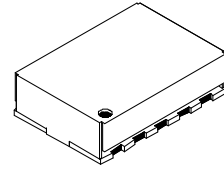




# Pletronics, Inc.

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

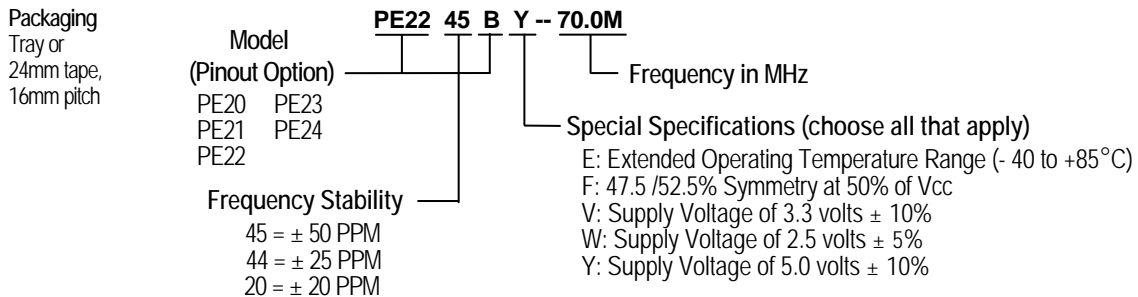
### Standard Specifications

|  |   |
|--|---|
| 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";<br>Output disabled when E/D Pin 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<br>Logic "1" Vcc - 1.025 volts minimum<br>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.

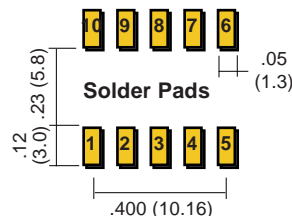
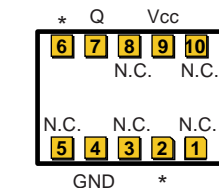
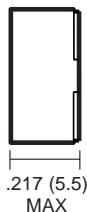
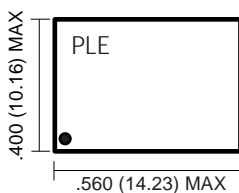
### Part Numbering Guide



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.



**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   |
|            | 6    | N.C. | QN   | N.C. | N.C. |

May 2002