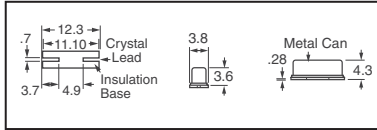


CTS[®] ATS-SM Series Crystals

Specifications:

- Frequency Tolerance: $\pm 30\text{ppm}$ @ 25°C
- Shunt Capacitance: 7.0pF Maximum
- Drive Level: 100 μW
- Frequency Stability: $\pm 50\text{ppm}$
- Operating Temperature: -20°C ~ 70°C
- Operating Mode: Fundamental



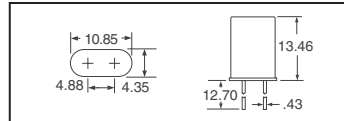
Frequency (MHz)	Load Cap.	Digi-Key Part No.	1	Bulk Price Each	50	100	Digi-Key Part No.	T & R Pricing 1,000	CTS Part No.
3.579545	18.0pF	CTX500-ND	.95	.83	.72	.50	CTX500TR-ND	392.04	ATS036SM-T
3.686400	20.0pF	CTX501-ND	.95	.83	.72	.50	CTX501TR-ND	392.04	ATS037SM-T
4.000000	20.0pF	CTX502-ND	.95	.83	.72	.50	CTX502TR-ND	392.04	ATS040SM-T
4.915200	20.0pF	CTX503-ND	.95	.83	.72	.50	CTX503TR-ND	392.04	ATS042SM-T
5.068800	20.0pF	CTX504-ND	.95	.83	.72	.50	CTX504TR-ND	392.04	ATS050SM-T
6.000000	20.0pF	CTX505-ND	.95	.83	.72	.50	CTX505TR-ND	392.04	ATS060SM-T
8.000000	20.0pF	CTX506-ND	.95	.83	.72	.50	CTX506TR-ND	392.04	ATS08ASM-T
9.830400	20.0pF	CTX507-ND	.95	.83	.72	.50	CTX507TR-ND	392.04	ATS098SM-T
10.000000	Series	CTX508-ND	.95	.83	.72	.50	CTX508TR-ND	392.04	ATS100SM-T
11.059200	20.0pF	CTX509-ND	.95	.83	.72	.50	CTX509TR-ND	392.04	ATS111SM-T
12.000000	Series	CTX510-ND	.95	.83	.72	.50	CTX510TR-ND	392.04	ATS120SM-T
12.288000	20.0pF	CTX511-ND	.95	.83	.72	.50	CTX511TR-ND	392.04	ATS122SM-T
14.318180	Series	CTX512-ND	.95	.83	.72	.50	CTX512TR-ND	392.04	ATS143SM-T
15.360000	20.0pF	CTX513-ND	.95	.83	.72	.50	CTX513TR-ND	392.04	ATS15ASM-T
16.000000	Series	CTX514-ND	.84	.74	.64	.44	CTX514TR-ND	392.04	ATS160SM-T
20.000000	Series	CTX515-ND	.84	.74	.64	.44	CTX515TR-ND	392.04	ATS200SM-T
20.480000	20.0pF	CTX516-ND	.98	.85	.75	.52	CTX516TR-ND	493.68	ATS204SM-T
24.576000	Series	CTX517-ND	.98	.85	.75	.52	CTX517TR-ND	493.68	ATS245SM-T

RoHS Compliant

Microprocessor Crystals

Specifications:

- Frequency Tolerance: $\pm 30\text{ppm}$ @ 25°C
- Temperature Stability: $\pm 0.005\%$ ($\pm 50\text{ppm}$)
- Operating Temperature: -20°C ~ 70°C
- Fully hermetic resistance weld package
- Low start-up resistance



Frequency (MHz)	Load Capacitance	Digi-Key Part No.	1	Price Each	10	100	CTS Part No.
1.843200	13.0pF	CTX067-ND	1.28	1.07	.79	.79	MP018S
2.000000	20.0pF	CTX068-ND	1.28	1.07	.79	.79	MP020S
2.457600	32.0pF	CTX069-ND	1.28	1.07	.78	.78	MP024S
3.579545	18.0pF	CTX049-ND	.52	.44	.32	.32	MP036S
3.686400	20.0pF	CTX071-ND	.52	.44	.32	.32	MP037
4.000000	Series	CTX080-ND	.52	.44	.32	.32	MP04A
4.000000	20.0pF	CTX006-ND	.52	.44	.32	.32	MP040
4.194304	12.0pF	CTX007-ND	.52	.44	.32	.32	MP041
4.915200	20.0pF	CTX050-ND	.52	.44	.32	.32	MP042
5.000000	Series	CTX081-ND	.52	.44	.32	.32	MP05B
5.000000	20.0pF	CTX051-ND	.52	.44	.32	.32	MP05A
5.068800	Series	CTX052-ND	.52	.44	.32	.32	MP050
6.000000	20.0pF	CTX026-ND	.52	.44	.32	.32	MP060
6.144000	20.0pF	CTX054-ND	.52	.44	.32	.32	MP061
7.372800	Series	CTX074-ND	.52	.44	.32	.32	MP073
8.000000	Series	CTX056-ND	.52	.44	.32	.32	MP080
8.000000	20.0pF	CTX082-ND	.52	.44	.32	.32	MP080A
9.830400	20.0pF	CTX084-ND	.52	.44	.32	.32	MP098
10.000000	Series	CTX057-ND	.52	.44	.32	.32	MP100
10.000000	30.0pF	CTX083-ND	.52	.44	.32	.32	MP101
10.738635	32.0pF	CTX085-ND	.52	.44	.32	.32	MP107
11.000000	18.0pF	CTX086-ND	.52	.44	.32	.32	MP110
11.059200	Series	CTX078-ND	.52	.44	.32	.32	MP111
12.000000	Series	CTX058-ND	.52	.44	.32	.32	MP120
12.288000	32.0pF	CTX087-ND	.52	.44	.32	.32	MP122
14.318180	Series	CTX088-ND	.52	.44	.32	.32	MP143
14.745600	Series	CTX089-ND	.52	.44	.32	.32	MP147
15.000000	Series	CTX059-ND	.52	.44	.32	.32	MP150
16.000000	Series	CTX077-ND	.52	.44	.32	.32	MP160
18.432000	Series	CTX061-ND	.52	.44	.32	.32	MP184
19.668000	Series	CTX090-ND	.52	.44	.32	.32	MP196
20.000000	Series	CTX062-ND	.52	.44	.32	.32	MP200
22.118400	Series	CTX063-ND	.52	.44	.32	.32	MP221
24.000000	Series	CTX091-ND	.52	.44	.32	.32	MP240
24.576000	Series	CTX092-ND	.52	.44	.32	.32	MP245
25.000000	Series	CTX093-ND	.52	.44	.32	.32	MP250

HC491NS-ND Base Insulator..... .65/10 5.45/100

Digi-Reel[®] Most SMT cutdown parts are available on a Digi-Reel[®]. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key[®] Services on page 2 for additional information.

Free shipping on orders over £50! All prices are in British pound sterling and include duties.

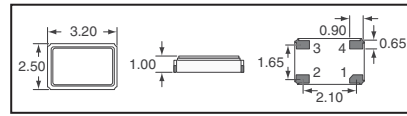
1340 (UK091) uk.digikey.com — FREEPHONE: 0-800-587-0991 • 0-800-904-7786 — FREEFAX: 0-800-587-0992 • 0-800-904-7783

632 HCMOS/TTL Clock Oscillators



Model 632 is a ceramic packaged clock oscillator offering reduced size and enhanced stability. The small size means it's perfect for any application. Enhanced stability means it's the perfect choice for today's communication applications that require tight frequency control.

- Frequency Stability: $\pm 50\text{ppm}$ • Supply Voltage: 3.3V • Output Load: 15pF • Output Duty Cycle: 45% - 55% • Rise/Fall Time: 10ns • Start-up Time: 10ms • Enable Time: 10ms • Standby Current: 10 μA • Operating Temperature: -40°C - 85°C



Pin	Symbol	Description
1	EOH	Enable Input
2	GND	Circuit and Package Ground
3	Output	RF Output
4	Vcc	Supply Voltage

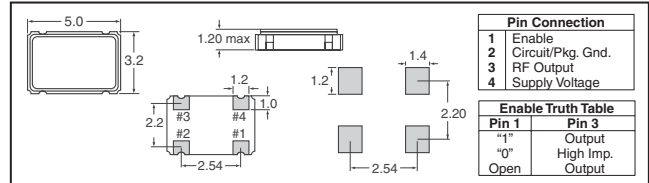
Frequency (MHz)	Digi-Key Part No.	Cut Tape Price Each	1	10	100	Tape & Reel Pricing* 3,000	CTS Part No.
10.000	CTX738CT-ND	5.34	4.27	3.56	2.63	2063.30/M	632L31010M00000
20.000	CTX737CT-ND	5.34	4.27	3.56	2.63	2063.30/M	632L31020M00000
25.000	CTX740CT-ND	5.34	4.27	3.56	2.63	2063.30/M	632L31025M00000
40.000	CTX738CT-ND	5.34	4.27	3.56	2.63	2063.30/M	632L31040M00000
48.000	CTX739CT-ND	5.34	4.27	3.56	2.63	2063.30/M	632L31048M00000
50.000	CTX741CT-ND	5.34	4.27	3.56	2.63	2063.30/M	632L31050M00000

* For Tape and Reel part number, change CT-ND to TR-ND.

