



Product Dimensions: Weight: 3.5 kg
 Width×Height×Depth = 231mm×108mm×365mm

Application

1. Simulation of sensors and Real Word Signals
2. In Circuit Function Test
3. Serial Bus Test
4. IC test

Model	DG3061A	DG3101A	DG3121A
Maximum Output Frequency	60 MHz	100 MHz	120 MHz
I/O	USB Device, RS-232, LAN/GPIB		
Optional Configuration	Digital Logic Output Module		

Advanced Features

1. Optional Digital Logic Module - Create true mixed signals with 1 analog and up to 16 digital channels of stimulus
2. DDS Technology: Provides for a superior signal with low distortion and noise
3. 300 MSa/s of sample rate, 14 bits of vertical resolution, 1M points of memory depth
4. 4.0' QVGA color LCD
5. 10 standard waveforms: Sine, Square, Ramp, Pulse, Noise, Exponential Rise, Exponential Fall, Sin(x)/x, Cardiac, DC
6. Arbitrary Waveform generation as defined by the user
7. Versatile modulation and variety of waveforms: AM,FM,PM,FSK,PWM,Sweep,Burst
8. Versatile input and output signals: Waveforms output, Digital synchronous signals output, External Modulation Source, Clock Reference (10 MHz), External Trigger and Internal Clock Output (10 MHz)
9. I/O: USB Device, RS-232, GPIB, LAN
10. Remote access and control signal generators through 10/100M LAN interface
11. USB Host to support USB flash memory, USB printer and direct system upgrade
12. Seamless connectivity with DS series digital oscilloscopes: Ability to generate signals from stored waveforms from our DSO
13. Multi-language user interface, built-in help system

Typical Output



Sine



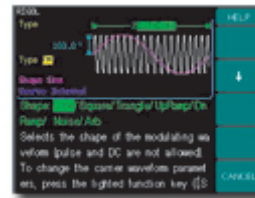
Pulse



Arbitrary Waveform



AM Modulation



Sweep

Digital Logic Output Module

The 1st Mixed Signal Generator (MSG) with 16 digital data channels and 2 clock channels.



Digital Logic Output Module



WEB Access Interface

Standard Accessories



Power Cord



USB Data Wire



User Manual

Optional Accessories



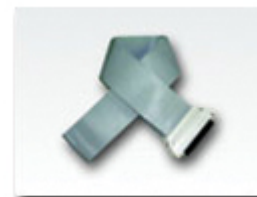
BNC Cable



RS-232 Cable



Digital Logic Module



Data Connection Cable

Performance Characteristics

Model	DG3121A	DG3101A	DG3061A
Standard Waveforms	Sine, Square, Ramp, Pluse, Noise, Exponential Rise, Exponential Fall, Sinc, Cardiac, DC		
Sine	1 μ Hz to 120MHz	1 μ Hz to 100MHz	1 μ Hz to 60MHz
Square	1 μ Hz to 120MHz	1 μ Hz to 100MHz	1 μ Hz to 60MHz
Pluse	500 μ Hz to 36 MHz		500 μ Hz to 30 MHz
Ramp	1 μ Hz to 1 MHz		
White Noise	50 MHz bandwidth (-3dB)	40 MHz bandwidth (-3dB)	30 MHz bandwidth (-3dB)
Arb	1 μ Hz to 25MHz		
Resolution	1 μ Hz		
Accuracy	Within 90 days: 10 ppm Within 1 year: 20 ppm, 18°C - 28°		
Temperature index	< 2 ppm/°C		

Frequency Characteristic	
Waveforms	Sine, Square, Ramp, Triangle, Pulse, Noise, DC, Arb
Sine	1 μ Hz to 120 MHz
Square	1 μ Hz to 120 MHz
Pulse	500 μ Hz to 36 MHz
Ramp	1 μ Hz to 1 MHz
White Noise	50 MHz bandwidth (-3 dB)
Square Wave Characteristic	
Rise/Fall Time	< 8 ns (10% to 90%)
Overshoot	< 2%
Duty Cycle	20% to 80% (to 10 MHz)
Asymmetry (below 50% Duty Cycle)	1% of period + 5 ns
Ramp	1 μ Hz to 1 MHz
Jitter	300 ps + 100 ppm of period
Pulse Wave Characteristics	
Pulse Width	2000 s max period; 8ns min period; 1ns resolution
Variable Edge Time	5 ns to 1 ms
Overshoot	< 2%
Jitter	300 ps + 0.1 ppm of the period
Arb Wave Characteristics	
Frequency Range	1 μ Hz to 25 MHz
Waveform Length	2 to 512 K points
Amplitude Accuracy	14 bits (including sign)
Sample Rate	300 MSa/s
Minimum Edge Time	10 ns
Jitter (RMS)	2.5 ns + 30 ppm
Non-Volatile Storage	4 waveforms

Output Characteristics	
Amplitude	10 mVpp - 10 Vpp (50 Ω)
Amplitude Accuracy (100 kHz)	20 m Vpp - 20 Vpp (High Z)
	$\pm 1\%$ of setting ± 1 mVpp
Amplitude Flatness (sinewave relative to 100 kHz)	< 60 MHz 0.2 dB ($\pm 1\%$)
	60 MHz to 100 MHz 0.6 dB ($\pm 1.5\%$)
	100 MHz to 120 MHz 1.0 dB ($\pm 4.0\%$)
Other Parameters	
Clock Reference	10 MHz
I/O	USB Host, USB Device, RS-232, LAN/GPIB
Optional Configuration	Digital Logic Output Module

AM Modulation	
Carrier Waveforms	Sine, Square, Ramp, Arb
Source	Internal/ External
Modulating Waveforms	Sine, Square, Ramp, Noise, Arb (2 MHz to 20 kHz)
Depth	0% - 120%
FM Modulation	
Carrier Waveforms	Sine, Square, Ramp, Arb
Source	Internal/ External
Modulating Waveforms	Sine, Square, Ramp, Noise, Arb (2 MHz to 20 kHz)
Frequency Deviation	DC to 60 MHz
PM Modulation	
Carrier Waveforms	Sine, Square, Ramp, Arb
Source	Internal/ External
Modulating Waveforms	Sine, Square, Ramp, Noise, Arb (2 MHz to 20 kHz)
Phase Deviation	0 to 360°
FSK Modulation	
Carrier Waveforms	Pulse
Source	Internal/ External
Modulating Waveforms	50% duty cycle square (2 MHz to 100 kHz)
PWM Modulation	
Carrier Waveforms	Pulse
Source	Internal/ External
Modulating Waveforms	Pulse width 0% to 100%
Sweep	
Carrier Waveforms	Sine, Square, Ramp, Arb
Type	Linear or Logarithmic
Direction	Up or Down
Sweep Time	1 ms to 500 s $\pm 0.1\%$
Source	Internal/External/Manual
Marker	Falling edge of Sync signal (Programmable Frequency)
Burst	
Waveforms	Sine, Square, Ramp, Pulse, Noise, Arb

Types	count (1 to 50,000 periods), infinite, gated
Start Phase	-360° to +360°
Internal Period	1 ms – 500 s ± 1%
Gate Source	External Trigger
Trigger Source	Internal/External/Manual
Other Parameters	
Built-in Help	Multiple language
Power	100-240 VACRMS, 45-440 Hz, 50 W
Weight	3.5 kg