

# TFG6900A Series Function/Arbitrary Waveform Generators

## TFG6910A/6920A/6930A/6940A/6960A



### FEATURES

- 4.3" High resolution TFT LCD display
- Two independent channels output, same characteristic
- 1 $\mu$ Hz frequency resolution for whole range
- 120 MSa/s sampling rate, 14 bits vertical resolution
- 5 standard waveforms, 50 built-in and 5 user-defined arbitrary waveforms
- FM, AM, PM, PWM, Sum, FSK, BPSK and SUM Modulation
- Sweep and burst function
- Channel coupling and combine features on CHB
- Build in 350MHz frequency counter
- Arbitrary Waveform Edit PC Software
- Standard interface: USB Host, USB Device and RS-232

### SPECIFICATIONS

		TFG6910A	TFG6920A	TFG6930A	TFG6940A	TFG6960A
<b>Frequency</b>						
Range	Sine Square, Pulse others	1 $\mu$ Hz ~ 10MHz 1 $\mu$ Hz ~ 10MHz 1 $\mu$ Hz ~ 5MHz	1 $\mu$ Hz ~ 20MHz	1 $\mu$ Hz ~ 30MHz	1 $\mu$ Hz ~ 40MHz	1 $\mu$ Hz ~ 60MHz
Resolution		1 $\mu$ Hz				
Accuracy		$\pm(50\text{ppm}+1\mu\text{Hz})$				
<b>Waveform</b>						
Type	Standard Arbitrary	Sine, Square, Ramp, Pulse, Noise 50 built-in waveforms + 5 user-defined waveforms				
Sine	Harmonic Distortion	$\leq -60\text{dBc}$ (F<5MHz) $\leq -50\text{dBc}$ (F $\geq$ 5MHz)				
Square Pulse	Total Distortion Edge Time Overshoot Duty Cycle Pulse Width	$\leq 0.1\%$ (20Hz ~ 20kHz, 20Vpp) $\leq 20\text{ns}$ $\leq 10\%$ 0.1% ~ 99.9% 50ns ~ 2000s				
Ramp Arbitrary	Symmetry Length Sampling Rate Vertical Resolution	0.0% ~ 100.0% 4096 points 120 MSa/s 14 bits (CHA); 10bits (CHB)				
<b>Modulation (CHA)</b>						
FM,AM, PM,PWM, SUM		Carrier Waveform: Sine, Square, Ramp, etc. (only Pulse for PWM) Modulating Waveform: Sine, Square, Ramp, etc. Modulating Frequency : 1 $\mu$ Hz ~ 100kHz				
FSK,BPSK	Carrier Waveform Hope Frequency FSK Rate	1 $\mu$ Hz ~ 10MHz 1 $\mu$ Hz ~ 100kHz	1 $\mu$ Hz ~ 20MHz	1 $\mu$ Hz ~ 30MHz	1 $\mu$ Hz ~ 40MHz	1 $\mu$ Hz ~ 60MHz
<b>Amplitude</b>						
Range	0.1mVpp ~ 10Vpp(50 $\Omega$ )	0.2mVpp ~ 20Vpp(Open circuit)				
Resolution	1mVpp (Amplitude $\geq$ 1Vpp)	0.1mVpp(Amplitude<1Vpp)				
Accuracy	$\pm(1\%$ of setting+1mVpp)					
<b>Sweep (CHA)</b>						
Carrier Waveforms	Sine, Square, Ramp, etc.					
Sweep Mode	Linear or Logarithmic					
Sweep Time	5ms~500s					
List Sweep	Length: 600, Stop Time: 5ms ~ 500s, Hold Time: 0 ~ 500s					
<b>Frequency Counter</b>						
Frequency Range	0.01Hz ~ 350MHz, resolution: 6 digits/s					
Period, Pulse Width	100ns ~ 20s					
Duty Cycle	1% ~ 99%					
<b>DC Offset</b>						
Range	$\pm 5\text{Vdc}$ (50 $\Omega$ ), $\pm 10\text{Vdc}$ (High Z)					
Accuracy	$\pm(1\%$ of setting+1mVdc)					
<b>Burst (CHA)</b>						
Burst Waveform	Sine, Square, Ramp, etc.					
Burst Count	1 ~ 1000000					
<b>General Characteristics</b>						
Power	AC 100 ~ 240V, 45 ~ 65Hz, < 30VA					
Dimension & Weight	256 $\times$ 102 $\times$ 322 mm, Approx.3 kg					

### Standard Accessories

Power Cord	1
BNC cable	1
CD(Software+ User's Guide)	1

### Options

Power Amplifier	Power: 8W (load 8 $\Omega$ )
TCXO	Frequency Stability: $\pm 2\text{ppm}$