

# Model XO3091-006 Compensated Crystal Oscillator

## **Temperature Compensated Crystal Oscillator**

### **Electrical Specifications**

Nominal Frequency (Fo): 59.94207MHz

Frequency Accuracy:: ≤±8.5ppm for all causes

#### Frequency Stability

Calibration @ 25°C,  $\leq \pm 1.0$ ppm Over temperature (ref. to 25°C),  $\leq \pm 1.0$ ppm vs Supply ( $\pm 5\%$  change),  $\leq \pm 0.1$ ppm, ref to 3.3 V vs Load (15pF  $\pm 5\%$ ),  $\leq \pm 0.1$ ppm, ref to 15pFAging 1<sup>st</sup> Year,  $\leq \pm 1.0$ ppm Aging over 30-years (incl. 1<sup>st</sup> year),  $\leq \pm 5.0$ ppm

#### **Frequency Adjustment**

None, Pin 4 is N.C.

#### **Output (ACMOS)**

Load, 15pF, nominal Level, High,  $\geq 90\%$  of  $V_{SUPPLY}$ ; Low,  $\leq 10\%$  of  $V_{SUPPLY}$ Duty Cycle, 40% to 60%Rise (10% to 90%)/Fall (90% to 10%) times,  $\leq 3nsec$ 

#### **Power Supply**

Voltage (V<sub>SUPPLY</sub>), +3.3 V<sub>DC</sub>  $\pm 5\%$ Absolute Maximum +3.6 volts Current Consumption,  $\leq 40mA$ 

#### **Temperature Range**

Operating, -40°C to +85°C Storage, -55°C to +105°C

#### **Environmental (survival)**

**Altitude**, 70,000 ft MIL-STD-883 Method 1001 **Thermal Shock**, MIL-STD-883 Method 1011, 15 cycles -55°C to +125°C

**Damp Heat**, MIL-STD-202 Method 103 for 56 days **Cyclic Damp Heat**, MIL-STD-883 Method 1004, 25°C & 85°C, 90% relative humidity, 10 cycles

Acceleration, 300g, 1 minute MIL-STD-883 Method 2001

**Shock**, 30 pulses 100g, 6*msec*, Sawtooth MIL-STD-202 Method 213 Condition I

Vibration, 20g, 20Hz to 2000Hz, MIL-STD-883 Method 2007

#### **Hermeticity:**

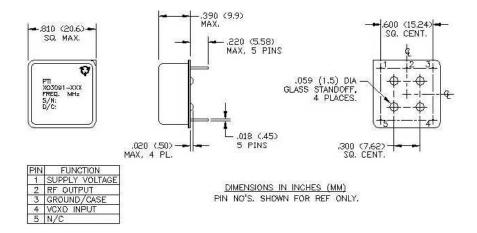
Fine, MIL-STD-883 Method 1004 Condition A Gross, MIL-STD-883 Method 1004 Condition C

#### Reliability

MTBF, TBD target <1.8M Hrs AIF @ 55°C Useful Life, 30 years

#### Marking

Polyimide Label, Resistant to All Common Solvents, Per MIL-STD-202F, Notice 12, Method 215J



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