



APPROVED VCXO CRYSTALS

Voltage controlled crystal oscillator parts from ICS need a pullable crystal to function correctly. The required characteristics of such a crystal can be found in [Application Note MAN05](#).

The following is a list a crystals, sorted by operating frequency, that are tested and approved by ICS for use with our VCXO parts.

- UM1 Crystals
- HC49U Crystals

Crystal Manufacturer Contact Information

Abracon

(949) 448-7070

F: (949) 448-8484

www.abracon.com

Arum

(886 2) 2760-5857

F: (886 2) 2756-5240

Argo

(886 2) 26980598

F: (886 2) 26980597

www.globalsources.com/argotech.co

Crystek

941-561-3311

F: 941-561-1025

www.crystek.com

Ecliptek

714 433 1200

F: 714 433 1234

www.ecliptek.com

Harmony

(886 2) 2563-4232

F: (886 2) 2521-5895

www.harmony-crystal.com.tw

ILSI

(775) 851-8880

F: (775) 851-8882

<http://www.ilsiamerica.com>



Jen Jaan/NSK

(886 2) 82214498

F: (886 2) 82214499

www.asiansources.com/jenjaan.co

KDS

<http://www.kdsj.co.jp/english.html>

Kitelco Co, Ltd.

82 31 352 2870

F: 82 31 352 2440 fax

<http://www.kitelco.com/>

M-tron

(605) 665 9321

F: (605) 665 1709

www.mtron.com/

Pletronics

(425) 776-1880

F: (425) 776-2760

www.pletronics.com/

Precision Devices, Inc (PDI)

(608) 831-4445

F: (608) 831-3343

www.pdixtal.com/

Siward

(886 4) 2534-7909

F: (886 4) 2533-7396

www.siward.com.tw

VITE

(714) 569 3688

F: (714) 569 3699

www.viteonline.com



UM1 Crystals

Frequency [MHz]	Load capacitance, C _L [pF]	Temperature range [°C]	
11.184	14	0-70	Crystek 016792 Ecliptek ECUM-264
11.456	14	0-70	Crystek 016791
12.288	14	0-70	Crystek 016790
12.352	14	0-70	Crystek 016789 Ecliptek ECUM-270
12.96	14	0-70	Crystek 016788 Ecliptek ECUM-271
13.00	14	0-70	Ecliptek ECUM-272
13.248	14	0-70	Crystek 016787 Ecliptek ECUM-273
13.5	14	0-70	Crystek 016786 Ecliptek ECUM-274
16.384	14	0-70	Crystek 016778
17.664	14	0-70	Crystek 016785



19.44	14	0-70	Crystek 016781 Ecliptek ECUM-275
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24.576	14	0-70	Crystek 016783
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25	14	0-70	Crystek 016784
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27	14	0-70	Crystek 016782
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HC49U Crystals

Frequency [MHz]	Load Capacitance, C _L [pF]	Temperature range [°C]	
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8.192	16	0-70	Ecliptek ECX-5477-8.192M Siward XTL001025A-8.192-16
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8.192	16	-40-85	Ecliptek ECX-5500-8.192M
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9.344	16	0-70	Ecliptek ECX-5483-9.344M Siward XTL001025A-9.344-16
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9.344	14	0-70	Ecliptek ECX-5501-9.344M Siward XTL001025A-9.344-14
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9.72	16	0-70	Ecliptek ECX-5478-9.720M Siward XTL001025A-9.72-16
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9.72	14	0-70	Ecliptek ECX-5499-9.720M Siward XTL001025A-9.72-14
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10	14	0-70	Ecliptek ECX-5440-10.000M
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10.24	14	0-70	Ecliptek ECX-5429-10.240M Siward XTL001025A-10.24-14
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10.24	14	-40-85	Ecliptek ECX-5724-10.240M Siward XTL001025A-10.24-14
10.752	14	0-70	Ecliptek ECX-5441-10.752M
11.184	14	0-70	Ecliptek ECX-5442-11.184M Siward XTL001025A-11.184-14
11.184	14	-40-85	Ecliptek ECX-5480-11.184M Siward XTL001025D-11.184-14
11.456	14	0-70	Ecliptek ECX-5443-11.456M Siward XTL001025A-11.456-14
11.456	14	-40-85	Ecliptek ECX-5532-11.456M Siward XTL001025D-11.456-14
12	14	0-70	Ecliptek ECX-5445-12.000M
12.288	14	0-70	Ecliptek ECX-5430-12.288M Siward XTL001025A-12.288-14
12.288	14	-40-85	Ecliptek ECX-5497-12.288M M-Tron 5010-895 Siward XTL001025D-12.288-14
12.288	15	-40-85	M-Tron 5010-895 Siward XTL001025D-12.288-15
12.352	14	0-70	Ecliptek ECX-5446-12.352M Siward XTL001025A-12.352-14
12.352	14	-40-85	Ecliptek ECX-5496-12.352M Siward XTL001025D-12.352-14
12.96	14	0-70	Ecliptek ECX-5448-12.960M Siward XTL001025A-12.96-14
12.96	14	-40-85	Ecliptek ECX-5495-12.960M M-Tron 5010-896 Siward XTL001025D-12.96-14



