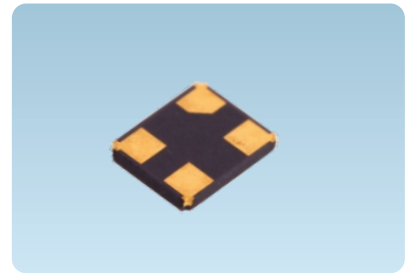




2.5×2.0×0.45mm typ

12MHz up to 60MHz



### Feature

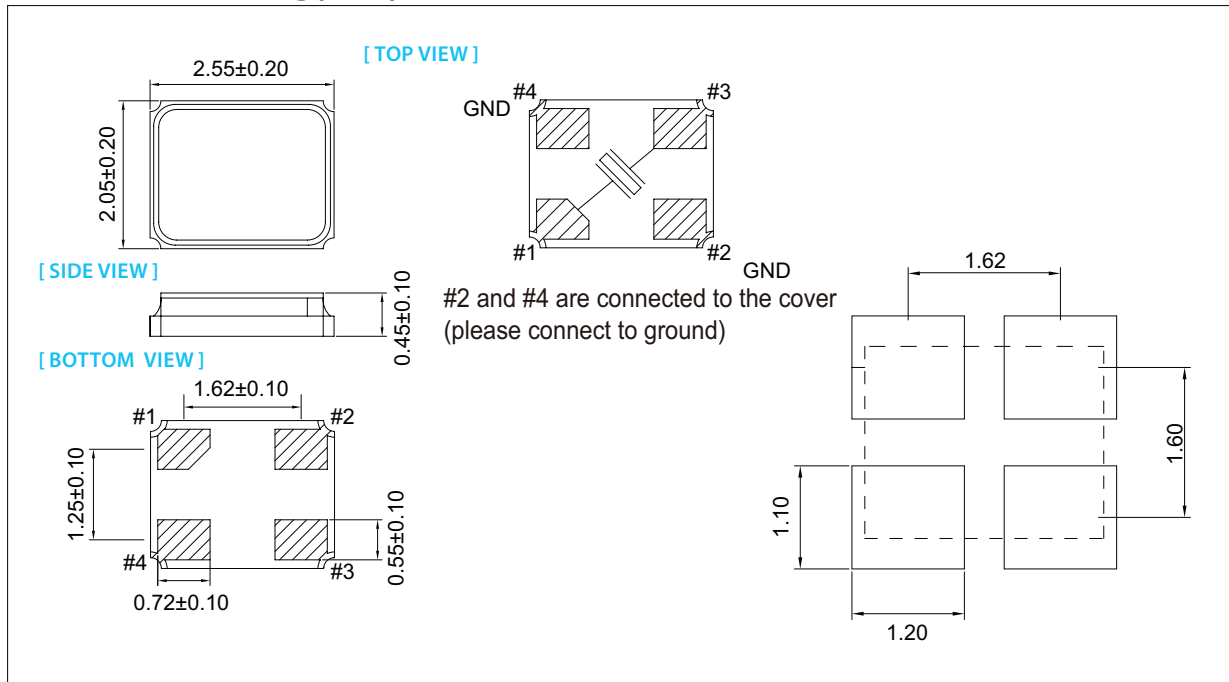
A small surface mount type crystal unit, especially suited for small-sizing requirements.

- Ultra compact and thin. (2.5×2.0×0.45mm typ.)
- Tight Tolerance 10ppm available.
- Application: Bluetooth ; Mobile phone; W-LAN; Office Automation; Audio & Visual.
- Meets the requirements for re-flow profiling using lead-free solder.

### Specifications

Item	Type	TX3-Type			
		12~13MHz	13~19.5MHz	19.5~27MHz	27~60MHz
Frequency Range		12~13MHz	13~19.5MHz	19.5~27MHz	27~60MHz
Oscillator Mode		Fundamental			
Load Capacitance		Series, 6~32pf, or specify			
Drive Level		10μW(200μW max.)			
Frequency Tolerance		±10×10 <sup>-6</sup> , ±20×10 <sup>-6</sup> , ±30×10 <sup>-6</sup> , ±50×10 <sup>-6</sup> (at 25°C)			
Series Resistance		150Ω max.	80Ω max.	60Ω max.	50Ω 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

