

25.4 x 22.1 Oven Controlled **Crystal Oscillator – NJ Type**

FEATURE

- Dimension 25.4 x 22.1 x 11.0 mm typical.
- SC Cut Crystal.
- High stability ; Low Phase Noise.
- Packing: 40pcs/Box, 5 Box/Carton, 200pcs /Carton

TYPICAL APPLICATION

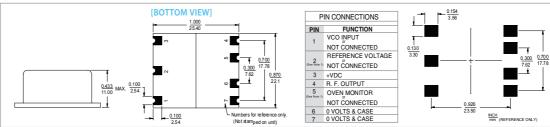
- SDH/SONET, Telecommunication base station
- Test and measurement equipment
- Aerospace
- Synthesizer, Digital switch, Reference Timing Circuit

DIMENSION



RoHS Compliant Standard

SOLDER PAD LAYOUT



ELECTRICAL SPECIFICATION

| Parameter | | Min. | Nominal | Max. | Unit | Test Condition |
|---|------------------|------|----------|-------|------|--|
| Output | Frequency | | 10 | | MHz | |
| | Wave Form | | CMOS | | | |
| | Level "1" | 2.4 | | | V | |
| | Level "0" | | | 0.4 | v | |
| | Load | | 15 | | pF | |
| | Spurious | | | -70 | dBc | |
| Frequency Sta | bility | | | | | |
| Ambient Operating Temperature | | | | ±30 | ppb | Referenced to +25°C |
| | | 0 | | +70 | °C | |
| Aging | | | | | | |
| At time of shipment After indefinite storage - Daily - Yearly - 10 years Voltage Warm-up | | | | ±1.0 | ppb | |
| | | | | ±1.0 | | After 30 days |
| | | | | ±100 | | |
| | | | | ±350 | | |
| | | | | ±10 | | ±5% Change |
| | | | | ±20 | | In 5 minutes@ +25°C (Referenced to 1 Ho |
| Phase Noise @ 10 MHz | | | | -115 | dBc | @ 10Hz |
| | | | | -135 | | @ 100Hz |
| | | | | -140 | | @ 1KHz |
| | | | | -140 | | @ 10KHz |
| Electrical Freq | uency Adjustment | | | | | |
| | Range | 0.4 | | 1.0 | ±ppm | |
| | Control | 0.0 | | 2.8 | V | |
| | Slope | | Positive | | | |
| | Center | 1.0 | 1.4 | 1.8 | V | Control Voltage at which nominal Frequency occurs at time of shipment |
| | Input impedance | 100 | | | ΚΩ | |
| Input Power | Voltage | 3.14 | 3.3 | 3.46 | V | |
| | Current | | | 3.0 | | @ turn on |
| | Steady state | | | 1.0 | W | @ 25°C |
| Reference Volt | tage Voltage | 2.72 | 2.8 | 2.88 | V | Optional 4.0V (Note1), 5.0V (Note2) |
| | Load | 9.0 | | ~~~ | KΩ | |
| Temperature Stability | | | | ±0.01 | VDC | |

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

Note 1: For all +5.0V input power units. Note2: For all +12V input power units.

*All aging stabilities are after storage of up to 1 year and apply after 30 days of continuous operation.

The daily aging rate also applies at the time of shipment from factory. *The Electrical Frequency Adjustment Range is sufficient for the life of the oscillator. Specification subject to change with frequency.

Available Frequency Range: 5MHz to 40 MHz including 5.0, 10.0, 16.384, 19.44, 24.576 and 32.768 MHz

FREQ. STABILITY vs. TEMP. RANGE

| Temp. (°C) | ±3 | ±5 | ±10 | |
|------------|------------------|----|-----|----------------|
| 0 ~ +70 | 0 | 0 | 0 | |
| -20 ~ +70 | \bigtriangleup | 0 | 0 | |
| -40 ~ +85 | X | Δ | 0 | * O: Available |

△:Conditional X: Not available