

GIGA-TRONICS

2540B

The Giga-tronics 2540B Microwave Signal Generator is a high-performance CW and swept frequency signal source covering 2 GHz to 40 GHz (100 kHz to 40 GHz with Option 18). It utilizes Advanced Synthesizer Technology to deliver ultra-low phase noise, high signal purity, and fast frequency switching speed. Designed for demanding automated test systems (ATE) and applications requiring clean signals, it features a full suite of analog and pulse modulation capabilities, high time base stability, and comprehensive remote programming via GPIB or Ethernet LAN.

SPECIFICATIONS

Frequency

Minimum Frequency	2 GHz (100 kHz with Option 18) Hz
Maximum Frequency	40 GHz Hz
Frequency Resolution	0.001 Hz

Output

Phase Noise	-109 dBc/Hz @ 10 kHz and 100 kHz offsets (10 GHz carrier)
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Modulation

Modulation	AM, FM, Phase Modulation, Pulse Modulation
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General

Reference Oscillator	10 MHz
Interfaces	GPIB (IEEE-488), Ethernet LAN

Frequency Specifications

Standard Frequency Range	2 GHz to 40 GHz
Low Frequency Extension (Option 18)	100 kHz to 2 GHz
Fast Frequency Switching Speed	Available (Option 29)

Spectral Purity

SSB Phase Noise (100 Hz offset)	-77 dBc/Hz @ 10 GHz carrier
SSB Phase Noise (1 kHz offset)	-96 dBc/Hz @ 10 GHz carrier
SSB Phase Noise (10 kHz offset)	-109 dBc/Hz @ 10 GHz carrier
SSB Phase Noise (100 kHz offset)	-109 dBc/Hz @ 10 GHz carrier
Ultra-Low Close-in Phase Noise	Available (Option 28)

Analog Modulation

Internal and External Modulation Suite	Available (Option 17A, includes internal function generator)
External Modulation Suite	Available (Option 17B)

Output Power and Level Specifications

High RF Output Power	Available (Option 20)
Step Attenuator Range	90 dB Mechanical Step Attenuator (Option 26C)

Inputs, Outputs and Connectivity

Remote Control Interfaces	GPIB (IEEE-488), Ethernet LAN
Rear Panel RF Output Connector	Available (Option 22)

Physical Specifications

Blank Front Panel	Available (Option 44, requires Option 22)
Rack Mount Kit	Rack Slide Kit (Option 46)

Software and Control

Included Automation Software	Spanawave / Giga-tronics Automation Xpress
Software Features	Plug-and-play driver, soft front panels, Command-Line interpreter with script/loop capability, GPIB traffic monitoring

Amplitude

Amplitude Resolution	0.01 dB
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Inputs & Outputs

RF Output Connector Type	2.92 mm (female)
External Reference Input Frequency	10 MHz
Reference Output Frequency	10 MHz

TECHNOLOGY

Advanced Synthesizer Technology

APPLICATIONS

Automated Test Systems (ATE), Radar and EW testing, and general purpose applications requiring ultra-low phase noise and high signal purity.

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.