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12.96	15	-40-85	M-Tron 5010-896 Siward XTL001025D-12.96-15
13	14	0-70	Ecliptek ECX-5643-13.000M
13.248	14	0-70	Abracon AB-13.248MHz-14-2Y-Q11 Argo ARGO101304 Arum XTU10AF68A0132481400 Ecliptek ECX-5431-13.248M Harmony 45-0400-119E ILSI ILSI-C-1010 Jen Jaan/NSK NXU13.248AD14FH Pletronics MP49472-13.248MHZ VITE VXA1-1124-13M248 KDS KH132486C
13.248	14	-40-85	Kitelco Co U13.248FH14L3
13.5	14	0-70	Arum XTU10AF68A0135001401 Ecliptek ECX-5432-13.500M Jen Jaan/NSK NXU13.500AE14FO PDI HA13500XFSA14XS Siward XTL10050A-13.5-14-100
14.31818	14	0-70	Ecliptek ECX-5449-14.31818M
14.352	14	0-70	Ecliptek ECX-5462-14.352M
14.352	14	-40-85	Ecliptek ECX-5464-14.352M Siward XTL001025D-14.352
14.58	14	0-70	Ecliptek ECX-5647-14.580M
14.58	14	-40-85	Ecliptek ECX-5652-14.580M
15.36	14	0-70	Ecliptek ECX-5485-15.360M
16.384	14	0-70	Crystek 016670 / 016830 Ecliptek ECX-5612-16.380M
16.384	14	-40-85	Crystek 016930 / 016934 Ecliptek ECX-5433-16.384M Siward XTL001025A-16.384



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17.28	14	0-70	Ecliptek ECX-5434-17.280M Siward XTL001025A-17.28
17.664	14	0-70	Abracon AB-17.664MHz-14-2Y-Q11 Ecliptek ECX-5450-17.664M ILSI ILSI-C-1020 Jen Jaan/NSK NXU17.664AD14FO Pletronics MP49507-17.664MHZ Siward XTL001025A-17.664
17.664	14	-40-85	Ecliptek ECX-5494-17.664M Kitelco Co U17.664FH14 Siward XTL001025D-17.664
17.92	14	0-70	Ecliptek ECX-5615-17.920M
18.528	14	0-70	Ecliptek ECX-5599-18.528M
18.528	14	-40-85	Ecliptek ECX-5600-18.528M
19.44	14	0-70	Crystek 016819 / 016832 Ecliptek ECX-5451-19.440M Siward XTL001025A-19.44
19.44	14	-40-85	Crystek 016863 / 016864 Ecliptek ECX-5493-19.440M Siward XTL001025D-19.44
20	14	0-70	Ecliptek ECX-5587-20.000M
20.8333	14	0-70	Ecliptek ECX-5452-20.8333M Siward XTL001025A-20.8333
20.8333	14	-40-85	Ecliptek ECX-5492-20.8333M Siward XTL001025D-20.833-14
21.524476	14	0-70	Ecliptek ECX-5630-21.524476M
21.812	14	0-70	Ecliptek ECX-5607-21.812M Siward XTL0001025A-21.812-14
21.812	14	-40-85	Ecliptek ECX-5608-21.812M Siward XTL001025D-21.812-14



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21.819	14	0-70	Ecliptek ECX-5657-21.819M
22.368	14	0-70	Ecliptek ECX-5610-22.368M
22.368	14	-40-85	Ecliptek ECX-5611-22.368M
24	14	0-70	Ecliptek ECX-5637-24.000M
24.576	14	0-70	Crystek 016820 / 016833 Ecliptek ECX-5435-24.576M
24.576	14	0-70	Siward XTL001025A-24.576-14
24.576	14	-40-85	Crystek 016931 / 016935 Ecliptek ECX-5490-24.576M Siward XTL001025D-24.576-14
24.704	14	0-70	Ecliptek ECX-5453-24.704M Siward XTL001025A-24.704-14
24.704	14	-40-85	Ecliptek ECX-5575-24.704M Siward XTL001025D-24.704-14
25	14	0-70	Crystek 016821 / 016834 Ecliptek ECX-5436-25.000M Siward XTL001025A-25.000-14
25	14	-40-85	Crystek 016932 / 016936 Ecliptek ECX-5489-25.000M Siward XTL001025D-25.000-14
25.6	14	0-70	Ecliptek ECX-5437-25.600M Siward XTL001025A-25.600-14
25.6	14	-40-85	Ecliptek ECX-5488-25.600M Siward XTL001025D-25.600-14
26.496	14	0-70	Siward XTL001025A-26.496-14
26	14	0-70	Ecliptek ECX-5644-26.000M



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26.5625	14	0-70	Ecliptek ECX-5507-26.5625M
26.5625	14	-40-85	Ecliptek ECX-5508-26.5625M
27	12	0-70	Crystek 016822 / 016935 PDI HA27000XFSA12XA
27	14	0-70	Crystek 016933 / 016937 Ecliptek ECX-5527-27.000M PDI HA27000XFSA14XX Siward XTL001025A-27.000-14
28.321	14	0-70	Ecliptek ECX-5638-28.321