



# HCMOS TCXO STO-2520B

## Applications

- Cellular and Network Equipment

## Features

- HCMOS output with Tri-state function
- Ceramic package, Dimensions (2.5 × 2.0 × 0.9)
- High stability ±2.5ppm / -30°C ~ +75°C
- Low current consumption
- Low phase noise, Low jitter

## Specifications



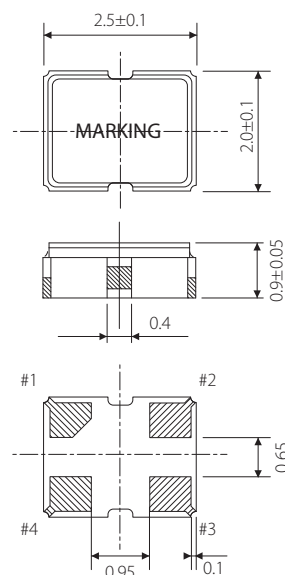
| Model                       | STO-2520B   |  |
|-----------------------------|---|--|
| Frequency range             | 3.200~55.000 MHz  |  |
| Nominal frequency (MHz)     | 5, 10, 12, 16, 20, 24, 32, 40, 44                               |  |
| Storage temperature range   | -40~ +125 °C  |  |
| Operating temperature range | -30~ +75 °C   |  |
| Frequency stability         | Tolerance at 25°C   | ±2.0 × 10 <sup>-6</sup> (Sixty minutes after reflow) |
|                             | Temperature (+25°C basis)                                       | ±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                       | ±1.0 × 10 <sup>-6</sup> / year at +25°C                         |  |
| Power supply voltage (Vdd)  | +2.5V, +2.8V, +3.3V DC ±10%                                     |  |
| Current consumption         | *note / 10uA max (Standby)                                      |  |
| Output level                | C-MOS   |  |
| Load                        | 15pF  |  |
| Output voltage level        | V <sub>OL</sub> :10%Vdd max. / V <sub>OH</sub> :90%Vdd 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 / 1σ 3ps typ.                 |  |
| Tri-state Function          | #1:Floating. or "H"→Output enable / #1:"L"→Output disable(Hi-Z) |  |

\*Reference / Idd Spec (mA max.)

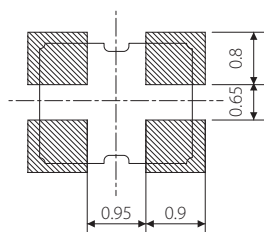
| Frequency | 4~10MHz | ~20MHz | ~30MHz | ~40MHz | ~54MHz |
|-----------|---------|--------|--------|--------|--------|
| 2.5V      | 3.1     | 3.7    | 4.2    | 4.6    | 5.5    |
| 2.8V      | 3.4     | 4.1    | 4.7    | 5.2    | 6.0    |
| 3.3V      | 4.0     | 4.8    | 5.5    | 6.0    | 7.0    |

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 |