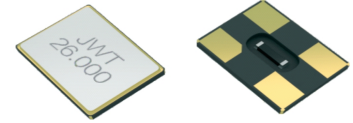




1.6x1.2mm SMD Crystal-TSX

QO Series



Product Features

1. Reliable seam sealed ceramic package
2. Wide operating temperature
3. Built-in thermistor
4. Complete Pb-free

Applications

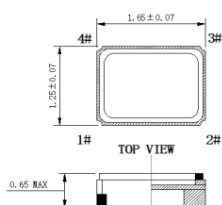
1. Smart phone
2. Smart wearable
3. GNSS

Specifications

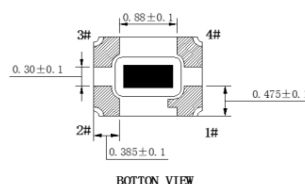
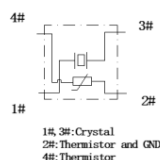
Model	QO1612		
Nominal frequency range	38.400MHz	52.000MHz	76.800MHz
Oscillation mode	Fundamental (AT-cut)	Fundamental (AT-cut)	Fundamental (AT-cut)
Frequency tolerance at 25°C±3°C	±10ppm	±10ppm	±10ppm
Operating temperature range	-30°C~105°C	-40°C~105°C	-40°C~85°C
Frequency stability over temperature(Ref.to 25°C)	±12ppm at -30~+85°C	-12~10ppm at -30~+85°C	±20ppm
		-30~10ppm at -40~+85°C	
		-30~40ppm at -40~+105°C	
Storage temperature range	-40°C~105°C	-40°C~105°C	-40°C~105°C
Equivalent series resistance	80Ω Max	30Ω at -30~+95°C	50Ω Max
		35Ω at -40~-30°C, +95~+105°C	
Tuning sensitivity	7~16ppm/pF	9~15ppm/pF	10~15ppm/pF
Spurious mode series resistance	1100Ω (±1MHz)	1100Ω (±1MHz)	1100Ω (±1MHz)
Q Factor	75K MIN	55K MIN	50K MIN
Insulation resistance	500MΩ MIN (at DC 100V)	500MΩ MIN (at DC 100V)	500MΩ MIN (at DC 100V)
Reflow	±2ppm (After 3 reflows)	±2ppm (After 3 reflows)	±2ppm (After 3 reflows)
Inflection point (T=T0-C2/(3*C3))	27.5~30.5°C	25.5~28°C (27°C Type)	22.5~26.5°C
Load capacitance	8pF	8pF	7pF
Drive level max	200uW	230uW	250uW
Aging at first year	±0.7ppm	±0.7ppm	±0.7ppm

Notes: The above parameters are for normal demands, If you have any different demands, Please contact us.

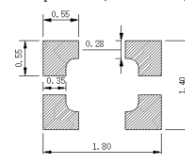
Dimensions (Unit: mm)



Terminal land connections



Land pattern (Recommended)



Pin	Function
#1	Xtal
#2	Thermistor and GND
#3	Xtal
#4	Thermistor