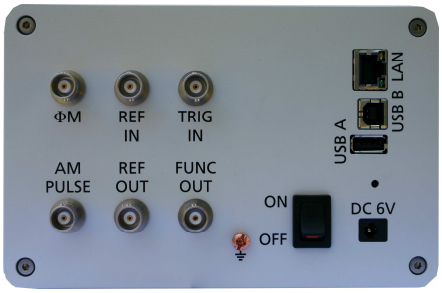
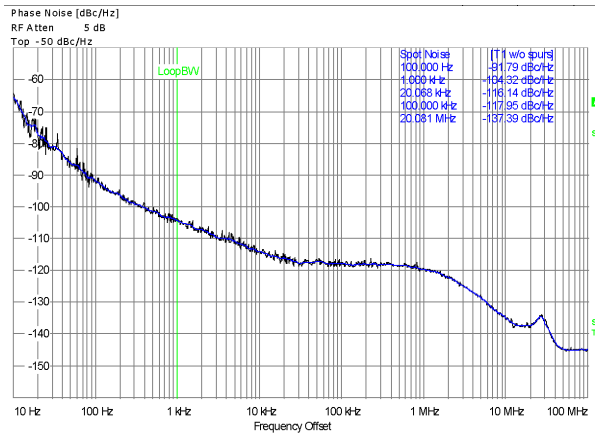
Product Brief

9 kHz to 6100 MHz Signal Generator APSIN6010HC

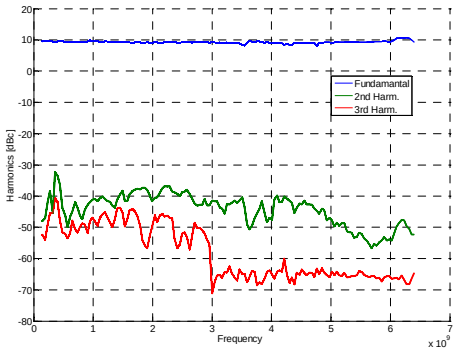
The APSIN6010HC is a low phase noise, extremely fast-switching RF signal generator with µ-Hz frequency resolution, and precisely leveled power range from -120 to +18 dBm.

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 8 to 200 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 400 µs frequency switching time
- Excellent 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	0.001 Hz	
Phase resolution	0.1 deg	
Settling time	0.4 ms	
SSB Phase noise		
at 20 kHz from carrier	-130 dBc/Hz	1 GHz carrier
wideband noise	-150 dBc/Hz	
Power level		
Range	-30 -- +19 dBm -120 -- +16 dBm	Standard Option PE3
Resolution	0.01 dB	
Level uncertainty	< 1 dB	
Output impedance VSWR	50 Ω < 2	
Spectral purity output harmonics non-harmonic spurious	 -40 dBc < -60 dBc	+10 dBm
Sweeps & Trigger	Freq, Power, List	
Time resolution	10 µs	
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 – 20 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	> 70 dB	
Pulse width	> 50 ns	
Rise/Fall times	< 10 ns	
Internal reference	10 MHz	
Temperature stability	±100 ppb	0 to 50 °C