

DG5000 Pro Series

Function/Arbitrary Waveform Generator



Data Sheet

DSB18101-1110

Jul. 2025

F.E.S. Co., Ltd.

1000/24, P.B. Tower, 8 floor, Sukhumvit 71 Rd., North Klongtan, Wattana, Bangkok 10110

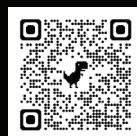
TEL: 02-064-4050 or 02-064-4051 | FAX: 02-010-4262 | Email: info@fesupply.com

www.fesupply.com | www.rigolthai.com

Line Official

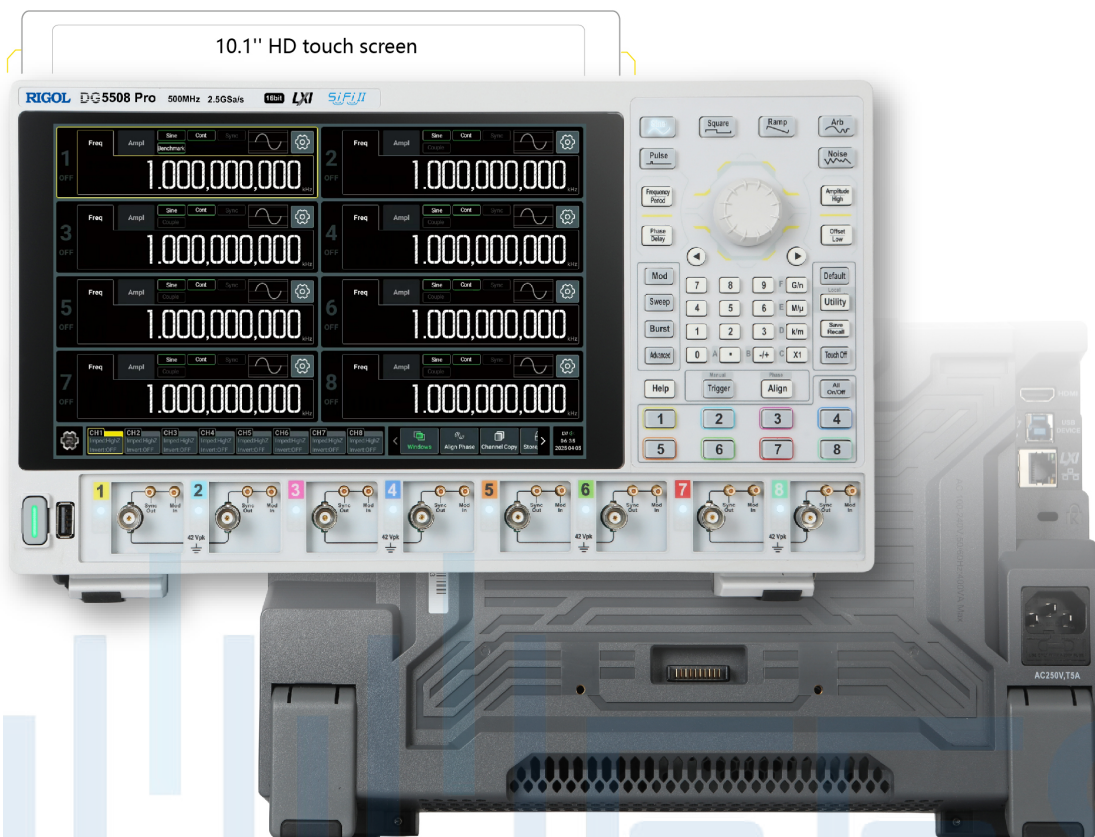


Facebook



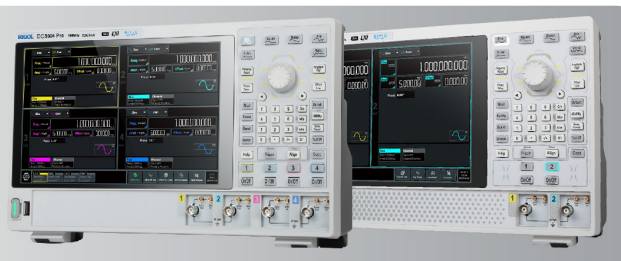
DG5000 Pro Series

Function Arbitrary Waveform Generator



Key Specifications

- 500 MHz analog bandwidth
- 2.5 GSa/s maximum sample rate
- 16-bit vertical resolution
- 2/4/8 analog channels
- 128 Mpts/CH maximum Arb waveform length
- 512 steps for a sequence



Product Features

Multi-pulse Output Function

It can generate pulse signals with adjustable edges and pulse width to help engineers perform the Double Pulse Test quickly.

IQ Digital Modulation

It generates multi-channel IQ signals, facilitating the development and validation of communication systems, digital signal processing, and RF circuits.

F.E.S. Co., Ltd.

