



# MAX2205–MAX2208 Evaluation Kits

## General Description

The MAX2205–MAX2208 evaluation kits (EV kits) simplify the evaluation of the MAX2205–MAX2208 RF power detectors. They enable 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         | TEMP RANGE     | IC PACKAGE |
|--------------|----------------|------------|
| MAX2205EVKIT | -40°C to +85°C | 2 × 2 UCSP |
| MAX2206EVKIT | -40°C to +85°C | 2 × 2 UCSP |
| MAX2207EVKIT | -40°C to +85°C | 2 × 2 UCSP |
| MAX2208EVKIT | -40°C to +85°C | 2 × 2 UCSP |

## MAX2206/MAX2207/MAX2208

## Component List

## MAX2205 Component List

| DESIGNATION | QTY | DESCRIPTION                                                  |
|-------------|-----|--------------------------------------------------------------|
| C1          | 1   | 47pF ±5% ceramic capacitor (0402)<br>Murata GRP1555CIH470J   |
| C2          | 1   | 27pF ±5% ceramic capacitor (0402)<br>Murata GRP1555CIH270J   |
| C3          | 1   | 22μF electrolytic capacitor, B case size<br>AVX TAJB226K010  |
| C4          | 1   | Not installed                                                |
| SMA         | 1   | SMA connector, edge mount, 0.031in<br>EFJohnson 142-0701-881 |
| J1, J2      | 2   | 2-pin headers, 0.1in centers                                 |
| J3          | 1   | 1-pin header                                                 |
| JU1         | 1   | 3-pin header, 0.1in center                                   |
| R1          | 1   | 10kΩ ±5% resistor (0402)                                     |
| R2          | 1   | 680Ω ±5% resistor (0402)                                     |
| R3–R6       | 4   | 200Ω ±5% resistors (0402)                                    |
| U1          | 1   | MAX2205EBS                                                   |

| DESIGNATION | QTY | DESCRIPTION                                                                         |
|-------------|-----|-------------------------------------------------------------------------------------|
| C1          | 1   | 47pF ±5% ceramic capacitor (0402)<br>Murata GRP1555CIH470J                          |
| C2          | 1   | 27pF ±5% ceramic capacitor (0402)<br>Murata GRP1555CIH270J                          |
| C3          | 1   | 22μF capacitor, electrolytic, B case size<br>AVX TAJB226K010                        |
| C4          | 1   | Not installed                                                                       |
| SMA         | 1   | SMA connector, edge mount, 0.031in<br>EFJohnson 142-0701-881                        |
| J1, J2      | 2   | 12-pin headers, 0.1in centers                                                       |
| J3          | 1   | 1-pin header                                                                        |
| JU1         | 1   | 3-pin header, 0.1in center                                                          |
| R1          | 1   | 240Ω ±5% resistor (0402)                                                            |
| R2          | 1   | 0Ω ±5% resistor (0402) (MAX2207/MAX2208),<br>10Ω ±5% resistor (MAX2206)             |
| U1          | 1   | MAX2206EBS (MAX2206EVKIT)<br>MAX2207EBS (MAX2207EVKIT)<br>MAX2208EBS (MAX2208EVKIT) |

Evaluate: MAX2205–MAX2208



# MAX2205–MAX2208 Evaluation Kits

## Quick Start

The MAX2205–MAX2208 EV kits are fully assembled and factory tested. Follow the instructions in the *Connections and Setup* section for proper device setup.

## Connections and Setup

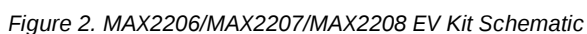
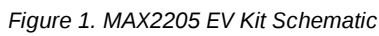
This section provides a step-by-step guide to operating the EV kits and testing the devices' functions. Do not turn on DC power or RF signal generators until all connections are made:

- 1) Set the  $\overline{\text{SHDN}}$  jumper (JU1) on the EV kit to ON. This enables the device.
- 2) Connect a DC supply set to +2.85V (through a DMM, if desired) to the VCC and GND terminals on the EV kit. If available, set the current limit to 10mA. Do not turn on the supply.
- 3) Connect the output (J3) to a DMM to measure output voltage.
- 4) Set the signal generator output to +15dBm,  $f = 800\text{MHz}$ . For the MAX2206, use a CW input from the signal generator to the RF input. For the MAX2207, use a TDMA input. For the MAX2205/MAX2208, use a CDMA input. Using the power meter, determine the actual power output of the signal generator. Use this value to determine proper operation of the part.
- 5) Connect the signal generator to the SMA connector. Do not turn on the signal generator.
- 6) Turn on the DC supply; the supply current should read approximately 3.5mA (MAX2206) or 2mA (MAX2205/MAX2207/MAX2208), depending on the part being tested.
- 7) Activate the signal generator. The output voltage should read approximately +1.8V for the MAX2206/MAX2207/MAX2208, or +0.25V for the MAX2205.

