

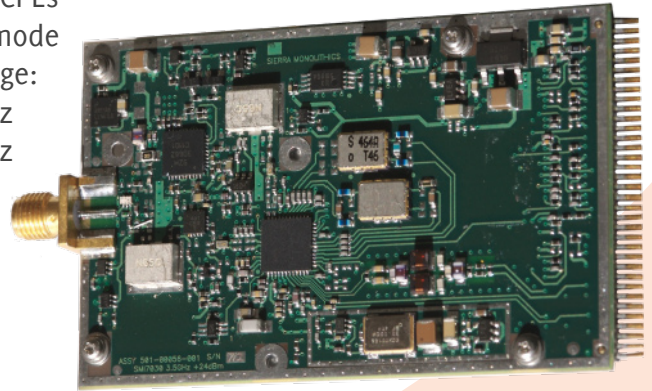
SMI7030

Broadband Wireless RFIC
Optimized for Indoor Units

SMI7030 RFIC Highlights:

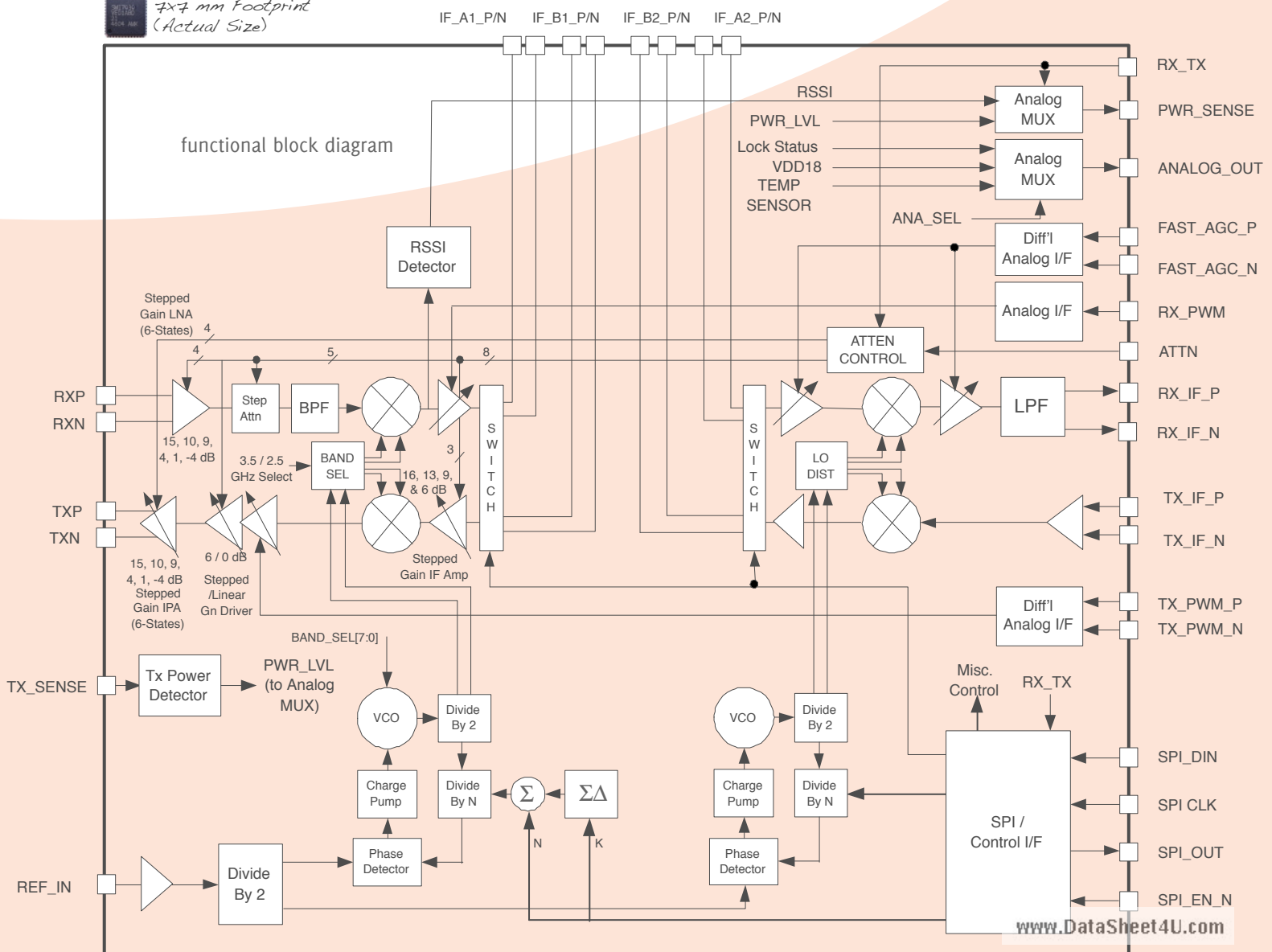
- Dual band transceiver RFIC for 802.16d/e WiMAX applications
- Compatible with multiple baseband ICs
- Supports up to +28 dBm output power
- Enables low cost CPEs
- Half duplex FDD mode
- Frequency coverage:
 - 2.3 - 2.7 GHz
 - 3.3 - 3.8 GHz
- 48 pin QFN
- TDD mode

