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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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MAX2172

Direct-Conversion to Low-IF Tuner for Digital Audio Broadcast

High-Performance Digital Radio Tuner Incorporates Fast and Accurate RSSI Function

OVERVIEW

MAX2172: Functional Diagram

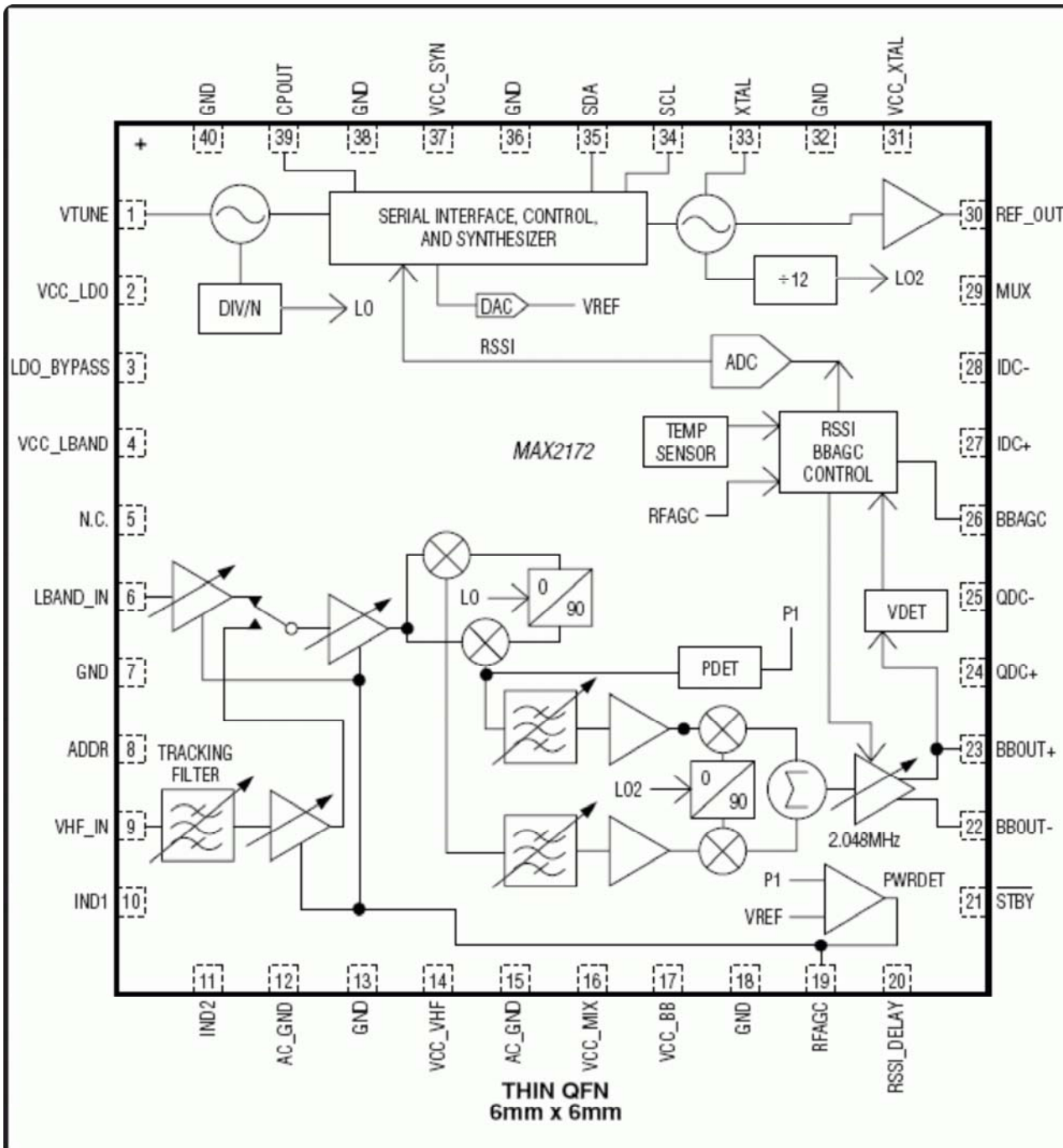
Description

The MAX2172 direct-conversion to low-IF tuner is designed for digital audio broadcast (DAB) and terrestrial digital multimedia broadcast (T-DMB) applications, covering an input frequency range of 168MHz to 240MHz (VHF-III), 1452MHz to 1492MHz (L-band), and also 87MHz to 108MHz (FM). The MAX2172 achieves a high level of component integration, allowing lowpower, tuner-on-board designs. The direct-conversion to low-IF architecture eliminates the need for an IF-SAW filter while providing a balanced 2.048MHz center frequency baseband output to the demodulator.

The MAX2172 provides a buffered reference clock at the crystal frequency.

A sigma-delta fractional-N synthesizer is incorporated to optimize both close-in and wideband phase noise performances for OFDM applications where sensitivity to both 1kHz phase noise and wideband phase noise related to strong adjacents can be a problem.

The MAX2172 is available in a 40-pin thin QFN package (6mm x 6mm) with an exposed pad. Electrical performance is guaranteed over the extended -40°C to +85°C temperature range.



Enlarge+

Key Features

- +2.7V to +3.5V Supply Voltage Range
- Low-IF Output Eliminates IF-Saw Filter
- Integrated FM/VHF-III Bandpass Filter
- Integrated Low-IF Bandpass Filter
- Sigma-Delta Fractional-N Synthesizer

Applications/Uses

- Fixed and Mobile Digital Audio Broadcast (DAB, DAB+) with FM

- +45dBc ACPR ($N \pm 1$)
 - 2.9dB Typical Noise Figure for VHF-III (Includes On-Chip Tracking Filter)
 - 3.1dB Typical Noise Figure for L-Band
 - VHF-III Sensitivity of -101dBm
 - L-Band Sensitivity of -101dBm
 - Baseband Overload Detector Controls RF AGC
 - Fast Channel Scan RSSI 5-Bit Output
 - FM (S+N)/N = 26dB at -111dBm
 - Small 6mm x 6mm Thin QFN Package
- Terrestrial Digital Multimedia Broadcast (T-DMB) with FM