Pb Free
RoHS
5 mm x 7 mm Ceramic Package SMD VCXO，TTL／HC－MOS

## Product Features：

Small Surface Mount Package Based Output for many frequencies CMOS／TTL Compatible Logic Levels Compatible with Leadfree Processing

## Applications：

SD／HD Video
Wireless Base Stations
Sonet／SDH
VolP
T1／E1，T3／E3

| Frequency | 1 MHz to 170.000 MHz |
| :---: | :---: |
| Output Level HC－MOS TTL | ‘0’＝0．1 Vcc Max．，＇1’＝0．9 Vcc Min． ‘0’＝0．4 VDC Max．，＇1’＝2．4 VDC Min． |
| Duty Cycle | 50\％$\pm 5 \%$ |
| Rise／Fall Time | 10.0 nS Max． |
| Output Load | 15pF，Fo＜ $50 \mathrm{MHz}=10 \mathrm{TTL}$ ，Fo＞ $50 \mathrm{MHz}=5 \mathrm{TTL}$ |
| Frequency Stability | 50 ppm Max． |
| Start－up Time | 10 mS Max． |
| Supply Voltage | See Input Voltage Table，tolerance $\pm 5$ \％ |
| Control Voltage | 1．65 VDC $\pm 1.5 \mathrm{VDC}$ for 3．3 VDC，2．5 VDC $\pm 2.0 \mathrm{VDC}$ for 5．0 VDC |
| Pull Range | See Pullability Table |
| Current | $50 \mathrm{~mA} \mathrm{Max**}$ |
| Linearity | 10\％Max． |
| Temperature Operating Storage | See Operating Temperature Table in Part Number Guide $-55^{\circ} \mathrm{C} \text { to }+125^{\circ} \mathrm{C}$ |
| Phase Jitter | ＜3 pS RMS |





Recommended Pad Layout


Pin Connection 1 Control Voltage 2 Enable／Disable

Ground
Output
N．C．
Vdd
Dimension Units：mm


NOTE：A $0.01 \mu \mathrm{~F}$ bypass capacitor is recommended between Vcc（pin 6）and GND（pin 3）to minimize power supply noise．
＊Not available at all frequencies．＊＊Frequency，supply，and load related parameters．


## Package Information:

MSL = N.A. (package does not contain plastic, storage life is unlimited under normal room conditions).
Termination = e4 (Au over Ni over W base metalization).
Tape and Reel Information:


## Environmental Specifications

| Thermal Shock | MIL-STD-883, Method 1011, Condition A |
| :--- | :--- |
| Moisture Resistance | MIL-STD-883, Method 1004 |
| Mechanical Shock | MIL-STD-883, Method 2002, Condition B |
| Mechanical Vibration | MIL-STD-883, Method 2007, Condition A |
| Resistance to Soldering Heat | J-STD-020C, Table 5-2 Pb-free devices (except 2 cycles max) |
| Hazardous Substance | Pb-Free / RoHS / Green Compliant |
| Solderability | JESD22-B102-D Method 2 (Preconditioning E) |
| Terminal Strength | MIL-STD-883, Method 2004, Test Condition D |
| Gross Leak | MIL-STD-883, Method 1014, Condition C |
| Fine Leak | MIL-STD-883, Method 1014, Condition A2, R1=2×10-8 atm cc/s |
| Solvent Resistance | MIL-STD-202, Method 215 |

## Marking

Line 1: ILSI and Date Code
Line 2: Frequency

