DDS Function Generator

TFG5200 Series

Introduction

The TFG5200 series are arbitrary waveform/function generators with maximum frequency of 25MHz, 40MHz and 60MHz, based on Direct Digital Synthesis (DDS) technology, providing high fidelity, low jitter performance function signal and arbitrary waveform signal.

The TFG5200 series are equipped with 150MSa/s sampling rate, 14 bits vertical resolution, ±1ppm high stability and high accuracy waveform output, 250MHz frequency counter, as well as digital modulations of AM, DSSC AM, FM, PM, ASK, FSK, BPSK. Built-in USB device, USB host and RS232 interface support easy remote control. 4.3-inch TFT LCD display, user-friendly interface design and keyboard layout brings excellent operation experience.

Features

- ✓ Frequency range 1μHz~25MHz/40MHz/60MHz
- ✓ 2 independent output channels at same frequency range for main waveforms
- ✓ 4.5-inch TFT LCD display
- ✓ Min. output amplitude 1mVpp (50Ω), total distortion 0.2%
- ✓ Sampling rate 150MSa/s, vertical resolution 14 bits, waveform length 16k points
- ✓ 6 standard waveforms, 50 built-in waveforms and 12 user-defined arbitrary waveforms
- ✓ 10 sets save & recall for operating parameters
- ✓ Modulations: AM, DSSC AM, FM, PM, ASK, FSK, BPSK
- ✓ Synchronous output, external modulation input, trigger input, external reference input and count input
- ✓ Linearity/Logarithmic sweep signal and Burst signal
- ✓ Channel coupling, parameter (frequency, amplitude, offset, phase) coupling, point frequency replication tracking
- ✓ Strong arbitrary waveform building software, support SCPI commands
- ✓ Over voltage, over current, short circuit and reverse voltage protections
- ✓ Standard interface: RS232, USB device, USB Host
- ✓ 250MHz external frequency counter
- ✓ Optional power amplifier

Product photo

TFG-5260

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DDS Function Generator

Specifications

Model		TFG-5225	TFG-5240	TFG-5260
Output Frequency				
Range	Sine	1μHz ~ 25MHz	1μHz ~ 40MHz	1μHz ~ 60MHz
	Square	1μHz ~ 5MHz	1μHz ~ 10MHz	1μHz ~ 15MHz
	Ramp	1μHz ~ 500kHz	1μHz ~ 1MHz	1μHz ~ 1MHz
	Pulse	1μHz ~ 5MHz	1μHz ~ 10MHz	1μHz ~ 15MHz
	Noise	30MHz white noise (-3dBm)		
	Arbitrary	1μHz ~ 6.5MHz		
Resolution		1μHz		
Accuracy		≤±5×10^{-5}		
Waveform				
Output waveform		Sine, Square, Ramp, Pulse, Noise, Arb, DC		
Waveform length		8~16384 points (CHA), 8~2048 points (CHB)		
Vertical resolution		14 bits		
Sampling rate		150MSa/s		
Sine	Harmonics distortion	< -70dBc, < 20kHz < -50dBc, 20kHz ~ 1MHz < -40dBc, 1MHz ~ 30MHz < -30dBc, 30MHz ~ 60MHz		
	Total distortion	≤0.2% (20Hz ≤ f ≤100 kHz)		
Square	Rise/fall edge	18ns		
Pulse	Duty cycle	0.1% ~ 99.9%		
	Edge jitter	≤150ps rms		
Ramp	Symmetry	0.0% ~ 100.0%		
	Non-linearity	≤0.1%, 5%~95% of signal		
Noise	Repeat cycle	>50 years		
Arbitrary	Sampling rate	1μSa/s ~ 50MSa/s		
	Vertical resolution	14 bits		
Output Characteristics				
Amplitude	CHA range	(High impedance) 2mVpp~20Vpp ≤15MHz 2mVpp~10Vpp ≤60MHz (50Ω) 1mVpp~10Vpp ≤15MHz 1mVpp~5Vpp ≤60MHz		
	CHB range	2mVpp~6Vpp (High impedance) ≤60MHz 1mVpp~3Vpp (50Ω) ≤60MHz		
	Flatness (1kHz)	±0.1dB (<100kHz), ±0.5dB (100kHz ~ 10MHz) , ±1.0dB (10MHz ~ 60MHz)		
Offset	CHA level range	±(10V DC~AC peak/2) (High impedance) ±(5 VDC~AC peak/2) (50 Ω)		
	CHB level range	±(189.3 mV DC–AC peak/2) (High impedance) ±(94.7 mV DC –AC peak/2) (50 Ω)		
	CHA accuracy	±1% offset setting value ±0.25% amplitude setting value ±2mV		
	CHB accuracy	±1% offset setting value ±0.25% amplitude setting value ±3mV		
Modulation	AM modulation depth	0.0%~120.0%		
	FM modulation deviation	0 ~fc/2		
	PM modulation range	0.0°~360.0°,		
	FSK	1μHz~Fsine max (Sine), 1μHz~ Fsquare max (Square/Pulse), 1μHz~ Framp max (Ramp)		
	BPSK	0.0°~360.0°		
	ASK	2mVpp~ 20Vpp		
Sweep	Sweep mode	Linearity/Logarithmic		
	Sweep time	0.001s~1000s		
	Trigger source	Imm/Ext/Bus		
Burst	Burst mode	N Cycle/Gated		
	Burst numbers	1~1000000, resolution 1		
	Interval time	1μ ~1000S, resolution 1μS		
Pulse	Pulse width	28.5 ns ~ period - 28.5 ns		
	Overshoot	≤2%(CHA) (50Ω)		
	Edge jitter	≤150ps rms		
Counter	Frequency range	0.1Hz~250 MHz		
	Resolution	6 digits/s		
Power amplifier (optional)		Frequency bandwidth: 20Hz~200kHz		
		Max. output power: 5W sine wave		
Interface		USB Device, USB Host, RS232		
Power source		AC100~240V, 47~63Hz, Max. 30VA		
Accessories		Power cord x1, Operation manual x1, Software CD x1, USB cable x1, RS-232 cable x1, BNC-BNC cable x1, BNC-Crocodile cable x1		
Dimension		Chassis: 260Wx110Hx385D mm Instrument: 295Wx195Hx415D mm		
Weight		4kg		

