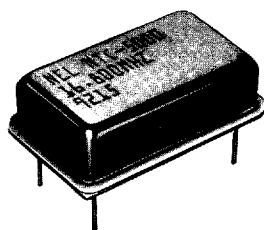




Temperature Compensated Crystal Oscillators

NTC-5000 SERIES TCXO LEADED PACKAGE Analog Compensated



The NTC-5000 TCXO is ideally suited for applications where state-of-the-art performance is required within tight cost parameters. The NTC-5000 is able to offer this value pricing and performance by using a simple resistor-thermistor compensation scheme to provide 5ppm stability over a narrower temperature range (-30° C to +60°C). This TCXO is packaged in a hermetic leaded dual in-line package (DIP).

The NTC-5000 TCXO features;

- ☐ 0.820 x 0.520 x 0.245 inches, hermetic leaded DIP
- ☐ DC voltage frequency adjust
- ☐ Sinewave output
- ☐ Current drawing of 2.9 mA

Specifications

Reference Oscillator Frequency
Range: 12.8 to 20 MHz
Standard Frequency: 16.8 MHz

Frequency Stability
vs temperature: ± 4 ppm/ -30°C to +60°C
vs supply voltage: ± 0.5 ppm/5.0 VDC ± 0.25 VDC
vs load: ± 0.5 ppm/10% load variation
aging: 90% of units meet ± 1 ppm/year at 25°C
100% of units meet ± 7 ppm/10 years at 25°C

Operating Temperature Range
-30°C to +60°C

Supply Voltage
+5.0 VDC ± 0.25 VDC

Current Drain
2.9 mA maximum into load =900 ohms/15 pF

Output Waveform
sinewave

Output Level Range
200 mVp-p to 350 mVp-p maximum

Frequency Adjustment Range
 ± 7 ppm to ± 22 ppm

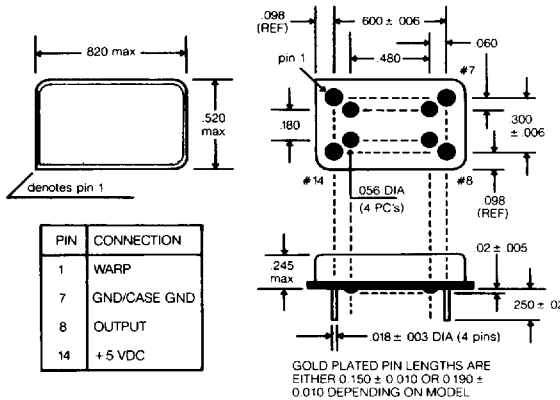
Phase Noise
-145 dBc/Hz at 10 kHz offset

Temperature Compensated Crystal Oscillators

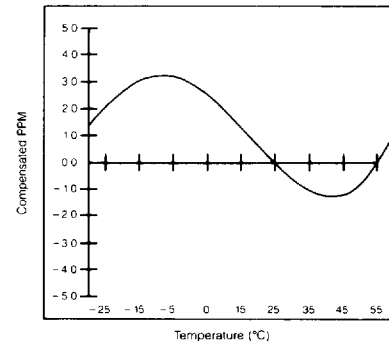


NTC-5000 SERIES TCXO LEADED PACKAGE

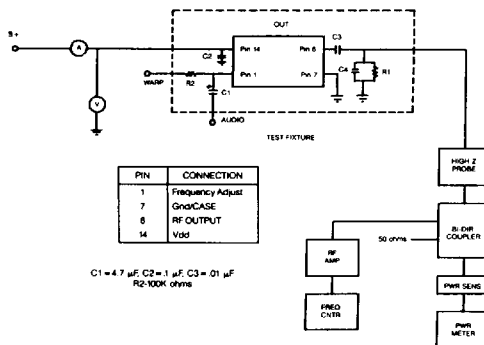
PACKAGE (DIMENSIONS IN INCHES)



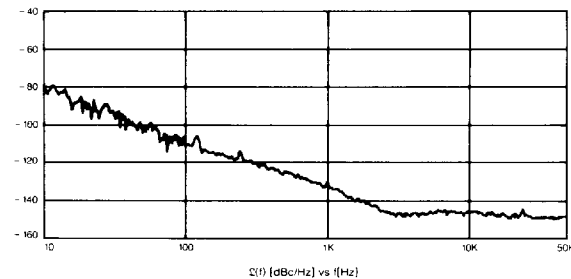
FREQUENCY VS TEMPERATURE



TEST CIRCUIT



PHASE NOISE



NEL TCXO PART NUMBER DEVELOPMENT

