GIGA-TRONICS

6062A

The Giga-tronics 6062A is a synthesized RF signal generator covering the 100 kHz to 2.1 GHz frequency range. Developed originally under the Fluke brand and subsequently supported by Giga-tronics, it delivers high spectral purity, indirect synthesis, and a full suite of modulation capabilities including AM, FM, phase modulation, and fast-rise pulse modulation as a standard feature, making it highly suited for pulsed communications, radar receiver testing, and automated test environments.

SPECIFICATIONS

Frequency

Minimum Frequency	100 kHz Hz
Maximum Frequency	2.1 GHz Hz
Frequency Resolution	10 Hz (0.1 to 1050 MHz), 20 Hz (1050 to 2100 MHz)

Output

Maximum Output Power	+13 dBm dBm
Output Power Range	-137 dBm to +13 dBm
Phase Noise	<-115 dBc/Hz @ 20 kHz offset, 1 GHz carrier

Modulation

Modulation	AM, FM, Phase Modulation (PM), Pulse Modulation
Sweep Modes	Frequency Sweep, Amplitude (Step) Sweep
Standard Internal Modulation Frequencies	400 Hz and 1000 Hz
Option 130 Modulation Frequency Range	10 Hz to 99.9 kHz (option dependent)
Option 130 Modulation Frequency Resolution	10 Hz (10 Hz to 9.99 kHz), 100 Hz (10.0 kHz to 99.9 kHz) (option dependent)
AM Resolution	1%

General

Reference Oscillator	10 MHz Internal Crystal
Interfaces	IEEE-488 (GPIB)
Display	LCD

Physical

Power Supply	100 V / 120 V / 220 V / 240 V AC (±10%), 47 Hz to 63 Hz
Dimensions (W×H×D)	432 mm x 133 mm x 533 mm mm
Weight	14.5 kg kg

Frequency Specifications

Frequency Switching Speed	< 100 ms
Internal Reference Aging Rate	< 1.5 x 10^-8 per day
External Reference Input Frequency	1, 2, 5, or 10 MHz
External Reference Input Amplitude	0.2 V to 5 V p-p

Amplitude Specifications

Minimum Output Power	-137 dBm
Amplitude Resolution	0.1 dB
Amplitude Accuracy	±1.5 dB (levels above -127 dBm)
Output Impedance	50 Ohms
Output Voltage SWR	< 1.5:1 (for output levels < 0 dBm)
Maximum Reverse Power Protection	Up to 50 W (from 50 Ohm source)

Spectral Purity

Harmonics	<-30 dBc (levels < +13 dBm)
Non-Harmonics (Spurious)	<-60 dBc (at carrier frequencies up to 1050 MHz)
Sub-Harmonics	<-50 dBc (above 1050 MHz)
Residual FM	< 12 Hz RMS (0.3 to 3 kHz BW, @ 1 GHz)

Analog Modulation

FM Maximum Deviation	800 kHz (for carriers 1050 to 2100 MHz)
FM Rate Range	20 Hz to 100 kHz
FM Distortion	< 1% (at 1 kHz rate)
AM Depth Range	0% to 99%
AM Rate Range	20 Hz to 50 kHz
AM Distortion	< 1.5% (at 30% depth, 1 kHz rate)
PM Maximum Deviation	10 radians (for carriers 1050 to 2100 MHz)
PM Rate Range	20 Hz to 10 kHz
Pulse Modulation On/Off Ratio	> 80 dB
Pulse Modulation Rise/Fall Time	< 15 ns (typically < 10 ns)
Pulse Modulation Minimum Pulse Width	50 ns

System Connectivity and Interfaces

RF Output Connector	Type N female
External Reference Input Connector	BNC female
Memory Registers	Up to 50 non-volatile instrument set-ups

Physical and Environmental Specifications

Operating Temperature Range	0 to 50 °C
Storage Temperature Range	-40 to 71 °C
Rack Unit (RU) Height	3U

Input & Output

External Modulation Input Connector	BNC female (front panel)
External Pulse Input Connector	BNC female (front panel)
Reference Output Connector	BNC female (rear panel)
Sweep Output Connector	BNC female (rear panel)

Performance

Sweep Output Voltage Range	0 to 10 V
Warm-up Time	30 minutes

Power

Power Consumption	180 VA max
AC Input Voltages	100 V / 120 V / 220 V / 240 V AC (±10%)
AC Input Frequency	47 Hz to 440 Hz

Compliance & Standards

RF Electromagnetic Compatibility	Meets MIL-STD-461B

Environmental

Relative Humidity	95% RH max at +30 °C, 75% RH max at +40 °C, 45% RH max at +50 °C
Operating Altitude	3050 m (10,000 ft)
Non-Operating Altitude	12200 m (40,000 ft)

Compliance

Vibration and Shock Compliance	Meets MIL-T-28800C Class 5
Safety Compliance	Designed to comply with IEC 348 and UL 1244

Reference

Reference Output Frequency	10 MHz

Interfaces

GPIB IEEE-488 Capability Subset	SH1, AH1, T6, L4, SR1, RL1, PP0, DC1, DT1, C0, E1

TECHNOLOGY

Indirect Synthesis

APPLICATIONS

Receiver testing, pulsed communication, radar system testing, ATE applications

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