



# 7x5mm LVDS Oscillator

## O7LS (former F4700, F4710 Series) DATASHEET

- LVDS Output
- Stabilities to  $\pm 20$  PPM
- Temperature Ranges as wide as  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$
- Supply Voltages: 2.5V, 3.3V

### Specifications

PARAMETERS	MAX (unless otherwise noted)	
Frequency Range	25.0 ~ 400.0 MHz	
Storage Temperature Range ( $T_{\text{STG}}$ )	$-55 \sim +125^{\circ}\text{C}$	
Supply Voltage ( $V_{\text{DD}}$ )	2.5V $\pm 10\%$	3.3V $\pm 10\%$
Input Current ( $I_{\text{DD}}$ )	63 mA	
Standby Current	30 $\mu\text{A}$	
Output Symmetry (50% $V_{\text{P-P}}$ )	45% ~ 55%	
Rise Time (20%~80% $V_{\text{P-P}}$ )	0.5 nS	
Fall Time (80%~20% $V_{\text{P-P}}$ )	0.5 nS	
Differential Output Voltage ( $V_{\text{OD}}$ )	0.247V ~ 0.454V	
Differential Offset Voltage ( $V_{\text{OS}}$ )	1.125V ~ 1.375V	
Output Load	100 Ohms Typical	
Start-up Time ( $T_{\text{s}}$ )	10 mS	
Output Disable Time <sup>1</sup>	200 nS	
Output Enable Time <sup>1</sup>	10 mS	
Aging (per year @ 25C)	$\pm 3$ PPM	
Phase Jitter (12kHz~20MHz)	1 pS	

### Enable/Disable Function

Pin1	Out 1 (pin 4), Out 2 (pin 5)
OPEN <sup>1</sup>	Active
'1' Level $V_{\text{IH}} \geq 70\%V_{\text{DD}}$	Active
'0' Level $V_{\text{IL}} \leq 30\%V_{\text{DD}}$	High Z

### • Available Options by Stability & Operating Temp

Frequency Stability	Operating Temperature ( $^{\circ}\text{C}$ )	Frequency Range (MHz)
$\pm 100\text{PPM}^2$	$-20 \sim +70$	25.0 ~ 400.0
$\pm 100\text{PPM}^2$	$-40 \sim +85$	25.0 ~ 400.0
$\pm 50\text{PPM}^2$	$-20 \sim +70$	25.0 ~ 400.0
$\pm 50\text{PPM}^2$	$-40 \sim +85$	25.0 ~ 400.0
$\pm 25\text{PPM}^2$	$-20 \sim +70$	25.0 ~ 400.0
$\pm 25\text{PPM}^3$	$-40 \sim +85$	25.0 ~ 400.0
$\pm 20\text{PPM}^3$	$-20 \sim +70$	25.0 ~ 400.0

<sup>1</sup> An internal pull-up resistor from pin 1 to pin 4 allows active output if pin 1 is left open

<sup>2</sup> Inclusive of  $25^{\circ}\text{C}$  tolerance, operating temperature range, input voltage change, load change, reflow, one-year aging, shock, and vibration.

<sup>3</sup> Inclusive of  $25^{\circ}\text{C}$  tolerance, operating temperature range.

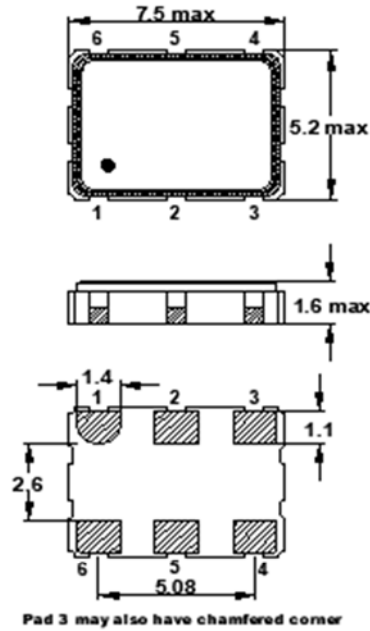


Title / Description: O7LS SERIES STANDARD SPECIFICATIONS		
Drawing Number: O7LS-DOC-1		Size: A
Part Number:		Cage: 61429
Draftsperson: MAJ	Approved: BEC	Revision Date: 07/31/2019

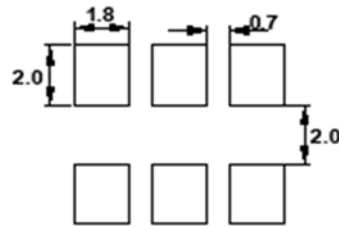


# 7x5mm LVDS Oscillator

O7LS  
(former F4700, F4710 Series)  
DATASHEET



### Recommended Solder Pad Layout



Dimensions are in millimeters.

### Pin Connections

#1 E/D	#4 Output_1
#2 N.C.	#5 Output_2
#3 GND	#6 V <sub>DD</sub>

Maximum Soldering Temp / Time	260°C / 10 Seconds x2
Moisture Sensitivity Level (MSL)	1
Termination Finish	Au over Ni
Seal Method	Seam
Lead (Pb) Free	Yes
ROHS/REACH Compliant	Yes

#### Notes:

- \*A 0.01μF capacitor should be placed between V<sub>DD</sub> (Pin 6) and GND (Pin3) to minimize power supply line noise.
- \*Dimensional drawing is for reference to critical specifications defined by size measurements.
- Certain non-critical visual attributes, such as side castellations, reference pin shape, etc. may vary.



