

- Frequency range 16MHz to 60MHz, fundamental mode
- Ultra-miniature package 2.5 x 2.0 x 0.6mm
- Packaged in standard EIA tape and reel
- Ideal for PDAs, hand-held GPS, PCMCIA etc.

DESCRIPTION

X22 crystals are ultra-miniature AT-cut crystals covering the frequency range 16.0MHz to 60.0MHz in fundamental mode. The X22 crystal package is grounded via the top metal lid and two solder pads. the part exhibits very low ageing and has high shock and vibration resistance. The small size and low mass makes these crystals ideal for miniaturized hand-held equipment and similar high-density applications.

SPECIFICATION

Frequency Range	AT-Cut Fundamental:	16.0MHz to 60.0MHz
Calibration Tolerance at 25°C:		±10ppm, ±20ppm, ±30ppm
Frequency stability		
-10° to +60°C		from ±5ppm
-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 9pF to 32pF
Ageing:		<±2ppm per year at +25°C
Drive level:		50 microWatt, 100 microW max.
Reflow Soldering:		10s maximum at 260°C twice or once, 180s at 230°C.
Packaging:		EIA tape and reel

FREQUENCY STABILITY vs. OPERATING TEMPERATURE RANGE

Stability Code	Temperature Range	Stability ppm					
		±5	±10	±15	±20	±25	±30
X	-10 to +60°C	✓	✓	✓	✓	✓	✓
Y	-20 to +70°C	■	✓	✓	✓	✓	✓
I	-40 to +85°C			✓	✓	✓	✓

✓ = available, ■ = contact Mercury

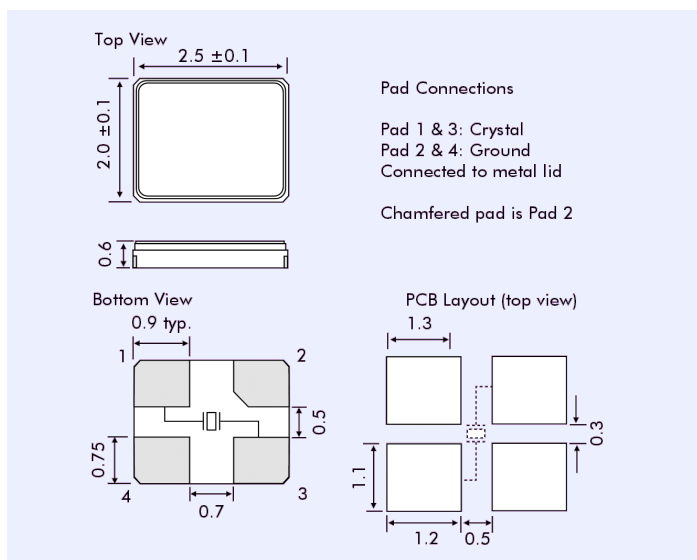
EQUIVALENT SERIES RESISTANCE

Frequency Range MHz	ESR Ohms Max.
16.0~21.0	120
21.0~26.0	80
26.1~60.0	60

2.5 x 2.0 x 0.6mm SMD



OUTLINE & DIMENSIONS



PART NUMBER FORMAT

Example: X22 - 16.000 - 12 - 15/20/-20+70/100R

