

10 MHz Function Generator HM8030-6

HM8030-6



Option H0801



Mainframe HM8001-2
required for operation



- ☑ Frequency range 50mHz...10MHz,
output voltage up to 10V_{pp} (into 50Ω)
- ☑ Waveforms: sine wave, triangle, square wave, pulse, DC
- ☑ Distortion factor < 0.5% up to 1 MHz, rise and fall time typ. 15ns
- ☑ Internal and external sweep, FM (with H0801)
- ☑ Surge- and short-circuit-proof output

10 MHz Function Generator HM8030-6

All data valid at 23 °C after 30 minute warm-up

Operating modes

Sine, square, triangle, pulse; free running, internal sweep or external frequency modulation, with or without DC offset

Frequency ranges

0.05 Hz...10 MHz in 8 ranges, variable: $\times 0.09$ to $\times 1.1$ (12:1)

Frequency drift: $< 0.5\% / \text{hr}$ or $0.8\% / 24 \text{ hrs.}$ at constant ambient temperature

Waveform characteristics

Sine wave distortion

0.05 Hz...1 MHz: max. 0.5 %

1 MHz...10 MHz: max. 5 %

Square wave rise time: typ. 15 ns

Overshoot: $< 5\%$ (for termination into 50 Ω)

Triangle non-linearity: $< 1\%$ (to 100 kHz)

Displays

Frequency: 5-digit, 7-segment LED, each 8 x 5 mm

Accuracy:

up to 5 Hz: $\pm (3\% + 3 \text{ digits})$

5 Hz...10 MHz: $\pm (5 \times 10^{-5} + 1 \text{ digit})$

LED indicators for mHz, Hz, kHz and s

Outputs

Signal output: short-circuit proof, protected against ext. voltage up to $\pm 45 V_{DC}$ max. (30 s)

Impedance: 50 Ω

Output voltage: 10 V_{pp} into 50 Ω load; 20 V_{pp} (open circuit)

Attenuation: max. 60 dB

2 attenuators: each 20 dB ± 0.2 dB

Variable: 0...20 dB

Amplitude error: (sine wave/triangle)

0.5 Hz...0.5 MHz: max. 0.2 dB

5 Hz...10 MHz: max. 0.5 dB

DC offset: variable (on/off, except pulse function)

into 50 Ω load: max. $\pm 2.5 V$

in open circuit: max. $\pm 5 V$

Trigger output: square wave synchronous to approx. +5V/TTL

FM input

(VCF, BNC connector on rear panel of HM8001-2 and option H0801)

Frequency deviation: approx. 1:100

Input impedance: 6 k Ω || 25 pF

Input voltage: max. $\pm 30 V$

Internal sweep

Sweep speed: 20 ms...15 s

Sweep range: approx. 1:100

Miscellaneous

Power supply +5 V/200 mA

(from mainframe): +16 V/300 mA

-16 V/250 mA

($\Sigma = 9.8 W$).

Operating temperature: +5°C...+40°C

Storage temperature: -20°C...+70°C

Max. rel. humidity: 5%...80% (non condensing)

Dimensions (W x H x D) (without 22-pole flat plug):

135 x 68 x 228 mm

Weight: approx. 0.8 kg

Accessories supplied: Operator's Manual

Optional accessories:

HZ33/HZ34 Test Cable 50 Ω (BNC-BNC)

HZ22 50 Ω feed-through terminal

HZ10S/R Silicone test lead

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