# **PLL Synthesizer**

# **PLF Series**



#### **Product Features**

- PLL + VCO + ROM Type
- Excellent Phase Noise
- Low Spurious
- Surface Mount Package
- $\bullet$  RF Frequencies from 10MHz to 5.8GHz
- 5.0V DC Power Supply
- Pb Free / RoHS Compliant

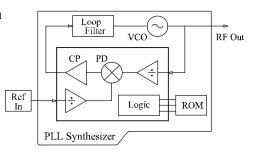
# Applications

- Wireless Communication System
- Base Station
- Cable Telephone, TV
- Other Wireless Communication Systems

# **Series View**

 $\bullet \ F: \quad \text{Fixed (Rom included)}$ 

# **Test Configuration**



# Specifications

| premeations                          | (° r · · · · · · · · · · · · · · · · · · |           |                 |  |  |
|--------------------------------------|--|-----------|-----------------|--|--|
| PARAMETER                            | SPECIFICATION                            | UNIT      | CONDITION       |  |  |
| Storage Temperature                  | -40 ~ +85                                | °C        |                 |  |  |
| Operating Temperature                | $-30 \sim +80$                           | °C        |                 |  |  |
| Frequency                            | 10 ~ 5800                                | MHz       |                 |  |  |
| Supply Voltage VCC (PLL) / VCC (VCO) | 3~5                                      | V         |                 |  |  |
| Reference Frequency                  | 5~100                                    | MHz       |                 |  |  |
| Channel Step                         | 10 ~ 10000                               | KHz       |                 |  |  |
| Output Power                         | -3 ~ +7                                  | dBm       |                 |  |  |
| Current Consumption                  | 40                                       | mA / Max  |                 |  |  |
| Spurious                             | -70                                      | dBc / Max |                 |  |  |
| Lock Time                            | 0.1 ~ 30                                 | ms        |                 |  |  |
| Phase Noise                          | -105                                     | dBc/Hz    | @ 10 KHz Offset |  |  |
| Output Impedance                     | 50                                       | Ω         |                 |  |  |

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Package Type : PS-16 / PS-26

PS-32 / PS-42



(Operating Temperature:-30°C~+80°C)

• All specifications may change without notice.

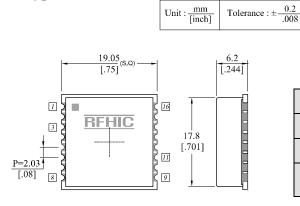
• Version 5.2

**PLF Series** 



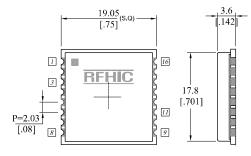
#### **Package Dimensions**

### PS-16 type

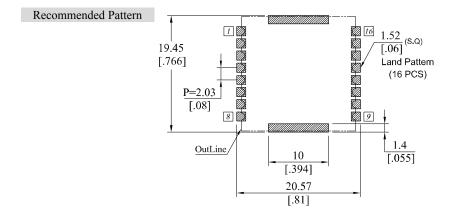


| PLF Series Pin Assignment |              |    |                |    |                           |  |
|---------------------------|--------------|----|----------------|----|---------------------------|--|
| 1                         | GND          | 2  | GND            | 3  | GND                       |  |
| 4                         | Ref. IN      | 9  | VCC(VCO)       | 13 | RF Out                    |  |
| 15                        | VCC<br>(PLL) | 16 | Lock<br>Detect | A  | All other pins<br>are GND |  |

#### PS-26 Type



| PLF Series Pin Assignment |              |    |                |    |                           |  |
|---------------------------|--------------|----|----------------|----|---------------------------|--|
| 1                         | GND          | 2  | GND            | 3  | GND                       |  |
| 4                         | Ref. IN      | 9  | VCC(VCO)       | 13 | RF Out                    |  |
| 15                        | VCC<br>(PLL) | 16 | Lock<br>Detect | A  | All other pins<br>are GND |  |



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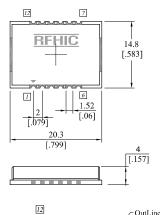
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- Version 5.2

**PLF Series** 



#### PS-32 type



21.34

[.84]

1.52 [.06]

15.24 [.6] (S.Q) -

RFHIC

1

1 1

6

OutLine

7.4 [.291] [.417] ۲

1.52

[.06]

12

7

14.6 [.575]

15.82 10.6 [.623]

(S.Q) Land Pattern

3.5 138

(12 PCS)

| PLF Series Pin Assignment |          |    |         |                           |          |
|---------------------------|----------|----|---------|---------------------------|----------|
| 1                         | VCC(PLL) | 3  | Ref. IN | 5                         | VCC(VCO) |
| 7                         | RF Out   | 9  | LD      | 10                        | GND      |
| 11                        | GND      | 12 | GND     | All other pins<br>are GND |          |

**Recommended Pattern** 

| PLF Series Pin Assignment |              |    |                |                           |        |  |
|---------------------------|--------------|----|----------------|---------------------------|--------|--|
| 1                         | GND          | 2  | GND            | 3                         | GND    |  |
| 4                         | Ref. IN      | 7  | VCC(VCO)       | 10                        | RF Out |  |
| 11                        | VCC<br>(PLL) | 12 | Lock<br>Detect | All other pins<br>are GND |        |  |

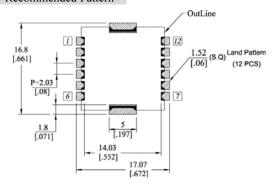
Recommended Pattern

P=2.03 [.08]

PS-42 type

15.24

[.6]



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