

PHASE NOISE (1 Hz BW, typical)



$\mathcal{L}(f)$ (dBc/Hz)

FEATURES

- Frequency Range: 4198 - 4261 MHz
- Step Size: 250 KHz
- PLL-24H - Style Package

APPLICATIONS

- Microwave Radios
- Satellite Communications
- Direct Broadcast

OFFSET (Hz)

PERFORMANCE SPECIFICATIONS	VALUE	UNITS
Frequency Range	4198 - 4261	MHz
Phase Noise @ 10 kHz offset (1 Hz BW, typ.)	-96	dBc/Hz
Harmonic Suppression (2nd, typ.)	-12	dBc
Sideband Spurs (typ.)	-70	dBc
Power Output	0±3	dBm
Load Impedance	50	Ω
Step Size	250	KHz
Charge Pump Output Current	2500	μ A
Switching Speed (typ., adjacent channel)	2	mSec
Startup Lock Time (typ.)	2	mSec
Operating Temperature Range	-40 to 85	$^{\circ}$ C
Package Style	PLL-24H	
POWER SUPPLY REQUIREMENTS		
Supply Voltage (Vcc, nom.)	5	Vdc
Supply Current (Icc, typ.)	26	mA

All specifications are typical unless otherwise noted and subject to change without notice.

APPLICATION NOTES

- AN-107 : How to Solder Z-COMM VCOs / PLLs
- AN-200 : Mounting and Grounding of Z-COMM PLLs
- AN-201 : PLL Fundamentals AN-202 : PLL Functional Description

NOTES:

Reference Oscillator Signal: 5 MHz < f_{osc} < 100 MHz
 Frequency Synthesizer: Analog Devices - ADF4113

VCO TUNING CURVE, typ.

FREQUENCY (MHz)

□ 85 °C
■ 25 °C
● -40 °C

TUNING VOLTAGE (V_{dc})

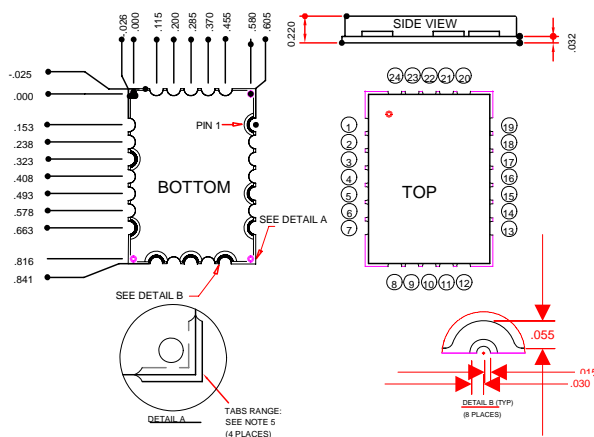
VCO POWER CURVE, typ.

OUTPUT POWER (dBm)

■ 25 °C

FREQUENCY (MHz)

PHYSICAL DIMENSIONS



1. The inside radius of all 24 half holes at the perimeter of the board are plated to provide a surface for the attachment of the PLL Module to the PCB. 16 pads are for grounding, 8 pads are for signal interface.
2. The surface of the shield is tin-plated and may be soldered to. The shield's base metal is cold-rolled steel.
3. The ground plane on the bottom side is ground and attaches to a ground track on the top side of the board as well as to the shield.
4. Unless otherwise noted all dimensions are in inches.
5. Unless otherwise noted all tolerances are as follows:
.xxx = ± .010.

P1 RF OUTPUT
P2-4 GROUND
P5 REFERENCE OSCILLATOR INPUT
P6 GROUND
P7 CLOCK
P8 DATA
P9 GROUND
P10 LOAD ENABLE
P11 GROUND
P12 LOCK DETECT
P13 VCC
P14 GROUND
P15 GROUND
P16 GROUND
P17 NO CONNECTION
P18-24 GROUND