1000/24, P.B. Tower, 8 floor, Sukhumvit 71 Rd., North Klongtan, Wattana, Bangkok 10110

TEL: 02-064-4050 or 02-064-4051 | FAX: 02-010-4262 | Email: info@fesupply.com

www.fesupply.com | www.rigolthai.com

Line Official



Facebook



Various Modulation Types

It supports analog and digital modulation types including AM, FM, PM, ASK, FSK, PSK, and PWM. Internal and external modulation sources are available for applications in college teaching, industrial motor control, and switching power supply.

Multiple External Interfaces

DG5000 Pro offers various external interfaces including USB Host&Device, LAN, and HDMI for different test scenarios.

Clean and Safe Output

Ground isolation eliminates ground loops, ensuring clean output signals, reliable operation, and enhanced protection for your tests and applications.

Optimized Space Efficiency

Compared to the traditional method of using four instruments for 8-channel outputs, this series integrates all 8 channels into a single device, saving up to two-thirds of the bench space and offering greater flexibility in integration.

Sequence Function

The sequence mode supports a list of up to 512 waveforms, with total waveform length of up to 64 Mpts/CH (128 Mpts/CH optional). Repeat, wait, event, and jump are supported. It allows you to load many test cases that need to be performed sequentially at one time, switching from one to another seamlessly.

Excellent Interaction Experience

The 10.1-inch HD touch screen (1280x800) supports touch and drag gestures, making smoother and easier measurement operations. Meanwhile, the front-panel keys and knobs are optimized to bring better interaction experience and smoother measurements.

Built-in Harmonic Generator (Max. 20th Order)

The harmonic generator (max. 20th order) provides a more precise measurement method for the performance test of devices like high-order filters and amplifiers.

Applications

Embedded System & Digital Circuit Testing

- Clock signal simulation
- Phase Locked Loop (PLL) test
- Logic circuit & high-speed digital system timing analysis

Power Semiconductors & Power Electronics

- Switching characteristics analysis of power devices
- DC-DC converter & inverter testing
- Low-frequency signal simulation for wireless power transfer (WiTricity)

Automotive Electronics & Electric Vehicles (EV)

- Battery Management System (BMS) signal testing
- Electronic Control Unit (ECU) and ECU I/O Signal Testing
- Electric motor & inverter control system

Industrial Automation & Motion Control

- PLC & process control system testing
- Smart sensor signal simulation
- Industrial motor control algorithm verification

Consumer Electronics & Sensor Testing

- Audio signal simulation
- Sensor signal generation
- Touchscreen/display driver signal simulation

Precision Measurement & Scientific Research

- Bioelectrical signal simulation
- Electronic circuit laboratory education
- Low-frequency signal testing for particle detection instruments

F.E.S. Co., Ltd.

1000/24, P.B. Tower, 8 floor, Sukhumvit 71 Rd., North Klongtan, Wattana, Bangkok 10110
 TEL: 02-064-4050 or 02-064-4051 | FAX: 02-010-4262 | Email: info@fesupply.com
 www.fesupply.com | www.rigolthai.com

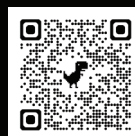


Product Features

Product Features

- 2/4/8-channel output, isolated from the ground
- Max. sample rate: 2.5 GSa/s
- Max. output frequency: 500 MHz
- Vertical resolution: 16 bits
- Square: 170 MHz max. frequency, 0.8 ns min. rise time
- Pulse: 120 MHz max. frequency, 4.2 ns min. pulse width
- Built-in high-order harmonic generator (max. 20th order)
- A maximum Arb waveform length of 64 Mpts/CH (128 Mpts/CH optional)
- Optional functions: Sequence, IQ, Multi-pulse, Pattern, Multi-tone
- 10.1" HD touch screen, allowing you to configure multi-channel waveforms together from a single screen
- Standard Web Control function for easier remote cooperation

With up to 2.5 GSa/s sample rate and 64 Mpts/CH memory depth (128 Mpts/CH optional), the DG5000 Pro Series Function/Arbitrary Waveform Generator is an all-in-one generator that integrates Function Generator, Arbitrary Waveform Generator, Noise Generator, Pulse Generator, Harmonics Generator, and Analog/Digital Modulator. It is a multi-functional and cost-effective multi-channel function/arbitrary waveform generator.



Specifications

Specifications are valid under the following conditions:

The instrument is within the calibration period and has been running ceaselessly for over 30 minutes under the specified operating temperature ($23^{\circ}\text{C} \pm 5^{\circ}\text{C}$).

All the specifications are guaranteed except the parameters marked with "Typical".

Technical Specifications

Technical Specifications			
2-Channel Model	DG5252 Pro	DG5352 Pro	DG5502 Pro
4-Channel Model	DG5254 Pro	DG5354 Pro	DG5504 Pro
8-Channel Model	DG5258 Pro	DG5358 Pro	DG5508 Pro
Max. Frequency	250 MHz	350 MHz	500 MHz
Max. Sample Rate	2.5 GSa/s		
Vertical Resolution	16 bits		
Channel Skew	Range: -200 ns to +200 ns Precision: ± 200 ps		
Channel-to-channel Synchronization Accuracy	± 500 ps		
Waveform Memory Depth	64 Mpts/CH (standard), 128 Mpts/CH (optional)		

Waveform Output

Waveform Output	
Output Mode	Continuous, Modulation, Sweep, Burst, Advanced
Continuous	Sine, Square, Ramp, Pulse, Noise, DC, Arb, Harmonic
Modulation	AM, FM, PM, SUM, ASK, FSK, PSK, PWM
Sweep	Linear, Log, Step
Burst	N-cycle, Gated

F.E.S. Co., Ltd.

