

## Fixed Frequency Synthesizer Surface Mount Module

### Applications

- Satellite Communication
- Downconvertors
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### Application Notes

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

### Performance Specifications

	Min	Typ	Max	Units
Frequency	4500		4500	MHz
Phase Noise @ 10 kHz offset (1 Hz BW)		-84		dBc/Hz
Harmonic Suppression (2nd)		-25		dBc
Spurious Suppression		-65		dBc
Power Output	-2	2.5	7	dBm
Load Impedance		50		$\Omega$
Settling Time		.3		mS
Operating Temperature Range	-20		80	$^{\circ}\text{C}$
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)		15		mA
Supply Current 2: VCO (Icc, typ)		33		mA

### Reference Oscillator Signal

	Min	Typ	Max	Units
Frequency		10		MHz
Phase Noise @1 kHz offset		-145		dBc/Hz

### Additional Notes

For Reference oscillator frequency of <20MHz, ensure  $\text{SR} > 50\text{V}/\mu\text{s}$ . See Analog Devices ADF4106 application note for more details. Pin 7, 8, and 9 are no-connect.

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

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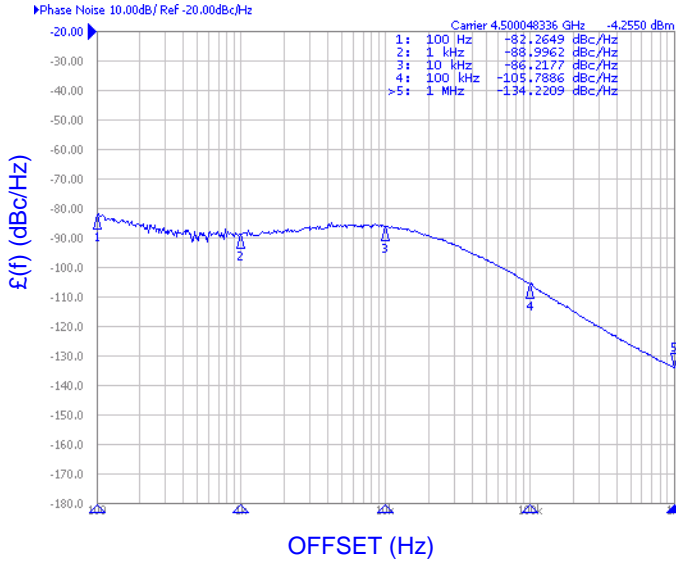
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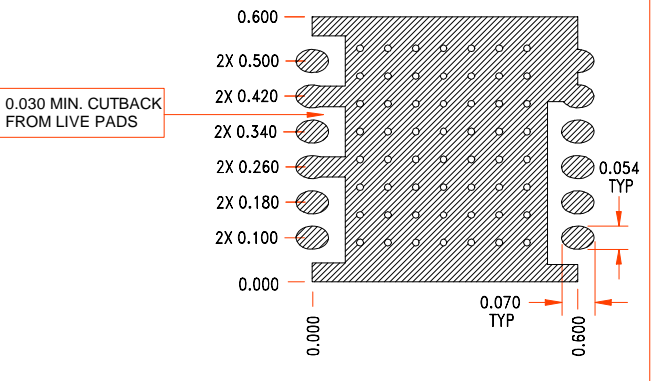
**Phase Noise, typ.**

**Footprint**

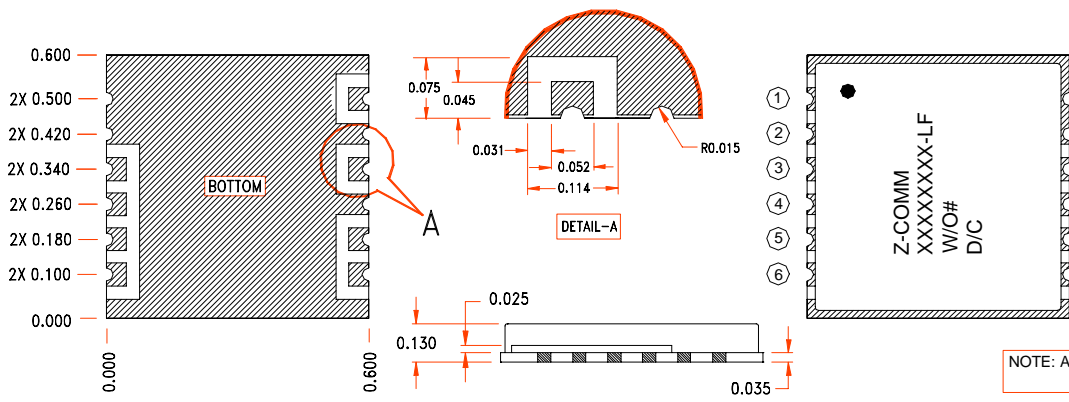
**PHASE NOISE (1 Hz BW, typical)**



**RECOMMENDED FOOTPRINT**  
SEVERAL HOLES OF  $\phi$  0.015 ON GND. PLANE ARE RECOMMENDED FOR GOOD GROUNDING.



**Physical Dimensions**



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

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