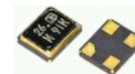


- Frequency range 24MHz to 48MHz, fundamental mode
- Ultra-miniature package 1.6 x 1.2 x 0.4mm
- Packaged in standard EIA tape and reel
- Exceptionally low ageing
- High shock and vibration resistance
- Ideal for PDAs, hand-held GPS, PCMCIA etc.



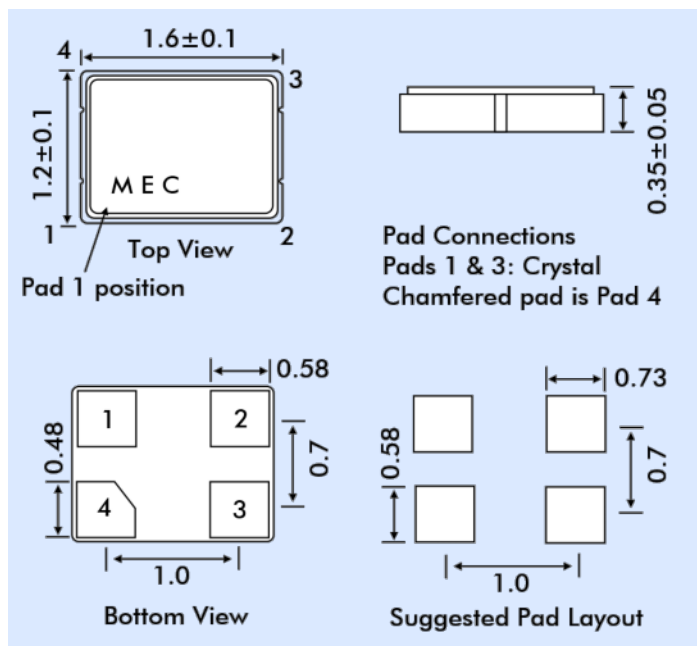
### DESCRIPTION

X11 crystals are ultra-miniature AT-cut crystals covering the frequency range 24MHz to 48MHz in fundamental mode. Their exceptionally small outline (1.6 x 1.2mm) and low mass coupled with high shock and vibration resistance makes these crystals ideal for miniaturized handheld equipment and similar high-density applications.

### SPECIFICATION

Frequency Range	24.0MHz to 48.0MHz
AT-Cut Fundamental:	24.0MHz to 48.0MHz
Calibration Tolerance at 25°C:	±10ppm, ±20ppm or ±30ppm
Frequency stability	
-10° to +60°C	from ±5ppm ( <i>contact Euroquartz</i> )
-20° to +70°C	from ±10ppm
-40° to +85°C	from ±15ppm
Storage Temperature:	-50~+105°C
Equivalent Series Resistance:	See table
Shunt Capacitance (C0):	2pF to 4pF typical, 5pF maximum
Load Capacitance (CL):	Series or from 8pF to 32pF
Ageing:	<±3ppm per year at +25°C
Drive level:	10 μW typ., 100 μW max.
Reflow Soldering:	10s maximum at 260°C twice or 180s at 230°C, once.
Packaging:	EIA tape and reel

### OUTLINE & DIMENSIONS



### EQUIVALENT SERIES RESISTANCE

Frequency Range MHz	ESR Ω Max.
24.0~29.0	120
30.0~36.9	100
40.0~48.0	80

### PART NUMBER GENERATION

Part numbers for X11 crystals are generated as follows:

