MAX2825, MAX2826, MAX2827

2.4GHz/5GHz, Single-Band and Dual-Band, 802.11g/a RF Transceiver ICs

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 MAX2825/MAX2826/MAX2827 single-chip, RF transceiver ICs are designed specifically for 802.11 WLAN applications. The MAX2825 is designed for single-band 2.4GHz 802.11g (OFDM and CCK) and the MAX2826 for single-band 5GHz 802.11a (OFDM). The MAX2827 is designed for dual-band 802.11a+g applications. The ICs include all circuitry required to implement the RF transceiver function, providing a fully integrated receive path, transmit path, VCO, frequency synthesizer, and baseband/control interface. Only the PA, RF switches, RF bandpass filters (BPF), RF baluns, and a small number of passive components are needed to form the complete RF front-end solution.

Each IC completely eliminates the need for external SAW filters by implementing on-chip monolithic filters for both the receiver and transmitter. The baseband filtering and the Rx/Tx signal paths are optimized to meet the 802.11a and 802.11g IEEE® standards. Each device is suitable for the full range of the corresponding 802.11a/g OFDM data rates (6Mbps, 9Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps, and 54Mbps) and 802.11g QPSK data rates (1Mbps, 2Mbps, 5.5Mbps, and 11Mbps), at the required sensitivity levels. The MAX2825/MAX2826/MAX2827 transceivers are available in the small 56-pin, exposed paddle thin QFN package.

Key Features

- Single- and Dual-Band Operation
  - MAX2825: 2.4GHz to 2.5GHz
  - MAX2826: 5.15GHz to 5.35GHz
  - MAX2827: 2.4GHz to 2.5GHz and 5.15GHz to 5.35GHz
- Two Operating Modes (MAX2827)
  - 802.11g (54Mbps 64-QAM OFDM and 11Mbps CCK)
  - 802.11a (54Mbps 64-QAM OFDM)
- Complete RF Transceiver
  - -75dBm Receiver Sensitivity at 54Mbps (802.11g)
  - 40dB Rx Sideband Suppression
  - -36dB Transmitter EVM
  - -98dBc/Hz at 100kHz LO Phase Noise
  - Programmable Baseband Lowpass Filters
  - Integrated PLL with 3-Wire Serial Interface
  - 94dB Receive Gain-Control Range
  - 200ns Rx I/Q DC Settling
  - 60dB Dynamic Range Receive RSSI
  - 30dB Transmit Power-Control Range
  - Tx and Rx I/Q Error Detection
  - Digital Tx/Rx Mode and Gain Control
- Single +2.7V to +3.6V Supply
- 10µA Low-Power Shutdown Mode
- Small 56-Pin TQFN Package (8mm x 8mm)

Applications/Uses

- 2.4GHz 802.11b/g Single-Band Radio
- 2.4GHz/5GHz 802.11a/b/g Dual-Band Radio
- 5GHz 802.11a Single-Band Radio

Technical Documents

Product Guide 5158 Wireless
Tutorial 3630 Power Supply and Ground Design for a WiFi Transceiver

Product Guides

Wireless (PDF)

Reliability Reports

Request Reliability Report for: MAX2825 Go

Software/Models

none

Ordering Information

Filters: Part Number: Package: Any Temperature: Any Tape and Reel Sample Go

Part Number	Free Sample	Buy	Status	Recommended Replacement	Package: TYPE PINS FOOTPRINT DRAWING CODE/VAR *	Temp	RoHS/Lead-Free? Materials Analysis
MAX2825ETN-D		N/A	No Longer Available	MAX2830 1	QFN;56 pin Land Pattern: Not Available	-40°C to +85°C	See data sheet
MAX2825ETN-TD		N/A	No Longer Available	MAX2830 1	QFN; Land Pattern: Not Available	-40°C to +85°C	See data sheet
MAX2826ETN-D		N/A	No Longer Available	MAX2828	QFN;56 pin Land Pattern: Not Available	-40°C to +85°C	See data sheet
MAX2826ETN-TD		N/A	No Longer Available	MAX2828	QFN; Land Pattern: Not Available	-40°C to +85°C	See data sheet
MAX2827ETN+D		N/A	No Longer Available	MAX2829	QFN; Land Pattern: Not Available	-40°C to +85°C	See data sheet
MAX2827ETN+TD		N/A	No Longer Available	MAX2829	TQFN;56 pin;65.6 mm² Outline Drawing:21-0135 (PDF) Land Pattern: 90-0046 (PDF) Use pkgcode/variation: T5688+2*	-40°C to +85°C	RoHS/Lead-Free: Lead Free Materials Analysis
MAX2827ETN-D		N/A	No Longer Available	MAX2829	QFN;56 pin Land Pattern: Not Available	-40°C to +85°C	See data sheet
MAX2827ETN-TD		N/A	No Longer Available	MAX2829	QFN; Land Pattern: Not Available	-40°C to +85°C	See data sheet

Notes:
1. Other options and links for purchasing parts are listed at: http://www.maxim-ic.com/sales.
2. Didn't Find What You Need? Ask our applications engineers. Expert assistance in finding parts, usually within one business day.
3. 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.
4. * 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

MAX2247	2.4GHz SiGe Linear Power Amplifier
MAX2830	2.4GHz to 2.5GHz 802.11g/b RF Transceiver with PA and Rx/Tx/Diversity Switch
MAX2831, MAX2832	2.4GHz to 2.5GHz, 802.11g RF Transceivers with Integrated PA

More Information

New Product Press Release[2004-03-18]

Didn't Find What You Need?

Next Day Product Selection Assistance from Applications Engineers
Parametric Search
Applications Help

Information Index

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