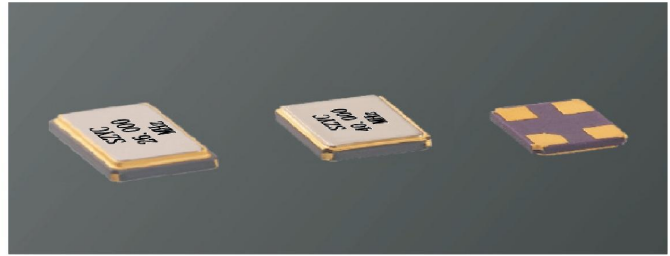




## Features

Ultrathin thickness 0.8mm or less  
Tape and Reel is available,  
Automatic mountable  
Tight Tolerance /Stability  
Reflow is possible



## Specifications

Type		SMD 3225	SMD 2520	SMD 2016
频率范围 (MHz)	Frequency Range	10.000~60.000MHz	16.000~80.000MHz	20.000~80.000MHz
振动模式	Vibration Mode	AT Fundamental		
调整频差 (ppm)	Frequency Tolerance (at 25 °C)	± 10ppm, ± 30ppm, ± 50ppm		
温度频差 (ppm)	Frequency Stability Over Temperature	± 10ppm, ± 30ppm, ± 50ppm		
工作温度 ( °C )	Operating Temperature	-10 °C ~ +60 °C, -20 °C ~ +70 °C		
储存温度 ( °C )	Storage Temperature Range	-40 °C ~ +85 °C		
等效电阻 ( Ω )	Equivalent Series Resistance	See Table		
静态电容 (pF)	Shunt Capacitance	5.0 pF Max		
负载电容 (pF)	Load Capacitance	CL ≥ 8pF or Series Resonance		
绝缘电阻 (MΩ)	Insulation Resistance	≥ 500M Ω // DC100V ± 10V		
激励功率 ( μ W)	Drive Level	0.01 μ W ~ 100 μ W		
老化率 (ppm/y)	Aging	± 2ppm/year, ± 5ppm/year		

All specifications subject change without notice.

## Equivalent Series Resistance (ESR) (Table)

Freq.Range(MHz)	Mode of Oscillation	ESR( Ω Max)		
		3225	2520	2016
10.000 ~ 12.900	AT.Fund	100	/	/
13.000 ~ 15.900	AT.Fund	80	/	/
16.000 ~ 20.900	AT.Fund	70	150	/
21.000 ~ 24.900	AT.Fund	60	100	200
21.000 ~ 29.900	AT.Fund	60	100	100
30.000 ~ 40.000	AT.Fund	50	60	100
31.000 ~ 60.000	AT.Fund	50	60	60
61.000 ~ 80.000	AT.Fund	/	60	60

# SMD Crystal 3225, 2520, 2016

## ■ Environmental / Mechanical Specifications

Parameter	Specifications
Seal integrity	Bubble test in Perfluorocarbon at 125°C ± 5°C for 60 seconds minimum
Solder ability	Sn63 Solder dip at 230°C ± 5°C for 5 seconds 95% coverage
Marking permanency	10 strokes with brush after 1 minute soak in solvent, 3 times
Shock	Random drop on hard wooden plate 3 times from a height of 50cm
Thermal shock	10 cycles from -55°C ~ +125°C

## ■ Dimension (Unit: mm)

