

HCMOS TCXO

STO-7050B



Applications

- Cellular and Network equipment

Features

- HCMOS output with Tri-state function
- Ceramic package, Dimensions(7.0×5.0×1.40)
- High stability $\pm 2.5\text{ppm} / -30^\circ\text{C} \sim +75^\circ\text{C}$
- Low current consumption
- Low phase noise, Low jitter

Specifications



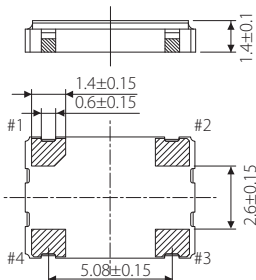
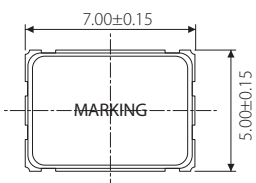
| Model | STO-7050B | |
|-----------------------------|---|---|
| Frequency range | 2.500~55.000 MHz | |
| Nominal frequency (MHz) | 5, 10, 12, 16, 20, 24, 32, 40, 44 | |
| Storage temperature range | -40~ +125 °C | |
| Operating temperature range | -30~ +75 °C | |
| Frequency stability | Tolerance at 25°C | $\pm 2.0 \times 10^{-6}$ (Sixty minutes after reflow) |
| | Temperature (+25°C basis) | $\pm 2.5 \times 10^{-6} / -30 \sim +75^\circ\text{C}$ |
| | Supply voltage change | $\pm 0.2 \times 10^{-6} / V_{\text{DD}} \pm 5\%$ |
| | Load change | $\pm 0.2 \times 10^{-6} / Z_L \pm 10\%$ |
| Aging | $\pm 1.0 \times 10^{-6} / \text{year at } +25^\circ\text{C}$ | |
| Power supply voltage (Vdd) | +2.5V, +2.8V, +3.3V DC $\pm 5\%$ | |
| Current consumption | *note / 10uA max (Standby) | |
| Output level | C-MOS | |
| Load | 15pF | |
| Output voltage level | $V_{\text{OL}}: 10\%V_{\text{DD}} \text{ max.} / V_{\text{OH}}: 90\%V_{\text{DD}} \text{ min.}$ | |
| Rise & Fall time | 5ns max. / 10%Vdd - 90%Vdd | |
| Duty cycle | 45% ~ 55% at 1/2Vdd | |
| Phase Noise / Jitter | -145dBc / Hz Typ. at 10kHz offset / 1 σ 3ps typ. | |
| Tri-state Function | #1: Floating. or "H"→Output enable / #1: "L"→Output disable (Hi-Z) | |

*Reference / Idd Spec (mA max.)

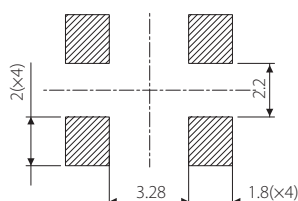
| Frequency | 4~10MHz | ~20MHz | ~30MHz | ~40MHz | ~54MHz |
|-----------|---------|--------|--------|--------|--------|
| 2.5V | 3.1 | 3.7 | 4.2 | 4.6 | 5.5 |
| 2.8V | 3.4 | 4.1 | 4.7 | 5.2 | 6.0 |
| 3.3V | 4.0 | 4.8 | 5.5 | 6.0 | 7.0 |

Package quantity: 1,000pcs max./Reel.

Outline and Dimensions [unit:mm]



Example of a Terminal Land Pattern



| Terminal | Connection |
|----------|------------|
| #1 | Tri-state |
| #2 | GND |
| #3 | OUTPUT |
| #4 | Vdd |

Tri-state Function

| Tri-state Pin | Output |
|------------------|--------------|
| High or Floating | Active |
| Low | Hi-impedance |