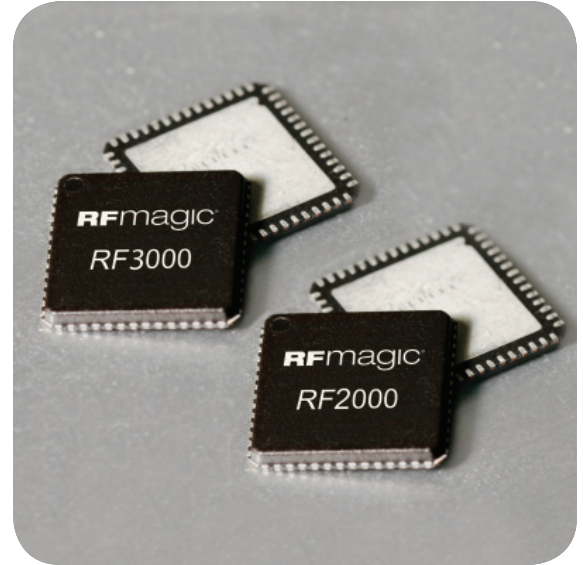


## MagicMax™ Broadband Wireless Transceiver Chipset

MagicMax™ Chipset Brings Flexibility and Cost Reduction to Fixed Broadband Wireless Access Applications RF Magic's RF2000/RF3000 series chipsets were the worlds first 1.8 – 3.8 GHz highly integrated radio chipset for worldwide Broadband Wireless Access service. Today the MagicMax chipset is one of the most popular transceiver solutions for WiMAX applications. The chipset supports modulations up to QAM64 for both single carrier and multiple carrier (e.g. OFDM/OFDMA) systems. The two chip, transmitter/receiver solution enables equipment providers to implement Frequency Division Duplex, Time Division Duplex, and Hybrid Frequency Division Duplex systems. With fully integrated VCOs, frequency synthesizers, and LNAs, the chipset dramatically reduces the part count required to implement modern BWA systems. All critical high frequency functions are implemented within the ICs. Intermediate Frequency filtering is external to the IC, allowing system vendors to develop solutions with a broad array of channel bandwidths while meeting strict regulatory requirements worldwide. A standard 3-pin serial programming bus allows these versatile ICs to be part of practically any radio system.



### Features

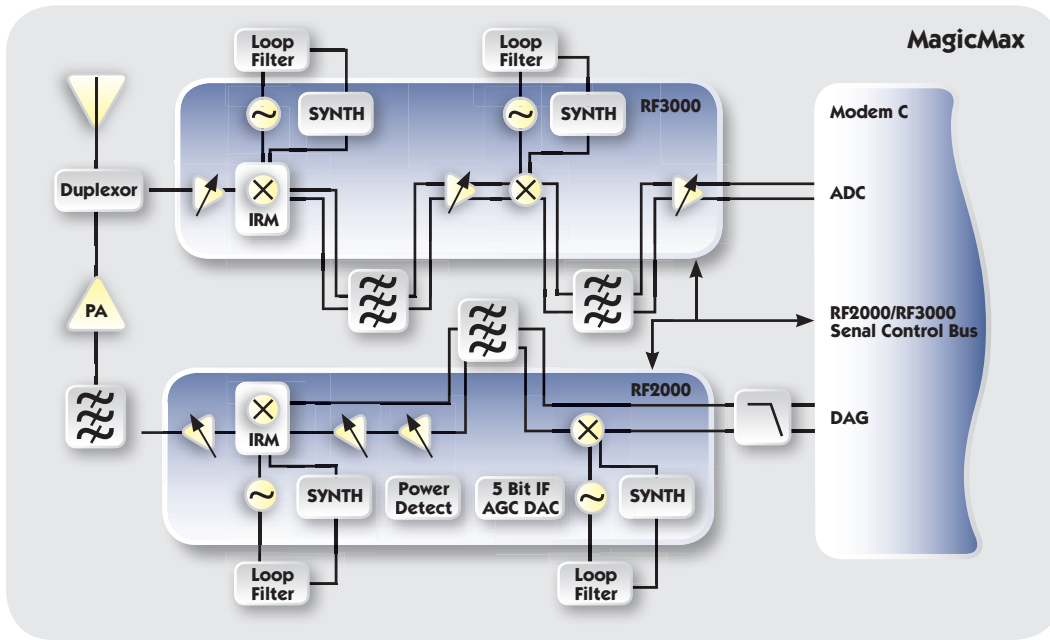
- 1.8GHz – 3.8GHz RF range
- 10MHz – 100MHz IF range
- 1.75MHz – 75MHz channel bandwidths
- Supports TDD, FDD, and HFDD duplexing schemes
- Integrated Image Reject Mixers
- Synthesizer Lock Detection
- Software Controllable Attenuators
- Superior phase noise for multi-carrier systems with tight tone spacing (e.g. OFDMA)
- 80 dB Receive Dynamic Gain Control
- 50 dB Transmit Dynamic Gain Control
- Transmit IF Power Detection
- Integrated 5-bit DAC for transmit control
- Single 5V supply
- 40-pin, QFN, 6mm x 6mm lead free packages (RoHS compliant)

### Applications

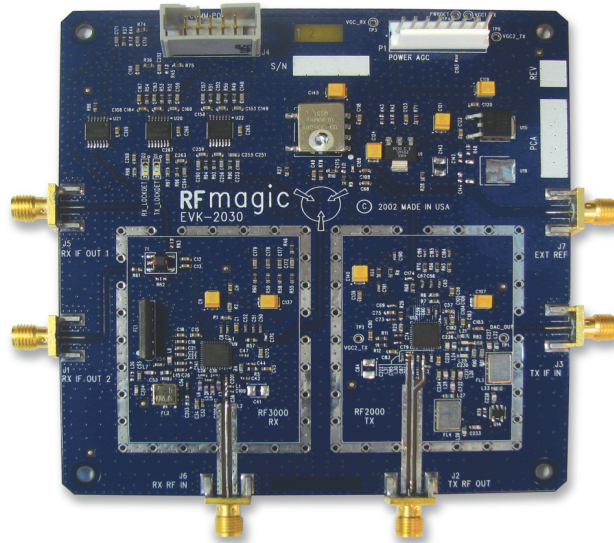
- Any 'Last-mile' BWA system
  - WiMAX (IEEE 802.16d)
  - Wi-Fi (IEEE 802.11a,b,g)
  - TD-CDMA, W-CDMA, SCDMA
  - LMDS and P2P IF sub-systems
  - Repeaters / DAS

### Target Bands

- PCS, DCS, EBS/BRS, WCS, MMDS, 3.3-3.8 GHz



Functional Block Diagram



Evaluation Board

## Ordering Information

Product	Part Number	EVK Description
RF2000/RF3000	PCR-2030-0005	RF2030 Transceiver Evaluation Kit