

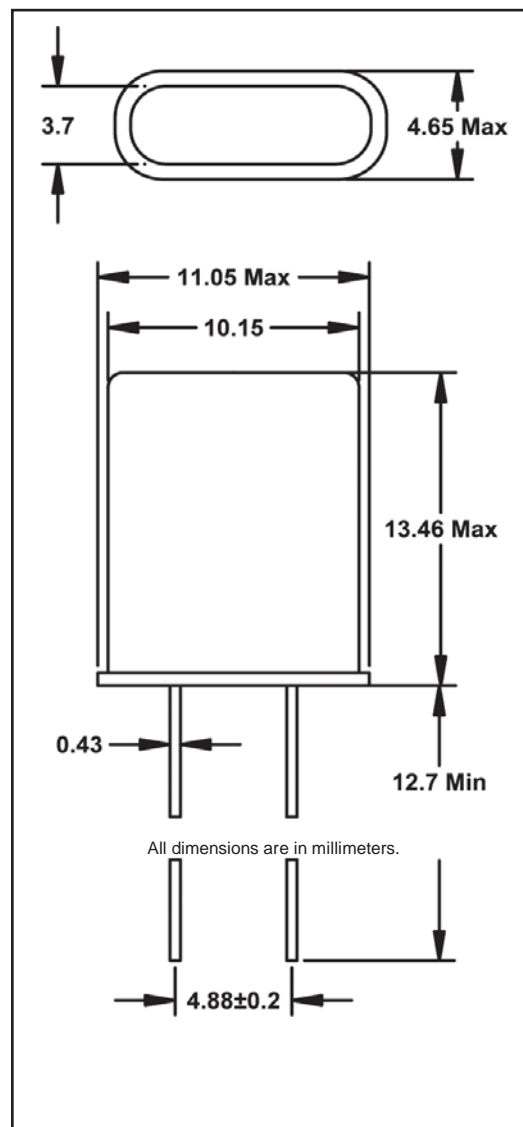


- Tolerances down to 10 PPM
- Stabilities down to 5 PPM

• C4UT STANDARD SPECIFICATIONS

PARAMETERS	MAX (unless otherwise noted)
Frequency Range	1.8432 ~ 180.000 MHz
Frequency Tolerance @ 25°C	(See options on page 2)
Frequency Stability, ref @ 25°C Over Operating Temp Range	(See options on page 2)
Temperature Range	
Operating (T _{OPR})	(See options on page 2)
Storage (T _{STG})	-40°C ~ +85°C
Shunt Capacitance (C _o)	7.0 pF
Load Capacitance (C _L)	(See options on page 2)
Drive Level	
1.8432 ~ 3.000 MHz	2.0 mW
3.000+ ~ 180.000 MHz	1.0 mW
Aging per year	±5 PPM
Termination Finish	Sn/3.0Ag/0.5Cu
Seal Method	Resistance Weld
Lead (Pb) Free	Yes
RoHS Compliant	Yes

Frequency Range (MHz)	Operating Mode	Max ESR Ω
1.843200 ~ 2.000	Fundamental	750
2.000001 ~ 2.400	Fundamental	500
2.400001 ~ 3.000	Fundamental	300
3.000001 ~ 3.200	Fundamental	200
3.200001 ~ 3.700	Fundamental	120
3.700001 ~ 4.200	Fundamental	100
4.200001 ~ 4.900	Fundamental	70
4.900001 ~ 5.000	Fundamental	55
5.000001 ~ 6.000	Fundamental	50
6.000001 ~ 8.000	Fundamental	40
8.000001 ~ 10.000	Fundamental	35
10.000001 ~ 12.500	Fundamental	30
12.500001 ~ 16.000	Fundamental	25
16.000001 ~ 40.000	Fundamental	20
23.000000 ~ 96.000	3rd OT	40
60.000 ~ 140.000	5th OT	80
110.000 ~ 180.000	7th OT	120



**•Available Operating Temperatures and Stabilities***

Operating Temperature	±5 PPM	±10 PPM	±15 PPM	±20 PPM	±25 PPM	±30 PPM	±50 PPM
-10°C to +60°C	O	O	O	O	O	O	O
-20°C to +70°C	X	O	O	O	O	O	O
-40°C to +85°C	X	X	O	O	O	O	O
-40°C to +105°C	X	X	X	X	X	X	O

Key: O=Available, X=Not Available

*Does not imply a stocked part.

