



# MAX11665 Evaluation Kit

## General Description

The MAX11665 evaluation kit (EV kit) is a fully assembled and tested PCB that evaluates the MAX11665 12-bit, SPI™-compatible, 500ksps, analog-to-digital converter (ADC). The EV kit also includes Windows XP®, Windows Vista®, and Windows® 7-compatible software that provides a simple graphical user interface (GUI) for exercising the features of the device. The EV kit comes with a MAX11665AUT+ installed in a 6-pin SOT23 package.

## Features

- ◆ 8MHz SPI Interface
- ◆ Windows XP, Windows Vista, and Windows 7-Compatible Software
- ◆ Time Domain, Frequency Domain, and Histogram Plotting in the EV Kit Software
- ◆ Frequency, RMS, Min, Max, and Average DC Calculations in the EV Kit Software
- ◆ Collects up to 1 Million Samples
- ◆ On-Board Input Buffer
- ◆ USB-PC Connection
- ◆ Proven PCB Layout
- ◆ Fully Assembled and Tested

## Ordering Information

| PART           | TYPE   |
|----------------|--------|
| MAX11665EVKIT# | EV Kit |

#Denotes RoHS compliant.

## Component List

| DESIGNATION  | QTY | DESCRIPTION   |
|--|-----|---|
| AIN_AC,<br>AIN_DC, CS,<br>DOUT, SCLK   | 5   | White test points   |
| AIN_AC_SMA,<br>AIN_DC_SMA,<br>10MHZCLK   | 3   | 50Ω SMA female jacks  |
| BUTTON,<br>CPU_RESET,<br>RECONFIGURE   | 3   | Pushbutton switches   |
| C1, C3   | 2   | 1000pF ±10%, 50V X7R ceramic capacitors (0603)<br>Murata GRM188R71H102K |
| C2, C4, C31,<br>C34, C36, C42,<br>C43, C47,<br>C55–C72, C78,<br>C79, C80, C82,<br>C84, C86 | 32  | 0.1μF ±10%, 25V X7R ceramic capacitors (0603)<br>Murata GRM188R71E104K  |

| DESIGNATION                                       | QTY | DESCRIPTION   |
|---|-----|---|
| C5–C29  | 25  | 0.1μF ±10%, 16V X7R ceramic capacitors (0402)<br>Murata GRM155R71C104K  |
| C30, C95, C96,<br>CB1, CB2, CB3                   | 6   | 1μF ±10%, 16V X7R ceramic capacitors (0603)<br>Murata GRM188R71C105K    |
| C32   | 1   | 0.01μF ±10%, 16V X7R ceramic capacitor (0603)<br>Murata GRM188R71C103K  |
| C33, C38, C39,<br>C40                             | 4   | 4.7μF ±10%, 6.3V X5R ceramic capacitors (0603)<br>Murata GRM188R60J475K |
| C35   | 1   | 1μF ±10%, 6.3V C0G ceramic capacitor (0805)<br>Murata GRM21BR70J105K    |
| C37, C41, C44,<br>C45, C46, C48,<br>C73, CP2, CP3 | 9   | 10μF ±10%, 6.3V X5R ceramic capacitors (0603)<br>Murata GRM188R60J106M  |
| C49, C53, C74,<br>C99, C100                       | 0   | Not installed, ceramic capacitors (0603)                                |

SPI is a trademark of Motorola, Inc.

Windows, Windows XP, and Windows Vista are registered trademarks of Microsoft Corp.



# MAX11665 Evaluation Kit

Evaluates: MAX11665

## Component List (continued)

| DESIGNATION                                    | QTY | DESCRIPTION  |
|--|-----|--|
| C54  | 0   | Not installed, ceramic capacitor (through hole)                        |
| C75, C76                                       | 2   | 18pF ±5%, 50V C0G ceramic capacitors (0603)<br>Murata GRM1885C1H180J   |
| C77, C81                                       | 2   | 10µF ±20%, 10V capacitors (Tant B)<br>KEMET T491B106M010AT             |
| C83, C85                                       | 2   | 4.7µF ±20%, 25V capacitors (Tant B)<br>AVX TAJB475M025R                |
| C97  | 1   | 10µF ±10%, 10V X7R ceramic capacitor (0805)<br>Murata GRM21BR71A106K   |
| C98  | 0   | Not installed, ceramic capacitor (0805)                                |
| CC1–CC4  | 4   | 10pF ±5%, 50V C0G ceramic capacitors (0603)<br>Murata GRM1885C1H100J   |
| CP1  | 1   | 100µF ±20%, 6.3V X5R ceramic capacitor (1210)<br>Murata GRM32ER60J107M |
| GND  | 5   | Black test points  |
| J1   | 0   | Not installed, 32-pin (2 x 16) header                                  |
| J2   | 1   | USB type-B, right-angle PC-mount receptacle                            |
| JTAG1, JTAG2                                   | 0   | Not installed, headers   |
| JU1–JU4,<br>JU12, JU13,<br>JU14, JU16,<br>JU18 | 9   | 3-pin headers  |
| JU5–JU8, JU17,<br>JU19, JU20                   | 7   | 2-pin headers  |
| JUC1–JUC7                                      | 0   | Not installed, 3-pin headers—short (PC trace)                          |
| L1   | 1   | Ferrite bead (0603)<br>TDK MMZ1608R301A                                |

