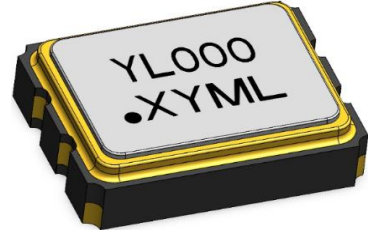


SMD MHz Quartz Crystal Oscillator

3L-Series for Automotive (3225)



■ Features

- 3.2 x 2.5 x H0.9±0.15 mm
- AEC-Q100 qualified

■ Applications

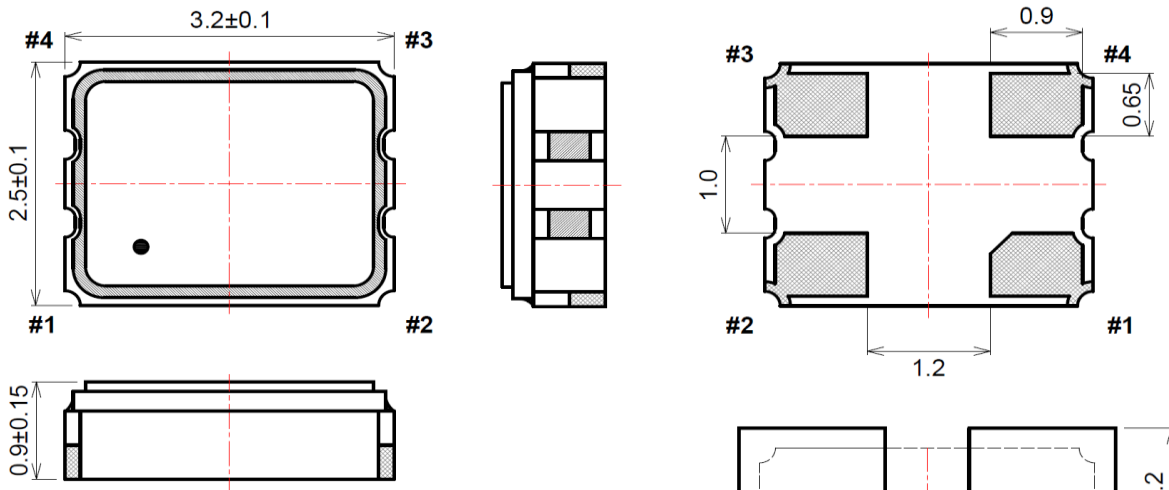
- Automotive
- Digital Electronics, Mobile Communications
- Bluetooth, Wireless LAN



■ General Specifications

#	Items	Parameters
1	Frequency range	32.768kHz, 1 to 50MHz
2	Oscillation mode	Fundamental or 3rd Overtone
3	Output type	CMOS
4	Supply voltage (V _{DD})	1.8V, 2.5V, 2.8V, 3.3V, 5V
5	Operating temperature range	-40 to +85°C, -40 to +105°C, -40 to +125°C
6	Storage temperature range	-55 to +125°C
7	Frequency stability vs. operating temperature range	±25ppm, ±50ppm, ±100ppm
8	Current consumption	20mA Max.
9	Duty cycle	40 to 55%, 40 to 60%
10	Rise/fall time	40ns Max. (32.768kHz), 8ns Max. (others)
11	Output level V _{OH}	0.9 x V _{DD} Min.
12	Output level V _{OL}	0.1 x V _{DD} Max.
13	Phase jitter	1.0ps Max.
14	Start-up time	10ms Max.
15	Aging at 25°C	±5ppm /year Max.

■ Package Dimensions, Pad Functions, & Recommended Land Pattern (Unit: mm)



Pad connections & functions		
1	OE	Output enable
2	GND	Ground
3	OUT	Output
4	V _{DD}	Power supply