636 Series SMD Clock Oscillators



- HCMOS • Output enable standard • Standard 5x3.2mm surface mount footprint • Ceramic construction for long-term reliability
- Specifications: • Enable Input Voltage: 2V Minimum • Disable Input Voltage: 0.5V Maximum • Phase Jitter (Bandwidth 12kHz-20MHz): 1ps RMS Maximum • Frequency Tolerance: $\pm 50\text{ppm}$ • Supply Voltage: 3.3V • Supply Current: 20mA Maximum • Operating Temperature: -20°C - 70°C • Rise/Fall Time: 14.31818MHz - 48MHz: 6ns Maximum; 75MHz - 125MHz: 3ns • Output Load CMOS: 15pF • Duty Cycle: 45% - 55% • Start-up Time: 10ms Maximum • Stand-by Current: 10 μA Maximum



Pin	Symbol	Description
1	Enable	Enable Input
2	Circuit/Pkg. Gnd.	Circuit and Package Ground
3	RF Output	RF Output
4	Supply Voltage	Supply Voltage

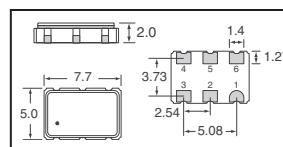
Freq. (MHz)	Digi-Key Part No.	Cut Tape Price Each	1	10	100	Digi-Key Part No.	T & R Pricing 1,000	CTS Part No.
14.31818	CTX689CT-ND	2.72	2.18	1.82	1.46	CTX689TR-ND	1052.70	636L3C014M31818
14.74560	CTX690CT-ND	2.85	2.28	1.90	1.54	CTX690TR-ND	1099.16	636L3C014M74560
16.00000	CTX691CT-ND	2.85	2.28	1.90	1.54	CTX691TR-ND	1099.16	636L3C016M00000
16.38400	CTX692CT-ND	2.85	2.28	1.90	1.54	CTX692TR-ND	1099.16	636L3C016M38400
18.43200	CTX693CT-ND	2.85	2.28	1.90	1.54	CTX693TR-ND	1099.16	636L3C018M43200
20.00000	CTX694CT-ND	2.85	2.28	1.90	1.54	CTX694TR-ND	1099.16	636L3C020M00000
20.48000	CTX695CT-ND	2.85	2.28	1.90	1.54	CTX695TR-ND	1099.16	636L3C020M48000
24.00000	CTX696CT-ND	2.85	2.28	1.90	1.54	CTX696TR-ND	1099.16	636L3C024M00000
25.00000	CTX697CT-ND	2.85	2.28	1.90	1.54	CTX697TR-ND	1099.16	636L3C025M00000
32.00000	CTX698CT-ND	2.72	2.18	1.82	1.46	CTX698TR-ND	1052.70	636L3C032M00000
32.76800	CTX699CT-ND	2.85	2.28	1.90	1.54	CTX699TR-ND	1099.16	636L3C032M76800
33.00000	CTX700CT-ND	2.85	2.28	1.90	1.54	CTX700TR-ND	1099.16	636L3C033M00000
44.00000	CTX701CT-ND	2.85	2.28	1.90	1.54	CTX701TR-ND	1099.16	636L3C044M00000
48.00000	CTX702CT-ND	2.85	2.28	1.90	1.54	CTX702TR-ND	1099.16	636L3C048M00000
75.00000	CTX703CT-ND	2.95	2.36	1.96	1.61	CTX703TR-ND	1154.74	636L3C075M00000
100.00000	CTX725CT-ND	10.59	8.47	7.06	5.65	CTX725TR-ND	4083.91	636L3C100M00000
125.00000	CTX726CT-ND	10.59	8.47	7.06	5.65	CTX726TR-ND	4083.91	636L3C125M00000

635 Series LVPECL SMD Clock Oscillators



Model 635 is a ceramic packaged clock oscillator offering reduced size and enhanced stability. The small size means it is perfect for any application. The enhanced stability means it is the perfect choice for today's communication applications that require tight frequency control.

- Low phase jitter • Differential LVPECL Output
- Specifications: • Enable Input Voltage: 0.7VCC Minimum • Disable Input Voltage: 0.3VCC Maximum • Phase Jitter (Bandwidth 12kHz-20MHz): 1ps RMS • Frequency Tolerance: $\pm 50\text{ppm}$ • Supply Voltage: 3.3Vdc • Supply Current: 100mA Maximum @ Maximum Load • Operating Temperature: -40°C - 85°C • Rise/Fall Time: <100MHz: 1.0ns Maximum; >100MHz: 0.6ns Maximum • Output Duty Cycle: 45% - 55% • Start-up Time: 5ms Maximum



Pin	Symbol	Description
1	EOH or N.C.	Enable (std) or optional No Connect
2	EOH or N.C.	No Connect (std) or optional Enable
3	GND	Circuit and Package Ground
4	Output	RF Output
5	Output	Complementary RF Output
6	Vcc	Supply Voltage

Frequency (MHz)	Digi-Key Part No.	Cut Tape Price Each	1	10	100	T & R Pricing* 1,000	CTS Part No.
77.76	CTX727CT-ND	11.30	9.04	7.54	6.04	4369.07	635P313077M7600
100.00	CTX728CT-ND	18.43	14.75	12.29	9.83	7125.69	635P313100M0000
125.00	CTX729CT-ND	23.04	18.43	15.36	12.29	8908.02	635P313125M0000
155.52	CTX730CT-ND	21.78	17.43	14.52	11.62	8421.60	635P313155M5200

* For Tape and Reel part number, change CT-ND to TR-ND.

CTS Surface Mount Clock Oscillators

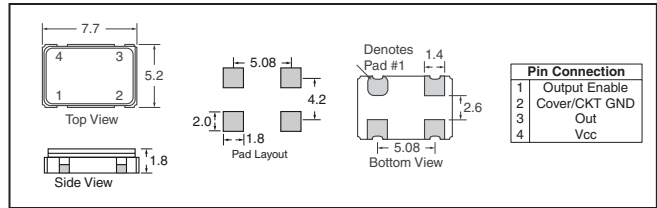


Features:

- Standard miniature surface mount footprint • PCMCIA Type II and III compatible • HCMOS/TTL compatible
- 16mm Tape and Reel • Ceramic construction for long-term reliability • Seam welded and shielded with Kovar cover

Specifications:

- **Frequency Stability:** 3C and 3I: ±50 ppm; 5I: ±25 ppm • **Supply Voltage:** CB3: 4.5V – 5.5V; CB3LV: 3.0V – 3.6V • **Supply Current Maximum:** 1.5MHz – 20.0MHz: CB3: 25mA; CB3LV: 12mA; 20.1MHz – 80MHz: CB3: 50mA; CB3LV: 40mA; 80.1MHz – 160MHz: CB3: 100mA; CB3LV: 60mA • **Operating Temperature:** 3C: -20°C – 70°C; 3I and 5I: -40°C – 85°C • **Rise and Fall Time Maximum:** 1.5MHz – 20.0MHz: CB3: 10ns; CB3LV: 8ns; 20.1MHz – 80MHz: CB3: 8ns; CB3LV: 4ns; 80.1MHz – 160MHz: CB3: 5ns; CB3LV: 3ns • **Output Load:** 1.5MHz – 50.0MHz: 50pF; 50.1MHz – 80.0MHz: 30pF; 80.1MHz – 160MHz: 15pF • **Enable Input Voltage:** 2V Minimum • **Disable Input Voltage:** 0.8V Maximum



