

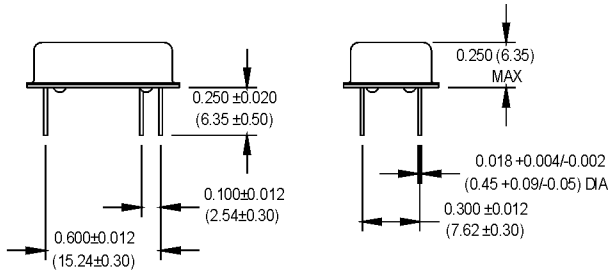
MVP Series

14 pin DIP, 5.0 Volt, PECL, VCXO

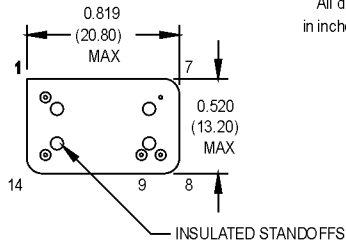


Ordering Information

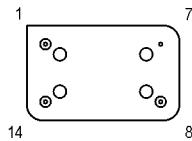
| | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|----|---------|-----|
| | MVP | 1 | 8 | Z | 2 | B | D | -R | 00.0000 | MHz |
| Product Series | | | | | | | | | | |
| Temperature Range | 1: 0°C to +70°C 2: -40°C to +85°C | | | | | | | | | |
| Stability | 3: ±100 ppm 4: ±50 ppm 6: ±25 ppm 8: ±20 ppm | | | | | | | | | |
| Output Type | V: Single Output Z: Dual Complementary Output | | | | | | | | | |
| Pull Range (Vc = .5 to 4.5 V) | 2: ±100 ppm min. | | | | | | | | | |
| Symmetry/Logic Compatibility | A: 40/60 B: 45/55 | | | | | | | | | |
| Package/Lead Configurations | D: DIP; Nickel Header | | | | | | | | | |
| RoHS Compliance | Blank: non-RoHS compliant part -R: RoHS compliant part | | | | | | | | | |
| Frequency (customer specified) | | | | | | | | | | |



All dimensions in inches (mm).



OPTIONAL 4-PIN PACKAGE



APR Equivalents

| APR | Pull Range | Stability |
|---------|------------|-----------|
| ±50 ppm | ±100 ppm | ±50 ppm |
| ±75 ppm | ±100 ppm | ±25 ppm |

Pin Connections

| FUNCTION | 4 Pin | 5 Pin |
|---------------------|-------|-------|
| Control Voltage | 1 | 1 |
| Circuit/Case Ground | 7 | 7 |
| Output (Q) | 8 | 8 |
| Output (Q̄) | | 9 |
| +Vcc | 14 | 14 |

| PARAMETER | Symbol | Min. | Typ. | Max. | Units | Condition | |
|--|------------------------|---|-------|------------|---------|----------------------------|----------------------|
| Frequency Range | F | 19.44 | | 160 | MHz | See Note 1 | |
| Frequency Stability | ΔF/F | (See Ordering Information) | | | | | |
| Operating Temperature | Ta | (See Ordering Information) | | | | | |
| Storage Temperature | Ts | -55 | | +125 | °C | | |
| Input Voltage | Vcc | 4.75 | 5.0 | 5.25 | V | | |
| Input Current | Iee/Icc | | 40 | 60 | nA | | |
| Symmetry (Duty Cycle) | | (See Ordering Information) | | | | | |
| Load | | | | 50 | Ω | See Note 2 | |
| Rise/Fall Time | Tr/Tf | | 1.5 | 2 | ns | See Note 3 | |
| Logic "1" Level | Voh | Vcc - 0.98 | | | V | | |
| Logic "0" Level | Vol | | | Vcc - 1.63 | V | | |
| Cycle to Cycle Jitter @ 155.52 MHz | | | 9.5 | 15 | ps RMS | 1 Sigma | |
| Phase Jitter @ 155.52 MHz | φ J | | 12 | 15 | ps RMS | Integrated 12 kHz - 20 MHz | |
| Peak to Peak Jitter (+/-) @ 155.52 MHz | Tj | | 84 | 105 | ps | @ BER 1E-12 | |
| Phase Noise (Typical) @ 155.52 MHz | 10 Hz | 100 Hz | 1 kHz | 10 kHz | 100 kHz | Offset from carrier dBc/Hz | |
| | -61 | -91 | -113 | -116 | -114 | | |
| Modulation Bandwidth | fm | | | 10 | kHz | | |
| Input Impedance (Pin 1) | Zin | 50 | | | KΩ | | |
| Control Voltage | Vc | 0.5 | | 4.5 | V | | |
| Center Frequency | Vc0 | | 2.5 | | V | | |
| Pullability | | (See Ordering Information) | | | | | Over control voltage |
| Linearity | | | | 10 | % | | |
| Tri-State Function | | Input Logic "1" or floating; output active Input Logic "0"; output to High-Z | | | | | |
| Environmental | Mechanical Shock | Per MIL-STD-202, Method 213, Condition C | | | | | |
| | Vibration | Per MIL-STD-202, Method 201 & 204 | | | | | |
| | Wave Solder Conditions | 260°C for 10 s max. | | | | | |
| | Hermeticity | Per MIL-STD-202, Method 112 (1 x 10 ⁻⁸ atm.cc/s of helium) | | | | | |
| | Solderability | Per EIAJ-STD-002 | | | | | |

- Higher frequencies available. Consult factory.
- See load circuit diagram #3.
- Rise/Fall times are measured between Vcc -0.98 and Vcc -1.63 V.

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