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DDS Function Generator

TFG3600E Series

Introduction

The TFG3600E series are arbitrary waveform/function generators with maximum frequency of 5MHz, 10MHz, 15MHz and 20MHz, based on Direct Digital Synthesis (DDS) technology providing flexible performance and system features for basic scientific and industrial requirements.

The 8 bits resolution, 100MSa/s sampling rate, 1024 pts memory length, 32 built-in waveforms and 8 user-defined arbitrary waveforms create various waveforms for different needs. Free PC software for RS-232 interface control. The TFG3600E series have additional functions of multiple modulations FM, FSK, ASK and PSK, 200MHz external frequency counter, 40 sets memories and multiple protections. Stable output frequency, high accuracy and low distortion make TFG3600E series an ideal solution for an accurate and affordable signal source for industrial, scientific research and educational applications.

Features

- ✓ Max. output frequency 5MHz/10MHz/15MHz/20MHz
- ✓ 2 output channels
- ✓ 3.5-inch TFT LCD display
- ✓ Direct Digital Synthesis technology (DDS)
- ✓ Min. output amplitude 1mV (50Ω) with good stability
- ✓ Sampling rate 100MSa/s, vertical resolution 8 bit, waveform length 1024 points
- ✓ Arbitrary waveform function
- ✓ 32 built-in waveforms and 8 user-defined arbitrary waveforms
- ✓ 40 sets save & recall for panel settings
- ✓ Modulations: FM, FSK, ASK, PSK
- ✓ Frequency sweep, amplitude sweep, burst and TTL output functions
- ✓ Over voltage, over current, short circuit and reverse voltage protections
- ✓ High speed rotary dial and keypad input
- ✓ Standard RS-232 interface for PC remote control
- ✓ Standard 200MHz external frequency counter
- ✓ Optional power amplifier

