

# 240 • 241 Series OCXO - Low Profile Package

## Description

These product lines are the choice when a low profile package for rack mounted or portable applications is needed. Available with an AT or SC cut resonator the 240 and 241 Series rivals the performance of units with much higher profiles.

## Features

- STRATUM III, IIIe Performance
- Low Profile
- Low Phase Noise

## Applications

- STRATUM III, IIIe Telephony
- VME/VXI
- PC Card Instrumentation
- Rack Mounted Applications
- VSAT
- INMARSAT



Performance Range	
Parameters	Available Range
Frequency	75 KHz to 30 MHz
Thermal Stability	1.00E-08 to 5.00E-07
Operating Temperature	-40°C to +85°C
Output	HCMOS/ACMOS 0 to +9dBm Sine
Supply Voltage	+11 to +28V (DC)
Tuning Voltage	-10 to +10V (DC)

## Design Note:

Base Models can be customized to your specifications using the performance range for this series.

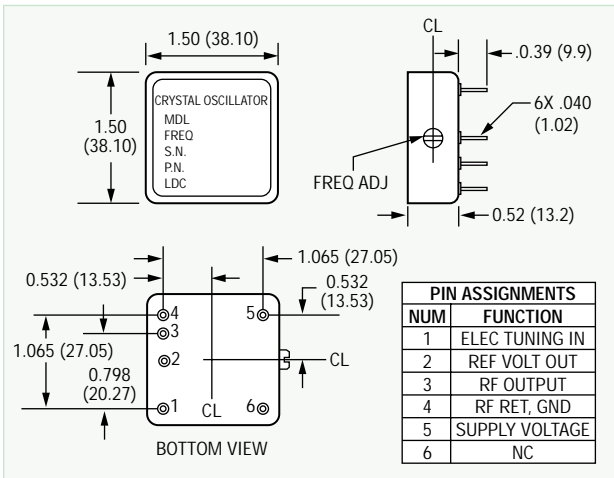
## 240 Series Base Model Performance Guide

Frequency MHz	Crystal Cut	Thermal Stability*	Aging Rate per Day	Aging Rate per Year	Output	Phase Noise @ offsets (dBc/Hz)					
						1Hz	10Hz	100Hz	1kHz	10kHz	100kHz
10.000	AT	2.00E-07	1.00E-09	2.00E-07	9dBm Sine	-75	-105	-135	-145	-155	-155
10.000	SC	2.50E-08	5.00E-10	1.00E-07	9dBm Sine	-85	-115	-140	-150	-160	-160
13.000	AT	5.00E-07	1.00E-09	3.00E-07	HCMOS	-65	-95	-120	-145	-155	-155
13.000	SC	2.50E-08	5.00E-10	1.00E-07	9dBm Sine	-80	-110	-135	-150	-155	-160
16.384	AT	5.00E-07	1.00E-09	3.00E-07	9dBm Sine	-65	-95	-120	-140	-155	-155
16.384	SC	5.00E-08	7.00E-10	1.00E-07	HCMOS	-80	-110	-135	-150	-155	-160
20.000	AT	5.00E-07	5.00E-09	5.00E-07	9dBm Sine	-55	-85	-115	-140	-150	-150
20.000	SC	5.00E-08	1.00E-09	3.00E-07	9dBm Sine	-80	-110	-135	-145	-155	-155

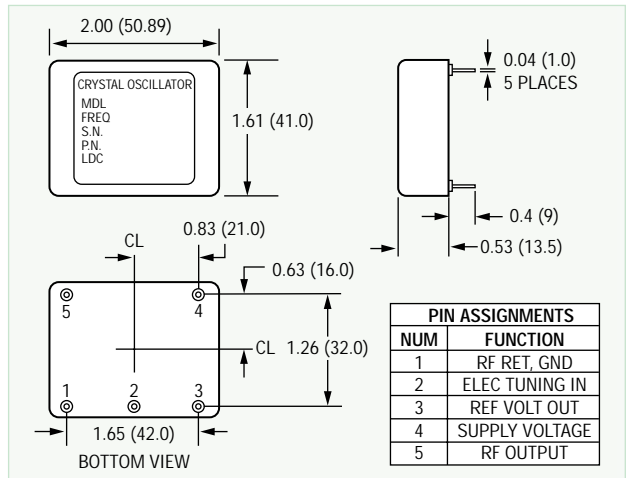
\* Temperature Range is from -30°C to +70°C



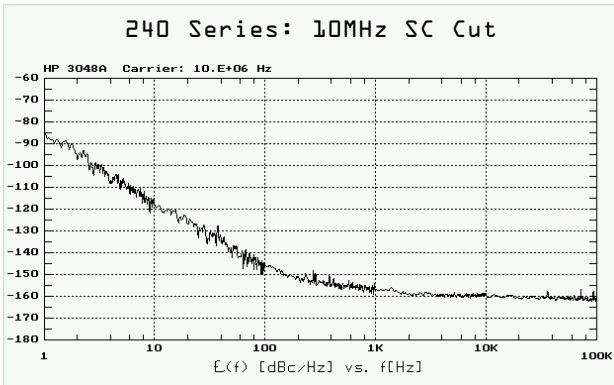
## 240 Interface Control Drawing



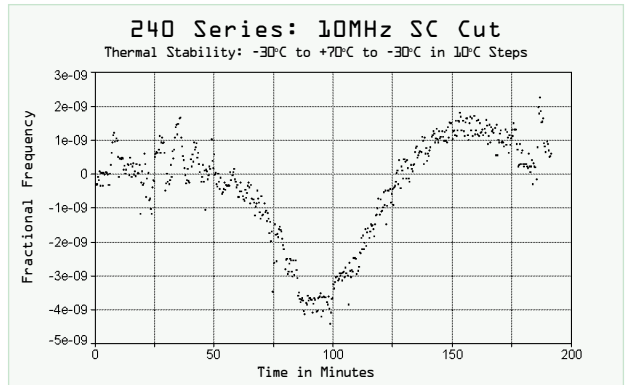
## 241 Interface Control Drawing



## Phase Noise



## Thermal Stability



Short Term Stability	dF/dV	dF/dL	Warm Up Time (Min)	Warm Up dF/F	Warm Up Power (W)	Continuous Power (W) @25°C	Tuning (Min)	MTI Model #
1.00E-10	3.00E-08	1.00E-08	10	2.00E-08	6.0	1.8	±5.00E-07	240-0501
2.00E-11	3.00E-09	1.00E-09	5	2.00E-08	6.0	1.8	±3.00E-07	240-0514
1.00E-10	3.00E-08	1.00E-08	10	2.00E-08	6.0	1.8	±5.00E-07	240-0564
2.00E-11	3.00E-09	1.00E-09	5	2.00E-08	6.0	1.8	±3.00E-07	241-0532
1.00E-10	3.00E-08	1.00E-08	10	2.00E-08	6.0	1.8	±5.00E-07	240-0526
4.00E-11	3.00E-09	1.00E-09	5	2.00E-08	6.0	1.8	±1.20E-06	241-0531
1.00E-11	3.00E-08	1.00E-08	10	2.00E-08	6.0	1.8	±1.00E-06	240-0526
5.00E-11	5.00E-09	5.00E-09	5	2.00E-08	6.0	1.8	±5.00E-07	241-0533