

# Function/Arbitrary Waveform Generators



RIGOL's Function / Arbitrary Waveform generator adopts the latest Direct Digital Frequency Synthesis technology (DDS) to generate accurate and stable regular waveforms (such as sine waves and square waves) as well as the Analog or Digital modulated signals. What's more, the generator also provides arbitrary waveform function which allows engineers to generate any desired waveforms either using the UltraWave arbitrary waveform editing software or using the oscilloscope to capture the actual signal and then downloading it to the generator. The digital sampling technology and the Direct Digital Frequency

Synthesis technology enable engineers to generate any desired waveform for circuit verification design.

RIGOL has introduced a complete range of Function / Arbitrary Waveform generators in the past years includes DG1000Z, DG2000, DG4000, DG5000, DG900 and DG800 series with up to 350MHz frequency, 1 GSa/s sample rate, 14 bits vertical resolution, 128M points arbitrary waveform memory. The rich features let RIGOL's generators to be the excellent circuit debug tools for engineers.

	Max. Output Frequency(MHz)													Channels	Max. Sample rate	Max. Arb Memory Depth	waveform generation technology	Modulation Types
	10	25	30	35	50	60	70	100	160	200	250	350						
DG800	•	•		•										1/2	125MSa/s	2M (8M Opt.)	SiFi II	AM,FM,PM,ASK,FSK, PSK,PWM
DG900					•		•	•						2	250MSa/s	16M	SiFi II	AM,FM,PM,ASK,FSK, PSK,PWM
DG1000Z					•		•	•						2	250MSa/s	8M/2M (DG1022Z) (16M Opt.)	SiFi II	AM,FM,PM,ASK, FSK,PSK,PWM
DG2000					•		•	•						2	250MSa/s	16M	SiFi II	AM,FM,PM,ASK, FSK,PSK,PWM
DG4000						•		•	•	•				2	500MSa/s	16K	DDS	AM,FM,PM,ASK,FSK, PSK,BPSK,QPSK,3FSK, 4FSK,OSK,PWM
DG5000							•	•				•	•	1/2	1GSa/s	128M	DDS	AM,FM,PM,ASK,FSK, PSK,PWM,IQ

# DG5000 Series Function/Arbitrary Waveform Generators

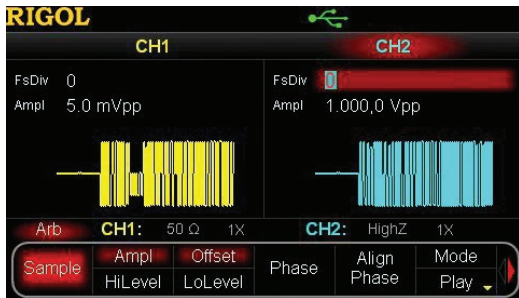


DG5000 is a multifunctional generator that combines many functions in one, including Function Generator, Arbitrary Waveform Generator, IQ Baseband Source/IQ IF Source, Frequency Hopping Source (optional) and Pattern Generator (optional). DG5000 can provide stable, precise, pure and low distortion signal by adopting the Direct Digital Synthesizer (DDS) technology. It provides single

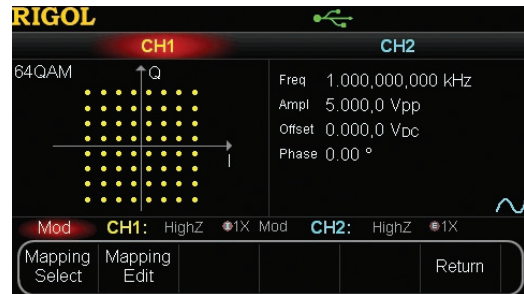
and dual-channel models. The dual-channel model, with two channels having complete equivalent functions and precisely adjustable phase deviation between the two channels, is a real dual-channel signal generator.

- Arb function with 1 GSa/s sample rate, 14 bits vertical resolution
- Support internal and external IQ modulation
- Whole range of Analog/Digital modulation functions (standard)
- Various Sweep Types (standard)
- Intuitive Constellation setup and display
- Support Frequency Hopping function (option)
- Complete connectivity, support Parallel Bus output (Option)

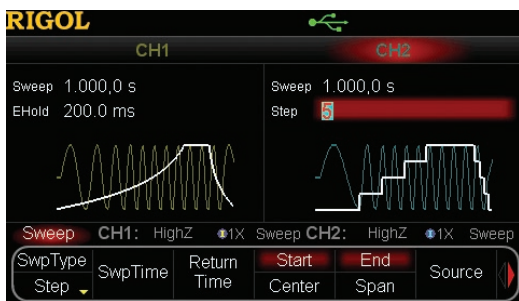
Arb function with 1 GSa/s sample rate, 14 bits vertical resolution



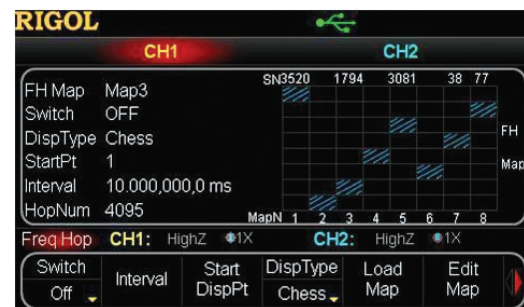
Intuitive Constellation setup and display



