

CR SPECIFICATION CRYSTALS (MIL-PRF-3098/SS)

Military Crystal Unit	Military Holder	Frequency Range kHz (nominal)	Operating Temp. Range °C	Frequency Tolerance ±%	C ₀ pF	C ₁ pF	* Mode /Res.	Test Sets
CR-1A/AR	HC-11/U	3.600 to 10.00	-55 to +90	0.02	-	35.0	F/P	TS-330
CR-10/U	HC-11A/U	3.600 to 10.00	-55 to +90	0.005	-	35.0	F/P	TS-330
CR-2/U	HC-17/U	200	-40 to +70	0.009	-	125.0	F/P	AN/TSM-2
CR-3/U	HC-17/U	300 to 600	-40 to +70	0.02	-		F/P	AN/TSM-2
CR-4/U	HC-17/U	500 to 1,200	-40 to +70	0.02	-		F/P	AN/TSM-2
CR-5A/U	HC-17/U	2,200 to 10,000	-55 to +90	0.005	-	25.0	F/P	TS-330
CR-6A/U	HC-17/U	2,200 to 10,000	-55 to +90	0.005	-	13.0	F/P	TS-330
CR-7A/U	HC-14/U	3,750 to 10,000	+75±1°	0.004	7.0	28.0	F/P	TS-330
CR-8A/U	HC-17/U	1,000 to 10,000	-40 to +70	0.005	-		F/S	TS-330
CR-10/U	HC-17/U	5.000	-40 to +70	0.005	-	25.0	F/P	TS-330
CR-13/U	HC-17/U	445	-40 to +70	0.005	14.0	-	F/S	TS-537
CR-15B/U	HC-21/U	80 to 200	-40 to +70	0.002	-	32.0	F/P	TS-537
CR-16B/U	HC-21/U	80 to 200	-40 to +70	0.001	-	-	F/S	TS-537
CR-18A/U	HC-6/U	800 to 20,000	-55 to +105	0.005	7.0	32.0	F/P	TS-330/TS-683
CR-19A/U	HC-6/U	800 to 20,000	-55 to +105	0.005	7.0	-	F/S	TS-330/TS-683
CR-24/U	HC-10/U	15,000 to 50,000	-55 to +105	0.005	7.0	-	O/S	TS-683
CR-25B/U	HC-6/U	200 to 555	-40 to +85	0.001	-	-	F/S	TS-537/TS-710
CR-26A/U	HC-6/U	200 to 555	+75±1°	0.002	-	-	F/S	TS-537/TS-710
CR-27A/U	HC-6/U	800 to 20,000	+75±1°	0.002	7.0	-	F/S	TS-330/TS-683
CR-28A/U	HC-6/U	800 to 20,000	+75±1°	0.002	7.0	-	F/S	TS-330/TS-683
CR-29A/U	HC-21/U	80 to 200	+75±1°	0.002	-	32.0	F/P	TS-537/TS-710
CR-30A/U	HC-21/U	800 to 20,000	+75±1°	0.002	-	-	F/S	TS-537/TS-710
CR-33A/U	HC-6/U	10,000 to 30,000	-55 to +105	0.005	12.0	32.0	O/P	TS-683
CR-35A/U	HC-6/U	800 to 20,000	+85±1°	0.002	7.0	32.0	F/S	TS-330
CR-36A/U	HC-6/U	800 to 20,000	+85±1°	0.002	7.0	32.0	F/P	TS-300/TS-683
CR-37A/U	HC-13/U	90 to 250	-40 to +70	0.002	-	20.0	F/P	TS-537/TS-710
CR-38A/U	HC-13/U	16 to 100	-40 to +70	0.012	-	20.0	F/P	TS-537/TS-710
CR-39/U	HC-15/U	160 to 330	-55 to +75	0.003	-	-	F/S	TS-710
CR-40/U	HC-15/U	160 to 330	+65 to +75	0.003	-	-	F/S	TS-710
CR-42A/U	HC-13/U	90 to 250	+70 to +80	0.003	-	32.0	F/P	TS-710

