Pletronics, Inc.
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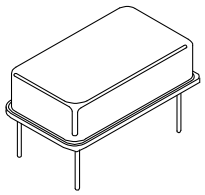
Manufacturer of High Quality Frequency Control Products



PE1145M PECL Series

- 4 Lead Thru-Hole Metal Clock Oscillator
- Differential PECL Output without Enable/ Disable Function

10.00 MHz – 170.00 MHz

See PE1145T for higher frequencies

Standard Specifications

Overall Frequency Stability	± 50 PPM, ± 25 PPM, ± 20 PPM over Operating Temperature Range	
Operating Temperature Range	0 to +80°C is standard, but can be extended to −40 to +85°C for certain frequencies	
Supply Voltage (Vcc)	3.3 volts ± 10% standard, but 5.0 volts or 2.5 volts also available	
Supply Current (Icc)	60 to 70 mA typical, 90 mA maximum for ≥70 MHz. For < 70 MHz, consult factory	
Jitter	1 pS RMS maximum, from 12 kHz to 20 MHz from carrier for ≥ 70 MHz. For < 70 MHz, consult factory	
Output Load	Output must be terminated into 50 ohms to (Vcc - 2.0 V). See Test Circuit 5 and Note 1.	
Output Waveform PECL with Differential Output (see Waveform 2)	Symmetry	45/55% to 55/45% at 50% of Vcc level standard, tighter symmetry available
	Tr & Tf	1.0 nS max (20 to 80%) for ≥70 MHz. For < 70 MHz, consult factory
	Logic "1"	Vcc - 1.025 volts minimum
	Logic "0"	Vcc - 1.620 volts maximum

Note 1:
In the typical PECL 100K logic output Voh is 2.35 volts and Vol is 1.60 volts at 3.3 Vcc. The center voltage of the PECL is therefore1.975 volts. If a 50 ohm resistor is placed between the output and Vcc – 2 volts (1.3 volts), the current through the resistor is (1.975 – 1.3) / 50 = 13.5 mA. The same load can be simulated by a resistor of 147 ± 1% ohms to ground (1.975 / 0.0135 = 146.29 ohms). If additional load current is placed on the output, its load current must be subtracted from the 13.5 mA to calculate a new load resistor. Using similar calculations, use 274 ± 1% ohms to ground for 5.0V operation.

Part Numbering Guide

Packaging
Tube

PE11 45 M Y -- 70.0M

Model

Frequency in MHz

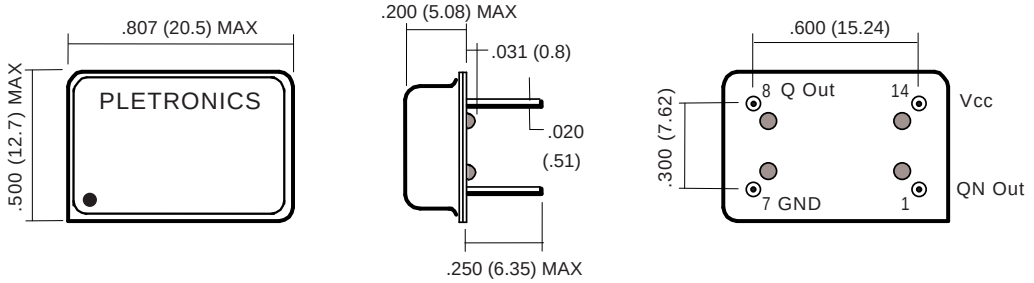
Frequency Stability
45 = ± 50 PPM
44 = ± 25 PPM
20 = ± 20 PPM

Special Specifications (choose all that apply)
E: Extended Operating Temperature Range (- 40 to +85°C)
F: 47.5 /52.5% Symmetry at 50% of Vcc
V: Supply Voltage of 3.3 volts ± 10%
W: Supply Voltage of 2.5 volts ± 5%
Y: Supply Voltage of 5.0 volts ± 10%

Consult factory for available frequencies and specs. Not all options available for all frequencies. A special part number may be assigned.
Frequency Stability is inclusive of frequency shifts due to calibration, temperature, supply voltage, shock, vibration and load

Mechanical: inches (mm) not to scale

Due to part size and factory abilities, part marking may vary from lot to lot and may contain our part number or an internal code.



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