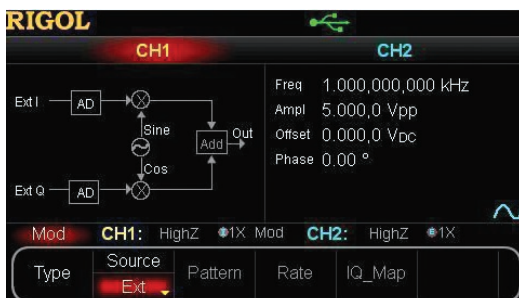
Various Sweep Types (standard)



Support Frequency Hopping function (option)



Support internal and external IQ modulation



Complete connectivity, support Parallel Bus output (Option)



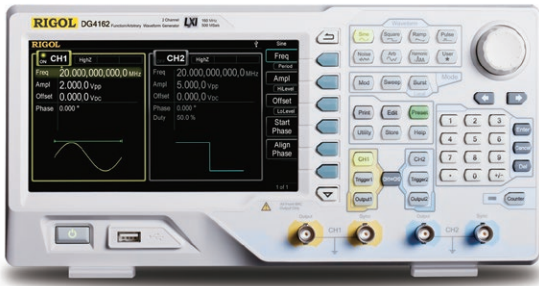
## Key Specifications

Model	DG5351/2	DG5251/2	DG5101/2	DG5071/2
Channel	1/2	1/2	1/2	1/2
Maximum Frequency	350MHz	250MHz	100MHz	70MHz
Sample Rate	1GSa/s			
Waveforms	Standard Waveforms: Sine, Square, Ramp, Pulse, Noise Arbitrary Waveforms: Sinc, Exponential Rise, Exponential Fall, ECG, Gauss, HaverSine, Lorentz, Dual-Tone, DC, User defined			
Frequency Characteristics				
Sine	1uHz-350MHz	1uHz-250MHz	1uHz-100MHz	1uHz-70MHz
Square	1uHz-120MHz	1uHz-120MHz	1uHz-100MHz	1uHz-70MHz
Ramp	1uHz-5MHz	1uHz-5MHz	1uHz-3MHz	1uHz-3MHz
Pulse	1uHz-50MHz			
Noise	250MHz			
Arb	1uHz-50MHz			
Waveform Length	128M (std.)			
Sine Wave Spectrum Purity	Total Harmonic Distortion: <0.5%(10Hz-20KHz,0dBm); Phase Noise: <-110dBc@10MHz (0dBm,10KHz offset)			
Square Rise/Fall Time	<2.5ns	<2.5ns	<3ns	<4ns
Jitter (rms)	≤ 30MHz: 10ppm+500ps, >30MHz: 500ps			
Amplitude (into 50 Ω)	≤ 100MHz: 5mVpp-10Vpp; ≤ 300MHz:5mVpp-5Vpp; ≤ 350MHz:5mV-2Vpp			
IQ Modulation	4QAM,8QAm,16QAM,32QAM,64QAM,BPSK,QPSK,OQPSK,8PSK,16PSK,user; Symbol Rate: 1bps to 1Mbps; Carrier Waveform: Sine (max.200MHz)			
FH Characteristic	FH Bandwidth 1.5MHz-250MHz; FH Rate: 1 Hop/s to 12.5M Hop/s; Frequency Point Numbers:4096			
Burst Characteristics	Carrier Frequency 1uHz-120MHz, Burst Count: 1 to 1 000 000 or Infinite			

## Ordering Information

	Description	Order Number
Models	DG5352 (350 MHz, dual-channel, 128Mpts)	DG5352
	DG5351 (350 MHz, single-channel, 128Mpts)	DG5351
	DG5252 (250 MHz, dual-channel, 128Mpts)	DG5252
	DG5251 (250 MHz, single-channel, 128Mpts)	DG5251
	DG5102 (100 MHz, dual-channel, 128Mpts)	DG5102
	DG5101 (100 MHz, single-channel, 128Mpts)	DG5101
	DG5072 (70MHz, dual-channel, 128Mpts)	DG5072
	DG5071 (70MHz, single-channel, 128Mpts)	DG5071
Standard Accessories	USB Cable	CB-USBA-USBB-FF-150
	BNC Cable (1 meter)	CB-BNC-BNC-MM-100
	SMB(F) to BNC(M) Cable (1 meter)	CB-SMB-BNC-FM-100
	Power Cord Conforming to the Standard of the Destination Country	-
	Quick Guide (Hard Copy)	-
Options	Frequency Hopping Module	FH-DG5000
	Advanced Function of Arbitrary Waveform Editing PC Software (advanced function)	Ultra Station-adv
	Power Amplifier	PA1011
	40 dB Attenuator	RA5040K
	Rack Mount Kit	RM-DG5000

# DG4000 Series Function/Arbitrary Waveform Generators

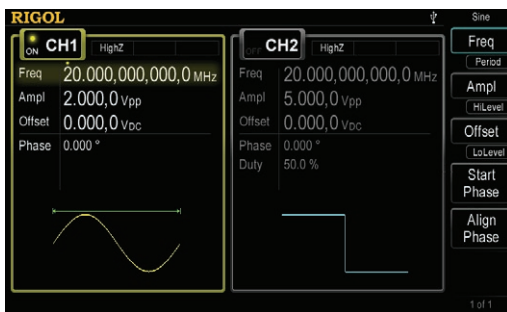


DG4000 series is a multifunctional generator that integrates many functions into one, including Function Generator, Arbitrary Waveform Generator, Pulse Generator, Harmonic Generator,

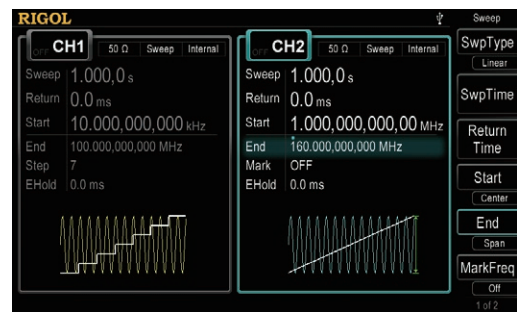
Analog/Digital Modulator and Counter. DG4000 can provide stable, precise, pure and low distortion signal by adopting the Direct Digital Synthesizer (DDS) technology. All the models have two channels with complete equivalent functions and precisely phase adjustable, they are the real dual-channel signal generator.

