

HX80 Series



8.0 x 3.7mm, high temperature Crystal unit

Operating temperature up to 200°C
High shock and vibration resistant
RoHS and REACH compliant

Applications
Down hole drilling, Geothermal equipment
Optical network, airborne equipment
Radio communication

Parameters		Specification	Remarks
Frequency range	F_nom	8.0MHz ~ 24.0MHz	Fundamental
Frequency tolerance	F_tol	±50.0ppm	Please enquire for other tolerance options
Frequency stability over operating temperature range	F_stb	±100.0ppm	over -55°C ~ +125°C
		±150.0ppm	over -55°C ~ +175°C
		±250.0ppm	over -55°C ~ +200°C
Operating temperature range	T_use	-55°C ~ +200°C max	Table 2
Storage temperature	T_stg	-55°C ~ +125°C	
Load capacitance	CL	20.0pF	Please enquire for other CL options
Equivalent series resistance	ESR	Table 1	
Shunt capacitance	C0	3.2pF max	
Drive level	DL	100.0µW typical	250.0µW max
Frequency aging	F_age	±3.0ppm at 25°C, 1 st Year	
Insulation resistance	IR	500MΩ min	
Shock resistance		10,000 g, 0.3 ms, ½ sine	
Vibration resistance		40 g / 10-2,000 Hz	

Table 1. Frequency range (MHz) vs ESR (max)

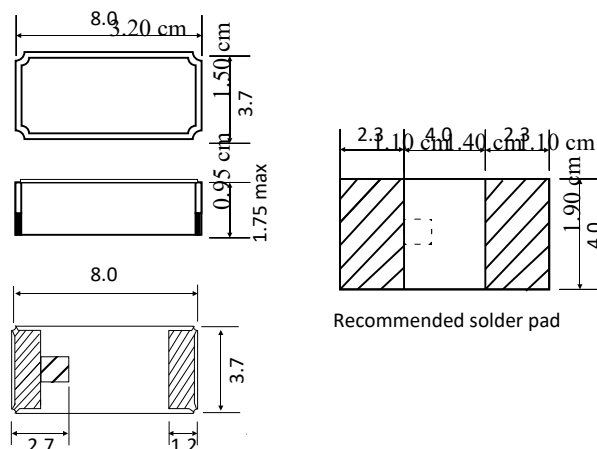
8.0MHz ~ 9.999MHz	150Ω
10.0MHz ~ 11.999MHz	120Ω
12.0MHz ~ 15.999MHz	120Ω
16.0MHz ~ 19.999MHz	100Ω
20.0MHz ~ 24.000MHz	100Ω

Table 2.

Termination type

HX80	Au flashed pads
	SnAgCu solder dipped pads
	Only available with operating temperature 55°C ~ +125°C and 55°C ~ +175°C

Dimensions (mm)



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Specification requirement							
ACT Series	Frequency (MHz)	Frequency Tolerance (\pm ppm)	Frequency stability over temperature range (\pm ppm)	Load capacitance (CL -pF)	Pads	Packaging (Tape & Reel)	RoHS
HX80	8MHz 24MHz	± 50 Other tolerance on request)	± 100 over -55 ~ +125 ± 150 over -55 ~ +175 ± 200 over -55 ~ +200 Other Specification on request)	20pF (Other CL on request)	Au plated pads (standard) SnAgCu solder dipped pads	Loose : 128pcs/ ESD plastic tray Tape&Reel : 1k pcs or 3k pcs available in 12mm tape on 7 inch reel	RoHS = -pF

HX80/8MHz/ ± 50 ppm/ ± 100 over -55 ~ +125C/ 20pF/ Au plated/Loose

A unique part number will be generated for each specification request. Example: HX80-2000M-Cxxxx-PF

Processing Profile

IPC/JEDEC J-STD-020C 260°C/20-40 s

Additional information

Drawing control: (Internal use only)
Commodity code: 854160 00 00
Issue number: N1
Date: 1/08/2019
Internal reference: M1

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Specifications subject to change without notification