1000/24, P.B. Tower, 8 floor, Sukhumvit 71 Rd., North Klongtan, Wattana, Bangkok 10110
 TEL: 02-064-4050 or 02-064-4051 | FAX: 02-010-4262 | Email: info@fesupply.com
 www.fesupply.com | www.rigolthai.com



Waveform Output

Advanced	Standard: Arb, PRBS
	Optional: Sequence, Multi-pulse, Multi-tone, Pattern, IQ

Output Characteristics**Output Characteristics**

Amplitude (into 50 Ω)	Range	≤ 100 MHz: 1 mVpp to 10 Vpp ≤ 250 MHz: 1 mVpp to 5 Vpp ≤ 350 MHz: 1 mVpp to 2 Vpp ≤ 500 MHz: 1 mVpp to 1 Vpp
	Accuracy ^[1]	$\pm(1\%$ of the setting + 1 mVpp)
	Resolution	0.1 mVpp, 0.1 mVrms, 1 mV, 0.1 dBm or 4 digits (whichever is lower)
	Unit ^[2]	Vpp, Vrms, dBm, V (high level and low level)
	Range	± 5 Vpk (ac + dc)
Offset (into 50 Ω)	Accuracy	$\pm(1\%$ of setting + 1 mV + 0.5% of the amplitude (Vpp))
	Resolution	1 mV or 4 digits
Output Impedance	Typical (0 dBm, 0 Vdc), 50 $\Omega \pm 1\%$	
Load Impedance Setting	Load (adjustable from 1 Ω to 10 k Ω), High Z	
Ground Isolation	All the channels are isolated from the ground. The maximum isolated DC voltage is ± 42 Vpk.	
Channel-to-channel Isolation	Two-channel model: The channels are not isolated from each other.	
	Four-channel model: Each two adjacent channels (CH1&CH2/CH3&CH4) form a group. The groups are isolated from each other while the two channels in each group are not isolated.	
	Eight-channel model: Each two adjacent channels (CH1&CH2/CH3&CH4/CH5&CH6/CH7&CH8) form a group. The groups are isolated from each other while the two channels in each group are not isolated.	

Output Characteristics

		Typical (0 dBm amplitude), 0 Vdc offset
Channel-to-channel Crosstalk	For channels in a group (not isolated)	$< 100 \text{ MHz: } < -60 \text{ dBc}$ $\geq 100 \text{ MHz to } < 250 \text{ MHz: } < -50 \text{ dBc}$ $\geq 250 \text{ MHz: } < -40 \text{ dBc}$
	For channels from different groups (isolated)	$< 100 \text{ MHz: } < -100 \text{ dBc}$ $\geq 100 \text{ MHz to } < 250 \text{ MHz: } < -90 \text{ dBc}$ $\geq 250 \text{ MHz: } < -85 \text{ dBc}$
	Protection	Waveform outputs are automatically disabled when overloaded

Frequency Characteristics

Frequency Characteristics			
Model	DG5252 Pro/DG5254 Pro/DG5258 Pro	DG5352 Pro/DG5354 Pro/DG5358 Pro	DG5502 Pro/DG5504 Pro/DG5508 Pro
Sine	Continuous/Modulation: $1 \mu\text{Hz to } 250 \text{ MHz}$ Burst: $126 \mu\text{Hz to } 250 \text{ MHz}$	Continuous/Modulation: $1 \mu\text{Hz to } 350 \text{ MHz}$ Burst: $126 \mu\text{Hz to } 350 \text{ MHz}$	Continuous: $1 \mu\text{Hz to } 500 \text{ MHz}$ Modulation: $1 \mu\text{Hz to } 350 \text{ MHz}$ Burst: $126 \mu\text{Hz to } 350 \text{ MHz}$
Square	Continuous: $1 \mu\text{Hz to } 170 \text{ MHz}$ (fast transition enabled); $1 \mu\text{Hz to } 120 \text{ MHz}$ (fast transition disabled) Modulation: $1 \mu\text{Hz to } 120 \text{ MHz}$ Burst: $126 \mu\text{Hz to } 120 \text{ MHz}$		
Ramp	Continuous: $1 \mu\text{Hz to } 5 \text{ MHz}$ Modulation: $1 \mu\text{Hz to } 2.5 \text{ MHz}$ Burst: $126 \mu\text{Hz to } 2.5 \text{ MHz}$		
Pulse	Continuous/Modulation: $1 \mu\text{Hz to } 120 \text{ MHz}$ Burst: $126 \mu\text{Hz to } 120 \text{ MHz}$		
Arb	Continuous/Modulation: $1 \mu\text{Hz to } 100 \text{ MHz}$ Burst: $126 \mu\text{Hz to } 100 \text{ MHz}$		

F.E.S. Co., Ltd.