Product photo

TFG-3605E

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DDS Function Generator

Specifications

Model		TFG-3605E	TFG-3610E	TFG-3615E	TFG-3620E
Output frequency		**1μHz~5MHz**	**1μHz~10MHz**	**1μHz~15MHz**	**1μHz~20MHz**
Waveform					
Output waveform		32 built-in waveforms, including Sine, Square, Triangle, Ramp, Pulse, etc. 8 user-defined arbitrary waveforms			
Waveform length		1024 points			
Vertical resolution		8 bits			
Sampling rate		100MSa/s			
Sine	Harmonic distortion	≥40dBc (<1MHz); ≥35dBc (1~20MHz)			
	Total distortion	≤1% (20Hz~200kHz)			
Square	Rise/fall time	≤35ns			
	Overshoot	≤10%			
	Duty cycle	1%~99%			
Frequency					
Range	Sine	1μHz~5MHz	1μHz~10MHz	1μHz~15MHz	1μHz~20MHz
	Square	1μHz~5MHz			
	Other	1μHz~1MHz			
Resolution		1μHz			
Accuracy		$\pm 5 \times 10^{-5}$			
Stability		$\pm 5 \times 10^{-6}$ /3hours			
Output characteristics					
Amplitude	Range	2mVpp~20Vpp (open circuit, ≤10MHz)			
		2mVpp~15Vpp (open circuit, 10MHz~15MHz)			
		2mVpp~8Vpp (open circuit, 15MHz~20MHz)			
	Resolution	20mVpp (amplitude>2Vpp); 2mVpp (amplitude<2Vpp)			
	Accuracy	±(1%+2mVrms) (open circuit, 1kHz, sine)			
	Stability	±0.5% /3hours			
	Flatness	±5% (<10MHz); ±10% (>10MHz)			
	Output impedance	50Ω			
Offset	Range	±10V (open circuit, attenuation 0 dB)			
	Resolution	20mVdc			
	Accuracy	±(1%+20mVdc)			
Sweep					
Parameter		Frequency, Amplitude			
Range		Free to set start and stop point			
Time		100ms~900s			
Direction		Up, Down, Up-Down			
Mode		Linearity, Logarithmic			
Control		Auto sweep or manual sweep			
Frequency Modulation (FM)					
Carrier signal		CHA signal			
Modulating signal		CHB or external signal			
Deviation		0%~20%			
Shift Keying					
FSK		Free to set the hop frequency and the carrier frequency			
ASK		Free to set the hop amplitude and the carrier amplitude			
PSK		Hop phase: 0~360°, resolution: 1°			
Alternative rate		10ms~60s			

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DDS Function Generator

Burst	
Carrier signal	CHA signal
Trigger signal	TTL_A signal
Burst counts	1~65000 cycles
Trigger source	Internal TTL, External, Single
CHB output characteristics	
Output waveform	32 built-in waveforms, including Sine, Square, Triangle, Ramp, Pulse, etc. 8 user-defined arbitrary waveforms
Waveform length	1024 points
Vertical resolution	8 bits
Sampling rate	12.5MSa/s
Frequency range	Sine: 1μHz~1MHz; Other: 1μHz~100kHz
Frequency resolution	1μHz
Frequency accuracy	$\pm 1 \times 10^{-5}$
Amplitude range	50mVpp~20Vpp (open circuit)
Amplitude resolution	20mVpp
Output impedance	50Ω
CHB signal is used as burst signal	
Carrier signal	CHB signal
Trigger signal	TTL_B signal
Burst counts	1~65000 cycles
Trigger source	Internal TTL, External, Single
TTL output	
Waveform	Square, rise/fall time ≤20ns
Frequency	10mHz~1MHz
Amplitude	TTL, CMOS compatible, low<0.3V, high>4V
Frequency counter	
Frequency range	1Hz~200MHz
Input amplitude	100mVpp~20Vpp
Power amplifier (optional)	
Max. output power	7W (8Ω), 1W (50Ω)
Max. output voltage	22Vpp
Frequency bandwidth	1Hz~200kHz
General	
Operation characteristics	Key operation for all functions, Menu display, Rotary dial adjustment
Display	3.5-inch TFT LCD
Language	English, Chinese (simplified), Chinese (traditional)
Interface	RS-232 interface
Operating environment	0~40℃, <80%RH
Power source	AC110V/220V±10% selectable, 50/60Hz, Max. 45VA
Accessories	Power cord x1, Operation manual x1, Software CD x1, RS-232 cable x1, BNC-BNC cable x1, Test lead x1
Dimension (WxHxD)	260x110x385mm
Weight	3.5kg

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DDS Function Generator

TFG3200E Series

Introduction

The TFG3200E series are LOW-COST function generators with maximum frequency of 5MHz, 10MHz, 15MHz and 20MHz, based on Direct Digital Synthesis (DDS) technology providing flexible performance and system features for basic scientific and industrial requirements.

