



QUALIFICATIONS VALIDATED  
EVERY 12 MONTHS

QPL-3098-86  
23-Sep-02  
SUPERSEDING  
QPL-3098-85  
02-Feb-00

QUALIFIED PRODUCTS LIST  
OF  
PRODUCTS QUALIFIED UNDER PERFORMANCE SPECIFICATION  
MIL-PRF-3098  
CRYSTAL UNITS, QUARTZ  
GENERAL SPECIFICATION FOR

This list has been prepared for use by or for the Government in the acquisition of products covered by Specification MIL-PRF-3098. Listing of a product is not intended to and does not connote endorsement of the product by the Department of Defense. All products listed herein have been qualified under the requirements for the product as specified in the latest effective issue of the applicable specification. This list is subject to change without notice; revision or amendment of this list will be issued as necessary. The listing of a product does not release the supplier from compliance with the specification requirements.

The activity responsible for this QPL is the U.S. ARMY COMMUNICATIONS-ELECTRONICS COMMAND AND FORT MONMOUTH. The activity designated as agent for all contacts relative to this QPL is the Defense Supply Center Columbus (DSCC-VQ), Columbus, OH 43216-5000.

NOTE: \* PLUS (+) FREQUENCY TO BE ADDED TO ALL M3098 PART NUMBERS.

| GOVERNMENT<br>DESIGNATION             | MANUFACTURER'S<br>DESIGNATION OR<br>TYPE NUMBER | TEST OR<br>QUALIFICATION<br>REFERENCE | SPECIFI-<br>CATION<br>SHEET | SUPPLIER'S NAME (ADDRESS<br>ON LAST PAGE)          |
|---------------------------------------|-------------------------------------------------|---------------------------------------|-----------------------------|----------------------------------------------------|
| *CR1/U<br>3.6M00000 thru<br>10M000000 | CR1/U<br>+ Frequency                            | 3098-342-02                           | /76                         | U. S. Crystal Corporation                          |
| *CR5/U<br>2M000000 thru 10M00000      | CR5/U<br>+ Frequency                            | 3098-35-71                            | /77                         | Bliley Electric Company                            |
| *CR5/U<br>2M000000 thru 10M00000      | CR5/U<br>+ Frequency                            | QA-118/ALD3, 11 Dec 1967              | /77                         | Croven, Ltd.                                       |
| *CR5/U<br>2M000000 thru 10M00000      | CR5/U<br>+ Frequency                            | 3098-654-67                           | /77                         | M-tron Industries, Inc.                            |
| *CR5/U<br>2M000000 thru 10M00000      | CR5/U<br>+ Frequency                            | 3098-607-74                           | /77                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR5/U<br>2M000000 thru 10M00000      | CR5/U<br>+ Frequency                            | 3098-481-82                           | /77                         | Valpey-Fisher Corporation                          |
| *CR6/U<br>2M000000 thru 10M00000      | CR6/U<br>+ Frequency                            | 3098-35-71                            | /78                         | Bliley Electric Company                            |
| *CR6/U<br>2M000000 thru 10M00000      | CR6/U<br>+ Frequency                            | QA-118-ALD3, 11 Dec 1967              | /78                         | Croven, Ltd.                                       |
| *CR6/U<br>2M000000 thru 10M00000      | CR6/U<br>+ Frequency                            | 3098-654-67                           | /78                         | M-tron Industries, Inc.                            |
| *CR6/U<br>2M000000 thru 10M00000      | CR6/U<br>+ Frequency                            | 3098-607-74                           | /78                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR6/U<br>2M000000 thru 10M00000      | CR6/U<br>+ Frequency                            | 3098-481-82                           | /78                         | Valpey-Fisher Corporation                          |
| *CR8/U<br>1M000000 thru 10M00000      | CR8/U<br>+ Frequency                            | 3098-35-71                            | /111                        | Bliley Electric Company                            |

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|------------------------------------|-------------------------------------------------|---------------------------------------|-----------------------------|----------------------------------------------------|
| *CR8/U<br>1M000000 thru 10M00000   | CR8/U<br>+ Frequency                            | QA-118/ALD3, 11 Dec 1967              | /111                        | Croven, Ltd.                                       |
| *CR8/U<br>1M000000 thru 10M00000   | CR8/U<br>+ Frequency                            | 3098-654-67                           | /111                        | M-tron Industries, Inc.                            |
| *CR8/U<br>1M000000 thru 10M00000   | CR8/U<br>+ Frequency                            | 3098-607-74                           | /111                        | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR8/U<br>1M000000 thru 10M00000   | CR8/U<br>+ Frequency                            | 3098-481-82                           | /111                        | Valpey-Fisher Corporation                          |
| *CR18/U<br>920K0000 thru 20M00000  | CR18/U<br>+ Frequency                           | 3098-35-71                            | /3                          | Bliley Electric Company                            |
| *CR18/U<br>1M000000 thru 20M00000  | CR18/U<br>+ Frequency                           | QA-118/ALD3, 11 Dec 1967              | /3                          | Croven, Ltd.                                       |
| *CR18/U<br>1M000000 thru 20M00000  | CR18/U<br>+ Frequency                           | 3098-654-67                           | /3                          | M-tron Industries, Inc.                            |
| *CR18/U<br>1M000000 thru 20M00000  | CR18/U<br>+ Frequency                           | 3098-821-80                           | /3                          | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR18/U<br>1M000000 thru 20M00000  | CR18/U<br>+ Frequency                           | 3098-692-79                           | /3                          | U. S. Crystal Corporation                          |
| *CR18/U<br>800K0000 thru 20M00000  | CR18/U<br>+ Frequency                           | 3098-481-82                           | /3                          | Valpey-Fisher Corporation                          |
| *CR19/U<br>920K0000 thru 20M00000  | CR19/U<br>+ Frequency                           | 3098-35-71                            | /4                          | Bliley Electric Company                            |
| *CR19/U<br>1M000000 thru 20M00000  | CR19/U<br>+ Frequency                           | QA-118/ALD3, 11 Dec 1967              | /4                          | Croven, Ltd.                                       |
| *CR19/U<br>1M000000 thru 20M00000  | CR19/U<br>+ Frequency                           | 3098-654-67                           | /4                          | M-tron Industries, Inc.                            |
| *CR19/U<br>1M000000 thru 20M00000  | CR19/U<br>+ Frequency                           | 3098-607-74                           | /4                          | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR19/U<br>1M000000 thru 20M00000  | CR19/U<br>+ Frequency                           | 3098-692-79                           | /4                          | U. S. Crystal Corporation                          |
| *CR19/U<br>800K0000 thru 20M00000  | CR19/U<br>+ Frequency                           | 3098-481-82                           | /4                          | Valpey-Fisher Corporation                          |
| *CR25B/U<br>200K0000 thru 555K0000 | CR25B/U<br>+ Frequency                          | 3098-34-71                            | /7                          | Bliley Electric Company                            |
| *CR26/U<br>200K0000 thru 500K0000  | CR26/U<br>+ Frequency                           | 3098-32-71                            | /8                          | Bliley Electric Company                            |
| *CR27/U<br>920K0000 thru 20M00000  | CR27/U<br>+ Frequency                           | 3098-33-71                            | /9                          | Bliley Electric Company                            |

