

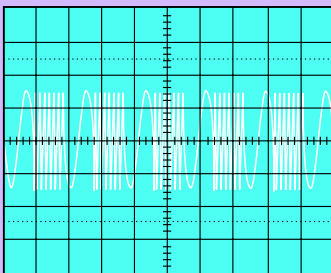
3 MHz Function Generators SM5070 & SM5071



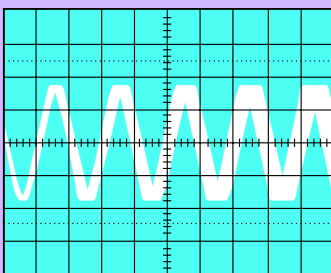
SM5070



SM5071



FM



Sweep Mode (FM)

- 0.3 Hz to 3 MHz Function Generators with sine , square, triangle, TTL & DC
- DC Offset adjustment
- Square wave Rise time better than 40 ns
- Microprocessor based design
- High signal purity and constant amplitude flatness throughout the entire range
- Internal and External Frequency Modulation
- 5 digit , Auto ranging 15 MHz Frequency Counter (SM5071)
- 50 mV_{rms} sensitivity for stable display for external signal frequency
- Backlit LCD display for modes and frequency

An ideal test bench for lab use and service...

3 MHz Function Generators SM5070 & SM5071

Technical Specifications

Function Generator

Operating Modes : Sine, Square, Triangle, DC, Free running, internal sweep or external frequency modulation, with or without DC offset, with mode and frequency display.

Frequency Counter (SM5071) : External, Auto ranging

Function Generator :

Frequency Range : 0.3 Hz to 3 MHz

Frequency Stability : < 0.5% / hr or 0.8% / 24 hr at constant ambient temperature (medium position of frequency control)

Waveform Characteristics

Sine wave Distortion : 0.3 Hz - 100 kHz : max. 0.5 %
0.1 MHz-0.3 MHz : max. 1.5%
0.3 MHz - 3 MHz : max. 3%

Square Wave Rise time : typ. <40 ns

Overshoot : < 5%

Triangular non-linearity : <1% (up to 100 kHz)

Trigger Output : Square Wave synchronous to signal output, TTL > 4 Vpp

Frequency Display Accuracy : Up to 3 Hz : $\pm (1\% + 3 D)$
3 Hz - 3 MHz : $\pm (5 \times 10^{-5} + 1D)$

Output : (short-circuit-proof)

Output Voltage : 10 Vpp into 50 Ω , max. 20 Vpp open circuit

Attenuation : max. 60 dB, 2 steps : 20 dB \pm 0.2 dB each
Variable : 0 to 20 dB

Amplitude Flatness : (sine/triangle)

0.3 Hz - 0.3 MHz : max. 0.2 dB

0.3 MHz - 3 MHz : max. 0.5 dB

Output Impedance : switchable 50 Ω / 600 Ω

DC Offset : Variable offset range : max. \pm 2.5 V into 50 Ω ,
max. \pm 5 V open circuit

Frequency Modulation :

FM Input : VCF BNC connector on rear panel

Frequency Change : 1 : 100 approx.

Input Impedance : 50 k Ω || 25 pF

Input Voltage : \pm 30 V max.

FM Internal (Sweep) :

Sweep Speed : 20 ms to 4s ;

Sweep Range : approx. 1 : 100

Frequency Counter (SM5071)

Frequency Range : 10 Hz to 15 MHz

Accuracy : $\pm (5 \times 10^{-5} + 1D)$

Input Sensitivity : 50 mV_{rms} to 100 mV_{rms}

Max. Input Voltage : 150 V_{rms}

Input Impedance : 1 M Ω || 50 pF

General Information

Display : Backlit LCD , with function , frequency value display , 4 digit for Function Generator and 5 digit for Frequency Counter(SM5071).

Supply : 230 V \pm 10%, 50 Hz (100/120/220/240 V available on request)

Power Consumption : 22 VA approx.

Operating Conditions : 0 to 50 °C, RH 95%

Dimensions : W:205, H:95, D:292 (mm)

Weight : 2 kg (approx.)

Accessories

Manual : 1 no. BNC - BNC : 1 no. Line Chord : 1 no.

Optional : 50 Ω Termination SA51, BNC-Banana Cable

(subject to change)

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