The 8 bits resolution, 100MSa/s sampling rate, 1024 pts memory length, 32 built-in waveforms create various waveforms for different needs. Optional PC software for RS-232 interface control. The TFG3200E series have additional functions of multiple modulations FM, FSK, ASK and PSK, 200MHz external frequency counter, 40 sets memories and multiple protections. Low-cost, stable output frequency, high accuracy and low distortion make TFG3200E series an ideal solution for an accurate and affordable signal source for industrial, scientific research and educational applications.

Features

- ✓ Max. output frequency 5MHz/10MHz/15MHz/20MHz
- ✓ 2 output channels
- ✓ Mono LCD display
- ✓ Direct Digital Synthesis technology (DDS)
- ✓ Min. output amplitude 1mV (50Ω) with good stability
- ✓ Sampling rate 100MSa/s, vertical resolution 8 bits, waveform length 1024 points
- ✓ 32 built-in waveforms
- ✓ 40 sets save & recall for panel settings
- ✓ Modulations: FM, FSK, ASK, PSK
- ✓ Frequency sweep, amplitude sweep, burst and TTL output functions
- ✓ Over voltage, over current, short circuit and reverse voltage protections
- ✓ High speed rotary dial and keypad input
- ✓ Standard 200MHz external frequency counter
- ✓ Optional RS-232 interface for PC remote control
- ✓ Optional power amplifier

Product photo

TFG-3205E

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DDS Function Generator

Specifications

Model		TFG-3205E	TFG-3210E	TFG-3215E	TFG-3220E
Output frequency		**1μHz~5MHz**	**1μHz~10MHz**	**1μHz~15MHz**	**1μHz~20MHz**
Waveform					
Output waveform		32 built-in waveforms, including Sine, Square, Triangle, Ramp, Pulse, etc.			
Waveform length		1024 points			
Vertical resolution		8 bits			
Sampling rate		100MSa/s			
Sine	Harmonic distortion	≥40dBc (<1MHz); ≥35dBc (1~20MHz)			
	Total distortion	≤1% (20Hz~200kHz)			
Square	Rise/fall time	≤35ns			
	Overshoot	≤10%			
	Duty cycle	1%~99%			
Frequency					
Range	Sine	1μHz~5MHz	1μHz~10MHz	1μHz~15MHz	1μHz~20MHz
	Square	1μHz~5MHz			
	Other	1μHz~1MHz			
Resolution		1μHz			
Accuracy		$\pm 5 \times 10^{-5}$			
Stability		$\pm 5 \times 10^{-6}$ /3hours			
Output characteristics					
Amplitude	Range	2mVpp~20Vpp (open circuit, ≤10MHz)			
		2mVpp~15Vpp (open circuit, 10MHz~15MHz)			
		2mVpp~8Vpp (open circuit, 15MHz~20MHz)			
	Resolution	20mVpp (amplitude>2Vpp); 2mVpp (amplitude<2Vpp)			
	Accuracy	±(1%+2mVrms) (open circuit, 1kHz, sine)			
	Stability	±0.5% /3hours			
	Flatness	±5% (<10MHz); ±10% (>10MHz)			
	Output impedance	50Ω			
Offset	Range	±10V (open circuit, attenuation 0 dB)			
	Resolution	20mVdc			
	Accuracy	±(1%+20mVdc)			
Sweep					
Parameter		Frequency, Amplitude			
Range		Free to set start and stop point			
Time		100ms~900s			
Direction		Up, Down, Up-Down			
Mode		Linearity, Logarithmic			
Control		Auto sweep or manual sweep			
Frequency Modulation (FM)					
Carrier signal		CHA signal			
Modulating signal		CHB or external signal			
Deviation		0%~20%			
Shift Keying					
FSK		Free to set the hop frequency and the carrier frequency			
ASK		Free to set the hop amplitude and the carrier amplitude			
PSK		Hop phase: 0~360°, resolution: 1°			
Alternative rate		10ms~60s			

