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BCM3419 PRODUCT Brief

ADVANCED LOW IF DIRECT CONVERSION CABLE TUNER

FEATURES

- **Single-chip direct conversion silicon tuner completes system design with Broadcom cable modem**
- **DOCSIS®/EuroDOCSIS™ 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**
- **RSSI (Received Strength Signal Indicator) information provided through I^2C bus**
- **Standby mode**
- **40-pin MLF package**

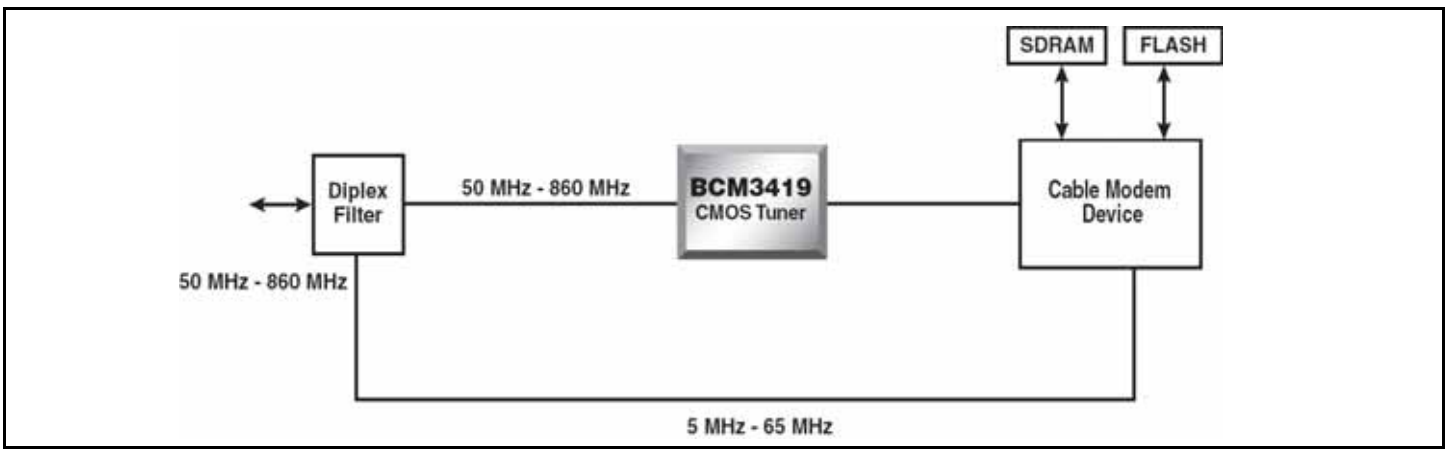
SUMMARY OF BENEFITS

- **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)



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