Preliminary

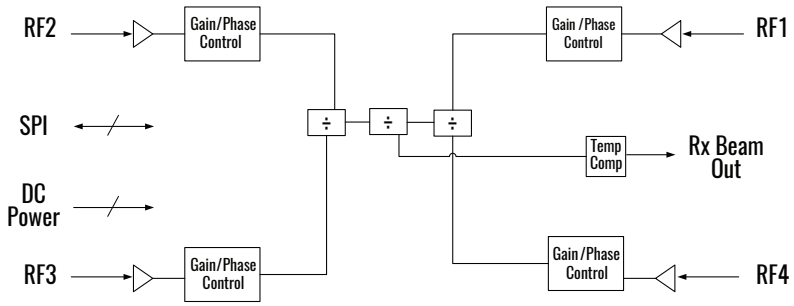
Ka-Band Silicon 5G Quad Core Rx IC

Product Overview AWMF-0125

Product Features

- 37.1 - 40.0 GHz operation
- Supports 4 radiating elements
- 4.5 dB Rx NF
- 5 bit phase control (LSB=11.25°)
- 5 bit gain control (LSB=0.5 dB)
- Fast beam steering
- Telemetry reporting
- 3.70 x 3.74 mm WLCSP
- +1.8 V operation

Block Diagram



Applications

5G communications antenna arrays

General Description

The AWMF-0125 is a highly integrated silicon quad core Rx IC intended for 5G phased array applications. The device supports four radiating elements and includes 5 bit phase control and 5 bit gain control for analog RF beam steering. The device provides 4.5 dB NF and includes gain compensation over temperature, temperature reporting, and fast beam switching using on-chip beam weight storage registers. The device features ESD protection on all pins, operates from +1.8 V, and is packaged in a 3.70 x 3.74 mm WLCSP (wafer level chip scale package) for easy flip chip installation in planar phased array antennas.

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