Full Digital Control Dual-Channel DDS Function/Arbitrary Waveform Generator 60MHz

Product Description

The fully controlled dual-channel DDS function/arbitrary waveform generator offers a sampling rate of up to 266MSa/s. It features a high-definition 2.4-inch LCD display, independent dual-channel waveform output with continuously adjustable phase difference, and a wide frequency range with signal frequencies up to 60MHz. For signals below 11MHz, the output amplitude can reach up to 20Vpp. Pulse parameters such as pulse width and period are precisely adjustable. The device also provides more flexible sweep functions, with diverse trigger modes (manual, internal, external AC, external DC). It offers comprehensive measurement functions (counting, measurement), a variety of waveform types, and arbitrary waveform output (full process for arbitrary wave editing, from drawing to downloading and outputting selected

waveforms). It supports programmable control, providing upper computer software and communication protocols, and is suitable for secondary development. The device features a high-quality flame-retardant shell, patented appearance design, and an integrated rotating stand for more convenient operation and data viewing.

● Part Number

DS6600-60MHz

Parameters

	JDS6600-15MHz	DS6600-30MHz	JDS6600-40MHz	DS6600-50MHz	JDS6600-60MHz
Sine Wave Frequency Range	0~15MHz	0~30MHz	0~40MHz	0~50MHz	0~60MHz
Square Wave Frequency Range	0~15MHz	0~25MHz	0~25MHz	0~25MHz	0~25MHz
Triangle Wave Frequency Range					
Pulse Wave Frequency Range					
TTL Digital Wave Frequency Range	0~6MHz	0~6MHz	0~6MHz	0~6MHz	0~6MHz
Arbitrary Wave Frequency Range	100nS~4000s	50nS~4000S	40nS~4000s	30nS-4000s	25nS~4000S
Pulse Width Adjustment Range					
Square Wave Rise Time	≤25ns	≤15ns	≤10ns	≤10ns	≤10ns

Frequency Minimum Resolution	0.01uHz(0.00000001Hz)
Frequency Accuracy	±20ppm
Frequency Stability	±1ppm/3h
Waveform Characteristics	

Waveform Types	Sine wave, square wave, pulse wave (duty cycle adjustable, pulse width and period time adjustable),triangle wave, offset sine wave, CMOS wave, DC level (DC amplitude set via bias adjustment), half wave, full wave, positive ramp wave, negative ramp wave, noise wave, exponential rise, exponential fall, multi-tone wave, sinc pulse, Lorentz pulse, and 60 types of user-defined waveforms.	
Waveform Length	2048 points	
Waveform Sampling Rate	266MSa/s	
Waveform Vertical Resolution	14 bits	
Sine Wave	Harmonic Suppression	≥45dBc(<1MHz); ≥ 40dBc(1MHz~20MHz)
	Total Harmonic Distortion	<1% (20Hz~20kHz,0dBm)
Square Wave and Pulse Wave	Overshoot	≤5%
Pulse Wave	Duty Cycle Adjustment Range	0.1%-99.9%
Offset Sine Wave	Duty Cycle Adjustment Range	0.1%~99.9%
Sawtooth Wave	Linearity	≥98%(0.01Hz~10kHz)

Output Characteristics			
Sine Wave Amplitude Range	Frequency≤11MH	11MHz≤Frequency≤ 31MHz	31MHz≤Frequency
	2mVpp~20Vpp	2mVpp~10Vpp	2mVpp~5Vpp
Square/Triangle Wave Amplitude Range	Frequency≤10MHz	10MH≤Frequency≤25MHz	
	2mVpp~20Vpp	2mVpp~10Vpp	
Amplitude Resolution	1mV		
Amplitude Stability	±0.5%/5h		
Amplitude Flatness	±5%(<10mhz);±10%(>10MHz)		
Waveform Output			
Output Impedance	50Ω±10% (Typ.)		
Protection	All signal output ports can operate for up to 60 seconds under short-circuit load conditions		
DC Bias			
Bias Adjustment Range	-9.99 V ~ 9.99 V adjustable, with the relationship between output amplitude and bias: -10 V ≤ Bias + Amplitude / 2 ≤ 10 V		
Bias Resolution	0.01 V		

Phase Characteristics		
Phase Adjustment Range	0~359.9°	
Phase Resolution	0.1°	
TL/CMOS Output		
Low Level	<0.3V	
High Level	1V~10V	
Rise/Fall Time	≤20ns	
External Measurement Functions		
Frequency Counter Function	Frequency Measurement Range	1Hz~100MHz
	Measurement Accuracy	Gate time 0.01 s ~ 10 s, continuously adjustable
Counter Function	Count Range	0-4294967295
	Coupling Modes	DC and AC coupling modes
	Counting Modes	Manual
Input Signal Voltage Range	2Vpp~20Vpp	
Pulse Width Measurement	0.01 μs resolution, maximum measurable time: 20 s	
Period Measurement	0.01 μs resolution, maximum measurable time: 20 s	

Sweep Function		
Sweep Channel	H1 or H2	
Sweep Type	Linear scan, logarithmic scan	
Sweep Time	0.1s~999.9s	
Setting Range	Start point (0.01 Hz) and stop point can be set between the model's maximum output frequency	
Sweep Direction	Forward, reverse, and bidirectional	
Burst Function		
Pulse Count	1-1048575	
Burst Mode	Manual burst, H2 burst, external burst (AC), external burst (DC)	
General Technical Specifications		
Display	Display Type	24-inch FT color LCD
Storage and Load	Quantity	100 groups
	Position	Up to 9 positions (default to load position 00 at startup)
Arbitrary Waveforms	Quantity	1 to a total of 0 groups (default to 15 groups at startup)
Interface	Interface Type	USB to serial interface

	Expansion Interface	Serial interface with TTL level for user secondary development
	Communication Rate	Standard 115200 bps
	Communication Protocol	Command-line-based, protocol is open
Power	Voltage Range	DC5V±0.5V
Manufacturing Process	Surface Mount Technology, large-scale integrated circuits, high reliability, long lifespan	
Audio	Users can enable or disable the beep sound via the program	
Operation Characteristics	Fully button-operated, with continuous adjustment via knob	
Environmental Conditions	Temperature: 0°C ~ 40°C, Humidity: < 80%	