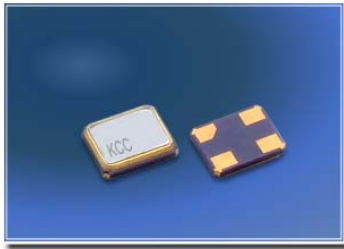


## K.C.C Crystal (M211 Series)



### Features & Applications

- 2.0x1.6x0.5mm Size
- Ceramic Package
- High Frequency Stability
- Excellent Vibration Resistance & Shock Resistance
- RoHS & REACH Compliant, Pb Free

### General Specifications

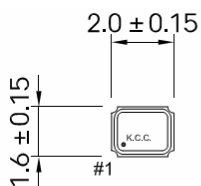
Parameter	M211
Frequency Range	16.0 ~ 50.0 MHz
Frequency Tolerance	±20~50 ppm @25°C
Frequency stability	±20~100 ppm @25°C
Operating Temperature Range	-10 to +70°C or specify (-40 ~ +125°C is available)
Storage Temperature Range	-55 to +125°C
Load Capacitance	Series or Parallel ( 6 to 47 pF ) resonance
Shunt Capacitance	5.0 pF (Max.)
Drive Level	15 / 30 / 50 / 100 / 200 / 500 or special requirement
Aging	± 3 ppm per year (Max.)

### Equivalent Series Resistance (ESR)

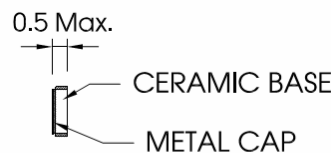
Frequency Range	Vibration Mode	ESR (Ω Max.)
16.000 ~ 17.999MHz	F	200
18.000 ~ 23.999MHz	F	120
24.000 ~ 29.999MHz	F	100
30.000 ~ 37.999MHz	F	80
38.000 ~ 50.000MHz	F	60

※F: Fundamental/AT

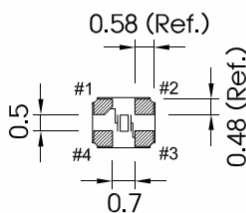
### Outline and Dimensions [Unit: mm]



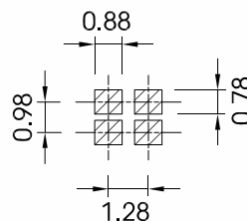
[ Top View ]



[ Side View ]



#2, #4 GND  
[ Bottom View ]



[ Suggested layout ]

### Order Part No.:

Product name: **X 25.000 M211 - 20 - 4P - G I Z**  
 ① ② ③ ④ ⑤ ⑥⑦⑧

- ① KCC Crystal
- ② Frequency (Standard ± 30ppm)
- ③ Size Type : M211=2.0x1.6x0.5mm
- ④ Load capacitance(pF)
- ⑤ Pad : 2 or 4 pad
- ⑥ RoHS Compliant
- ⑦ Operating temperature : T= -40°C to +85°C
- ⑧ Frequency stability code (±ppm)