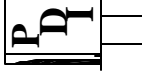


# Precision Devices, Inc.

8840 N. Greenview Dr.  
Middleton, WI 53562  
Phone: 608-831-4445  
1-800-274-XTAL  
Fax: 608-831-3343



Visit our web site at [www.pdixtal.com](http://www.pdixtal.com)

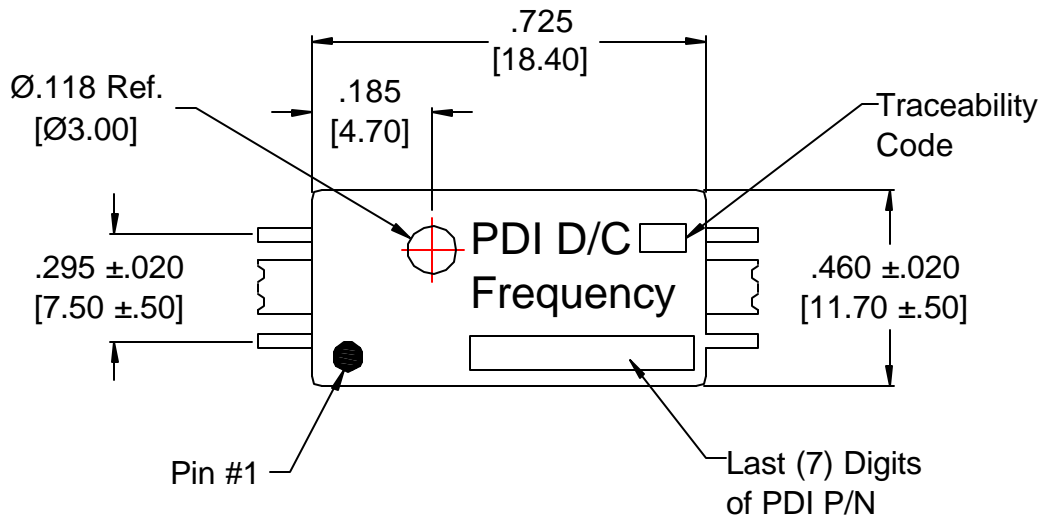
Sales Information [sales@pdixtal.com](mailto:sales@pdixtal.com)

## Electrical Specifications

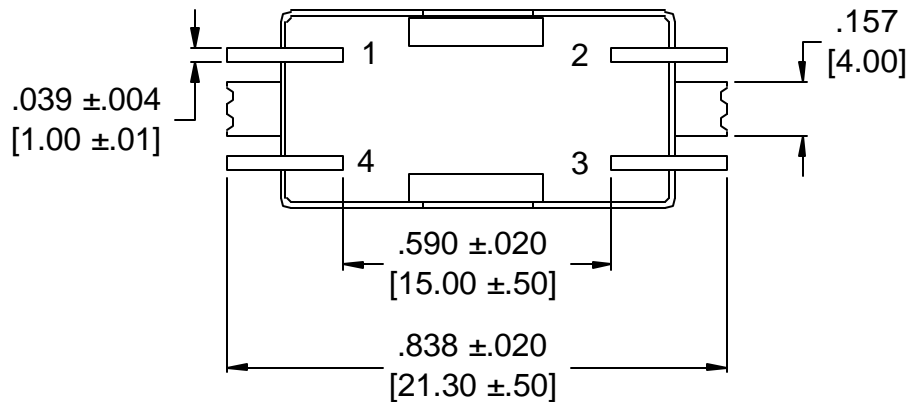
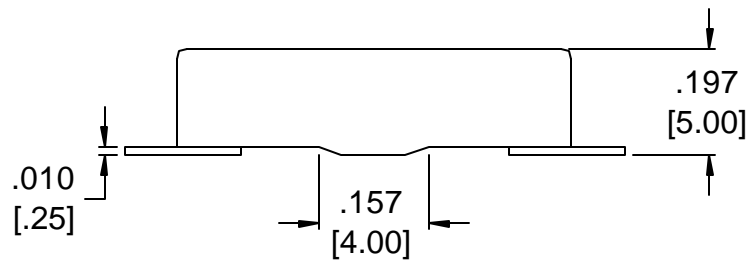
- Center Frequency (fo): 21.000000 MHz
- Input Voltage: V1 = +3.3Vdc ±0.17v maximum
- Supply Ripple & Noise: 50mV peak/peak sinewave @ any frequency between 100 Hz and 12 MHz
- Input Current: 3mA maximum
- Frequency: Frequency shall be set to within ±1ppm of desired frequency fo at +25°C at time of shipping.
- RF Output: Within 500 mS maximum after application of input voltage.
- Load VSWR: RF output must withstand continuous applications of loads of any VSWR including short and open circuit conditions.
- Output Waveform: Sinewave 0.7 volt peak to peak min. Output shall be AC coupled (DC open)
- Oscillator Load: 5pf ±10% maximum in parallel 10K Ohms +10% minimum
- Long Term Aging: Less than 5ppm/10 years maximum
- Temperature Stability: ±2.0ppm maximum when run over a temperature loop starting at +25°C, going to -45°C up to +85°C and back to -25°C with transition rates of 2°/minute
- Voltage Stability: ±0.2ppm maximum @+25°C for the input range
- Acceleration Sensitivity: 0.001ppm/G maximum
- Harmonics: The 2nd harmonics must be less than -15dBc minimum relative to carrier
- Spurious: -60dBc maximum, -50dBc maximum during vibration.
- Phase Noise:
  - @ 1Hz: -47dBc/Hz Maximum
  - @ 10Hz: -82dBc/Hz Maximum
  - @ 100Hz: -112dBc/Hz Maximum
  - @ 1kHz: -132dBc/Hz Maximum
  - @ 10kHz: -142dBc/Hz Maximum
  - @ 100kHz: -147dBc/Hz Maximum
- Response to Supply Ripple: With the specified power supply ripple, the total power of the spurious outputs at frequencies removed from fo by 100Hz to 12Mhz must be no greater than -57dBc maximum
- Temperature Range: Operating; -45°C to +85°C, Storage; -65°C to +85°C
- Cold Temperature Start-Up: After and extended cold soak at -55°C with no power applied, the part shall start-up and run with application of power.

Note: Additional requirements per customer drawing 277-0825-010

REV.	DATE	PAGE	DESCRIPTION	ECN	Originator	Date	Engineering	Date
					D.G.	6/15/09	B.A.	6/15/09
					TITLE Temperature Controlled Crystal Oscillator		FKA 17201	
					PART NUMBER	TC2621000XWLDXX		
					DATE	SCALE	ECN.	REV.
					6/15/09	N.T.S.	N/A	A
					SIZE	CAGE	Page 1 of 2	
					A	0S4G1		



Pin	Connection
1	No Connect
2	Ground
3	Output
4	Supply



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Manufacturer of Quartz Crystal Products

DECIMAL XX=±.020 XXX=±.008	DWG FILE <b>17201</b>	PART NUMBER <b>TC2621000XWLDXX</b>	
METRIC XX=±.50 XXX=±.20	SCALE <b>N.T.S.</b>	FREQUENCY <b>21.0000 MHz</b>	DRAWN BY <b>D. Gibney</b>
ANGULAR XX=±2°	REV. LEVEL <b>A</b>	ECN NO. <b>N/A</b>	DATE <b>6/15/09</b>
		CAGE CODE <b>0S4G1</b>	<b>Page 2 of 2</b>