

## SPECIFICATIONS

		AFG-3081	AFG-3051
<b>WAVEFORMS</b>	<b>Standard Waveform</b>	Sine, Square, Ramp, Pulse, Noise, DC, Sin(x)/x, Exponential Rise, Exponential Fall, Negative Ramp	
<b>ARBITRARY WAVEFORMS</b>	<b>Sample Rate</b>	200 MSa/s	
	<b>Repetition Rate</b>	100MHz	
	<b>Waveform Length</b>	1M points	
	<b>Amplitude Resolution</b>	16 bits	
<b>FREQUENCY CHARACTERISTICS</b>	<b>Range</b>	<b>Sine, Square</b>	50MHz
		<b>Triangle, Ramp</b>	1MHz
	<b>Resolution</b>	1uHz	
	<b>Accuracy</b>   <b>Stability</b>	±1 ppm 0 ~ 50°C	
<b>OUTPUT CHARACTERISTICS</b>	<b>Amplitude</b>	<b>Range</b>	10 mVpp to 10 Vpp (into 50Ω)
		<b>Accuracy</b>	±1% of setting ±1 mVpp (at 1 kHz, >10 mVpp)
		<b>Resolution</b>	0.1 mV or 4 digits
		<b>Units</b>	Vpp, Vrms, dBm
	<b>Offset</b>	<b>Range</b>	±5 Vpk ac +dc (into 50Ω)
		<b>Accuracy</b>	1% of setting + 2 mV+ 0.5% of amplitude
	<b>Waveform Output</b>	<b>Protection</b>	Short-circuit protected ; overload relay auto-matically disables main output
	<b>SYNC Output</b>	<b>Level</b>	TTL-compatible into >1kΩ
<b>SINEWAVE CHARACTERISTICS</b>	<b>Harmonic Distortion</b>	60 dBc DC ~ 1 MHz, Ampl < 3 Vpp 55 dBc DC ~ 1 MHz, Ampl > 3 Vpp 45 dBc 1MHz ~ 5 MHz, Ampl > 3 Vpp 30 dBc 5MHz ~ 80 MHz, Ampl > 3 Vpp	
<b>SQUARE WAVE CHARACTERISTICS</b>	<b>Rise/Fall Time</b>	< 8 nS	
	<b>Duty Cycle</b>	20% ~ 80%	
	<b>Overshoot</b>	< 5%	
	<b>Asymmetry</b>	1% of period + 1 ns	
<b>RAMP CHARACTERISTICS</b>	<b>Linearity</b>	< 0.1% of peak output	
	<b>Variable Symmetry</b>	0% ~ 100%	
<b>PULSE CHARACTERISTICS</b>	<b>Period</b>	20ns ~ 2000s	
	<b>Pulse Width</b>	8ns ~ 1999.9s	
<b>AM MODULATION</b>	<b>Carrier Waveforms</b>	Sine, Square, Triangle, Ramp, Pulse, Arb	
	<b>Modulating Waveforms</b>	Sine, Square, Triangle, Up/Dn Ramp	
	<b>Modulating Frequency</b>	2mHz ~ 20kHz	
	<b>Depth</b>	0% ~ 120.0%	
<b>FM MODULATION</b>	<b>Carrier Waveforms</b>	Sine, Square, Triangle, Ramp	
	<b>Modulating Waveforms</b>	Sine, Square, Triangle, Up/Dn Ramp	
	<b>Modulating Frequency</b>	2mHz ~ 20kHz	
	<b>Peak Deviation</b>	DC ~ 80MHz	DC ~ 50MHz
<b>PWM</b>	<b>Carrier Waveforms</b>	Square	
	<b>Modulating Waveforms</b>	Sine, Square, Triangle, Up/Dn Ramp	
	<b>Modulating Frequency</b>	2mHz ~ 20kHz	
	<b>Deviation</b>	0% ~ 100.0% of pulse width	
<b>FSK</b>	<b>Carrier Waveforms</b>	Sine, Square, Triangle, Ramp, Pulse	
	<b>Modulating Waveforms</b>	50% duty cycle square	
	<b>Internal Rate</b>	2 mHz ~ 100 kHz	
	<b>Frequency Range</b>	DC ~ 80MHz	DC ~ 50MHz
<b>SWEEP</b>	<b>Waveforms</b>	Sine, Square, Triangle	
	<b>Type</b>	Linear or Logarithmic	
	<b>Start / Stop FREQ</b>	100uHz ~ 80 MHz	100uHz ~ 50MHz
	<b>Sweep Time</b>	1ms ~ 500s	
<b>BURST</b>	<b>Waveforms</b>	Sine, Square, Triangle, Ramp	
	<b>Frequency</b>	1uHz ~ 80MHz	1uHz ~ 50 MHz
	<b>Burst Count</b>	1 ~ 1 000 000 cycles or Infinite	
	<b>Start / Stop Phase</b>	-360.0 ~ +360.0°	
	<b>Internal Period</b>	1ms ~ 500s	
	<b>Trigger Delay</b>	N-Cycle, Infinite : 0s ~ 85s	
<b>MARKER OUTPUT</b>	<b>Type</b>	for ARB, Sweep	
	<b>Level</b>	TTL Compatible into 50Ω	
	<b>Fan-out</b>	≥ 4 TTL load	
<b>SYSTEM CHARACTERISTICS</b>	<b>Impedance</b>	50Ω typical	
	<b>Store/Recall</b>	10 Groups of Setting Memories	
	<b>Interface</b>	GPIB, RS-232, USB	
	<b>Display</b>	4.3 inch TFT LCD, 480 x 3 (RGB) x 272	
<b>POWER SOURCE</b>	AC100 ~ 240V, 50 ~ 60Hz		
<b>POWER CONSUMPTION</b>	65VA		
<b>DIMENSIONS &amp; WEIGHT</b>	265 (W) x 107 (H) x 374 (D) mm, Approx. 4kg		

Specifications subject to change without notice.

FG-3000GD1 BH

## ORDERING INFORMATION

AFG-3081 80MHz Arbitrary Function Generator  
AFG-3051 50MHz Arbitrary Function Generator

## ACCESSORIES

User Manual x 1, Power Cord x 1  
GTL-110 Test Lead x 1

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