Crystal Part Numbering Guide

Example: P/N ECS-160-20-5PX (Std P/N)
P/N ECS-160-20-5PX-ADN (Custom P/N)

Custom/Value Added Options

ECS	-	160	-	20	-	5P	X	A	D	N	-	TR

ECS — ECS INC.

160 — Frequency Abbreviation
160=16.000 MHz
(See page 2 for list of std frequencies)

20 — Load Capacitance
20=20 pF
S=Series

5P — (Package Suffix) Model Types

X — Options
Blank = Std
3IL=3rd In Line Lead
SL=Sleeved
B=Insulator
3L=3rd Lead
F=Fund (Note 1)
X=Pb Free/RoHS

A — Frequency Tolerance @ +25° (Max)
Blank =Std
A =±25 ppm
J = ±20 ppm
R =±15 ppm
C =±10 ppm

D — Frequency Stability (Max) Over Temp (**)
Blank =Std
D =±100 ppm
E =±50 ppm
G =±30 ppm
H =±25 ppm
T =±20 ppm
W =±15 ppm
K =±10 ppm

N — Operating Temperature
Blank =Std
L = -10 ~+70°C
M = -20 ~+70°C
N = -40 ~ +85°C
P = -40 ~ +105°C
S = -40 ~ +125°C
U = -55 ~ +125°C

TR — Packaging
TR=Tape & Reel

(Package Suffix) Model Types				
(1X) HC-49UX	(8X) ECS-3x8X	(19A) ECX-19A	(25) UM-4	(35) CSM-9
(3X) CSM-3X	(9X) ECS-3x9X	(20A) CSM-8A	(28AX) CSM-4A	(36) ECX-2236
(4X) HC-49USX 3.5H	(10X) ECS-3x10X	(20BM) CSM-8M	(28ALX) CSM-4ALX	(36Q) ECX-2236Q
(4LX) HC-49USX 2.5H	(11) ECX-205*	(20BQ) CSM-8Q	(30) ECX-53	(37) ECX-1637
(4VX) HC-49USSX	(12) ECX-12	(21) UM-5	(30B) ECX-53B	(37Q) ECX-1637Q
(5PX) CSM-7X 4.3H	(13X) ECS-2x6X	(22) UM-1	(30BQ) ECX-53BQ	(38) ECX-71
(5PLX) CSM-7X 3.2H	(13FLX) ECS-2x6-FLX	(22SMJ)ECX-UM-1	(33) ECX-32	(39) ECX-39
(5PV) CSM-7SSX 2.6H	(14X) ECS-1x5X	(23A) ECX-64A	(33Q) ECX-33Q	(42) ECX-42
(5G3X) CSM-7X-3L	(16) ECX-16	(23B) ECX-64	(34B) ECX-31B	(46X) HC-46X
(6) ECX-206*	(17X) ECX-306X	(23C) ECX-64C	(34S) ECX-34S	(47) ECX-1247
(7SX) ECX-3SX	(18) CSM-12	(24) ECX-3TA*	(34Q) ECX-34Q	(47Q) ECX-1247Q

*** Discontinued**

**** Please consult ECS for available Temp Range options of tight stability crystals.**

Note 1: Crystals over 24.000 MHz will be 3rd overtone (if available on data sheet) unless fundamental mode is requested. An "F" suffix after the package type indicates a fundamental mode i.e. ECS-300-S-1-F would be a 30.000 MHz Fundamental mode crystal.

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Standard Frequency Abbreviations

CODE	FREQUENCY MHz
10	1.000000
18	1.843200
20	2.000000
20.48	2.048000
24	2.457600
25	2.500000
25.6	2.560000
29	2.9491200
30	3.000000
32	3.276800
35	3.579545
36	3.686400
36.4	3.640000
37	3.700000
39	3.932160
40	4.000000
40.3	4.032000
41	4.096000
42	4.194304
44	4.433618
49	4.915200
50	5.000000
51	5.068000
52	5.185000
60	6.000000
61	6.144000
73	7.372800
76.8	7.680000

CODE	FREQUENCY MHz
80	8.000000
81.92	8.192000
85	8.500000
90	9.000000
92.1	9.216000
95.4	9.545000
98.3	9.830400
100	10.000000
107.3	10.738635
110	11.000000
110.4	11.046000
110.5	11.059200
112.2	11.228000
115.2	11.520000
119.8	11.981350
120	12.000000
120.003	12.000393
121	12.096000
122.8	12.288000
129.6	12.960000
135	13.516800
143	14.318180
146	14.690000
147.4	14.745600
150	15.000000
153.6	15.360000
160	16.000000
160.003	16.000312

CODE	FREQUENCY MHz
162.5	16.257000
169.344	16.934400
180	18.000000
184	18.432000
192	19.20000
196.6	19.660800
200	20.000000
214.7	21.477270
221	22.118400
240	24.000000
240.001	24.000140
245.7	24.576000
250	25.000000
260	26.000000
270	27.000000
300	30.000000
320	32.000000
330	33.000000
338	33.868800
352.5	35.251200
360	36.000000
380.005	38.000530
400	40.000000
403.2	40.320000
480	48.000000
500	50.000000
600	60.000000
800	80.000000

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