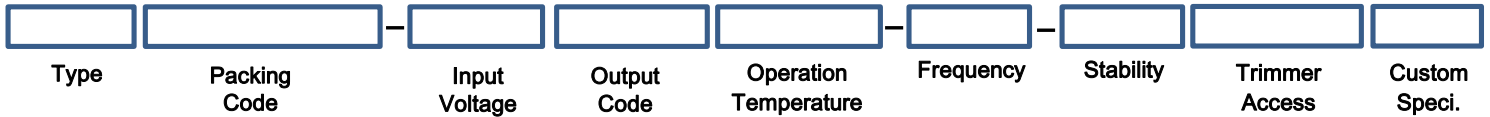


(V)TX Series:(Voltage-Controlled) Temperature Compensation Crystal Oscillators 1.000 - 150.000MHz

● SPECIFICATION

| | | | | | |
|---|-----------------------|--|------|-------|--------|
| Frequency Range | | 1.000 - 150.000MHz | | | |
| Input Voltage (VDD) | | 3.3V - 5.0V | | | |
| Frequency Stability | Vs. Temperature | ±0.5 ~ ±3.0PPM | | | |
| | Vs. Supply Voltage | ±0.3PPM max / VDD ±5% | | | |
| | Vs. Aging | ±1.0PPM per year | | | |
| | Vs. Load | ±0.3PPM | | | |
| Operation Temperature | | -40°C ~ +85°C (Optional , See below) | | | |
| Storage Temperature | | -40°C ~ +85°C | | | |
| Linearity (VCTCXO only) | Control Voltage Range | 1.5V±1.0V | | | |
| | Pulling Range | ±5.0PPM min. , Positive | | | |
| | Input Impedance | 500KΩ min. | | | |
| Current Consumption | | 3~25mA max (for <30.0MHz) | | | |
| Output Voltage | | CMOS : V _{OH} = 90% V _{DD} min , V _{OL} = 10% V _{DD} max | | | |
| Symmetry | | 45 ~ 55% at 0.5V _{DD} | | | |
| Load | | 15pf | | | |
| Phase Noise (for ≤40MHz) (dBc/Hz typ.) | | 100Hz | 1KHz | 10KHz | 100KHz |
| | | -115 | -135 | -148 | -150 |

● PART NUMBERING

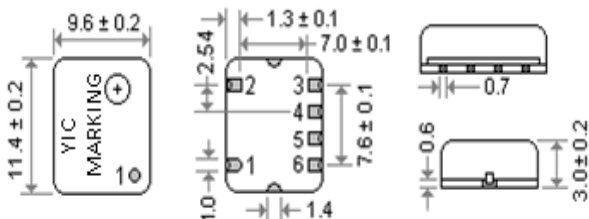


| Type | Packing Code | Input Voltage | Output Code | Operation Temperature | Frequency | Stability | Trimmer Access | Custom Speci. |
|------------|-------------------------------|---------------|-------------|-----------------------|-----------|---------------|-----------------|---------------|
| TX:TCXO | SMD Type: | 1.8 : 1.8V | C : Clipped | 1 : -10~+60°C | In MHz | 0.5 : ±0.5PPM | T : With | * |
| VTX:VCTCXO | 11106C : 11.4x9.6x2.5(H)mm,6P | 2.5 : 2.5V | Sine Wave | Blank : -10~+70°C | | 1 : ±1.0PPM | Trimmer | |
| | 11106T : 11.4x9.6x2.5(H)mm,6P | 2.8 : 2.8V | | 2 : -20~+70°C | | 1.5 : ±1.5PPM | | |
| | 11104C : 11.4x9.6x2.5(H)mm,4P | 3 : 3V | T : CMOS | 27 : -20~+75°C | | 2 : ±2.0PPM | Blank : Without | |
| | 11104T : 11.4x9.6x2.5(H)mm,4P | 3.3 : 3.3V | Square Wave | 28 : -20~+85°C | | 2.5 : ±2.5PPM | Trimmer | |
| | 754C : 7.0x5.0x2.3(H)mm,4P | 5 : 5V | | 37 : -30~+75°C | | 3 : ±3.0PPM | | |
| | 754T : 7.0x5.0x2.3(H)mm,4P | 8 : 8V | | 3 : -30~+80°C | | 5 : ±5.0PPM | | |
| | 534C : 5.0x3.2x1.2(H)mm,4P | 9 : 9V | | 38 : -30~+85°C | | | | |
| | 534T : 5.0x3.2x1.3(H)mm,4P | 10 : 10V | | I : -40~+85°C | | | | |
| | 324C : 3.2x2.5x1.0(H)mm,4P | 12 : 12V | | A : -40~+105°C | | | | |
| | 324T : 3.2x2.5x1.0(H)mm,4P | A : 1.8~3.3V | | B : -40~+125°C | | | | |
| | 224C : 2.5x2.0x0.8(H)mm,4P | B : 2.5~3.3V | | C : -55~+125°C | | | | |
| | 214C : 2.0x1.6x0.7(H)mm,4P | | | D : -40~+150°C | | | | |
| | | | | X : Custom | | | | |

Through-Hole Type:
 2013C : 20.3x12.8x7.0(H)mm
 2013T : 20.3x12.8x7.0(H)mm
 1812C : 18.4x11.7x4.7(H)mm
 1812T : 18.4x11.7x4.7(H)mm
 1313C : 12.2x12.8x5.5(H)mm
 1313T : 12.2x12.8x5.5(H)mm

(※ "C" for Clipped Sine Wave)
 (※ "T" for CMOS)

● DIMENSIONS (UNIT : mm)



Pin Connections :

| | |
|-----------|--|
| Pin 1,2,4 | Ground |
| Pin 3 | Output |
| Pin 5 | Control voltage for VCTCXO, No connection for TCXO |
| Pin 6 | Input Voltage |