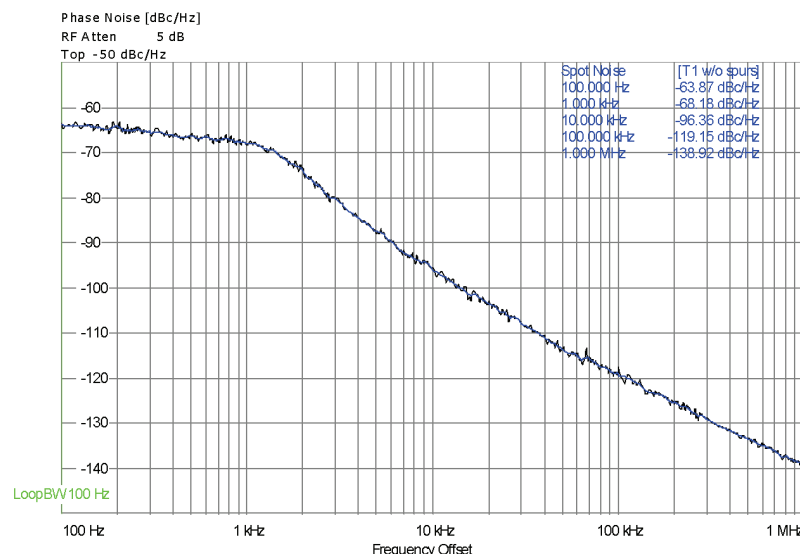
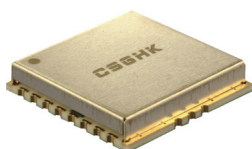




FEATURES

- ◆ Low Phase Noise
- ◆ Fast Settling Time
- ◆ Small Size, Surface Mount
- ◆ Integrated VCO, PLL IC, Loop Filter

APPLICATIONS

- ◆ Commercial Wireless Applications

Parameter	Min	Typ	Max	Units
Frequency Range -	1950		2100	MHz
Step Size		100		KHz
Startup Lock Time		10		ms
Charge Pump Output Current		5.0		mA
Output Power -	1.0		5.0	dBm
Phase Noise:				
1 kHz		-67	-62	dBc/Hz
10 kHz		-96	-91	dBc/Hz
100 kHz		-118	-113	dBc/Hz
Spurious Product - 100KHz		-80	-70	dBc
Reference Feedthrough -		-80	-70	dBc
Harmonic Suppression -2nd		-15		dBc
Output Impedance -		50		Ω
Operating Temperature Range	-40		+85	$^{\circ}\text{C}$
Package Type	PLL-15(15.24X15.24X3.5mm)			

POWER SUPPLY REQUIREMENTS

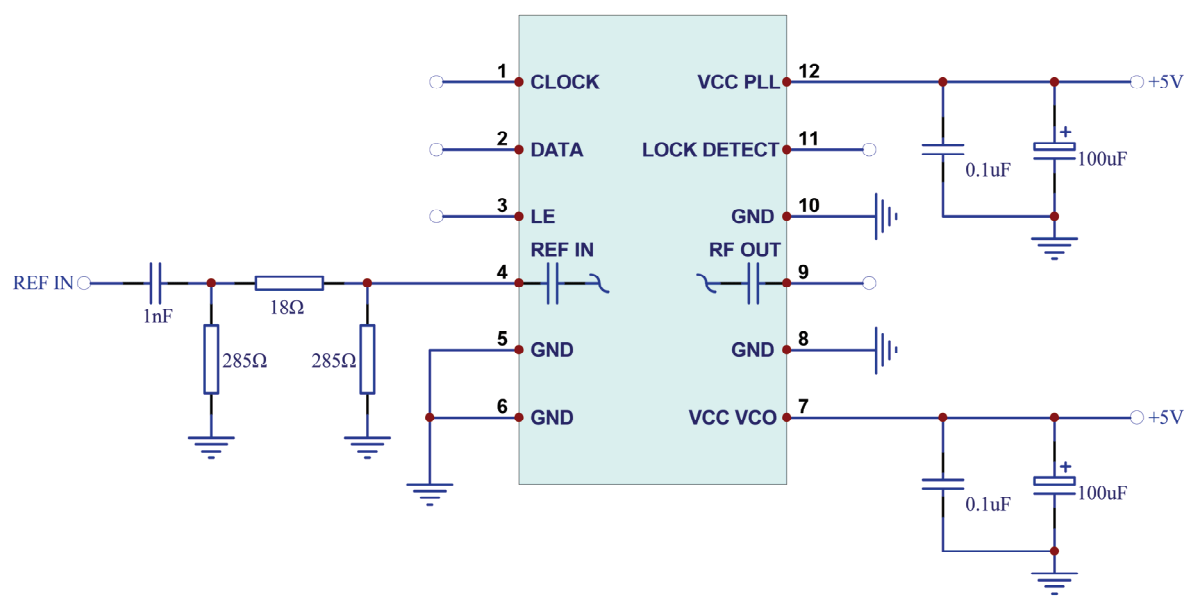
Supply Voltage	4.75	5	5.25	Vdc
Supply Current		32	35	mA