Frequency (MHz)	Digi-Key Part No.	Cut Tape Price Each			T & R Pricing*	CTS Part No.
		1	10	50	1,000	
CB3 Surface Mount Clock Oscillators						
1.54400	CTX290CT-ND	3.01	2.77	1.59	841.43	CB3-3C-1M5440
1.84320	CTX291CT-ND	3.01	2.77	1.59	841.43	CB3-3C-1M8432
3.68640	CTX260CT-ND	2.72	2.51	1.44	762.30	CB3-3C-3M6864
4.00000	CTX261CT-ND	3.01	2.77	1.59	841.43	CB3-3C-4M0000
6.17600	CTX262CT-ND	3.01	2.77	1.59	841.43	CB3-3C-6M1760
7.37280	CTX263CT-ND	3.01	2.77	1.59	841.43	CB3-3C-7M3728
8.00000	CTX264CT-ND	3.01	2.77	1.59	841.43	CB3-3C-8M0000
10.00000	CTX265CT-ND	3.01	2.77	1.59	841.43	CB3-3C-10M0000
12.00000	CTX292CT-ND	3.01	2.77	1.59	841.43	CB3-3C-12M0000
12.28800	CTX266CT-ND	3.01	2.77	1.59	841.43	CB3-3C-12M2880
12.35200	CTX267CT-ND	3.01	2.77	1.59	841.43	CB3-3C-12M3520
14.31818	CTX268CT-ND	3.01	2.77	1.59	841.43	CB3-3C-14M31818
15.36000	CTX269CT-ND	3.01	2.77	1.59	841.43	CB3-3C-15M3600
16.00000	CTX270CT-ND	3.01	2.77	1.59	841.43	CB3-3C-16M0000
16.00000	CTX304CT-ND	3.01	2.77	1.59	841.43	CB3-3I-16M0000
16.38400	CTX271CT-ND	3.01	2.77	1.59	841.43	CB3-3C-16M3840
18.43200	CTX293CT-ND	3.01	2.77	1.59	841.43	CB3-3C-18M4320
18.43200	CTX300CT-ND	3.01	2.77	1.59	841.43	CB3-3I-18M4320
19.44000	CTX272CT-ND	3.01	2.77	1.59	841.43	CB3-3C-19M4400
20.00000	CTX273CT-ND	2.72	2.51	1.44	762.30	CB3-3C-20M0000
20.00000	CTX306CT-ND	3.01	2.77	1.59	841.43	CB3-3I-20M0000
20.48000	CTX274CT-ND	3.01	2.77	1.59	841.43	CB3-3C-20M4800
24.00000	CTX294CT-ND	3.01	2.77	1.59	841.43	CB3-3C-24M0000
24.70400	CTX275CT-ND	3.01	2.77	1.59	841.43	CB3-3C-24M7040
25.00000	CTX276CT-ND	2.72	2.51	1.44	762.30	CB3-3C-25M0000
29.49120	CTX295CT-ND	3.01	2.77	1.59	841.43	CB3-3C-29M4912
30.00000	CTX296CT-ND	3.01	2.77	1.59	841.43	CB3-3C-30M0000
32.00000	CTX277CT-ND	2.72	2.51	1.44	762.30	CB3-3C-32M0000
32.76800	CTX278CT-ND	3.01	2.77	1.59	841.43	CB3-3C-32M7680
33.33300	CTX279CT-ND	2.72	2.51	1.44	762.30	CB3-3C-33M3330
40.00000	CTX280CT-ND	2.72	2.51	1.44	762.30	CB3-3C-33M0000
40.00000	CTX314CT-ND	3.01	2.77	1.59	841.43	CB3-3I-40M0000
44.73600	CTX281CT-ND	3.01	2.77	1.59	841.43	CB3-3C-44M7360
45.00000	CTX297CT-ND	3.01	2.77	1.59	841.43	CB3-3C-45M0000
49.15200	CTX282CT-ND	3.01	2.77	1.59	841.43	CB3-3C-49M1520
50.00000	CTX283CT-ND	2.72	2.51	1.44	762.30	CB3-3C-50M0000
51.84000	CTX284CT-ND	3.01	2.77	1.59	841.43	CB3-3C-51M8400
60.00000	CTX285CT-ND	3.01	2.77	1.59	841.43	CB3-3C-60M0000
64.00000	CTX286CT-ND	3.04	2.81	1.61	852.32	CB3-3C-64M0000
66.66660	CTX287CT-ND	3.04	2.81	1.61	852.32	CB3-3C-66M6666
72.00000	CTX288CT-ND	3.04	2.81	1.61	852.32	CB3-3C-72M0000
80.00000	CTX289CT-ND	3.23	2.98	1.71	903.14	CB3-3C-80M0000
CB3LV Surface Mount Clock Oscillators						
1.54400	CTX290LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-1M5440
1.84320	CTX291LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-1M8432
3.68640	CTX260LVCT-ND	2.72	2.51	1.44	762.30	CB3LV-3C-3M6864
4.00000	CTX261LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-4M0000
6.17600	CTX262LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-6M1760
7.37280	CTX263LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-7M3728
7.37280	CTX325LVCT-ND	3.01	2.77	1.59	886.45	CB3LV-3I-7M3728
8.00000	CTX264LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-8M0000
8.00000	CTX301LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3I-8M0000
8.19200	CTX302LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3I-8M1920
10.00000	CTX265LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-10M0000
10.00000	CTX707LVCT-ND	3.01	2.73	1.59	886.45	CB3LV-3I-10M0000
12.00000	CTX292LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-12M0000
12.00000	CTX303LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3I-12M0000
12.28800	CTX266LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-12M2880
12.35200	CTX267LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-12M3520
14.31818	CTX268LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-14M31818
15.36000	CTX269LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-15M3600
16.00000	CTX270LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-16M0000
16.38400	CTX271LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-16M3840

Frequency (MHz)	Digi-Key Part No.	Cut Tape Price Each			T & R Pricing*	CTS Part No.
		1	10	50	1,000	
16.38400	CTX708LVCT-ND	3.01	2.73	1.59	886.45	CB3LV-3I-16M3840
16.38400	CTX321LVCT-ND	3.96	3.65	2.10	1108.60	CB3LV-5I-16M3840
18.43200	CTX293LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-18M4320
18.43200	CTX305LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3I-18M4320
19.44000	CTX272LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-19M4400
19.44000	CTX709LVCT-ND	3.01	2.73	1.59	886.45	CB3LV-3I-19M4400
20.00000	CTX273LVCT-ND	2.72	2.51	1.44	762.30	CB3LV-3C-20M0000
20.00000	CTX306LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3I-20M0000
20.00000	CTX322LVCT-ND	3.96	3.65	2.10	1108.60	CB3LV-5I-20M0000
20.48000	CTX274LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-20M4800
24.00000	CTX294LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-24M0000
24.00000	CTX307LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3I-24M0000
24.57600	CTX326LVCT-ND	3.01	2.77	1.59	886.45	CB3LV-3I-24M5760
24.70400	CTX275LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-24M7040
25.00000	CTX276LVCT-ND	2.72	2.51	1.44	762.30	CB3LV-3C-25M0000
25.00000	CTX308LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3I-25M0000
25.00000	CTX323LVCT-ND	3.96	3.65	2.10	1108.60	CB3LV-5I-25M0000
27.00000	CTX710LVCT-ND	3.01	2.73	1.59	886.45	CB3LV-3I-27M0000
27.00000	CTX324LVCT-ND	3.96	3.65	2.10	1108.60	CB3LV-5I-27M0000
29.49120	CTX295LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-29M4912
30.00000	CTX296LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-30M0000
30.00000	CTX309LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3I-30M0000
32.00000	CTX277LVCT-ND	2.72	2.51	1.44	762.30	CB3LV-3C-32M0000
32.00000	CTX310LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3I-32M0000
32.76800	CTX278LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-32M7680
32.76800	CTX311LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3I-32M7680
33.00000	CTX312LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3I-33M0000
33.33300	CTX279LVCT-ND	2.72	2.51	1.44	762.30	CB3LV-3C-33M3330
33.33300	CTX313LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3I-33M3333
40.00000	CTX280LVCT-ND	2.72	2.51	1.44	762.30	CB3LV-3C-40M0000
40.00000	CTX314LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3I-40M0000
44.73600	CTX281LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-44M7360
44.73600	CTX711LVCT-ND	3.01	2.73	1.59	886.45	CB3LV-3I-44M7360
45.00000	CTX297LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-45M0000
48.00000	CTX315LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3I-48M0000
49.15200	CTX282LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-49M1520
50.00000	CTX283LVCT-ND	2.72	2.51	1.44	762.30	CB3LV-3C-50M0000
50.00000	CTX327LVCT-ND	3.01	2.77	1.59	886.45	CB3LV-3I-50M0000
51.84000	CTX284LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-51M8400
60.00000	CTX285LVCT-ND	3.01	2.77	1.59	841.43	CB3LV-3C-60M0000
60.00000	CTX712LVCT-ND	3.01	2.73	1.59	886.45	CB3LV-3I-60M0000
64.00000	CTX286LVCT-ND	3.04	2.81	1.61	852.32	CB3LV-3C-64M0000
64.00000	CTX328LVCT-ND	3.04	2.81	1.61	897.34	CB3LV-3I-64M0000
65.53600	CTX713LVCT-ND	3.04	2.76	1.61	897.34	CB3LV-3I-65M5360
66.00000	CTX316LVCT-ND	3.04	2.81	1.61	852.32	CB3LV-3I-66M0000
66.66660	CTX287LVCT-ND	3.04	2.81	1.61	852.32	CB3LV-3C-66M6666
72.00000	CTX288LVCT-ND	3.04	2.81	1.61	852.32	CB3LV-3C-72M0000
74.25000	CTX714LVCT-ND	3.04	2.76	1.61	897.34	CB3LV-3I-74M2500
74.75280	CTX715LVCT-ND	3.04	2.76	1.61	897.34	CB3LV-3I-74M7528
75.00000	CTX716LVCT-ND	3.04	2.76	1.61	897.34	CB3LV-3I-75M0000
77.76000	CTX717LVCT-ND	3.23	2.98	1.71	951.06	CB3LV-3I-77M7600
80.00000	CTX289LVCT-ND	3.23	2.98	1.71	903.14	CB3LV-3C-80M0000
80.00000	CTX317LVCT-ND	3.23	2.98	1.71	903.14	CB3LV-3I-80M0000
100.00000	CTX318LVCT-ND	4.11	3.79	2.18	1149.26	CB3LV-3I-100M0000
106.25000	CTX718LVCT-ND	5.29	4.79	2.79	1557.27	CB3LV-3I-106M2500
125.00000	CTX319LVCT-ND	6.02	5.55	3.18	1684.32	CB3LV-3I-125M0000
133.33000	CTX320LVCT-ND	7.70	7.10	4.08	2156.22	CB3LV-3I-133M3300
150.00000	CTX719LVCT-ND	20.55	18.61	10.82	6057.74	CB3LV-3I-150M0000
156.25000	CTX720LVCT-ND	20.55	18.61	10.82	6057.74	CB3LV-3I-156M2500

* For Tape and Reel part number, change CT-ND to TR-ND.