## Test Equipment Required

| EQUIPMENT                                             | DESCRIPTION                                                                                 |
|-------------------------------------------------------|---------------------------------------------------------------------------------------------|
| Signal Generator with Digital Modulation Capabilities | Capable of delivering continuous wave (CW), CDMA, and TDMA signals with +15dBm output power |
| Power Meter                                           | To accurately measure the power into the RF input                                           |
| Power Supply                                          | Capable of up to 10mA at +2.7V to +6V                                                       |
| Digital Multimeters (DMMs)                            | To measure output voltage and supply and output current                                     |

Evaluate: MAX2205-MAX2208



# MAX2205-MAX2208 Evaluation Kits

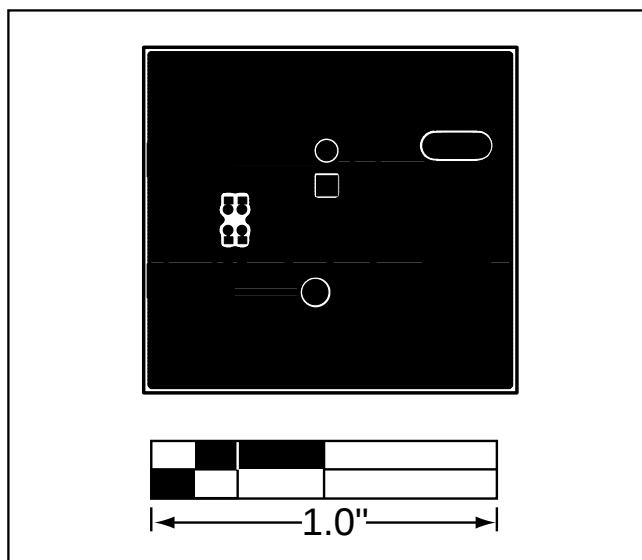


Figure 3. MAX2205 EV Kit Component Placement Guide—Secondary/Bottom Component Side