1000/24, P.B. Tower, 8 floor, Sukhumvit 71 Rd., North Klongtan, Wattana, Bangkok 10110
 TEL: 02-064-4050 or 02-064-4051 | FAX: 02-010-4262 | Email: info@fesupply.com
 www.fesupply.com | www.rigolthai.com



Frequency Characteristics

Harmonic	1 mHz to 125 MHz	1 mHz to 175 MHz	1 mHz to 250 MHz
Noise (-3 dB)	Typical (1 Vpp), 500 MHz bandwidth		
Frequency Resolution	1 μ Hz or 12 digits		
Frequency Accuracy	Typical (1 MHz frequency) $\pm 10^{-6}$ of the setting (except Arb), 0°C to 50°C $\pm 10^{-6}$ of the setting ± 1 μ Hz (Arb), 0°C to 50°C		
Clock Accuracy Aging	$\pm 1 \times 10^{-6}$ /year		

F.E.S. Co., Ltd.

1000/24, P.B. Tower, 8 floor, Sukhumvit 71 Rd., North Klongtan, Wattana, Bangkok 10110
 TEL: 02-064-4050 or 02-064-4051 | FAX: 02-010-4262 | Email: info@fesupply.com
 www.fesupply.com | www.rigolthai.com



Continuous Characteristics

Continuous Characteristics

Sine (into 50 Ω)	Amplitude Flatness	Typical ^[3] <5 MHz: ± 0.1 dB ≥ 5 MHz to <50 MHz: ± 0.2 dB ≥ 50 MHz to <100 MHz: ± 0.5 dB ≥ 100 MHz to 200 MHz: ± 1.0 dB ≥ 200 MHz: ± 2.0 dB
	Harmonic Distortion	Typical (0 dBm amplitude) 10 Hz to <10 MHz: <-60 dBc ≥ 10 MHz to <50 MHz: <-50 dBc ≥ 50 MHz to <200 MHz: <-45 dBc ≥ 200 MHz: <-35 dBc
	Total Harmonic Distortion (THD)	Typical (0 dBm amplitude) 10 Hz to 20 kHz: <0.1%
	Spurious (non-harmonic)	Typical (0 dBm amplitude) 10 Hz to <10 MHz: <-60 dBc ≥ 10 MHz to <50 MHz: <-55 dBc ≥ 50 MHz: <-45 dBc + 6 dBc/octave
	Phase Noise	Typical (0 dBm amplitude, 10 kHz offset) 20 MHz: <-125 dBc/Hz
	Residual Clock Noise	Typical (0 dBm amplitude), -55 dBm
	Phase	-360° to +360°, 0.01° resolution

Continuous Characteristics

Square	Rise/Fall Time	Typical (0 dBm amplitude, 50 Ω load, 10 MHz frequency) Fast transition enabled: 800 ps to 1 ns, settable Setting accuracy with fast transition enabled: $\pm 20\%$ of the setting value Fast transition disabled: ≤ 1.4 ns
	Overshoot	Typical (fast transition disabled, 0 dBm amplitude, 10 MHz frequency) $< 5\%$
	Jitter (rms)	Typical (fast transition disabled, 0 dBm amplitude, 10 MHz frequency) 200 ps
	Duty Cycle	Typical (0 dBm amplitude, 50 Ω load, 10 MHz frequency) Fast transition enabled: $50\% \pm 1\%$ Fast transition disabled: 0.1% to 99.9% (limited by the period)
	Phase	-360° to $+360^\circ$, 0.01° resolution
Ramp	Linearity	Typical (1 kHz frequency, 0 dBm amplitude, 99.9% symmetry) $\leq 0.1\%$ of peak output (10% to 90% amplitude)
	Symmetry	0.1% to 99.9% (limited by the ramp period)
	Phase	-360° to $+360^\circ$, 0.01° resolution
Pulse	Pulse Width	4.2 ns to 999.9 μ s (limited by the pulse period)
	Pulse Width Resolution	100 ps or 5 digits
	Duty Cycle	0.01% to 99.99% (limited by the pulse period)
	Rise/Fall Time	1.4 ns to 1 s (limited by the pulse width)
	Overshoot	Typical (0 dBm amplitude, 10 MHz frequency), $< 5\%$
	Jitter (rms)	Typical (0 dBm amplitude, 10 MHz frequency), 200 ps
	Phase	-360° to $+360^\circ$, 0.01° resolution

Continuous Characteristics

DC	Output Range	-5 Vdc to +5 Vdc (50 Ω)
	Accuracy	$\pm(1\% \text{ of } \text{DC setting value} + 1 \text{ mVdc}), 50 \Omega$
Arb	Type	Built-in waveforms, stored waveforms
	Rise/Fall Time	Typical (0 dBm amplitude), $\leq 3.5 \text{ ns}$
	Jitter (rms)	Typical (0 dBm amplitude, 10 MHz frequency), 200 ps
	Phase	-360° to $+360^\circ$, 0.01° resolution
Harmonic Output	Harmonic Order	≤ 20
	Harmonic Type	Order, Combine
	Harmonic Amplitude	The amplitude of each order of the harmonic can be set.
	Harmonic Phase	The phase of each order of the harmonic can be set.

