

HM8030-6

Function Generator

Technical Data



Key facts

- Frequency range 50 mHz ... 10 MHz,
- Output voltage up to 10 Vpp (into 50 Ω)
- Waveforms: sine, triangle, square wave, puls, DC
- Distortion factor <0.5% up to 1 MHz, rise and fall time typ. 15 ns
- Internal and external sweep, FM (with HO801)
- Surge- and short-circuit-proof output
- Mainframe HM8001-2 required for operation

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All Data valid at 23 °C after 30 min. warm-up period.

Operating Modes

Sine - Square - Triangle - DC - Pulse free running, internal sweep, or external frequency modulation, with or without DC Offset

Frequency

Total Range:	0,05Hz ... 10MHz (8 Decade Steps)
Variable Frequency Adjustment:	x0,09 to x1,1 (12:1)
Frequency Stability:	<0,5%/h or 0,8%/24h at constant ambient temperature (medium frequency control position)

Waveform Characteristics

Sine Wave Distortion	
0,05 Hz to 1 MHz:	max. 0,5%
1 MHz to 10 MHz:	max. 5%
Square Wave Risettime:	typ. 15ns
Overshoot: (when output is terminated with 50 Ω)	<5%
Triangle Non-Linearity:	< 1% (to 100 kHz)

Display

Frequency:	5 digit, 7 segment LED; 8 x 5mm each
Accuracy:	
up to 5Hz:	±(3% + 3 Digit)
5Hz to 10MHz:	±(5x10 ⁻⁵ + 1 Digit)
LED-Indicator for:	mHz, Hz, kHz und s

Outputs

Signal Output:	short-circuit proof
Impedance:	50 Ω
Output Voltage	
into 50Ω:	10Vpp
open circuit:	20Vpp
Pulse Output Voltage	
into 50Ω:	5Vpp
open circuit:	10Vpp
Attenuation:	max. 60 dB
2 steps:	20 dB ±0,2 dB each
Variable:	0 to 20 dB
Amplitude Flatness: (sine/triangle)	
0.05 Hz to 0.5 MHz:	max. 0.2 dB
0.5 MHz to 10 MHz:	max. 2.0 dB
DC-Offset: variable (on/off, except impulse function)	
Offset range into 50 Ω:	max. ±2.5V
Offset-Bereich open circuit:	max. ±5V
Trigger Output:	
square wave synchronous to output of approx.	+5V/TTL

FM input

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

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

Internal Sweep

Sweep speed:	20ms to 15s
Sweep range:	ca. 1 : 100

General Information

Operating temperature:	+5°C ... +40°C
Storage temperature:	-20°C ... +70°C
Max. relative humidity:	5% ... 80% (without condensation)
Supply (from HM8001-2):	+5V/200mA
	+16V/300mA
	-16V/250mA
	(Σ = 9,8 W)
Dimensions (without 22-pin flat connector):	
W x H x D:	135 x 68 x 228 mm
Weight:	approx. 0,80 kg

Included in delivery:

Function generator HM8030-6, Operating manual

Optional Accessories:

BNC test cable HZ33/HZ34
50 Ω Through termination HZ22
Silicone Test lead HZ10 S/R