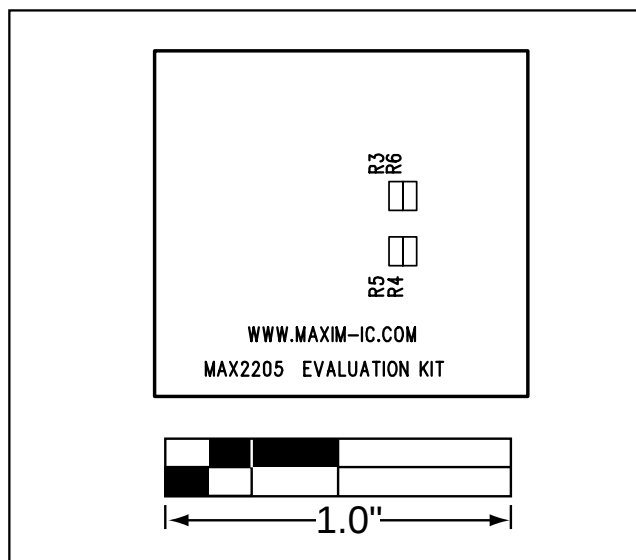


Figure 4. MAX2205 EV Kit Component Placement Guide—Bottom Silkscreen

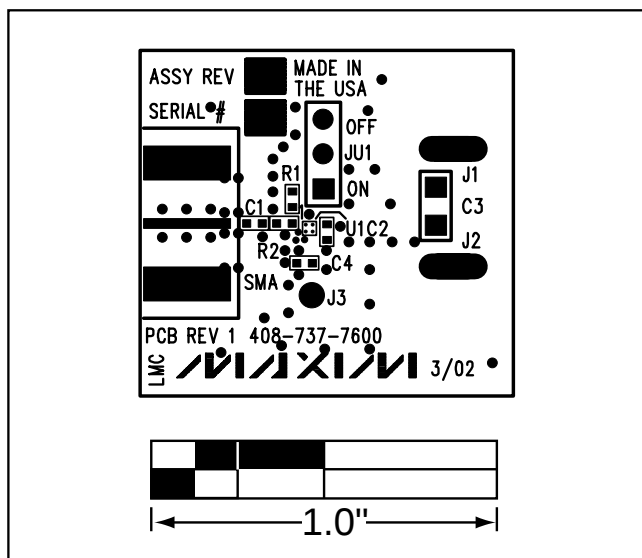


Figure 5. MAX2205 EV Kit Component Placement Guide—Top Silkscreen

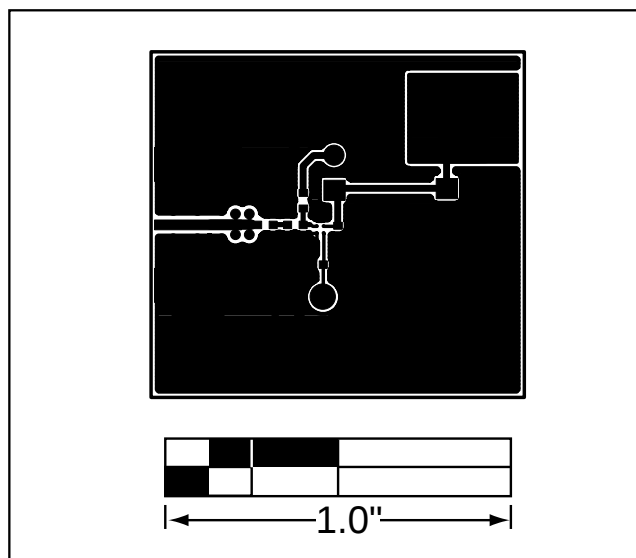


Figure 6. MAX2205 EV Kit Component Placement Guide—Component Side

# MAX2205–MAX2208 Evaluation Kits

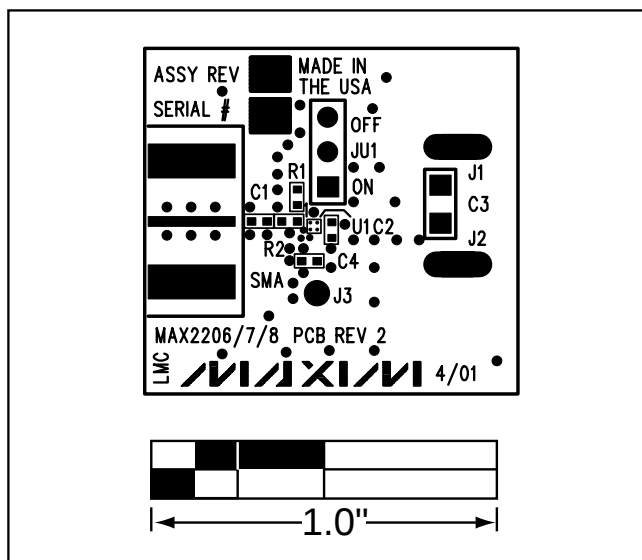


Figure 7. MAX2206/MAX2207/MAX2208 EV Kit Component Placement Guide—Top Silkscreen

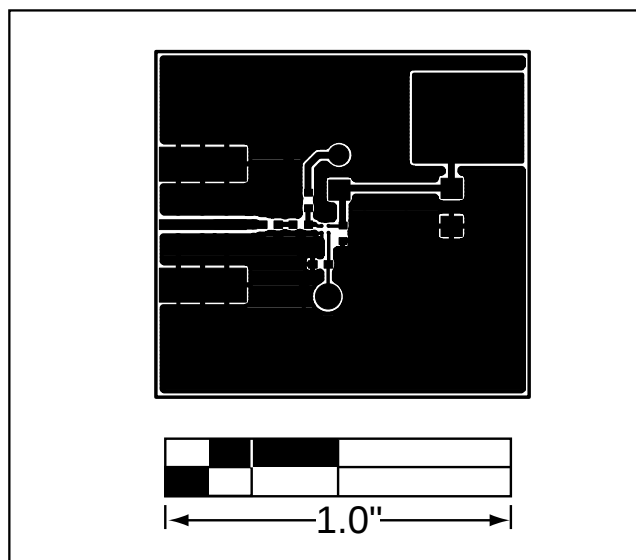


Figure 8. MAX2206/MAX2207/MAX2208 EV Kit Component Placement Guide—Component Side

Evaluate: MAX2205–MAX2208

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