



Leaded Oscillator, OCXO
Metal Package, 25.7 mm X 25.7 mm



I416 Series

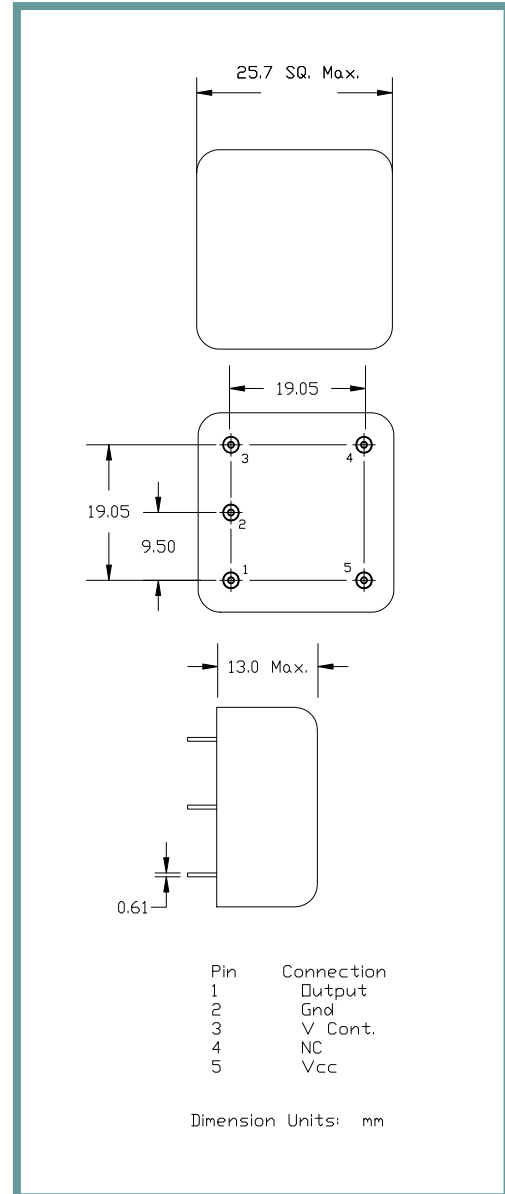
Product Features:

Low Phase Noise
Low Power Consumption
Voltage Control
High Stability

Applications:

Telecommunications
Data Communications
Instrumentation
Test and Measurement

| | |
|--|---|
| Frequency | 10.000 MHz- 30.000 MHz |
| Output Level Sine | +7dBm Min., 9dBm Max. |
| Output Load | 50 ohms |
| Harmonics | -50 dBc |
| Spurious | -80 dBc |
| Frequency Stability | See Frequency Stability Table |
| Supply Voltage | See Voltage Table ($\pm 5\%$) |
| Current (Warm Up) Current @ 25° C (Steady State) | 125 mA Max. 50 mA |
| Voltage Control Voltage Range Pullability Deviation Slope (Positive) | 0.0 VDC Min., 10.0 VDC Max. * $\pm 3.0\text{PPM}^*$ 10% |
| Hysteresis (retrace after 30min.) | ± 20.0 ppb |
| Allan Variance (1s) | 2.00E-11 |
| Phase Noise | - 90 dBc/Hz @ 1Hz -120 dBc/Hz @ 10Hz -145 dBc/Hz @ 100Hz -155 dBc/Hz @ 1kHz -165 dBc/Hz @ 10kHz -165 dBc/Hz @ 100kHz |
| Operating | See Operating Temperature Table in Part Number Guide |
| Storage | -40° C to +85° C |



Part Number Guide

Sample Part Number: **I416-5AA3V-10.000 MHz**

| Package | Input Voltage | Operating Temperature | Output | Frequency Stability (in ppm) | Voltage Control | Frequency |
|---------|---------------|-----------------------|----------|------------------------------|-----------------|-------------|
| I416 - | 5 = 5.0V | 7 = 0° C to +50° C | A = Sine | Y = ± 0.5 | V = Controlled | -10.000 MHz |
| | 9 = 12.0V | 1 = 0° C to +70° C | | 1 = ± 0.25 | F = Fixed | |
| | | 6 = -10° C to +75° C | | 2 = ± 0.1 | | |
| | | 3 = -20° C to +70° C | | 3 = ± 0.05 | | |
| | | A = -30° C to +70° C | | | | |

*Input voltage dependant.



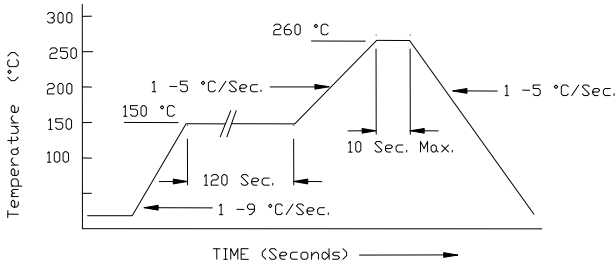
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Metal Package, 25.7 mm X 25.7 mm



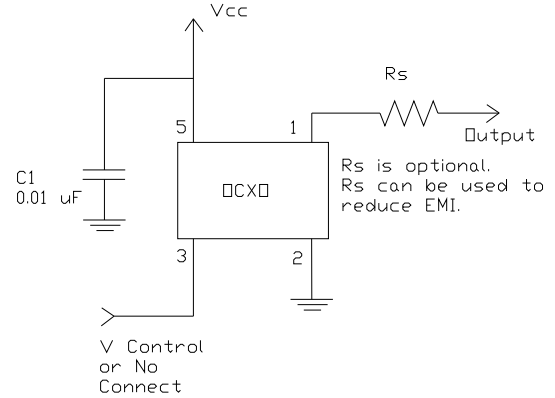
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Pb Free Solder Reflow Profile:

Typical Application:



*Units are backward compatible with 240C reflow processes



Package Information:

MSL = N.A. (package does not contain plastic, storage life is unlimited under normal room conditions).
Termination = e1 (Sn / Cu / Ag over Ni over Kovar base metal).

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=2x10 ⁻⁸ atm cc/s |
| Solvent Resistance | MIL-STD-202, Method 215 |

Marking

Line 1: ILSI and Date Code
Line 2: XXXXXX (Part Number detail = I416-XXXXXX-Freq.)
Line 2: Frequency