Modulation Characteristics**Modulation Characteristics**

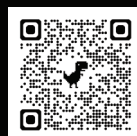
Modulation Type	AM, FM, PM, ASK, FSK, PSK, PWM, SUM	
AM	Carrier Waveform	Sine, Square, Ramp, Arb
	Modulation Source	Internal/External
	External Modulation Port	Front port
	Internal Modulating Waveform	Sine, Square, Triangle, UpRamp, DnRamp, Noise, Arb
	Modulation Depth	0% to 120%
	Internal Modulation Frequency	2 mHz to 1 MHz

Modulation Characteristics

FM	Carrier Waveform	Sine, Square, Ramp, Arb
	Modulation Source	Internal/External
	External Modulation Port	Front port
	Internal Modulating Waveform	Sine, Square, Triangle, UpRamp, DnRamp, Noise, Arb
	Internal Modulation Frequency	2 mHz to 1 MHz
PM	Carrier Waveform	Sine, Square, Ramp, Arb
	Internal Modulation Source	Internal/External
	External Modulation Port	Front port
	Internal Modulating Waveform	Sine, Square, Triangle, UpRamp, DnRamp, Noise, Arb
	Internal Modulation Frequency	2 mHz to 1 MHz
	Phase Deviation	0° to 360°, 0.01° resolution
ASK/FSK/PSK	Carrier Waveform	Sine, Square, Ramp, Arb
	Modulation Source	Internal/External
	External Modulation Port	Front port, rear port
	Internal Modulating Waveform	Square with 50% duty cycle
	Internal Keying Frequency	2 mHz to 1 MHz
	No. of Levels	2

F.E.S. Co., Ltd.

1000/24, P.B. Tower, 8 floor, Sukhumvit 71 Rd., North Klongtan, Wattana, Bangkok 10110
 TEL: 02-064-4050 or 02-064-4051 | FAX: 02-010-4262 | Email: info@fesupply.com
 www.fesupply.com | www.rigolthai.com



Modulation Characteristics

PWM	Carrier Waveform	Pulse
	Modulation Source	Internal/External
	External Modulation Port	Front port
	Internal Modulating Waveform	Sine, Square, Triangle, UpRamp, DnRamp, Noise, Arb
	Internal Modulation Frequency	2 mHz to 1 MHz
	Width Deviation	0% to 49.99% of the pulse period (limited by the pulse width)
SUM	Carrier Waveform	Sine, Square, Ramp, Arb
	Sum Source	Sine, Square, Triangle, UpRamp, DnRamp, Noise, Arb
	Sum Frequency	2 mHz to 1 MHz
	Sum Ratio	0% to 100% of the amplitude setting (Vpp)

Burst Characteristics**Burst Characteristics**

Carrier Waveform	Sine, Square, Ramp, Pulse, Noise, Arb
Burst Count	1 to 1,000,000/Infinite
Internal Burst Period	4 μ s to 8000 s
Burst Phase	-360° to +360°, 0.01° resolution
Trigger Delay	0 ns to 85 s (limited by the burst period)
Gate Source	External trigger
Trigger Source	Internal, External leading edge, External trailing edge, Manual, Timer (remote mode only)

Sweep Characteristics

Sweep Characteristics

Type	Linear, Log, Step
Carrier Waveform	Sine, Square, Ramp, Arb
Sweep Time	1 ms to 250,000 s
Hold/Return Time	0 s to 3600 s
Orientation	Up/Down
Trigger Source	Internal, external leading edge, external trailing edge, manual
Mark	Falling edge of the sync signal (programmable)

Sweep Start/Stop Frequency Range

Model	DG5252 Pro/DG5254 Pro/ DG5258 Pro	DG5352 Pro/DG5354 Pro/ DG5358 Pro	DG5502 Pro/DG5504 Pro/ DG5508 Pro
Sine	1 μ Hz to 250 MHz	1 μ Hz to 350 MHz	1 μ Hz to 350 MHz
Square	1 μ Hz to 120 MHz		
Ramp	1 μ Hz to 2.5 MHz		
Arb	1 μ Hz to 100 MHz		

Advanced Mode Characteristics

Advanced Mode Characteristics

Type	Arb, Sequence, PRBS, Multi-pulse, Multi-tone, Pattern, IQ		
Arb	Sample Rate	1 μ Sa/s to 1.25 GSa/s	
	Jitter (rms) period-period	Typical (0 dBm amplitude), 100 ps	
	Waveform Length	32 pts/CH to 64 Mpts/CH (128 Mpts/CH optional)	
	Filter Mode	Normal, Step, Edge, Interpolation	

