

AP5041A and AP5042A Vector Signal Generators

Capable, Compact, Cost- Efficient.

The Keysight AP5041A and AP5042A single and multi-channel vector signal generators provide you with a combination of performance and versatility in a compact form factor. Leverage the excellent phase noise, spectral purity, fast switching speed, phase coherent multi-channel performance and vector modulation capability of these generators for an effective and cost-efficient tool in your lab. Put these sources to work, testing in application areas such as receiver testing, phased array antenna testing, avionics testing, RADAR & EW signal generation, quantum computing testing, MIMO signal generation, production testing and more!



AP5041A



AP5042A

Description

Description	AP5041A & AP5042A Performance
Frequency range	100 kHz to 4, 6, 12, 20, or 40 GHz
Max output power at 1 / 10 GHz	+22 dBm (standard option)
Phase noise at 1 / 10 GHz, 10 kHz offset	-142 / -113 dBc/Hz (LN1, LN2)
Harmonics at 1 / 10 GHz	< -41 / -30 dBc
Non-harmonics at 1 / 10 GHz	< -57 / -50 dBc
Frequency switching speed (latency)	500 μ s standard As low as 2.6 μ s (option UNZ)
Standard modulation BW	400 MHz
Number of channels	1 (AP5041) 1, 2, 3 or 4 (AP5042A)

AP5041A & AP5042A Options

Option	Description
504, 506, 512, 520, 540	Frequency range, 100 kHz to 4 GHz, 6 GHz, 12 GHz, 20 GHz or 40 GHz
001, 002, 003, 004	Signal Generator Channels (1-4, AP5042A) (1, AP5041A)
1E2, 2E2, 3E2	Electronic attenuation – agile, down to -80 dBm
1EH	Electronic attenuation and improved harmonics
1E1	Mechanical attenuation – down to -120 dBm
1ER	Flexible reference input
GPB	GPIO interface
LN1	Ultra-low close in phase noise and long-term frequency stability
LN2	Enhanced ultra-low close in phase noise and long-term frequency stability
UNZ	Fast switching
EXT	Ext. analog I/Q inputs
FCP	Fast control port, ext. digital I/Q inputs, IQ data
PHS	Phase-coherent switching
006	MicroSD card slot for removable SD memory
302	Avionics (VOR, ILS, Marker Beacon, DME) (AP5041A only)
403	AWGN
UNT	AM, FM, Phase modulation
PCM	Phase Calibratable Mode
PMR	Pulse modulation
SNC	Multi-instrument synchronization
UK6	Commercial calibration with test data
Various Software (SW)	Supports various Signal Studio SW applications and IQ Tools application

For more information: www.keysight.com/find/AP5041A, www.keysight.com/find/AP5042A