

## Fixed Frequency Synthesizer Surface Mount Module

### Applications

- GPS Systems
- Satellite Communications
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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	1401.4		1401.4	MHz
Phase Noise @ 10 kHz offset (1 Hz BW)		-103		dBc/Hz
Harmonic Suppression (2nd)		-20		dBc
Spurious Suppression		-70		dBc
Power Output	0	3	6	dBm
Load Impedance		50		$\Omega$
Settling Time		1		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)		12		mA
Supply Current 2: VCO (Icc, typ)		20		mA

### Reference Oscillator Signal

	Min	Typ	Max	Units
Frequency		10		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.  
 Note3: Pin 7,8,9 are no-connect

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

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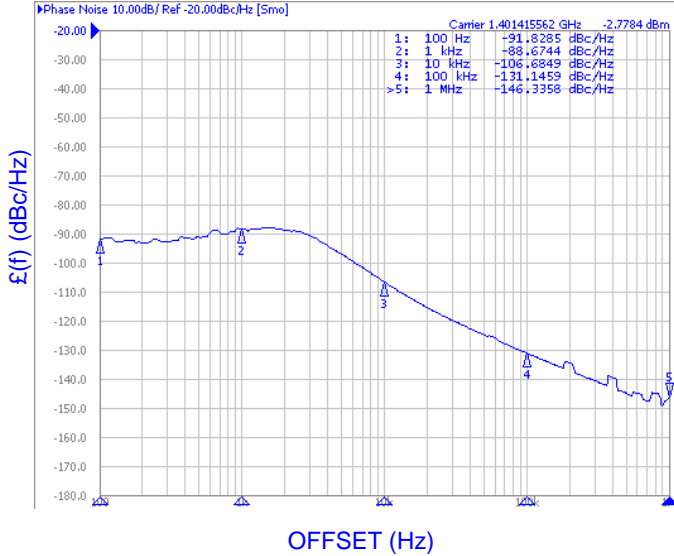
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Phase Noise, typ.

Footprint

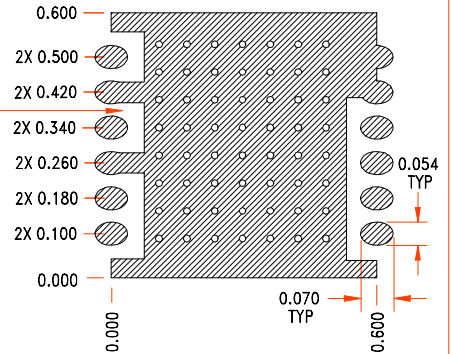
PHASE NOISE (1 Hz BW, typical)



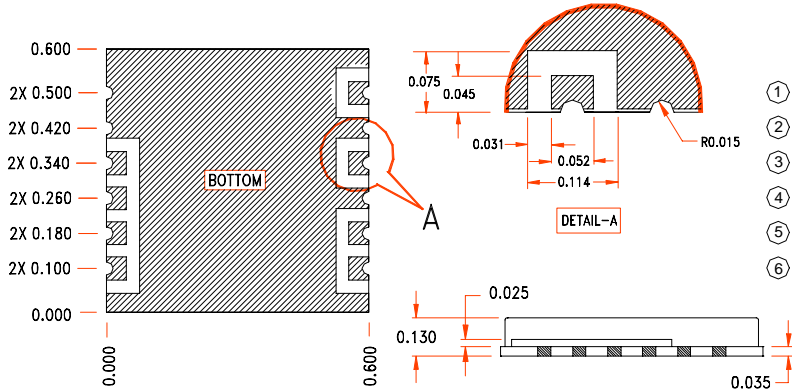
RECOMMENDED FOOTPRINT

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

0.030 MIN. CUTBACK FROM LIVE PADS



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