Advanced Mode Characteristics

Sequence (optional)	Sample Rate	1 μ Sa/s to 1.25 GSa/s
	Length	32 pts/CH to 64 Mpts/CH (128 Mpts/CH optional)
	No. of Steps	1 to 512
	Loop	1 to 256
	Wait/Event	Off, external trigger (rising/falling edge), manual trigger, timer
	Event Jump Destination	Next, First, Last, Specify SN
	Go To Destination	Next, First, Last, End, Specify SN
	Timer	4 μ s to 8000 s
PRBS	Filter Mode	Normal, Step, Edge, Interpolation
	Bit Rate	1 μ bps to 300 Mbps
	Sequence Length	$2^n - 1$, $n = 3, 4, \dots, 32$
	Edge Time	2 ns to 1 μ s (limited by the bit rate)
	Jitter (rms)	200 ps
Multi-pulse (optional)	No. of Pulses	2 to 30
	Trigger Source	Off, external trigger (rising/falling edge), manual trigger, timer
	Trigger Delay	5 μ s to 1 s
	Timer	5 μ s to 8000 s (limited by the trigger delay and the high/low level width)
	High/Low Level Width	20 ns to 150 μ s
	Edge Time	2 ns to 1 μ s (limited by the minimum high/low level width)
Multi-tone (optional)	No. of Tones	2 to 16

Advanced Mode Characteristics

Pattern (optional)	Bit Rate	1 μ bps to 300 Mbps
	Input Data Type	Pattern, File
	Encoding Type	NRZ, RZ, Manchester
	Data Type	Binary, Hexadecimal (supporting 4B5B encoding), KD Symbol (supporting 8B10B encoding)
	Max. Data Length	Pattern: 4000 characters (binary), 1000 characters (hexadecimal/KD symbol) File: 64M characters (binary), 12M characters (hexadecimal/KD symbol)
IQ (optional)	Preset Amplitude	TTL, CMOS5.0, CMOS3.3, CMOS2.5, CMOS1.8, ECL, PECL
	Symbol Rate	100 Sa/s to 100 MSa/s
	Symbol Length	10 to 20 M
	Modulation Type	BPSK, QPSK, 8PSK, 16QAM, 32QAM, 64QAM, 128QAM, 256QAM
	Code Type	OFF, Differential, Gray, Differential+Gray
	Center Frequency	0 Hz to 500 MHz

AUX IN/OUT Characteristics

AUX IN/OUT Characteristics

External Modulation Input	Input Range	ASK, FSK, PSK: 3.3 V logic level AM, FM, PM, PWM: ± 5 V full range
	Frequency Range	Front-panel SMB: DC to 100 kHz (1 MSa/s) Rear-panel BNC: DC to 10 Mbps
	Input Impedance	10 k Ω
	Connector	ASK, FSK, PSK: BNC (rear panel) or SMB (rear panel), selectable AM, FM, PM, PWM: SMB (front panel)

F.E.S. Co., Ltd.

1000/24, P.B. Tower, 8 floor, Sukhumvit 71 Rd., North Klongtan, Wattana, Bangkok 10110
 TEL: 02-064-4050 or 02-064-4051 | FAX: 02-010-4262 | Email: info@fesupply.com
 www.fesupply.com | www.rigolthai.com



AUX IN/OUT Characteristics

External Trigger/ Gated Burst Input	Level	TTL-compatible
	Impedance	10 k Ω
	Edge	Positive/negative(selectable)
	Min. Pulse Width	100 ns
	Trigger Delay Range	0 ns to 85 s
	Trigger Delay Resolution	100 ps or 5 digits
	Jitter (rms)	Typical (trigger input to signal output, Burst mode), 800 ps
Trigger Output	Connector	BNC (rear panel)
	Level	3.3 V CMOS
	Output Impedance	50 Ω
	Jitter (rms)	Typical (Continuous mode), 400 ps
Sync Output	Connector	SMB (front panel)
	Level	TTL-compatible
	Impedance	50 Ω
10 MHz Reference Input	Connector	SMB (front panel)
	Impedance	1 k Ω
	Input Coupling	AC coupling
	Lock Range	10 MHz $\pm$ 100 Hz
	Required Input Voltage	100 mVpp to 5 Vpp
	Connector	BNC (rear panel)

AUX IN/OUT Characteristics

10 MHz Reference Output	Impedance	50 Ω
	Level	Typical (50 Ω), 1.2 Vpp
	Output Coupling	AC coupling
	Connector	BNC (rear panel)

Protection**Protection**

Overvoltage Protection	Occurred when:
	The instrument amplitude setting is greater than 4 Vpp or the output AC + DC is greater than $ 2 \text{ Vdc} $ and the input voltage is greater than $\pm 12 \times (1 \pm 5\%) \text{ V}$ ($< 10 \text{ kHz}$). Disruptive voltage: $\pm 18(\text{Vac} + \text{dc})$ The instrument amplitude setting is less than or equal to 4 Vpp or the output AC + DC is less than $ 2 \text{ Vdc} $ and the input voltage is greater than $\pm 2.5 \times (1 \pm 5\%) \text{ V}$ ($< 10 \text{ kHz}$). Disruptive voltage: $\pm 3.5(\text{Vac} + \text{dc})$

