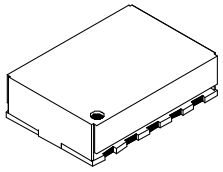
Pletronics, Inc.
19013 36th Ave. W, Suite H • Lynnwood, WA 98036 USA
Manufacturer of High Quality Frequency Control Products

PE2245B PECL Series



- 10 Pad Leadless Surface Mount Clock Oscillator, see PE1145B for 6 Pad
- Differential PECL Output with or without Enable/ Disable Function
- All Connor-Winfield EE94-5XX Pinouts Available

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.
Enable/Disable Option (E/D) (as applicable)	Output enabled when E/D Pin is open or at CMOS Logic "1"; Output disabled when E/D Pin is at CMOS Logic "0".
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

Portions of the part number that appear after the frequency may not be marked on part (C of C provided)

PE22 45 B Y - 70.0M - XXX (Internal Code or blank)

Packaging
Tray or
24mm tape,
16mm pitch

Model
(Pinout Option)
PE20 PE23
PE21 PE24
PE22

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

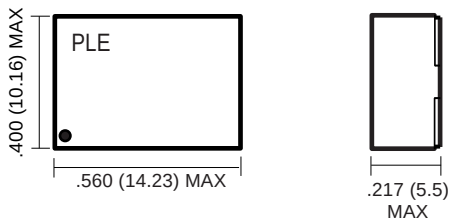
Frequency in MHz

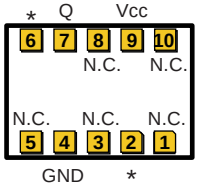
Special Specifications (choose all that apply)
E: Extended Operating Temperature Range (- 40 to +85°C)
F: 47.5 /52.5% Symmetry at 50% of Vcc
V: Supply Voltage of 3.3 volts ± 10%
W: Supply Voltage of 2.5 volts ± 5%
Y: Supply Voltage of 5.0 volts ± 10%

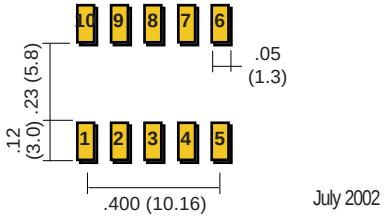
Consult factory for available frequencies and specs. Not all options available for all frequencies. A special part number may be assigned.
Frequency Stability is inclusive of frequency shifts due to calibration, temperature, supply voltage, shock, vibration and load

Mechanical: inches (mm) not to scale Solder Pads

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.







PE2245B Series Pinout Options
Connor-Winfield EE94-5XX Equivalents

C-W Option	'0'	'1'	'2'	'3'	'4'
* Pin	PE20	PE21	PE22	PE23	PE24
2	N.C.	N.C.	E/D	QN	E/D
6	N.C.	QN	N.C.	N.C.	QN

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For Best Performance,
Do NOT allow any traces other than ground under oscillators (Even in buried layers)

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