- 7 inch color LCD
- Arbitrary waveform function and built-in 150 waveform
- Abundant analog and digital modulation function
- Various Sweep modes
- Noise and Burst modes
- Up to 16 orders customized Harmonic generation function

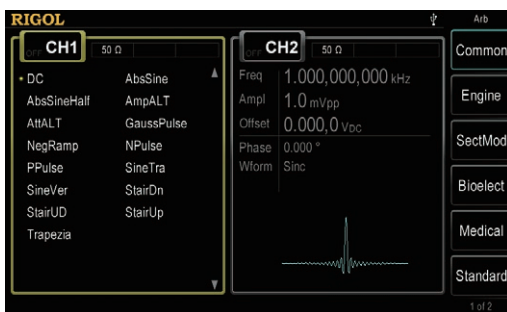
## Standard 2 identical channels with frequency and phase coupling



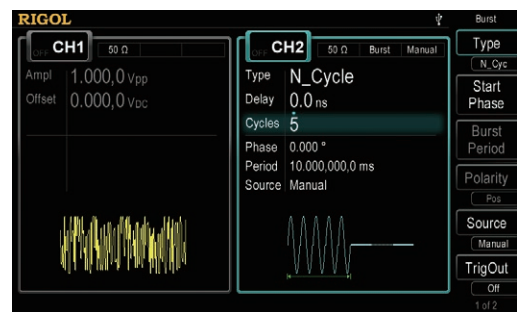
## Various Sweep modes



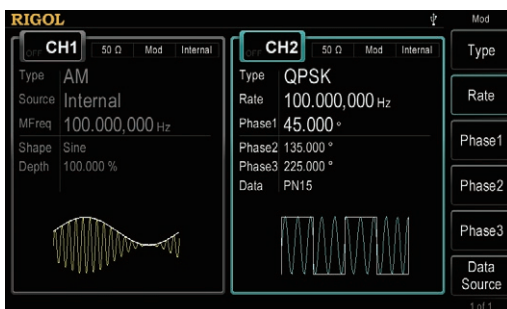
## Arbitrary waveform function and built-in 150 waveform



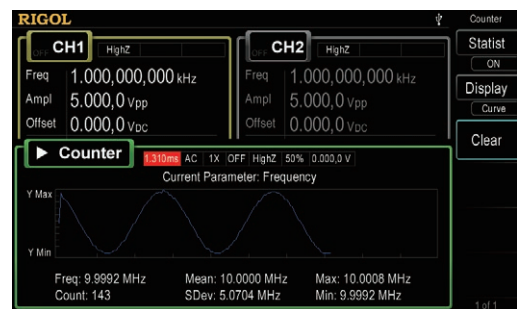
## Noise and Burst modes



## Abundant analog and digital modulation function



## Standard 7digits/s counter with statistic analysis



## Key Specifications

Model	DG4202	DG4162	DG4102	DG4062
Channel	2			
Maximum Frequency	200MHz	160MHz	100MHz	60MHz
Sample Rate	500Msa/s			
Waveforms	Standard Waveforms: Sine, Square, Ramp, Pulse, Noise, Harmonics ( up to 16 orders) Arbitrary Waveforms: Sinc, Exponential Rise, Exponential Fall, ECG, Gauss, HaverSine, Lorentz, Dual-Tone, DC, etc. up to 150 waveforms			
Waveform Length	16K			
Vertical Resolution	14bits			
Sine	1uHz-200MHz	1uHz-160MHz	1uHz-100MHz	1uHz-60MHz
Square	1uHz-60MHz	1uHz-50MHz	1uHz-40MHz	1uHz-25MHz
Ramp	1uHz-5MHz	1uHz-4MHz	1uHz-3MHz	1uHz-1MHz
Pulse/arb	1uHz-50MHz	1uHz-40MHz	1uHz-25MHz	1uHz-15MHz
Noise (-3dB)	120MHz	120MHz	80MHz	60MHz
Sine Wave Spectrum Purity	Total Harmonic Distortion : <0.1%(10Hz-20KHz,0dBm); Phase Noise : ≤ -115dBc@10MHz (0dBm,10KHz offset)			
Square Rise/Fall Time	<8ns	<8ns	<10ns	<12ns
Jitter (rms)	≤ 5MHz: 2ppm+500ps, >5MHz : 500ps			
Amplitude (into 50 Ω)	≤ 20MHz: 1mVpp-10Vpp; ≤ 60MHz:1mVpp-5Vpp; ≤ 120MHz:1mV-2.5Vpp; ≤ 200MHz:1mV-1Vpp			
Modulation Type	AM, FM, PM, ASK, FSK, PSK, BPSK, QPSK, 3FSK, 4FSK, OSK, PWM			
Work Mode	Continue, Burst, Sweep, Modulation			
Burst Characteristics	Carrier Frequency 2mHz-100MHz, Burst Count : 1 to 1 000 000 or Infinite; trigger source: internal, external, manual			

