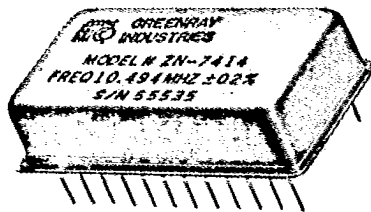




INDUSTRIES, INC.

VOLTAGE CONTROLLED OSCILLATORS

40 kHz to 25 MHz Square Wave V.C.X.O.



MODEL ZN-7414

SPECIFICATIONS:

Center frequency range: 40 kHz to 25 MHz
 Frequency control ranges: $\pm 0.01\%$, $\pm 0.03\%$ and $\pm 0.05\%$ (minimum)
 Frequency stability over temperature range:
 $\pm 0.002\%$ with $\pm 0.01\%$ control range
 Model (A)
 $\pm 0.003\%$ with $\pm 0.03\%$ control range
 Model (B)
 $\pm 0.004\%$ with $\pm 0.05\%$ control range
 Model (C)
 Temperature range: 0 to $+70^\circ\text{C}$
 Output voltage: $0 \pm 4\text{V}$ to $+2.4\text{V}$ minimum
 Output: Square wave, will drive up to 10 TTL loads
 Input voltage: $+5\text{V D.C.} \pm 5\%$
 Input current: 10.1 MHz to 20.0 MHz
 25 ma. typical
 40.0 kHz to 10.0 MHz
 55 ma. typical
 Control voltage: $0 \pm 4\text{V}$ (D.C. coupled with a maximum modulation rate of 15 kHz) See Note 1.

Modulation input load: 1000 ohms
 Linearity: $\pm 10\%$ or better
 Negative slope
 Size: $1.4 \times .8 \times .35"$ (L-W-H)
 $35.6 \times 20.3 \times 8.9\text{ mm}$
 24 pin DIP mounting

Sealed metal case

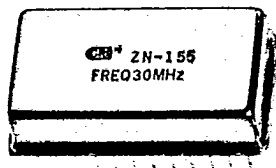
NOTE (1) Center frequency will occur at $0\text{V} \pm 1\text{V}$ control voltage.

NOTE: Option "Z", this VCXO can be supplied with an external frequency adjust capability. Frequency adjustment is accomplished with an external 50K ohm potentiometer. Set center frequency with A.F.C. voltage equal to zero VDC input. Specify option "Z" after the model number.

ORDERING INFORMATION:

Specify Model ZN-7414A for $\pm 0.01\%$ min. swing.
 Specify Model ZN-7414B for $\pm 0.03\%$ min. swing.
 Specify Model ZN-7414C for $\pm 0.05\%$ min. swing.

HYBRID VCXO 4 MHz to 90 MHz SINE WAVE



MODEL ZN-155

SPECIFICATIONS:

Center Frequency Range: 4 MHz to 90 MHz
 Frequency Control Ranges:
 $\pm 0.01\%$, $\pm 0.03\%$, or $\pm 0.05\%$ (minimum)
 Frequency Stability Over Temperature Range:
 $\pm 0.002\%$ with $\pm 0.01\%$ swing
 $\pm 0.003\%$ with $\pm 0.03\%$ swing
 $\pm 0.004\%$ with $\pm 0.05\%$ swing
 Temperature Range: -30°C to $+85^\circ\text{C}$
 Output: Sine wave, Harmonics & Sub-Harmonics -20 dB minimum
 Output Power: into a 50 ohm load
 4 MHz to 30 MHz =
 $+10\text{ dBm}$ minimum
 30.001 MHz to 60 MHz =
 $+5\text{ dBm}$ minimum
 60.001 MHz to 90 MHz =
 $+3\text{ dBm}$ minimum
 Input Voltage: $+15\text{ VDC} \pm 5\%$
 Input Current: 40 ma maximum
 Control Voltage: $0 \pm 5\text{V}$ (DC coupled with a maximum modulation rate of 15 KHz)
 Center Frequency will occur at $0\text{V} \pm 1\text{V}$
 Control Voltage*

Modulation Input Load: 1000 ohms minimum
 Linearity: $\pm 10\%$ or better
 Negative Slope
 Hermetically Sealed Metal Case
 Size: $1.4 \times .8 \times .35"$ (L-W-H)
 $35.6 \times 20.3 \times 8.9\text{ mm}$
 24 Pin DIP Mounting

*NOTE: Option "Z", this VCXO can be supplied with an external frequency adjust capability. Frequency adjustment is accomplished with an external 50K ohm potentiometer. Set center frequency with the AFC voltage equal to zero VDC input. For this option specify a "Z" after the model number (EX. ZN-155AZ).

ORDERING INFORMATION:

Specify Model ZN-155A for $\pm 0.01\%$ swing
 Specify Model ZN-155B for $\pm 0.03\%$ swing
 Specify Model ZN-155C for $\pm 0.05\%$ swing