NOTES

Reference Input Frequency	5	13	104	MHz
Reference Input Voltage	0.6		2.8	Vp-p
Phase Noise @ 1 kHz offset		-145		dBc/Hz

Recommended Application Circuit

Note: REF IN and RF OUT ports are internally AC coupled.

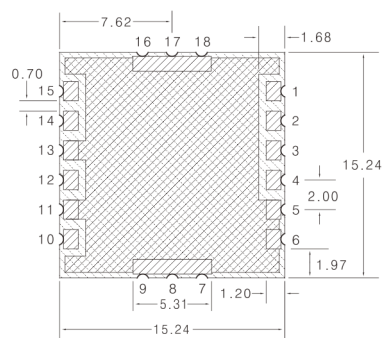
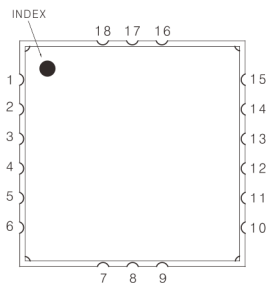


PLL Programming

Frequency Synthesizer PLL					ADF4113					3-wire serial 3.3V CMOS						
Register Map NOTE 1	F_Register	Prescaler Value		Power-Dow2	Current Setting2		Current Setting 1	Timer Counter Control	Fastlock Mode	Fastlock Enable	CP Three-State	PD Polarity	Muxout Control	Power-Down 1	Counter Reset	Control Bits
		10		0	111		111	0000	0	0	0	1	001	0	0	10
	R_Register @REF:13MHz PFD:100KHz	Reserved	DLY	SYNC	Lock Detect Precision	Test ModeBits	Anti-Backlash Width	14-BIT Reference Counter, R								Control Bits
		0	0	0	0	00	00	00000010000010								00
	N_Register @2025MHz	Reserved		CP Gain	13-Bit B Counter							6-Bit A Counter				Control Bits
		00		0	0001001111000							011010				01

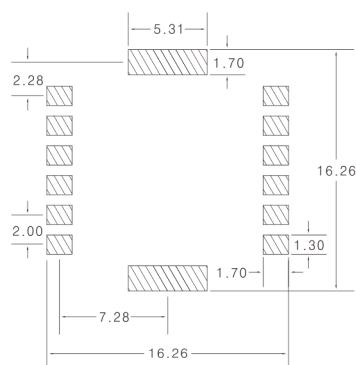
Note 1: Registers Load Sequence: Initialization Register, F Register, R Register , N Register.

PLL-15(15.24X15.24X3.5mm)



PIN	APPLICATION
1	CLOCK
2	DATA
3	ENABLE
4	REF IN
10	VCC(VCO)
12	RF OUT
14	LOCK DETECT
15	VCC(CHIP)

ALL OTHER PINS ARE GROUND



Units: mm

 METALLIZATION SOLDER RESIST