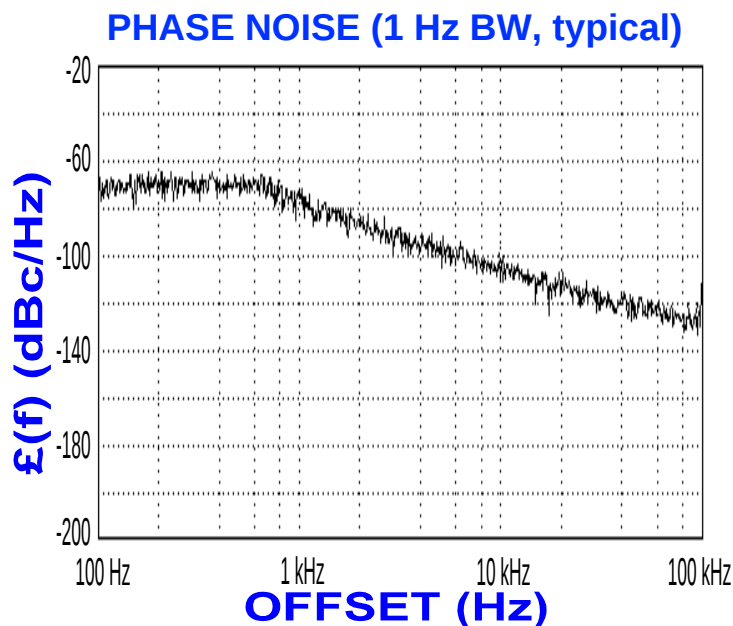




FEATURES

- Frequency Range: 787 - 821 MHz
- Step Size: 50 KHz
- PLL - Style Package

APPLICATIONS

- Basestations
- Mobile Radios
- Satellite Communications

PERFORMANCE SPECIFICATIONS

	VALUE	UNITS
Frequency Range	787 - 821	MHz
RMS Phase Error (100 Hz - 100 KHz)	2.0	°
Harmonic Suppression (2nd, typ.)	-10	dBc
Sideband Spurs (typ.)	-70	dBc
Power Output	3±2	dBm
Load Impedance	50	Ω
Step Size	50	KHz
Charge Pump Output Current	1000	μA
Switching Speed (typ., adjacent channel)	4	mSec
Startup Lock Time (typ.)	8	mSec
Operating Temperature Range	-40 to 85	°C
Package Style	PLL	

POWER SUPPLY REQUIREMENTS

Supply Voltage (Vcc, nom.)	5	Vdc
Supply Current (Icc, typ.)	17	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: $5 \text{ MHz} < f_{\text{osc}} < 40 \text{ MHz}$
 Frequency Synthesizer: National Semiconductor - LMX2316

POWER



POWER OUTPUT (dBm)



Figure 1: Dimensions and Pin Connections of the Shield

Dimensions:

- BOTTOM VIEW:** 0.000, 0.025, 0.148, 0.321, 0.495, 0.668, 0.841, 0.816, 0.025, 0.130, 0.290, 0.450, 0.580, 0.605.
- TOP VIEW:** 14 13 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1.
- DETAIL A:** 0.140, 0.52.
- DETAIL B (TYP):** 0.030, 0.015, 0.070.

Pin Connections:

Pin	Function
P1	RF OUTPUT
P2	GROUND
P3	REFERENCE OSCILLATOR INPUT
P4	CLOCK
P5	DATA
P6	LOAD ENABLE
P7	LOCK DETECT
P8	VCC
P9	MODULATION INPUT (OPTIONAL)
P10	NO CONNECTION
P11-14	GROUND

Notes:

- The inside radius of all 14 half holes at the perimeter of the board are plated to provide a surface for the attachment of the PLL Module to the motherboard. 5 pads are for grounding, 8 pads are for signal interface.
- The surface of the shield is tin-plated and may be soldered to the motherboard. The shield's base metal is brass.
- 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.
- Unless otherwise noted all dimensions are in inches.
- Unless otherwise noted all tolerances are as follows:
 .xxx = $\pm .010$

- | | |
|--------|-----------------------------|
| P1 | RF OUTPUT |
| P2 | GROUND |
| P3 | REFERENCE OSCILLATOR INPUT |
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| P6 | LOAD ENABLE |
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