Characteristics**Characteristics**

Display	10.1-inch touch screen, 1280x800 (screen area) 16:9
Stabilization Time	At least 30-minute warm-up
Internal Non-volatile Memory	128 GB (the actual available memory is less than 128 GB due to factors such as system file occupancy)

Power Supply**Power Supply**

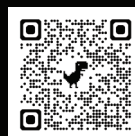
Input Voltage	AC 100 V to 240 V, 50 Hz/60 Hz
Consumption	210 W (max.)
Fuse	5 A, Class T, 250 V

Interface**Interface**

LAN	1 at rear panel, 10/100/1000 BASE-T port, supporting LXI-C
-----	--

F.E.S. Co., Ltd.

1000/24, P.B. Tower, 8 floor, Sukhumvit 71 Rd., North Klongtan, Wattana, Bangkok 10110
 TEL: 02-064-4050 or 02-064-4051 | FAX: 02-010-4262 | Email: info@fesupply.com
 www.fesupply.com | www.rigolthai.com



Interface

Web Control	Support Web Control (input the IP address of the instrument into the Web browser to display the operation interface)
HDMI	1 at rear panel, HDMI (type A) used to connect to an external monitor or projector
USB 3.0 Host	1 at front panel
USB 3.0 Device	1 at rear panel, supporting TMC

Mechanical Characteristics**Mechanical Characteristics**

Dimension	358 mm (W) x 215 mm (H) x 122 mm (D)
Rack Mount Kit	5 U
Weight (package excluded)	DG5252 Pro/DG5352 Pro/DG5502 Pro: about 4.2 kg DG5254 Pro/DG5354 Pro/DG5504 Pro: about 4.6 kg DG5508 Pro/DG5358 Pro/DG5258 Pro: about 5.3 kg

Environment**Environment**

Temperature Range	Operating	0°C to +40°C
	Non-operating	-20°C to +60°C
Humidity Range	Operating	0°C to +40°C, ≤80% RH (without condensation)
	Non-operating	-20°C to 40°C, ≤90% RH (without condensation)
		below 60°C, ≤80% RH (without condensation)
Altitude	Operating	Below 3,000 m
	Non-operating	Below 12,000 m

F.E.S. Co., Ltd.

1000/24, P.B. Tower, 8 floor, Sukhumvit 71 Rd., North Klongtan, Wattana, Bangkok 10110
 TEL: 02-064-4050 or 02-064-4051 | FAX: 02-010-4262 | Email: info@fesupply.com
 www.fesupply.com | www.rigolthai.com



Regulation Standards

Regulation Standards

Electromagnetic Compatibility	Compliant with EMC Directive (2014/30/EU)
	EN IEC 61326-1:2021
	EN IEC 61000-3-2:2019+A1
	EN 61000-3-3:2013+A1+A2
	BS EN IEC 61326-1:2021
	BS EN IEC 61000-3-2:2019+A1
	BS EN 61000-3-3:2013+A1+A2
	FCC Part 15, Subpart B:2021
	ICES-001:2020

Safety	EN 61010-1:2010+A1
	IEC 61010-1:2010+A1
	BS EN 61010-1:2010+A1
	UL 61010-1: 2012 R6.23
	CAN/CSA-C22.2 NO. 61010-1-12+GI1+GI2 (R2017) +A1

Warranty and Calibration Interval

Warranty and Calibration Interval

Warranty	3 years (excluding the accessories)
Recommended Calibration Interval	12 months

NOTE:

[1]: 1 kHz Sine, amplitude > 1 mVpp, 0 V offset, unit: Vpp.

[2]: dBm is available only when the load impedance is not set to HighZ; Vrms is not available for Arb; Vpp and V (high level and low level) are available for all waveform types.

[3]: 1 µHz to 200 kHz relative to 1 kHz Sine, >200 kHz relative to 1 MHz Sine; 0 dBm amplitude.

Order Information and Warranty Period

Order Information

Order Information	Order No.
Model	
250 MHz Bandwidth, 2.5 GSa/s Sample Rate, Dual-channel	DG5252 Pro
250 MHz Bandwidth, 2.5 GSa/s Sample Rate, Four-channel	DG5254 Pro
250 MHz Bandwidth, 2.5 GSa/s Sample Rate, Eight-channel	DG5258 Pro
350 MHz Bandwidth, 2.5 GSa/s Sample Rate, Dual-channel	DG5352 Pro
350 MHz Bandwidth, 2.5 GSa/s Sample Rate, Four-channel	DG5354 Pro
350 MHz Bandwidth, 2.5 GSa/s Sample Rate, Eight-channel	DG5358 Pro
500 MHz Bandwidth, 2.5 GSa/s Sample Rate, Dual-channel	DG5502 Pro
500 MHz Bandwidth, 2.5 GSa/s Sample Rate, Four-channel	DG5504 Pro
500 MHz Bandwidth, 2.5 GSa/s Sample Rate, Eight-channel	DG5508 Pro
Standard Accessories	
Power Cord Conforming to the Standard of the Destination Country	— —
SMB Pin Insertion/extraction Tool	— —
USB Cable	CB-USBA-USBB-FF-150
2/4/8 BNC Cables	CB-BNC-BNC-MM-100
Options	
IQ Modulation Option	DG5000 Pro-IQ
Multi-pulse Output Option	DG5000 Pro-MPUL

F.E.S. Co., Ltd.

