TT Type High Precision
7.0 x 5.0 mm SMD Voltage Controlled Temperature Compensated Crystal Oscillator

FEATURE
- Typical 7.0 x 5.0 x 1.9 mm ceramic SMD package.
- High Precision for -40ºC ~ +85ºC, ±0.28ppm, -40ºC ~ +105ºC, ±2ppm.
- CMOS and Clipped Sine wave (without DC-cut capacitor) output optional.

TYPICAL APPLICATION
- Femtocell, Base Stations
- WLAN/WMAX/WIFI, Wireless Communications

DIMENSION (mm)

SOLDER PAD LAYOUT (mm)

To ensure optimal oscillator performance, place a by-pass capacitor of 0.1µF as close to the part as possible between Vdd and GND pads.

ELECTRICAL SPECIFICATION

Parameter | 5.0 V | 3.3V | Unit
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Supply Voltage Variation (Vdd) | Vdd-5% | Vdd+5% | Vdd-5% | Vdd+5% | V
Frequency Range | 5 | 52 | 5 | 52 | MHz
Standard Frequency | 10, 12.8, 16.384, 19.2, 19.44, 20, 25, 26 | MHz
Frequency Tolerance* | – | ±2.0 | – | ±2.0 | ppm
Frequency Stability| Vs Supply Voltage (±5%) change | – | ±0.1 | – | ±0.05 | ppm
| Vs Load (±10%) change | – | ±0.05 | – | ±0.05 | ppm
| Vs Aging (±1st year) | – | ±1.0 | – | ±1.0 | ppm/year
Supply Current (CMOS output) | – | 6 | – | 6 | mA
Supply Current (Clipped Sine Wave) | – | 3.5 | – | 3.5 | mA
Output Level (CMOS) Output High (Logic “1”) | 90%Vdd | – | 90%Vdd | – | V
Output Low (Logic “0”) | – | 10%Vdd | – | 10%Vdd | %
Output Level (Clipped Sine Wave) | 0.8 | – | 0.8 | – | Vp-p
Load (CMOS) 15µF | 15µF
Load (Clipped Sine Wave) 10 KΩ / 10pF | 10 KΩ / 10pF
Control Voltage Range (VCTCXO) | 0.5 | 2.5 | 0.5 | 2.5 | V
Pulling Range (VCTCXO) | ±5.0 | – | ±5.0 | – | ppm
Vc Input Impedance (VCTCXO) | 100 | – | 100 | – | kΩ
Phase Noise @ 10 MHz | 100 Hz | –130 | 1 kHz | –145 | dBc/Hz
| 10 kHz | –154 | mSec
Start time | – | 2 | – | 2 | mSec
Storage Temp. Range | -55 | 125 | -55 | 125 | ºC

Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position.

*Frequency at 25ºC, 1 hour after reflow.

Note: not all combination of options are available. Other specifications may be available upon request.