## **Data Sheet**

## **5 MHz Sweep Function Generator** Model 4012A



Model 4012A is a popular 5 MHz generator for general bench and lab use with an ideal mixture of features and sweep function at a compelling price.

## **Features & Benefits**

- 0.5 Hz to 5 MHz
- Sine, Square, Triangle, Pulse, and Ramp output
- Coarse and fine tuning knobs
- 4-digit LED display
- Linear and log sweep
- Variable duty cycle
- Variable DC offset
- $\blacksquare$  Variable 20 Vpp output into open circuit (10 Vpp into 50  $\Omega)$

Specifications	4012A
	4012A
Frequency Characteristics	Cina Causas Triangle   Dulas   Dann
Waveforms	Sine, Square, Triangle, ±Pulse, ±Ramp
Range	0.5 Hz to 5 MHz in 7 ranges
Resolution	4 digits
Tuning Range	10:1
Fine	±5% of coarse setting
Variable Duty Cycle	15:85:15 cont variable
Operating Modes	Normal, Sweep, VCG
Output Characteristics	
Impedance	50 Ω ±10%
Level	20 V p-p Open circuit, 10 V p-p into 50 $\Omega$
Amplitude	Variable, 20 dB range typical
Attenuation	$-20 \text{ dB} \pm 1 \text{dB}$
DC Offset	Preset: $\pm 0.1$ V typical Variable: $\pm 10$ V open-circuit $\pm 5$ into $50$ $\Omega$
Sine Wave	
Distortion	<3% typical at 1 kHz
Flatness (Into 50 Ω)	±5% ±(.45 dB) 0.5 Hz to 5 MHz
Square Wave	
Symmetry	0.1 Hz to 100 kHz < 2%
Rise time (Into 50 Ω)	≤ 120 nS
Triangle Wave	
Linearity	≥ 98% to 100 kHz
TTL Output	
Level	0.8 V to 2.4 V
Rise time	≤ 20 nS
Duty Cycle	50% typical
CMOS Output	33% 34.55
Max. Frequency	2 MHz
Level	4 V to 14 V ±0.5 V p-p continuously variable
Rise Time	≤ 120 nS (Open circuit)
VCG (Voltage controlled ger	•
Input Voltage	0-10 V ±1 V causes a 100:1 frequency change
Impedance	10 kΩ ±5%
Sweep Operation	10 122 = 370
Mode	LIN/LOG
Width	100:1 continuously variable
Rate	0.5 s to 30 s continuously variable
Frequency Counter	0.5 3 to 50 3 continuously variable
Accuracy	Time base accuracy ±1 count
Time Base Accuracy	±10 ppm (23 °C ± 5 °C)
Display	4 digit LED
General	7 tight LLD
AC Input	$120/230 \text{ VAC} \pm 10\%$ , 50/60 Hz, internal jumper selectable
Dimensions (W x H x D)	10.5" x 4.5" x 12.25" (266.7 x 114.3 x 311.15 mm)
	4 lbs (1.8 kg)
Weight	
	Two-Year Warrant
Included Accessories	Instruction manual, output cable (BNC to alligator clips)