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|-----------------------------------|-------------------------------------------------|---------------------------------------|-----------------------------|----------------------------------------------------|
| *CR27/U<br>1M000000 thru 20M00000 | CR27/U<br>+ Frequency                           | 3098-655-67                           | /9                          | M-tron Industries, Inc.                            |
| *CR27/U<br>1M000000 thru 20M00000 | CR27/U<br>+ Frequency                           | 3098-1095-64                          | /9                          | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR27/U<br>1M000000 thru 20M00000 | CR27/U<br>+ Frequency                           | 3098-692-79                           | /9                          | U. S. Crystal Corporation                          |
| *CR27/U<br>800K0000 thru 20M00000 | CR27/U<br>+ Frequency                           | 3098-481-82                           | /9                          | Valpey-Fisher Corporation                          |
| *CR28/U<br>920K0000 thru 20M00000 | CR28/U<br>+ Frequency                           | 3098-33-71                            | /10                         | Bliley Electric Company                            |
| *CR28/U<br>1M000000 thru 20M00000 | CR28/U<br>+ Frequency                           | 3098-655-67                           | /10                         | M-tron Industries, Inc.                            |
| *CR28/U<br>1M000000 thru 20M00000 | CR28/U<br>+ Frequency                           | 3098-1095-64                          | /10                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR28/U<br>1M000000 thru 20M00000 | CR28/U<br>+ Frequency                           | 3098-692-79                           | /10                         | U. S. Crystal Corporation                          |
| *CR28/U<br>800K0000 thru 20M00000 | CR28/U<br>+ Frequency                           | 3098-481-82                           | /10                         | Valpey-Fisher Corporation                          |
| *CR33/U<br>10M00000 thru 30M00000 | CR33/U<br>+ Frequency                           | 3098-512-78                           | /14                         | Bliley Electric Company                            |
| *CR35/U<br>920K0000 thru 20M00000 | CR35/U<br>+ Frequency                           | 3098-33-71                            | /15                         | Bliley Electric Company                            |
| *CR35/U<br>1M000000 thru 20M00000 | CR35/U<br>+ Frequency                           | 3098-655-67                           | /15                         | M-tron Industries, Inc.                            |
| *CR35/U<br>1M000000 thru 20M00000 | CR35/U<br>+ Frequency                           | 3098-1095-64                          | /15                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR35/U<br>800K0000 thru 20M00000 | CR35/U<br>+ Frequency                           | 3098-481-82                           | /15                         | Valpey-Fisher Corporation                          |
| *CR36/U<br>920K0000 thru 20M00000 | CR36/U<br>+ Frequency                           | 3098-33-71                            | /16                         | Bliley Electric Company                            |
| *CR36/U<br>1M000000 thru 20M00000 | CR36/U<br>+ Frequency                           | 3098-655-67                           | /16                         | M-tron Industries, Inc.                            |
| *CR36/U<br>1M000000 thru 20M00000 | CR36/U<br>+ Frequency                           | 3098-1095-64                          | /16                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR36/U<br>800K0000 thru 20M00000 | CR36/U<br>+ Frequency                           | 3098-481-82                           | /16                         | Valpey-Fisher Corporation                          |
| *CR37/U<br>90K00000 thru 250K0000 | CR37/U<br>+ Frequency                           | 3098-29-71                            | /17                         | Bliley Electric Company                            |

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| *CR42/U<br>90K00000 thru 250K0000  | CR42/U<br>+ Frequency                           | 3098-30-71                            | /21                         | Bliley Electric Company                            |
| *CR45/U<br>455K0000 thru 0         | CR45/U<br>+ Frequency                           | 3098-31-71                            | /24                         | Bliley Electric Company                            |
| *CR46B/U<br>200K0000 thru 550K0000 | CR46B/U<br>+ Frequency                          | 3098-34-71                            | /25                         | Bliley Electric Company                            |
| *CR47/U<br>190K0000 thru 500K0000  | CR47/U<br>+ Frequency                           | 3098-32-71                            | /26                         | Bliley Electric Company                            |
| *CR52/U<br>15M00000 thru 61M00000  | CR52/U<br>+ Frequency                           | QA-152/D3, 22 Apr 1968                | /30                         | Croven, Ltd.                                       |
| *CR52/U<br>10M00000 thru 61M00000  | CR52/U<br>+ Frequency                           | 3098-833-67                           | /30                         | M-tron Industries, Inc.                            |
| *CR52/U<br>10M00000 thru 61M00000  | CR52/U<br>+ Frequency                           | 3098-1148-65                          | /30                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR52/U<br>10M00000 thru 61M00000  | CR52/U<br>+ Frequency                           | *CR148/U                              | /30                         | U. S. Crystal Corporation                          |
| *CR54/U<br>50M00000 thru 125M0000  | CR54/U<br>+ Frequency                           | 3098-995-78                           | /32                         | U. S. Crystal Corporation                          |
| *CR54/U<br>50M00000 thru 125M0000  | CR54/U<br>+ Frequency                           | 3098-479-82                           | /32                         | Valpey-Fisher Corporation                          |
| *CR55/U<br>24M00000 thru 62M00000  | CR55/U<br>+ Frequency                           | QA-277/LD3, 4 Jan 1968                | /33                         | Croven, Ltd.                                       |
| *CR55/U<br>18M00000 thru 61M00000  | CR55/U<br>+ Frequency                           | 3098-815-67, 3098-154-84              | /33                         | Electro Dynamics Crystal<br>Corporation            |
| *CR55/U<br>17M00000 thru 61M00000  | CR55/U<br>+ Frequency                           | 3098-280-73                           | /33                         | M-tron Industries, Inc.                            |
| *CR55/U<br>17M00000 thru 62M00000  | CR55/U<br>+ Frequency                           | 3098-1091-64                          | /33                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR55/U<br>17M00000 thru 62M00000  | CR55/U<br>+ Frequency                           | 3098-698-79                           | /33                         | U. S. Crystal Corporation                          |
| *CR55/U<br>17M00000 thru 62M00000  | CR55/U<br>+ Frequency                           | 3098-484-82                           | /33                         | Valpey-Fisher Corporation                          |
| *CR56/U<br>50M00000 thru 125M0000  | CR56/U<br>+ Frequency                           | QA-180/D3, 28 Jan 1969,               | /34                         | Croven, Ltd.                                       |
| *CR56/U<br>50M00000 thru 125M0000  | CR56/U<br>+ Frequency                           | 3098-520-68                           | /34                         | Electro Dynamics Crystal<br>Corporation            |
| *CR56/U<br>50M00000 thru 125M0000  | CR56/U<br>+ Frequency                           | 3098-1092-64                          | /34                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |

