

Ultra-Low Phase Jitter LVPECL SMD Clock Oscillator

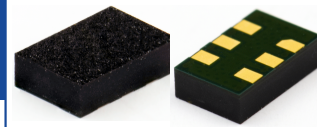
ASFLMX-156.250MHz-3BBA



ESD Sensitive



RoHS/RoHS II compliant



5.0 x 3.2 x 1.4mm

Moisture Sensitivity Level – MSL 3

FEATURES:

- 156.25MHz LVPECL
- Typical phase noise: 110fs (Integration range: 1.875MHz-20MHz)
- ±50ppm total frequency stability over -40°C to +85°C temperature range
- Industry standard 6-Pin 5 x 3.2mm LGA package

APPLICATIONS:

- 10/40/400 Gigabit Ethernet
- Fibre Channel 10G/12G SERDES

KEY ELECTRICAL SPECIFICATIONS

Absolute Maximum Ratings

Item	Minimum	Maximum	Unit	Condition
Supply Voltage	-0.3	+3.6	V	
Storage Temp.	-55	+125	°C	
Lead Temp.(soldering, 10s)		+260	°C	
ESD (HBM)		2	kV	

VDD = 2.375 - 3.63V, TA = -40°C to +85°C, outputs terminated with 50 Ohms to VDD - 2.⁽¹⁾

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency	156.250			MHz	
Operating Temperature (T _A)	-40		+85	°C	
Overall Frequency Stability ⁽²⁾	-50		+50	ppm	
Supply Voltage (V _{DD})	+2.375		+3.63	V	
Supply Current (I _{DD})			120	mA	
Output Logic Level	V _{OH}	V _{DD} -1.35	V _{DD} -1.01	V _{DD} -0.8	V
	V _{OL}	V _{DD} -2.0	V _{DD} -1.78	V _{DD} -1.6	V
Peak to Peak Output Swing (V _{swing})	0.65	0.77	0.95	V	Single ended
Start-up Time			20	ms	
Rise Time (Tr)	85		350	ps	RL=50Ω , CL=0pF 20% to 80%
Fall Time (Tf)	85		350		
Duty Cycle	45		55	%	
Phase Noise	Integration Range: 12kHz to 20MHz		165	fsRMS	
	Integration Range: 1.875MHz to 20MHz		110		

Notes:

1. Guaranteed after thermal equilibrium
2. Inclusive of initial accuracy, temperature drift, aging, shock, vibration from -40°C to +85°C.

PART IDENTIFICATION

ASFLMX-156.250MHz -3ABB -

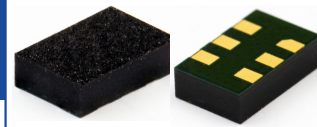
Packing
Blank: Bulk or Tube
T: Tape & Reel (1k/reel)