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DDS Function Generator

Burst	
Carrier signal	CHA signal
Trigger signal	TTL_A signal
Burst counts	1~65000 cycles
Trigger source	Internal TTL, External, Single
CHB output characteristics	
Output waveform	32 built-in waveforms, including Sine, Square, Triangle, Ramp, Pulse, etc.
Waveform length	1024 points
Vertical resolution	8 bits
Sampling rate	12.5MSa/s
Frequency range	Sine: 1μHz~1MHz; Other: 1μHz~100kHz
Frequency resolution	1μHz
Frequency accuracy	$\pm 1 \times 10^{-5}$
Amplitude range	50mVpp~20Vpp (open circuit)
Amplitude resolution	20mVpp
Output impedance	50Ω
CHB signal is used as burst signal	
Carrier signal	CHB signal
Trigger signal	TTL_B signal
Burst counts	1~65000 cycles
Trigger source	Internal TTL, External, Single
TTL output	
Waveform	Square, rise/fall time ≤20ns
Frequency	10mHz~1MHz
Amplitude	TTL, CMOS compatible, low<0.3V, high>4V
Frequency counter	
Frequency range	1Hz~200MHz
Input amplitude	100mVpp~20Vpp
Power amplifier (optional)	
Max. output power	7W (8Ω), 1W (50Ω)
Max. output voltage	22Vpp
Frequency bandwidth	1Hz~200kHz
General	
Operation characteristics	Key operation for all functions, Menu display, Rotary dial adjustment
Display	Mono LCD
Language	English, Chinese (simplified), Chinese (traditional)
Interface	Optional RS-232 interface
Operating environment	0~40℃, <80%RH
Power source	AC110V/220V±10% selectable, 50/60Hz, Max. 45VA
Standard accessories	Power cord x1, Operation manual x1, BNC-BNC cable x1, Test lead x1
Optional accessories	Software CD x1, RS-232 cable x1
Dimension (WxHxD)	260x110x385mm
Weight	3.5kg

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DDS Function Generator

TFG3200 Series

Introduction

The TFG3200 series are LOW-COST function generators with maximum frequency of 10MHz, 20MHz, 40MHz and 60MHz, based on Direct Digital Synthesis (DDS) technology providing flexible performance and system features for basic scientific and industrial requirements.

The10 bits resolution, 180MSa/s sampling rate, 16k pts memory length, and 32 built-in waveforms create various waveforms for different needs. Optional PC software for USB and RS-232 interfaces control and optional 200MHz frequency counter for external signal measuring. The TFG3200 series have additional functions of multiple modulations FM, AM, FSK, ASK and PSK, 40 sets memories and multiple protections. Low-cost, multi-functional, high accuracy and low distortion make TFG3200 series an ideal solution for an accurate and affordable signal source for industrial, scientific research and educational applications.

Features

- ✓ Max. output frequency 10MHz/20MHz/40MHz/60MHz
- ✓ 2 output channels
- ✓ Mono LCD display
- ✓ Direct Digital Synthesis technology (DDS)
- ✓ Min. output amplitude 1mV (50Ω) with good stability
- ✓ Sampling rate 180MSa/s, vertical resolution 10 bits, waveform length 16000 points
- ✓ 32 built-in waveforms
- ✓ 40 sets save & recall for panel settings
- ✓ Modulations: FM, AM, FSK, ASK, PSK
- ✓ Frequency sweep, amplitude sweep, burst, CHA & CHB ADD and TTL output functions
- ✓ Over voltage, over current, short circuit and reverse voltage protections
- ✓ High speed rotary dial and keypad input
- ✓ Optional USB and RS-232 interface for PC remote control
- ✓ Optional 200MHz external frequency counter
- ✓ Optional power amplifier

