

## SINEWAVE HIGH FREQUENCY TCXO IN 4 PAD SMD PACKAGE - TCLS2 Series

## FEATURES

- RoHS Compliant (Pb-Free), Tight Stability over Wide Temperature Range
- High Frequency Based on 3rd O/T Crystals
- Sinewave Output, Low Phase Noise
- Industry de factor Standard SMD Footprint, Frequency Adjustment Through Internal Trimmer

## SPECIFICATIONS

Frequency Range	45 MHz to 190 MHz
Supply Voltage (Vcc) Input Current Storage Temperature	A = 5.0 VDC ± 5%; B = 3.3 VDC ± 5% 30 mA Maximum -55°C to 125°C
Controllable Frequency Option	VI = Voltage control: ±5 ppm Minimum + Internal trimmer: ±3 ppm Minimum
Control Voltage (Vc) Setability of Vc at Fnom, 25°C	2.5 $\pm$ 2.0 VDC for Vcc = 5 VDC; 1.65 $\pm$ 1.5 VDC for Vcc = 3.3 VDC 2.5 $\pm$ 0.5 V DC for 5.0V part; 1.65 $\pm$ 0.4 VDC for 3.3V part
Frequency Stability vs Temp. Temperature Range Standard Stability	005 = ±0.5 ppm; 010 = ±1 ppm; 015 = ±1.5 ppm; 020 = ±2 ppm; 050 = ±5 ppm A = 0°C to 70°C; B = -40°C to 85°C; F = 0°C to 50°C; H = -30°C to 75°C 025H = ±2.5 ppm / -30°C to 75°C
Frequency Stability vs Vcc Frequency Stability vs Load Aging	±0.2 ppm Maximum / Vcc ± 5% ±0.2 ppm Maximum / 15 pF ± 10% ±1 ppm Maximum per year @25°C
Phase Noise (Typ)	-80 dBc/Hz at 10Hz; -120 dBc/Hz at 100Hz; -135 dBc/Hz at 1KHz -140 dBc/Hz at 10KHz; -145 dBc/Hz at 100KHz
Output Load Output Waveform Output Level	50 Ohms Sine wave 0 dBm Typ for 3.3V part; 10 dBm Typ for 5.0V part
Creating a Part NumberTCLS2-100M000-A I 010AProduct Series $\bigcirc$ Frequency $\bigcirc$ Supply Voltage: A = 5.0V $\bigcirc$ B = 3.3VI020 = ±2 ppmX = Customized Temp RangeVI025 = ±2.5 ppm	
MARKING AREA 19.8±0.5 Pin 1 Lo	cation $2.7$ $\downarrow$ 14.65 $\downarrow$ $14.65$ Recommended Solder Pad Layout $3.7$ $\downarrow$ $14.65$ $\downarrow$ $1$
2.2±0.5	Pin Connections
All dimensions are typical unless otherwise specified Dimensions in Millimeters	