## Ordering Information

	Description	Order Number
Models	DG4202 (200 MHz, dual-channel)	DG4202
	DG4162 (160 MHz, dual-channel)	DG4162
	DG4102 (100 MHz, dual-channel)	DG4102
	DG4062 ( 60 MHz, dual-channel)	DG4062
Standard Accessories	USB Cable	CB-USBA-USBB-FF-150
	BNC Cable (1 meter)	CB-BNC-BNC-MM-100
	Power Cord Conforming to the Standard of the Destination Country	-
	Quick Guide (Hard Copy)	-
Optional Accessories	Arbitrary Waveform Editing PC Software (advanced function)	Ultra Station-adv
	40 dB Attenuator	RA5040K
	Rack Mount Kit	RM-DG4000
	USB-GPIB Module	USB-GPIB



# DG2000 Series Function/Arbitrary Waveform Generators

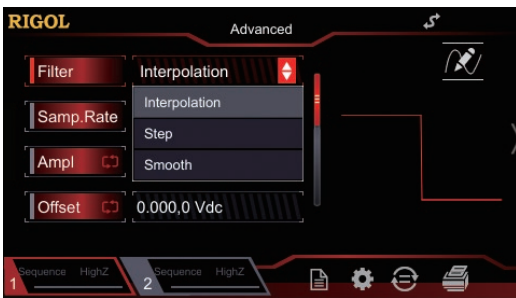


and frequency counter. The brand new appearance and user-friendly interface design bring you excellent user experience. DG2000 series function/arbitrary waveform generator is the upgrade version of DG900. With the newly added standard waveform key, users can switch the standard waveforms freely and conveniently. Besides, with 1UH in width and 2U in height, the DG2000 series function/arbitrary waveform generator is more suitable for the demand of integration test.

As a multi-functional signal generator, DG2000 series function/arbitrary waveform generator integrates many instruments into 1, such as function generator, arbitrary waveform generator, noise generator, pulse generator, pattern generator, harmonic generator, analog/digital modulator,

- SiFi II technology, generating the arbitrary waveforms points by points, outputting high-quality waveforms accurately
- Built-in 8 orders harmonics generator
- Up to 250 Msa/s sample rate and 16 M memory depth
- 4.3" TFT color touch screen and brand new UI design
- PRBS, RS232, and Sequence
- Fan-free mute design

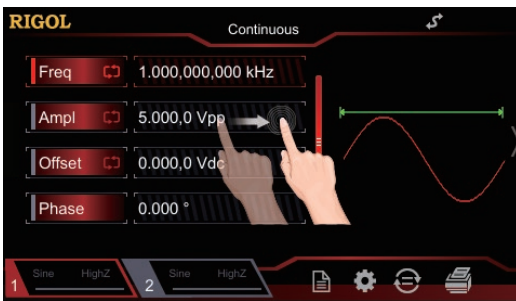
## Unique SiFi II Technology



## PRBS, RS232 Pattern, and Sequence



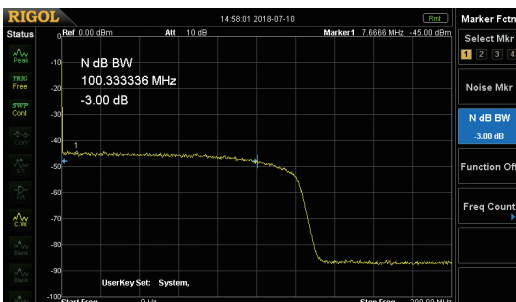
## Touch-enabled UI Design (Drag)



## Touch-enabled UI Design (Tap)



## 100 MHz Bandwidth White Gaussian Noise



## Key Specifications

Model	DG2052	DG2072	DG2102
Channel	2		
Max. Output Frequency	50MHz	70MHz	100MHz
Sample Rate	250MSa/s		
Waveform Type	Standard Waveform: Sine, Square, Ramp, Pulse, Noise, Dual-tone, Harmonic (up to 8 orders) Arbitrary Waveform: 160 types of waveforms, including Sinc, Exponential Rise, Exponential Fall, ECG, Gauss, HaverSine, Lorentz, Dual-tone, and DC Advanced Waveform: PRBS, RS232, and Sequence		
Arbitrary Waveform Length	16Mpts		
Vertical Resolution	16bits		
Sine	1uHz-50MHz	1uHz-70MHz	1uHz-100MHz
Square	1uHz-15MHz	1uHz-20MHz	1uHz-25MHz
Ramp	1uHz-1.5MHz	1uHz-1.5MHz	1uHz-2MHz
Pulse	1uHz-15MHz	1uHz-20MHz	1uHz-25MHz
Arbitrary Waveform	1uHz-15MHz	1uHz-20MHz	1uHz-20MHz
Harmonic	1uHz-20MHz	1uHz-20MHz	1uHz-25MHz
Dual-tone	1uHz-20MHz	1uHz-20MHz	1uHz-20MHz
RS232	Baud rate range: 9600, 14400, 19200, 38400, 57600, 115200, 128000, 230400		
PRBS	2kbps-40Mbps	2kbps-50Mbps	2kbps-60Mbps
Sequence	2k-60MSa/s		
Noise (-3 dB)	100 MHz Bandwidth		
Sine Wave Spectrum Purity	Total harmonic distortion: <0.075% (10 Hz to 20 kHz, 0 dBm); phase noise: <-105 dBc/Hz@10 MHz (0 dBm, 10 kHz offset)		
Square Rise/Fall Time	Typical (1 Vpp) ≤ 9 ns		
Jitter	Typical (1 Vpp) ≤ 5 MHz: 2 ppm + 200 ps > 5 MHz: 200 ps		
Output Amplitude (into 50 Ω)	≤10 MHz: 1 mVpp-10 Vpp; ≤30 MHz: 1 mVpp-5 Vpp; ≤60 MHz: 1 mV-2.5 Vpp; >60 MHz: 1 mV-2.5 Vpp		
Modulation Type	AM, FM, PM, ASK, FSK, PSK, and PWM		
Working Mode	Continuous, Burst, Sweep, and Modulation		
Burst Characteristics	Carrier frequency 2 MHz-10 MHz/25 MHz/35 MHz/50 MHz/70 MHz/100 MHz; Pulse count: 1-1 M or Infinite; trigger source: external, internal, and manual		
Standard Interface	USB Device (on the rear panel) and USB Host		

