

XX Type

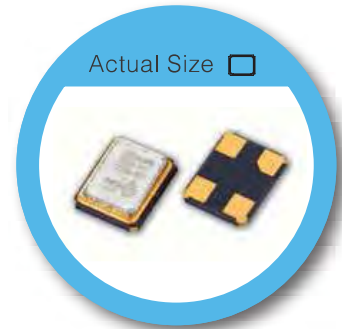
3.2 x 2.5 mm SMD Crystal

FEATURE

- Typical 3.2 x 2.5 x 0.7 mm ultra thin ceramic package.
- 8mm width Tape & Reel package for automatic assembly.
- Tight tolerance 10 ppm available.

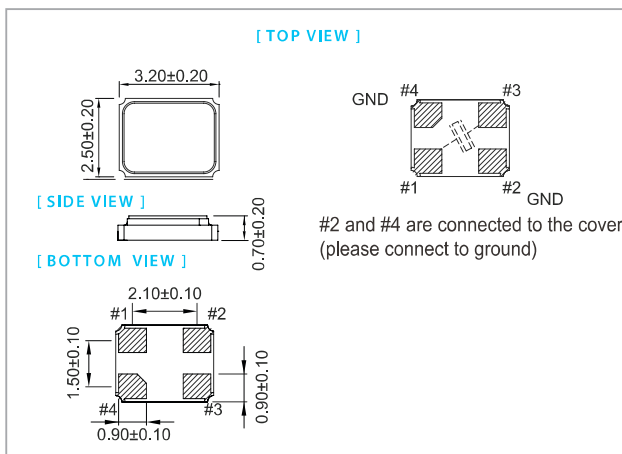
TYPICAL APPLICATION

- Bluetooth, Mobile Phone, GPS
- Wireless LAN, 4G/LTE
- Hard Disk

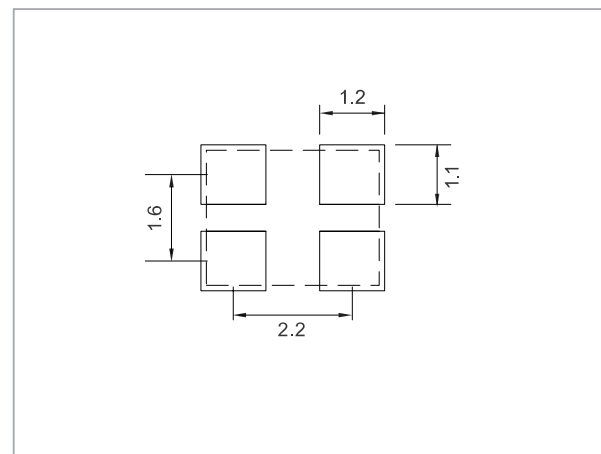


RoHS Compliant

DIMENSION (mm)



SOLDER PAD LAYOUT (mm)



ELECTRICAL SPECIFICATION

| Parameter | Min. | Typical | Max. | Unit |
|------------------------|-----------------|------------------------|------|------------|
| Storage Temp. Range | -55 | - | 125 | °C |
| Standard Frequency | | 16, 24, 26, 27, 32, 40 | | MHz |
| Level of Drive | - | 10 | 200 | µw |
| Shunt Capacitance (Co) | - | - | 3.0 | pF |
| Insulation Resistance | 500 MΩ @ DC100V | - | - | |
| Aging | | ±1.0 to ±3.0 | | ppm / year |

Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position.

EQUIVALENT SERIES RESISTANCE (E.S.R)

| Frequency Range | MODE | E.S.R |
|------------------------|------|-------|
| 12 MHz ≤ Fo ≤ 13 MHz | A1 | <150Ω |
| 13 MHz < Fo ≤ 19.5 MHz | A1 | <80Ω |
| 19.5 MHz < Fo ≤ 27 MHz | A1 | <60Ω |
| 27 MHz < Fo ≤ 60 MHz | A1 | <50Ω |

FREQ. STABILITY vs. TEMP. RANGE

| Temp.(°C) | ppm | | |
|-----------|-----|-----|-----|
| | ±5 | ±10 | ±15 |
| -10 ~ +60 | △ | ○ | ○ |
| -20 ~ +70 | X | ○ | ○ |
| -40 ~ +85 | X | X | △ |

* ○: Available △:Conditional X: Not available

FREQ. STABILITY vs. WIDE TEMP. RANGE

| Temp.(°C) | ppm | | | |
|------------|-----|-----|-----|-----|
| | ±15 | ±20 | ±30 | ±50 |
| -40 ~ +105 | △ | ○ | ○ | ○ |
| -40 ~ +125 | X | X | △ | ○ |

* ○: Available △:Conditional X: Not available