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| *CR56/U<br>50M00000 thru 125M0000 | CR56/U<br>+ Frequency                           | 3098-482-82                           | /34                         | U. S. Crystal Corporation                          |
| *CR56/U<br>50M00000 thru 125M0000 | CR56/U<br>+ Frequency                           | 3098-482-82                           | /34                         | Valpey-Fisher Corporation                          |
| *CR58/U<br>920K0000 thru 20M00000 | CR58/U<br>+ Frequency                           | 3098-35-71                            | /36                         | Bliley Electric Company                            |
| *CR58/U<br>1M000000 thru 20M00000 | CR58/U<br>+ Frequency                           | QA-118/ALD3, 11 Dec 1967              | /36                         | Croven, Ltd.                                       |
| *CR58/U<br>1M000000 thru 20M00000 | CR58/U<br>+ Frequency                           | 3098-654-67                           | /36                         | M-tron Industries, Inc.                            |
| *CR58/U<br>1M000000 thru 20M00000 | CR58/U<br>+ Frequency                           | 3098-1095-64                          | /36                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR58/U<br>800K0000 thru 20M00000 | CR58/U<br>+ Frequency                           | 3098-481-82                           | /36                         | Valpey-Fisher Corporation                          |
| *CR59/U<br>50M00000 thru 125M0000 | CR59/U<br>+ Frequency                           | QA-559/LS3, 8 Jul 1968                | /37                         | Croven, Ltd.                                       |
| *CR59/U<br>50M00000 thru 125M0000 | CR59/U<br>+ Frequency                           | 3098-520A-68                          | /37                         | Electro Dynamics Crystal<br>Corporation            |
| *CR59/U<br>50M00000 thru 125M0000 | CR59/U<br>+ Frequency                           | 3098-997-78                           | /37                         | U. S. Crystal Corporation                          |
| *CR59/U<br>50M00000 thru 125M0000 | CR59/U<br>+ Frequency                           | 3098-482-82                           | /37                         | Valpey-Fisher Corporation                          |
| *CR60/U<br>5M000000 thru 20M00000 | CR60/U<br>+ Frequency                           | 3098-281-79                           | /38                         | Bliley Electric Company                            |
| *CR60/U<br>5M000000 thru 20M00000 | CR60/U<br>+ Frequency                           | QA-690/E2, 2 Dec 1971                 | /38                         | Croven, Ltd.                                       |
| *CR60/U<br>5M000000 thru 20M00000 | CR60/U<br>+ Frequency                           | 3098-450-76                           | /38                         | Electro Dynamics Crystal<br>Corporation            |
| *CR60/U<br>5M000000 thru 20M00000 | CR60/U<br>+ Frequency                           | 3098-261-68                           | /38                         | M-tron Industries, Inc.                            |
| *CR60/U<br>5M000000 thru 20M00000 | CR60/U<br>+ Frequency                           | 3098-494-66                           | /38                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR60/U<br>5M000000 thru 20M00000 | CR60/U<br>+ Frequency                           | 3098-996-78                           | /38                         | U. S. Crystal Corporation                          |
| *CR60/U<br>5M000000 thru 20M00000 | CR60/U<br>+ Frequency                           | 3098-480-82                           | /38                         | Valpey-Fisher Corporation                          |
| *CR61/U<br>24M00000 thru 61M00000 | CR61/U<br>+ Frequency                           | QA-277/LD3, 4 Jan 1968                | /39                         | Croven, Ltd.                                       |

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|------------------------------------|-------------------------------------------------|---------------------------------------|-----------------------------|----------------------------------------------------|
| *CR61/U<br>18M00000 thru 61M00000  | CR61/U<br>+ Frequency                           | 3098-814-67, 3098-154-84              | /39                         | Electro Dynamics Crystal<br>Corporation            |
| *CR61/U<br>17M00000 thru 61M00000  | CR61/U<br>+ Frequency                           | 3098-484-82                           | /39                         | Valpey-Fisher Corporation                          |
| *CR62/U<br>920K0000 thru 20M00000  | CR62/U<br>+ Frequency                           | 3098-33-71                            | /40                         | Bliley Electric Company                            |
| *CR62/U<br>1M000000 thru 20M00000  | CR62/U<br>+ Frequency                           | 3098-655-67                           | /40                         | M-tron Industries, Inc.                            |
| *CR62/U<br>1M000000 thru 20M00000  | CR62/U<br>+ Frequency                           | 3098-1095-64                          | /40                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR62/U<br>800K0000 thru 20M00000  | CR62/U<br>+ Frequency                           | 3098-481-82                           | /40                         | Valpey-Fisher Corporation                          |
| *CR63B/U<br>200K0000 thru 555K0000 | CR63B/U<br>+ Frequency                          | 3098-34-71                            | /41                         | Bliley Electric Company                            |
| *CR64/U<br>3M700000 thru 20M00000  | CR64/U<br>+ Frequency                           | QA-690/E2, 2 Dec 1971                 | /42                         | Croven, Ltd.                                       |
| *CR64/U<br>2M400000 thru 20M00000  | CR64/U<br>+ Frequency                           | 3098-450-76                           | /42                         | Electro Dynamics Crystal<br>Corporation            |
| *CR64/U2<br>2M400000 thru 20M00000 | CR64/U<br>+ Frequency                           | 3098-261-68                           | /42                         | M-tron Industries, Inc.                            |
| *CR64/U<br>2M400000 thru 20M00000  | CR64/U<br>+ Frequency                           | 3098-657-86                           | /42                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR64/U<br>2M900000 thru 20M00000  | CR64/U<br>+ Frequency                           | 3098-996-78                           | /42                         | U. S. Crystal Corporation                          |
| *CR64/U<br>2M900000 thru 20M00000  | CR64/U<br>+ Frequency                           | 3098-480-82                           | /42                         | Valpey-Fisher Corporation                          |
| *CR65/U<br>15M00000 thru 61M00000  | CR65/U<br>+ Frequency                           | QA-165/L3, 5 Jan 1970                 | /43                         | Croven, Ltd.                                       |
| *CR65/U<br>10M00000 thru 61M00000  | CR65/U<br>+ Frequency                           | 3098-833-67                           | /43                         | M-tron Industries, Inc.                            |
| *CR65/U<br>10M00000 thru 61M00000  | CR65/U<br>+ Frequency                           | 3098-1148-65                          | /43                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR65/U<br>10M00000 thru 61M00000  | CR65/U<br>+ Frequency                           | *CR148/U                              | /43                         | U. S. Crystal Corporation                          |
| *CR67/U<br>24M00000 thru 62M00000  | CR67/U<br>+ Frequency                           | QA-277/LD3, 4 Jan 1968                | /45                         | Croven, Ltd.                                       |
| *CR67/U<br>18M00000 thru 62M00000  | CR67/U<br>+ Frequency                           | 3098-815-67, 3098-154-84              | /45                         | Electro Dynamics Crystal<br>Corporation            |