Digi-Reel® Most SMT cutdown parts are available on a Digi-Reel®. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key® Services on page 2 for additional information.

Free shipping on orders over £50! All prices are in British pound sterling and include duties.

uk.digikey.com — FREEPHONE: 0-800-587-0991 • 0-800-904-7786 — FREEFAX: 0-800-587-0992 • 0-800-904-7783

(UK091) 1341

CTS MXO45 Clock Oscillators



Specifications:
 • Frequency Stability: ±50ppm • Operating Temperature Range: -20°C ~ 70°C • Supply Voltage: 5.0V
 • Supply Current: 1.0 ~ 20MHz: 10 ~ 25mA; 20.1 ~ 80MHz: 30 ~ 50mA • Output Load CMOS: 1 ~ 50MHz: 50pF; 50.1 ~ 80MHz: 30pF • Output Load TTL: 1 ~ 80MHz: 10TTL • Output Current: V_{OH}=3.9V, -16mA; V_{OL}=0.4V, 16mA • Output Duty Cycle: 45 ~ 55% • Rise and Fall Time: 1.0 ~ 50MHz: 8 ~ 10ns; 50.1 ~ 80MHz: 4 ~ 8ns • Start Up Time: 10ms • Enable Input (V_{IH}): 2V Min.; (V_{IL}): 0.8V Max. • Enable Time: 100ns • Phase Jitter: 1ps

Standard Output:

Features: • CMOS/TTL compatible • Fully hermetically-sealed package • Standard 14-Pin or 8-Pin DIP footprint • Drives up to 10 standard TTL Loads

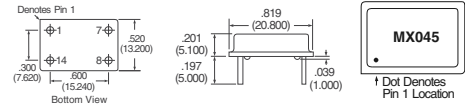
Tri-State Output:

Tri-State Logic uses the two standard logic levels of high (logic 1) and low (logic 0) but has added a third state that is not a logic level but an open circuit condition that effectively disconnects the output from your circuit with a high impedance (floating) state, thereby enabling the use of numerous oscillators on the same bus line. Also, by using the enable pin to control the output, the crystal is still running even when the output is disabled (stand-by mode), thus eliminating any start-up time for the oscillator. CTS HCMOS/TTL products utilize an Application Specific Integrated Circuit (ASIC) design strategy. Employing a single design family supporting both HCMOS/TTL applications helps in reducing costs and lead times. Utilizing ASIC technology reduces the number of components inside the XO (crystal oscillator), thus increasing reliability and further reducing cost.

Features: • CMOS/TTL compatible • Drives up to 10 standard TTL loads • Fully hermetic resistance weld package

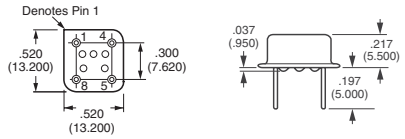
Full Size

Pin Connection	
1	Enable Input
7	Circuit and Package Ground
8	RF Output
14	Supply Voltage



Half Size

Pin Connection	
1	Enable Input
4	Circuit and Package Ground
5	RF Output
8	Supply Voltage



D

Frequency (MHz)	Digi-Key Part No.	1	10	Price Each	250	500	CTS Part No.
Full Size — Standard Output							
1.0000	CTX775-ND	2.19	1.93	1.47	1.31	1.12	MXO45-3C-1M0000
1.8432	CTX776-ND	2.19	1.93	1.47	1.31	1.12	MXO45-3C-1M8432
2.0000	CTX770-ND	2.19	1.93	1.47	1.31	1.12	MXO45-3C-2M0000
3.6864	CTX781-ND	2.19	1.93	1.47	1.31	1.12	MXO45-3C-3M6864
4.0000	CTX774-ND	2.19	1.93	1.47	1.31	1.12	MXO45-3C-4M0000
4.9152	CTX783-ND	2.19	1.93	1.47	1.31	1.12	MXO45-3C-4M9152
5.0000	CTX769-ND	2.19	1.93	1.47	1.31	1.12	MXO45-3C-5M0000
6.0000	CTX771-ND	2.19	1.93	1.47	1.31	1.12	MXO45-3C-6M0000
6.1440	CTX786-ND	2.19	1.93	1.47	1.31	1.12	MXO45-3C-6M1440
7.3728	CTX788-ND	2.19	1.93	1.47	1.31	1.12	MXO45-3C-7M3728
8.0000	CTX768-ND	2.19	1.93	1.47	1.31	1.12	MXO45-3C-8M0000
10.0000	CTX772-ND	2.19	1.93	1.47	1.31	1.12	MXO45-3C-10M0000
12.0000	CTX766-ND	2.19	1.93	1.47	1.31	1.12	MXO45-3C-12M0000
16.0000	CTX767-ND	2.19	1.93	1.47	1.31	1.12	MXO45-3C-16M0000
18.4320	CTX777-ND	2.19	1.93	1.47	1.31	1.12	MXO45-3C-18M4320
20.0000	CTX778-ND	2.19	1.93	1.47	1.31	1.12	MXO45-3C-20M0000
24.0000	CTX773-ND	2.19	1.93	1.47	1.31	1.12	MXO45-3C-24M0000
25.0000	CTX779-ND	2.19	1.93	1.47	1.31	1.12	MXO45-3C-25M0000
28.3200	CTX780-ND	1.81	1.60	1.22	1.08	.93	MXO45-3C-28M3220
32.0000	CTX782-ND	2.19	1.93	1.47	1.31	1.12	MXO45-3C-32M0000
40.0000	CTX784-ND	2.19	1.93	1.47	1.31	1.12	MXO45-3C-40M0000
50.0000	CTX785-ND	2.19	1.93	1.47	1.31	1.12	MXO45-3C-50M0000
64.0000	CTX787-ND	2.85	2.53	1.92	1.71	1.46	MXO45-3C-64M0000
Half Size — Standard Output							
1.0000	CTX745-ND	2.19	1.93	1.47	1.31	1.12	MXO45HS-3C-1M0000
1.8432	CTX744-ND	2.19	1.93	1.47	1.31	1.12	MXO45HS-3C-1M8432
2.0000	CTX755-ND	2.19	1.93	1.47	1.31	1.12	MXO45HS-3C-2M0000
3.6864	CTX762-ND	2.19	1.93	1.47	1.31	1.12	MXO45HS-3C-3M6864
4.0000	CTX742-ND	2.19	1.93	1.47	1.31	1.12	MXO45HS-3C-4M0000
4.9152	CTX763-ND	2.19	1.93	1.47	1.31	1.12	MXO45HS-3C-4M9152
5.0000	CTX746-ND	2.19	1.93	1.47	1.31	1.12	MXO45HS-3C-5M0000
6.0000	CTX747-ND	2.19	1.93	1.47	1.31	1.12	MXO45HS-3C-6M0000
6.1440	CTX764-ND	2.19	1.93	1.47	1.31	1.12	MXO45HS-3C-6M1440
7.3728	CTX765-ND	2.19	1.93	1.47	1.31	1.12	MXO45HS-3C-7M3728

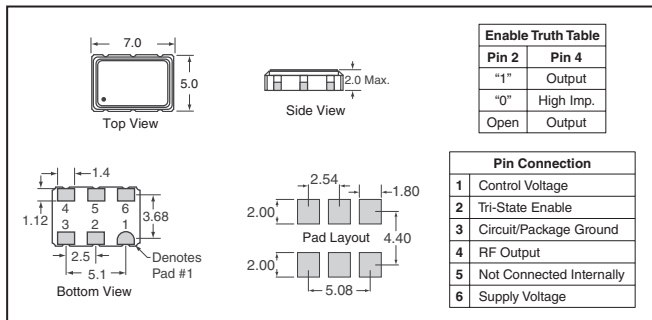
Frequency (MHz)	Digi-Key Part No.	1	10	Price Each	250	500	CTS Part No.
Full Size — Standard Output							
8.0000	CTX743-ND	2.19	1.93	1.47	1.31	1.12	MXO45HS-3C-8M0000
10.0000	CTX753-ND	2.19	1.93	1.47	1.31	1.12	MXO45HS-3C-10M0000
14.31818	CTX752-ND	2.19	1.93	1.47	1.31	1.12	MXO45HS-3C-14M31818
16.0000	CTX750-ND	2.19	1.93	1.47	1.31	1.12	MXO45HS-3C-16M0000
18.4320	CTX754-ND	2.19	1.93	1.47	1.31	1.12	MXO45HS-3C-18M4320
19.6608	CTX760-ND	2.19	1.93	1.47	1.31	1.12	MXO45HS-3C-19M6608
20.0000	CTX756-ND	2.19	1.93	1.47	1.31	1.12	MXO45HS-3C-20M0000
24.0000	CTX757-ND	2.19	1.93	1.47	1.31	1.12	MXO45HS-3C-24M0000
25.0000	CTX758-ND	2.19	1.93	1.47	1.31	1.12	MXO45HS-3C-25M0000
25.1750	CTX761-ND	2.19	1.93	1.47	1.31	1.12	MXO45HS-3C-25M1750
32.0000	CTX749-ND	2.19	1.93	1.47	1.31	1.12	MXO45HS-3C-32M0000
40.0000	CTX748-ND	2.19	1.93	1.47	1.31	1.12	MXO45HS-3C-40M0000
50.0000	CTX759-ND	2.19	1.93	1.47	1.31	1.12	MXO45HS-3C-50M0000
80.0000	CTX751-ND	4.59	4.06	3.09	2.74	2.35	MXO45HS-3C-80M0000
Half Size — Tri-State Output							
1.0000	CTX793-ND	2.19	1.93	1.47	1.31	1.12	MXO45HST-3C-1M0000
1.8432	CTX794-ND	2.19	1.93	1.47	1.31	1.12	MXO45HST-3C-1M8432
3.6864	CTX798-ND	2.19	1.93	1.47	1.31	1.12	MXO45HST-3C-3M6864
5.0000	CTX800-ND	2.19	1.93	1.47	1.31	1.12	MXO45HST-3C-5M0000
6.0000	CTX792-ND	2.19	1.93	1.47	1.31	1.12	MXO45HST-3C-6M0000
8.0000	CTX803-ND	1.81	1.60	1.22	1.08	.93	MXO45HST-3C-8M0000
10.0000	CTX789-ND	2.19	1.93	1.47	1.31	1.12	MXO45HST-3C-10M0000
16.0000	CTX795-ND	2.19	1.93	1.47	1.31	1.12	MXO45HST-3C-16M0000
18.4320	CTX796-ND	2.19	1.93	1.47	1.31	1.12	MXO45HST-3C-18M4320
20.0000	CTX791-ND	2.19	1.94	1.48	1.31	1.12	MXO45HST-3C-20M0000
25.0000	CTX797-ND	2.19	1.93	1.47	1.31	1.12	MXO45HST-3C-25M0000
32.0000	CTX799-ND	2.19	1.93	1.47	1.31	1.12	MXO45HST-3C-32M0000
40.0000	CTX790-ND	2.19	1.93	1.47	1.31	1.12	MXO45HST-3C-40M0000
50.0000	CTX801-ND	2.19	1.93	1.47	1.31	1.12	MXO45HST-3C-50M0000
66.66666	CTX802-ND	1.89	1.67	1.27	1.13	.97	MXO45HST-3C-66M66666