Ultra-Low Phase Jitter LVPECL SMD Clock Oscillator

ASFLMX-156.250MHz-3BBA

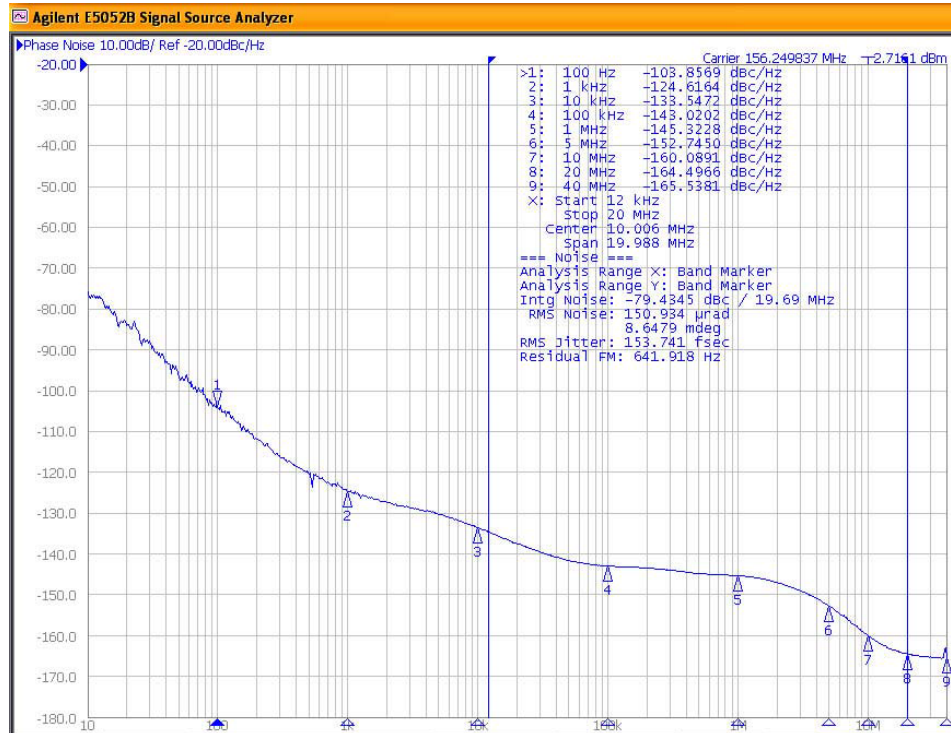
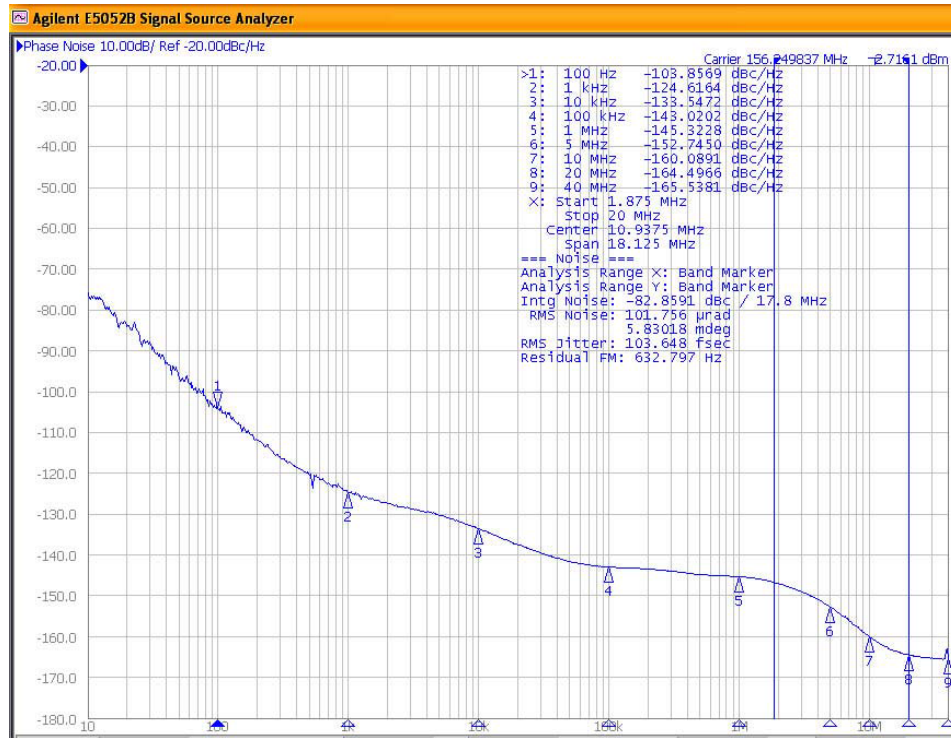


RoHS/RoHS II compliant



5.0 x 3.2 x 1.4mm

TYPICAL PHASE NOISE



ABRACON IS
ISO9001:2008
CERTIFIED



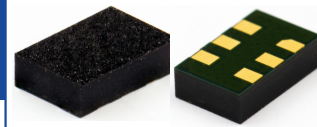
2 Faraday, Suite# B | Irvine | CA 92618 Revised: 04.15.15
 Ph. 949.546.8000 | Fax. 949.546.8001
 Visit www.abracon.com for Terms and Conditions of Sale