## Ordering Information

	Description	Order No.
	DG2052 (50 MHz, Dual-channel)	DG2052
	DG2072(70 MHz, Dual-channel)	DG2072
	DG2102 (100MHz, Dual-channel)	DG2102
Standard Accessories	Power Cord Conforming to the Standard of the Destination Country	-
	USB Cable	CB-USBA-USBB-FF-150
	BNC Cable	CB-BNC-BNC-MM-100
	Quick Guide	-
	Product Warranty Card	-
Optional Accessories	40 dB Attenuator	RA5040K
	Arbitrary Waveform Editing PC Software (advanced function)	Ultra Station-adv
	Rack Mount Kit (single instrument)	RM-1-DG1000Z
	Rack Mount Kit (two instruments)	RM-2-DG1000Z
	USB-GPIB Interface Converter	USB-GPIB-L

# DG1000Z Series Function/Arbitrary Waveform Generators



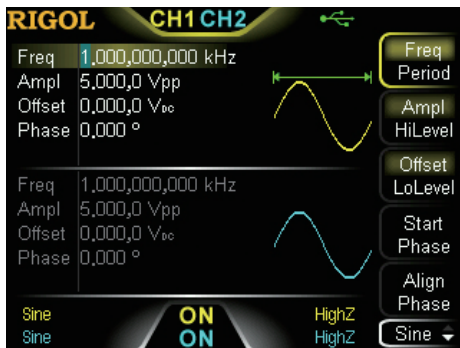
DG1000Z series function/arbitrary waveform generator is a multi-functional generator that combines many functions in one, including Function Generator, Arbitrary Waveform Generator, Noise Generator, Pulse Generator, Harmonics

Generator, Analog/Digital Modulator and Counter.

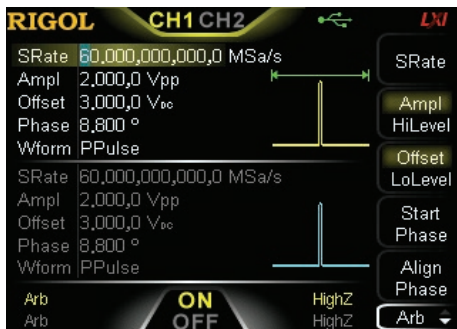
The maximum output frequency (Sine) of DG1000Z is 25MHz/30MHz/60MHz. It provides 2 full functional channels with precisely phase adjustable. The standard interfaces are USB and LAN.

- Innovative SiFi technology
- Up to 160 built-in waveforms
- Multiple analog and digital modulations
- Standard harmonic generator
- Waveform summing function
- Standard 7 digits/s full function frequency counter

## Standard 2 full functional channels



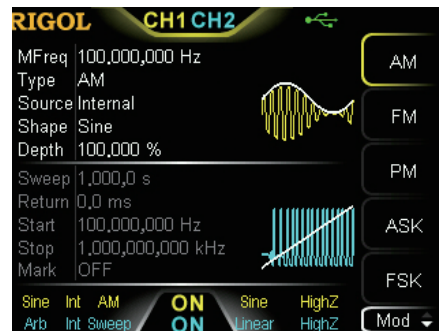
## Arbitrary waveform function with innovative SiFi technology



## Up to 160 built-in waveforms



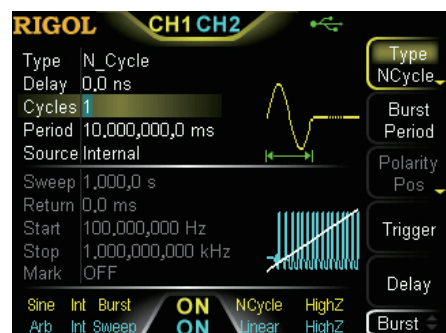
## Multiple analog and digital modulations



