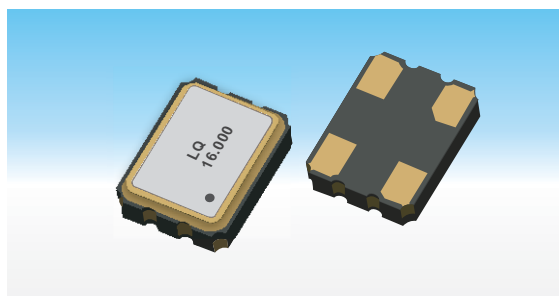


# SMD Crystal Oscillators

**3N Series SMD 3225 Crystal Oscillators**
**1~220MHz**
**O: CMOS**
**Size: 3.2×2.5×1.0 mm**


Actual size

## Features

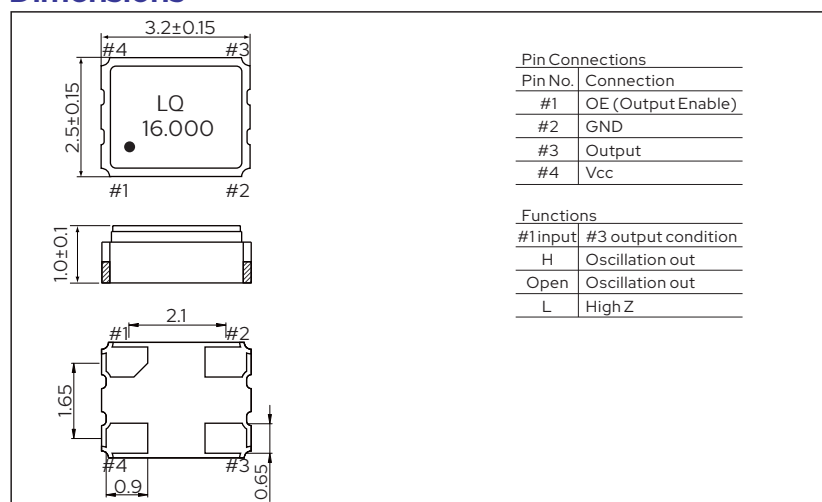
- 3225 size, 1.0mm high. Ultra miniature and lightweight SMD crystal oscillators
- 3-state function
- Supply voltage: 1.8V~3.3V
- Available frequency range: 1MHz~220MHz
- Low jitter provides for high performance
- Application for smart phone, WiLAN, WiMAX, Bluetooth, PC, PC peripherals, Automotive multimedia device, etc
- RoHS Compliant /Pb Free



## Standard Specifications

Item	Type	3N Series SMD 3225 Crystal Oscillators
Output Type		CMOS
Load condition		15pF, or specify
Frequency Range		1MHz~220MHz
Supply Voltage		1.8V~3.3V
Frequency Stability (All Condition)		±20ppm, ±25ppm, ±30ppm, ±50ppm, or specify
Current Consumption		10mA max.
Stand-by Current		10µA max.
Symmetry		45~55%
0 Level Output Voltage (V <sub>OL</sub> )		0.1 V <sub>CC</sub> max.
1 Level Output Voltage (V <sub>OH</sub> )		0.9 V <sub>CC</sub> min.
Rise Time / Fall Time		10ns max.
OE Pin 0 Level Input Voltage (V <sub>IL</sub> )		0.2V <sub>CC</sub> max.
OE Pin 1 Level Input Voltage (V <sub>IH</sub> )		0.8V <sub>CC</sub> min.
Start-up Time		1ms max.
Operating Temperature Range		-20~+70C, -40~+85°C, -55~+85°C, -40~+105°C, -55~+125°C or specify
Storage Temperature Range		-55~+125°C
Phase Jitter (12KHz~20MHz)		1ps max.

## Dimensions



## Recommended Land Pattern [mm]