Ultra-Low Phase Jitter LVPECL SMD Clock Oscillator

ASFLMX-156.250MHz-3BBA

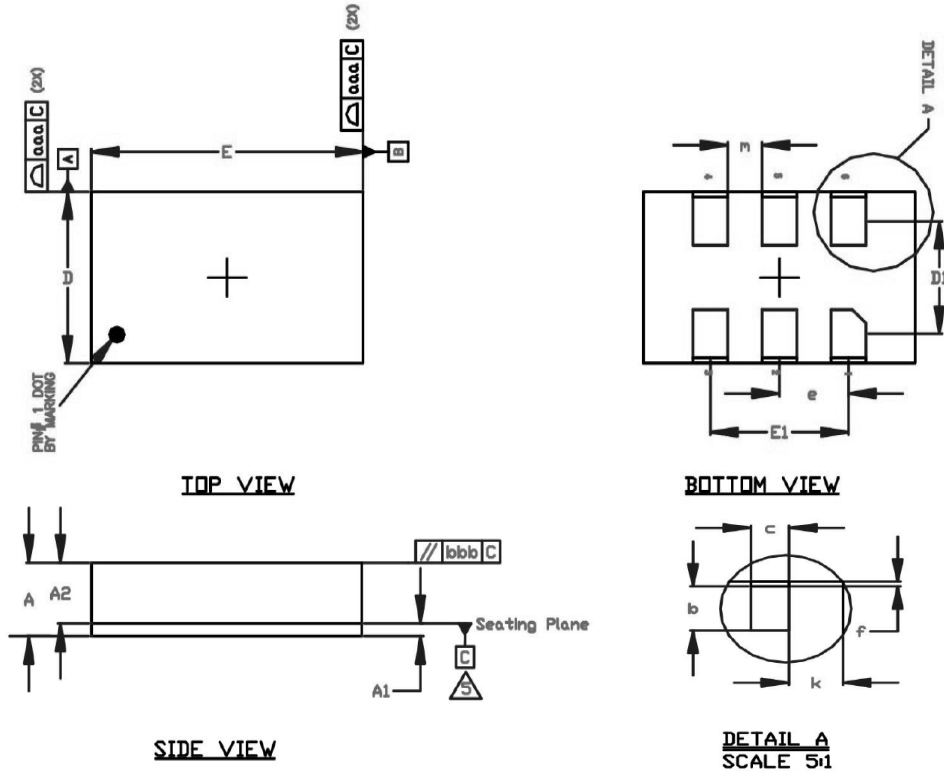


RoHS/RoHS II compliant



5.0 x 3.2 x 1.4mm

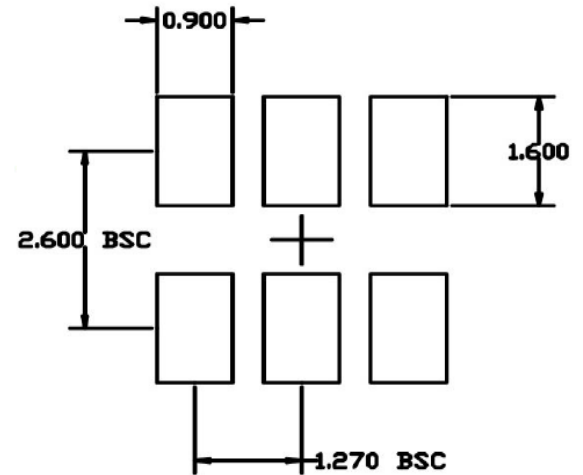
OUTLINE DIMENSION



Ref.	Min.	Nom.	Max.
A	1.260	1.330	1.400
A1	0.190	0.230	0.270
A2	1.070	1.100	1.130
D	3.100	3.200	3.300
D1	2.100 BSC		
E	4.900	5.000	5.100
E1	2.540 BSC		
b	0.850	0.900	0.950
c	0.850	0.900	0.950
e	1.270 BSC		
f	0.050	0.100	0.150
k	0.860	0.910	0.960
m	0.580	0.630	0.680
n	6		