Product photo

TFG-3210

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DDS Function Generator

Specifications

Model		TFG-3210	TFG-3220	TFG-3240	TFG-3260
Output frequency		**40μHz~10MHz**	**40μHz~20MHz**	**40μHz~40MHz**	**40μHz~60MHz**
Waveform					
Output waveform		Sine, Square, Pulse, DC			
Waveform length		4~16000 points			
Vertical resolution		10 bits			
Sampling rate		180MSa/s			
Sine	Harmonic distortion	≥50dBc (<1MHz);≥40dBc (1~20MHz); ≥30dBc (>20MHz)			
	Total distortion	≤0.5% (20Hz~200kHz)			
Square	Rise/fall time	≤20ns			
	Overshoot	≤5%			
	Duty cycle	50.0%			
Pulse	Rise/fall time	≤20ns			
	Overshoot	≤5%			
	Duty cycle	0.1%~99.9%			
Frequency					
Range	Sine	40μHz~10MHz	40μHz~20MHz	40μHz~40MHz	40μHz~60MHz
	Square	40μHz~10MHz	40μHz~20MHz		
	Other	40μHz~10MHz			
Resolution		40μHz (40μHz~2kHz); 40mHz (>2kHz)			
Accuracy		±(5x10^{-5}+40mHz)			
Stability		±5x10^{-6} /3hours			
Output characteristics					
Amplitude	Range	1mVpp~10Vpp (into 50Ω, ≤10MHz)			
		1mVpp~5Vpp (into 50Ω, 10MHz~40MHz)			
		1mVpp~2Vpp (into 50Ω, ≥40MHz)			
		2mVpp~20Vpp (open circuit, ≤10MHz)			
		2mVpp~10Vpp (open circuit, 10MHz~40MHz)			
		2mVpp~4Vpp (open circuit, ≥40MHz)			
	Resolution	20mVpp (amplitude>2V); 2mVpp (amplitude<2V)			
	Accuracy	±(1%+2mVrms) (open circuit, 1kHz, sine)			
	Stability	±0.5% /3hours			
	Flatness	±5% (<1MHz); ±10% (1~10MHz); ±20% (>10MHz)			
	Output impedance	50Ω			
Offset	Range	±10V (open circuit, attenuation 0 dB)			
	Resolution	20mVdc			
	Accuracy	±(1%+20mVdc)			
Sweep					
Parameter		Frequency, Amplitude			
Range		Free to set start and stop point			
Time		100ms~600s			
Direction		Up, Down, Up-Down			
Mode		Linearity, Logarithmic			
Control		Auto sweep or manual sweep			
Frequency Modulation (FM)					
Modulating signal		Internal or external signal			
Deviation		0%~20%			

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DDS Function Generator

Amplitude Modulation (AM)	
Modulating signal	Internal or external signal
Depth	0%~120%
Shift Keying	
FSK	Free to set the hop frequency and the carrier frequency
ASK	Free to set the hop amplitude and the carrier amplitude
PSK	Hop phase: 0~360°, resolution: 11.25°
Alternative rate	10ms~60s
CHB output characteristics	
Output waveform	32 built-in waveforms, including Sine, Square, Triangle, Saw tooth, Ladder, etc.
Waveform length	1024 points
Vertical resolution	8 bits
Sampling rate	12.5MSa/s
Frequency range	Sine: 10mHz~1MHz; Other: 10mHz~100kHz
Frequency resolution	10mHz
Frequency accuracy	$\pm(1x10^{-5}+10mHz)$
Amplitude range	50mVpp~20Vpp (open circuit)
Amplitude resolution	2mVpp
Output impedance	50Ω
CHB signal is used as the harmonic signal of CHA	
Harmonic times	0.1~250.0 times
Harmonic frequency	<1MHz
Phase adjustment	Coarse: 11.5°/step; Fine: 2°/step
CHB signal is used as burst signal	
Frequency of CHB	40mHz~1MHz
Burst frequency	10mHz~50kHz
Burst count	1~65000 cycles
Trigger source	Continuous, Single
TTL output	
Waveform	Square, rise/fall time ≤20ns
Frequency	Same as CHA signal
Amplitude	TTL, CMOS compatible, low<0.3V, high>4V
Frequency counter	
Frequency range	1Hz~200MHz
Input amplitude	100mVpp~20Vpp
Power amplifier (optional)	
Max. output power	7W (8Ω), 1W (50Ω)
Max. output voltage	22Vpp
Frequency bandwidth	1Hz~200kHz
General	
Operation characteristics	Key operation for all functions, Menu display, Rotary dial adjustment
Display	Mono LCD
Language	English, Chinese (simplified), Chinese (traditional)
Interface	Optional USB and RS-232 interface
Operating environment	0~40℃, <80%RH
Power source	AC110V/220V±10% selectable, 50/60Hz, Max. 45VA
Standard accessories	Power cord x1, Operation manual x1, BNC-BNC cable x1, Test lead x1
Optional accessories	Software CD x1, USB cable x1, RS-232 cable x1
Dimension (WxHxD)	260x110x385mm
Weight	3.5kg

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