

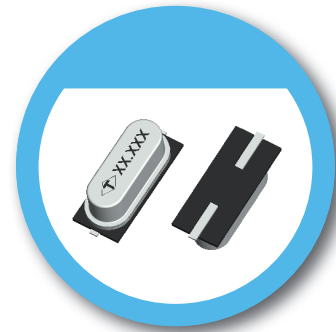
XJ Type 12.5 x 4.5 mm Crystal

FEATURE

- Typical 12.5 x 4.5 x 4.0 mm metal can SMD package.
- 24mm width Tape & Reel package for automatic assembly.

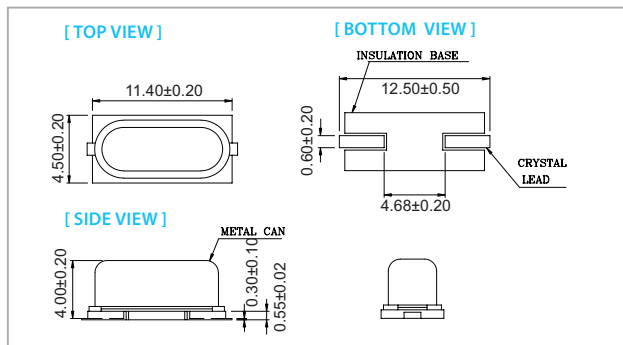
TYPICAL APPLICATION

- Automotive
- Bluetooth, Wireless
- Computers, Modems, Communications
- Set-top Box, DECT/WDCT

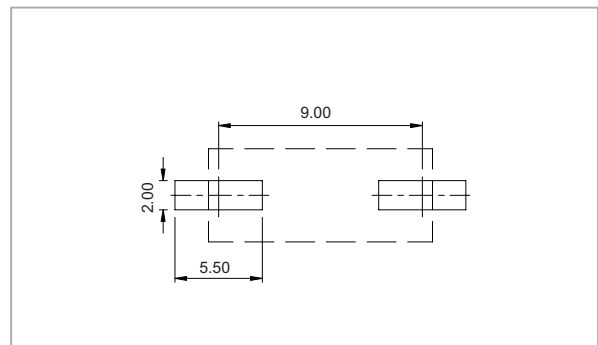


RoHS Compliant

DIMENSION (mm)



SOLDER PAD LAYOUT (mm)



ELECTRICAL SPECIFICATION

Parameter	Min.	Typical	Max.	Unit
Storage Temp. Range	-55	-	125	°C
Standard Frequency	4.096, 10.368, 16, 25, 32, 48			MHz
Level of Drive	-	10	800	µw
Shunt Capacitance (Co)	-	-	7.0	pF
Insulation Resistance	500 MΩ @ DC100V	-	-	
Aging (@25°C 1 st year)	±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
$F_o \leq 3.58 \text{ MHz}$	A1	<140 Ω
$4 \text{ MHz} < F_o < 5 \text{ MHz}$	A1	<120 Ω
$5 \text{ MHz} \leq F_o < 7 \text{ MHz}$	A1	<80 Ω
$7 \text{ MHz} \leq F_o < 9 \text{ MHz}$	A1	<45 Ω
$9 \text{ MHz} \leq F_o < 13 \text{ MHz}$	A1	<40 Ω
$13 \text{ MHz} \leq F_o < 16 \text{ MHz}$	A1	<35 Ω
$16 \text{ MHz} \leq F_o < 20 \text{ MHz}$	A1	<30 Ω
$20 \text{ MHz} \leq F_o < 30 \text{ MHz}$	A1	<25 Ω
$30 \text{ MHz} \leq F_o < 36 \text{ MHz}$	A1	<25 Ω
$30 \text{ MHz} \leq F_o < 36 \text{ MHz}$	A3	<80 Ω
$36 \text{ MHz} \leq F_o \leq 80 \text{ MHz}$	A3	<80 Ω

FREQ. STABILITY vs. LOAD CAPACITANCE

Load Capacitance	ppm	±5	±10	±15	±20	±30
8pF		X	X	△	○	○
10pF		X	X	△	○	○
12pF		X	△	○	○	○
16pF		X	△	○	○	○
Series		△	○	○	○	○

* ○: Available △:Conditional X: Not available

FREQ. STABILITY vs. TEMP. RANGE

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

* ○: Available △:Conditional X: Not available

Note: not all combination of options are available. Other specifications may be available upon request.