

FUNCTION GENERATORS

NEW 20 MHz Sweep/Function Generator with Frequency Counter



- 0.2 Hz to 20 MHz
- AM & FM modulation
- Burst Operation
- External frequency counter to 30 MHz
- 5 digit LED display
- All features of Model 4017

Model 4040

SPECIFICATIONS

FREQUENCY CHARACTERISTICS

Waveforms: Sine, Square, Triangle, \pm Pulse, \pm Ramp
Range: 0.2 Hz to 20 MHz in 8 ranges
Resolution: 5 digits
Tuning Range: Coarse: 10:1, Fine \pm 10% of Coarse Setting
Temperature Stability: .06%/°C
Variable Duty Cycle: 15:85:15 Continuously Variable
Operating Modes: Normal, Sweep, VCG, AM, FM, Burst

OUTPUT CHARACTERISTIC

Impedance: 50 Ω \pm 10%
Level: 20 V p-p Open circuit, 10V p-p into 50 Ω
Amplitude: Variable, 20 dB range typical
Attenuation: -20 dB \pm 1 dB
DC Offset: Preset: \pm 0.1 V typical
variable: \pm 10V open-circuit, \pm 5V into 50 Ω

SINE WAVE

Distortion: 0.2 Hz to 100 KHz: \leq 1%
>100KHz: Harmonics >30 dB below fundamental
Flatness: \leq 5% (.35 dB)

SQUARE WAVE

Symmetry: 0.2 Hz to 20 MHz \leq 2%
Rise Time: \leq 50 nS

TRIANGLE WAVE

Linearity: \geq 98% to 100 KHz

TTL OUTPUT

Level: .8V to 2.4V
Rise Time: \leq 20 nS

CMOS OUTPUT

Max Frequency: 4 MHz
Level: 4V p-p to 14.5 p-p, Continuously variable
Rise Time: \leq 120 nS

VCG (Voltage Controlled Generator) INPUT

Input Voltage: 0-10V \pm 1V causes a 100:1 frequency change
Impedance: 10K \pm 5%

SWEEP OPERATION

Mode: LIN/LOG
Width: 100:1, Continuously variable
Rate: .5 sec tp 30 sec, continuously variable
Sweep Output: 0 to 2V
Start/Stop Frequencies: Adjustable

AM MODULATION CHARACTERISTICS

Source: Internal, External
Modulation Ratio: 0 to 100%
Int Modulation: 1 KHz
Ext Modulation: DC to 20 KHz
Ext Sensitivity: Less than 10V for 100% modulation

BURST CHARACTERISTICS

Source: Internal, External
Burst Width: Continuously variable from 5% to 90% of internal gating frequency
Repetition Rate: 0.5 Hz to 50 Hz, internal
DC to 500 KHz external
External Level: TTL levels
Burst Frequency: Determined by the main generator frequency setting.
Tone burst is in integral cycles of frequency being gated.

FREQUENCY COUNTER

Accuracy: Time Base Accuracy \pm 1 count
Time Base Accuracy: \pm 10 PPM (23°C +5°C)
Display: 5 digit LED
Mode: INT

EXTERNAL INPUT:

Frequency: 5 Hz to 30 MHz
Resolution: 0.1, 1, 10, 100 Hz
Sensitivity: \leq 20 mV rms
Impedance: 1M Ω / 100pF

POWER SOURCE

120 / 230 VAC \pm 10%, 50 / 60 Hz, internal jumper selectable
Dimensions: (HxWxD) 3-3/8 x 10-3/8 x 11-7/16"
(86 x 264 x 291mm)
Weight: 4.5 LB. (2 kg)