



## QAMLINK® HIGH-PERFORMANCE, SINGLE-CHIP CABLE MODEM

### BCM3345 FEATURES

- State-of-the-art, single-chip DOCSIS/EuroDOCSIS 1.0/1.1 cable modem providing unprecedented levels of integration and performance
- The BCM3345 integrates:
  - Advanced QAMLink® transceiver supporting Annex A/B/C operation
  - DOCSIS/EuroDOCSIS 1.0/1.1 MAC
  - High-performance, 140-MHz MIPS-32 CPU
  - Advanced QAMLink, downstream demodulator, supporting 4/16/32/64/128/256 QAM
  - Advanced QAMLink upstream modulator, supporting 2/4/8/16 QAM
  - Upstream power amplifier
  - 10/100 Ethernet MAC/PHY with MII interface
  - Single 28MHz reference crystal
  - USB 1.1 slave port with integrated transceiver
  - 100-MHz SDRAM interface
- Advanced RF and control interface to silicon tuner for DOCSIS/EuroDOCSIS solutions
- EJTAG embedded ICE support
- On-chip support for Propane™ packet acceleration
- 1.8/3.3 volt operation
- 312-pin PBGA package

### SUMMARY OF BENEFITS

- Results in simplified BOM—reduces component count, improves assembly process and results in lowest overall system cost for DOCSIS/ EuroDOCSIS 1.0/1.1 cable modem.
- DOCSIS/EuroDOCSIS 1.0/1.1 MAC is compatible with existing Cable Modem application code, resulting in minimum time to market.
- 140-MHz MIPS-32 CPU provides 66% improvement in packet throughput over prior generations.
- Advanced QAMLink™ modulator/demodulator provides superior performance in noisy plant environments.
- On-chip Propane supports DOCSIS/EuroDOCSIS based packet acceleration.
- Integrated 10/100 Ethernet MAC/PHY with MII eliminates the need for external Ethernet support.
- Fully USB 1.1 compliant interface enables simple Plug and Play installations.
- EJTAG embedded ICE support is compatible with existing MIPS32 development tools, improving software development and testing.

### High-Performance, Single-Chip DOCSIS/EuroDOCSIS 1.1 Cable Modem

