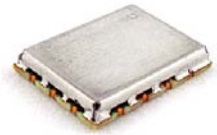
Z-Communications, Inc.
9939 Via Pasar • San Diego, CA 92126
TEL (858) 621-2700 FAX (858) 621-2722

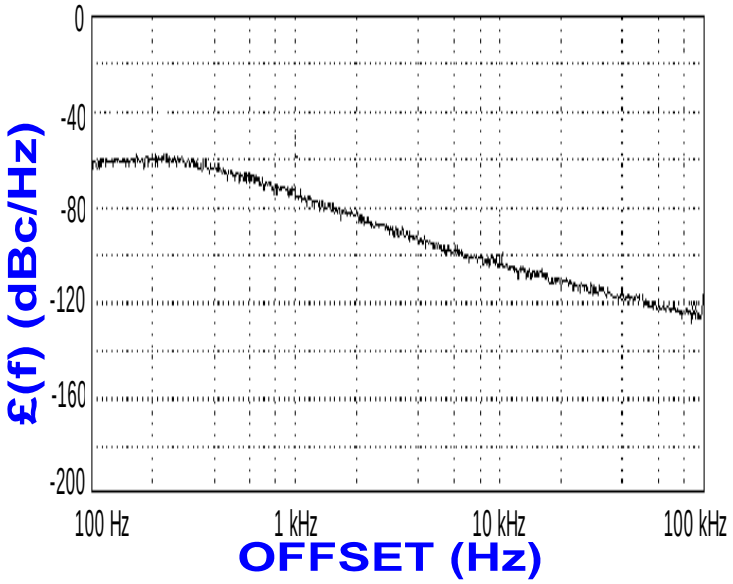
PSN1720A

PHASE LOCKED LOOP

Rev A1



PHASE NOISE (1 Hz BW, typical)



FEATURES

- Frequency Range: 1690 - 1760 MHz
- Step Size: 50 KHz
- PLL - Style Package

APPLICATIONS

- Telecommunications
- Satellite
- Telemetry

PERFORMANCE SPECIFICATIONS	VALUE	UNITS
Frequency Range	1690 - 1760	MHz
Phase Noise @ 10 kHz offset (1 Hz BW, typ.)	-104	dBc/Hz
Harmonic Suppression (2nd, typ.)	-15	dBc
Sideband Spurs (typ.)	-70	dBc
Power Output	3.5±2.5	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.)	6	mSec
Operating Temperature Range	-40 to 85	°C
Package Style	PLL	
POWER SUPPLY REQUIREMENTS		
Supply Voltage (Vcc, nom.)	5	Vdc
Supply Current (Icc, typ.)	33	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}<40 MHz

Frequency Synthesizer: National Semiconductor - LMX2326

VCO TUNING CURVE, typ.

FREQUENCY (MHz)

□ 70 °C
■ 25 °C
● 0 °C

TUNING VOLTAGE (Vdc)

VCO POWER CURVE, typ.

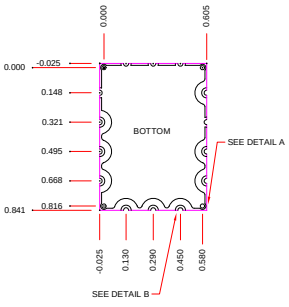
OUTPUT POWER (dBm)

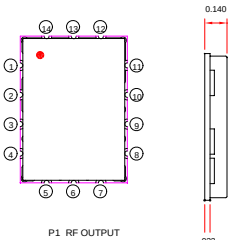
■ 25 °C

FREQUENCY (MHz)

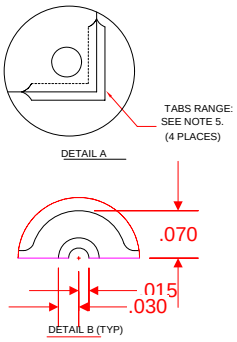
PHYSICAL DIMENSIONS

PLL
415-0078 REV. F
(DRAWING NOT TO SCALE)





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



NOTES:
1. 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 A PCB, IN 11 LOCATIONS, WITH 3 PADS BEING USED FOR ELECTROMECHANICAL INTERFACE. 14 SOLDER LOCATIONS REQUIRED.
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 IS GROUND AND ATTACHES TO A GROUND TRACK ON THE UPPER SIDE OF THE BOARD AS WELL AS THE SHIELD BY PTH.
4. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES.
5. UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS FOLLOWS:
TOLERANCES
.XXX= ± .010