Dimensional Tolerance	
aaa	0.100
bbb	0.070

Recommended Land Pattern



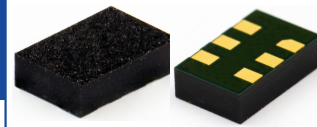
Dimensions: mm

Ultra-Low Phase Jitter LVPECL SMD Clock Oscillator

ASFLMX-156.250MHz-3BBA

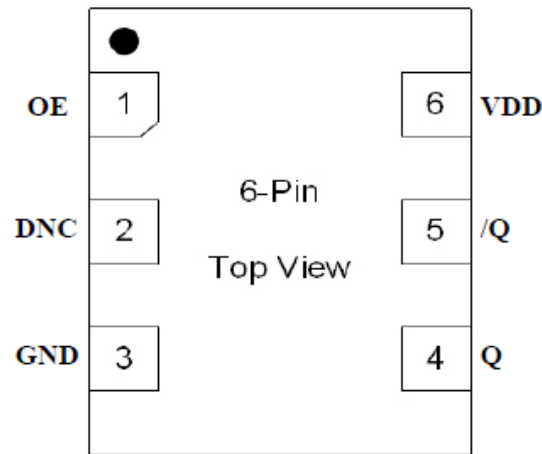


RoHS/RoHS II compliant



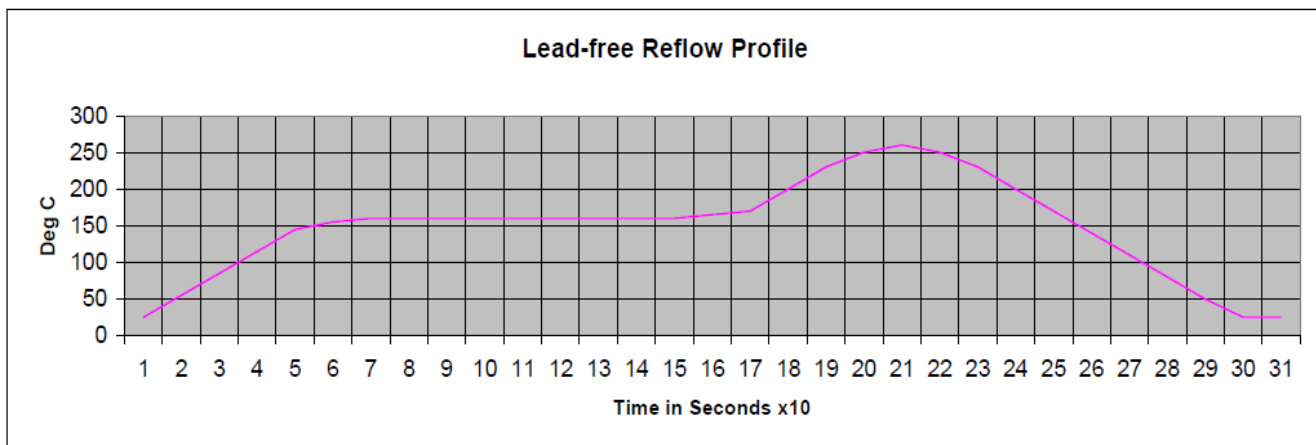
5.0 x 3.2 x 1.4mm

PIN CONFIGURATION



Pin #	Pin Name	Pin Type	Pin Level	Pin Function
1	OE	I, SE	LVC MOS	Output Enable, disables output to tri-state. 0 = Disabled, 1 = Enabled, 50k Ω Pull-up
2	DNC			Make no connection, leave floating
3	GND	PWR		Power Supply Ground
4	Q	O	LVPECL	Clock Output
5	/Q	O	LVPECL	Complimentary Clock Output
6	VDD	PWR		Power Supply

REFLOW PROFILE



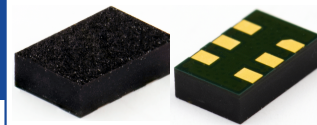
Parameters	Specifications
Average Ramp-up Rate	3°C /second max.
Pre-Heat Temp 150 – 200°C	60 – 180 second
Temp > 217°C	60 – 150 second
Time @ Peak Temperature	20 – 40 second
Peak Temperature	260°C + 0°C / -5°C
Ramp-down Rate	-6°C / second max.
Time 25°C to Peak Temp.	8 minutes max.

