

LOW PHASE NOISE QUARTZ OSCILLATORS

Series FE-102A

The FEI Series FE-102A-100 features operation at 100 MHz, Low Phase Noise of -172 dBc, VCO Range of ± 6 PPM for 0 to +10 V min, and a Low Profile of only 1". Time stability is 3 PPM/Year and 5 PPM/5 Years. Temperature stability is ± 1 PPM over 0° to 55°C.

The FE-102A features the best phase noise performance available today in a quartz oscillator operating directly at 100 MHz. Typical phase noise is -135 dBc at 100 Hz from the carrier, -163 dBc at 1 kHz from the carrier and -173 dBc at 10 kHz from the carrier. FEI manufactures a fifth overtone SC-cut crystal for this application.

The unit was designed for applications such as Low Noise Frequency Synthesis, Doppler Radar, Low Noise PLL Systems and Phase Noise Reference.



FEATURES

- Operation @ 100 MHz
- Low Phase Noise: -172 dBc
- VCO Range: ± 6 PPM for 0 to +10V
- Low Profile: only 1" high



FEI Communications, Inc.
A Subsidiary of Frequency Electronics, Inc.
55 Charles Lindbergh Blvd., Mitchel Field, NY 11553
TEL: 516-794-4500 • FAX: 516-794-4340
Visit us at: www.frequelec.com

SPECIFICATIONS

MODEL FE-102A OSCILLATOR

FREQUENCY:

100 MHz

STABILITY TIME:

3 PPM/Year
5 PPM/5 Year

TEMPERATURE STABILITY:

±1 PPM Over 0° to 55°C

VCO RANGE:

±6 PPM, 0 to +10V Minimum

OUTPUT POWER:

+13 dBm Nominal

PHASE NOISE:

100 Hz	-130 dBc/Hz
1 kHz	-157 dBc/Hz
10 kHz	-171 dBc/Hz
100 kHz	-172 dBc/Hz

D.C. POWER:

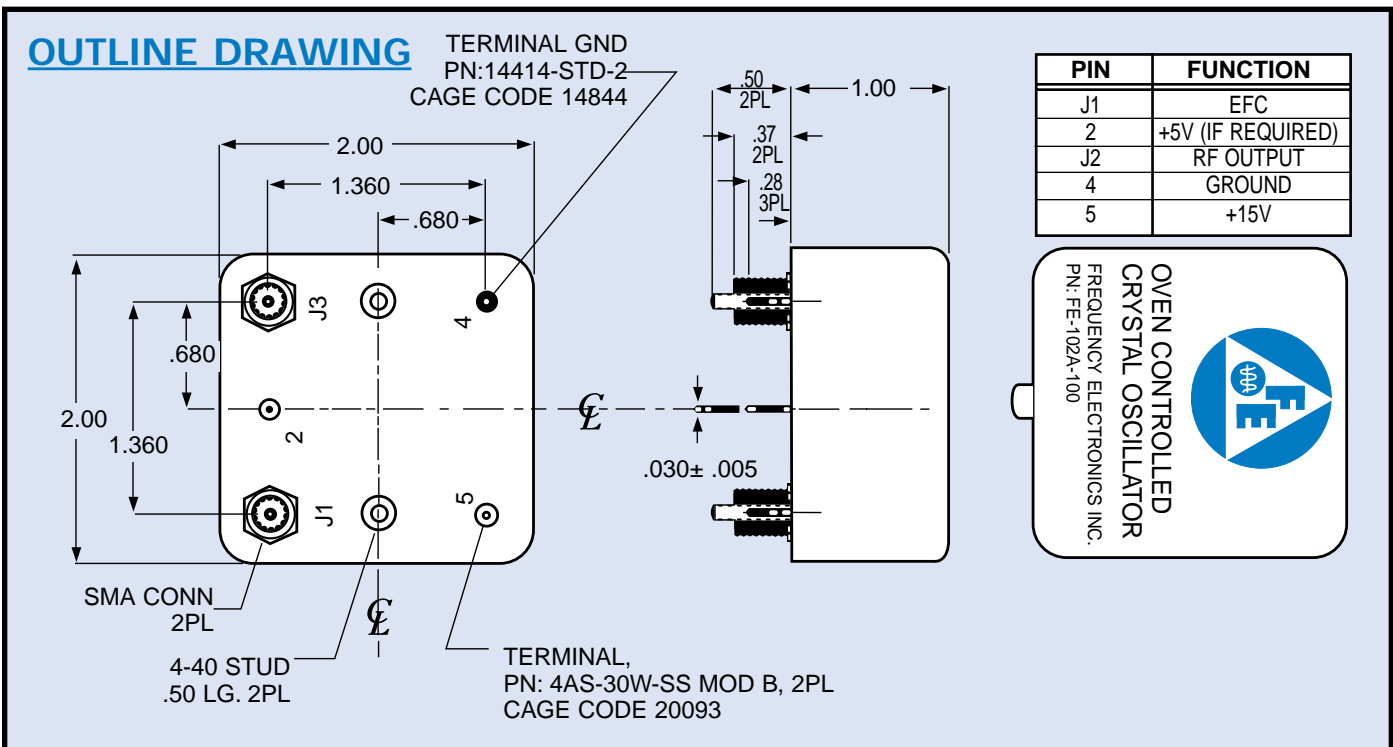
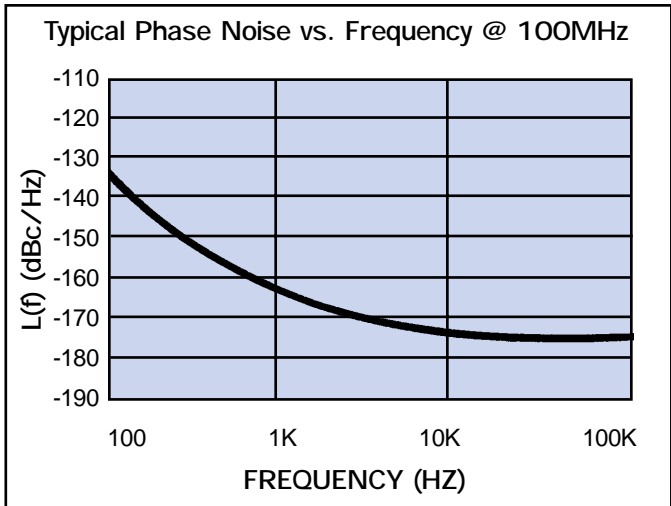
15 VDC

SIZE:

2"x 2"x 1" high

CONNECTORS:

RF - SMA
Voltage Tune - SMA



FEI Communications, Inc.

A Subsidiary of Frequency Electronics, Inc.
55 Charles Lindbergh Blvd., Mitchel Field, NY 11553
TEL: 516-794-4500 • FAX: 516-794-4340
Visit us at: www.frequelc.com