

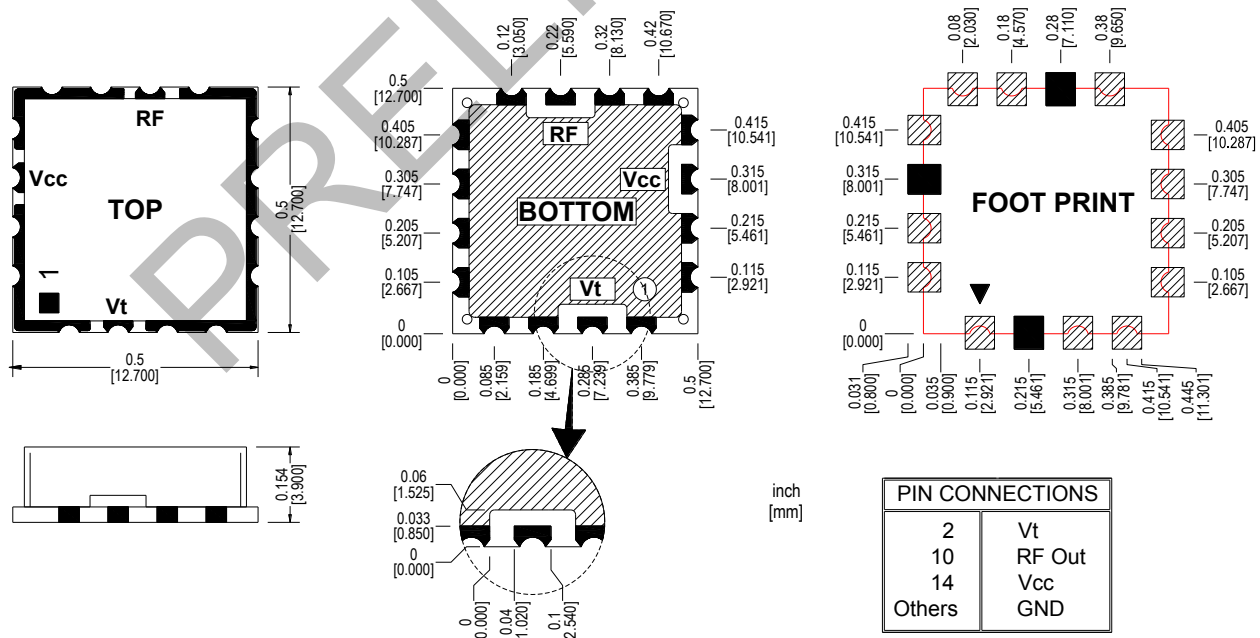
## Features

Low phase noise  
 Linear tuning characteristics  
 Low pushing / Low pulling  
 Aqueous washable

## Typical Applications

SATCOM                      Point-to-Point  
 Receiver                    Radio  
 Test Equipment            MMDS  
 Radar                        WiMax

## Mechanical Drawing and PIN Connections

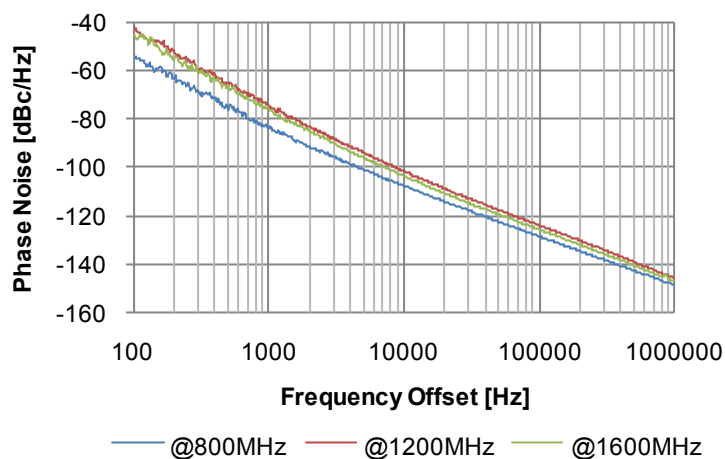


## Specifications

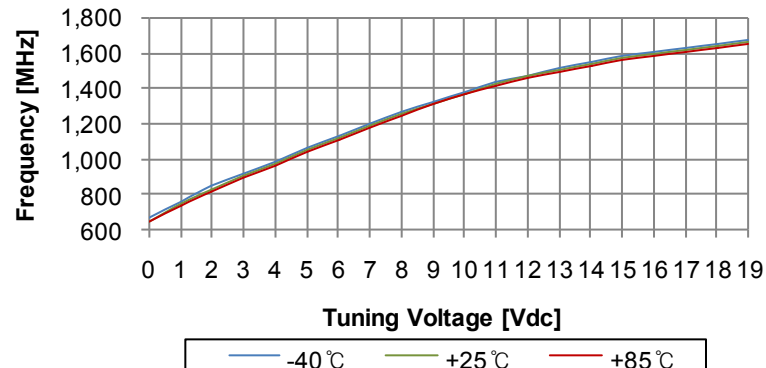
### Electrical Characteristics

| Parameter                            | Units              | Min  | Typ     | Max   |
|--------------------------------------|--------------------|------|---------|-------|
| Operating Frequency Range            | MHz                | 800  |         | 1600  |
| Output Power                         | dBm                | +7.0 | +10.0   | +13.0 |
| Output Impedance                     | $\Omega$           |      | 50      |       |
| Phase Noise                          | @10kHz offset      |      | -102    | -97   |
|                                      | @100kHz offset     |      | -125    | -120  |
| Tuning Voltage ( $V_t$ )             | Vdc                | 0.0  |         | 19.0  |
| Tuning Voltage Sensitivity ( $K_v$ ) | MHz/V              |      | 20 - 80 |       |
| 2nd Harmonic Suppression             | dBc                |      | -15     |       |
| Power Supply ( $V_{cc}$ )            | Voltage            |      | 10      |       |
|                                      | Current            |      | 19      | 25    |
| Pushing Figure                       | MHz/V              |      | 2.0     |       |
| Pulling Figure                       | MHz                |      | 5.4     |       |
| Input Capacitance                    | pF                 |      | 100     |       |
| Operating Temp. Range                | $^{\circ}\text{C}$ | -40  |         | +85   |

