



## Synthesizer, SMT

Frequency 952-954MHz

PLL15-954M

### Features

- ◆ Low Cost
- ◆ 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                | 952  |      | 954  |
| Step Size                       | kHz                |      | 50   |      |
| Settling Time – To within 1 kHz | mSec               |      | 15   | 18   |
| Output Power –                  | dBm                | 0.0  |      | 4.0  |
| Output Phase Noise:             |                    |      |      |      |
| 1 kHz                           | dBc/Hz             |      | -84  | -80  |
| 10 kHz                          | dBc/Hz             |      | -113 | -100 |
| 100 kHz                         | dBc/Hz             |      | -132 | -129 |
| Power Supply –                  | Volts              | 4.75 | 5    | 5.25 |
| Supply Current                  | mA                 |      | 25   | 30   |
| Spurious Product – 50 kHz       | dBc                |      | -80  | -75  |
| Reference Feedthrough –         | dBc                |      | -80  | -75  |
| Harmonic Suppression:           |                    |      |      |      |
| 2nd Harmonic                    | dBc                |      | -15  | -10  |
| 3rd Harmonic                    | dBc                |      | -20  | -10  |
| Ref Osc Signal                  |                    |      |      |      |
| Frequency                       | MHz                |      | 10   |      |
| Amplitude                       | dBm                | -5.0 |      | 0.0  |
| Phase Noise – 1 kHz             | dBc/Hz             |      | -145 |      |
| Input Impedance                 | k $\Omega$         |      | 10   |      |
| Output Impedance –              | $\Omega$           |      | 50   |      |
| Operating Temperature Range     | $^{\circ}\text{C}$ | -40  |      | +85  |
| PLL IC                          | ADF4113            |      |      |      |

### Comments

All specifications apply with a 50 ohm load impedance.