



## Synthesizer, SMT

### Frequency

PLL25B-124N

#### Features

- ◆ Low Power Consumption
- ◆ Low Phase Noise
- ◆ Fast Settling Time
- ◆ Integrated VCO, PLL IC, Loop Filter

#### Applications

- ◆ Commercial Wireless Applications

Electrical Specifications,  $T_A = +25^{\circ}\text{C}$ ,  $V_{CC} = +5\text{V}$  (unless otherwise stated)

| Parameter                       | Units              | Min   | Typ     | Max   |
|---------------------------------|--------------------|-------|---------|-------|
| Frequency Range –               | MHz                |       | 124.416 |       |
| Phase Detector Freq             | MHz                |       | 3.25    |       |
| Settling Time – To within 1 kHz | mSec               |       | 2.2     |       |
| Output Power –                  | dBm                | 7.0   |         | 10.0  |
| Output Phase Noise:             |                    |       |         |       |
| 1 kHz                           | dBc/Hz             |       | -98     | -95   |
| 10 kHz                          | dBc/Hz             |       | -127    | -124  |
| 100 kHz                         | dBc/Hz             |       | -152    | -149  |
| Power Supply –                  | Volts              | +4.75 | 5.00    | +5.25 |
| Supply Current                  | mA                 |       | 43      | 47    |
| RF Charge Pump Current Setting  | mA                 |       | 5.0     |       |
| Spurious Product – 3.25MHz      | dBc                |       | -80     | -70   |
| Reference Feedthrough –         | dBc                |       | -80     | -70   |
| Harmonic Suppression:           |                    |       |         |       |
| 2nd Harmonic                    | dBc                |       | -30     |       |
| 3rd Harmonic                    | dBc                |       | -40     |       |
| Ref Osc Signal                  |                    |       |         |       |
| Frequency                       | MHz                |       | 13      |       |
| Amplitude                       | Vp-p               | 0.4   |         | 2     |
| Phase Noise – 1 kHz             | dBc/Hz             |       | -145    |       |
| Input Impedance                 | k $\Omega$         |       | 10      |       |
| Output Impedance –              | $\Omega$           |       | 50      |       |
| Operating Temperature Range     | $^{\circ}\text{C}$ | -40   |         | +85   |

#### Comments

All specifications apply with a 50 ohm load impedance.