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MAX2135

ISDB-T/DVB-T Diversity Tuner

Industry's Only Diversity Tuner for Automotive TV Consumes Only 300mW

Overview

Technical Documents

Ordering Info

Related Products

User Comments (0)

All

Status

All versions are No Longer Available. See Ordering Information for recommended replacements.

Data Sheet

No Longer Available

Description

The MAX2135 low-power, 6MHz ISDB-T and 6MHz/7MHz/8MHz DVB-T low-IF diversity tuner directly converts broadcast ISDB-T and DVB-T signals to a low-IF using a broadband I/Q downconverter. The operating frequency range covers the VHF and UHF broadcast TV bands from 90MHz to 862MHz.

The MAX2135 integrates LNAs, RF variable-gain amplifiers (VGAs), VHF and UHF tracking filters, I/Q downconverting mixers, baseband VGAs, and low-IF filters. The device also includes a fully monolithic VCO and tank circuit as well as a complete frequency synthesizer including an on-chip crystal oscillator and output buffer/divider.

The device incorporates a 2-wire (I²C) serial control interface with multiple read and write addresses. A low-power standby mode is available whereupon the signal path is shut down while leaving the serial control interface and register circuits active. Additionally, the entire device can be shut down by an external pin.

The MAX2135 is available in a 56-pin thin QFN package (7mm x 7mm) with an exposed paddle. Electrical performance is guaranteed over the extended -40°C to +85°C temperature range.

Key Features

- Multiple Frequency Ranges
 - VHF-L: 90MHz to 108MHz
 - VHF-H: 170MHz to 230MHz
 - UHF: 470MHz to 862MHz
- Complete Diversity Solution
- Low UHF Noise Figure: 3.8dB (typ)
- High Dynamic Range: -99dBm to +10dBm
- Integrated VHF/UHF Tracking Filter
- Integrated VCO and Tank Circuits
- Low Phase Noise: -88dBc/Hz at 10kHz (typ)
- Integrated Channel Filters (6MHz, 7MHz, and 8MHz)
- Single +2.7V to +3.3V Supply Voltage Range
- Low Power: 360mW (typ)
- Shutdown and Standby Modes
- I²C Serial Interface

Applications/Uses

- Automotive TV Diversity Systems
- Laptop/Desktop TV Receivers
- Portable LCD TVs
- Portable Navigation Devices

Technical Documents

Product Guide 5166 [Automotive](#)
Product Guide 5158 [Wireless](#)

Product Guides

[Automotive](#) (PDF)
[Wireless](#) (PDF)

Reliability Reports

Request Reliability Report for:

Software/Models

none

Ordering Information

Filters: Part Number: Package: Temperature: ☐ Tape and Reel ☐ Sample

Part Number	Free Sample	Buy	Status	Recommended Replacement	Package: TYPE PINS FOOTPRINT DRAWING CODE/VAR *	Temp	RoHS/Lead-Free? Materials Analysis
MAX2135ETN+		N/A	No Longer Available		QFN; Land Pattern: Not Available	-40°C to +85°C	See data sheet
MAX2135ETN+T		N/A	No Longer Available		QFN; Land Pattern: Not Available	-40°C to +85°C	See data sheet
MAX2135ETN/V+		N/A	No Longer Available		TQFN;56 pin;49.1 mm ² Outline Drawing:21-0144 (PDF) Land Pattern: 90-0043 (PDF) Use pkgcode/variation: T5677+2*	-40°C to +85°C	RoHS/Lead-Free: Lead Free Materials Analysis
MAX2135ETN/V+T		N/A	No Longer Available		QFN; Land Pattern: Not Available	-40°C to +85°C	See data sheet
MAX2135EVKIT#		N/A	No Longer Available	MAX2135AEVKIT#	KIT; Land Pattern: Not Available		See data sheet

- Notes:
- Other options and links for purchasing parts are listed at: <http://www.maxim-ic.com/sales>.
 - Didn't Find What You Need? Ask our applications engineers. Expert assistance in finding parts, usually within one business day.
 - Part number suffixes: T or T&R = tape and reel; + = RoHS/lead-free; # = RoHS/lead-exempt; -D = drypack; -U/+U on DS parts = cut tape. More: See [Full Data Sheet](#) or [Maxim Product Naming Conventions](#).
 - * Some packages have variations, listed on the drawing. "PkgCode/Variation" tells which variation the product uses. Note that "+", "#", "-" in the part number suffix describes RoHS status. Package drawings may show a different suffix character.

Similar Products by Function

[MAX2136](#) ISDB-T/DVB-T Low-IF Tuner

Similar Products by Application

Broadcast TV and Radio > [Mobile TV](#)

Products with Similar Part Numbers

[MAX2135A](#) ISDB-T/DVB-T Diversity Tuner

More Information

New Product Press Release[[2010-01-25](#)]

Your Comments

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