A462-ND Aries Electronics Inc. Full Size 4-Pin Oscillator Sockets42/1 8.77/25 28.40/100
 A463-ND Aries Electronics Inc. Half Size 4-Pin Oscillator Sockets42/1 8.77/25 28.40/100

357L Series Surface Mount VCXO



Specifications:
 • Output Voltage Level: Logic "1" Minimum 0.9V; Logic "0" Maximum 0.1V • Output Transition Rise and Fall Time: 5.0ns • Output Duty Cycle (SYM): 45% Minimum, 55% Maximum @ 50% level • Phase Jitter (Bandwidth 12kHz-20MHz): 1ps RMS Maximum • Linearity: 10% • Input Impedance: 50kΩ Minimum • Modulation Roll-Off: 10kHz @ -3dB • Operating Temperature: -40°C ~ 85°C



Enable Truth Table	
Pin 2	Pin 4
"1"	Output
"0"	High Imp.
Open	Output

Pin Connection	
1	Control Voltage
2	Tri-State Enable
3	Circuit/Package Ground
4	RF Output
5	Not Connected Internally
6	Supply Voltage

Frequency (MHz)	Digi-Key Part No.	Cut Tape Price Each			Tape & Reel Pricing* 1,000	CTS Part No.
		1	10	100		
1.544	CTX630CT-ND	4.98	3.99	3.33	1926.80	357LB31001M5440
2.048	CTX721CT-ND	3.40	2.73	2.27	1316.24	357LB31002M0480
4.096	CTX626CT-ND	4.98	3.99	3.33	1926.80	357LB31004M0960
6.176	CTX631CT-ND	4.98	3.99	3.33	1926.80	357LB31006M1760
16.384	CTX632CT-ND	4.98	3.99	3.33	1926.80	357LB31016M3840
19.440	CTX627CT-ND	4.98	3.99	3.33	1926.80	357LB31019M4400
20.000	CTX633CT-ND	4.98	3.99	3.33	1926.80	357LB31020M0000
27.000	CTX634CT-ND	4.98	3.99	3.33	1926.80	357LB31027M0000
32.768	CTX635CT-ND	4.98	3.99	3.33	1926.80	357LB31032M7680
35.328	CTX628CT-ND	4.98	3.99	3.33	1926.80	357LB31035M3280
38.880	CTX636CT-ND	4.98	3.99	3.33	1926.80	357LB31038M8800
40.000	CTX637CT-ND	5.26	4.21	3.51	2032.07	357LB31040M0000
44.736	CTX629CT-ND	5.26	4.21	3.51	2032.07	357LB31044M7360
61.440	CTX722CT-ND	13.75	11.00	9.17	5316.50	357LB31061M4400
65.360	CTX723CT-ND	13.75	11.00	9.17	5316.50	357LB31065M3600
77.760	CTX724CT-ND	21.42	17.15	14.29	8285.11	357LB31077M7600

* For Tape and Reel part number, change CT-ND to TR-ND.

Digi-Reel® Most SMT cutdown parts are available on a Digi-Reel®. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key® Services on page 2 for additional information.

Free shipping on orders over \$50! All prices are in British pound sterling and include duties.
 1342 (UK091) uk.digikey.com — FREEPHONE: 0-800-587-0991 • 0-800-904-7786 — FREEFAX: 0-800-587-0992 • 0-800-904-7783

CWX813 and CWX823 Series

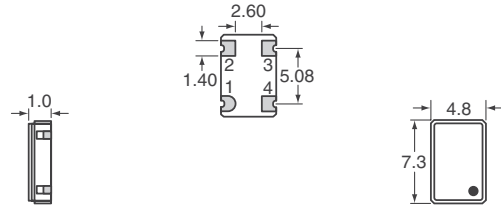
Specifications:

- **Duty Cycle at 50% of Vcc:** 40% – 60%
- **Operating Temperature:** -20°C – 70°C
- **Storage Temperature:** -55°C – 125°C
- **Output Current:** -8mA IOH
- **Output Current:** 8mA IOL
- **Load Capacitance:** 15.0pF
- **Output Enable Voltage:** 2.97V (VOH)
- **Output Enable Voltage:** .33V (VOL)
- **Supply Voltage:** 3.30V
- **Start-up Time:** 10ms

Enable/Disable Function	Output
Pin 1 Open	Pin 3 Active
Pin 1 ≥ 2.2V	Pin 3 Active
Pin 1 ≤ 2.2V	Pin 3 High Impedance

Pad	Connection
1	Enable/Disable
2	Ground
3	Output
4	Vcc

CWX813 and CWX823 Series



Frequency (MHz)	Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape & Reel Pricing 1,000	Connor-Winfield Part No.
		1	10	100			
CWX813 Series							
±25ppm							
1.5440	CW510CT-ND	2.04	1.70	1.36	CW510TR-ND	1019.30	CWX813-1.544M
1.8432	CW511CT-ND	2.04	1.70	1.36	CW511TR-ND	1019.30	CWX813-1.8432M
3.6864	CW512CT-ND	2.04	1.70	1.36	CW512TR-ND	1019.30	CWX813-3.6864M
4.0000	CW513CT-ND	2.04	1.70	1.36	CW513TR-ND	1019.30	CWX813-4.0M
7.3728	CW514CT-ND	2.04	1.70	1.36	CW514TR-ND	1019.30	CWX813-7.3728M
8.0000	CW515CT-ND	2.04	1.70	1.36	CW515TR-ND	1019.30	CWX813-8.0M
10.0000	CW516CT-ND	2.04	1.70	1.36	CW516TR-ND	1019.30	CWX813-10.0M
12.0000	CW517CT-ND	2.04	1.70	1.36	CW517TR-ND	1019.30	CWX813-12.0M
12.2880	CW518CT-ND	2.04	1.70	1.36	CW518TR-ND	1019.30	CWX813-12.288M
14.3182	CW519CT-ND	2.04	1.70	1.36	CW519TR-ND	1019.30	CWX813-14.31818M
15.3600	CW520CT-ND	2.04	1.70	1.36	CW520TR-ND	1019.30	CWX813-15.36M
16.0000	CW521CT-ND	2.04	1.70	1.36	CW521TR-ND	1019.30	CWX813-16.0M
16.3840	CW522CT-ND	2.04	1.70	1.36	CW522TR-ND	1019.30	CWX813-16.384M
18.4320	CW523CT-ND	2.04	1.70	1.36	CW523TR-ND	1019.30	CWX813-18.432M
19.4400	CW524CT-ND	2.04	1.70	1.36	CW524TR-ND	1019.30	CWX813-19.44M
20.0000	CW525CT-ND	2.04	1.70	1.36	CW525TR-ND	1019.30	CWX813-20.0M
20.4800	CW526CT-ND	2.04	1.70	1.36	CW526TR-ND	1019.30	CWX813-20.48M
24.0000	CW527CT-ND	2.04	1.70	1.36	CW527TR-ND	1019.30	CWX813-24.0M
24.5760	CW528CT-ND	2.04	1.70	1.36	CW528TR-ND	1019.30	CWX813-24.576M
25.0000	CW529CT-ND	2.04	1.70	1.36	CW529TR-ND	1019.30	CWX813-25.0M
27.0000	CW530CT-ND	2.04	1.70	1.36	CW530TR-ND	1019.30	CWX813-27.0M
29.4912	CW531CT-ND	2.04	1.70	1.36	CW531TR-ND	1019.30	CWX813-29.4912M
30.0000	CW532CT-ND	2.04	1.70	1.36	CW532TR-ND	1019.30	CWX813-30.0M
32.0000	CW533CT-ND	2.04	1.70	1.36	CW533TR-ND	1019.30	CWX813-32.0M
32.7680	CW534CT-ND	2.04	1.70	1.36	CW534TR-ND	1019.30	CWX813-32.768M
33.0000	CW535CT-ND	2.04	1.70	1.36	CW535TR-ND	1019.30	CWX813-33.0M
33.3330	CW536CT-ND	2.04	1.70	1.36	CW536TR-ND	1019.30	CWX813-33.333M
40.0000	CW537CT-ND	2.04	1.70	1.36	CW537TR-ND	1019.30	CWX813-40.0M
44.7360	CW538CT-ND	2.04	1.70	1.36	CW538TR-ND	1019.30	CWX813-44.736M
45.0000	CW539CT-ND	2.04	1.70	1.36	CW539TR-ND	1019.30	CWX813-45.0M
49.1520	CW540CT-ND	2.04	1.70	1.36	CW540TR-ND	1019.30	CWX813-49.152M
50.0000	CW541CT-ND	2.04	1.70	1.36	CW541TR-ND	1019.30	CWX813-50.0M
60.0000	CW542CT-ND	2.04	1.70	1.36	CW542TR-ND	1019.30	CWX813-60.0M
64.0000	CW543CT-ND	2.33	1.95	1.56	CW543TR-ND	1166.32	CWX813-64.0M
66.6666	CW544CT-ND	2.33	1.95	1.56	CW544TR-ND	1166.32	CWX813-66.6666M
72.0000	CW545CT-ND	2.33	1.95	1.56	CW545TR-ND	1166.32	CWX813-72.0M
80.0000	CW546CT-ND	2.33	1.95	1.56	CW546TR-ND	1166.32	CWX813-80.0M
100.0000	CW547CT-ND	2.85	2.37	1.90	CW547TR-ND	1421.15	CWX813-100.0M

