



AFG-3000 Series

Arbitrary Function Generator

FEATURES

- Wide Frequency Range from μ Hz - 80/SOMHz
- μ Hz Frequency Resolution throughout Full Range
- Standard Waveform :Sine, Square, Triangle, Ramp, Pulse, Noise
- Built-In AM,FM, PWM, FSK, Sweep,Burst Functions
- 16bit,200MSa/sM-Point Deep Arbitrary Waveform
- DWR (Direct Waveform Reconstruction) Capability
- Arbitrary Waveform Editing PC Software
- 4.3" High Resolution LCD Display
- USB, RS-232, GPIB Standard Interfaces

 **Electronix
EXPRESS**
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SPECIFICATIONS		AFG-3081	AFG-3051
WAVEFORMS	Sine, Square, Ramp, Pulse, Noise, DC, Sin(x)/x, Exponential Rise, Exponential Fall, Negative Ramp		
ARBITRARY WAVEFORMS	Sample Rate Update Rate Resolution Amplitude Resolution	200 MSa/s 100MHz 1 M points 16 bits	
FREQUENCY CHARACTERISTICS	Range	80MHz	50MHz
	Bandwidth	1 MHz	
OUTPUT CHARACTERISTICS	Amplitude	Range 10 mVpp to 10 Vpp (into 50Ω) Accuracy ± 1% of setting ± 1 mVpp (at 1 kHz, >10 mVpp) Resolution 0.1 mV or 4 digits Units Vpp, Vrms, dBm, Range ± 5 Vpk ac + dc (into 50Ω) Accuracy 1% of setting + 2 mV + 0.5% of amplitude Protection Short-circuit protected; overload relay automatically disables main output Level TTL-compatible into 1kΩ	
	Offset		
SINEWAVE CHARACTERISTICS	Harmonic Distortion	60 dBc DC - 1 MHz, Amp < 3 Vpp 55 dBc DC - 1 MHz, Amp > 3 Vpp 45 dBc 1 MHz - 5 MHz, Amp > 3 Vpp 30 dBc 5 MHz - 80 MHz, Amp > 3 Vpp	
SQUARE WAVE CHARACTERISTICS	Rise/Fall Time Duty Cycle Overshoot Asymmetry	< 8 ns 20% - 80% < 5% 1% of period + 1 ns	
RAMP CHARACTERISTICS	Linearity Asymmetry	< 0.1% of peak output 0% - 100%	
PULSE CHARACTERISTICS	Period Pulse Width	20ns - 2000s 8ns - 1999.9s	
AM MODULATION	carrier waveforms Modulating Waveforms Modulating Frequency Depth	Sine, Square, Triangle, Ramp, Pulse, Arb Sine, Square, Triangle, Up/Dn Ramp 2mHz - 20kHz 0% - 120.0%	
FM MODULATION	carrier waveforms Modulating Waveforms Modulating Frequency Peak Deviation	Sine, Square, Triangle, Ramp Sine, Square, Triangle, Up/Dn Ramp 2mHz - 20kHz DC - 80MHz	DC - 50MHz
PWM	carrier waveforms Modulating Waveforms Modulating Frequency Deviation	Square Sine, Square, Triangle, Up/Dn Ramp 2mHz - 20kHz 0% - 100.0% of pulse width	
FSK	carrier waveforms Modulating Waveforms Mark Rate Frequency Range	Sine, Square, Triangle, Ramp, Pulse 50, 6 duty cycle square 2mHz - 100kHz DC - 80MHz	DC - 50MHz
SWEEP	Waveforms Start/Stop FREQ Sweep fine	Sine, Square, Triangle Linear or Logarithmic 100Hz - 80MHz 1ms - 500s	100Hz - 50MHz
BURST	Waveforms Frequency Burst Count Start/Stop Phase Mark Period Trigger Delay	Sine, Square, Triangle, Ramp 1uHz - 80MHz 1 - 1000000 cycles or Infinite .360.0 - +360.0° 1ms - 500s N-Cycle, Infinite: 0s - 85s	1uHz - 50MHz
MARKER OUTPUT	Level Impedance	for ARB, Sweep TTL Compatible into 50Ω 74 TTL load	
SYSTEM CHARACTERISTICS	Impedance Memory Recall Interface Display	50Ω typical 10 Groups of Setting Memories CPIB, RS-232, USB 4.3 inch TFT LCD, 480x 3 (RGB) x 272	
POWER SOURCE	AC 100 - 240V, 50 - 60Hz		
POWER CONSUMPTION	65VA		
DIMENSIONS & WEIGHT	265 (W) x 107 (H) x 374 (D) mm, Approx. 4kg		

Specifications subject to change without notice. FG.3000GD 1 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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