

DISRUPTIVE TECHNOLOGIES TO GLOBAL MARKETS

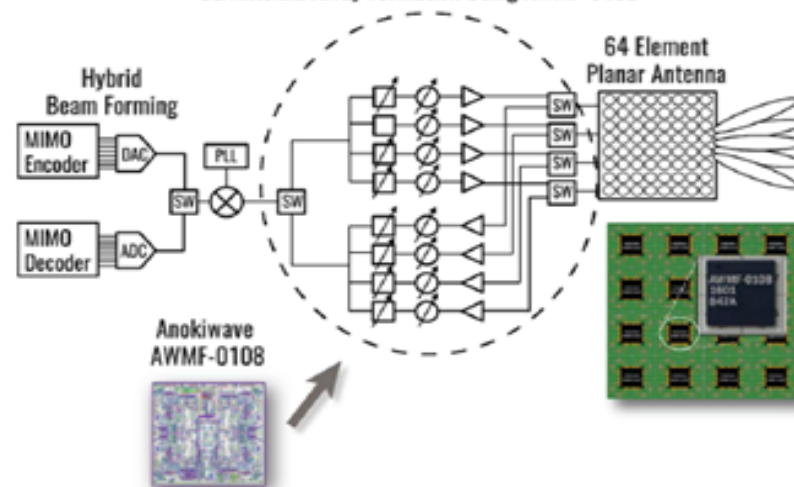


POWER & MICROWAVE
TECHNOLOGIES



Introducing the world's most advanced portfolio of
Active Antenna IC solutions for 5G, RADAR, SATCOM, and Stratellites

5G Antenna Array Formation Using AWMF-0108



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Anokiwave Growing Product Portfolio

Applications	Product Family	Part Number	Description
5G Communications Antenna Arrays	Ka-Band Silicon Core IC Solutions	AWMF-0108	Quad Core Transceiver IC
RADAR and Communications Active Antennas	X-Band Silicon Core IC Solutions	AWS-0101 AWS-0103 AWS-0104 AWS-0105	Dual Beam Low NF Quad Core IC Dual Beam High IIP3 Quad Core IC Single Beam Low NF Quad Core IC Single Beam High IIP3 Quad Core IC
RADAR and Communications Active Antennas	X-Band Front End ASIC Solutions	AWMF-0106	Medium Power Front End ASIC
Satellite, Stratellite Active Antennas	K and Ka-Band Silicon Core IC Solutions	AWS-0102 AWMF-0112 AWMF-0109 AWMF-0113	4-element Rx Quad Core IC (K-Band) 8-element Rx Quad Core IC (K-Band) 4-element Tx Quad Core IC (Ka-Band) 8-element Tx Quad Core IC (Ka-Band)
SATCOM, Active Antennas, Point-to-Point Communications	Ka-Band Silicon Core IC Solutions	AWP-1102	3W High Power MMIC
Point-to-Point Radio Communications	E-Band III/V Front End Solutions	AWP-7176 AWP-8186 AWL-7186	High Power Amplifier MMIC/71-76 GHz High Power Amplifier MMIC/81-86 GHz Low Noise Amplifier MMIC/71-86 GHz

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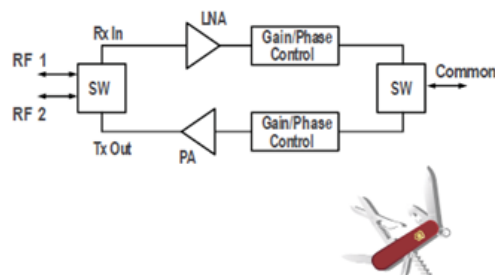


Preliminary Ka-Band Silicon Core IC **AWMF-0116** Product Overview

Product Features

- 26-30 GHz operation
- Tx/Rx half duplex operation
- Flexible configuration
 - single/dual antennas
 - external front-end
- +10 dBm Tx OP1dB
- +18 dB Tx gain
- +24 dB Rx gain
- 5.0 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, 300 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-0116 is a highly integrated silicon core IC for active steerable antenna arrays (AESA) intended for SATCOM, RADAR and TDD/FDD applications. The device has switchable outputs and can support half-duplex operation. It features +18 dB transmit channel gain with +10 dBm P1dB output power, +24 dB receive channel gain, with 5 dB noise figure. 6-bit amplitude and 6-bit phase controls are included with low RMS amplitude and phase errors.

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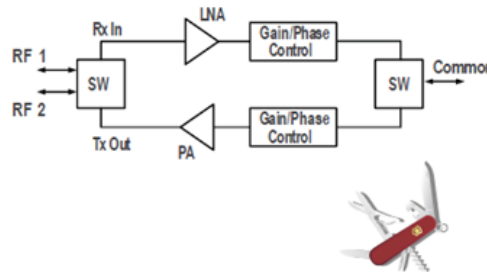


Preliminary Ku-Band Silicon Core IC **AWMF-0117** Product Overview

Product Features

- 10.5 - 16 GHz operation
- Tx/Rx half duplex operation
- Flexible configuration
 - single/dual antennas
 - external front-end
- +12 dBm Tx OP1dB
- +24 dB Tx gain
- +30 dB Rx gain
- 4.0 dB Rx NF
- -19 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 (200 mW Rx, 250 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-0117 is a highly integrated silicon core chip for active steerable antenna arrays (AESA) intended for SATCOM, RADAR and TDD/FDD applications. The device has switchable outputs and can support half-duplex operation. It features +24 dB transmit channel gain with +12 dBm P1dB output power, +30 dB receive channel gain, with 4 dB noise figure. 6-bit amplitude and 6-bit phase controls are included with low RMS amplitude and phase errors.