## Standard harmonic generator



## Burst function





## Key Specifications

Model	DG1062Z	DG1032Z	DG1022Z
Channel	2		
Maximum Frequency	60MHz	30MHz	25MHz
Sample Rate	200Msa/s		
Waveforms	Waveforms Standard Waveforms: Sine, Square, Ramp, Pulse, Noise, Harmonics ( up to 8 orders) Arbitrary Waveforms: Sinc, Exponential Rise, Exponential Fall, ECG, Gauss, HaverSine, Lorentz, Dual-Tone, DC, etc. up to 160 waveforms		
Waveform Length	8pts to 8Mpts, optional 16Mpts		8pts to 2Mpts, optional 16Mpts
Vertical Resolution	14bits		
Sine	1uHz-60MHz	1uHz-30MHz	1uHz-25MHz
Square	1uHz-25MHz	1uHz-25MHz	1uHz-25MHz
Ramp	1uHz-1MHz	1uHz-500KHz	1uHz-500KHz
Pulse	1uHz-25MHz	1uHz-15MHz	1uHz-15MHz
Arb/Harmonics	1uHz-20MHz	1uHz-10MHz	1uHz-10MHz
Noise (-3dB)	60MHz BW	30MHz BW	25MHz BW
Sine Wave Spectrum Purity	Total Harmonic Distortion <0.075%(10Hz-20KHz,0dBm); Phase Noise <-125dBc@10MHz (0dBm,10KHz offset)		
Square Rise/Fall Time	Typ. (1Vpp) <10ns		
Jitter (rms)	Typ. (1Vpp) ≤ 5MHz: 2ppm+200ps, >5MHz : 200ps		
Amplitude (into 50 Ω)	≤10MHz, 1 mVpp-10Vpp; ≤30MHz:1 mVpp-5Vpp; ≤60MHz:1 mV-2.5Vpp		
Modulation Type	AM, FM, PM, ASK, FSK, PSK, PWM		
Work Mode	Continue, Burst, Sweep, Modulation		
Burst Characteristics	Carrier Frequency 2mHz-25MHz/30MHz/60MHz, Burst Count, 1 to 1 000 000 or Infinite; Trigger source: internal, external, manual		
Standard Interfaces	USB (Device), USB (Host), LAN (LXI-C), USB-GPIB (Opt).		

## Ordering Information

	Description	Order Number
Models	DG1022Z (25MHz, Dual-channel)	DG1022Z
	DG1032Z (30MHz, Dual-channel)	DG1032Z
	DG1062Z (60MHz, Dual-channel)	DG1062Z
Standard Accessories	USB Cable	CB-USBA-USBB-FF-150
	BNC Cable (1 meter)	CB-BNC-BNC-MM-100
	Power Cord Conforming to the Standard of the Destination Country	-
	Quick Guide	-
Optional Accessories	16Mpts Memory for Arb	ARB16M-DG1000Z
	Arbitrary Waveform Editing PC Software (advanced function)	Ultra Station-adv
	40dB Attenuator	RA5040K
	10W Power Amplifier	PA1011
	Rack Mount Kit (for single instrument)	RM-1-DG1000Z
	Rack Mount Kit (for dual instruments)	RM-2-DG1000Z
	USB-GPIB module	USB-GPIB

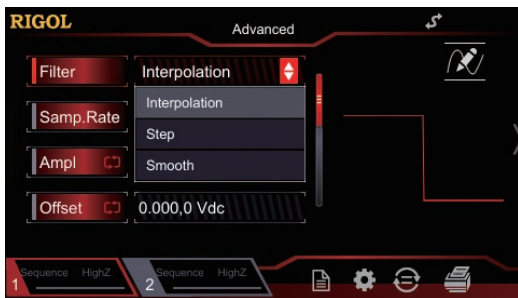
# DG900/DG2000 Series Function/Arbitrary Waveform Generators



As a multi-functional signal generator, DG900 series function/arbitrary waveform generator integrates many instruments into 1, such as function generator, arbitrary waveform generator, noise generator, pulse generator, pattern generator, harmonic generator, analog/digital modulator, and frequency counter. The brand new appearance and user-friendly interface design bring you excellent user experience.

- SiFi II technology, generating the arbitrary waveforms points by points, outputting high-quality waveforms accurately
- Built-in 8 orders harmonics generator
- Up to 250 Msa/s sample rate and 16 M memory depth
- 4.3" TFT color touch screen and brand new UI design
- PRBS, RS232, and Sequence
- Fan-free mute design

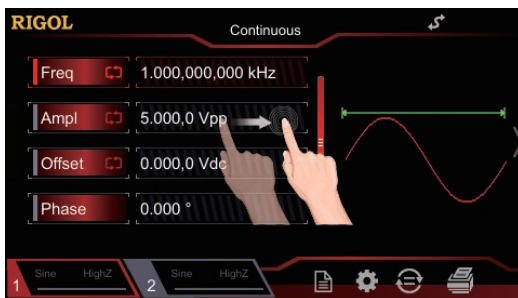
## Unique SiFi II Technology



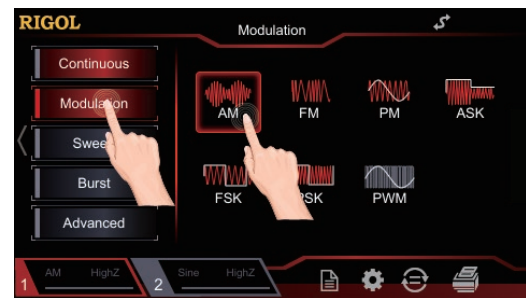
## PRBS, RS232 Pattern, and Sequence



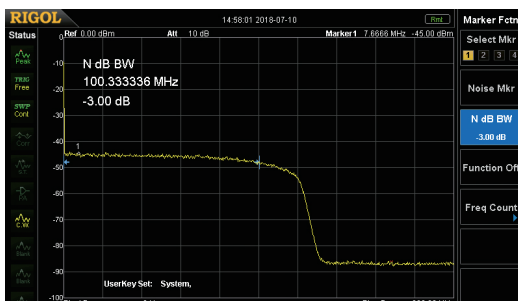
## Touch-enabled UI Design (Drag)



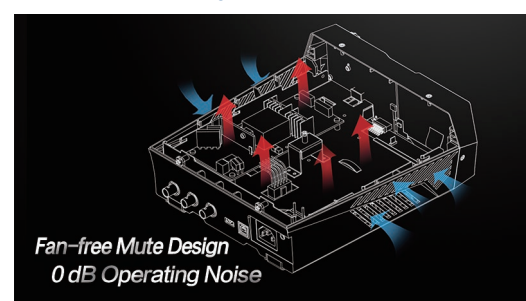
## Touch-enabled UI Design (Tap)



