

## Fixed Frequency Synthesizer Surface Mount Module

### Applications

- Broadband transmission
- Satellite Communication
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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                             | 5375 |          | 5375 | MHz                |
| Phase Noise @ 10 kHz offset (1 Hz BW) |      | -84      |      | dBc/Hz             |
| Harmonic Suppression (2nd)            |      | -25      |      | dBc                |
| Spurious Suppression                  |      | -70      |      | dBc                |
| Power Output                          | -2   | 2.5      | 7    | dBm                |
| Load Impedance                        |      | 50       |      | $\Omega$           |
| Settling Time                         |      | .3       |      | mS                 |
| Operating Temperature Range           | -10  |          | 60   | $^{\circ}\text{C}$ |
| 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) |     | 11  |     | 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 SR>50V/us. See Analog Devices ADF4106 application note for more details.

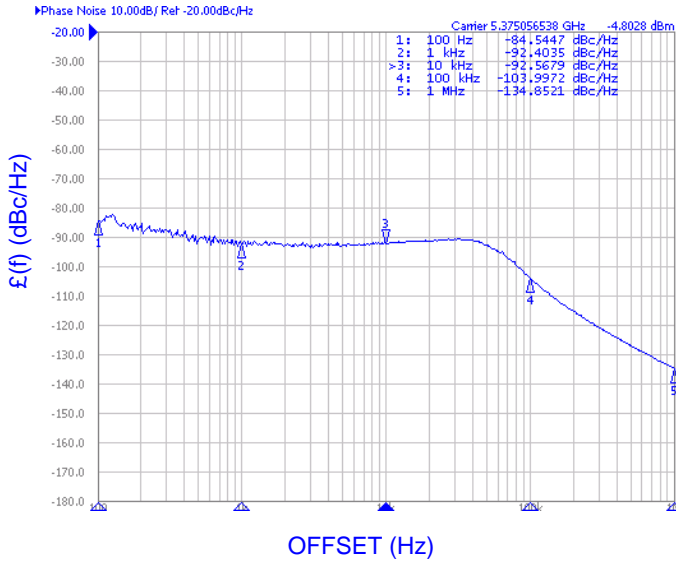
LFSuffix = RoHS Compliant. All specifications are subject to change without notice.

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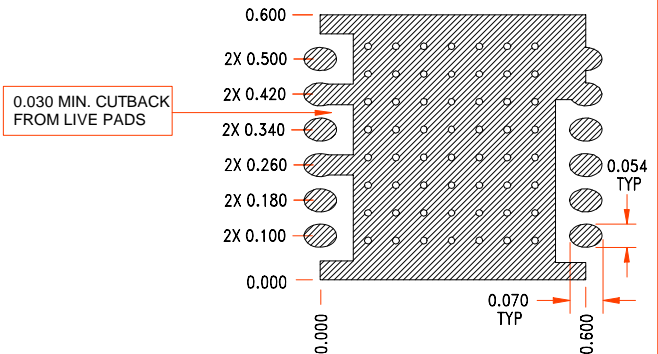
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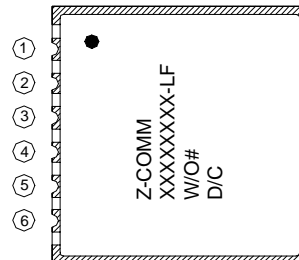
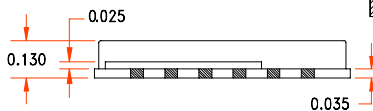
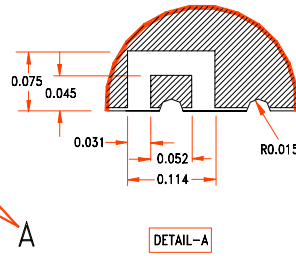
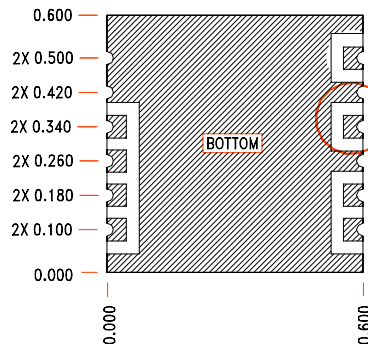
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**Phase Noise, typ.**
**Footprint**
**PHASE NOISE (1 Hz BW, typical)**

**RECOMMENDED FOOTPRINT**

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


**Physical Dimensions**

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     |