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|------------------------------------|-------------------------------------------------|---------------------------------------|-----------------------------|----------------------------------------------------|
| *CR67/U<br>17M00000 thru 61M00000  | CR67/U<br>+ Frequency                           | 3098-280-73                           | /45                         | M-tron Industries, Inc.                            |
| *CR67/U<br>17M00000 thru 62M00000  | CR67/U<br>+ Frequency                           | 3098-1091-64                          | /45                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR67/U<br>17M00000 thru 62M00000  | CR67/U<br>+ Frequency                           | 3098-693-79                           | /45                         | U. S. Crystal Corporation                          |
| *CR67/U<br>17M00000 thru 62M00000  | CR67/U<br>+ Frequency                           | 3098-484-82                           | /45                         | Valpey-Fisher Corporation                          |
| *CR69/U<br>3M700000 thru 25M00000  | CR69/U<br>+ Frequency                           | QA-690/E2, 2 Dec 1971                 | /47                         | Croven, Ltd.                                       |
| *CR69/U<br>2M900000 thru 25M00000  | CR69/U<br>+ Frequency                           | 3098-450-76                           | /47                         | Electro Dynamics Crystal<br>Corporation            |
| *CR69/U<br>2M900000 thru 25M00000  | CR69/U<br>+ Frequency                           | 3098-494-66                           | /47                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR69/U<br>2M900000 thru 25M00000  | CR69/U<br>+ Frequency                           | 3098-996-78                           | /47                         | U. S. Crystal Corporation                          |
| *CR69/U<br>2M900000 thru 25M00000  | CR69/U<br>+ Frequency                           | 3098-480-82                           | /47                         | Valpey-Fisher Corporation                          |
| *CR71/U<br>4M999995 thru 5M50000   | BG61AH-5<br>+ Frequency                         | 3098-235-69                           | /49                         | Bliley Electric Company                            |
| *CR72/U<br>24M00000 thru 61M00000  | CR72/U<br>+ Frequency                           | QA-277/LD3, 4 Jan 1968                | /50                         | Croven, Ltd.                                       |
| *CR72/U<br>18M00000 thru 61M00000  | CR72/U<br>+ Frequency                           | 3098-815-67, 3098-154-84              | /50                         | Electro Dynamics Crystal<br>Corporation            |
| *CR72/U<br>17M00000 thru 61M00000  | CR72/U<br>+ Frequency                           | 3098-280-73                           | /50                         | M-tron Industries, Inc.                            |
| *CR72/U<br>17M00000 thru 61M00000  | CR72/U<br>+ Frequency                           | 3098-1091-64                          | /50                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR72/U<br>17M00000 thru 61M00000  | CR72/U<br>+ Frequency                           | 3098-484-82                           | /50                         | Valpey-Fisher Corporation                          |
| *CR73/U<br>17M00000 thru 61M00000  | CR73/U<br>+ Frequency                           | 3098-1669-64                          | /54                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR74/U<br>45M00000 thru 125M0000  | CR74/U<br>+ Frequency                           | 3098-1129-86                          | /51                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR75/U<br>50M00000 thru 125M0000  | CR75/U<br>+ Frequency                           | 3098-995-78                           | /52                         | U. S. Crystal Corporation                          |
| *CR75/U<br>50M00000 thru 125M00000 | CR75/U<br>+ Frequency                           | 3098-479-92                           | /52                         | Valpey-Fisher Corporation                          |

| GOVERNMENT<br>DESIGNATION         | MANUFACTURER'S<br>DESIGNATION OR<br>TYPE NUMBER | TEST OR<br>QUALIFICATION<br>REFERENCE | SPECIFI-<br>CATION<br>SHEET | SUPPLIER'S NAME (ADDRESS<br>ON LAST PAGE)          |
|-----------------------------------|-------------------------------------------------|---------------------------------------|-----------------------------|----------------------------------------------------|
| *CR76/U<br>24M00000 thru 61M00000 | CR76/U<br>+ Frequency                           | QA-277/LD3, 4 Jan 1968                | /53                         | Croven, Ltd.                                       |
| *CR76/U<br>18M00000 thru 61M00000 | CR76/U<br>+ Frequency                           | 3098-154-84                           | /53                         | Electro Dynamics Crystal<br>Corporation            |
| *CR76/U<br>16M00000 thru 61M00000 | CR76/U<br>+ Frequency                           | 3098-280-73                           | /53                         | M-tron Industries, Inc.                            |
| *CR76/U<br>16M00000 thru 61M00000 | CR76/U<br>+ Frequency                           | 3098-1105-86                          | /53                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR76/U<br>16M00000 thru 61M00000 | CR76/U<br>+ Frequency                           | 3098-693-79                           | /53                         | U. S. Crystal Corporation                          |
| *CR76/U<br>16M00000 thru 61M00000 | CR76/U<br>+ Frequency                           | 3098-484-82                           | /53                         | Valpey-Fisher Corporation                          |
| *CR77/U<br>24M00000 thru 62M00000 | CR77/U<br>+ Frequency                           | QA-277/LD3, 4 Jan 1968                | /55                         | Croven, Ltd.                                       |
| *CR77/U<br>18M00000 thru 62M00000 | CR77/U<br>+ Frequency                           | 3098-815-67, 3098-154-84              | /55                         | Electro Dynamics Crystal<br>Corporation            |
| *CR77/U<br>17M00000 thru 61M00000 | CR77/U<br>+ Frequency                           | 3098-280-73                           | /55                         | M-tron Industries, Inc.                            |
| *CR77/U<br>17M00000 thru 62M00000 | CR77/U<br>+ Frequency                           | 3098-1091-64                          | /55                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR77/U<br>17M00000 thru 62M00000 | CR77/U<br>+ Frequency                           | 3098-693-79                           | /55                         | U. S. Crystal Corporation                          |
| *CR77/U<br>17M00000 thru 62M00000 | CR77/U<br>+ Frequency                           | 3098-484-82                           | /55                         | Valpey-Fisher Corporation                          |
| *CR78/U<br>3M700000 thru 20M00000 | CR78/U<br>+ Frequency                           | QA-690/E2, 2 Dec 1971                 | /62                         | Croven, Ltd.                                       |
| *CR78/U<br>2M200000 thru 20M00000 | CR78/U<br>+ Frequency                           | 3098-450-76                           | /62                         | Electro Dynamics Crystal<br>Corporation            |
| *CR78/U<br>2M200000 thru 20M00000 | CR78/U<br>+ Frequency                           | 3098-261-68                           | /62                         | M-tron Industries, Inc.                            |
| *CR78/U<br>2M200000 thru 20M00000 | CR78/U<br>+ Frequency                           | 3098-494-66                           | /62                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR78/U<br>2M900000 thru 20M00000 | CR78/U<br>+ Frequency                           | 3098-996-78                           | /62                         | U. S. Crystal Corporation                          |
| *CR78/U<br>2M200000 thru 20M00000 | CR78/U<br>+ Frequency                           | 3098-480-82                           | /62                         | Valpey-Fisher Corporation                          |
| *CR79/U<br>3M700000 thru 20M00000 | CR79/U<br>+ Frequency                           | QA-690/E2, 2 Dec 1971                 | /63                         | Croven, Ltd.                                       |

