

Fixed Frequency Synthesizer Surface Mount Module

Applications

- Fixed Wireless
- Synthesizers
-

Application Notes

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

Performance Specifications

| | Min | Typ | Max | Units |
|---------------------------------------|------|----------|------|--------------------|
| Frequency | 2400 | | 2400 | MHz |
| Phase Noise @ 10 kHz offset (1 Hz BW) | | -109 | | dBc/Hz |
| Harmonic Suppression (2nd) | | -10 | | dBc |
| Spurious Suppression | | -70 | | dBc |
| Power Output | 4 | 6 | 8 | dBm |
| Load Impedance | | 50 | | Ω |
| Settling Time | | 2 | | mS |
| Operating Temperature Range | -40 | | 85 | $^{\circ}\text{C}$ |
| Package Style | | PLL-V12C | | |

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) | | 30 | | 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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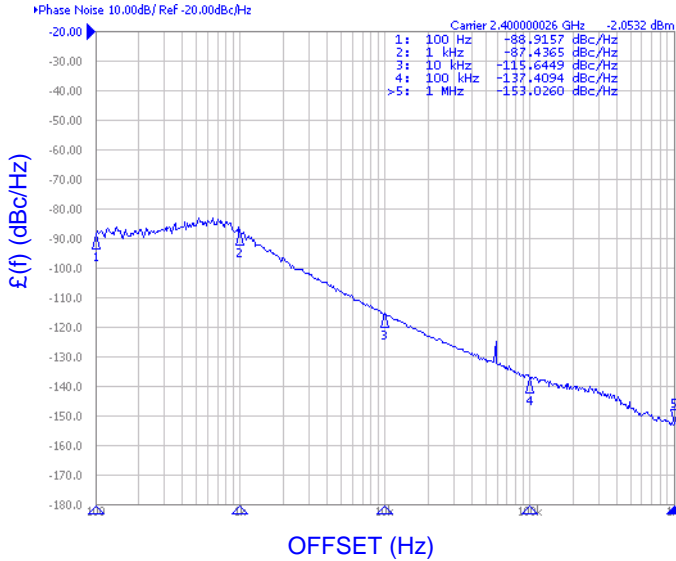
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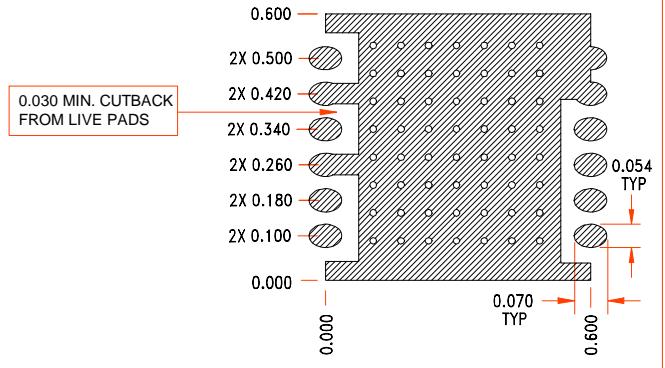
Phase Noise, typ.

Footprint

PHASE NOISE (1 Hz BW, typical)

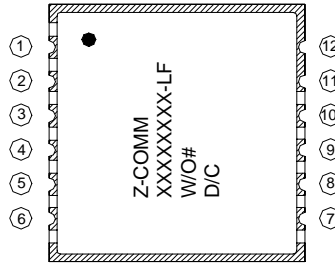
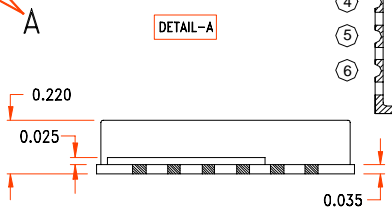
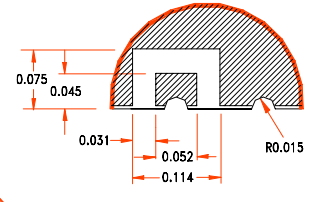
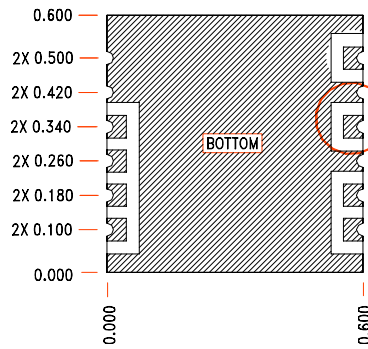


RECOMMENDED FOOTPRINT
SEVERAL HOLES OF ϕ 0.015 ON GND. PLANE ARE RECOMMENDED FOR GOOD GROUNDING.



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 |