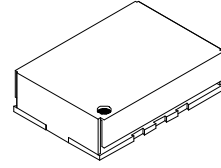




# PEV PECL VCXO Series



- 6 Pad Leadless Surface Mount PECL Voltage Controlled Xtal Oscillator
- Differential PECL Output with Enable/Disable

**100.00 MHz – 650.00 MHz**  
Consult factory for higher frequencies

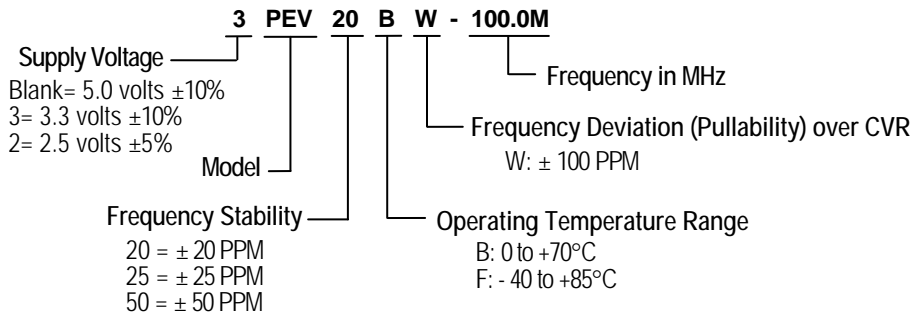
## Standard Specifications

Overall Frequency Stability	± 50, 25, 20 PPM over Operating Temperature Range
Operating Temperature Range	0 to +70°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)	50 mA typical, 75 mA maximum
Jitter	6 pS RMS maximum, from 12 kHz to 20 MHz from carrier
Output Load	Output must be terminated into 50 ohms to (Vcc - 2.0 V). See Test Circuit 10 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".
Control Voltage Range (CVR)	0.5 to 4.5 volts: 5.0 V Supply; 0.33 to 2.97 volts: 3.3 V Supply; 0.25 to 2.25 volts: 2.5 V Supply
Pullability over CVR	± 100 PPM. Consult factory for > 100 PPM.
Linearity	± 20% (Consult factory for ± 10%)
Output Waveform	<b>Symmetry</b> 45/55% to 55/45% at 50% of Vcc level (see Waveform 2)
PECL with Differential Output	<b>Tr &amp; Tf</b> 1.0 nS max (20 to 80%) <b>Logic "1"</b> Vcc - 1.025 volts minimum <b>Logic "0"</b> 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 Ω 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

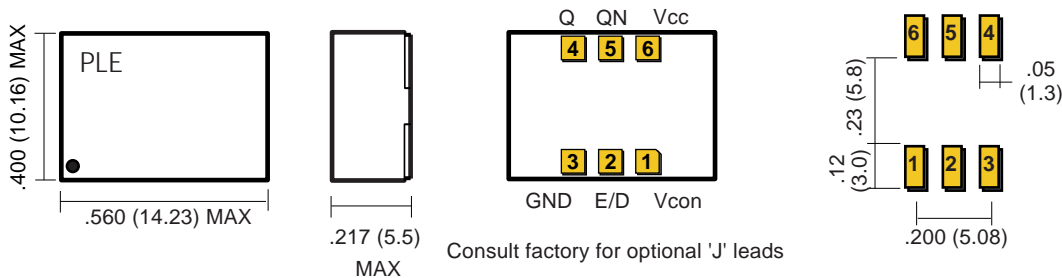
Packaging  
Tube or  
24mm tape  
16mm pitch



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 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.



May 2002