Z-Communications, Inc.
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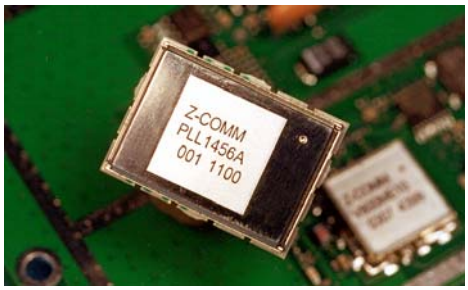
TEL (858) 621-2700 FAX (858) 621-2722

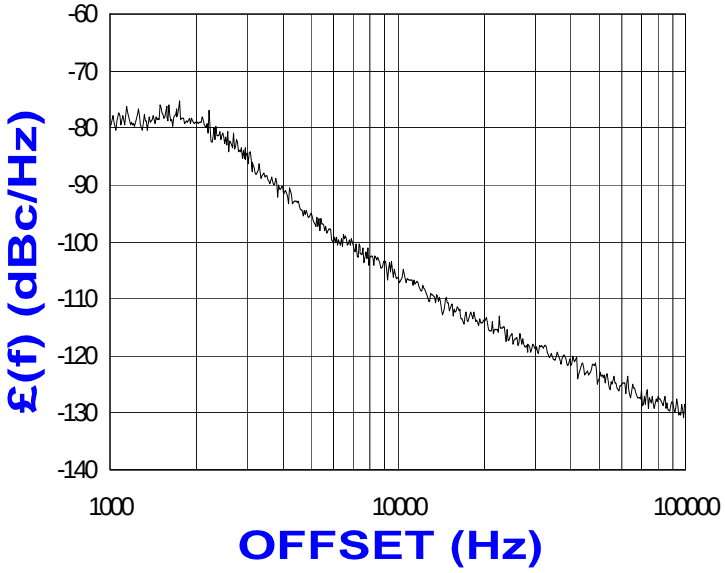
PSA2800C

PHASE LOCKED LOOP

Rev A1



PHASE NOISE (1 Hz BW, typical)



FEATURES

- Frequency Range: 2780 - 2820 MHz
- Step Size: 1000 KHz
- PLL-24H - Style Package

APPLICATIONS

- Digital Radio Equipment
- Fixed Wireless Access
- Satellite Communication Systems

PERFORMANCE SPECIFICATIONS	VALUE	UNITS
Frequency Range	2780 - 2820	MHz
Phase Noise @ 10 kHz offset (1 Hz BW, typ.)	-106	dBc/Hz
Harmonic Suppression (2nd, typ.)	-15	dBc
Sideband Spurs (typ.)	-70	dBc
Power Output	0±2	dBm
Load Impedance	50	Ω
Step Size	1000	KHz
Charge Pump Output Current	1250	µA
Switching Speed (typ., adjacent channel)	1	mSec
Startup Lock Time (typ.)	2	mSec
Operating Temperature Range	-40 to 85	°C
Package Style	PLL-24H	
POWER SUPPLY REQUIREMENTS		
Supply Voltage (Vcc, nom.)	5	Vdc
Supply Current (Icc, typ.)	40	mA

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

APPLICATION NOTES

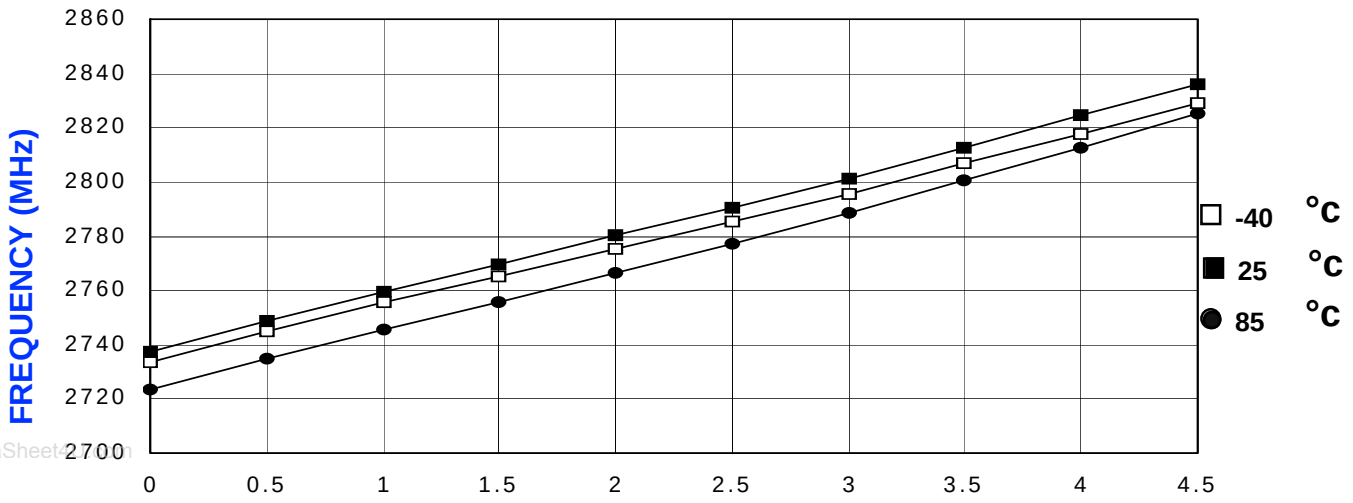
- AN-107 : How to Solder Z-COMM VCOs / PLLs
- AN-200 : Mounting and Grounding of Z-COMM PLLs
- AN-201 : PLL Fundamentals AN-202 : PLL Functional Description

