

Croven Crystals is a world leader in the manufacturer and development of precision SC, IT and AT-cut crystals for the frequency control, instrumentation, military, space and other markets. For more than fifty years we have provided products with industry leading performance for phase noise, aging, g-sensitivity and other parameters.

Precision products are available in all industry standard cold weld enclosures from 4 to 200 MHz. Our experienced sales and engineering staff would be pleased to discuss your particular requirements for precision quartz crystals.



Standard SC-cut Crystal Specifications for OCXO Applications

P/N	Freq (MHz)	Calibration Tolerance (ppm) at Turn Over Temp	Turn Over Temp (°C)	Cut, Mode (O/T)	Holder	Motional Capacitance (fF) ± 15%	Resistance (Ohms) Max	G-sensitivity	Aging ppb/year after 30 days
CC4001	5	± 1.5	85-95	SC, 3rd	HC-40/U	0.19	90	1x10 ⁻⁹ /g	10
CC3032	5	±1.5	80-90	SC, 3rd	HC-37/U	0.12	165	1x10 ⁻⁹ /g	20
CC3035	5	±1.5	85-95	SC, 3rd	HC-37/U	0.12	165	1x10 ⁻⁹ /g	20
CC3033	8.192	± 1.5	80-90	SC, 3rd	HC-37/U	0.24	90	1x10 ⁻⁹ /g	30
CC3034	10	± 1.5	80-90	SC, 3rd	HC-37/U	0.23	80	1x10 ⁻⁹ /g	30
CC3036	10	± 1.5	85-95	SC, 3rd	HC-37/U	0.23	80	1x10 ⁻⁹ /g	30
CC3019	10	± 1.5	90-98	SC, 3rd	HC-37/U	0.23	80	1x10 ⁻⁹ /g	30
CC5018	10	±1.5	80-90	SC, 3rd	HC-43/U	0.18	100	1x10 ⁻⁹ /g	30
CC3020	10.922666	± 1.5	80-90	SC, 3rd	HC-37/U	0.23	80	1x10 ⁻⁹ /g	30
CC3021	12	± 1.5	80-90	SC, 3rd	HC-37/U	0.20	80	1x10 ⁻⁹ /g	30
CC3022	12.8	± 1.5	80-90	SC, 3rd	HC-37/U	0.20	80	1x10 ⁻⁹ /g	30
CC5019	13	± 2	80-90	SC, 3rd	HC-43/U	0.20	90	1x10 ⁻⁹ /g	50
CC3023	13	± 2	80-90	SC, 3rd	HC-37/U	0.22	80	1x10 ⁻⁹ /g	30
CC3037	13	± 2	85-95	SC, 3rd	HC-37/U	0.22	80	1x10 ⁻⁹ /g	30
CC3024	15.6	± 2	80-90	SC, 3rd	HC-37/U	0.18	80	1x10 ⁻⁹ /g	50
CC3025	15.84	± 2	80-90	SC, 3rd	HC-37/U	0.18	80	1x10 ⁻⁹ /g	50
CC3026	16.384	± 2	80-90	SC, 3rd	HC-37/U	0.26	70	1x10 ⁻⁹ /g	50
CC5020	16.384	± 2	80-90	SC, 3rd	HC-43/U	0.26	70	1x10 ⁻⁹ /g	50



CROVEN CRYSTALS

Wenzel International, Inc.

P/N	Freq (MHz)	Calibration Tolerance (ppm) at Turn Over Temp	Turn Over Temp (°C)	Cut, Mode (O/T)	Holder	Motional Capacitance (fF) ± 15%	Resistance (Ohms) Max	G-sensitivity	Aging ppb/year after 30 days
CC3027	19.2	± 2	80-90	SC, 3rd	HC-37/U	0.50	60	1x10 ⁻⁹ /g	50
CC3028	19.44	± 2	80-90	SC, 3rd	HC-37/U	0.50	60	1x10 ⁻⁹ /g	50
CC5021	20	± 3	80-90	SC, 3rd	HC-43/U	0.35	60	1x10 ⁻⁹ /g	50
CC5023	20	± 3	85-95	SC, 3rd	HC-43/U	0.35	60	1x10 ⁻⁹ /g	50
CC5016	26	± 3	80-90	SC, 3rd	HC-43/U	0.35	60	1x10 ⁻⁹ /g	70
CC3029	30.72	± 3	80-90	SC, 3rd	HC-37/U	0.38	70	1x10 ⁻⁹ /g	70
CC5022	30.72	± 3	80-90	SC, 3rd	HC-43/U	0.38	70	1x10 ⁻⁹ /g	70
CC3030	32.768	± 3	80-90	SC, 3rd	HC-37/U	0.38	70	1x10 ⁻⁹ /g	70
CC3031	38.4	± 3	80-90	SC, 3rd	HC-37/U	0.40	60	1x10 ⁻⁹ /g	100
CC5017	40	± 3	80-90	SC, 3rd	HC-43/U	0.40	50	1x10 ⁻⁹ /g	100
CC1010	60	±3	80-90	SC, 3rd	HC-35/U	0.48	50	1x10 ⁻⁹ /g	100
CC1011	60	±3	80-90	SC, 5th	HC-35/U	0.15	100	1x10 ⁻⁹ /g	80
CC1012	100	±3	80-90	SC, 5th	HC-35/U	0.15	110	5x10 ⁻¹⁰ /g	100
CC1013	120	±4	80-90	SC, 5th	HC-35/U	0.15	110	5x10 ⁻¹⁰ /g	120

Notes:

RoHS Compliance:

All standard Croven Crystals parts are RoHS compliant. For applications requiring Pb bearing terminations please consult the factory.

Environmental:

Shock: MIL-STD-202G, M213, Condition C - 100G, 6 msec, ½ sine

Vibration: MIL-STD-202G, M204, Condition C, 10g peak, 55 to 2000 Hz, 1 sweep per axis

General Requirements per MIL-PRF-3098.

Holder Heights:

Contact the factory for details about low profile versions of HC-35, HC-37 and HC-40 style holders

Additional Crystal Specifications:

Resistance Change vs Drive Level: < 10% of Rs

Drive level: 10 - 300 µW

Additional Requirements:

The above specifications are representative of Croven's SC-cut standard stock products. Contact the factory for specifications for AT and IT-cut products or for alternate frequencies or for different requirements for turn over temperature, aging, g-sensitivity or other parameters.