



# TEMPERATURE-COMPENSATED CRYSTAL OSCILLATOR

## TX092, VTX92

### Applications

- Cellular / PHS / GPS / Communication Equipment

### Features

- Ultra-thin / Dimensions (3.2×2.5×0.9)
- Seam sealed
- Low phase noise / Low power consumption
- High stability ±2.5ppm / -30°C ~+75°C

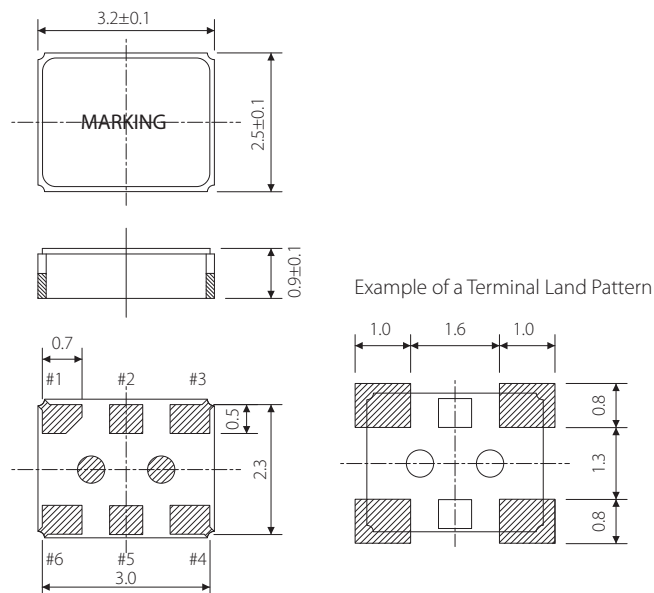
### Specifications



| Model                      | TX092   | VTX92  |                                       |
|----------------------------|---|--|---------------------------------------|
| Frequency range            | 8.000~45.000 MHz  |  |                                       |
| Nominal frequency (MHz)    | 8, 10, 13, 14.4, 16.3676, 19.2, 19.8, 20, 24.5535, 26, 39, 40, 44 |  |                                       |
| Frequency stability        | Tolerance at 25°C   | ±2.0×10 <sup>-6</sup> (Sixty minutes after reflow) |                                       |
|                            | Temperature (Ref.to+25°C)   | ±2.5×10 <sup>-6</sup> / -30~+75°C                  |                                       |
|                            | Supply voltage change   | ±0.2×10 <sup>-6</sup> / Vdd ± 5%                   |                                       |
|                            | Load change   | ±0.2×10 <sup>-6</sup> / ZL ± 10%                   |                                       |
| Aging (at 25°C)            | ±1.0×10 <sup>-6</sup> / First year                                |  |                                       |
| Storage temperature range  | -40~+85°C   |  |                                       |
| Power supply voltage (Vcc) | +2.5, +2.8V, +3.0V, +3.3V DC ±5%                                  |  |                                       |
| Current consumption        | 1.5mA max. (~20MHz), 2.0mA max. (~32MHz), 2.5mA max. (~45MHz)     |  |                                       |
| Output                     | Load (ZL)   | 10kΩ//10pF   |                                       |
|                            | Voltage   | 0.8V p-p min.                                      |                                       |
|                            | Waveform  | Clipped Sine Wave (DC-coupled output)              |                                       |
| External controlfunction   | Frequency tuning range  | —  | ±8.0×10 <sup>-6</sup> min. (Positive) |
|                            | External control voltage  | —  | +1.5V±1.0V DC                         |
|                            | Input impedance (Zvin)  | —  | 500kΩ min. (650kΩ typ.)               |
| Phase noise                | -135dBc typ. at 1kHz offset                                       |  |                                       |

Package quantity: 3,000pcs max./Reel.

### Outline and Dimensions [unit:mm]



| Terminal | Connection |         |
|----------|------------|---------|
|          | TCXO       | VC-TCXO |
| #1       | GND        | Vcont   |
| #2       | N.C.       |         |
| #3       | GND        |         |
| #4       | OUTPUT     |         |
| #5       | N.C.       |         |
| #6       | Vdd        |         |