



# MAX2209 Evaluation Kit

## General Description

The MAX2209 evaluation kit (EV kit) simplifies the evaluation of the MAX2209 RF power detector. It enables testing of all functions, with no additional support circuitry. The RF input utilizes a 50Ω SMA connector for convenient connection to test equipment.

## Features

- ◆ 2.7V to 5V Single-Supply Operation
- ◆ 50Ω SMA Connector on RF Input
- ◆ Fully Assembled and Tested

## Ordering Information

| PART          | TYPE   |
|---------------|--------|
| MAX2209EVKIT+ | EV Kit |

+Denotes lead(Pb)-free and RoHS compliant.

## Component List

| DESIGNATION | QTY | DESCRIPTION                                                   |
|-------------|-----|---------------------------------------------------------------|
| C1          | 1   | 0.1μF ±10% ceramic capacitor (0402)<br>Murata GRM155R71C104K  |
| C2          | 1   | 0.01μF ±10% ceramic capacitor (0402)<br>Murata GRM155R71C103K |
| C3          | 1   | 22μF electrolytic capacitor (B case)<br>AVX TAJB226K010       |
| GND, VCC    | 2   | 2-pin headers, 0.1in centers                                  |

| DESIGNATION | QTY | DESCRIPTION                                                  |
|-------------|-----|--------------------------------------------------------------|
| ROUT        | 1   | 1kΩ ±5% resistor (0402)                                      |
| SMA         | 1   | SMA edge-mount connector, 0.062in<br>EF Johnson 142-0701-851 |
| T1          | 1   | 1-pin header                                                 |
| U1          | 1   | RF power detector (4 UCSP™)<br>Maxim MAX2209EBS+             |
| —           | 1   | PCB: MAX2209 EVALUATION KIT+                                 |

## Component Suppliers

| SUPPLIER                               | PHONE        | WEBSITE                     |
|----------------------------------------|--------------|-----------------------------|
| AVX Corporation                        | 843-946-0238 | www.avx.com                 |
| Murata Electronics North America, Inc. | 770-436-1300 | www.murata-northamerica.com |

**Note:** Indicate that you are using the MAX2209 when contacting these component suppliers.

UCSP is a trademark of Maxim Integrated Products, Inc.



Maxim Integrated Products 1

**For pricing, delivery, and ordering information, please contact Maxim Direct at 1-888-629-4642, or visit Maxim's website at [www.maxim-ic.com](http://www.maxim-ic.com).**

Evaluates: MAX2209

# MAX2209 Evaluation Kit

## Quick Start

### Required Equipment

- Signal generator capable of delivering continuous-wave (CW) signals with -5dBm output power
- Power meter to accurately measure the power into the RF input
- Power supply capable of up to 10mA at 2.7V to 5V
- Digital multimeters (DMMs) to measure output voltage and supply and output current

### Connections and Setup

The MAX2209 EV kit is fully assembled and tested. This section provides a step-by-step guide to operating the MAX2209 EV kit and testing the device's functionality.

**Caution:** Do not turn on the DC power supply or the RF signal generator until all connections are completed.

- 1) Connect a DC power supply set to 2.85V (through a DMM, if desired) to the V<sub>CC</sub> and GND terminals on the EV kit. If available, set the current limit to 10mA. Do not turn on the power supply.
- 2) Connect the output (T1) to a DMM to measure output voltage.
- 3) Set the signal generator output to -5dBm, f = 800MHz. Using the power meter, determine the actual power output of the signal generator. Use this value to determine proper operation of the part.
- 4) Connect the signal generator to the SMA connector. Do not turn on the signal generator.
- 5) Turn on the DC power supply; the supply current should read approximately 3.5mA.
- 6) Activate the signal generator. The output voltage should read approximately 0.9V.

