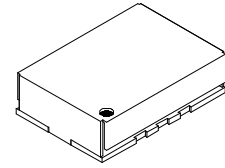




# Pletronics, Inc.

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



## PE1145B PECL Series

- 4 Pad Leadless Surface Mount Clock Oscillator
- Differential PECL Output with Enable/ Disable Function

**10.00 MHz – 170.00 MHz**  
See PE1145T for higher frequencies

### Standard Specifications

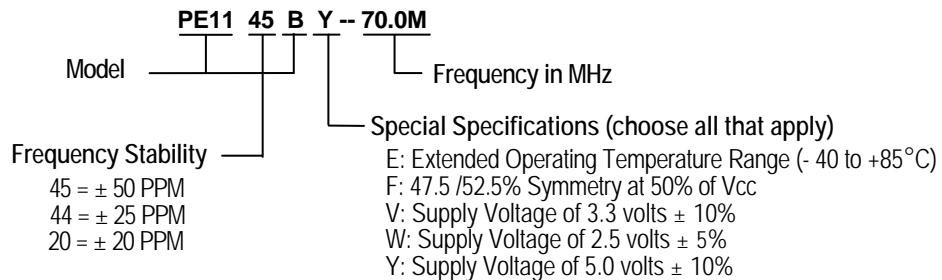
Overall Frequency Stability	± 50 PPM, ± 25 PPM, ± 20 PPM over Operating Temperature Range
Operating Temperature Range	0 to +80°C is standard, but can be extended to -40 to +85°C for certain frequencies
Supply Voltage (Vcc)	3.3 volts ± 10% standard, but 5.0 volts or 2.5 volts also available
Supply Current (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.
Enable/Disable Option (E/D)	Output enabled when Pin 2 is open or at CMOS Logic "1"; Output disabled when Pin 2 is at CMOS Logic "0".
Output Waveform	Symmetry 45/55% to 55/45% at 50% of Vcc level standard, tighter symmetry available
PECL with Differential Output (see Waveform 2)	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 therefore 1.975 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

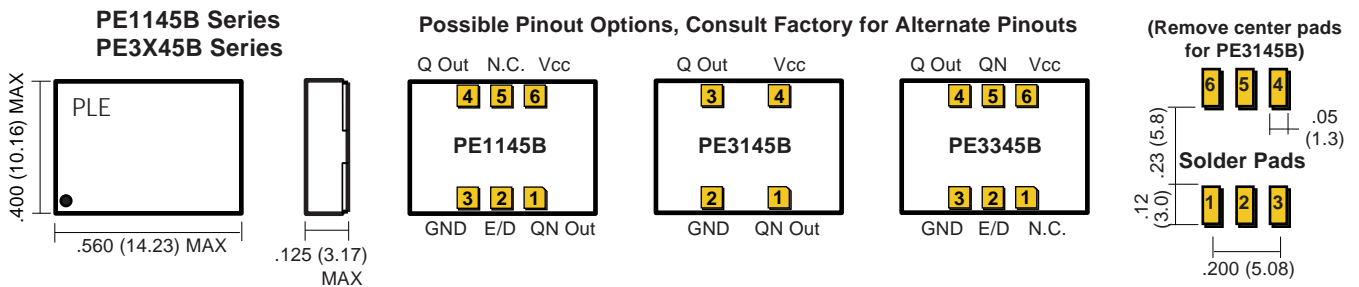
Packaging  
Tray or  
24mm tape,  
16mm pitch



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.



May 2002