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CR-43/U	HC-16/U	80.86	-30 to +75	0.01	45.0	45.0	F/P	TS-710
CR-45/U	HC-6/U	455	-40 to +70	0.02	5.0	-	F/S	TS-537/TS-710
CR-46B/U	HC-6/U	200 to 550	-40 to +85	0.002	-	20.0	F/P	TS-537/TS-710
CR-47A/U	HC-6/U	190 to 555	+75±1°	0.002	-	20.0	F/P	TS-537/TS-710
CR-50A/U	HC-6/U	16 to 100	-40 to +70	0.012	-	-	F/S	TS-710
CR-51A/U	HC-6/U	10,000 to 61,000	-55 to +105	0.005	7.0	-	O/S	TS-683
CR-52A/U	HC-6/U	10,000 to 61,000	-55 to +105	0.005	7.0	-	O/S	TS-683
CR-53A/U	HC-6/U	10,000 to 87,000	-55 to +105	0.005	7.0	-	O/S	TS-683
CR-54A/U	HC-6/U	50,000 to 125,000	-55 to +105	0.005	7.0	-	O/S	TS-683
CR-56A/U	HC-18/U	50,000 to 125,000	-55 to +105	0.005	7.0	-	O/S	TS-683
CR-57A/U	HC-6/U	500	+85±1°	0.001	7.0	32.0	F/P	TS-710
CR-58A/U	HC-17/U	800 to 20,000	-55 to +105	0.005	7.0	32.0	F/P	TS-330/TS-683
CR-59A/U	HC18/U	50,000 to 125,000	+85±1°	0.002	7.0	-	F/S	TS-683
CR-60A/U	HC18/U	5,000 to 20,000	-55 to +105	0.005	7.0	-	F/S	TS-330
CR-61/U	HC-18/U	17,000 to 61,000	+85±1°	0.002	7.0	-	O/S	TS-683
CR-62/U	HC-6/U	800 to 20,000	+75±1°	0.001	7.0	32.0	F/P	TS-330/TS-683
CR-63/U	HC-6/U	200 to 555	-40 to +70	0.01	7.0	20.0	F/P	TS-710
CR-64/U	HC-18/U	2,900 to 20,000	-55 to +105	0.005	7.0	30.0	F/P	TS-330/TS-683
CR-65/U	HC-6/U	10,000 to 61,000	+75±1°	0.001	7.0	-	O/S	TS-683
CR-66/U	HC-30/U	3,000 to 20,000	-40 to +90	0.002	7.0	30.0	F/P	TS-330/TS683
CR-67A/U	HC-25/U	17,000 to 62,000	-65 to +105	0.0025	7.0	-	O/S	TS-683
CR-68/U	HC-29/U	3,000 to 20,000	+75±1°	0.002	7.0	32.0	F/P	TS-330/TS-683
CR-69A/U	HC-26/U	2,900 to 25,000	-40 to +90	0.002	7.0	30.0	F/P	TS-330/TS-683
CR-70/U	HC-6/U	4	-40 to +70	0.01	-	-	F/S	TS-537
CR-71/U	HC-18/U	4,500 to 61,000	+85 to +77	0.00008	4.0	32.0	O/S	AN/TSM-17
CR-72/U	HC-25/U	17,000 to 61,000	-55 to +105	0.005	7.0	-	O/S	TS-683
CR-73/U	HC-25/U	17,000 to 62,000	-55 to +105	0.003	4.0	-	O/S	TS-683
CR-74/U	HC-25/U	45,000 to 125,000	+85±1°	0.001	4.5	-	O/S	TS-683/ AM/TSM-15
CR-75/U	HC-18/U	50,000 to 125,000	+75±1°	0.001	7.0	-	O/S	TS-683/ AM/TSM-15
CR-76A/U	HC-18/U	16,000 to 61,000	-40 to +90	0.002	3.5	-	O/S	TS-683
CR-77/U	HC-25/U	17,000 to 62,000	-40 to +90	0.002	7.0	-	O/S	TS-683
CR-78A/U	HC-25/U	2,200 to 20,000	-55 to +105	0.005	7.0	30.0	F/P	TS/330/TS-683
CR-79/U	HC-25/U	2,900 to 20,000	-55 to +105	0.005	7.0	-	F/S	TS-330/TS-683
CR-80/U	HC-18/U	50,000 to 125,000	-40 to +90	0.002	7.0	-	O/S	TS-683
CR-81/U	HC-25/U	17,000 to 65,000	-55 to +105	0.005	7.0	-	O/S	TS-683
CR-82/U	HC-25/U	50,000 to 125,000	-55 to +105	0.005	7.0	-	O/S	TS-683
CR-83/U	HC-25/U	50,000 to 125,000	-40 to +90	0.002	7.0	-	O/S	TS-683
CR-84/U	HC-25/U	17,000 to 61,000	+85±1°	0.002	7.0	-	O/S	TS-683
CR-85/U	HC-6/U	800 to 20,000	-40 to +90	0.002	7.0	-	F/S	TS-330/TS-683

