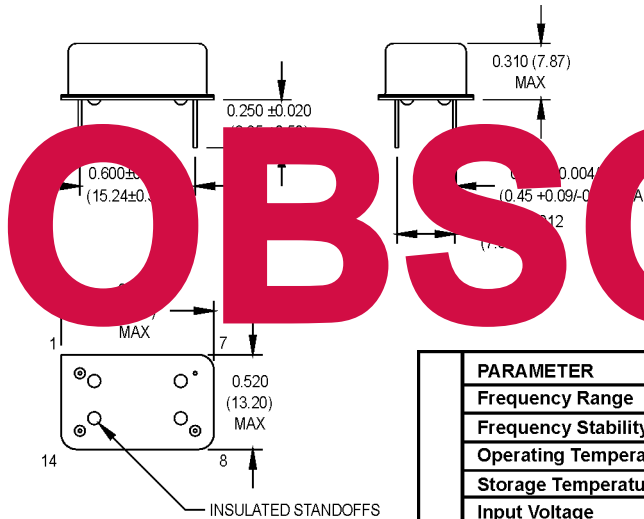


MTXV Series

5.0 Volt, TCVCXO



| Ordering Information | |
|------------------------------|--|
| Product Series | MTXV 1 H 8 A D 00.0000 MHz |
| Temperature Range | 1: 0°C to +70°C 2: -40°C to +85°C 6: -20°C to +70°C 8: 0°C to +50°C |
| Stability* | E: ±10 ppm L: ±5 ppm H: ±2.5 ppm |
| Frequency Control (Pin #1) | 8: ±25 ppm Min. 9: ±35 ppm Min. |
| Symmetry/Logic Compatibility | 40/6: 40/6 CMOS/TTL B: 40/6 CMOS 45/5: 45/5 CMOS |
| Package/Configuration | IP; Model Header |
| Frequency | Customer specification |
| Reference | 2.5 |



All dimensions in inches (mm).

* See page 90 for surf board configuration.

Pin Connections

| PIN | FUNCTION |
|-----|-----------------|
| 1 | Control Voltage |
| 7 | Ground/Case |
| 8 | Output |
| 14 | +Vdd |

OBSOLETE

| | PARAMETER | Symbol | Min. | Typ. | Max. | Units | Condition | |
|---------------------------|-----------------------------|---|----------------------------|--------|------------|---------------------|--------------------------|--------|
| Electrical Specifications | Frequency Range | F | 0.5 | | 155.52 | MHz | | |
| | Frequency Stability | $\Delta F/F$ | (See Ordering Information) | | | | | |
| | Operating Temperature | T _A | (See Ordering Information) | | | | | |
| | Storage Temperature | T _s | -55 | | +125 | °C | | |
| | Input Voltage | V _{dd} | 4.75 | 5.0 | 5.25 | VDC | | |
| | Input Current | I _{dd} | | 15 | 25 | mA | 0.5 MHz to 30 MHz | |
| | | | | 18 | 30 | mA | 30.001 MHz to 70 MHz | |
| | | | | 20 | 45 | mA | 70.001 MHz to 155.52 MHz | |
| | Symmetry ¹ | | (See Ordering Information) | | | | | |
| | Load | | 5 TTL or 15 pF Max. | | | | | |
| | Rise/Fall Time ² | Tr/Tf | | | 10 | ns | 0.5 MHz to 30 MHz | |
| | | | | | 5 | ns | 30.001MHz to 155.52 MHz | |
| | Logic "1" Level | V _{oh} | 2.4 | | | VDC | TTL | |
| | Logic "0" Level | V _{ol} | 90 | | | % | HCMOS | |
| | | | | | 10 | VDC | TTL | |
| Cycle to Cycle Jitter | | | | | % | HCMOS | | |
| | | @ 19.44 MHz | | | 4.2 | ps RMS | 1 Sigma | |
| | | @ 38.88 MHz | | | 8.7 | ps RMS | | |
| @ 155.52 MHz | | | 5.5 | ps RMS | | | | |
| Phase Noise (Typical) | 10 Hz | 100 Hz | 1 kHz | 10 kHz | 100 kHz | Offset from carrier | | |
| | | @ 19.44 MHz | -78 | -103 | -136 | -143 | -146 | dBc/Hz |
| | | @ 38.88 MHz | -45 | -77 | -100 | -89 | -88 | dBc/Hz |
| | @ 155.52 MHz | -42 | -66 | -76 | -80 | -89 | dBc/Hz | |
| Modulation Bandwidth | f _m | 10 | | | kHz | | | |
| Input Impedance (Pin 1) | Z _{in} | 50 | | | K Ω | | | |
| Control Voltage | V _c | 0 | 2.5 | 5.0 | VDC | | | |
| Center Frequency | V _{c0} | | 2.5 | | VDC | | | |
| Pullability | | (See Ordering Information) | | | | | ppm/V | |
| Deviation Slope | | | | | | Positive, Monotonic | | |
| Environmental | Mechanical Shock | Per MIL-STD-202, Method 213, Condition C | | | | | | |
| | Vibration | Per MIL-STD-202, Method 201 & 204 | | | | | | |
| | Reflow Solder Conditions | 240°C for 10 s max. | | | | | | |
| | Hermeticity | Per MIL-STD-202, Method 112 (1 x 10 ⁻³ atm.cc/s of helium) | | | | | | |
| | Solderability | Per EIAJ-STD-002 | | | | | | |

1. Symmetry is measured at 1.4 V with TTL load, and at 50% V_{dd} with HCMOS load.
 2. Rise/fall times are measured between 0.5 V and 2.4 V with TTL load, and between 10% V_{dd} and 90% V_{dd} with HCMOS load.