

# 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

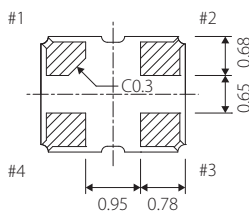
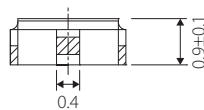
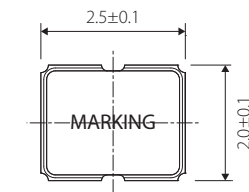


Model	SHO-2520
Frequency range	4.0~55.0MHz
Nominal frequency (MHz)	5, 10, 12, 16, 20, 24, 32, 40, 54
Storage temperature range	-40~+125 °C
Operating temperature range	-40~+85 °C
Frequency stability	$\pm 10 \times 10^{-6}$ , $\pm 15 \times 10^{-6} \times 1$
Power supply voltage (Vdd)	+2.5V, +3.0V, +3.3V DC $\pm 10\%$
Current consumption	7mA max. / 10uA max (Standby)
Output level	C-MOS
Load	15pF max.
Output voltage level	Vol: 10%Vdd max. / VoH: 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.F26
Tri-state Function	#1: Floating or "H"→Output enable / #1: "L"→Output disable (Hi-Z)

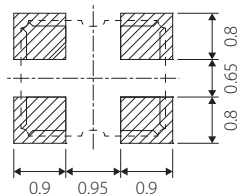
\* Frequency stability include initial tolerance, temperature characteristics, suppli voltage & load stability, reflow frequency shift, aging (1 year@25°C )

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

### Outline and Dimensions [unit:mm]



Land Pattern(REFERENCE)



Terminal	Connection
#1	Tri-state
#2	GND
#3	Output
#4	Vcc

Tri-state Function	
Tri-state pin	Output
High or Floating	Active
Low	Hi-Impedance