

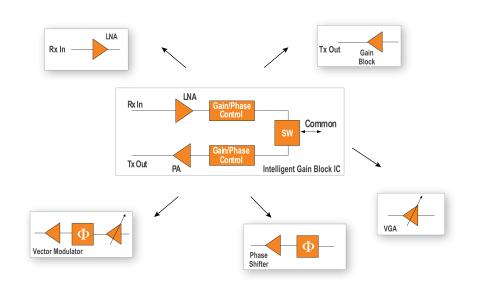
Ka-Band Silicon Intelligent Gain Block IC

AWMF-0143
Product Overview

Product Features

- 26-30 GHz operation
- Tx/Rx half duplex operation
- Flexible configuration
 - single/dual antennas
 - external front-end
- +13 dBm Tx OP1dB
- +18 dB Tx gain
- +24 dB Rx gain
- 3.0 dB Rx NF
- -16 dBm Rx IIP3
- 6 bit phase control (LSB=5.625°)
- 6 bit gain control (LSB=0.5 dB)
- 2.5 x 2.5 mm WLCSP
- 5-Wire SPI interface
- DC power (220 mW Rx, 370 mW Tx)
- Standby mode (4 mW)

Block Diagram



Applications

Multi-function silicon IC for RADAR arrays, SATCOM arrays, TDD/FDD arrays

General Description

The AWMF-0143 is a highly integrated silicon core IC for active steerable antenna arrays intended for SATCOM, RADAR and TDD/FDD applications. The device can support half-duplex operation or operate as a receive only or transmit only IC. It features +18 dB transmit channel gain with +13 dBm P1dB output power and +24 dB receive channel gain with 3 dB noise figure. 6-bit amplitude and 6-bit phase controls are included with low RMS amplitude and phase errors.



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