

### Features

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

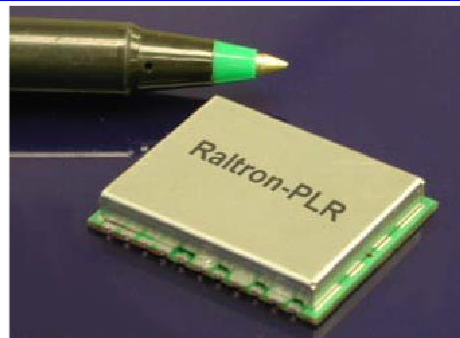
### Applications

- Telecommunications
- High Performance Radio
- Base Stations
- Instrumentation

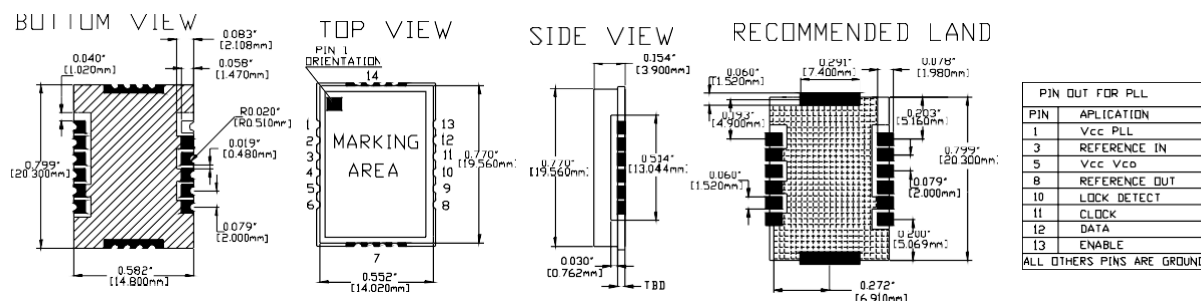
### Description

The PLR-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 PLR-series is developed and manufactured in its ISO9002:2k 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



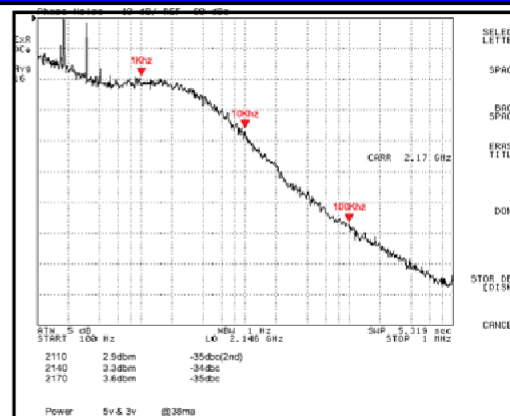
### Electrical Specification

| 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. $\pm 6\text{dBm} \pm 2\text{ dB}$ | Pout   | 4   | +6  | +8   | dBm  |
| Harmonic Suppression      | Dependent on Tuning Range and Freq                               | a(2fo) |     | -25 |      | dBc  |
| Input Frequency           |                                                                  | 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  $-40^{\circ}\text{C} \dots +85^{\circ}\text{C}$ .
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:  $1\text{nF} || 100\text{pF}$ .
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



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