

Quartz Crystal Units

N22

[2.5×2.0×0.55 mm]

N32T

[3.2×2.5×0.70 mm]

N32

[3.2×2.5×0.80 mm]

Surface Mount Crystals

Oscillation Mode

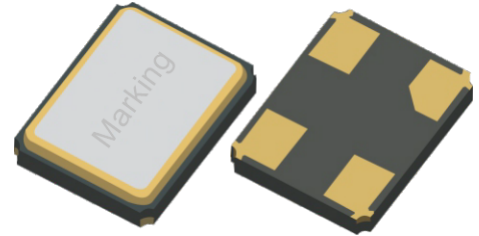
Fundamental

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	N22 (2.5×2.0×0.55 mm)	N32T (3.2×2.5×0.70 mm)	N32 (3.2×2.5×0.80 mm)
Frequency Range	12~54 MHz (Fund.)	8~125 MHz(Fund.)	8~60 MHz (Fund.)
Load Capacitance	8pF~32pF, or specify		
Drive Level	10 μW typical (200 μW max.)		
Frequency Tolerance (at 25°C)	± 10ppm, ±20ppm or ±30ppm (max.)		
Aging	±3ppm / Year (max.)		
Storage Temperature Range	-55°C~+125°C		

ESR (Equivalent Series Resistance)

N22 (2.5×2.0×0.55 mm)		N32T (3.2×2.5×0.70 mm)		N32 (3.2×2.5×0.80 mm)	
Frequency Range	E.S.R	Frequency Range	E.S.R	Frequency Range	E.S.R
12~15.999MHz	150 Ω max.	8~9.9999 MHz	250 Ω max.	8~10 MHz	250 Ω max.
16~29.999MHz	100 Ω max.	10~11.999 MHz	200 Ω max.	10~12 MHz	200 Ω max.
30~54MHz	70 Ω max.	12~29.999 MHz	80 Ω max.	12~30MHz	80 Ω max.
		30~125 MHz	40 Ω max.	30~60 MHz	60 Ω max.

Frequency stability Vs Operating temperature range

ppm Temp. (°C)	±5	±10	±15	±20	±25	±30
-10~+60	▲	○	○	○	○	○
-20~+70	×	○	○	○	○	○
-40~+85	×	×	○	○	○	○

▲: Conditional

○: Available

×: Not available

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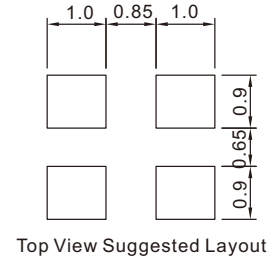
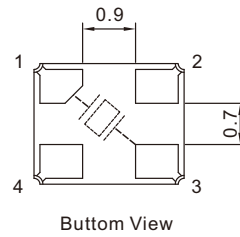
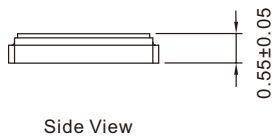
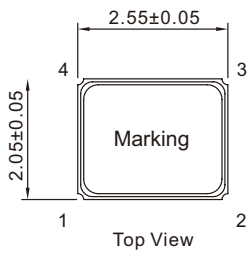
Fundamental

Frequency Range

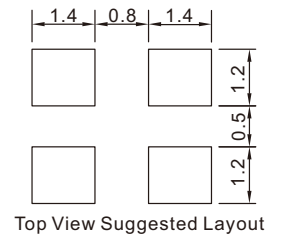
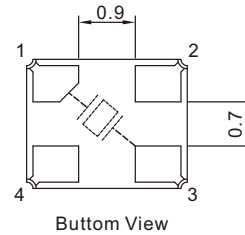
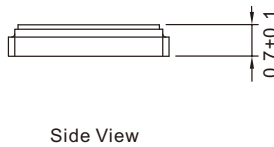
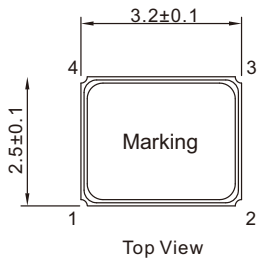
8MHz~125MHz

Outline Dimensions (Unit: mm)

N22 (2.5×2.0×0.55 mm)



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