| GOVERNMENT<br>DESIGNATION         | MANUFACTURER'S<br>DESIGNATION OR<br>TYPE NUMBER | TEST OR<br>QUALIFICATION<br>REFERENCE | SPECIFI-<br>CATION<br>SHEET | SUPPLIER'S NAME (ADDRESS<br>ON LAST PAGE)          |
|-----------------------------------|-------------------------------------------------|---------------------------------------|-----------------------------|----------------------------------------------------|
| *CR79/U<br>2M900000 thru 20M00000 | CR79/U<br>+ Frequency                           | 3098-450-76                           | /63                         | Electro Dynamics Crystal<br>Corporation            |
| *CR79/U<br>2M900000 thru 20M00000 | CR79/U<br>+ Frequency                           | 3098-261-68                           | /63                         | M-tron Industries, Inc.                            |
| *CR79/U<br>2M900000 thru 20M00000 | CR79/U<br>+ Frequency                           | 3098-494-66                           | /63                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR79/U<br>2M900000 thru 20M00000 | CR79/U<br>+ Frequency                           | 3098-996-78                           | /63                         | U. S. Crystal Corporation                          |
| *CR79/U<br>2M900000 thru 20M00000 | CR79/U<br>+ Frequency                           | 3098-480-82                           | /63                         | Valpey-Fisher Corporation                          |
| *CR80/U<br>50M00000 thru 125M0000 | CR80/U<br>+ Frequency                           | QA-180/D3, 28 Jan 1969                | /57                         | Croven, Ltd.                                       |
| *CR80/U<br>50M00000 thru 125M0000 | CR80/U<br>+ Frequency                           | 3098-520-68                           | /57                         | Electro Dynamics Crystal<br>Corporation            |
| *CR80/U<br>50M00000 thru 125M0000 | CR80/U<br>+ Frequency                           | 3098-1092-64                          | /57                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR80/U<br>50M00000 thru 125M0000 | CR80/U<br>+ Frequency                           | 3098-997-78                           | /57                         | U. S. Crystal Corporation                          |
| *CR80/U<br>50M00000 thru 125M0000 | CR80/U<br>+ Frequency                           | 3098-482-82                           | /57                         | Valpey-Fisher Corporation                          |
| *CR81/U<br>24M00000 thru 62M00000 | CR81/U<br>+ Frequency                           | QA-277/LD3, 4 Jan 1968                | /58                         | Croven, Ltd.                                       |
| *CR81/U<br>18M00000 thru 61M00000 | CR81/U<br>+ Frequency                           | 3098-815-67, 3098-154-84              | /58                         | Electro Dynamics Crystal<br>Corporation            |
| *CR81/U<br>17M00000 thru 61M00000 | CR81/U<br>+ Frequency                           | 3098-280-73                           | /58                         | M-tron Industries, Inc.                            |
| *CR81/U<br>17M00000 thru 62M00000 | CR81/U<br>+ Frequency                           | 3098-1091-64                          | /58                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR81/U<br>17M00000 thru 65M00000 | CR81/U<br>+ Frequency                           | 3098-693-79                           | /58                         | U. S. Crystal Corporation                          |
| *CR81/U<br>17M00000 thru 65M00000 | CR81/U<br>+ Frequency                           | 3098-484-82                           | /58                         | Valpey-Fisher Corporation                          |
| *CR82/U<br>50M00000 thru 125M0000 | CR82/U<br>+ Frequency                           | QA-180/D3, 28 Jan 1969                | /59                         | Croven, Ltd.                                       |
| *CR82/U<br>50M00000 thru 125M0000 | CR82/U<br>+ Frequency                           | 3098-520-68                           | /59                         | Electro Dynamics Crystal<br>Corporation            |
| *CR82/U<br>50M00000 thru 125M0000 | CR82/U<br>+ Frequency                           | 3098-1092-64                          | /59                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR82/U<br>50M00000 thru 125M0000 | CR82/U<br>+ Frequency                           | 3098-997-78                           | /59                         | U. S. Crystal Corporation                          |

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| *CR82/U<br>50M00000 thru 125M0000 | CR82/U<br>+ Frequency                           | 3098-482-82                           | /59                         | Valpey-Fisher Corporation                          |
| *CR83/U<br>50M00000 thru 125M0000 | CR83/U<br>+ Frequency                           | QA-180/D3, 28 Jan 1969                | /60                         | Croven, Ltd.                                       |
| *CR83/U<br>50M00000 thru 125M0000 | CR83/U<br>+ Frequency                           | 3098-520-68                           | /60                         | Electro Dynamics Crystal<br>Corporation            |
| *CR83/U<br>50M00000 thru 125M0000 | CR83/U<br>+ Frequency                           | 3098-1092-64                          | /60                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR83/U<br>50M00000 thru 125M0000 | CR83/U<br>+ Frequency                           | 3098-997-78                           | /60                         | U. S. Crystal Corporation                          |
| *CR83/U<br>50M00000 thru 125M0000 | CR83/U<br>+ Frequency                           | 3098-482-82                           | /60                         | Valpey-Fisher Corporation                          |
| *CR84/U<br>24M00000 thru 61M00000 | CR84/U<br>+ Frequency                           | QA-277/LD3, 4 Jan 1968                | /61                         | Croven, Ltd.                                       |
| *CR84/U<br>18M00000 thru 61M00000 | CR84/U<br>+ Frequency                           | 3098-814-67, 3098-154-84              | /61                         | Electro Dynamics Crystal<br>Corporation            |
| *CR84/U<br>17M00000 thru 61M00000 | CR84/U<br>+ Frequency                           | 3098-484-82                           | /61                         | Valpey-Fisher Corporation                          |
| *CR85/U<br>920K0000 thru 20M00000 | CR85/U<br>+ Frequency                           | 3098-35-71                            | /56                         | Bliley Electric Company                            |
| *CR85/U<br>1M000000 thru 20M00000 | CR85/U<br>+ Frequency                           | 3098-1095-64                          | /56                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR85/U<br>800K0000 thru 20M00000 | CR85/U<br>+ Frequency                           | 3098-481-82                           | /56                         | Valpey-Fisher Corporation                          |
| *CR89/U<br>2M120000 thru 6M200000 | CR89/U<br>+ Frequency                           | 3098-35-71                            | /67 (EL)                    | Bliley Electric Company                            |
| *CR89/U<br>2M120000 thru 6M200000 | CR89/U<br>+ Frequency                           | QA-118/ALD3, 11 Dec 1967              | /67 (EL)                    | Croven, Ltd.                                       |
| *CR89/U<br>2M120000 thru 6M200000 | CR89/U<br>+ Frequency                           | 3098-654-67                           | /67 (EL)                    | M-tron Industries, Inc.                            |
| *CR89/U<br>2M120000 thru 6M200000 | CR89/U<br>+ Frequency                           | 3098-607-74                           | /67 (EL)                    | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR89/U<br>2M120000 thru 6M200000 | CR89/U<br>+ Frequency                           | 3098-481-82                           | /67 (EL)                    | Valpey-Fisher Corporation                          |
| *CR96/U<br>3M600000 thru 9M250000 | CR96/U<br>+ Frequency                           | 3098-947-69                           | /71 (USAF)                  | Electro Dynamics Crystal<br>Corporation            |
| *CR97/U<br>8M000000 thru 10M00000 | CR97/U<br>+ Frequency                           | QA-690/E2, 2 Dec 1971                 | /72                         | Croven, Ltd.                                       |

