RF PLL Synthesizer
PLQ-SERIES

Features

- Frequency up to 3 GHz
- Low Profile available: 3.9 mm
- Low Phase Noise
- Custom options available

Applications

- Telecommunications
- High Performance Radio
- Base Stations
- Instrumentation

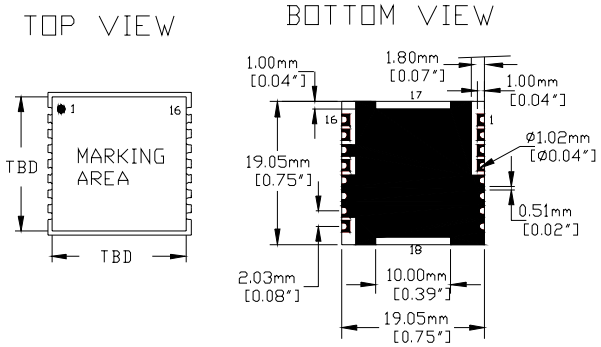


Description

The PLQ-type is a RF PLL synthesizer designed to meet the requirements for a variety of applications.Stationary or battery-operated, the unit is available in many different versions from LowNoise, HighPower, LinearTuning, LowProfile or WideBand. Components are selected for high-Q and tight tolerances.

Raltron's PLQ-series is developed and manufactured in its ISO900:2k certified facilities. RF-simulation (CAE), automated test-equipment (Agilent VCO/PLL-Analyzer) and statistical process control (SPC) are integral part of R&D and manufacturing – which ensures minimal process variances and a high degree of repeatability.

Mechanical Specification



PIN OUT FOR PLL	
PIN	PIN OUT FOR PLL
1	CLOCK
2	DATA
3	ENABLE
4	OSC. IN
9	Vcc (dc+5V IN)
13	REF. OUT
15	Vcp (dc+5V IN)
16	LOCK DETECT
ALL OTHERS PINS ARE GROUND	

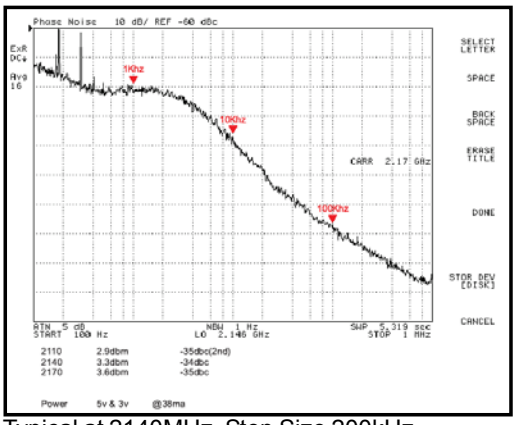
Electrical Specification

PARAMETER	COMMENTS, EXAMPLES	SYMBOL	MIN	TYP	MAX	UNIT
Max Frequency	Currently available in PLR-package	fo	700		3000	MHz
Step Size	Based-on PLL IC used.		10		1000	KHz
Supply Voltage	Battery operated 3.3V and 5V	Vcc	3.3		5	V
Supply Current(VCO/PLL)	Dependent on Frequency and Output Power	Icc			40	mA
Output Power	Output Power Tolerance is typ. ±6dBm ± 2 dB	Pout	4	+6	+8	dBm
Harmonic Suppression	Dependent on Tuning Range and Freq	a(2fo)		-25		dBc
Input Frequancy		fin		10		MHz
Input Frequency Amplitude		fin(A)	0.5		2	Vp-p

General Specification

1. Load Impedance is 50 Ohms.
2. Operating temperature range is typically –40°C…+85°C.
3. The package is non-hermetic. Substrate is glass-reinforced laminate, the cover is folded nickel-silver.
4. Bypass-capacitors (ceramic) from Vcc to Ground are recommended: 1nF||100pF.
5. Customized specifications may deviate from this General Specification.
6. Phase-noise performance depends on the individual specification. Phase Noise is strongly dependent on (a) frequency (b) supply voltage and (c) step size.
7. PLL Ics Available; AD4113
   LMX2526
8. For other requirements contact factory.

Phase Noise



Typical at 2140MHz, Step Size 200kHz

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