Data sheet

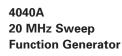
Function Generators Models 4017A & 4040A



These analog function generators offer familiar controls, stable output, and reliable operation at budget-saving price points.

4017A 10 MHz Sweep Function Generator

- 0.1 Hz to 10 MHz
- Sine, Souare, Triangle,
 Pulse, & Ramp output
- Coarse and Fine tuning
- **5** digit LED display
- Linear and log sweep
- Variable duty cycle
- Variable DC offset
- cUL certified



- 0.2 Hz to 20 MHz
- Sine, Square, Triangle,
 Pulse, & Ramp output
- Coarse and Fine tuning
- AM & FM modulation
- Burst operation
- External frequency
- counter to 30 MHz Linear and log sweep
- Variable duty cycle
- Variable DC offset
- cUL certified

Model 4040A

AM Modulation Characteristics			
Internal, External			
0 to 100%			
I kHz			
DC to 500 kHz			
Less than 10V p-p for 100% modulation			
FM Modulation Characteristics			
Internal, External			
0 to 100%			
0 to 5%			
I kHz			
DC to 500 kHz			
Less than 10V p-p for 100% modulation			
Burst Characteristic			
Internal, External			
Cont. variable from 5% to 90% of internal gating frequency			
0.5 Hz to 50 Hz, internal			
DC to 500 kHz external			
TTL levels			
Determined by main generator frequency setting			

Specifications	4017A	4040A	
Frequency Charact	eristics		
Waveforms Sine, Square, Triangle, ±Pulse, ±Ramp			
Range	0.1 Hz to 10 MHz in 8 ranges	0.2 Hz to 20 MHz in 8 ranges	
Resolution	5 digits	5 digits	
Tuning Range	10:1	10:1	
Fine	±5% of coarse setting	±5% of coarse setting	
-	15:85:15 cont variable	15:85:15 cont variable	
Variable Duty Cycle			
Operating Modes	Normal, sweep, VCG	Normal,sweep, VCG, AM, FM,burst	
Output Characteristics			
Impedance	$50\Omega \pm 10\%$		
Level	20 V p-p Open circuit, 10V p-p into 50Ω		
Amplitude	Variable, 20 dB range typical		
Attenuation	-20 dB ± 1dB		
DC Offset	Preset ± 0.1 V typ Variable: ± 10 V open-circuit ± 5 into 50Ω		
Sine Wave			
Distortion	≤ 3% typic	al at 1 kHz	
Flatness	±5% (.45 dB) 0.1 Hz to 8 MHz ±20% (2.0 dB) 8 MHz to 10 MHz	±5% (.45 dB) 10 Hz to 8 MHz ±20% (2.0 dB) 8 MHz to 20 MHz	
Square wave			
Symmetry	0.1 Hz to 100 kHz <2%	0.2 Hz to 100 kHz <2%	
Rise time	≤ 3	0 ns	
Triangle Wave	Linearity: \geq 98% to 100 kHz		
TTL Output	I		
Level	0.8V to 2.4V		
Rise time	≤ 20 nS		
Duty Cycle	50% typical		
CMOS Output			
Max. Frequency	2 N	ЛНz	
Level	$4V$ to $14V \pm 0.5$ p-p cont. variable		
Rise Time	≤ 120 nS		
VCG (Voltage cont	rolled generator)		
Input Voltage	$0.10V \pm 1V$ causes a 100:1 frequency change		
Impedance	$10k\Omega \pm 5\%$		
Sweep Operation	0/2 ≟ 2/0 		
Mode	LIN/LOG		
Width	100:1 continuously variable		
		20 ms to 2 s cont variable	
Rate	0.5 s to 30 s cont variable		
Sweep Output	0 to 10 V	0 to 2 V	
Start/Stop Frequencies	NA	Adjustable	
Frequency Counter			
Accuracy	Time base accuracy ± 1 count		
Time Base Accuracy	±10 ppm (23° ±5°C)		
Display	5 digit LED		
Mode	NA	INT or EXT	
External Input			
Frequency	Does not apply	5 Hz to 30 MHz	
Resolution	Does not apply	0.1, 1, 10, 100, 1 kHz	
Sensitivity	Does not apply	25 mVrms	
General	·		
AC Input	120/230 VAC ±10%, 50/60	Hz, internal jumper selectable	
Dimensions	4.5 x 11.75 x 10.575" (140 x 298 x 264mm)	5.5 x 11.75 x 10.575" (114 x 298 x 264mm)	
Moi -l-+			
Weight	4 lbs. (1.8 kg)	4.5 lbs. (2 kg)	
		Two-Year Warranty	
Included Accessories	Output Cable with BNC to Alligator Clips, Instruction Manual Carrying Case (not included): LC-40		



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