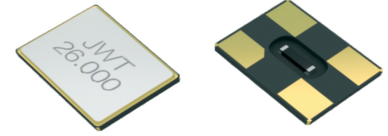


2.0x1.6mm SMD Crystal-TSX

QN Series



Product Features

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

Applications

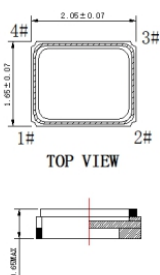
1. Smart phone
2. Smart wearable
3. GNSS

Specifications

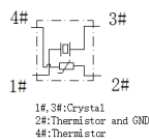
Model	QN2016		
Nominal frequency range	19.200MHz	26.000MHz	38.400MHz
Oscillation mode	Fundamental (AT-cut)	Fundamental (AT-cut)	Fundamental (AT-cut)
Frequency tolerance at 25°C±3°C	±10ppm	±10ppm	±10ppm
Operating temperature range	-30°C~105°C	-40°C~105°C	-30°C~105°C
Frequency stability over temperature(Ref.to 25°C)	±12ppm at -30~+85°C	-12~10ppm at -30~+85°C -30~10ppm at -40~+85°C -30~40ppm at -40~+105°C	±12ppm at -30~+85°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 35Ω at -40~-30°C,+95~+105°C	50Ω Max
Tuning sensitivity	10ppm/pF MIN	10.8~13.2ppm/pF	7~16ppm/pF
Spurious mode series resistance	1100Ω (±1MHz)	1100Ω (±1MHz)	1100Ω (±1MHz)
Q Factor	75K MIN	75K MIN	75K 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))	30.5~33.5°C	29~32°C (30.5°C Type)	27.5~30.5°C
Load capacitance	7pF	8pF,9pF	7pF,8pF,9pF
Drive level max	100uW	200uW	200uW
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.

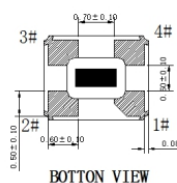
Dimensions (Unit: mm)



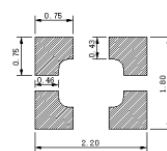
Terminal land connections



1#,3#:Crystal
2#:Thermistor and GND
4#:Thermistor



Land pattern (Recommended)



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