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|------------------------------------|-------------------------------------------------|---------------------------------------|-----------------------------|----------------------------------------------------|
| *CR97/U<br>8M000000 thru 10M00000  | CR97/U<br>+ Frequency                           | 3098-450-76                           | /72                         | Electro Dynamics Crystal Corporation               |
| *CR97/U<br>8M000000 thru 10M00000  | CR97/U<br>+ Frequency                           | 3098-261-68                           | /72                         | M-tron Industries, Inc.                            |
| *CR97/U<br>8M000000 thru 10M00000  | CR97/U<br>+ Frequency                           | 3098-494-66                           | /72                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR97/U<br>8M000000 thru 10M00000  | CR97/U<br>+ Frequency                           | 3098-996-78                           | /72                         | U. S. Crystal Corporation                          |
| *CR97/U<br>8M000000 thru 10M00000  | CR97/U<br>+ Frequency                           | 3098-480-82                           | /72                         | Valpey-Fisher Corporation                          |
| *CR98/U<br>50M00000 thru 134M0000  | CR98/U<br>+ Frequency                           | 3098-AF5-81, AF Ltr dtd 14 May 81     | /73 (USAF)                  | Electro Dynamics Crystal Corporation               |
| *CR98/U<br>50M00000 thru 134M0000  | CR98/U<br>+ Frequency                           | 3098-AF2-75, AF Ltr dtd 28 Nov 75     | /73 (USAF)                  | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR101/U<br>7M000000 thru 20M00000 | CR101/U<br>+ Frequency                          | 3098-32-88                            | /103                        | Electro Dynamics Crystal Corporation               |
| *CR101/U<br>7M000000 thru 20M00000 | CR101/U<br>+ Frequency                          | 3098-588-91                           | /103                        | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR102/U<br>50M00000 thru 125M0000 | CR102/U<br>+ Frequency                          | 3098-273-82 thru, 3098-275-82         | /104                        | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR103/U<br>17M00000 thru 61M00000 | CR103/U<br>+ Frequency                          | 3098-865-82                           | /105                        | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR104/U<br>200K0000 thru 545K0000 | CR104/U<br>+ Frequency                          | 3098-AF1-74                           | /79 (USAF)                  | Bliley Electric Company                            |
| *CR105/U<br>48M00000 thru 125M0000 | CR105/U<br>+ Frequency                          | 3098-AF5-81, AF Ltr dtd 14 May 81     | /80                         | Electro Dynamics Crystal Corporation               |
| *CR105/U<br>48M00000 thru 125M0000 | CR105/U<br>+ Frequency                          | 3098-AF2-75, AF Ltr dtd 28 Nov 75     | /80                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR106/U<br>10M50000 thru 11M50000 | CR106/U<br>+ Frequency                          | QA-690/E2, 2 Dec 1971                 | /82                         | Croven, Ltd.                                       |
| *CR106/U<br>10M50000 thru 11M50000 | CR106/U<br>+ Frequency                          | 3098-450-76                           | /82                         | Electro Dynamics Crystal Corporation               |
| *CR106/U<br>10M50000 thru 11M50000 | CR106/U<br>+ Frequency                          | 3098-261-68                           | /82                         | M-tron Industries, Inc.                            |
| *CR106/U<br>10M50000 thru 11M50000 | CR106/U<br>+ Frequency                          | 3098-494-66                           | /82                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR106/U<br>10M50000 thru 11M50000 | CR106/U<br>+ Frequency                          | 3098-480-82                           | /82                         | Valpey-Fisher Corporation                          |

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| *CR107/U<br>50M00000 thru 125M0000 | CR107/U<br>+ Frequency                          | 3098-AF5-81, AF Ltr dtd 14 May 81     | /83                         | Electro Dynamics Crystal<br>Corporation            |
| *CR107/U<br>50M00000 thru 125M0000 | CR107/U<br>+ Frequency                          | 3098-AF2-75, AF Ltr dtd 28 Nov 75     | /83                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR107/U<br>50M00000 thru 100M0000 | CR107/U<br>+ Frequency                          | 3098-AF-6-80                          | /83                         | U. S. Crystal Corporation                          |
| *CR108/U<br>50M00000 thru 93M00000 | CR108/U<br>+ Frequency                          | 3098-1670-64                          | /84 (USAF)                  | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR109/U<br>10M00000 thru 11M50000 | CR109/U<br>+ Frequency                          | 3098-579-79                           | /85 (USAF)                  | Electro Dynamics Crystal<br>Corporation            |
| *CR110/U<br>62M50000 thru 75M00000 | CR110/U<br>+ Frequency                          | 3098-AF5-81, AF Ltr dtd 14 May 81     | /86                         | Electro Dynamics Crystal<br>Corporation            |
| *CR110/U<br>62M50000 thru 75M00000 | CR110/U<br>+ Frequency                          | 3098-AF2-75, AF Ltr dtd 28 Nov 75     | /86                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR111/U<br>17M00000 thru 62M00000 | CR111/U<br>+ Frequency                          | 3098-AF2-76, AF Ltr dtd 16 Mar 76     | /87                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR112/U<br>5M000000 thru 20M00000 | CR112/U<br>+ Frequency                          | 3098-579-79                           | /88                         | Electro Dynamics Crystal<br>Corporation            |
| *CR112/U<br>5M000000 thru 20M00000 | CR112/U<br>+ Frequency                          | 3098-283-77                           | /88                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR112/U<br>5M000000 thru 20M00000 | CR112/U<br>+ Frequency                          | 3098-483-82                           | /88                         | Valpey-Fisher Corporation                          |
| *CR113/U<br>18M00000 thru 56M00000 | CR113/U<br>+ Frequency                          | 3098-20-69                            | /89                         | Electro Dynamics Crystal<br>Corporation            |
| *CR113/U<br>14M50000 thru 61M00000 | CR113/U<br>+ Frequency                          | 3098-AF1-78, AF Ltr dtd 30 Aug 78     | /89                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR116/U<br>50M00000 thru 125M0000 | CR116/U<br>+ Frequency                          | 3098-AF5-81, AF Ltr dtd 14 May 81     | /92                         | Electro Dynamics Crystal<br>Corporation            |
| *CR116/U<br>50M00000 thru 125M0000 | CR116/U<br>+ Frequency                          | 3098-AF1-75, AF Ltr dtd 17 Jul 75     | /92                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR116/U<br>50M00000 thru 125M0000 | CR116/U<br>+ Frequency                          | 3098-AF6-80, AF Ltr dtd 12 Jun 80     | /92                         | U. S. Crystal Corporation                          |
| *CR116/U<br>50M00000 thru 125M0000 | CR116/U<br>+ Frequency                          | 3098-AF5-83, AF Ltr dtd 13 May 83     | /92                         | Valpey-Fisher Corporation                          |
| *CR117/U<br>30M00000 thru 62M00000 | CR117/U<br>+ Frequency                          | QA-277/LD3, 4 Jan 1968                | /93 (USAF)                  | Croven, Ltd.                                       |