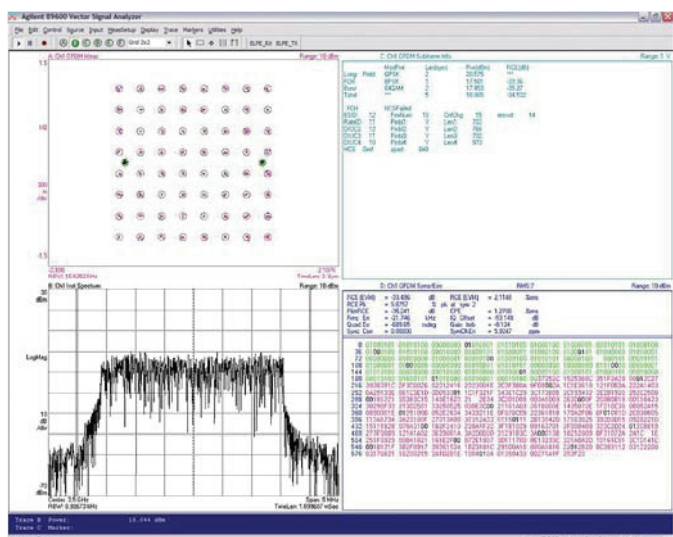
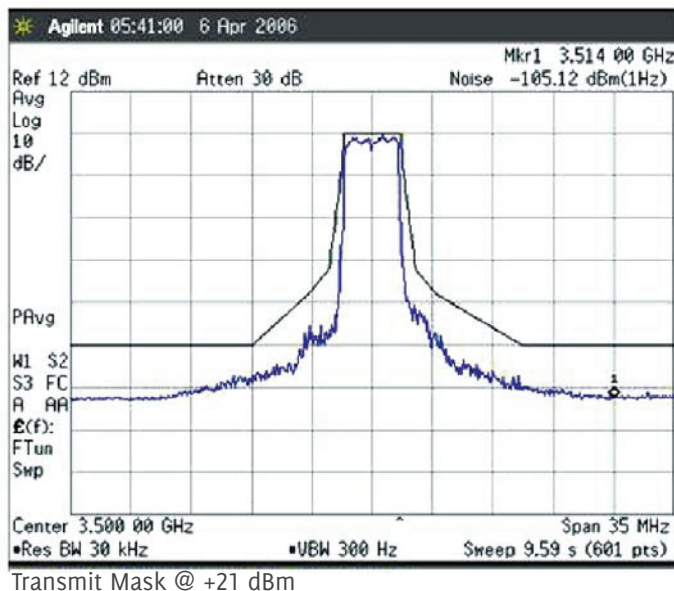
*Supports 802.16d
and 802.16e protocols*



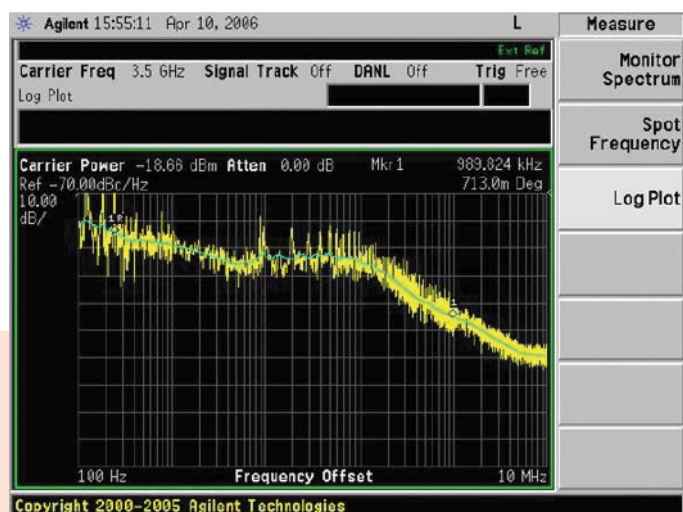
7x7 mm Footprint
(Actual Size)

functional block diagram





Transmit EVM



SMI7030 Evaluation Board TX Phase Noise Measurement

SMI7030 Broadband Wireless RFIC Optimized for Indoor Units

SMI7030 RFIC Receive Characteristics

- -100 to -10 dBm input range
- >90 dB gain control
- P1 dB >-4 dBm (typical)
- NF 7 dB (typical)
- Input IP3: +6 dBm (typical)
- SNDR >31 dB (60 dB range)
- IF of 20 to 70 MHz supported
- On-chip image reject BPF
- Image rejection: 32 dB (typical)

SMI7030 RFIC Transmit Characteristics

- >60 dB gain control range
- EVM >38 dB (0 dBm out)
- LO leakage: 30 dB
- Image rejection: 43 dB
- Transmit noise power: -70 dBm/1MHz (max Pout)

SMI7030 RFIC Integrated Synthesizer w/VCO

- 32 MHz reference
- 125 kHz step size
- 0.7 rms phase noise (typical)
- <45 μ sec settling time FDD mode
- <10 μ sec settling time TDD mode