

20 MHz Pulse Generator HM 8035



Frequency range 2 Hz to 20 MHz

Mainframe HM8001-2



Pulse duration 20 ns to 200 ms with a duty factor of up to 99.9999 %

2 separate outputs (positive/negative)

Single pulse triggering

HZ33, HZ34
Test cable BNC/BNC



Rise time < 3 ns

Output voltage 0.8 - 5 V_{pp} into 50 Ω

Mainframe HM8001-2 or HM8003 required for operation

HZ24 Attenuators



20 MHz Pulse Generator HM8035

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

Operating modes

Internal, external and manual triggering

Frequency range

2 Hz to 20 MHz, 7 ranges, variable control (> 10:1)

Symmetrical square wave:

Duty cycle:

up to 2 MHz:	50 % ± 10 ns
2 MHz to 20 MHz:	50 % ± (5% + 10 ns)
Jitter:	≤ ± 0.1 %

Pulse:

7 ranges variable control (> 10:1)

Pulse duration: 20 ns to 200 ms

Jitter: ≤ ± 0.1 %

Single pulse:

triggered by key

Pulse duration: ≤ 20 ns to ≥ 200 ms

Pulse characteristics

Rise/fall time: ≤ 3 ns + (0.04 ns/°C);
 $V_p \leq 4V$, 10-90 %

Overshoot: ≤ 5 % of pulse amplitude

Ringing: ≤ ± 5 % of pulse amplitude
(10 ns after pulse edge; 2 Hz – 2 MHz)

Preshoot: ≤ ± 5 % of pulse amplitude

Dual outputs (short-circuit proof)

+ Amplitude: max. + 5V_p into 50 Ω load against ground
variable from +2V_p to +5V_p

- Amplitude: max. - 5V_p into 50 Ω load against ground
variable from -2V_p to -5V_p

Attenuation: 1:2.5 (-8 dB)
(variable from ±0.8V_p to ±5V_p)

Source impedance: 50 Ω (both outputs)

External trigger input

Pulse sequence frequency: 0 to 20 MHz

Pulse duration: 20 ns min.

Trigger delay: approx. 20 ns
Trigger level: square wave + 1V_p, TTL-compatible
sine wave 1V_p
Max. input voltage: ± 30V

Trigger output (short-circuit proof)

Amplitude: 0/+1.9V_p into 50 Ω load, 0/κ+4V_p open
circuit, TTL-compatible

Rise/fall time: approx. 10 ns

Aberration: approx. ± 10% of pulse amplitude

Duty cycle: identical to non-inverted signal

Delay: approx. 10 ns fixed, leading

Miscellaneous

Power supply (from mainframe): +5V/250 mA
+20V/260 mA
-20V/270 mA
(Σ=11.9 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: HZ33/34 BNC Test Cable; HZ22 50 Ω feed-through
termination; HZ10 Silicone test leads

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