



Cost-Efficient, Single- and Multi-Channel VSGs Cover 10 MHz to 40 GHz

AnaPico of Switzerland has launched its APVSG series of vector signal generators (VSGs), which cover frequency ranges from 10 MHz to 4, 6, 12, 20 or 40 GHz and are available in single- and multi-channel versions. Each VSG channel contains built-in arbitrary wave signal generation, RF and microwave signal generation and analog and digital I/Q modulation.

The internal waveform memory stores 512 million samples at 32 bits per sample, and with a maximum sampling rate of 500 MSPS, each channel supports a maximum digital modulation bandwidth of 400 MHz. The APVSG has low phase noise of -125 dBc/Hz at 20 kHz offset from a

10 GHz carrier and harmonic, sub-harmonic and spurious suppression of > 50 dBc. Switching time is 200 ns.

The APVSG has built-in analog (pulse, AM, FM, PM, chirp) and digital (ASK, FSK, PSK, QAM and others) modulation, as well as accepting external analog and digital I/Q signal inputs. Customer-compiled digital I/Q data can be uploaded into the internal memory for programmed sequential playback and modulation.

AnaPico's proprietary Fast Control Port enables high speed and low latency operation between the APVSG engine and external instruments. The multi-channel APVSGs have excellent phase coherence and extremely high relative frequen-

cy stability. The 3 GHz inter-module synchronization mechanism enables phase coherence among dozens of channels.

With these features and performance, the APVSGs are cost-efficient and useful for a wide range of applications: quantum computing, radar and smart antenna testing, wireless and mobile communication, radio surveillance and electronic warfare.

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