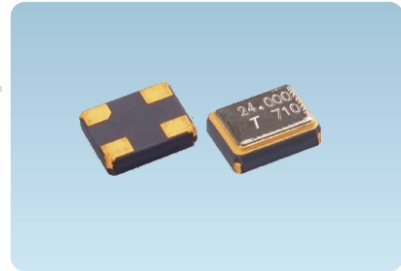


TX1 Type

2.05x1.65x0.45mm typ

16MHz up to 60MHz



Feature

A small surface mount type crystal unit, especially suited for small-sizing requirements.

- Ultra compact and thin. (2.05×1.65×0.45mm typ.)
- Tight Tolerance 10 ppm available.
- Application: Bluetooth ; Mobile phone; W-LAN; Office Automation; Audio & Video.

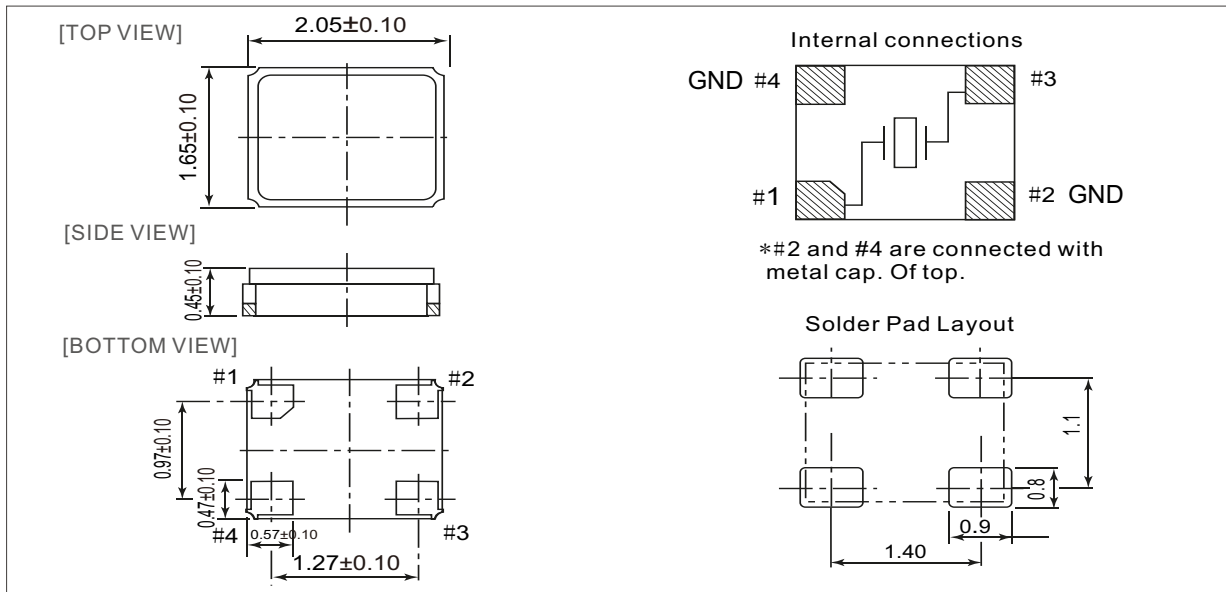
Automation; Audio & Video.

- Meets the requirements for re-flow profiling using lead-free solder.

Specifications

Item	Type	TX1-Type		
Frequency Range		16~20MHz	20~30MHz	30~60MHz
Oscillator Mode		Fundamental		
Load Capacitance		8pF to Series		
Drive Level 0		10μW(200μW max.)		
Frequency Tolerance		$\pm 10 \times 10^{-6}, \pm 20 \times 10^{-6}, \pm 30 \times 10^{-6}, \pm 50 \times 10^{-6}$ (at 25°C)		
Series Resistance		200Ω max.	100Ω max.	80Ω max.
Operating Temperature Range		-10~+60°C, -20~+70°C, -40~+85°C		
Storage Temperature Range		-55~+125°C		
Packing Unit		3000pcs/reel(Ø180)		

Outline Drawing(mm)



Frequency Stability Vs. Temperature Range

Temp.(°C)	Ppm	±5	±10	±15	
-10 ~ +60		+	✓	✓	
-20 ~ +70		×	+	✓	
-40 ~ +85		×	×	+	
Temp.(°C)	Ppm	±15	±20	±30	±50
-40 ~ +105		+	✓	✓	✓
-40 ~ +125		×	×	+	✓

✓ Available + Conditional × Not Available

Oscillation Circuit of Fundamental Mode

