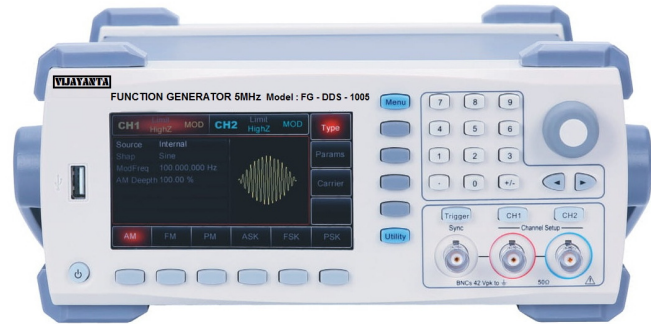


DDS FUNCTION GENERATOR

Model : FG-DDS-1010

FEATURES -

- Sine wave output of 10MHz, full frequency range resolution is 1μHz
- Square wave/pulse waveform of 5MHz, its rising, falling, and duty cycle time are adjustable
- Uses DDS implementation method, with 125M/s sampling rate and 14bits vertical resolution
- 6-bit high precision frequency counter that is TTL level compatible
- Arbitrary waveform storage of 2048 points, and it can store up to 16 groups of nonvolatile digital arbitrary waveforms
- Abundant modulation types: AM, FM, PM, ASK, FSK, PSK, PWM
- Powerful PC software
- 4.3-inch high resolution TFT liquid crystal display
- Standard configuration interface: USB Device
- Supports internal/external modulation and internal/external/manual trigger
- Supports sweep output
- Easy-to-use multifunctional knob and number keyboard



Channel	:	Single Channel
Max. Frequency	:	10MHz
Sample Rate	:	125MSa/s
Waveform	:	Sine Wave, Square Wave, Triangle Wave, Pulse Wave, Ramp Wave, Noise, DC, Arbitrary Waveform
Working Mode	:	Output Strobe, Duration, Modulation, Scanning
Modulation Type	:	AM, FM, PM, ASK, FSK, PSK, PWM

WAVEFORMS

<p>✓ SINE WAVE</p>	
Frequency Range	: 1μHz~5MHz
Resolution	: 1μHz
Accuracy	: ±50ppm in 90 days, ±100ppm in one year (18°C~28°C)
Harmonic Distortion (Typical Value)	: ✓ Test Condition: Output power 0dBm ✓ -55dBc ✓ -50dBc ✓ -40dBc
Total Harmonic Distortion (Typical Value)	: DC~20kHz, 1Vpp < 0.2%
<p>✓ SQUARE WAVE</p>	
Range	: 1μHz~5MHz
Resolution	: 1μHz
Lead/Tail Time	: < 24ns (typical value, 1kHz, 1Vpp)
Overshoot (Typical Value)	: < 2%
Duty Cycle	: 0.01% ~ 99.99%
Min. Pulse	: ≥80ns
Jittering (Typical Value)	: 1ns+ 100ppm of period

VJAYANTA TECHNOLOGIES PVT. LTD.

(Formerly Vijai Electronics)

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✓ RAMP WAVE	
Range	: 1μHz~5MHz
Resolution	: 1μHz
Nonlinear Degree	: 1%±2 mV (typical value, 1kHz, 1Vpp, symmetry 50%)
Symmetry	: 0.0% to 100.0%
Min. Edge Time	: ≥400ns

✓ PULSE WAVE	
Range	: 1μHz~5MHz
Resolution	: 1μHz
Pulse Eidth	: ≥80ns
Lead/Tail Time	: 24ns (typical value, 1kHz, 1Vpp)
Overshoot (Typical Value)	: 2%
Jittering Typical Value)	: 1ns+ 100ppm of period

✓ DC OFFSET	
Range (Peak Value AC+DC)	: ±5V (50Ω) ±10V (High Resistance)
Offset Precision	: ±(1% of offset setting+0.5% of amplitde +2mV)

✓ ARBITRARY WAVEFORM	
Frequency Range	: 1μHz~5MHz
Resolution	: 1μHz
Waveform Length	: 2048 points
Vertical Resolution	: 14bits (including symbols)
Sample Rate	: 125MSa/s
Non-volatile Memory	: 16 types of waveform

