

# Package :TAS-2520B

## Ultra Miniature Surface Mount Crystal

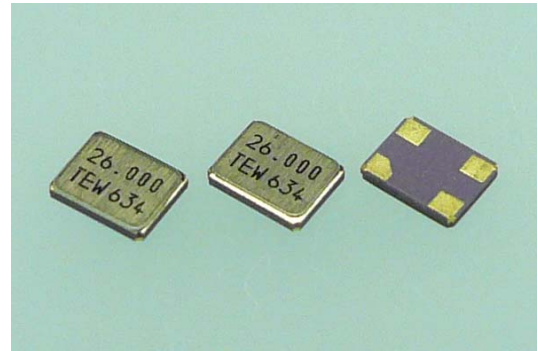
### ■Feature

Minimal size area with the low profile (2.5×2.0, 0.45±0.05). Hermetic sealing by Gold-Tin(Au-Sn) methodology. Part is preconditioned to temperatures well beyond lead free reflow for unsurpassed reliability. High precision and high reliability. Product is lead free in construction. Can be mounted to PCB using a lead free solder reflow process.

■Applications Cellular Phones, Bluetooth, WLAN, Zigbee

### ■Standard Specifications

Characteristic	Value
Size (mm)	2.5×2.0, 0.45t±0.05t
Overtone Order	Fundamental
Frequency Range (MHz)	16 to 60 (See Table 1)
Equivalent Series Resistance (Ω)	60max. to 80max.
Drive Level (μWatts )	30
Operating Temperature Range	See Table 2
Frequency Temperature Characteristics (in reference to 25 °C)	See Table 2



### ■Table 1 Typical Frequencies

Frequency (MHz) - ESR	
16.000[ESR=80 Ω max]	18.000[ESR=80 Ω max]
19.200[ESR=80 Ω max]	20.000[ESR=80 Ω max]
24.000[ESR=80 Ω max]	26.000[ESR=60 Ω max]
27.000[ESR=60 Ω max]	32.000[ESR=60 Ω max]
36.000[ESR=60 Ω max]	38.400[ESR=60 Ω max]
40.000[ESR=60 Ω max]	44.000[ESR=60 Ω max]

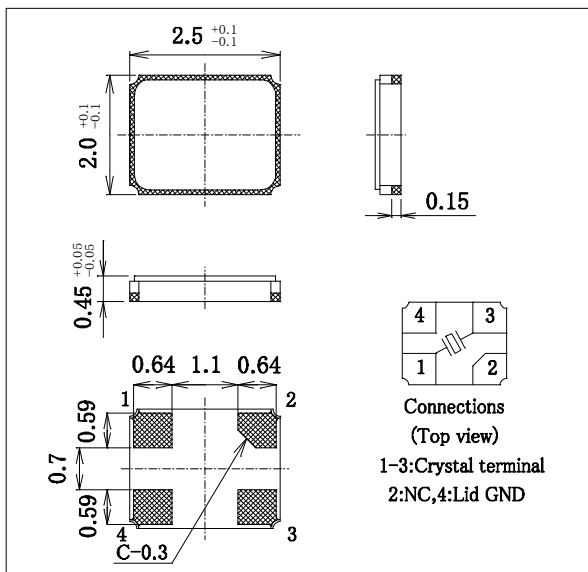
### ■Table 2 Frequency vs. Temperature Characteristics

Temperature Range	Stability ( ppm )	Frequency Tolerance(ppm@25°C)
-10 to +55 °C	±5 max.	±10 max., ±20 max. (25 °C ± 3°C)
-20 to +70 °C	±10 max.	
-30 to +85 °C	±15 max.	

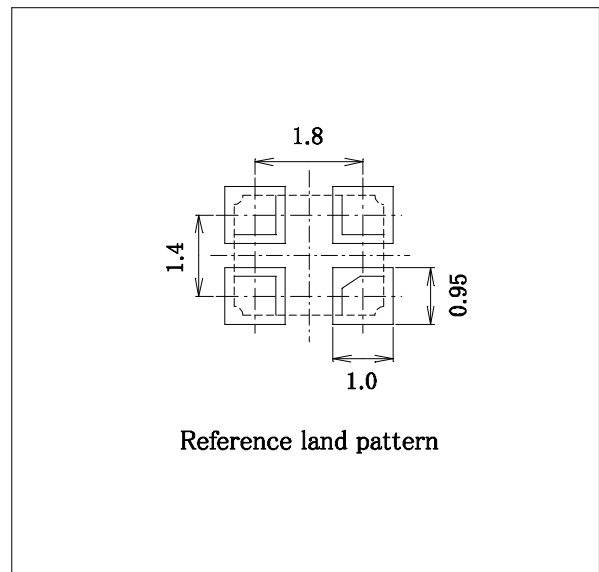
Note :

Modified specifications are available upon request for specific applications.

### ■Outline Dimensions



### ■Reference Land Patterns



The ordering number will be obtained separately by customer's requirement.