Ultra-Low Phase Jitter LVPECL SMD Clock Oscillator

ASFLMX-156.250MHz-3BBA



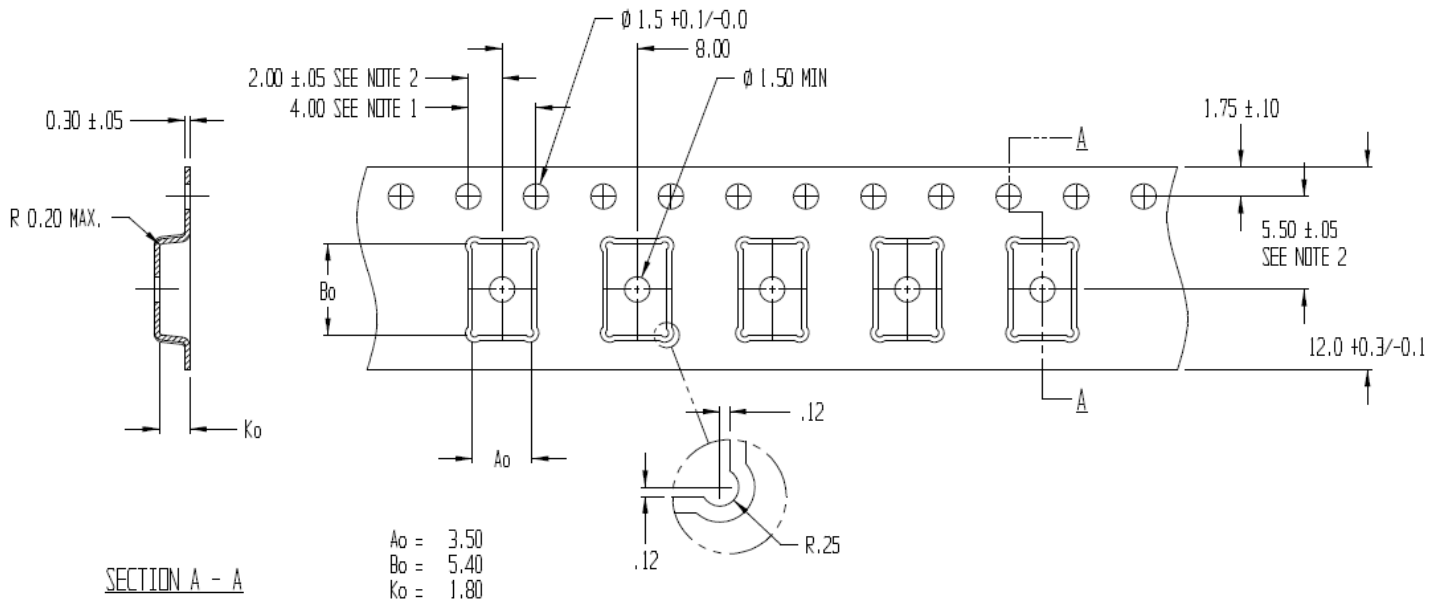
RoHS/RoHS II compliant



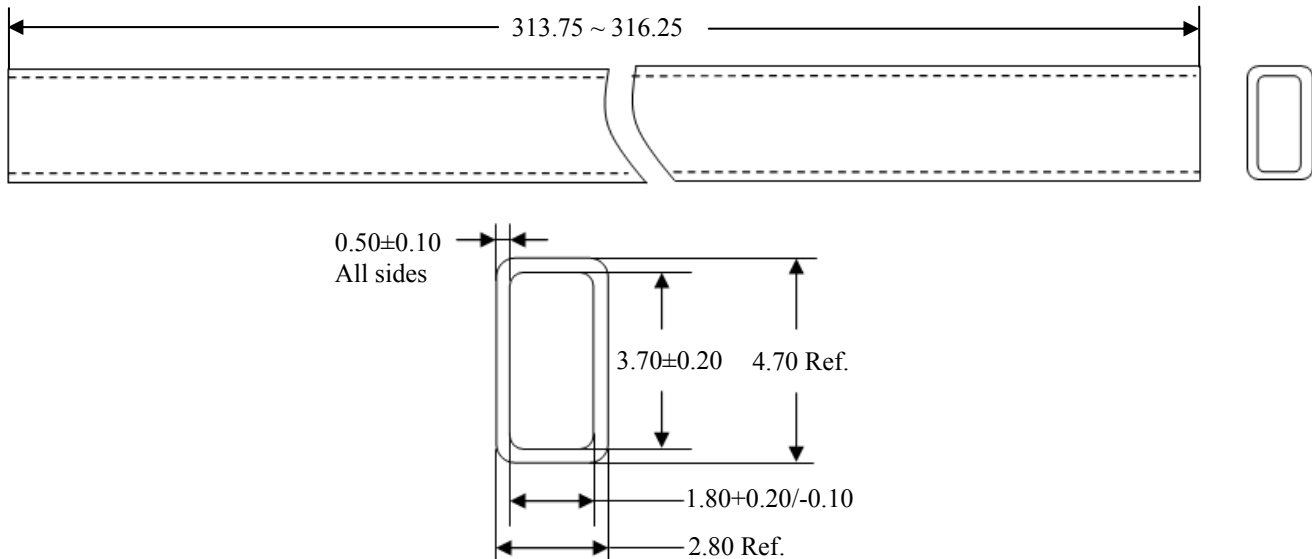
5.0 x 3.2 x 1.4mm

TAPE & REEL

T= Tape & Reel, 1000pcs/reel. Reel Size = 7-inch Reel
MSL-3 packaging applies to -T option.



Blank = Bulk or Tube (60pcs/tube)
MSL-3 packaging applies to MOQ=60 units (tube)



Dimensions: mm

ATTENTION: Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.

ABRACON IS
ISO9001:2008
CERTIFIED



2 Faraday, Suite# B | Irvine | CA 92618 **Revised: 04.15.15**
 Ph. 949.546.8000 | Fax. 949.546.8001
 Visit www.abracon.com for Terms and Conditions of Sale

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Standard Clock Oscillators](#) category:

Click to view products by [ABRACON](#) manufacturer:

Other Similar products are found below :

