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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# 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
- Variable 20 Vpp output into open circuit (10 Vpp into 50 Ω)

Specifications	4012A
<b>Frequency Characteristics</b>	
Waveforms	Sine, Square, Triangle, $\pm$ Pulse, $\pm$ Ramp
Range	0.5 Hz to 5 MHz in 7 ranges
Resolution	4 digits
Tuning Range	10:1
Fine	$\pm 5\%$ of coarse setting
Variable Duty Cycle	15:85:15 cont variable
Operating Modes	Normal, Sweep, VCG
<b>Output Characteristics</b>	
Impedance	50 $\Omega$ $\pm 10\%$
Level	20 V p-p Open circuit, 10 V p-p into 50 $\Omega$
Amplitude	Variable, 20 dB range typical
Attenuation	-20 dB $\pm 1$ dB
DC Offset	Preset: $\pm 0.1$ V typical Variable: $\pm 10$ V open-circuit $\pm 5$ into 50 $\Omega$
<b>Sine Wave</b>	
Distortion	<3% typical at 1 kHz
Flatness (Into 50 $\Omega$ )	$\pm 5\%$ ( $\pm 0.45$ dB) 0.5 Hz to 5 MHz
<b>Square Wave</b>	
Symmetry	0.1 Hz to 100 kHz <2%
Rise time (Into 50 $\Omega$ )	$\leq 120$ nS
<b>Triangle Wave</b>	
Linearity	$\geq 98\%$ to 100 kHz
<b>TTL Output</b>	
Level	0.8 V to 2.4 V
Rise time	$\leq 20$ nS
Duty Cycle	50% typical
<b>CMOS Output</b>	
Max. Frequency	2 MHz
Level	4 V to 14 V $\pm 0.5$ V p-p continuously variable
Rise Time	$\leq 120$ nS (Open circuit)
<b>VCG (Voltage controlled generator)</b>	
Input Voltage	0-10 V $\pm 1$ V causes a 100:1 frequency change
Impedance	10 k $\Omega$ $\pm 5\%$
<b>Sweep Operation</b>	
Mode	LIN/LOG
Width	100:1 continuously variable
Rate	0.5 s to 30 s continuously variable
<b>Frequency Counter</b>	
Accuracy	Time base accuracy $\pm 1$ count
Time Base Accuracy	$\pm 10$ ppm (23 $^{\circ}$ C $\pm 5$ $^{\circ}$ C)
Display	4 digit LED
<b>General</b>	
AC Input	120/230 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)
Weight	4 lbs (1.8 kg)
<b>Two-Year Warranty</b>	
Included Accessories	Instruction manual, output cable (BNC to alligator clips)