## 100 MHz Bandwidth White Gaussian Noise



## Fan-free Mute Design



## Key Specifications

Model	DG952	DG972	DG992
Channel	2		
Max. Output Frequency	50MHz	70MHz	100MHz
Sample Rate	250MSa/s		
Waveform Type	Standard Waveform: Sine, Square, Ramp, Pulse, Noise, Dual-tone, Harmonic (up to 8 orders) Arbitrary Waveform: 160 types of waveforms, including Sinc, Exponential Rise, Exponential Fall, ECG, Gauss, HaverSine, Lorentz, Dual-tone, and DC Advanced Waveform: PRBS, RS232, and Sequence		
Arbitrary Waveform Length	16Mpts		
Vertical Resolution	16bits		
Sine	1uHz-50MHz	1uHz-70MHz	1uHz-100MHz
Square	1uHz-15MHz	1uHz-20MHz	1uHz-25MHz
Ramp	1uHz-1.5MHz	1uHz-1.5MHz	1uHz-2MHz
Pulse	1uHz-15MHz	1uHz-20MHz	1uHz-25MHz
Arbitrary Waveform	1uHz-15MHz	1uHz-20MHz	1uHz-20MHz
Harmonic	1uHz-20MHz	1uHz-20MHz	1uHz-25MHz
Dual-tone	1uHz-20MHz	1uHz-20MHz	1uHz-20MHz
RS232	Baud rate range: 9600, 14400, 19200, 38400, 57600, 115200, 128000, 230400		
PRBS	2kbps-40Mbps	2kbps-50Mbps	2kbps-60Mbps
Sequence	2k-60MSa/s		
Noise (-3 dB)	100 MHz Bandwidth		
Sine Wave Spectrum Purity	Total harmonic distortion: <0.075% (10 Hz to 20 kHz, 0 dBm); phase noise: <-105 dBc/Hz@10 MHz (0 dBm, 10 kHz offset)		
Square Rise/Fall Time	Typical (1 Vpp) $\leq$ 9 ns		
Jitter	Typical (1 Vpp) $\leq$ 5 MHz: 2 ppm + 200 ps > 5 MHz: 200 ps		
Output Amplitude (into 50 $\Omega$ )	$\leq$ 10 MHz: 1 mVpp-10 Vpp; $\leq$ 30 MHz: 1 mVpp-5 Vpp; $\leq$ 60 MHz: 1 mV-2.5 Vpp; >60 MHz: 1 mV-2.5 Vpp		
Modulation Type	AM, FM, PM, ASK, FSK, PSK, and PWM		
Working Mode	Continuous, Burst, Sweep, and Modulation		
Burst Characteristics	Carrier frequency 2 MHz-10 MHz/25 MHz/35 MHz/50 MHz/70 MHz/100 MHz; Pulse count: 1-1 M or Infinite; trigger source: external, internal, and manual		
Standard Interface	USB Device (on the rear panel) and USB Host		

## Ordering Information

	Description	Order No.
Models	DG952 (50 MHz, Dual-channel)	DG952
	DG972 (70 MHz, Dual-channel)	DG972
	DG992 (100 MHz, Dual-channel)	DG992
Standard Accessories	Power Cord Conforming to the Standard of the Destination Country	-
	USB Cable	CB-USBA-USBB-FF-150
	BNC Cable	CB-BNC-BNC-MM-100
	Quick Guide	-
	Product Warranty Card	-
Optional Accessories	40 dB Attenuator	RA5040K
	Arbitrary Waveform Editing PC Software (advanced function)	Ultra Station-adv
	USB-GPIB Interface Converter	USB-GPIB-L

# DG800 Series Function/Arbitrary Waveform Generators

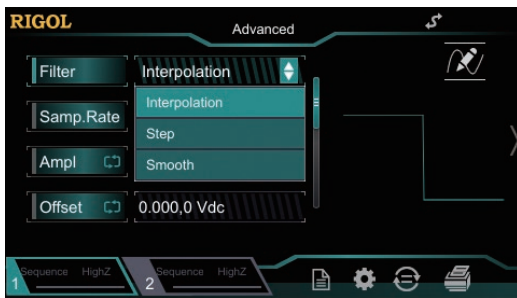


As a multi-functional signal generator, DG800 series function/arbitrary waveform generator integrates many instruments into 1, such as function generator, arbitrary waveform

generator, noise generator, pulse generator, pattern generator, harmonic generator, analog/digital modulator, and frequency counter. The brand new appearance and user-friendly interface design bring you excellent user experience.

- SiFi II technology, generating arbitrary waveforms points by points, outputting high-quality waveforms accurately
- Built-in 8 orders harmonics generator
- Standard waveform combination and channel tracking function
- 4.3" TFT color touch screen and brand new UI design
- PRBS, RS232, and Sequence output
- Fan-free mute design