[601252](#) [F335-12](#) [F335-25](#) [F535L-33.333](#) [F535L-50](#) [ASV-20.000MHZ-LR-T](#) [ECS-2018-160-BN-TR](#) [EL13C7-H2F-125.00M](#) [MXO45HS-2C-66.6666MHZ](#) [SiT8209AI-32-33E-125.000000](#) [SM4420TEV-40.0M-T1K](#) [F335-24](#) [F335-40](#) [F535L-10](#) [F535L-12](#) [F535L-16](#) [F535L-24](#) [F535L-27](#) [F535L-48](#) [PE7744DW-100.0M](#) [CSX-750FCC14745600T](#) [ASF1-3.686MHZ-N-K-S](#) [XO57CTECNA3M6864](#) [ECS-2100A-147.4](#) [601251](#) [EP16E7E2H26.000MTR](#) [SIT8918AA-11-33S-16.000000G](#) [XO3003](#) [9120AC-2D2-33E212.500000](#) [9102AI-243N25E100.00000](#) [8208AC-82-18E-25.00000](#) [ASDK2-32.768KHZ-LR-T3](#) [8008AI-72-XXE-24.545454E](#) [8004AC-13-33E-133.33000X](#) [AS-4.9152-16-SMD-TR](#) [ASFL1-48.000MHZ-LC-T](#) [SIT8920AM-31-33E-25.0000](#) [DSC1028DI2-019.2000](#) [9121AC-2C3-25E100.00000](#) [9102AI-233N33E100.00000X](#) [9102AI-233N25E200.00000](#) [9102AI-232H25S125.00000](#) [9102AI-133N25E200.00000](#) [9102AC-283N25E200.00000](#) [9001AC-33-33E1-30.000](#) [XLH536125.000JS4I](#) [3921AI-2CF-33NZ125.000000](#) [5730-1SF](#) [PXA000010](#) [XLH535050.000000X](#)