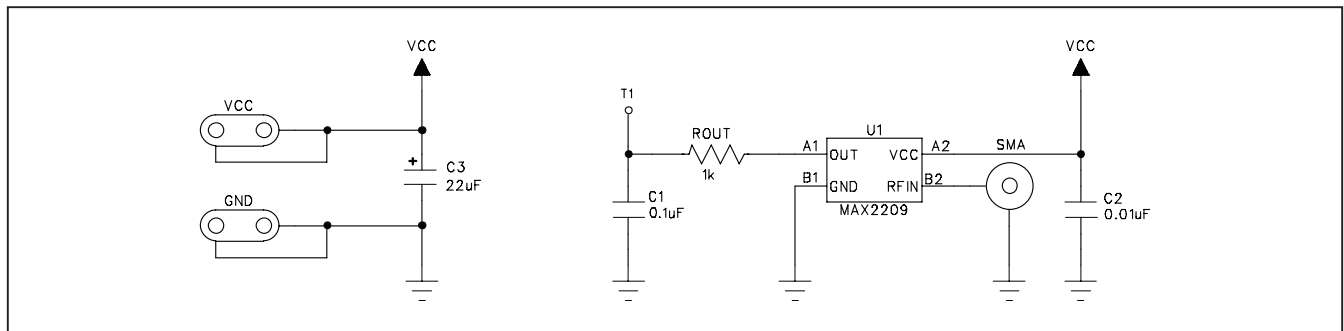


Figure 1. MAX2209 EV Kit Schematic

# MAX2209 Evaluation Kit

Evaluates: MAX2209

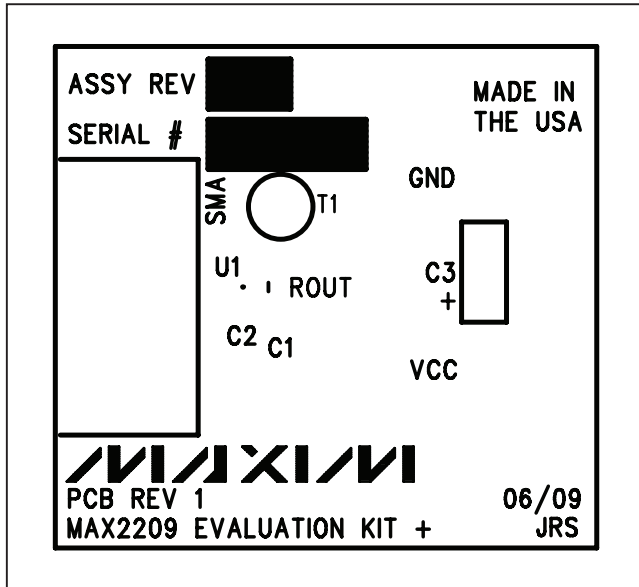


Figure 2. MAX2209 EV Kit Component Placement Guide—Top Silkscreen

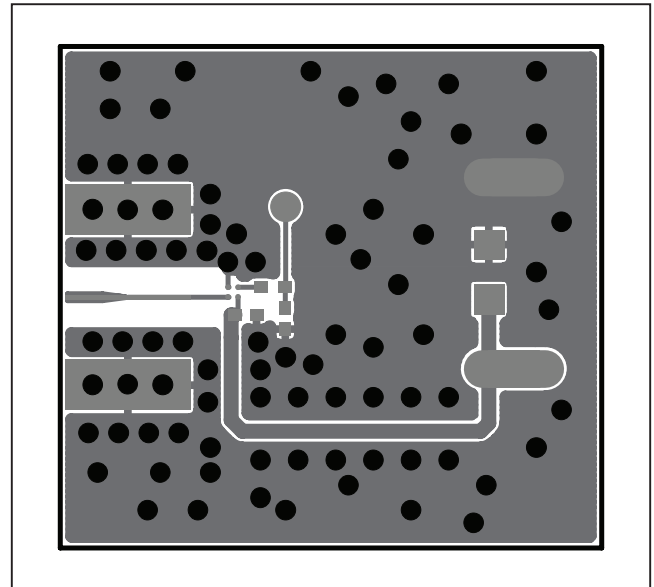


Figure 3. MAX2209 EV Kit Component Placement Guide—Component Side

Maxim cannot assume responsibility for use of any circuitry other than circuitry entirely embodied in a Maxim product. No circuit patent licenses are implied. Maxim reserves the right to change the circuitry and specifications without notice at any time.

**Maxim Integrated Products, 120 San Gabriel Drive, Sunnyvale, CA 94086 408-737-7600** \_\_\_\_\_ **3**