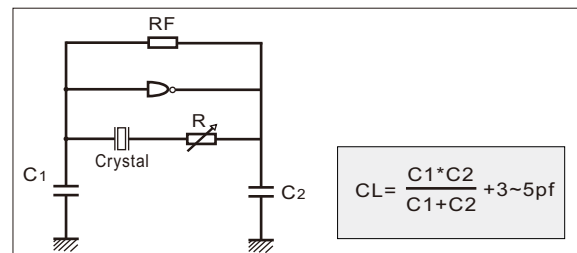
Temp.(°C)	Ppm	±5	±10	±15
-10 ~ +60		+	✓	✓
-20 ~ +70		×	✓	✓
-40 ~ +85		×	×	+

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

✓ Available + Conditional × Not Available

### Oscillation Circuit of Fundamental Mode





## Model Numbering Guide – Crystal Units

### Available options

①	②	③	④		⑤						
Type	package (mm)	Frequency range	Load Capacitance (pF)	Freq. Tol. @25°C (ppm)	Freq. Stability (ppm)	Temp. Range(°C)	Special Requirement	Oscillator Mode	Appearance	Lead Free	Dash
1612	1.6x1.2	3.00~100.00MHZ	6	±5	±5	A:-20~+70 B:-40~+85 J:-40~+105	For Automotive Spurious DLD No Special Pullability Several	AT Fundamental AT 3 <sup>rd</sup> Overtone	Normal	RoHs Compliant	-
2016	2.0x1.6		7	±10	±10						
2520	2.5x2.0		8	±15	±15						
3225	3.2x2.5		9	±20	±20						
5032	5.0x3.2 (4Pads)		10	±25	±25						
6035	6.0x3.5		12	±30	±30						
3225	3.2x2.5		15	±40	±40						
5032	5.0x3.2 (2Pads)		16	±50	±50						
8045	8.0x4.5		18	±100	±100						
49S	11.1x4.68		20	±150	±150						
49MD	13.0x4.85		22		±150 above						
			25								
		30									
		32									

产品编号:  -  -  -  -

① 型号    ② 频率    ③ 负载电容    ④ 频率稳定度 (X10<sup>-6</sup>, +25°C)    ⑤ 温度

范例: 3225-12.00-20-20-20/A

①    ②    ③    ④    ⑤

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Resonators](#) category:*

*Click to view products by [Liming](#) manufacturer:*

Other Similar products are found below :

[B39431R820H210](#) [CSAC2.00MGCM-TC](#) [ECS-HFR-40.00-B-TR](#) [CSTLS4M00G53Z-A0](#) [ZTB455E](#) [ECS-CR2-16.00-A-TR](#) [ECS-HFR-20.00-B-TR](#) [ECS-CR2-20.00-A-TR](#) [RO3164E-3](#) [ASR418S2-T](#) [CSTNE10M0G520000R0](#) [CSTLS8M00G53093-A0](#) [CSTNE12M0G52A000R0](#) [CSTLS18M4X54-A0](#) [CSTLS16M9X53Z-B0](#) [CSTLS24M0X51-A0](#) [CSTLS25M0X51-B0](#) [CSTLS18M0X51-B0](#) [CSTLS4M00G53093-A0](#) [CSTLS18M4X53-A0](#) [CSTNE16M0V510000R0](#) [CSTLS30M0X53-B0](#) [CSTLS33M8X53-B0](#) [CSTLS16M9X53-A0](#) [CSTLS6M40G56-B0](#) [CSTLS6M25G56-A0](#) [CSTNE14M7V510000R0](#) [CSTLS18M4X53-B0](#) [CSTLS33M0X51-B0](#) [CSTLS5M50G56-B0](#) [7B008000I01](#) [7D038400I01](#) [TAXM24M2ILDBET2T](#) [TAXM26M2IHDBET2T](#) [146-32.768-12.5-20-20/A](#) [3225-24.00-12-10-10/A](#) [7B009843M01](#) [CF4016M00009T8188042](#) [S32400001B0730D1JB](#) [X252016MLB4SI](#) [Q24FA20H00389](#) [CSTLS16M0X54-B0](#) [CSTLS4M19G56-B0](#) [9AC04194152080D2JB](#) [CST3.58MGW](#) [CSTCR4M91G55B-R0](#) [CSTLS3M68G56-B0](#) [S2100327072090](#) [FC-12M32.768KHZ9PF20PPM](#) [7Y032768NW2](#)