MTI
MTI-MILLIREN TECHNOLOGIES, INC.

201 SERIES OCXO

AS9100 / ISO9001 Certified

Miniature OCXO

Features

- RoHS compliant, wide frequency range (8 MHz to 100 MHz)
- Stratum III or better stability, square wave or 50 Ohms sinewave output
- Voltage control option, Industry standard lead spacing
- Standard frequencies: 10, 12, 12.8, 13, 14.4, 16.384, 32.768, 100 MHz

Specifications

Frequency Stability vs. Temperature	±100 ppb; ±500 ppb; ±1000 ppb
Temperature Range	0° C to 70° C; -40° C to 85° C; -20° C to 70° C
Aging (after 30 days, 10MHz)	5E-07 first year
Initial Tolerance	±0.5 ppm Typical, at 25° C, Vc = 1/2 Vcc
Frequency vs. Load	5E-08 Typical / ±5% load change
Frequency vs. Voltage	5E-08/V Typical
Retrace	±0.05 ppm, Maximum after 30 minutes
G-Sensitivity	±0.002 ppm/G, Worst direction
Inpuy Voltage (Vcc)	+5 V ± 5% (HCMOS 3.3 V up to 40 MHz)
Input Current (Max) Steady state:	150 mA at 25° C; Start-up: 500 mA
Warm-up Time	3 minutes maximum, to ±0.1 ppm accuracy

Electrical Tuning

EFC Range	±5 ppm Typical, with control voltage Vc = 0.5 V to 4.5 V
Linearity	±10% maximum of best straight line fit
Slope	Positive
EFC Input Impedance	100 kOhms minimum

Phase Noise (max, 10MHz)

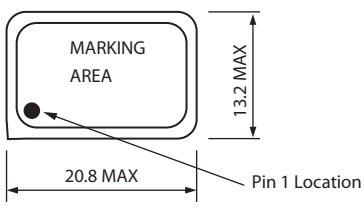
-100 dBc/Hz	10 Hz,
-125 dBc/Hz	100 Hz
-140 dBc/Hz	1 kHz
-150 dBc/Hz	10 kHz

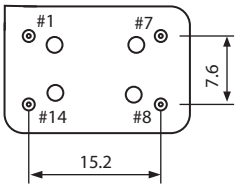
Sinewave Output

Output Waveform & Level	Sinewave, +3 dBm
Output Load	50 Ohms
Harmonics	-40 dB Typ, -30 dB minimum
Spurious	-80 dB Typ, -75 dB minimum

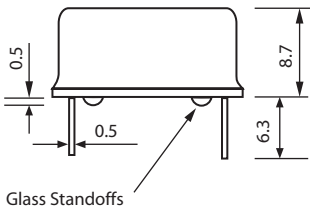
HCMOS Output

Output Waveform & Level	HCMOS compatible squarewave; 40/60% duty cycleOutput
Output Load	15 pF
Logic "1" / Logic "0" Level	0.9 Vcc minimum / 0.1 Vcc maximum
Rise/Fall Time (Tr/Tf)	5 ns maximum





Pin Connections
#1: Vc or N/C
#7: Case, Ground
#8: Output
#14: Vcc



Lead - Kovar; Finish - Ni Plated

All dimensions are typical unless otherwise specified

Dimensions in millimeters

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