Available Options & Part Identification for Thru-Hole Crystal C4UT*
F C4UT C B M F 2.4576

F	C4UT	C	B	M	F	2.4576
<u>FOX</u>	<u>Model Number</u>	<u>Tolerance</u> B=50ppm C=30ppm D=25ppm E=20ppm F=15ppm H=10ppm	<u>Stability</u> B=50ppm C=30ppm D=25ppm E=20ppm F=15ppm H=10ppm L=5ppm	<u>Load Capacitance</u> A=Series E=10pF G=12pF U=13pF L=18pF M=20pF N=22pF Q=30pF R=32pF S=33pF	<u>Operating Temperature</u> D=-10 to +60C F=-20 to +70C M=-40 to +85C P=-40 to +105C	<u>Frequency (MHz)</u>

*Not all frequency, tolerance, stability, load, and operating temperature combinations may be available.





Resistance Weld Thru-Hole Crystal

C4UT (former HC49ULF) DATASHEET

Page 2 of 3

• C4UT (former HC49ULF) Standard Crystals					
Part Number	Frequency	Tolerance	Stability	Temp Range	CL
FOXLF018S	1.843200	± 30 ppm	± 50 ppm	-20 to +70 C	13pF
FOXLF024S	2.457600	± 30 ppm	± 50 ppm	-20 to +70 C	32pF
FOXLF036S	3.579545	± 30 ppm	± 50 ppm	-20 to +70 C	18pF
FOXLF0368S	3.686400	± 30 ppm	± 50 ppm	-20 to +70 C	Series
FOXLF0368-20	3.686400	± 30 ppm	± 50 ppm	-20 to +70 C	20pF
FOXLF040A	4.000000	± 30 ppm	± 50 ppm	-20 to +70 C	Series
FOXLF040	4.000000	± 30 ppm	± 50 ppm	-20 to +70 C	20pF
FOXLF080-20	8.000000	± 30 ppm	± 50 ppm	-20 to +70 C	20pF
FOXLF100-20	10.000000	± 30 ppm	± 50 ppm	-20 to +70 C	20pF
FOXLF115	11.059200	± 30 ppm	± 50 ppm	-20 to +70 C	Series
FOXLF115-20	11.059200	± 30 ppm	± 50 ppm	-20 to +70 C	20pF
FOXLF120	12.000000	± 30 ppm	± 50 ppm	-20 to +70 C	Series
FOXLF120-20	12.000000	± 30 ppm	± 50 ppm	-20 to +70 C	20pF
FOXLF160	16.000000	± 30 ppm	± 50 ppm	-20 to +70 C	Series
FOXLF160-20	16.000000	± 30 ppm	± 50 ppm	-20 to +70 C	20pF
FOXLF200-20	20.000000	± 30 ppm	± 50 ppm	-20 to +70 C	20pF
FOXLF250F-20	25.000000	± 30 ppm	± 50 ppm	-20 to +70 C	20pF



Corporate
Headquarters
5570 Enterprise Parkway
Fort Myers, FL 33905
<http://www.FOXONLINE.com>

Sales
1-888-GET-2-FOX (1-888-438-2369) or <http://www.FOXONLINE.com/email>
1-239-693-0099
<http://www.FOXONLINE.com/repdisty>

Tech Support

<http://www.FOXONLINE.com/email>

PRODUCT USE: Fox Electronics reserves the right to modify the products and/or specifications described herein at any time and at Fox Electronics' sole discretion. All information in this document, including descriptions of product features and performance, is subject to change without notice. Performance specifications and the operating parameters of the described products are determined in the independent state and are not guaranteed to perform the same way when installed in customer products. The information contained herein is provided without representation or warranty of any kind, whether express or implied, including, but not limited to, the suitability of Fox Electronics' products for any particular purpose, an implied warranty of merchantability, or non-infringement of the intellectual property rights of others. This document is presented only as a guide and does not convey any license under intellectual property rights of Fox Electronics or any third parties. Fox Electronics' products are not intended for use in applications involving extreme environmental conditions or in life support systems or similar devices where the failure or malfunction of a Fox Electronics product can be reasonably expected to significantly affect the health or safety of users. Anyone using a Fox Electronics product in such a manner does so at their own risk, absent an express, written agreement by Fox Electronics. Fox Electronics and the Fox logo are registered trademarks of Fox Electronics. Product specification is subject to change without notice. Other trademarks and service marks used herein, including protected names, logos and designs, are the property of Fox Electronics or their respective third party owners. For datasheet type definitions and a glossary of common terms, visit <http://www.foxonline.com/tgcrystals.html>.



© Copyright 2017 Fox Electronics, All rights reserved

Title / Description: C4UT STANDARD SPECIFICATIONS

Drawing Number: 101159

Size: A

Part Number:

Cage: 61429

Draftsperson: CMR

Approved: RB

Revision Date: 04/28/2017