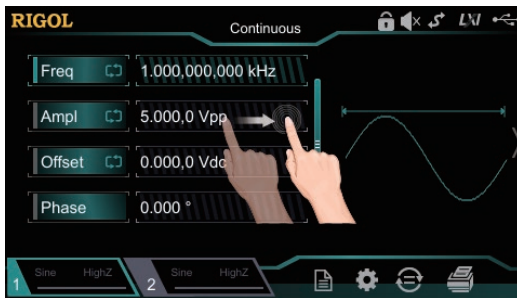
## Unique SiFi II Technology



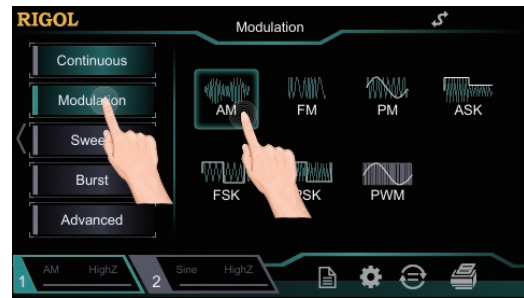
## PRBS, RS232 Pattern, and Sequence



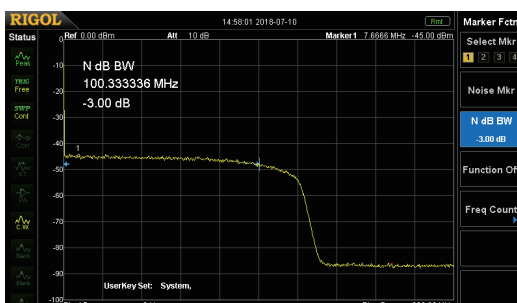
## Touch-enabled UI Design (Drag)



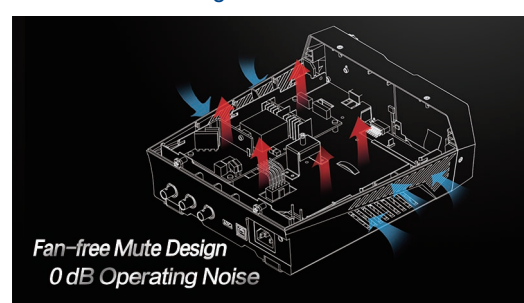
## Touch-enabled UI Design (Tap)



## 100 MHz Bandwidth White Gaussian Noise



## Fan-free Mute Design



## Key Specifications

Model	DG811/2	DG821/2	DG831/2
Channel	1/2		
Max. Output Frequency	10MHz	25MHz	35MHz
Sample Rate	125MSa/s		
Waveform Type	Standard Waveform: Sine, Square, Ramp, Pulse, Noise, Dual-tone, Harmonic (up to 8 orders) Arbitrary Waveform: 160 types of waveforms, including Sinc, Exponential Rise, Exponential Fall, ECG, Gauss, HaverSine, Lorentz, Dual-tone, and DC Advanced Waveform: PRBS, RS232, and Sequence		
Arbitrary Waveform Length	2Mpts (opt.8Mpts)		
Vertical Resolution	16bits		
Sine	1uHz-10MHz	1uHz-25MHz	1uHz-35MHz
Square	1uHz-5MHz	1uHz-10MHz	1uHz-10MHz
Ramp	1uHz-200KHz	1uHz-500KHz	1uHz-1MHz
Pulse	1uHz-5MHz	1uHz-10MHz	1uHz-10MHz
Arbitrary Waveform	1uHz-5MHz	1uHz-10MHz	1uHz-10MHz
Harmonic	1uHz-5MHz	1uHz-10MHz	1uHz-15MHz
Dual-tone	1uHz-10MHz	1uHz-20MHz	1uHz-20MHz
RS232	Baud rate range: 9600, 14400, 19200, 38400, 57600, 115200, 128000, 230400		
PRBS	2kbps-10Mbps	2kbps-20Mbps	2kbps-30Mbps
Sequence	2k to 30 MSa/s		
Noise (-3 dB)	100 MHz Bandwidth		
Sine Wave Spectrum Purity	Total harmonic distortion: <0.075% (10 Hz to 20 kHz, 0 dBm); phase noise: <-105 dBc/Hz@10 MHz (0 dBm, 10 kHz offset)		
Square Rise/Fall Time	Typical (1 Vpp) ≤ 9 ns		
Jitter	Typical (1 Vpp) ≤ 5 MHz: 2 ppm + 200 ps > 5 MHz: 200 ps		
Output Amplitude (into 50 Ω)	≤10MHz: 1 mVpp-10 Vpp; ≤30 MHz: 1 mVpp-5 Vpp; ≤60 MHz: 1 mV-2.5 Vpp; > 60 MHz: 1 mV-2.5 Vpp		
Modulation Type	AM, FM, PM, ASK, FSK, PSK, and PWM		
Working Mode	Continuous, Burst, Sweep, and Modulation		
Burst Characteristics	Carrier frequency 2 MHz-10 MHz/25 MHz/35 MHz/50 MHz/70 MHz/100 MHz; Pulse count: 1-1 M or Infinite; trigger source: external, internal, and manual		
Standard Interface	USB Device (on the rear panel) and USB Host		

## Ordering Information

	Description	Order No.
Models	DG812 (10 MHz, Dual-channel)	DG812
	DG822 (25 MHz, Dual-channel)	DG822
	DG832 (35 MHz, Dual-channel)	DG832
	DG811 (10 MHz, Single-channel)	DG811
	DG821 (25 MHz, Single-channel)	DG821
	DG831 (35 MHz, Single-channel)	DG831
Standard Accessories	Power Cord Conforming to the Standard of the Destination Country	-
	BNC Cable (only supplied by DG832/DG831/DG822/DG821)	CB-BNC-BNC-MM-100
	Quick Guide	-
	Product Warranty Card	-
Option	Dual-channel Option (only available for DG831/DG821/DG811)	DG800-DCH
	Arbitrary Waveform Editing PC Software (advanced function)	Ultra Station-adv
	2M-8M Arbitrary Waveform Memory Depth Upgrade Option	DG800-ARB8M
Optional Accessories	40 dB Attenuator	RA5040K
	USB-GPIB Interface Converter	USB-GPIB-L