Архангельск (8182)63-90-72	**И**жевск (3412)26-03-58	**М**агнитогорск (3519)55-03-13	**П**ермь (342)205-81-47	**С**ургут (3462)77-98-35
Астана (7172)727-132	**И**ркутск (395)279-98-46	**М**осква (495)268-04-70	**Р**остов-на-Дону (863)308-18-15	**Т**верь (4822)63-31-35
Астрахань (8512)99-46-04	**К**азань (843)206-01-48	**М**урманск (8152)59-64-93	**Р**язань (4912)46-61-64	**Т**омск (3822)98-41-53
Барнаул (3852)73-04-60	**К**алининград (4012)72-03-81	**Н**абережные Челны (8552)20-53-41	**С**амара (846)206-03-16	**Т**ула (4872)74-02-29
Белгород (4722)40-23-64	**К**алуга (4842)92-23-67	**Н**ижний Новгород (831)429-08-12	**С**анкт-Петербург (812)309-46-40	**Т**юмень (3452)66-21-18
Брянск (4832)59-03-52	**К**емерово (3842)65-04-62	**Н**овокузнецк (3843)20-46-81	**С**аратов (845)249-38-78	**У**льяновск (8422)24-23-59
Владивосток (423)249-28-31	**К**иров (8332)68-02-04	**Н**овосибирск (383)227-86-73	**С**евастополь (8692)22-31-93	**У**фа (347)229-48-12
Волгоград (844)278-03-48	**К**раснодар (861)203-40-90	**О**мск (3812)21-46-40	**С**имферополь (3652)67-13-56	**Х**абаровск (4212)92-98-04
Вологда (8172)26-41-59	**К**расноярск (391)204-63-61	**О**рел (4862)44-53-42	**С**моленск (4812)29-41-54	**Ч**елябинск (351)202-03-61
Воронеж (473)204-51-73	**К**урск (4712)77-13-04	**О**ренбург (3532)37-68-04	**С**очи (862)225-72-31	**Ч**ереповец (8202)49-02-64
Екатеринбург (343)384-55-89	**Л**ипецк (4742)52-20-81	**П**енза (8412)22-31-16	**С**таврополь (8652)20-65-13	**Я**рославль (4852)69-52-93
Иваново (4932)77-34-06	**К**иргизия (996)312-96-26-47	**К**азахстан (772)734-952-31	**Т**аджикистан (992)427-82-92-69	

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Arbitrary Waveform/Function Generators

Product No : TFG5200__Series

Product Description

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, $\pm$ 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.

★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 waveformsand 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

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 point (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 Pulse	Rise/fall edge	18ns		
	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 ≤20MHz 2mVpp~10Vpp ≤60MHz (50Ω) 1mVpp~10Vpp ≤20MHz 1mVpp~5Vpp ≤60MHz		
	CHB range	2mVpp~6Vpp (High impedance) ≤60MHz 1mVpp~3Vpp (50Ω) ≤60MHz		
	Flatness (1kHz)	±0.1dB (<100kHz), ±0.3dB (100kHz ~ 10MHz) , ±0.5dB (10MHz ~ 60MHz)		
Offset	CHA level	±(10V DC~AC peak/2) (High impedance) ±(5 VDC~AC		

	range	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~1MHz (Ramp)
	BPSK	0.0°~360.0°
	ASK	2mVpp~ 20Vpp
Sweep	Sweep mode	Linearity/Logarithmic
	Sweep time	0.001s~1000s
	Trigger source	Int/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, Test lead x1
Dimension		Chassis: 260Wx110Hx385D mm Instrument:

	295Wx195Hx415D mm
Weight	4kg