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| *CR117/U<br>30M00000 thru 61M00000 | CR117/U<br>+ Frequency                          | 3098-280-73                           | /93 (USAF)                  | M-tron Industries, Inc.                            |
| *CR117/U<br>30M00000 thru 62M00000 | CR117/U<br>+ Frequency                          | 3098-1091-64                          | /93 (USAF)                  | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR117/U<br>30M00000 thru 63M00000 | CR117/U<br>+ Frequency                          | 3098-484-82                           | /93 (USAF)                  | Valpey-Fisher Corporation                          |
| *CR119/U<br>920K0000 thru 20M00000 | CR119/U<br>+ Frequency                          | 3098-35-71                            | /95                         | Bliley Electric Company                            |
| *CR119/U<br>1M000000 thru 20M00000 | CR119/U<br>+ Frequency                          | 3098-1095-64                          | /95                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR119/U<br>800K0000 thru 20M00000 | CR119/U<br>+ Frequency                          | 3098-481-82                           | /95                         | Valpey-Fisher Corporation                          |
| *CR122/U<br>50M00000 thru 125M0000 | CR122/U<br>+ Frequency                          | 3098-AF5-81, AF Ltr dtd 14 May 81     | /99                         | Electro Dynamics Crystal<br>Corporation            |
| *CR122/U<br>50M00000 thru 125M0000 | CR122/U<br>+ Frequency                          | 3098-FL1-76, AF Ltr dtd 30 Jan 76     | /99                         | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR123/U<br>50M00000 thru 125M0000 | CR123/U<br>+ Frequency                          | 3098-AF5-81, AF Ltr dtd 14 May 81     | /100                        | Electro Dynamics Crystal<br>Corporation            |
| *CR123/U<br>50M00000 thru 125M0000 | CR123/U<br>+ Frequency                          | 3098-AF1-76, AF Ltr dtd 30 Jan 76     | /100                        | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR125/U<br>1M850000 thru 3M050000 | CR125/U<br>+ Frequency                          | 3098-35-71                            | /102 (USAF)                 | Bliley Electric Company                            |
| *CR125/U<br>1M850000 thru 3M050000 | CR125/U<br>+ Frequency                          | 3098-1095-64                          | /102 (USAF)                 | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR125/U<br>1M850000 thru 3M050000 | CR125/U<br>+ Frequency                          | 3098-481-82                           | /102 (USAF)                 | Valpey-Fisher Corporation                          |
| *CR127/U<br>10M00000 thru 61M00000 | CR127/U<br>+ Frequency                          | 3098-AF6-76, AF Ltr dtd 17 Dec 76     | /106 (USAF)                 | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR128/U<br>17M00000 thru 61M00000 | CR128/U<br>+ Frequency                          | 3098-AF3-76, AF Ltr dtd 17 Mar 76     | /108                        | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR129/U<br>9M000000 thru 12M00000 | CR129/U<br>+ Frequency                          | 3098-579-79                           | /110                        | Electro Dynamics Crystal<br>Corporation            |
| *CR129/U<br>9M000000 thru 12M00000 | CR129/U<br>+ Frequency                          | 3098-283-77                           | /110                        | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR129/U<br>9M000000 thru 12M00000 | CR129/U<br>+ Frequency                          | 3098-483-82                           | /110                        | Valpey-Fisher Corporation                          |
| *CR130/U<br>920K0000 thru 20M00000 | CR130/U<br>+ Frequency                          | 3098-35-71                            | /109                        | Bliley Electric Company                            |

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| *CR130/U<br>1M000000 thru 20M00000 | CR130/U<br>+ Frequency                          | 3098-1095-64                          | /109                        | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR130/U<br>800K0000 thru 20M00000 | CR130/U<br>+ Frequency                          | 3098-481-82                           | /109                        | Valpey-Fisher Corporation                          |
| *CR131/U<br>920K0000 thru 20M00000 | CR131/U<br>+ Frequency                          | 3098-33-71                            | /120 (EL)                   | Bliley Electric Company                            |
| *CR131/U<br>1M000000 thru 20M00000 | CR131/U<br>+ Frequency                          | 3098-655-67                           | /120 (EL)                   | M-tron Industries, Inc.                            |
| *CR131/U<br>1M000000 thru 20M00000 | CR131/U<br>+ Frequency                          | 3098-1095-64                          | /120 (EL)                   | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR131/U<br>800K0000 thru 20M00000 | CR131/U<br>+ Frequency                          | 3098-481-82                           | /120 (EL)                   | Valpey-Fisher Corporation                          |
| *CR134/U<br>18M00000 thru 12M00000 | CR134/U<br>+ Frequency                          | 3098-579-79                           | /113                        | Electro Dynamics Crystal<br>Corporation            |
| *CR134/U<br>18M00000 thru 21M00000 | CR134/U<br>+ Frequency                          | 3098-283-77                           | /113                        | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR134/U<br>18M00000 thru 21M00000 | CR134/U<br>+ Frequency                          | 3098-483-82                           | /113                        | Valpey-Fisher Corporation                          |
| *CR135/U<br>10M00000 thru 12M00000 | CR135/U<br>+ Frequency                          | 3098-579-79                           | /114 (USAF)                 | Electro Dynamics Crystal<br>Corporation            |
| *CR136/U<br>8M000000 thru 10M00000 | CR136/U<br>+ Frequency                          | 3098-579-79                           | /115                        | Electro Dynamics Crystal<br>Corporation            |
| *CR136/U<br>8M000000 thru 10M00000 | CR136/U<br>+ Frequency                          | 3098-283-77                           | /115                        | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR136/U<br>8M000000 thru 10M00000 | CR136/U<br>+ Frequency                          | 3098-483-82                           | /115                        | Valpey-Fisher Corporation                          |
| *CR137/U<br>8M500000 thru 19M00000 | CR137/U<br>+ Frequency                          | 3098-579-79                           | /116                        | Electro Dynamics Crystal<br>Corporation            |
| *CR137/U<br>8M500000 thru 19M00000 | CR137/U<br>+ Frequency                          | 3098-283-77                           | /116                        | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR137/U<br>8M500000 thru 19M00000 | CR137/U<br>+ Frequency                          | 3098-483-82                           | /116                        | Valpey-Fisher Corporation                          |
| *CR139/U<br>20M00000 thru 22M00000 | CR139/U<br>+ Frequency                          | QA-690/E2, 2 Dec 1971                 | /118                        | Croven, Ltd.                                       |
| *CR139/U<br>20M00000 thru 22M00000 | CR139/U<br>+ Frequency                          | 3098-450-76                           | /118                        | Electro Dynamics Crystal<br>Corporation            |
| *CR139/U<br>20M00000 thru 22M00000 | CR139/U<br>+ Frequency                          | 3098-261-68                           | /118                        | M-tron Industries, Inc.                            |