Frequency (MHz)	Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape & Reel Pricing 1,000	Connor-Winfield Part No.
		1	10	100			
CWX823 Series							
±50ppm							
1.5440	CW431CT-ND	1.55	1.30	1.04	CW431TR-ND	774.28	CWX823-1.544M
1.8432	CW432CT-ND	1.55	1.30	1.04	CW432TR-ND	774.28	CWX823-1.8432M
3.6864	CW433CT-ND	1.55	1.30	1.04	CW433TR-ND	774.28	CWX823-3.6864M
4.0000	CW434CT-ND	1.55	1.30	1.04	CW434TR-ND	774.28	CWX823-4.0M
7.3728	CW435CT-ND	1.55	1.30	1.04	CW435TR-ND	774.28	CWX823-7.3728M
8.0000	CW436CT-ND	1.55	1.30	1.04	CW436TR-ND	774.28	CWX823-8.0M
10.0000	CW437CT-ND	1.55	1.30	1.04	CW437TR-ND	774.28	CWX823-10.0M
12.0000	CW438CT-ND	1.55	1.30	1.04	CW438TR-ND	774.28	CWX823-12.0M
12.2880	CW439CT-ND	1.55	1.30	1.04	CW439TR-ND	774.28	CWX823-12.288M
14.3182	CW440CT-ND	1.55	1.30	1.04	CW440TR-ND	774.28	CWX823-14.31818M
15.3600	CW441CT-ND	1.55	1.30	1.04	CW441TR-ND	774.28	CWX823-15.36M
16.0000	CW442CT-ND	1.55	1.30	1.04	CW442TR-ND	774.28	CWX823-16.0M
16.3840	CW443CT-ND	1.55	1.30	1.04	CW443TR-ND	774.28	CWX823-16.384M
18.4320	CW444CT-ND	1.55	1.30	1.04	CW444TR-ND	774.28	CWX823-18.432M
19.4400	CW445CT-ND	1.55	1.30	1.04	CW445TR-ND	774.28	CWX823-19.44M
20.0000	CW446CT-ND	1.55	1.30	1.04	CW446TR-ND	774.28	CWX823-20.0M
20.4800	CW447CT-ND	1.55	1.30	1.04	CW447TR-ND	774.28	CWX823-20.48M
24.0000	CW448CT-ND	1.55	1.30	1.04	CW448TR-ND	774.28	CWX823-24.0M
24.5760	CW449CT-ND	1.55	1.30	1.04	CW449TR-ND	774.28	CWX823-24.576M
25.0000	CW450CT-ND	1.55	1.30	1.04	CW450TR-ND	774.28	CWX823-25.0M
27.0000	CW451CT-ND	1.55	1.30	1.04	CW451TR-ND	774.28	CWX823-27.0M
29.4912	CW452CT-ND	1.55	1.30	1.04	CW452TR-ND	774.28	CWX823-29.4912M
30.0000	CW453CT-ND	1.55	1.30	1.04	CW453TR-ND	774.28	CWX823-30.0M
32.0000	CW454CT-ND	1.55	1.30	1.04	CW454TR-ND	774.28	CWX823-32.0M
32.7680	CW455CT-ND	1.55	1.30	1.04	CW455TR-ND	774.28	CWX823-32.768M
33.0000	CW456CT-ND	1.55	1.30	1.04	CW456TR-ND	774.28	CWX823-33.0M
33.3330	CW457CT-ND	1.55	1.30	1.04	CW457TR-ND	774.28	CWX823-33.333M
40.0000	CW458CT-ND	1.55	1.30	1.04	CW458TR-ND	774.28	CWX823-40.0M
44.7360	CW459CT-ND	1.55	1.30	1.04	CW459TR-ND	774.28	CWX823-44.736M
45.0000	CW460CT-ND	1.55	1.30	1.04	CW460TR-ND	774.28	CWX823-45.0M
49.1520	CW461CT-ND	1.55	1.30	1.04	CW461TR-ND	774.28	CWX823-49.152M
50.0000	CW462CT-ND	1.55	1.30	1.04	CW462TR-ND	774.28	CWX823-50.0M
60.0000	CW463CT-ND	1.55	1.30	1.04	CW463TR-ND	774.28	CWX823-60.0M
64.0000	CW464CT-ND	1.74	1.46	1.17	CW464TR-ND	872.29	CWX823-64.0M
66.6666	CW465CT-ND	1.74	1.46	1.17	CW465TR-ND	872.29	CWX823-66.6666M
72.0000	CW466CT-ND	1.74	1.46	1.17	CW466TR-ND	872.29	CWX823-72.0M
80.0000	CW467CT-ND	1.74	1.46	1.17	CW467TR-ND	872.29	CWX823-80.0M
100.0000	CW468CT-ND	2.26	1.88	1.51	CW468TR-ND	1127.12	CWX823-100.0M
125.0000	CW469CT-ND	4.31	3.60	2.88	CW469TR-ND	2156.22	CWX823-125.0M
156.2500	CW470CT-ND	8.33	6.95	5.56	CW470TR-ND	4165.43	CWX823-156.25M

D

Digi-Reel® Most SMT cutdown parts are available on a Digi-Reel®. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key® Services on page 2 for additional information.

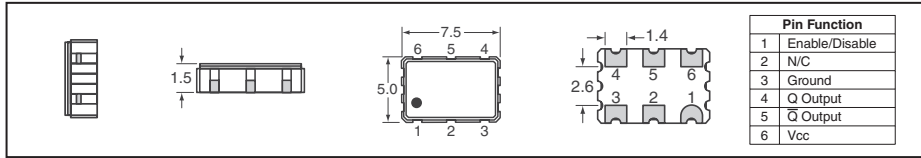
Free shipping on orders over £50! All prices are in British pound sterling and include duties.

uk.digikey.com — FREEPHONE: 0-800-587-0991 • 0-800-904-7786 — FREEFAX: 0-800-587-0992 • 0-800-904-7783

(UK091) 1343

Specifications:
 • Output Load: 50Ω • Duty Cycle at 50% of Vcc: 45% – 55%
 • Output must be terminated into 50Ω to Vcc-2V or Thevenin equivalent • Fall Time: 1ns • Rise Time: 1ns

Enable/Disable Function (Pad 1)	Output
High or Open	Enable
Low	Disable (High Impedance)



P212, P213, P222 and P223

• Operating Temperature: -40°C – 85°C • Storage Temperature: -55°C – 125°C

Supply Voltage	Frequency Stability	Freq. (MHz)	Output Voltage V (VOH)	Output Voltage V (VOL)	Digi-Key Part No.	Price Each			Connor-Winfield Part No.
						1	10	100	
2.5V	±25ppm	100.00	1.475	.88	CW610-ND	19.60	15.69	12.64	P212-100.0M
		125.00	1.475	.88	CW611-ND	19.60	15.69	12.64	P212-125.0M
		155.52	1.475	.88	CW612-ND	20.42	16.34	13.16	P212-155.52M
		156.25	1.475	.88	CW613-ND	20.42	16.34	13.16	P212-156.25M
	±50ppm	100.00	1.475	.88	CW614-ND	17.97	14.38	11.58	P222-100.0M
		125.00	1.475	.88	CW615-ND	17.97	14.38	11.58	P222-125.0M
		155.52	1.475	.88	CW616-ND	18.79	15.03	12.11	P222-155.52M
		156.25	1.475	.88	CW617-ND	18.79	15.03	12.11	P222-156.25M
3.3V	±25ppm	100.00	2.275	1.68	CW602-ND	19.60	15.69	12.64	P213-100.0M
		125.00	2.275	1.68	CW603-ND	19.60	15.69	12.64	P213-125.0M
		155.52	2.275	1.68	CW604-ND	20.42	16.34	13.16	P213-155.52M
		156.25	2.275	1.68	CW605-ND	20.42	16.34	13.16	P213-156.25M
	±50ppm	100.00	2.275	1.68	CW606-ND	17.97	14.38	11.58	P223-100.0M
		125.00	2.275	1.68	CW607-ND	17.97	14.38	11.58	P223-125.0M
		155.52	2.275	1.68	CW608-ND	18.79	15.03	12.11	P223-155.52M
		156.25	2.275	1.68	CW609-ND	18.79	15.03	12.11	P223-156.25M

