## Features

5 dBm Output Level at 100 MHz

- $2^{\text {nd }}$ Harmonic: $<-20 \mathrm{dBc}$
- Spurious Level: <-65dBc
- Current Consumption: < 40mA


## Description

The plerow ${ }^{\text {TM }}$ 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 |  | 100 |  |
| Output Power | dBm | 3 | 5 | 7 |
| Supply Voltage | V |  | 5 |  |
| Current Consumption | mA |  | 28 | 40 |
| $2^{\text {nd }}$ Harmonics | dBc |  | -25 | -20 |
| Spurious Level | dBc |  | -70 | -65 |
| Reference Frequency | MHz |  | 13 |  |
| Reference Input Level | dBm |  |  |  |
| Phase Noise (C / N) |  | 0 | 2 | 5 |
| @ 1 kHz |  |  | -88 | -82 |
| @ 10 kHz |  |  | -108 | -103 |
| Output Impedance | $\mathrm{dBc} / \mathrm{Hz}$ |  | -120 | -115 |
| Operating Temp. Range | $\Omega$ |  | 50 |  |
| Package Type \& Size | ${ }^{\circ} \mathrm{C}$ | -30 | 25 | 80 |

1) Measurement conditions are as follows: $\mathrm{T}=25^{\circ} \mathrm{C}, \mathrm{V}_{\mathrm{CC}}=5 \mathrm{~V}$, Freq. $=1955 \mathrm{MHz}, 50$ ohm system.
2) Frequency stability of internal ref. TCXO is +/- 2.5 ppm (max.) over the operating temperature range.

## More Information

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## Outline Drawing

## APL0000-R/T Type

| Type | Dimension |
| :---: | :---: |
| PLL IC + VCO + ROM + TCXO | $19 \times 19 \times 5.8$ |



| Pin Out for PLL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Pin No. | Application | Pin No. | Application |  |
| 1 | GROUND | 9 | VCC (VCO) |  |
| 2 | GROUND | 13 | RF OUT |  |
| 3 | GROUND | 15 | VCC (PLL) |  |
| 4 | GROUND | 16 | LOCK DETECT |  |
| All other Pins are Grounded Intemal TCXO and ROM |  |  |  |  |



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