

# PRECISION CRYSTAL OSCILLATOR

## SHO-2520



### Applications

- Wireless-LAN / PLC modem / WiMax / Mobile Communications etc..

### Features

- Ceramic package / Dimensions (2.5 × 2.0 × 0.9)
- High stability  $\pm 10\text{ppm}/-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- Low current consumption
- 3.1mA typ. (40MHz Vdd=+2.5V)
- Low phase noise, Low jitter
- CMOS output with Tri-state function

### Specifications

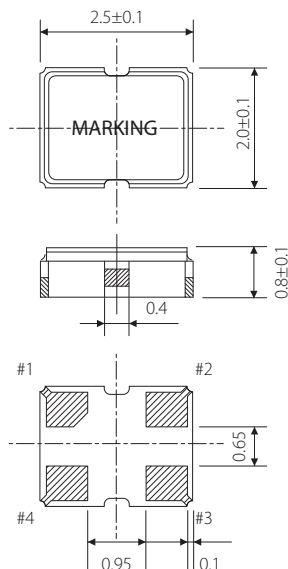


Model	SHO-2520
Frequency range	3.200~55.000 MHz
Nominal Frequency (MHz)	5, 10, 12, 16, 20, 24, 32, 40, 44
Storage temperature range	-40~+125°C
Operating temperature range	-40~+85°C
Frequency stability	$\pm 10 \times 10^{-6}$ , $\pm 15 \times 10^{-6}$ ※1
Power supply voltage (Vdd)	+2.5V, +3.0V, +3.3V DC $\pm 10\%$
Current consumption	7mA max. / 10uA max (Standby)
Output level	C-MOS
Load	15pF max.
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 / 1 $\sigma$ 3ps typ.
Tri-state Function	#1: Floating or "H"→Output enable / #1: "L"→Output disable (Hi-Z)

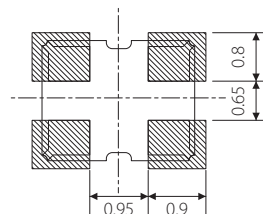
Package quantity: 3,000pcs max./Reel.

※1 Frequency stability includes initial tolerance, temperature characteristics, supply voltage & load stability, reflow freq. shift, aging (1year @25°C).

### 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