

4 Pad Ceramic Crystal, 1.6 mm x 1.2 mm

ILCX20 Series

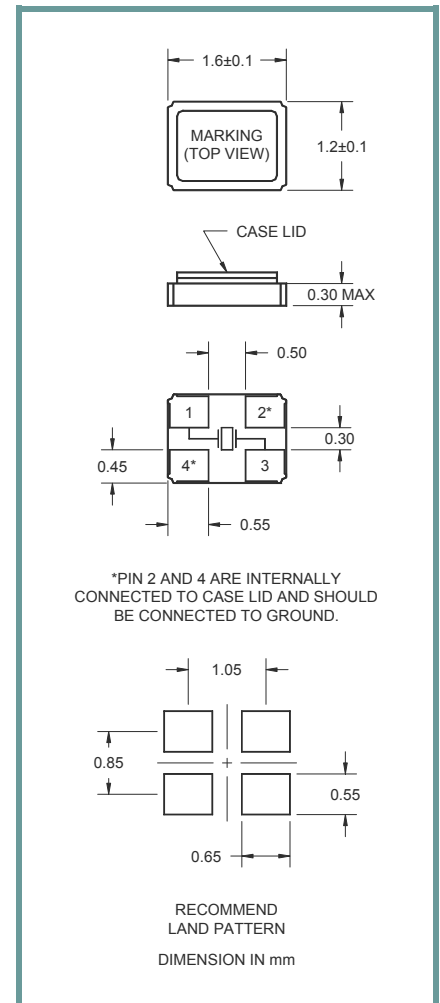
Product Feature:

Low Cost SMD Package
Ultra-Miniature Package
Compatible with Leadfree Processing
RoHS Compliant

Applications:

Fibre Channel
Server & Storage
Sonet /SDH
802.11 / Wifi
T1/E1,T3/E3

Frequency	24 MHz to 60 MHz
ESR (Equivalent Series Resistance)	150 Ω Max. 100 Ω Max.
24.0 MHz – 39.9 MHz 40.0 MHz – 60.0 MHz	
Shunt Capacitance (C0)	5.0 pF Max.
Frequency Tolerance @ 25° C	±30 ppm Standard (see Part Number Guide for more options)
Frequency Stability over Temperature	±50 ppm Standard (see Part Number Guide for more options)
Crystal Cut	AT Cut
Load Capacitance	8 pF Standard
Drive Level	100 μW Max.
Aging	±3 ppm Max. / Year Standard
Temperature	
Operating	-10° C to +60° C (see Part Number Guide for more options)
Storage	-40° C to +85° C



Part Number Guide		Sample Part Number: ILCX20 - FB1F8 - 20.000				
Package	Tolerance (ppm) at Room Temperature	Stability (ppm) over Operating Temperature	Operating Temperature Range	Mode (overtone)	Load Capacitance (pF)	Frequency
ILCX20 -	B = ±50 ppm	B = ±50 ppm	0 = 0°C to +50°C	F = Fundamental	18 pF Standard Or Specify	- 20.000 MHz
	F = ±30 ppm	F = ±30 ppm	1 = 0°C to +70°C			
	G = ±25 ppm	G = ±25 ppm	2 = -10°C to +60°C			
	H = ±20 ppm	H = ±20 ppm	3 = -20°C to +70°C			
	I = ±15 ppm	I = ±15 ppm**	5 = -40°C to +85°C			
	J = ±10 ppm*	J = ±10 ppm**	9 = -10°C to +50°C			

* Not available at all frequencies

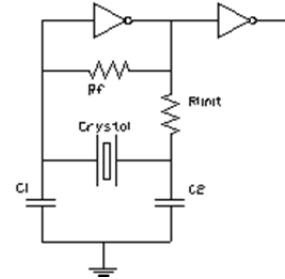
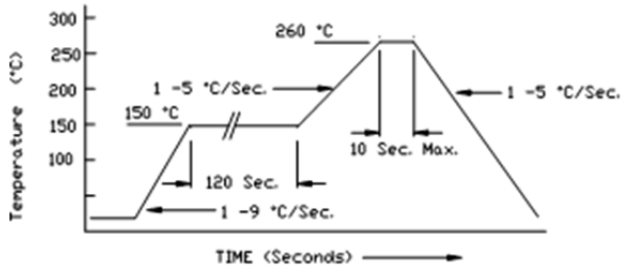
** Not available for all temperature ranges

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Pb Free Solder Reflow Profile:

Typical Application:



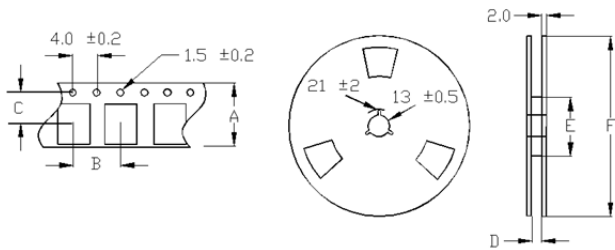
*Units are backward compatible with 240C reflow processes

Package Information:

MSL = 1

Termination = e4 (Au over Ni over W base metal).

Tape and Reel Information:



Quantity per Reel	3000
A	8.0 ±0.3
B	4.0 ±0.2
C	3.5 ±0.2
D	9.0±1.0 or 12.0 ±3.0
E	60 / 80
F	180

Environmental Specifications:

Thermal Shock	MIL-STD-883, Method 1011, Condition A
Moisture Resistance	MIL-STD-883, Method 1004
Mechanical Shock	MIL-STD-883, Method 2002, Condition B
Mechanical Vibration	MIL-STD-883, Method 2007, Condition A
Resistance to Soldering Heat	J-STD-020C, Table 5-2 Pb-free devices (except 2 cycles max)
Hazardous Substance	Pb-Free / RoHS / Green Compliant
Solderability	JESD22-B102-D Method 2 (Preconditioning E)
Terminal Strength	MIL-STD-883, Method 2004, Test Condition D
Gross Leak	MIL-STD-883, Method 1014, Condition C
Fine Leak	MIL-STD-883, Method 1014, Condition A2, R1=2x10 ⁻⁸ atm cc/s
Solvent Resistance	MIL-STD-202, Method 215

Marking:

Line 1: I-Date Code (yww)

Line 2: XXXX

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