

ARF3010

Wideband RF Transceiver IC



Applications

- TVWS Modems
- 802.11ah
- Specialty Transceivers

Evaluation Board

- Chip evaluation support
- GUI control of all registers



ARF3010 Evaluation Board

The ARF3010 Evaluation Board is a hardware platform designed to enable evaluation of the ARF3010 RF transceiver integrated circuit.

The hardware platform, along with its advanced GUI, supports evaluation of the most important performance parameters, for example: P1dB, IIP3, Gain, EVM, Spectral Mask, all modes of operation and other common RFIC tests.

For more information please contact Aviacomm at: sales@aviacomm.com

Product Description

The ARF3010 is a wideband, low power, direct conversion RF transceiver designed to meet the requirements of TVWS and other wireless standards. The ARF3010 can be rapidly configured to operate on any frequency between 50MHz and 2.80GHz, and for different bandwidth signals, without restrictions of band-limited ports. This enables more efficient and scalable RF front-end designs.

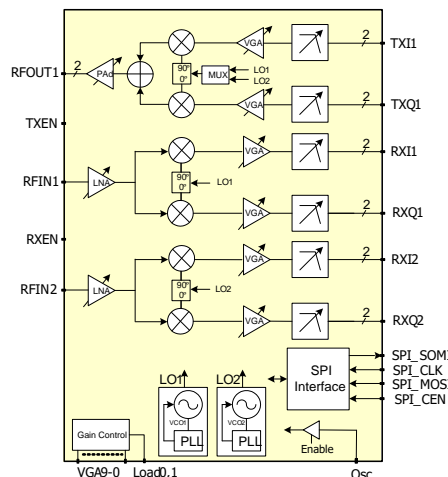
Feature Summary

- Broadband tunable RF transceiver**
 - Performance meets multiple standards
 - TVWS: 802.11af, 802.22, ETSI EN 301 598
 - TD-LTE, TD-SCDMA
- Direct Conversion, 2RX and 1TX**
 - MIMO/Diversity support
 - TDD operation
- Programmable baseband filters**
 - TVWS band-combining up to 2W+2W
 - Band filtering for 6, 7, 8 & up to 40MHz
- Minimal external components required**
 - Fully integrated PLL synthesizers
 - No RX interstage SAW needed
- Built-in calibration functions**
- SPI Serial Control Interface**
- Low power consumption**

Specification Summary

Tuning Range	50 MHz - 2.80GHz
Channel BWs	0.5 - 40MHz programmable
RX noise figure	5 dB
RX gain control	99 dB, 1 dB step
TX gain control	66 dB, 0.5 dB step
TX Spectral Mask	Meets TVWS and 4G Specs
TX power	Up to 0 dBm
Data Interface	Analog I/Q
Supply Voltage	3.3 V & 1.8V
Control Interface	4-Wire SPI
Chip Package	7mm x 7mm, 56QFN

IC Diagram



System

