HAMEG Instruments

10MHz Function Generator
HM8030-6

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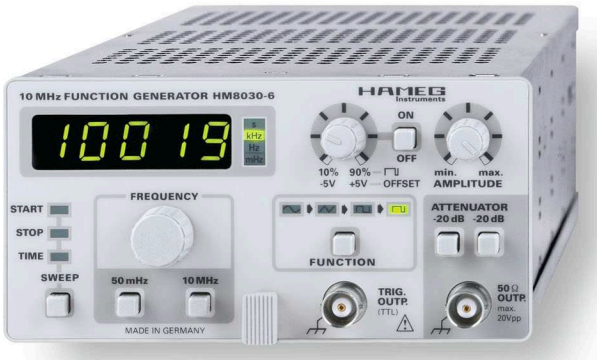

Option HO801

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 1MHz, rise and fall time typ. 15ns
- ☑ Internal and external sweep, FM (with HO801)
- ☑ Surge- and short-circuit-proof output

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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: x 0.09 to x 1.1 (12:1)

Frequency drift:	‹ 0.5 % / hr or 0.8 %/24 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:	± (3 % + 3 digits)
5 Hz...10 MHz:	± (5 x 10^{-5} + 1 digit)

LED indicators for mHz, Hz, kHz and s

Outputs

Signal output:	short-circuit proof,
protected against ext. voltage	up to ± 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. ±2.5 V
in open circuit:	max. ±5 V
Trigger output:	square wave synchronous to approx. +5V/TTL

FM input

(VCF, BNC connector on rear panel of HM8001-2 and option HO801)

Frequency deviation:	approx. 1:100
Input impedance:	6 kΩ II 25 pF
Input voltage:	max. ± 30 V

Internal sweep

Sweep speed:	20 ms...15 s
Sweep range:	approx. 1:100

Miscellaneous

Power supply (from mainframe):	+ 5 V/200 mA + 16 V/300 mA - 16 V/250 mA (∑= 9.8 W).
Operating temperature:	+5°C...+40°C
Storage temperature:	-20°C...+70°C
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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