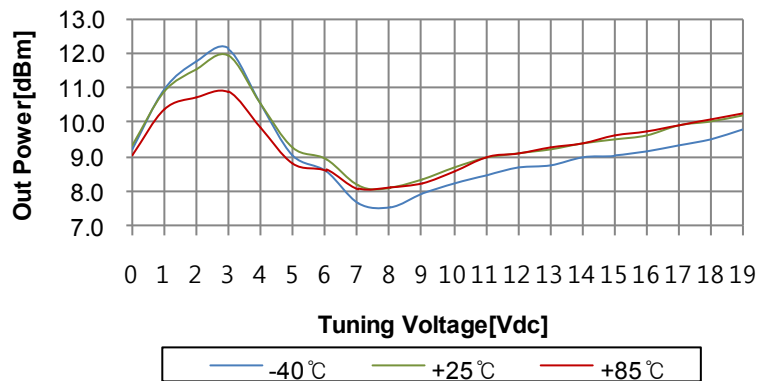
## Performance Curves



## Tuning Curve



## Output Power Curve



## Performance Data

| Vt<br>[Vdc] | Frequency [MHz] |        |        | Kv [MHz/V] |       |       | Output Power [dBm] |       |       | 2nd Harmonic<br>[dBc] |
|-------------|-----------------|--------|--------|------------|-------|-------|--------------------|-------|-------|-----------------------|
|             | +25°C           | +85°C  | -40°C  | +25°C      | +85°C | -40°C | +25°C              | +85°C | -40°C |                       |
| 0.0         | 651.3           | 645.0  | 667.9  | -          | -     | -     | 9.4                | 9.0   | 9.2   | -7                    |
| 1.0         | 754.0           | 744.7  | 767.6  | 102.7      | 99.7  | 99.7  | 10.9               | 10.4  | 11.0  | -6                    |
| 2.0         | 834.8           | 824.1  | 848.2  | 80.8       | 79.4  | 80.6  | 11.6               | 10.7  | 11.8  | -5                    |
| 3.0         | 904.8           | 895.0  | 918.2  | 70.0       | 70.8  | 70.0  | 11.9               | 10.9  | 12.2  | -5                    |
| 4.0         | 979.7           | 971.3  | 989.4  | 74.9       | 76.4  | 71.2  | 10.5               | 9.8   | 10.5  | -9                    |
| 5.0         | 1055.2          | 1045.9 | 1065.0 | 75.5       | 74.6  | 75.6  | 9.3                | 8.8   | 9.1   | -16                   |
| 6.0         | 1122.2          | 1113.2 | 1132.0 | 67.0       | 67.3  | 67.0  | 9.0                | 8.6   | 8.6   | -20                   |
| 7.0         | 1190.8          | 1181.6 | 1201.1 | 68.6       | 68.5  | 69.1  | 8.2                | 8.1   | 7.7   | -19                   |
| 8.0         | 1260.0          | 1250.4 | 1270.2 | 69.1       | 68.7  | 69.1  | 8.1                | 8.1   | 7.5   | -16                   |
| 9.0         | 1321.0          | 1312.1 | 1330.4 | 61.1       | 61.8  | 60.2  | 8.4                | 8.2   | 7.9   | -14                   |
| 10.0        | 1376.3          | 1367.4 | 1385.2 | 55.2       | 55.3  | 54.7  | 8.7                | 8.6   | 8.2   | -13                   |
| 11.0        | 1425.3          | 1416.0 | 1434.7 | 49.1       | 48.6  | 49.5  | 9.0                | 9.0   | 8.5   | -14                   |
| 12.0        | 1469.2          | 1460.2 | 1478.5 | 43.8       | 44.2  | 43.8  | 9.1                | 9.1   | 8.7   | -14                   |
| 13.0        | 1508.8          | 1499.4 | 1518.2 | 39.6       | 39.2  | 39.7  | 9.2                | 9.3   | 8.8   | -15                   |
| 14.0        | 1543.4          | 1534.1 | 1552.8 | 34.6       | 34.7  | 34.6  | 9.4                | 9.4   | 9.0   | -15                   |
| 15.0        | 1573.9          | 1564.2 | 1583.7 | 30.5       | 30.1  | 30.9  | 9.5                | 9.6   | 9.0   | -15                   |
| 16.0        | 1600.9          | 1591.2 | 1609.9 | 27.0       | 27.1  | 26.2  | 9.6                | 9.7   | 9.2   | -16                   |
| 17.0        | 1624.4          | 1614.8 | 1634.6 | 23.5       | 23.6  | 24.7  | 9.9                | 9.9   | 9.4   | -15                   |
| 18.0        | 1647.0          | 1637.0 | 1656.6 | 22.6       | 22.2  | 22.1  | 10.0               | 10.1  | 9.5   | -15                   |
| 19.0        | 1667.1          | 1656.7 | 1676.2 | 20.2       | 19.7  | 19.6  | 10.2               | 10.3  | 9.8   | -13                   |