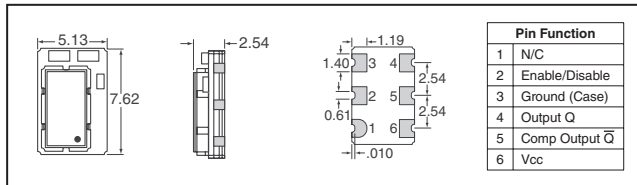
P122, P123, P142 and P143

• Operating Temperature: 0°C – 70°C • Storage Temperature: -40°C – 85°C

Supply Voltage	Frequency Stability	Freq. (MHz)	Output Voltage V (VOH)	Output Voltage V (VOL)	Digi-Key Part No.	Price Each			Connor-Winfield Part No.
						1	10	100	
2.5V	±20ppm	100.00	1.475	.88	CW594-ND	17.97	14.38	11.58	P142-100.00M
		125.00	1.475	.88	CW595-ND	17.97	14.38	11.58	P142-125.0M
		155.52	1.475	.88	CW596-ND	18.79	15.03	12.11	P142-155.52M
		156.25	1.475	.88	CW597-ND	18.79	15.03	12.11	P142-156.25M
	±50ppm	100.00	1.475	.88	CW598-ND	16.34	13.07	10.53	P122-100.0M
		125.00	1.475	.88	CW599-ND	16.34	13.07	10.53	P122-125.0M
		155.52	1.475	.88	CW600-ND	17.16	13.73	11.06	P122-155.52M
		156.25	1.475	.88	CW601-ND	17.16	13.73	11.06	P122-156.25M
3.3V	±20ppm	100.00	2.275	1.68	CW586-ND	17.97	14.38	11.58	P143-100.0M
		125.00	2.275	1.68	CW587-ND	17.97	14.38	11.58	P143-125.0M
		155.52	2.275	1.68	CW588-ND	18.79	15.03	12.11	P143-155.52M
		156.25	2.275	1.68	CW589-ND	18.79	15.03	12.11	P143-156.25M
	±50ppm	100.00	2.275	1.68	CW590-ND	16.34	13.07	10.53	P123-100.0M
		125.00	2.275	1.68	CW591-ND	16.34	13.07	10.53	P123-125.0M
		155.52	2.275	1.68	CW592-ND	17.16	13.73	11.06	P123-155.52M
		156.25	2.275	1.68	CW593-ND	17.16	13.73	11.06	P123-156.25M

D

3.3V LVDS SMD Oscillator



X502 Series:

Specifications: • Output Differential Voltage: 450mV Max. • Enable Voltage: 0.3Vcc Max. • Disable Voltage: 0.7Vcc Min. • Output Load: 100Ω • Duty Cycle at 50% of Vcc: 45% – 55% • Freq. Stability: ±20ppm • Operating Temperature: 0°C – 70°C • Storage Temperature: -40°C – 85°C • Fall Time: 10ns • Rise Time: 10ns

Note: Vod measured with 100Ω resistor between the true output and the complementary output

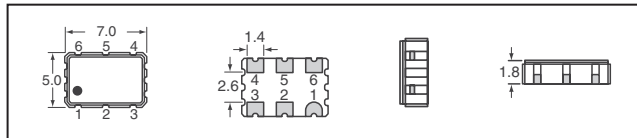
Frequency (MHz)	Digi-Key Part No.	Price Each			Connor-Winfield Part No.
		1	10	100	
622.08	CW618-ND	46.56	37.25	30.01	X502-622.08M

LVC MOS and LVPECL SMD VCXOs

V802 - V702 Series:

Specifications: • Supply Voltage: 3.3V • Absolute Pull Range (±): 50ppm • Duty Cycle: 45% – 55%
 • Operating Temperature: 0°C – 70°C • Storage Temperature: -40°C – 85°C

Note: For pin outs and output characteristics, please see datasheet on Digi-Key website.

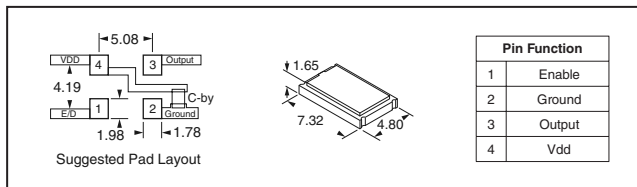


Frequency (MHz)	Output Voltage V (VOH)	Output Voltage V (VOL)	Load Cap.	Fall Time (ns)	Rise Time (ns)	Digi-Key Part No.	Price Each			Connor-Winfield Part No.
							1	10	100	
LVC MOS										
74.1758	2.400	.40	15.0pF	2.0	2.0	CW621-ND	22.87	18.30	14.74	V802-74.1758M
74.2500	2.400	.40	15.0pF	2.0	2.0	CW622-ND	22.87	18.30	14.74	V802-74.25M
100.0000	2.400	.40	15.0pF	2.0	2.0	CW623-ND	24.50	19.61	15.80	V802-100.0M
125.0000	2.400	.40	15.0pF	2.0	2.0	CW624-ND	24.50	19.61	15.80	V802-125.0M
LVPECL — Output Load: 50 Ohms										
155.5200	2.275	1.68	—	1.5	1.5	CW625-ND	26.96	21.57	17.37	V702-155.52M
156.2500	2.275	1.68	—	1.5	1.5	CW626-ND	26.96	21.57	17.37	V702-156.25M

Surface Mount Oscillators

HSM92 - HSM93 Series:

Specifications: • Frequency Stability: HSM92: ±50ppm; HSM93: ±100ppm • Temperature Range: 0°C – 70°C • Waveform: HCMOS Squarewave, Tri-State • Output: Voh: 4.5V Minimum; Vol: 0.5V Max.
 • Current: Ioh: 16mA; Iol: 16mA • Rise/Fall Time: 7ns Max. • Duty Cycle: 45/55 Max. • Start Up Time: 10mS Max. • Supply Voltage: 5VDC, ±10% • Enable/Disable Time: 100ns Max. • Output Load: 50pF



Frequency (MHz)	Digi-Key Part No.	Price Each			Connor-Winfield Part No.
		1	10	500	
4.9152	CW301-ND	8.43	7.03	5.62	HSM93-4.9152
8.0000	CW302-ND	8.43	7.03	5.62	HSM93-8.0000
10.0000	CW303-ND	8.43	7.03	5.62	HSM93-10.0000
16.0000	CW304-ND	8.43	7.03	5.62	HSM93-16.0000
20.0000	CW305-ND	8.43	7.03	5.62	HSM93-20.0000
25.0000	CW306-ND	8.43	7.03	5.62	HSM93-25.0000
29.4912	CW341-ND	8.82	7.36	5.89	HSM92-29.4912
32.0000	CW307-ND	8.43	7.03	5.62	HSM93-32.0000
40.0000	CW308-ND	8.43	7.03	5.62	HSM93-40.0000
44.2368	CW342-ND	8.82	7.36	5.89	HSM92-44.2368
50.0000	CW309-ND	8.43	7.03	5.62	HSM93-50.0000
60.0000	CW310-ND	9.60	8.01	6.41	HSM93-60.0000

Free shipping on orders over £50! All prices are in British pound sterling and include duties.



3.3V and 5V HCMOS OXO

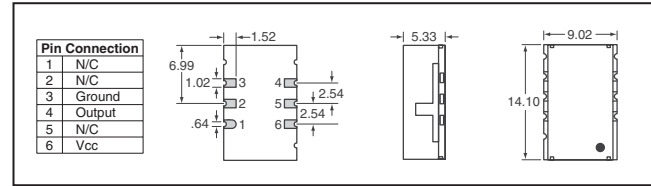
Mounting Type	Freq. (MHz)	Supply Voltage (V)	Digi-Key Part No.	Price Each			Connor-Winfield Part No.
				1	10	100	
Surface Mount	10.00	3.3	CW627-ND	81.68	65.34	52.64	ASOF3S3-10.0M
	10.00	3.3	CW634-ND	147.02	117.62	94.75	BSOF3S3E-10.0M
	10.00	5.0	CW635-ND	155.18	124.15	100.01	OFC5DJ3BS-10.0M
	12.80	3.3	CW628-ND	81.68	65.34	52.64	ASOF3S3-12.8M
	12.80	5.0	CW630-ND	81.68	65.34	52.64	ASOF5S3-12.8M
	19.44	5.0	CW631-ND	81.68	65.34	52.64	ASOF5S3-19.44M
	20.00	3.3	CW629-ND	81.68	65.34	52.64	ASOF3S3-20.0M
	20.00	5.0	CW636-ND	155.18	124.15	100.01	OFC5DJ3BS-20.0M
Through Hole	10.00	5.0	CW632-ND	98.01	78.41	63.17	DGOF5S3-10.0M
	20.00	5.0	CW633-ND	98.01	78.41	63.17	DGOF5S3-20.0M

◆ RoHS Compliant

Note: For package specifications and additional information, please see datasheet on Digi-Key website.

