

2520

[ 2.5×2.0×0.55 mm ]

3225

[ 3.2×2.5×0.70 mm ]



Surface Mount Crystals

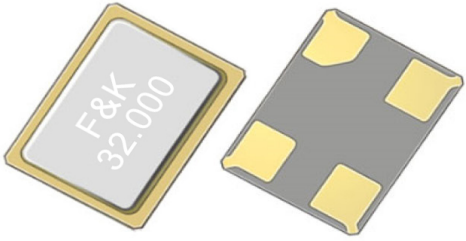
Fundamental

Frequency Range

8MHz~125MHz

Features

- Small size SMD crystal units with 2.5×2.0 (2520), 3.2×2.5 (3225), seam sealed package or glass sealed package.
- The entire package can be grounded via the top metal lid and the bottom pads
- Small footprint. Ideal for space constrained applications
- Exhibits extremely low aging with a high shock & vibration resistance
- Applications: Mobile phone, WI-LAN, Wireless communications, Bluetooth, Clock for MPU, Radio communications, etc.



Standard Specifications

| Item / Type                   | 2520                                           | 3225             |
|-------------------------------|------------------------------------------------|------------------|
| Frequency Range               | 12~54 MHz (Fund.)                              | 8~125 MHz(Fund.) |
| Load Capacitance              | 8pF~32pF, or specify                           |                  |
| Drive Level                   | 100 $\mu$ W typical                            |                  |
| Frequency Tolerance (at 25°C) | $\pm$ 10ppm, $\pm$ 20ppm or $\pm$ 30ppm (max.) |                  |
| Aging                         | $\pm$ 3ppm / Year (max.)                       |                  |
| Storage Temperature Range     | -55°C~+125°C                                   |                  |

ESR (Equivalent Series Resistance)

| 2520            |                   | 3225            |                   |
|-----------------|-------------------|-----------------|-------------------|
| Frequency Range | E.S.R             | Frequency Range | E.S.R             |
| 12~15.999MHz    | 150 $\Omega$ max. | 8~9.9999 MHz    | 250 $\Omega$ max. |
| 16~29.999MHz    | 100 $\Omega$ max. | 10~11.999 MHz   | 200 $\Omega$ max. |
| 30~54MHz        | 70 $\Omega$ max.  | 12~29.999 MHz   | 80 $\Omega$ max.  |
|                 |                   | 30~125 MHz      | 40 $\Omega$ max.  |

Frequency stability Vs Operating temperature range

| ppm<br>Temp. (°C) | $\pm$ 5 | $\pm$ 10 | $\pm$ 15 | $\pm$ 20 | $\pm$ 25 | $\pm$ 30 |
|-------------------|---------|----------|----------|----------|----------|----------|
| -10~+60           | ▲       | ○        | ○        | ○        | ○        | ○        |
| -20~+70           | ×       | ○        | ○        | ○        | ○        | ○        |
| -40~+85           | ×       | ×        | ○        | ○        | ○        | ○        |

▲: Conditional  
○: Available  
×: Not available

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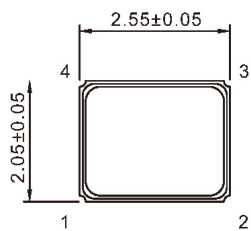
Fundamental

Frequency Range

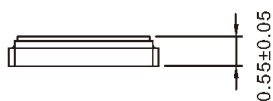
8MHz~125MHz

### Outline Dimensions (Unit: mm)

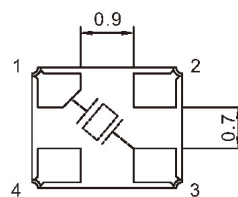
#### 2520 (2.5×2.0×0.55 mm)



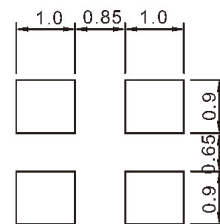
Top View



Side View

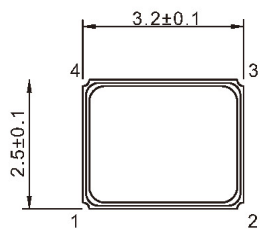


Bottom View

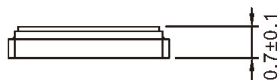


Top View Suggested Layout

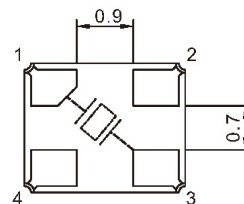
#### 3225 (3.2×2.5×0.70 mm)



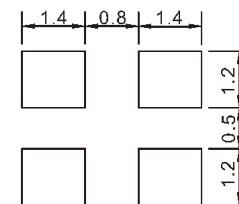
Top View



Side View



Bottom View



Top View Suggested Layout