

Fixed Frequency Synthesizer Surface Mount Module

Applications

- Basestations
- Mobile Radios
- Satellite Communications

Application Notes

- AN-107: Manual Soldering Technique
- AN-205: Measuring Phase Noise for SFS Series

Performance Specifications

	Min	Typ	Max	Units
Frequency	1249.92		1249.92	MHz
Phase Noise @ 10 kHz offset (1 Hz BW)		-100		dBc/Hz
Harmonic Suppression (2nd)		-10		dBc
Spurious Suppression		-70		dBc
Power Output	2	5	8	dBm
Load Impedance		50		Ω
Settling Time		1.8		mS
Operating Temperature Range	-40		85	$^{\circ}\text{C}$
Package Style		PLL-V12N		

Power Supply Requirements

	Min	Typ	Max	Units
Supply Voltage 1: PLL (Vcc, nom)		3		Vdc
Supply Voltage 2: VCO (Vcc, nom)		5		Vdc
Supply Current 1: PLL (Icc, typ)		10		mA
Supply Current 2: VCO (Icc, typ)		33		mA

Reference Oscillator Signal

	Min	Typ	Max	Units
Frequency		19.84		MHz
Phase Noise @1 kHz Offset		-145		dBc/Hz

Additional Notes

- Note1: Phase noise measurement was performed using a 10MHz CMOS reference oscillator with a phase noise of -145dBc/Hz @1KHz.
 Note2: For Reference oscillator frequency of <20MHz, ensure SR>50V/us. See Analog Devices ADF4106 application note for more details.

LFSuffix = RoHS Compliant. All specifications are subject to change without notice.

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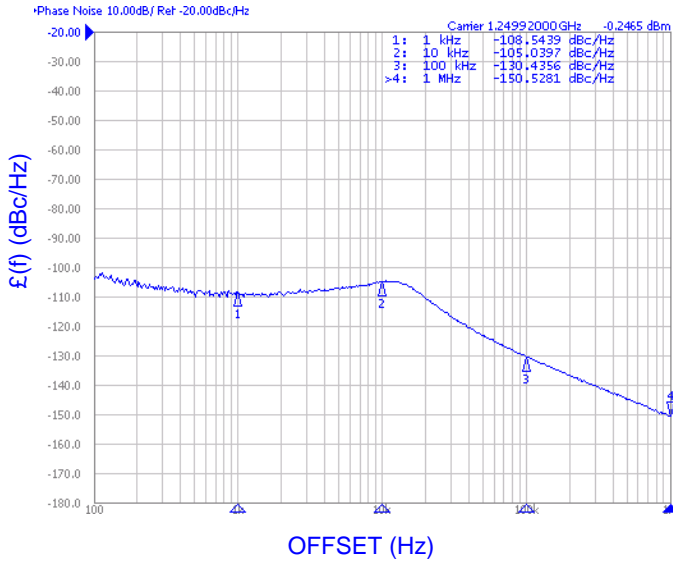
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Phase Noise, typ.

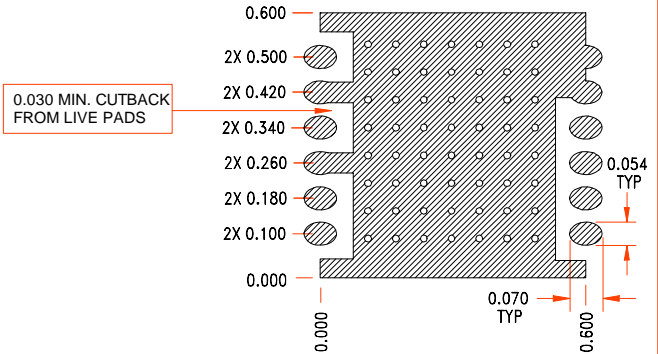
Footprint

PHASE NOISE (1 Hz BW, typical)



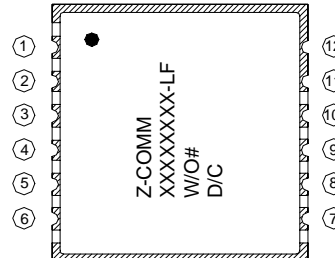
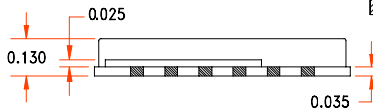
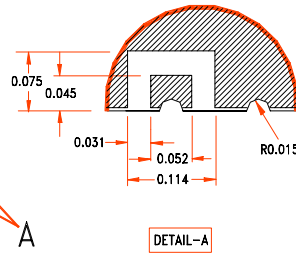
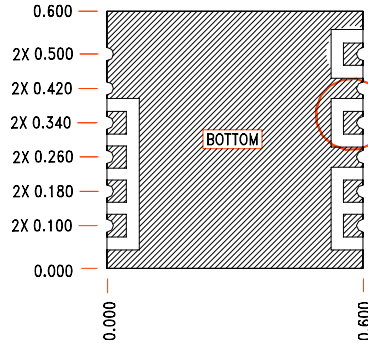
RECOMMENDED FOOTPRINT

SEVERAL HOLES OF ϕ 0.015 ON GND. PLANE ARE RECOMMENDED FOR GOOD GROUNDING.



Physical Dimensions

NOTE: ALL DIMENSIONS ARE IN INCHES
TOL: XXX: +/- 0.010



SFS PIN CONFIGURATION

1	Vcc (VCO)
3	RF OUT
5	MUX OUT
6	Vcc (CHIP)
8	N/C
10	REF IN
REST	GROUND

PVA PIN CONFIGURATION

1	Vcc (VCO)
3	RF OUT
5	MUX OUT
6	Vcc (CHIP)
7	CLOCK
8	DATA
9	ENABLE
10	REF IN
REST	GROUND