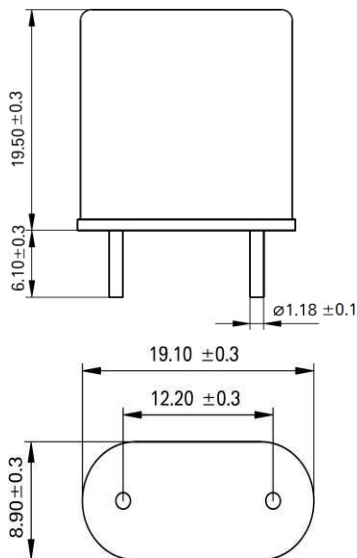




**FEATURE**

- All metal welded package
- Wide frequency range from 1.0 MHz upto 20 MHz
- RoHS Compliant Standard

**Mechanical Specifications**



▲ All dimensions are in mm.

Table 1: General Specifications:

Frequency Range	1.0 MHz to 20 MHz
Frequency Adjustment Tolerance at 25 °C	Select from table 5
Operating Temperature Range	Select from table 4
Frequency Stability	Select from table 5
ESR	Select from table 3
Drive level	100 Watts Typical (or specify)
Shunt Capacitance C0	7.0 pF max.
Resonance Condition	XXS – series, XXP – Parallel with xx pF (for parallel please specify the xx value in pF)
Ageing	Resistance Weld: 3 PPM / Year

Table 2 Frequency range by mode of oscillation

Fundamental	3 <sup>rd</sup> Over Tone
1.000 to 10 MHz	10 to 20 MHz

Table 3: Max. Equivalent Series Resistance

Frequency Range (MHz)	ESR (Ohms)	Frequency Range (MHz)	ESR (Ohms)
<b>Fundamental</b>		<b>3<sup>rd</sup> Over Tone</b>	
1.00 to 1.50	500	10.0 to 20.0	75
1.6 to 2.5	250		
2.5 to 3.5	150		
3.5 to 3.9	80		
4.0 to 5.0	50		
5.0 to 7.0	40		
7.0 to 9.0	35		
9.0 to 10.0	30		

Table 4 Operating Temperature Range

Code	Range
A	0 to +50 °C
B	0 to +60 °C
F	0 to +70 °C
D	-10 to +60 °C
E	-10 to +70 °C
C	-20 to +70 °C
G	-30 to +80 °C
H	-30 to +85 °C
I	-40 to +85 °C
J	-40 to +90 °C
K	-55 to +105 °C
L	-55 to +125 °C

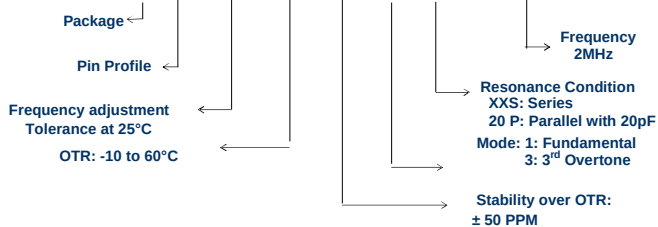
Table 5: Frequency Adjustment Tolerance at 25°C/Stability over OTR

Code	Adjustment Tolerance at 25°C	Stability over OTR
B	5 PPM	
C	7.5 PPM	
D	10 PPM	
E	15 PPM	
F	20 PPM	
G	25 PPM	
H	30 PPM	
M	50 PPM	± 50 PPM
K	100 PPM	± 100 PPM

**Ordering Information**

**Example**

48U 2 F D M 1 20 P 002M000000



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Specifications subject to change without notice

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