3.3V HCMOS SMD TCXO

Specifications: • Duty Cycle at 50% of Vcc: 45% ~ 55% • Supply Voltage: 3.3V • Frequency Stability: ±4.6ppm • Output Voltage: 2V (Voh) ~ .4V (Vol) • Load Capacitance: 15.0pF • Rise Time: 5ns • Fall Time: 5ns • Operating Temperature: 0°C ~ 70°C • Storage Temperature: -40°C ~ 85°C



Freq. (MHz)	Digi-Key Part No.	1	10	100	Connor-Winfield Part No.
12.8	CW619-ND	35.94	28.75	23.16	TFLD546-12.8M
20.0	CW620-ND	35.94	28.75	23.16	TFLD546-20.0M

Surface Mount Crystals

Specifications: • Temperature Stability: ±50ppm • Frequency Tolerance: ±50ppm @ 25°C • Operating Temperature: -10°C ~ 65°C • Drive Level: 1mW Typical

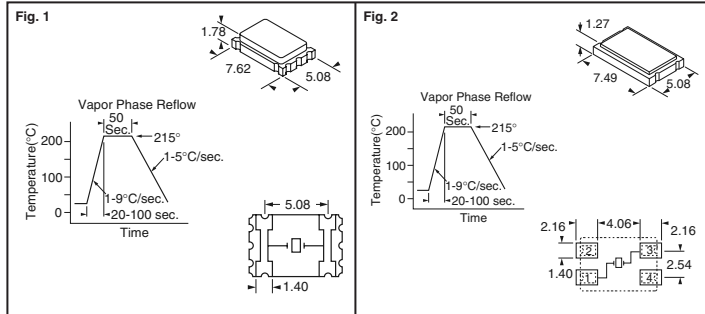


Fig.	Frequency (MHz)	Load Cap.	Digi-Key Part No.	1	10	100	500	Connor-Winfield Part No.
1	10.0000	16pF	CW401-ND	3.43	2.86	2.29	1.85	XL-1C-10.0000
	12.0000	16pF	CW402-ND	3.43	2.86	2.29	1.85	XL-1C-12.0000
	16.0000	16pF	CW403-ND	3.43	2.86	2.29	1.85	XL-1C-16.0000
	18.4320	16pF	CW404-ND	3.43	2.86	2.29	1.85	XL-1C-18.4320
	20.0000	16pF	CW405-ND	3.43	2.86	2.29	1.85	XL-1C-20.0000
	29.4912	16pF	CW407-ND	4.02	3.35	2.68	2.16	XL-1C-29.4912
	40.0000	Series	CW408-ND	3.72	3.11	2.49	2.01	XL-1C-40.0000
	44.2368	Series	CW409-ND	3.72	3.11	2.49	2.01	XL-1C-44.2368
	50.0000	Series	CW410-ND	3.72	3.11	2.49	2.01	XL-1C-50.0000
	2	10.0000	16pF	CW421-ND	5.68	4.74	3.79	3.06
12.0000		16pF	CW422-ND	5.68	4.74	3.79	3.06	XM-1-12.0000
16.0000		16pF	CW423-ND	5.68	4.74	3.79	3.06	XM-1-16.0000
18.4320		16pF	CW424-ND	5.68	4.74	3.79	3.06	XM-1-18.4320
20.0000		16pF	CW425-ND	5.68	4.74	3.79	3.06	XM-1-20.0000
29.4912		Series	CW427-ND	6.77	5.64	4.51	3.64	XM-1-29.4912
40.0000		Series	CW428-ND	6.18	5.15	4.12	3.32	XM-1-40.0000
44.2368		Series	CW429-ND	6.18	5.15	4.12	3.32	XM-1-44.2368
50.0000		Series	CW430-ND	6.18	5.15	4.12	3.32	XM-1-50.0000



Silicon Oscillators

Features: Linear's solid-state "instant clocks" can be set to output a broad range of frequencies using a single resistor, or via an SPI or I²C interface.

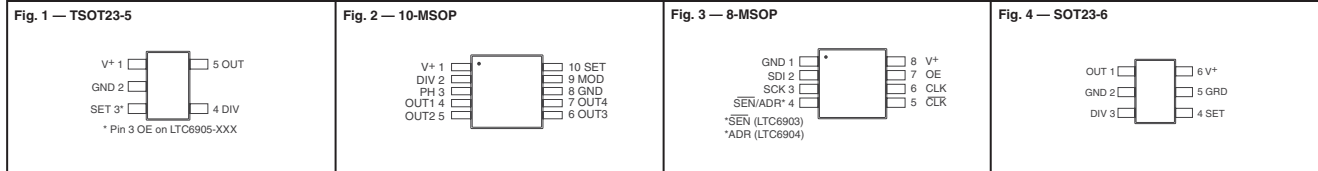


Fig.	Description	Frequency Range	Supply Current @ Frequency	Digi-Key Part No.	1	Cut Tape Price Each 25	100	Tape and Reel Pricing† 500
1	Resistor Programmable Oscillator	1kHz ~ 33MHz	1.1mA @ 3MHz	LTC1799CS5#TRMPBFCT-ND◆	2.99	2.68	2.41	781.10
	Resistor Programmable Oscillator	1kHz ~ 33MHz	1.1mA @ 3MHz	LTC1799IS5#TRMPBFCT-ND◆	3.32	2.97	2.67	1073.54
	Resistor Programmable Oscillator	1kHz ~ 33MHz	1.1mA @ 3MHz	LTC1799HS5#TRMPBFCT-ND◆	3.41	3.05	2.75	1169.73
	Resistor Programmable Oscillator	1kHz ~ 20MHz	860µA @ 10MHz	LTC6900CS5#TRMCT-ND	2.99	2.68	2.41	—
	Resistor Programmable Oscillator	1kHz ~ 20MHz	860µA @ 10MHz	LTC6900CS5#TRMPBFCT-ND◆	2.99	2.68	2.41	781.10
	Resistor Programmable Oscillator	1kHz ~ 20MHz	860µA @ 10MHz	LTC6900IS5#TRMPBFCT-ND◆	3.13	2.80	2.52	1073.54
2	Resistor Programmable with SS	5kHz ~ 20MHz	1.8mA @ 10MHz	LTC6902CMS#PBF-ND◆‡	3.38	2.25	1.85	—
3	SPI Programmable Oscillator	1kHz ~ 68MHz	3.1mA @ 1MHz	LTC6903CMS8#PBF-ND◆‡	3.00	2.00	1.70	—
	I ² C Programmable Oscillator	1kHz ~ 68MHz	3.1mA @ 1MHz	LTC6904CMS8-ND‡	3.23	2.15	1.81	—
	I ² C Programmable Oscillator	1kHz ~ 68MHz	3.1mA @ 1MHz	LTC6904CMS8#PBF-ND◆‡	3.23	2.15	1.81	—
1	Fixed Frequency Oscillator	25/50/100MHz	12mA @ 100MHz	LTC6905CS5-100#TRMPBFCT-ND◆	2.16	1.93	1.74	542.54
	Fixed Frequency Oscillator	33.3/66.7/133MHz	15mA @ 133MHz	LTC6905CS5-133#TRM-ND‡	1.92	1.32	1.09	—
	Fixed Frequency Oscillator	33.3/66.7/133MHz	15mA @ 133MHz	LTC6905CS5-133#TRMPBFCT-ND◆	2.16	1.93	1.74	542.54
	Fixed Frequency Oscillator	20/40/80MHz	11mA @ 80MHz	LTC6905CS5-80#TRM-ND‡	1.92	1.32	1.09	—
	Fixed Frequency Oscillator	20/40/80MHz	11mA @ 80MHz	LTC6905CS5-80#TRMPBFCT-ND◆	2.16	1.93	1.74	542.54
	Fixed Frequency Oscillator	24/48/96MHz	12mA @ 96MHz	LTC6905CS5-96#TRM-ND‡	1.92	1.32	1.09	—
	Fixed Frequency Oscillator	24/48/96MHz	12mA @ 96MHz	LTC6905CS5-96#TRMPBFCT-ND◆	2.16	1.93	1.74	542.54
	Resistor Programmable Oscillator	17MHz ~ 170MHz	5mA @ 21MHz	LTC6906CS5#TRMPBFCT-ND◆	3.04	2.72	2.45	777.26
4	Resistor Programmable Oscillator	10kHz ~ 1MHz	15µA @ 100kHz	LTC6906CS6#TRMPBFCT-ND◆	2.32	2.08	1.87	588.71
	Resistor Programmable Oscillator	40kHz ~ 4MHz	48µA @ 400kHz	LTC6907CS6#TRMPBFCT-ND◆	2.32	2.08	1.87	588.71

◆ RoHS Compliant † For Tape and Reel part number, change CT-ND to TR-ND. ‡ Bulk

Digi-Reel® Most SMT cutdown parts are available on a Digi-Reel®. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key® Services on page 2 for additional information.

Free shipping on orders over £50! All prices are in British pound sterling and include duties.

uk.digikey.com — FREEPHONE: 0-800-587-0991 • 0-800-904-7786 — FREEFAX: 0-800-587-0992 • 0-800-904-7783

(UK091) 1345