Title / Description: O7LS SERIES STANDARD SPECIFICATIONS	
Drawing Number: O7LS-DOC-1	Size: A
Part Number:	Cage: 61429
Draftsperson: MAJ	Approved: BEC
	Revision Date: 07/31/2019

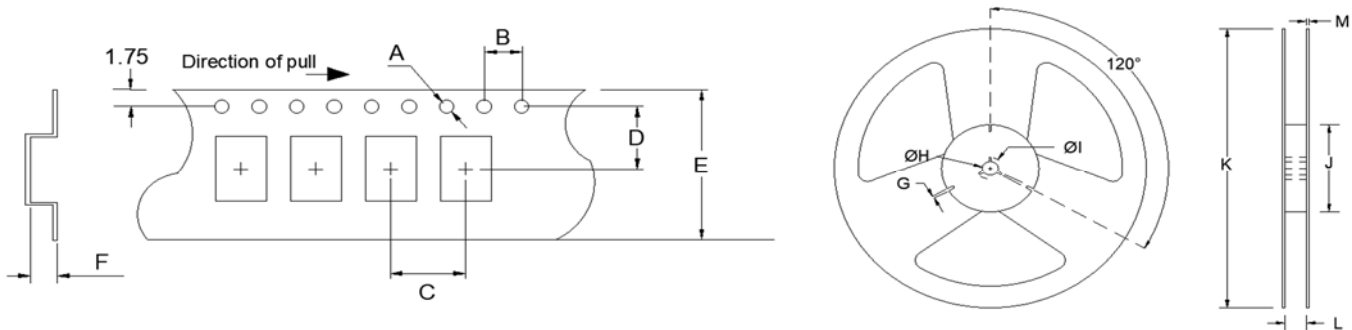


# 7x5mm LVDS Oscillator

**O7LS**  
(former F4700, F4710 Series)  
**DATASHEET**

## • TAPE/REEL SPECIFICATIONS

Tape Specifications (millimeters)							Reel Specifications (millimeters)						
A	B	C	D	E	F	Reel Qty	G	H	I	J	K	L	M
Ø1.55	4.0	8.0	7.5	16.0	2.1	-T2 = 2,000 -T1 = 1,000	2.0	Ø13	Ø21	Ø80	Ø255	17.5	2.0



## Available Options & Part Identification\*

Example: F O7LS C D M 125.0

F	O7LS	C	D	M	125.0
<b>F = Fox</b>	<b>Model Number</b>	<b>Voltage</b> J = 2.5V±10% C = 3.3V±10%	<b>Stability</b> A = ±100PPM B = ±50PPM D = ±25PPM E = ±20 PPM	<b>Temp Code</b> F = -20 to +70°C M = -40 to +85°C	<b>Frequency (MHz)</b>

\*Not all frequencies in the frequency range, or every combination of stability, temp range, and voltage available. See stabilities and op temps table on page 1.



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

Sales  
1-888-GET-2-FOX (1-888-438-2369)  
or  
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.

	<b>Title / Description:</b> O7LS SERIES STANDARD SPECIFICATIONS		
	<b>Drawing Number:</b> O7LS-DOC-1		<b>Size:</b> A
	<b>Part Number:</b>		<b>Cage:</b> 61429
	<b>Draftsperson:</b> MAJ	<b>Approved:</b> BEC	<b>Revision Date:</b> 07/31/2019

© Copyright 2019 Fox Electronics. All rights reserved

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for fox manufacturer:*

Other Similar products are found below :

[277LF-27-7](#) [278LF-33.1776-1 TR](#) [220-10-7 TR](#) [278LF-20-29](#) [603-25-132 TR](#) [218-20-17966](#) [278LF-5-11](#) [117-102.6494](#) [589-33.33-3 TR](#)  
[218-25-94](#) [FD-25](#) [FOXLF049-20](#) [FOXSDLF/240F-20](#) [FXO-HC736R-125](#) [FO5LSCDM100.00](#) [FOX924B-10.000](#) [FOXSDLF/240F-20/TR](#)  
[F4105R-250](#) [HC49ULF-11.0592MHz](#) [FOXSDLF/040R/TR](#) [VCS25AXT-447](#) [FOXLF098-20](#) [70M15A](#) [FO7HHAAM32.0](#) [FO7HHAAM20.0-](#)  
[BULK](#) [FO7HSCDM50.0](#) [FC7BSCCMM6.0-T1](#) [FOXSLF/120-20](#) [VCS25AXT-270 27.000MHZ](#) [FOX801BELF-160](#) [FOXLF250F-20](#)  
[FOXSDLF/049-20/TR](#) [FXO-LC735RGB-156.25](#) [FOXSDLF/245FR-20/TR](#) [FOXSDLF/200-20/TR](#) [FO7HSCBM3.579545-BULK](#)  
[FC3VREEEM38.4-T1](#) [FOX923CH-19.20M](#) [FXO-HC735-48](#) [FO7HSCAE48.0-BULK](#) [FOXSDLF/184-20](#) [F1100E-48.000MHZ](#) [FOXLF221-](#)  
[20](#) [F535L-24](#) [FO7HSCDM25.0-BULK](#) [FO7HSCDM20.0-BULK](#) [FOX/073-20-LF](#) [FXO-PC536R-150](#) [FOXSLF041](#) [F4100-75.00](#)