

# 10 MHz Function Generator HM8030-6



Option H0801



HZ33, HZ34  
Test cable BNC/BNC



HZ20 Connector  
BNC to 4 mm socket



Frequency range 50 mHz to 10 MHz

High signal purity and amplitude stability

Distortion factor < 0.5 % up to 1 MHz

Output voltage 20 V<sub>pp</sub> (10 V<sub>pp</sub> into 50 Ω)

Surge- and short-circuit-proof output

Rise and fall time typ. 15 ns

Internal and external sweep

Pulse width adjustment

Highly accurate digital frequency display

Mainframe HM8001-2 required for operation

## 10 MHz Function Generator HM8030-6

Valid at 23 °C after a 30 minute warm-up period

### Operating modes

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

### Frequency ranges

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

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

### Waveform characteristics

#### Sine wave distortion

0.05 Hz to 1 MHz: max. 0.5 %

1 MHz to 10 MHz: max. 5 %

**Square wave rise time:** typ. 15 ns

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

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

### Displays

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

#### Accuracy:

up to 5 Hz:  $\pm (1\% + 3 \text{ digits})$

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

LED indicators for mHz, Hz, kHz and sec

### Outputs

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

**Impedance:** 50  $\Omega$

**Output voltage:** 10  $V_{pp}$  into 50  $\Omega$  load; 20  $V_{pp}$  (open circuit)

**Attenuation:** max. 60 dB

**2 attenuators:** each 20 dB  $\pm 0.2$  dB

**Variable:** 0 to 20 dB

**Amplitude error:** (sine wave/triangle)

0.05 Hz to 0.5 MHz: max. 0.2 dB

5 Hz to 10 MHz: max. 0.5 dB

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

into 50  $\Omega$  load: max.  $\pm 2.5$  V

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

**Trigger output:** square wave synchronous to signal output, 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 k $\Omega$  || 25 pF

**Input voltage:** max.  $\pm 30$  V

### Internal sweep

**Sweep speed:** 20 ms to 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:** +10° C to +40° C

**Max. relative humidity:** 80 % (without condensation)

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

135 x 68 x 228 mm

**Weight:** approx. 0.80 kg

**Accessories supplied:** Operator's Manual

#### Optional accessories:

HZ33/HZ34 Test Cable 50  $\Omega$  (BNC-BNC)

HZ22 50  $\Omega$  feed-through terminal

HZ10S/R Silicone test lead

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