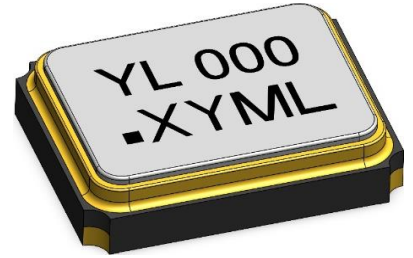


# SMD MHz Quartz Crystal Resonator 3Y-Series for Automotive (3225)



## ■ Features

- Size (L x W) 3.2 x 2.5, Height (Max.) 0.8 mm
- AEC-Q200 qualified

## ■ Applications

- TPMS, RKE, front lighting system etc.
- ADAS, camera/radar system, IVI, car audio, etc.
- BMS, charger, converter, etc.

**AEC-Q200**  
Qualified

**MSL1**  
Moisture  
Sensitivity  
Level

**Pb**  
Lead-Free

**RoHS**  
Compliant

## ■ General Specifications

#	Items	Parameters
1	Frequency range	12 to 48MHz
2	Oscillation mode	Fundamental
3	Frequency tolerance at 25°C	±10, ±15, ±20, ±30, ±50 ppm
4	Frequency stability Vs. Operating temperature range	See below Table 1
5	Equivalent series resistance	See below Table 2
6	Drive level	10, 100, 200 μW or specify
7	Insulation resistance	500 MΩ Min. at DC 100V
8	Load capacitance	8, 10, 12 pF or specify
9	Shunt capacitance (C0)	3 pF Max. or specify
10	Aging at 25°C	±3 ppm / year or specify

■ Tab. 1: Frequency Stability Vs. Operating Temperature Range

Temp. \ (ppm)	±30	±50	±100
-40 to +105 °C	●	●	●
-40 to +125 °C		●	●

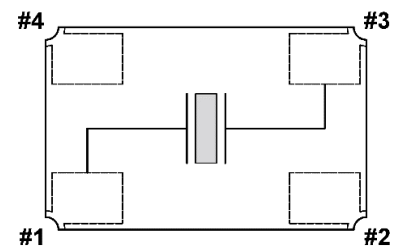
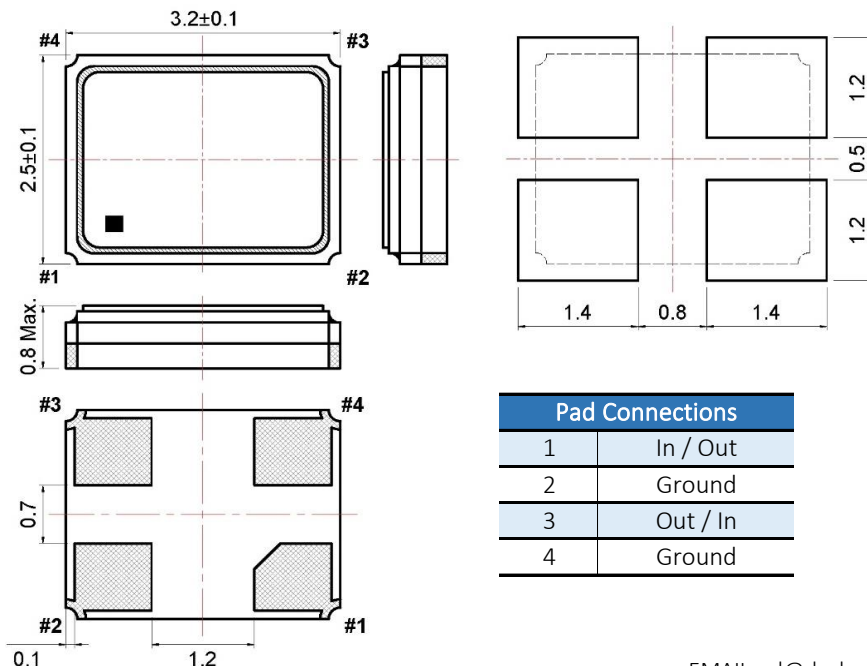
■ Tab. 2: Equivalent Series Resistance

Frequency (MHz)	ESR <sub>MAX</sub> (Ω)	Oscillation mode
12 to 16	80	Fundamental
16 to 32	50	
32 to 48	30	

Note: The mark “●” denotes our achieved level

## ■ Package Dimensions & Recommended Land Pattern (Unit: mm)

## ■ Pad Functions



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