

Product Specification Summary

Programmable Signal Source With Arbitrary Waveform Generation

Model 10512

The Model 10512 programmable signal source digitally creates frequency-modulated “noise” waveforms and applies them to a carrier whose center frequency can be varied +/-50 MHz in less than 100 ns. It is well suited for use as a fast-hopping signal generator, programmable noise source, or arbitrary signal generator.

Waveform characteristics such as video bandwidth, dispersion bandwidth (to 400 MHz), and power level, can be programmed locally or remotely. The waveforms include ramp, sinusoidal, triangle, square wave, and random, among others. The standard model operates to 3 GHz but much higher frequency ranges are available.

The unit consumes only 11 W, measures 4 in. L x 4 in. W x 0.6 in., weighs less than 1 oz., and meets military specifications for shock and vibration.

Key features/applications

- Use for fast-hopping signal generator, programmable source, or arbitrary signal generator.
- Standard frequency 3 GHz; others available
- Dual linearized and temperature-compensated VCOs
- VCO modulation with complex arbitrary waveforms or noise
- 15 ns VCO output select switch
- Dual 6-bit digitally-controlled RF attenuators with 100 ns settling time

Frequency range	2.8 to 3.0 GHz
Output power	+16 dBm
Frequency stability	+/-0.2 dB
Channel isolation	>55 dB
Spurious rejection	>45 dBc
Power consumption	11 W

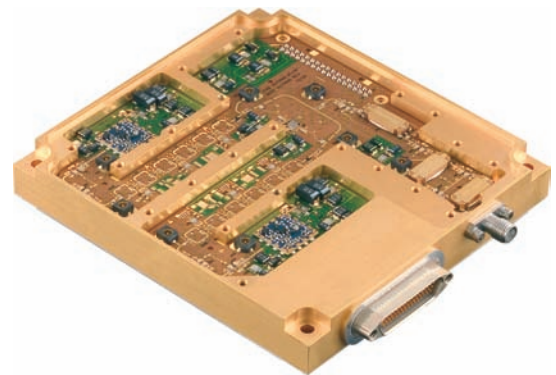
FM characteristics

Frequency deviation	CW to +/-200 MHz
Modulation bandwidth	CW to 30 Mhz
Tuning time	100 ns
Switch setting time	15 ns

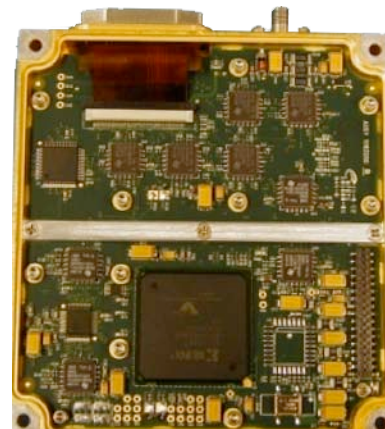
AM characteristics

Amplitude control range	63 dB in 1-dB steps
Amplitude settling time	<100 ns

Top side: Microwave components



Bottom side: Power and control components



Please consult the factory for detailed product specifications.

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