NOTES:

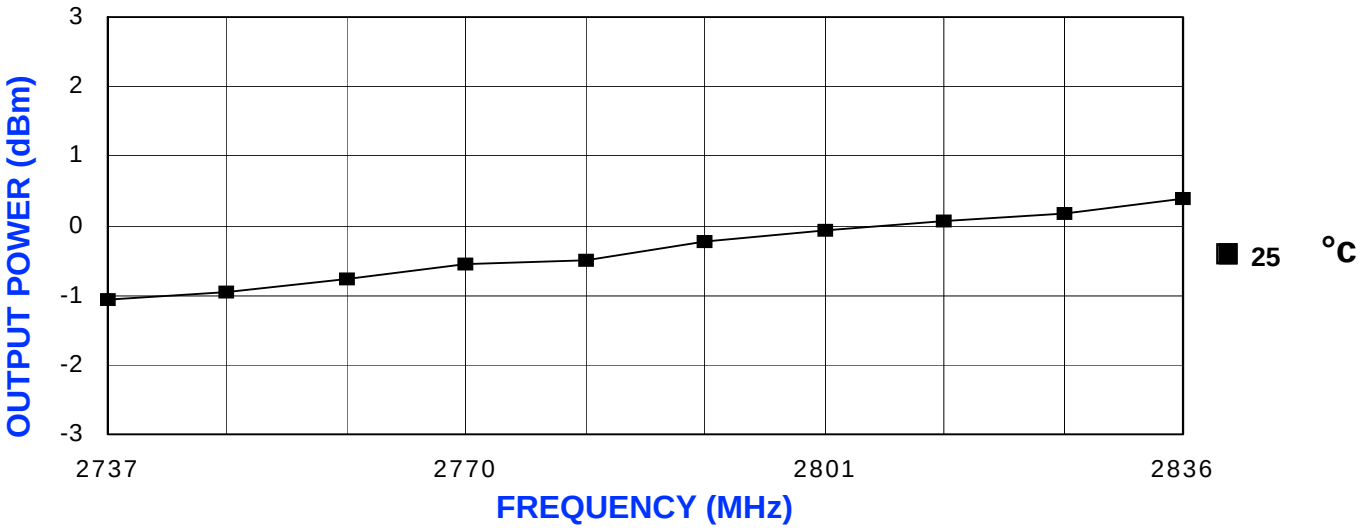
Reference Oscillator Signal: 5 MHz<f_{osc}<100 MHz Prescaler: 32

Frequency Synthesizer: Analog Devices - ADF4106

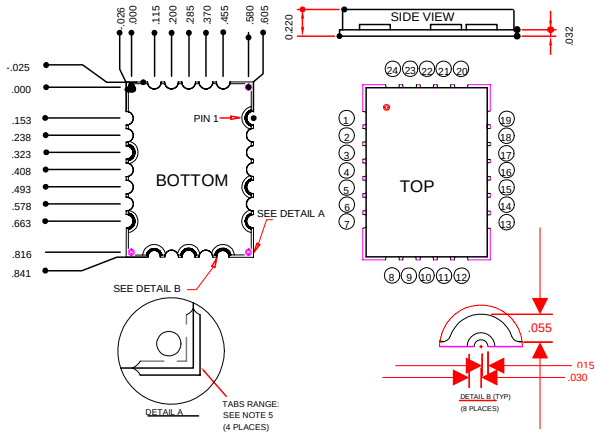
VCO TUNING CURVE, typ.



VCO POWER CURVE, typ.



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