



# **PLL Synthesizer Module**

#### **Features**

· +3 dBm Output Level at 2090 MHz

· 2<sup>nd</sup> Harmonic: < -30 dBc

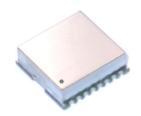
· Spurious Level: < -70 dBc

· Lock Time : <10 ms

· 30 mA Current Consumption

## **Description**

The plerow<sup>TM</sup> PLL synthesizer module was designed for use in wireless and wireline systems in a wide range of frequency from 50 MHz to 6 GHz. ASB's PLL provides exceptionally low spurious and phase noise performance with fast locking time and low current consumption. All products are available in a surface-mount type package.



## **Specifications**

| Parameter                 | Unit   | Min.                  | Typical | Max. |
|---------------------------|--------|-----------------------|---------|------|
| Frequency Range           | MHz    |                       | 2090    |      |
| Output Power              | dBm    | 1                     | 3       | 5    |
| Supply Voltage            | V      | 4.75                  | 5       | 5.25 |
| Current Consumption       | mA     |                       | 25      | 30   |
| 2 <sup>nd</sup> Harmonics | dBc    |                       | -35     | -30  |
| Spurious Level            | dBc    |                       | -75     | -70  |
| Reference Frequency       | MHz    |                       | 10      |      |
| Reference Input Level     | dBm    | -5                    | 0       | 5    |
| Phase Noise (C / N)       |        |                       |         |      |
| @ 1 kHz                   |        |                       | -75     |      |
| @ 10 kHz                  | dBc/Hz |                       | -100    |      |
| @ 100 kHz                 |        |                       | -120    |      |
| Output Impedance          | Ω      |                       | 50      |      |
| Operating Temp. Range     | °C     | -40                   | 25      | 85   |
| Package Type & Size       | mm     | SMT, 19.0W×19.0L×5.8H |         |      |

<sup>1)</sup> Measurement conditions are as follows: T =  $25^{\circ}$ C,  $V_{CC}$  = 5 V, Freq. = 2090 MHz, 50 ohm system.

### More Information

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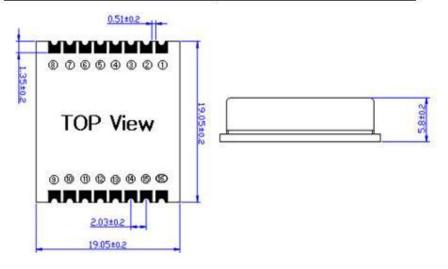
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## **Outline Drawing**

# APL0000-R Type

| Туре               | Dimension     |  |
|--------------------|---------------|--|
| PLL IC + VCO + ROM | 19 x 19 x 5.8 |  |



| Pin Out for PLL |             |         |             |  |  |
|-----------------|-------------|---------|-------------|--|--|
| Pin No.         | Application | Pin No. | Application |  |  |
| 1               | GROUND      | 9       | VCC (VCO)   |  |  |
| 2               | GROUND      | 13      | RFOUT       |  |  |
| 3               | GROUND      | 15      | VCC (PLL)   |  |  |
| 4               | OSC IN      | 16      | LOCK DETECT |  |  |