| GOVERNMENT<br>DESIGNATION          | MANUFACTURER'S<br>DESIGNATION OR<br>TYPE NUMBER | TEST OR<br>QUALIFICATION<br>REFERENCE | SPECIFI-<br>CATION<br>SHEET | SUPPLIER'S NAME (ADDRESS<br>ON LAST PAGE)          |
|------------------------------------|-------------------------------------------------|---------------------------------------|-----------------------------|----------------------------------------------------|
| *CR139/U<br>20M00000 thru 22M00000 | CR139/U<br>+ Frequency                          | 3098-494-66                           | /118                        | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR139/U<br>20M00000 thru 22M00000 | CR139/U<br>+ Frequency                          | 3098-480-82                           | /118                        | Valpey-Fisher Corporation                          |
| *CR141/U<br>50M00000 thru 90M00000 | CR141/U<br>+ Frequency                          | QA-180/D3, 28 Jan 1969                | /122                        | Croven, Ltd.                                       |
| *CR141/U<br>50M00000 thru 90M00000 | CR141/U<br>+ Frequency                          | 3098-520-68                           | /122                        | Electro Dynamics Crystal<br>Corporation            |
| *CR141/U<br>50M00000 thru 90M00000 | CR141/U<br>+ Frequency                          | 3098-1092-64                          | /122                        | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR141/U<br>48M00000 thru 90M00000 | CR141/U<br>+ Frequency                          | 3098-482-82                           | /122                        | Valpey-Fisher Corporation                          |
| *CR142/U<br>833K3330 thru 0        | CR142/U<br>+ Frequency                          | 3098-415-69, AF Ltr dtd 8 Mar 73      | /123 (USAF)                 | M-tron Industries, Inc.                            |
| *CR148/U<br>10M00000 thru 61M00000 | CR148/U<br>+ Frequency                          | 3098-AF5-83, AF Ltr dtd 13 May 83     | /129 (USAF)                 | Valpey-Fisher Corporation                          |
| *CR149/U<br>46M00000 thru 100M0000 | CR149/U<br>+ Frequency                          | 3098-AF5-81, AF Ltr dtd 14 May 81     | /130                        | Electro Dynamics Crystal<br>Corporation            |
| *CR149/U<br>46M00000 thru 100M0000 | CR149/U<br>+ Frequency                          | 3098-AF2-75, AF Ltr dtd 28 Nov 75     | /130                        | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR150/U<br>45M00000 thru 100M0000 | CR150/U<br>+ Frequency                          | 3098-420-72                           | /131 (EL)                   | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR151/U<br>50M00000 thru 100M0000 | CR151/U<br>+ Frequency                          | 3098-AF5-81, AF Ltr dtd 14 May 81     | /132 (EL)                   | Electro Dynamics Crystal<br>Corporation            |
| *CR151/U<br>50M00000 thru 100M0000 | CR151/U<br>+ Frequency                          | 3098-AF2-75, AF Ltr dtd 28 Nov 75     | /132 (EL)                   | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR152/U<br>16M00000 thru 61M00000 | CR152/U<br>+ Frequency                          | 3098-280-73                           | /133                        | M-tron Industries, Inc.                            |
| *CR152/U<br>16M00000 thru 61M00000 | CR152/U<br>+ Frequency                          | 3098-484-82                           | /133                        | Valpey-Fisher Corporation                          |
| *CR157/U<br>920K0000 thru 20M00000 | CR157/U<br>+ Frequency                          | 3098-35-71                            | /137                        | Bliley Electric Company                            |
| *CR157/U<br>1M000000 thru 20M00000 | CR157/U<br>+ Frequency                          | QA-118/ALD3, 11 Dec 1967              | /137                        | Croven, Ltd.                                       |
| *CR157/U<br>1M000000 thru 20M00000 | CR157/U<br>+ Frequency                          | 3098-146-68                           | /137                        | Electro Dynamics Crystal<br>Corporation            |
| *CR157/U<br>1M000000 thru 20M00000 | CR157/U<br>+ Frequency                          | 3098-654-67                           | /137                        | M-tron Industries, Inc.                            |

| GOVERNMENT<br>DESIGNATION          | MANUFACTURER'S<br>DESIGNATION OR<br>TYPE NUMBER | TEST OR<br>QUALIFICATION<br>REFERENCE | SPECIFI-<br>CATION<br>SHEET | SUPPLIER'S NAME (ADDRESS<br>ON LAST PAGE)          |
|------------------------------------|-------------------------------------------------|---------------------------------------|-----------------------------|----------------------------------------------------|
| *CR157/U<br>1M800000 thru 20M00000 | CR157/U<br>+ Frequency                          | 3098-607-74                           | /137                        | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR157/U<br>1M000000 thru 20M00000 | CR157/U<br>+ Frequency                          | 3098-692-79                           | /137                        | U. S. Crystal Corporation                          |
| *CR159/U<br>800K0000 thru 20M00000 | CR159/U<br>+ Frequency                          | 3098-587-91                           | /140                        | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |
| *CR165/U<br>2M400000 thru 20M00000 | CR165/U<br>+ Frequency                          | 3098-1024-87                          | /146                        | OFC/McCoy Electronics Company<br>(Mercersburg, PA) |

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## Manufacturer and Supplier Location Information

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**Manufacturer: Bliley Electric Company (CAGE Code: 71034)**

Location: 2545 West Grandview Boulevard, Erie, PA 16512, US

Plant Location: Same Address as Manufacturer

**Manufacturer: Croven, Ltd. (CAGE Code: 00809)**

Location: P.O. Box 420, 500 Beech Street, Whitby, Ontario, Canada

Plant Location: Same Address as Manufacturer

**Manufacturer: Electro Dynamics Crystal Corporation (CAGE Code: 18853)**

Location: 9075 Cody Street, Overland Park, KS 66214, US

Plant Location: Same Address as Manufacturer

**Manufacturer: M-tron Industries, Inc. (CAGE Code: 23875)**

Location: East Highway 50, Yankton, SD 57078, US

Plant Location: Same Address as Manufacturer

**Manufacturer: OFC/McCoy Electronics Company (CAGE Code: 00136)**

Location: Chestnut and Watts Street, Mount Holly Springs, PA 17065, US

Plant Location: OFC/McCoy Electronics Company (Mercersburg, PA), 80 Landis Dr., Mercersburg, PA 17236, US

**Manufacturer: U. S. Crystal Corporation (CAGE Code: 52847)**

Location: 3605 McCart Street, Fort Worth, TX 76110, US

Plant Location: Same Address as Manufacturer

**Manufacturer: Valpey-Fisher Corporation (CAGE Code: 21821)**

Location: 75 South Street, Hopkinton, MA 01748, US

Plant Location: Same Address as Manufacturer