



Model XO3086-006 Temperature Compensated Crystal Oscillator

Electrical Specifications

Nominal Frequency (F₀): 12.0MHz

Frequency Stability

Over Temperature: ≤ ±1ppm
Aging per Year: ≤ ±1ppm

Frequency Adjustment

Method: External Voltage, 0 to +5.0V_{DC}
Tuning Range: Sufficient for 10-years aging
Slope: Negative

Output (Sinewave)

Level: +3dBm ±3dB
Load: 50Ω ±10%

Spurious: -70dBc maximum

Harmonics (Goals to be verified @ proto build)

2nd Harmonic (24MHz): -25dBc Typical
All Others: -30dBc maximum

SSB Phase Noise (maximum)

-70dBc/Hz @ 10Hz offset
-105dBc/Hz @ 100Hz offset
-132dBc/Hz @ 1kHz offset
-150dBc/Hz @ 10kHz offset

Power Supply

Voltage: +5.0V_{DC} ±5%
Current Consumption: 15mA maximum

Temperature Range

Operating: -55°C to +85°C
Storage: -55°C to +85°C

MtronPTI
DOCUMENT CONTROL

JUN 26 2009

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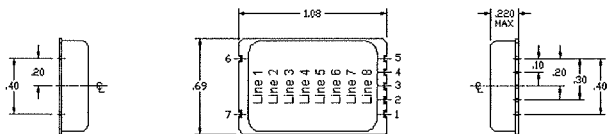
MtronPTI MODEL: XO3086-006

TEST APPROVAL: MWM

DATE: 6/26/09

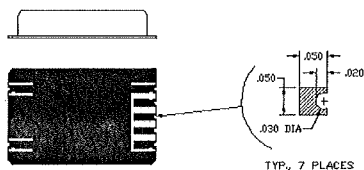
MFG APPROVAL: [Signature]

DATE: 6/26/09



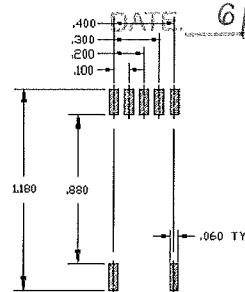
PIN CONNECTIONS:

1. CASE GROUND & SUPPLY RETURN
2. SUPPLY (+)
3. RF OUTPUT
4. DO NOT CONNECT
5. CONTROL VOLTAGE
6. CASE GROUND
7. CASE GROUND



Front Part Marking
(Laser Marked)
Line 1: MtronPTI 25120
Line 2: XO3086-006
Line 3: (Blank)
Line 4: FREQ: 12.000
Line 5: OFFSET xxx Hz
Line 6: @ 25°C
Line 7: SIN. xxxxx
Line 8: DIC. yyyy

Bottom Part Marking
Serial Number Only



Suggested Land Pattern

Oscillator is to be soldered to lands by hand with a maximum land temp of 260°C for a maximum of 3 seconds.

Note: Although the XO3086 family is an SMT device, it is not a reflowable assembly compatible device. Therefore, it must be hand assembled to the PCB.

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