## Product Features

- RF frequency: 23.3 to 27.4 GHz
- Pout: 12 dBm
- Phase Noise: -98 dBc/Hz @100 kHz Typ.
- Package Size: $24-$ pin, $X=4.0 \mathrm{~mm}, Y=4.0 \mathrm{~mm}$
- DC Power: 5 VDC, IC=220 mA
- Vtune: 2-13V


## Application

- Point to Point Radio
- Instrumentation
- SATCOM
- Military Radar, EW


## Product Description

The TMC934D is a GaAs/InGaP Heterojunction Bipolar Transistor (HBT) MMIC VCOs. The TMC934D has built-in integrate resonator, negative resistance devices, and varactor diodes. Due to the VCO's monolithic IC structure, the VCO's phase noise performance is excellent over temperature, shock, and process variations. Power output is +12 dBm typical from a +5 V supply voltage. The TMC934D voltage-controlled oscillator can be offered as a packaged part as TMC934. The leadless QFN $4 \times 4 \mathrm{~mm}$ surface mount package requires no external matching components.

| Electrical Performance $\mathbf{~} \mathbf{T a}=\mathbf{2 5}{ }^{\circ} \mathbf{C}$, $\mathbf{V C C}=+\mathbf{5 V}$, ICC=220mA |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | min | Typ | Max | Units |
| Frequency | 23.3 |  | 27.4 | GHz |
| Power Output | 10 | 12 | 15 | dB |
| SSB Phase <br> Noise @ 100 |  | -98 |  | $\mathrm{dBc} / \mathrm{Hz}$ |
| kHz Offset, <br> Vtune= +5V |  |  |  |  |
| Tune Voltage | 2 |  | 13 | V |
| Tune Port <br> Leakage |  |  | 10 | uA |
| Current <br> (Vtune= 13V) |  |  |  |  |

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