

Fractional-N Phase-Locked Loop Surface Mount Module

Applications

- Fixed Wireless
- Test Equipments
-

Application Notes

- AN-107: Manual Soldering Technique
- AN-202: Programming Z-COMM PLLs

Performance Specifications

| | Min | Typ | Max | Units |
|---------------------------------------|------|----------|------|--------------|
| Frequency | 1050 | | 1850 | MHz |
| Phase Noise @ 10 kHz offset (1 Hz BW) | | -100 | | dBc/Hz |
| Harmonic Suppression (2nd) | | -10 | | dBc |
| Spurious Suppression | | -75 | | dBc |
| Power Output | 4 | 6 | 8 | dBm |
| Load Impedance | | 50 | | Ω |
| Step Size | | 1000 | | kHz |
| Phase Detector Frequency | | 32000 | | kHz |
| Settling Time | | .01 | | mS |
| Charge Pump Output Current | | 940 | | μ A |
| Operating Temperature Range | 0 | | 70 | $^{\circ}$ C |
| Package Style | | PLL-24S1 | | |

Power Supply Requirements

| | Min | Typ | Max | Units |
|----------------------------------|-----|-----|-----|-------|
| Supply Voltage 1: PLL (Vcc, nom) | | 5 | | Vdc |
| Supply Voltage 2: VCO (Vcc, nom) | | 15 | | Vdc |
| Supply Current 1: PLL (Icc, typ) | | 25 | | mA |
| Supply Current 2: VCO (Icc, typ) | | 40 | | mA |

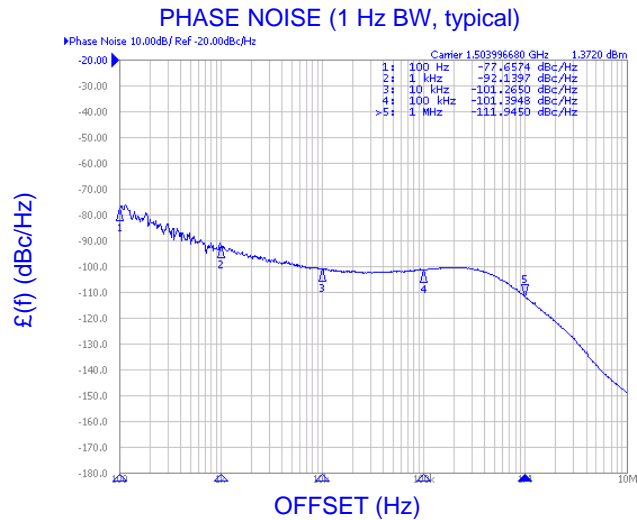
Reference Oscillator Signal

| | Min | Typ | Max | Units |
|---------------------------|-----|------|-----|--------|
| Frequency | | 32 | | MHz |
| Phase Noise @1 kHz offset | | -145 | | dBc/Hz |

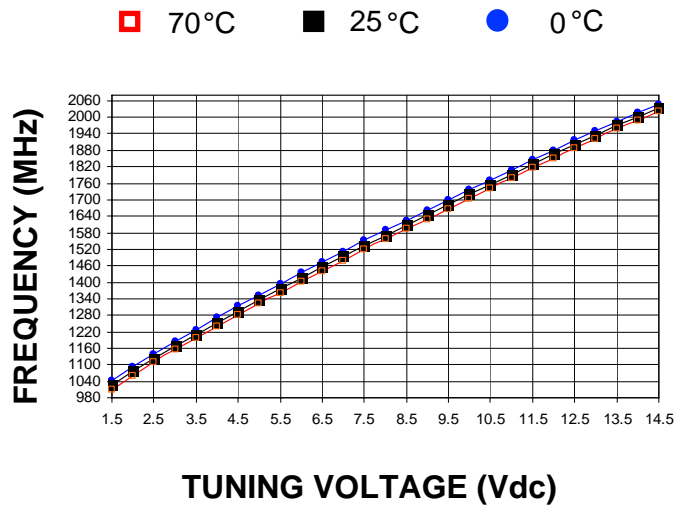
Additional Notes

Reference Oscillator Signal: 32 MHz f_{osc} <math>< 250</math> MHz. Frequency Synthesizer: Analog Devices - ADF4156. Smaller step sizes are possible with smaller PDF. Fractional-N PLL.

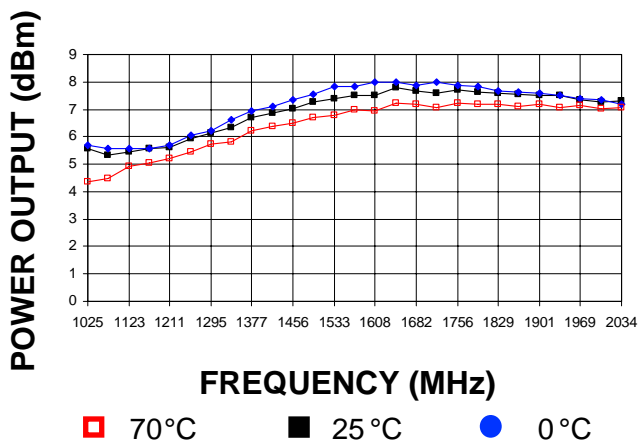
Phase Noise, typ.



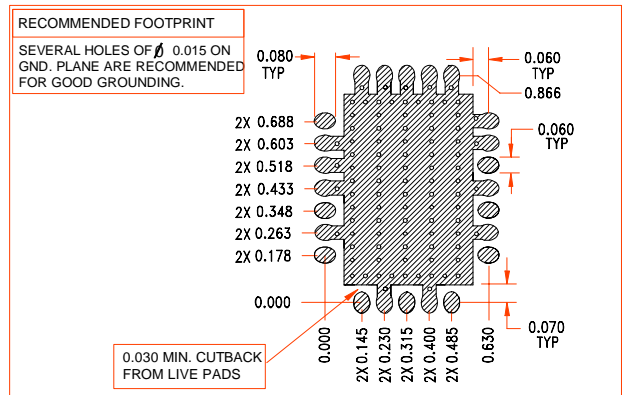
Tuning Curve, typ.



Power Curve, typ.



Footprint



Physical Dimensions

