Ana Pico of Switzerland

Analog High-Speed Products

NEW

Product Announcement

100 kHz to 26 GHz Low Phase Noise Microwave Source

APSIN26G

+ IMPROVED PHASE NOISE

+ FASTER SWITCHING SPEED

+ MORE OUTPUT POWER

The APSIN26G is a low-noise and fast-switching microwave signal generator covering a continuous frequency range from 100 kHz up to 26 GHz.

Advanced technology allows a 0.001 Hz frequency resolution, fast switching, excellent phase noise and a high power output. APSIN26G operates with an ultra-stable temperature compensated 100 MHz reference (OCXO) and can be phase-locked to any external reference from 1 to 250 MHz.

Available also as truly portable model with internal rechargeable battery module, this instrument offers a reliable and powerful alternative to expensive high-end microwave signal generators, where small size and excellent microwave performance at an attractive cost is required.

Key Features

- **Only 250 µs frequency switching time**
- **Very low SSB phase noise: -115 dBc/Hz at 10 GHz and 20 kHz offset**
- **Excellent phase coherence / phase stability**
- **Fast pulse and pulse train modulation**
- **LAN/USB/GPIB (optional) remote control with SCPI 1999 command set**
- **Powerful trigger and sweeping modes**

Applications

- **R&D low noise signal source**
- **Production testing (industry-leading switching times; high dynamic range)**
- **Service and maintenance**
- **Signal simulation (Radar, WiMax, UWB)**
- **Aerospace & Defence (Pulse modulator, Chirps)**

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Key Specifications (typical)

Parameter	Typical Value	Notes
Frequency range	100 kHz to 26 GHz	
resolution	0.001 Hz	
Phase resolution	0.1 deg	
Settling time	0.25 ms	
SSB Phase noise		
at 20 kHz from carrier	-115 dBc/Hz	10 GHz carrier
wideband noise	-150 dBc/Hz	
Power Level Range	-15 to +20 dBm -80 to +17 dBm	standard options PE3
resolution	0.01 dB	
uncertainty	< 1.0 dB	0.2 dB typically
Output impedance VSWR	50 Ω 1.8	
Spectral purity output harmonics non-harmonic spurious	 -40 dBc < -60 dBc	at +10 dBm
Sweeps & Trigger		
Dwell time	min 50 µs	
Time resolution	10 µs	
List size	20'000	
Trigger	auto, external, bus, gated	
Frequency Chirps		
	DC to 800 kHz	
	5 % of *carrier*	
	0.1 %	f_{mod} = 1 kHz & f_{dev} = 10 MHz
Amplitude Modulation		
Rate	0.1 Hz – 20 kHz	
Depth	0 to 95 %	
Pulse Modulation		
Rate	DC – 10 MHz	
On/OFF Ratio	80 dB	Pout = +10 dBm
Pulse width	25 ns	
Rise/Fall times	10 ns	
Internal reference frequency	10/100 MHz	
Temperature stability	±100 ppb	0 to 50 °C