

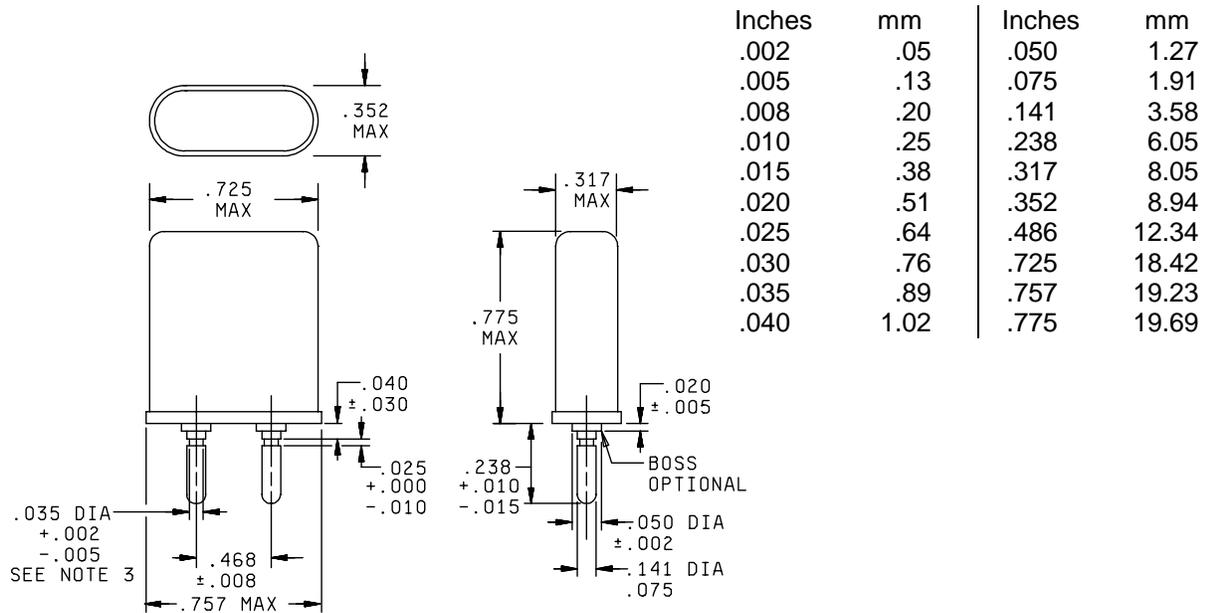
PERFORMANCE SPECIFICATION SHEET

CRYSTAL UNIT, QUARTZ, CR130/U

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification and MIL-PRF-3098.

Pertinent characteristics: 0.8 MHz to 20 MHz; fundamental; noncontrolled; antiresonance.



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. The pin undercut may be omitted.
4. Marking to be in accordance with MIL-PRF-3098.

FIGURE 1. Crystal unit - CR130/U.

REQUIREMENTS:

Dimensions, marking, and configuration: See figure 1.

Frequency range: 0.8 MHz to 20 MHz, inclusive.

Frequency tolerance (operating temperature range):

Primary: ± 20 ppm.

Secondary: ± 30 ppm.

Equivalent resistance: See table I.

TABLE I. Equivalent resistance.

Frequency range, inclusive	Maximum resistance
<u>MHz</u>	<u>Ohms</u>
0.80 to 0.85	620
0.85+ to 0.90	600
0.90+ to 1.00	570
1.00+ to 1.12	540
1.12+ to 1.25	490
1.25+ to 1.37	450
1.37+ to 1.50	410
1.50+ to 1.62	370
1.62+ to 1.75	330
1.75+ to 1.87	300
1.87+ to 2.00	290
2.00+ to 2.12	270
2.12+ to 2.25	240
2.25+ to 2.60	190
2.60+ to 3.00	150
3.00+ to 3.40	110
3.40+ to 3.75	90
3.75+ to 4.00	75
4.00+ to 5.00	60
5.00+ to 7.00	35
7.00+ to 10.00	24
10.00+ to 15.00	22
15.00+ to 20.00	20

Mode of oscillation: Fundamental.

Temperature ranges:

Primary: -40°C to $+90^{\circ}\text{C}$, inclusive.

Secondary: -55°C to -40°C and $+90^{\circ}\text{C}$ to $+105^{\circ}\text{C}$, inclusive.

Rated drive level: 1.0 mW, maximum.

Capacitance, shunt: 7.0 pF, maximum.

Antiresonance load capacitance: 30.0 pF ± 0.5 pF. 1/

MIL-PRF-3098/109E

Shock (specified pulse):	0.8 to 2.0 MHz	2.0+ to 20.0 MHz
Frequency change permitted:	±10 ppm	±5 ppm
Equivalent resistance change permitted:	±15 percent	±10 percent
Vibration: Method 204, MIL-STD-202, test condition A	0.8 to 2.0 MHz	2.0+ to 20.0 MHz
Frequency change permitted:	±10 ppm	±5 ppm
Equivalent resistance change permitted:	±15 percent	±10 percent
Thermal shock::	0.8 to 2.0 MHz	2.0+ to 20.0 MHz
Frequency change permitted:	±10 ppm	±5 ppm
Equivalent resistance change permitted:	±15 percent	±10 percent

Aging:

Frequency change permitted: ±5 ppm.

Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

^{1/} This crystal unit is similar to Crystal Type CR-85/U, except for operation at antiresonance and maximum equivalent resistance.

Custodians:

Army - CR
Navy - EC
Air Force - 11
DLA - CC

Preparing activity:

Army - CR

Agent:

DLA - CC

Review activities:

Army - AR, MI, SM
Navy - AS, MC, SH
Air Force - 19, 84

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