CU1 SERIES

- UM1 Thru-Hole Crystal
- AT Cut. Tight tolerance / stability
- Wide Frequency Range
- RoHS Compliant

ASCEND FREQUENCY DEVICES

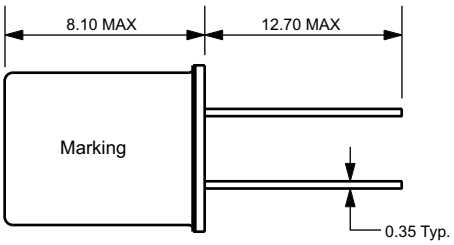
Electrical Specifications

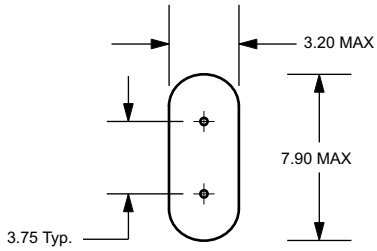
Frequency Range:	10.000MHz to 200.000MHz
Frequency Tolerance/Stability:	Select from options below
Operating Temperature Range:	Select from options below
Storage Temperature Range:	-55°C to +125°C
Aging:	±1ppm / year Maximum
Shunt Capacitance:	7pF Maximum
Load Capacitance:	Select from options below
Equivalent Series Resistance:	See ESR Table Below
Mode of Operation:	Fundamental, 3rd Overtone or 5th Overtone
Insulation Resistance:	500 Megaohms Maximum at 100Vdc
Shock:	MIL-STD-883, Meth 2002, Cond B
Solderability:	MIL-STD-883, Meth 2003
Solvent Resistance:	MIL-STD-202, Meth 215
Vibration:	MIL-STD-883, Meth 2007, Cond A
Gross Leak Test:	MIL-STD-883, Meth 1014, Cond C
Fine Leak Test:	MIL-STD-883, Meth 1014, Cond A

Equivalent Series Resistance Table

Frequency Range	ESR (Ohms)	Mode / Cut
10.000MHz to 15.999MHz	50 Maximum	Fundamental / AT
16.000MHz to 44.736MHz	40 Maximum	Fundamental / AT
30.000MHz to 90.000MHz	70 Maximum	Third Overtone / AT
80.000MHz to 100.000MHz	150 Maximum	Fifth Overtone / AT
100.001MHz to 120.000MHz	120 Maximum	Fifth Overtone / AT
120.001MHz to 150.000MHz	100 Maximum	Fifth Overtone / AT

Mechanical Dimensions





MARKING
Line 1: Ascend
Line 2: XX.XXXR
("R" Denotes RoHS Compliance)
Line 3: XXXXXX (Date Code)

ALL DIMENSIONS IN MILLIMETERS

Part Numbering Guide

CU1 A A 1 20 1 - 33.000M

Series
CU1 = UM1

Frequency Tolerance
A = ±5ppm
B = ±10ppm
C = ±15ppm
D = ±20ppm
E = ±25ppm
F = ±30ppm
G = ±50ppm
H = ±100ppm

Frequency Stability
A = ±5ppm
B = ±10ppm
C = ±15ppm
D = ±20ppm
E = ±25ppm
F = ±30ppm
G = ±50ppm
H = ±100ppm

Temperature Range
1 = -10°C to +60°C
2 = -20°C to +70°C
3 = -40°C to +85°C

Not all temperature/stability options are available. Please consult with factory for current capabilities

Frequency

Mode of Operation
1 = AT Fundamental
3 = 3rd Overtone
5 = 5th Overtone

Load Capacitance
SR = Series
08 = 8pF
09 = 9pF
10 = 10pF
12 = 12pF
16 = 16pF
18 = 18pF
20 = 20pF
32 = 32pF
XX = Other

(Rev.B / 10-27-05)

Specifications subject to change without notice

Ascend Frequency Devices - 20302 Spruce Ave - Newport Beach, CA 92660 • (800) 975-7972 • fax (949) 226-7394 • **WWW.ASCENDDEVICES.COM**