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CR-86/U	HC-27/U	5,000 to 15,000	-55 to +200	0.005	7.0	-	F/S	TS-330/TS-683
CR-87/U	HC-27/U	15,000 to 45,000	-55 to +180	0.005	7.0	-	O/S	TS-683
CR-88A/U	HC-13/m	2.75 to 16	0 to +65	0.005	30.0	-	O/S	TS-710
CR-89/U	HC-32/U	2,120 to 6,200	-55 to +90	0.005	7.0	30.0	O/S	TS-330
CR-90/U	HC-27/U	3,000 to 5,000	+30°±1°	0.004	3.0	30.0	F/S	TS-330
CR-91/U	HC-11A/U	9,500 to 12,500	-55 to +90	0.01	10.0	-	F/P	TS-330
CR-92/U	HC-11A/U	6,900 to 8,222	-55 to +90	0.005	-	32.0	F/P	TS-330
CR-95/U	HC-11A/U	2,000 to 9,250	-35 to +75	0.005	-	32.0	F/P	TS-330
CR-96/U	HC-11A/U	2,000 to 9,250	-35 to +75	0.005	-	32.0	F/P	TS-330
CR-97/U	HC-18/U	8,000 to 10,000	-40 to +85	0.005	7.0	-	F/P	TS-330
CR-98/U	HC-25/U	50,000 to 134,000	-30 to +71	0.0015	7.0	-	O/S	TS-683/TSM-15
CR-99A/U	HC-6/U	44,000 to 69,000	-55 to +105	0.005	7.0	21.5	O/P	TS-683
CR-100/U	HC-6/U	1,750 to 3,500	-55 to +90	0.005	7.0	-	F/P	TS-330
CR-101/U	HC-35/U	7,000 to 20,000	-55 to +105	0.005	7.0	32.0	F/P	TS-330/TS-687
CR-102/U	HC-35/U	50,000 to 125,000	-55 to +105	0.0025	7.0	-	O/S	TS-683
CR-103/U	HC-35/U	17,000 to 61,000	-55 to +105	0.0025	7.0	-	O/S	TS-683
CR-104/U	HC-33/U	200 to 580	+75 ±1°	0.002	-	32.0	F/-	TS-710
CR-105/U	HC-18/U	48,000 to 125,000	+25 ±1°	0.001	4.0	-	O/S	TS-683
CR-106/U	HC-18/U	10,500 to 11,500	-55 to +105	0.005	7.0	-	F/P	TS-330
CR-107/U	HC-18/U	50,000 to 125,000	-55 to +105	0.005	6.0	-	O/S	TS-683/TSM-1
CR-108/U	HC-26/U	50,000 to 93,000	+85 ±1°	0.005	5.5	-	O/S	TS-683
CR-109/U	HC-25/U	10,000 to 11,500	+85 ±2°	0.002	7.0	32.0	F/P	TS-330
CR-110A/U	HC-18/U	63,000 to 75,000	-40 to +85	0.003	4.0	-	O/S	TS-683
CR-111/U	HC-18/U	17,000 to 27,000	+40 to +80	0.003	4.0	-	O/S	TS-683
CR-112/U	HC-18/U	5,000 to 20,000	-55 to +105	0.0025	7.0	-	F/S	TS-330
CR-113/U	HC-18/U	10,000 to 61,000	+75 ±1°	0.0001	7.0	-	O/S	TS-683
CR-114/U	HC-25/U	2,900 to 3,850	-55 to +105	0.0005	7.0	32.0	F/P	TS-330
CR-115/U	HC-18/U	24,000 to 34,000	-55 to +105	0.0005	4.0	-	O/S	TS-683
CR-116/U	HC-18/U	50,000 to 125,000	-55 to +105	0.025	4.5	-	O/S	TS-683
CR-117/U	HC-25/U	30,000 to 63,000	-40 to +65	0.0015	7.0	-	O/S	TS-683
CR-118/U	HC-6/U	7,000 to 25,000	-55 to +85	0.003	7.0	32.0	F/P	TS-683
CR-119/U	HC-27/U	800 to 20,000	-55 to +105	0.005	7.0	30.0	F/P	TS-330/TS-683
CR-120/U	HC-27/U	2,000 to 10,000	+85 ±5°	0.0005	-	100	F/P	TS-330/md
CR-121/U	HC-27/U	2,000 to 10,000	+85 ±5°	0.0005	-	50	F/P	TS-330/md
CR-122	HC-18/U	50,000 to 125,000	+80 to +90	0.001	7.0	-	O/S	TS-683/TSM-15
CR-123	HC-18/U	50,000 to 125,000	+85 ±1°	0.005	4.5	-	O/S	TS-683/TSM-15
CR-124	HC-18/U	2,900 to 3,800	-55 to +100	0.005	7.0	32.0	F/P	TS-330
CR-125	HC-6/U	1,850 to 3,050	-55 to +105	0.005	7.0	30.0	F/P	TS-330
CR-126	HC-27/U	5,000 to 10,000	+85 ±1°	0.003	7.0	30.0	O/P	TS-330
CR-127	HC-6/U	10,000 to 61,000	-55 to +90	0.0025	7.0	-	O/S	TS-683

