

# XQ Type

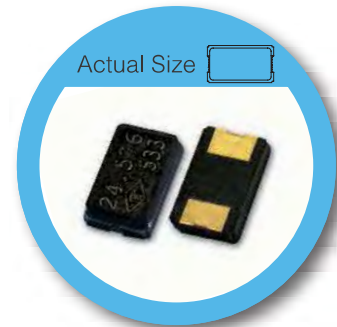
## 8.0 x 4.5 mm Glass Seal SMD Crystal

### FEATURE

- Typical 8.0 x 4.5 x 1.45 mm full ceramic SMD package.
- 16 mm width Tape & Reel package for automatic assembly.

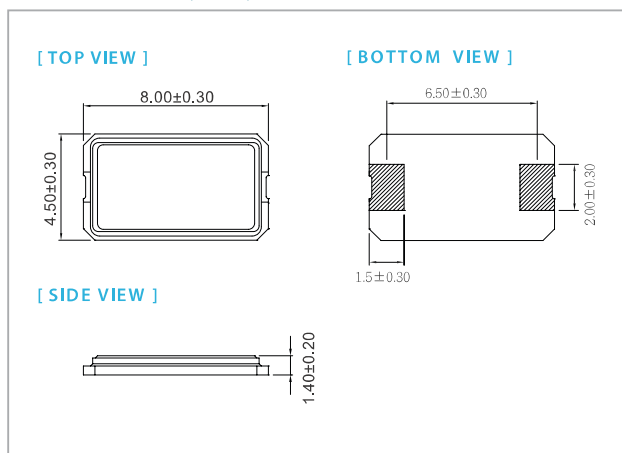
### TYPICAL APPLICATION

- Automotive
- Notebook, Computer Peripherals, Hard Disk
- Office Automation
- Audio & Video

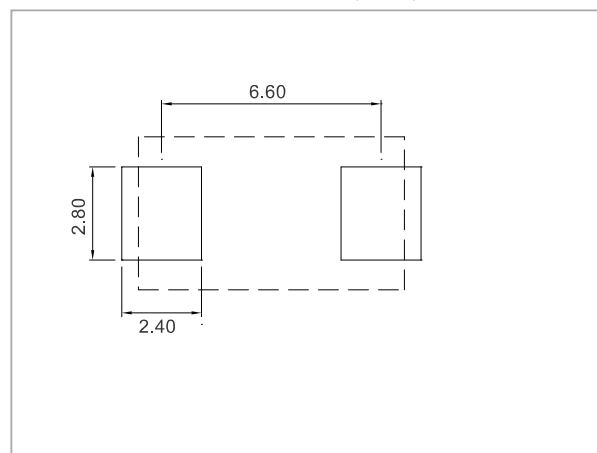


**RoHS Compliant**

### DIMENSION (mm)



### SOLDER PAD LAYOUT (mm)



### ELECTRICAL SPECIFICATION

Parameter	Min.	Typical	Max.	Unit
Storage Temp. Range	-55	-	125	°C
Level of Drive	-	10	300	µw
Shunt Capacitance (Co)	-	-	7.0	pF
Insulation Resistance	500 MΩ @ DC100V	-	-	
Aging		±5.0		ppm / year

Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position.

### EQUIVALENT SERIES RESISTANCE (E.S.R)

Frequency Range	MODE	E.S.R
7.3728 MHz ≤ Fo < 11 MHz	A1	<110Ω
11 MHz ≤ Fo < 14.1 MHz	A1	< 50Ω
14.1 MHz ≤ Fo < 18 MHz	A1	< 45Ω
18 MHz ≤ Fo < 20 MHz	A1	< 30Ω
20 MHz ≤ Fo < 32 MHz	A1	< 25Ω
32 MHz ≤ Fo < 48 MHz	A3	<110Ω
48 MHz ≤ Fo ≤ 70 MHz	A3	<100Ω

### FREQ. STABILITY vs. TEMP. RANGE

Temp.(°C)	ppm			
	±5	±10	±15	±30
-10 ~ +60	△	○	○	○
-20 ~ +70	X	△	○	○
-40 ~ +85	X	X	○	○

\* ○: Available △:Conditional X: Not available

### FREQ. STABILITY vs. WIDE TEMP. RANGE

Temp.(°C)	ppm			
	±15	±20	±30	±50
-40 ~ +105	△	○	○	○
-40 ~ +125	X	X	△	○

\* ○: Available △:Conditional X: Not available