

BCM3418 CMOS VoIP CABLE TUNER

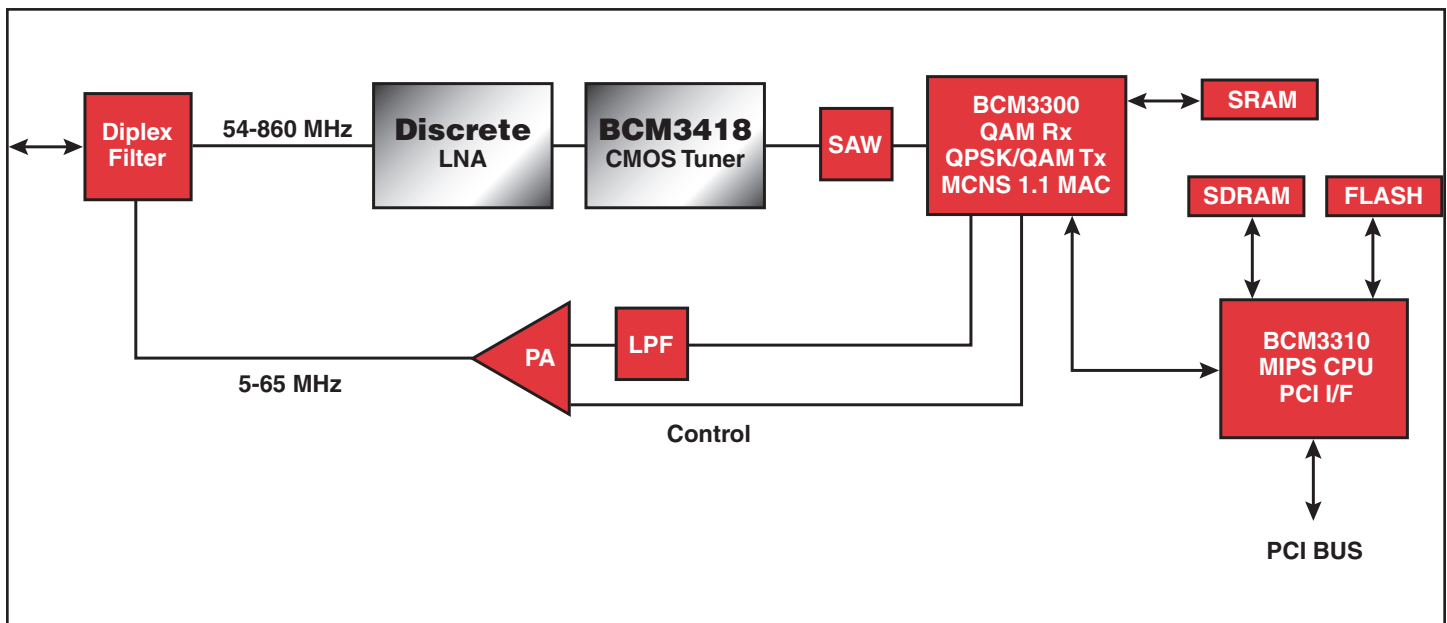
BCM3418 FEATURES

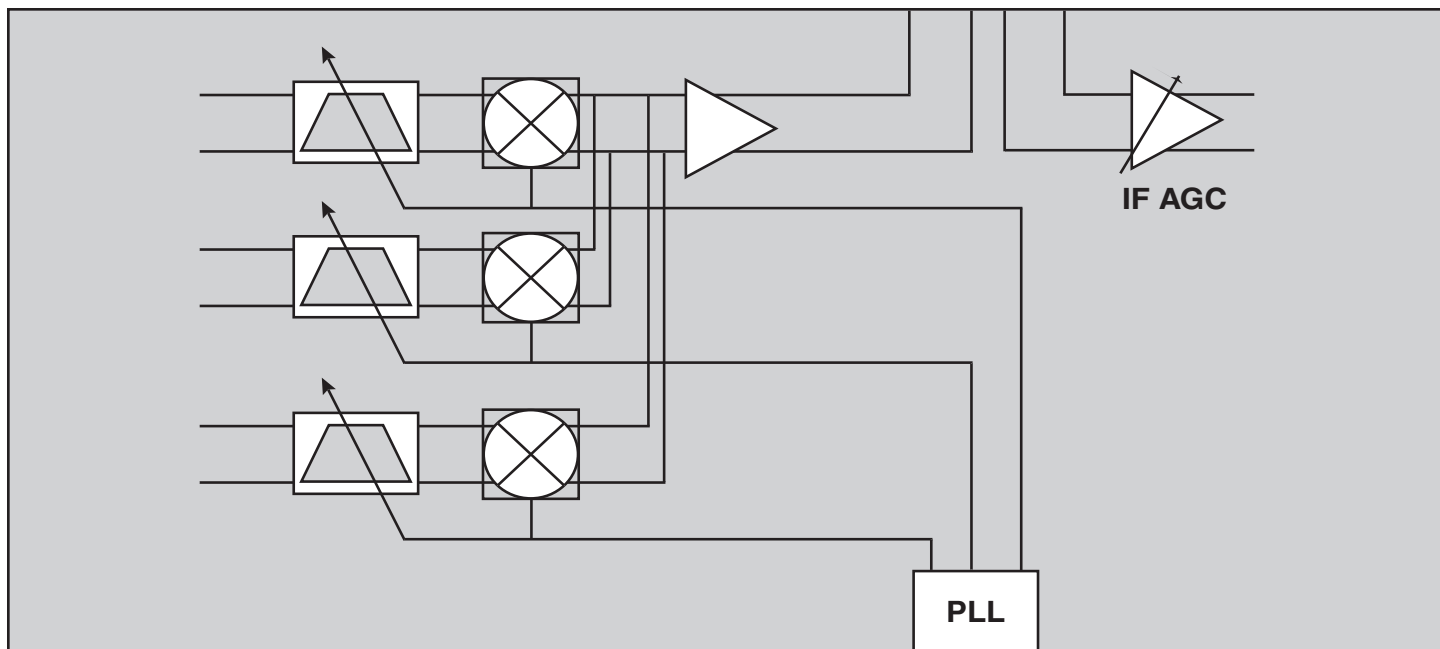
- Supports 64 - 256 QAM
- Input Noise Figure 12 dB
- IP3 = 15 dBm (two tone)
- SNR 40 dB
- CTB, CSO, Xmod all > 50 dB
- PLL Step Size 100 KHz
- IF AGC 30 dB Range
- 48-Pin TQFP Package
- .5W @ 3.3V

SUMMARY OF BENEFITS

- The BCM3418 supports 64- and 256-QAM digital cable applications
- Low cost
- Complete TV tuner-on-a-chip – requires no external high frequency tuned circuits
- Simplifies board layout
- Single 3.3V supply
- Eliminates microphonics
- Differential signals for noise immunity
- Surface-mount package simplifies manufacturing
- Applications
 - Cable Modems
 - VoIP

BCM3418 Tuner Application Example (Cable Modem)





The BCM3418 is a complete QAM Digital Cable Tuner-on-a-chip that supports both 64- and 256-QAM applications. The BCM3418 utilizes a highly integrated version of the single conversion architecture. The input signal is split into three bands, each with a variable bandpass filter and mixer, controlled by a two-wire serial bus that is MBus compatible. The IF amplifier

buffers the differential output signal that can directly drive an external SAW filter, where the final channel selection filtering occurs. The IF AGC amplifies the signal returned from the SAW filter over a 30 dB range and buffers the differential output signal.

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3418-PB03-R 06.25.03



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