

BCM3419





ADVANCED LOW IF DIRECT CONVERSION CABLE TUNER

FEATURES

- Single-chip direct conversion silicon tuner completes system design with Broadcom cable modem
- DOCSIS®/EuroDOCSISTM 1.0/1.1/2.0
- Supports 64, 256, and 1024 QAM
- Input frequency range of 50 MHz through 860 MHz
 IF (intermediate frequency) output range of 4 MHz, 4.5 MHz, and 5 MHz
- For use in 6-MHz, 7-MHz, and 8-MHz systems
- High linearity across entire frequency range
- Differential signals for high noise immunity
- Integrated and cost-effective BOM:
 - True single-chip tuner
 - Single 3.3V supply voltage
 - Fully integrated oscillator
 - Fully integrated channel selectivity
- Symmetrical IF output for direct connection to channel decoder
- Standby mode
- 40-pin MLF package

SUMMARY OF BENEFITS

- Extreme integration level leads to highly cost-effective BOM
- Eliminates significant external components:
- SAW (Surface Acoustic Wave) IF filters
 - RSSI measurement components
 - · IF amplifiers
 - Oscillator components
- Package optimization enables low-cost 2-layer system PCB
- Minimal in-house RF expertise required
- Support for DOCSIS/EuroDOCSIS 2.0 enables one device solution to be used worldwide
- Superior alternative to can tuners
 - High quality and reliability (no hand tweaking)
 - Enables lower profile and smaller designs
 - Proven reference design for quick time-to-market
 - · Simplified manufacturing flow
- Single supply voltage provides low-cost operation
- Low-power consumption

APPLICATIONS

- Cable Modems
- Cable Gateways
- Voice Cable Modems

Tuner Application Example (Cable Modem)



