CR77/U-Series Specifications

0.435L x 0.183W x 0.530H (in)

PDI *MIL-PRF-3098* Qualified Product List (QPL) crystals are available in both standard or custom frequencies to provide precision timing in a resistance welded HC-50 package.

ex) **CR—77—/U—20M00000**

COMPONENT
Crystal Unit

NUMBER
Type of Crystal

BASIC INDICATOR
General Utility

XXXXXXXX
Specified Nominal Frequency

Parameter		Frequency Range	Units
		16.000000 to 61.000000	MHz
Mode of Oscillation		3rd Overtone	
Equivalent Series Resistance	Max	40	Ω
Operating Temperature Range	Primary	-40 to +90	°C
	Secondary	-55 to -40 and +90 to +105	
Frequency Tolerance (Inclusive)	Primary Operating Temperature Range	±20	ppm
	Secondary Operating Temperature Range	±30	
Drive Level	Max	1.0	mW
Load Capacitance (CL)		Series	
Seal Method	Resistance Weld		
Shunt Capacitance (C0)	Max	7.0	pF

Environmental Specifications			Units
Shock (Specified Pulse)	Frequency Change Permitted	±5	ppm
	Equivalent Resistance Change Permitted	±10	%
Vibration MIL-STD-202, Method 204, Condition A	Frequency Change Permitted	±5	ppm
	Equivalent Resistance Change Permitted	±10	%
Thermal Shock	Frequency Change Permitted	±5	ppm
	Equivalent Resistance Change Permitted	±10	%
Aging	Frequency Change Permitted	±5	ppm

The product described in this spec. consist of this specification and MIL-PRF-3098.
Decimal XXX = ± .008, XX = ± .020 *Metric* [XXX = ± .20], [XX = ± .50]

MIL-PRF-3098 w/Amendment 1 Table VI, Group B Inspection for Product Level B Crystals		
Subgroup I 1/	Requirement Paragraph	Method Paragraph
Solderability	3.7	4.10.3
Resistance to solvents (4 sample units)	3.8	4.10.4
Shock (Specified pulse)	3.17	4.10.13
Vibration	3.19.1	4.10.15.1
Thermal shock	3.23	4.10.19.1
Seal	3.24	4.10.26
Salt atmosphere (Corrosion)	3.27	4.10.21
Moisture resistance	3.28	4.10.22
Terminal strength 2/	3.30	4.10.23
Visual and mechanical examination (Internal) 2/	3.5, 3.6, 3.35	4.10.2.2
Bond strength (When specified) 2/	3.31	4.10.24
Subgroup II 3/		
Insulation resistance	3.14	4.10.10
Aging	3.29	4.10.27.1

1/ If the contractor can demonstrate that any of these tests have been performed for three consecutive periods with zero failures, the frequency of this test, with the approval of the qualifying activity, can be performed every 36 months. If the design, material, construction, or processing of the crystal units change, or if there are any quality problems or failures, the qualifying activity may require resumption of the original test frequency.

2/ Only two units are required. These two samples units shall be subjected to terminal strength, visual and mechanical (Internal), and bond strength (When specified see 3.1).

3/ If the contractor can demonstrate that any of these tests have been performed for six consecutive periods with zero failures, the frequency of this test, with the approval of the qualifying activity, can be performed every 36 months. If the design, material, construction, or processing of the crystal units change, or if there are any quality problems or failures, the qualifying activity may require resumption of the original test frequency.

PACKAGE DIMENSIONS