1000/24, P.B. Tower, 8 floor, Sukhumvit 71 Rd., North Klongtan, Wattana, Bangkok 10110
TEL: 02-064-4050 or 02-064-4051 | FAX: 02-010-4262 | Email: info@fesupply.com
www.fesupply.com | www.rigolthai.com



Order Information	Order No.
Advanced Sequence Function	DG5000 Pro-SEQ
Multi-tone Option	DG5000 Pro-MTONE
Pattern Option	DG5000 Pro-PJ
128 Mpts/CH (Max.) Arb Length Upgrade Option	DG5000 Pro-2RL
Function Bundle Option DG5000 Pro-IQ/MPUL/SEQ/MTONE/PJ/2RL included	DG5000 Pro-BND
Optional Accessories	
40dB Attenuator (50 Ω , 1 W)	RA5040K
SMB(F) to SMB(F) Cable (1 m)	CB-SMB-SMB-FF-100
SMB(F) to BNC(F) Cable (1 m)	CB-SMB-BNC-FF-100
SMB(F) to BNC(M) Cable (1 m)	CB-SMB-BNC-FM-100
BNC to Alligator Clip Cable	CB-BNC-AC-100-L

Warranty Period

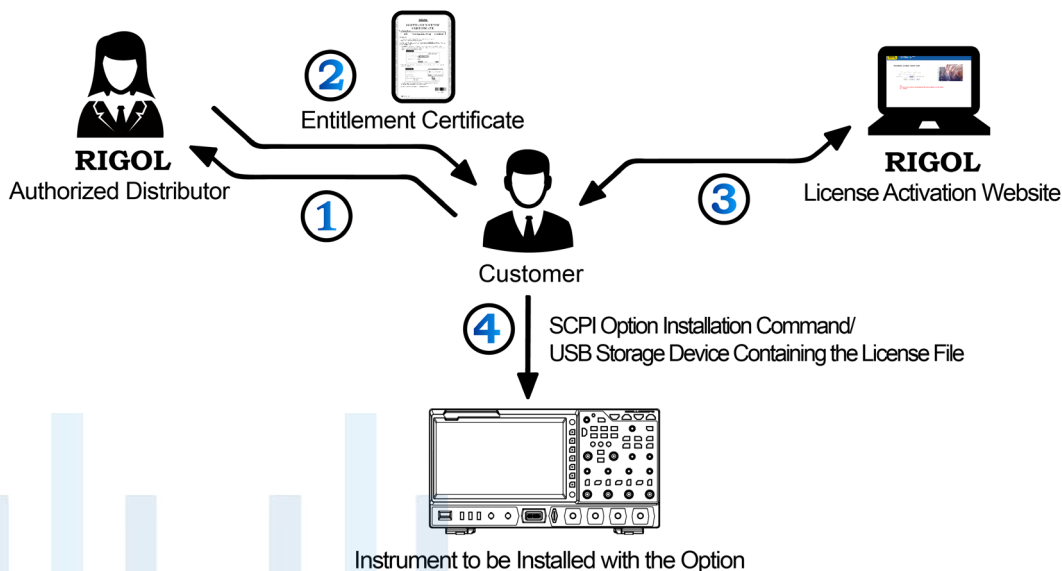
Three years for the mainframe, excluding the accessories.

F.E.S. Co., Ltd.

1000/24, P.B. Tower, 8 floor, Sukhumvit 71 Rd., North Klongtan, Wattana, Bangkok 10110
TEL: 02-064-4050 or 02-064-4051 | FAX: 02-010-4262 | Email: info@fesupply.com
www.fesupply.com | www.rigolthai.com



Option Ordering and Installation Process



1. According to the usage requirements, please purchase the specified function options from **RIGOL Sales Personnel**, and provide the serial number of the instrument that needs to install the option.
2. After receiving the option order, the **RIGOL** factory will mail the paper software product entitlement certificate to the address provided in the order.
3. Log in to **RIGOL** official website for registration. Use the software key and instruments serial number provided in the entitlement certificate to obtain the option license code and the option license file.
4. Install the option by running the SCPI command concerning the option installation. You can also save the option license file to the root directory of the USB storage device. Then insert it to the instrument. After being recognized, follow the instructions to install the option.

NOTE:

If any problems occur during the option installation process, please contact **RIGOL** technical team.

F.E.S. Co., Ltd.

1000/24, P.B. Tower, 8 floor, Sukhumvit 71 Rd., North Klongtan, Wattana, Bangkok 10110
TEL: 02-064-4050 or 02-064-4051 | FAX: 02-010-4262 | Email: info@fesupply.com
www.fesupply.com | www.rigolthai.com