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CR-128	HC-18/U	17,000 to 61,000	-55 to +105	0.005	7.0	-	O/S	TS-683
CR-129	HC-18/U	9,000 to 12,000	-55 to +90	0.0035	7.0	32.0	F/P	TS-330
CR-130	HC-6/U	800 to 20,000	-40 to +90	0.002	7.0	30.0	F/P	TS-330
CR-131	HC-6/U	800 to 20,000	+70 to +90	0.002	7.0	30.0	F/P	TS-330/TSM-15
CR-132	HC-6/U	800 to 20,000	+80 to +90	0.002	7.0	30.0	F/P	TS-330
CR-133	HC-25/U	45,000 to 125,000	-55 to 105	0.006	6.5	-	O/S	TS-683/TSM-15
CR-134	HC-18/U	18,000 to 21,000	+10 to +80	0.0025	6.0	32.0	F/P	TS-683
CR-135	HC-25/U	10,000 to 120,000	+80 to +90	0.002	7.0	32.0	F/P	TS-330
CR-136	HC-18/U	8,000 to 10,000	+25 ±1°	0.001	6.0	32.0	F/P	TS-330
CR-137	HC-18/U	8,500 to 19,000	+20 to +70	0.0025	7.0	32.0	F/P	TS-330/TS-683
CR-138	HC-6/U	165 to 360	+40 to 85	0.012	-	32.0	F/P	TS-710
CR-139	HC-18/U	20,000 to 22,000	+55 to 105	0.005	12.0	30.0	F/P	TS-683
CR-140	HC-6/U	9,500 to 12,500	+55 to 90	0.005	10.0	60.0	F/P	TS-330
CR-141	HC-18/U	48,000 to 90,000	-30 to +55	0.0025	7.0	-	O/S	TS-683
CR-142	HC-6/U	833.00	+75 ±1°	0.001	7.0	32.0	F/P	TS-330
CR-143	HC-27/U	56,000 to 100,000	+75 ±1°	0.0025	3.0	-	O/S	TS-683
CR-144	HC-36/U	56,000 to 100,000	+75 ±1°	0.0025	7.0	-	O/S	TS-683
CR-145	HC-26/U	66,000 to 93,000	-55 to +105	0.025	5.5	-	O/S	TS-683
CR-146	HC-33/U	2,300 to 3,500	+75 ±1°	0.001	7.0	32.0	F/P	TS-330
CR-147	HC-33/U	200 to 500	0 to +60	0.01	-	20.0	F/P	TS-710
CR-148	HC-6/U	10,000 to 61,000	-55 to +105	0.005	7.0	-	O/S	TS-683
CR-149	HC-18/U	46,000 to 100,000	+25 to +30	0.001	6.0	-	O/S	TS-683
CR-150	HC-27/U	56,000 to 100,000	-55 to +70	0.005	3.0	-	O/S	TS-683
CR-151	HC-18/U	50,000 to 100,000	+25 ±1°	0.002	6.0	-	O/S	TS-683
CR-152	HC-18/U	16,000 to 61,000	-40 to +90	0.002	3.5	-	O/S	TS-683
CR-153	HC-42-2	10,000 to 30,000	0 to +60	0.001	-	20.0	F/P	TS-683
CR-154	HC-18/U	17,000 to 61,000	+85 ±1°	0.002	4.0	-	O/S	TS-683
CR-155	HC-37/U	11,000	-55 to +80	0.0025	7.0	-	F/S	TS-683
CR-156	HC-43/U	25,000	+80 to +90	0.001	7.0	-	O/S	TS-683
CR-157	HC-33/U	800 to 20,000	-55 to +105	0.005	7.0	-	F/S	TS-330/TS-683
CR-161	HC-44/U	16 to 20	-55 to +125	0.005	7.0	-	F/S	TS-683
CR-162	HC-43/U	2.9 to 20	-55 to +105	0.005	7.0	30.0	F/P	TS-330/TS-683
CR-163	HC-35/U	7 to 20	-35 to +85	0.005	7.0	-	F/S	TS-330/TS-683

* Note: Mode/Res indicates the crystal's operating mode and resonance condition:

F: Fundamental
O: Overtone
S: Series
P: Parallel