HM INTERNATIONAL
Frequency Technology

EUROPEAN CRYSTAL ORGANIZATION
Frequency Technology
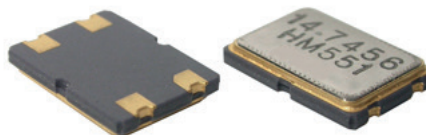
KLOVE ELECTRONICS
Frequency Technology

X75 CERAMIC SURFACE-MOUNT CRYSTAL

FEATURES

7.0 x 5.0 x 1.2 mm

- Not recommended for new designs
- Small SMD package, 4 pad version
- Tight Tolerance & Stability available
- Wide Frequency Range
- Applications: Computers, Modem, Communication

Item	Symbol	Specification
Frequency Range	Fo	6 MHz ~ 160 MHz
Operation Mode		6.0 MHz ~ 80.0 MHz Fundamental (see options)
		40.0 MHz ~ 160.0 MHz 3rd-overtone (see options)
Operating temperature Range	To	-20° to +70°C (see options)
Frequency Tolerance at 25°C	$\Delta f/F$	± 50ppm max. (see options)
Temperature Stability	$\Delta f/F$	± 50ppm max. (see options)
Load Capacitance (CL)	CL	series or 8 pF to 50 pF (see options)
Equivalent Series Resistance	ESR	See Table 1
Shunt Capacitance (Co)	Co	7pF Max
Insulation Resistance	Ri	500 MΩ min. (at 100Vdc)
Drive Level	DL	100µW typical, 300µW max.
Aging	$\Delta f/F$	±3ppm max (at 25°C, first year)
Packing Unit		1000pcs / reel
Soldering Condition		260°C, 10 sec x2 max
		Customer specifications on request

TABLE 1: Standard ESR

Frequency (MHz)	ESR (Ω) max.	Frequency (MHz)	ESR (Ω) max.
6.0 - 7.99	80	40.0 - 49.9, 3rd overtone	90
8.0 - 15.9	60	50.0 - 160.0, 3rd overtone	80
16.0 - 80.0	40		

OPTIONS & ORDERING INFORMATION

X75- .... - .... MHz

Freq. Tolerance	Freq. Stability	Operating Temp.	Load Capacitance	Mode	ESR if other than STD	Frequency in MHz
10 = ±10 ppm	**10** = ±10 ppm	**D** = -10° / +60°C	Please specify CL in **pF** or **S** for Series	**F** = Fundamental	Specify a value in Ω	Please specify the frequency in MHz
15 = ±15 ppm	**15** = ±15 ppm	**E** = 0° / +70°C		**D** = 3rd overtone		
20 = ±20 ppm	**20** = ±20 ppm	**F** = -20° / +70°C				
25 = ±25 ppm	**25** = ±25 ppm	**G** = -30° / +75°C				
30 = ±30 ppm	**30** = ±30 ppm	**H** = -30° / +85°C				
	50 = ±50 ppm	**K** = -40° / +85°C				
		L = -40° / +105°C				
		M = -40° / +125°C				
		N = -55° / +125°C				

* Note : Not all combinations are possible, please consult us.

HM International
Frequency Technology

European Crystal Organization
Frequency Technology

Klove Electronics
Frequency Technology

OUTLINE DIMENSIONS

Top View

7.00 ± 0.10

5.00 ± 0.10

MARKING
AREA

1.20 MAX

1.20   4.60   1.20

1.73

1.54

1.00

4

3

1

2

Recommended Solder Pattern

1.40   4.40   1.40

1.20

1.34

1.20