✓ OUTPUT FEATURES	
Amplitude Range	: ✓ 1mVpp ~ 10Vpp ✓ 50Ω ✓ 2mVpp ~ 20Vpp (high resistance)
Accuracy (Sine wave of 1kHz) Amplitude	: ✓ <1% of amplitude setting value ±2 mV
Flatness (relative to sine wave of 1kHz, 1Vpp/50Ω)	: ✓ <100kHz 0.1dB ✓ 100kHz ~ 10MHz 0.2dB

✓ WAVEFORM OUTPUT	
Impedance	: Typical value of 50Ω
Insulation	: To earth wire, max.42Vpk
Protection	: Short-circuit Protection

MODULATIONS

✓ AM MODULATION	
Carrier Wave	: Sine Wave, Square Wave, Ramp Wave, Arbitrary Wave
Source	: Internal / External
Shape	: Sine Wave, Square Wave, Ramp Wave, Noise, Arbitrary Wave
Frequency	: 2mHz ~ 50kHz
Depth	: 0% ~ 120%

✓ FM MODULATION	
Carrier Wave	: Sine Wave, Square Wave, Ramp Wave, Arbitrary Wave
Source	: Internal / External
Shape	: Sine Wave, Square Wave, Ramp Wave, Noise, Arbitrary Wave
Frequency	: 2mHz ~ 50kHz
Frequency Offset	: 1μHz ~ 2.5MHz

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✓ PM MODULATION	
Carrier Wave	: Sine Wave, Square Wave, Ramp Wave, Arbitrary Wave
Source	: Internal / External
Shape	: Sine Wave, Square Wave, Ramp Wave, Noise, Arbitrary Wave
Frequency	: 2mHz ~ 50kHz
Phase Offset	: 0° ~ 360°

✓ ASK MODULATION	
Carrier Wave	: Sine Wave, Square Wave, Ramp Wave, Arbitrary Wave
Source	: Internal / External
Shape	: Square Wave of 50% duty cycle
Frequency	: 2mHz~100kHz

✓ FSK MODULATION	
Carrier Wave	: Sine Wave, Square Wave, Ramp Wave, Arbitrary Wave
Source	: Internal / External
Shape	: Square Wave of 50% duty cycle
Frequency	: 2mHz~100kHz

✓ PSK MODULATION	
Carrier Wave	: Sine Wave, Square Wave, Ramp Wave, Arbitrary Wave
Source	: Internal / External
Shape	: Square Wave of 50% duty cycle
Frequency	: 2mHz~100kHz

✓ PWM MODULATION	
Carrier Wave	: Pulse Wave
Source	: Internal / External
Shape	: Sine Wave, Square Wave, Ramp Wave, Noise, Arbitrary Wave
Frequency	: 2mHz ~ 50kHz Arbitrary Wave
Source	: Internal / External
Shape	: Sine Wave, Square Wave, Ramp Wave, Noise, Arbitrary Wave
Frequency	: 2mHz ~ 50kHz
Phase Offset	: 0° ~ 360°

✓ ASK MODULATION	
Carrier Wave	: Sine Wave, Square Wave, Ramp Wave, Arbitrary Wave
Source	: Internal / External
Shape	: Square Wave of 50% duty cycle
Frequency	: 2mHz~100kHz

✓ FSK MODULATION	
Carrier Wave	: Sine Wave, Square Wave, Ramp Wave, Arbitrary Wave
Source	: Internal / External
Modulation Shape	: Square Wave of 50% duty cycle
Frequency	: 2mHz~100kHz

✓ PSK MODULATION	
Carrier Wave	: Sine Wave, Square Wave, Ramp Wave, Arbitrary Wave
Source	: Internal / External

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Modulation Shape	:	Square Wave of 50% duty cycle
Frequency	:	2mHz~100kHz

✓ **PWM MODULATION**

Carrier Wave	:	Pulse Wave
Source	:	Internal / External
Modulation Shape	:	Sine Wave, Square Wave, Ramp Wave, Noise, Arbitrary Wave
Frequency	:	2mHz ~ 50kHz

✓ **OPERATION RANGE**

Temperature	:	Operation: 10°C ~ +40°C Non operation: -20°C ~ +60°C
Cooling Method	:	Fan cooling
Humidity Range	:	+35°C below: ≤ 90% relative humidity +35°C ~ +40°C: ≤ 60% relative humidity

✓ **DIMENSION**

Weight	:	3kg. Approx.
Size	:	165mm×320mm×110mm

❖ **STANDARD ACCESSORIES**

- BNC cable (1 meter)
- USB data cable
- Power line meets local country standard
- Warranty card
- User CD

Note - Technical Specifications & Appearance are subject to change without prior notice.

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