| DESIGNATION                    | QTY | DESCRIPTION  |
|--------------------------------|-----|--|
| L3                             | 0   | Not installed, inductor—short (PC trace) (1206)        |
| LED1–LED4                      | 4   | Red LEDs (0603)  |
| OP+, VDD, VIN                  | 3   | Red test points  |
| OP-                            | 1   | Brown test point                                       |
| R1, R2, R5, R6,<br>R7          | 5   | 100kΩ ±5% resistors (0603)                             |
| R3, R4, R39,<br>R40            | 4   | 1kΩ ±5% resistors (through hole)                       |
| R10, R33                       | 2   | 22kΩ ±5% resistors (0603)                              |
| R11–R21                        | 11  | 5.1kΩ ±5% resistors (0603)                             |
| R22–R25, R28,<br>R34, R35, R41 | 8   | 10kΩ ±1% resistors (0603)                              |
| R26                            | 1   | 16.5kΩ ±1% resistor (0603)                             |
| R27                            | 1   | 4.42kΩ ±1% resistor (0603)                             |
| R29                            | 1   | 20kΩ ±1% resistor (0603)                               |
| R30, RC1–RC7                   | 8   | 10kΩ ±5% resistors (0603)                              |
| R31, R37                       | 0   | Not installed, resistors (0603)                        |
| R32                            | 1   | 12.1kΩ ±1% resistor (0603)                             |
| R36                            | 1   | 0Ω ±5% resistor (0603)                                 |
| R42                            | 1   | 10Ω ±1% resistor (0603)                                |
| RC8, RC9,<br>RC10              | 3   | 1kΩ ±5% resistors (0603)                               |
| RL1–RL4                        | 4   | 120Ω ±5% resistors (0603)                              |
| RN14–RN21                      | 8   | 22Ω, 8-pin SMT resistor networks                       |
| RN22                           | 1   | 5.1kΩ, 8-pin SMT resistor network                      |
| RN25                           | 1   | 10kΩ, 8-pin SMT resistor network                       |
| RSENSE1                        | 1   | 0.1Ω ±1%, 1/2W sensing resistor (1206)                 |
| S1                             | 1   | 4-position SMT half-pitch DIP switch                   |
| U1                             | 1   | 12-bit, 500ksps ADC (6 SOT23)<br>Maxim MAX11665AUT+    |
| U2                             | 1   | Cyclone III FPGA<br>Altera EP3C25F324C8N               |
| U5                             | 1   | 256Kx36 SSRAM (100 TQFP)<br>ISSI IS61LPS25636A-200TQLI |

# MAX11665 Evaluation Kit

**Evaluates: MAX11665**

## Component List (continued)

| DESIGNATION   | QTY | DESCRIPTION   |
|---------------|-----|---|
| U6            | 0   | Not installed, 32Mx16 Flash (64 EBGA)<br>Numonyx/Intel PC28F256P30BFA |
| U7            | 1   | EPCS16 (8 SO)<br>Altera EPCS16SI8N                                    |
| U8            | 1   | Current sensor (8 $\mu$ MAX®)<br>Maxim MAX9929FAUA+                   |
| U9            | 1   | Input buffer (5 SOT23)<br>Maxim MAX4430EUK+                           |
| U10, U11, U12 | 3   | LDOs (16 TSSOP-EP)<br>Maxim MAX1793EUE50+                             |
| U13           | 1   | LDO (6 SOT23)<br>Maxim MAX1983EUT+                                    |

| DESIGNATION | QTY | DESCRIPTION                                   |
|-------------|-----|---|
| U14         | 1   | SRAM (48 TSOP)<br>Cypress CY62167DV30LL-55ZXI |
| U15         | 1   | USB PHY (SOT617-1)<br>ST Ericsson ISP1504ABS  |
| U18, U19    | 2   | Dual buffers (6 SC70)                         |
| Y1          | 1   | 50MHz oscillator                              |
| Y2          | 1   | 19.2MHz, 18pF SMD crystal                     |
| —           | 1   | USB high-speed A-to-B cables,<br>6ft          |
| —           | 16  | Shunts  |
| —           | 1   | PCB: MAX11665 EVALUATION<br>KIT               |

## Component Suppliers

| SUPPLIER                               | PHONE         | WEBSITE                     |
|--|---------------|-----------------------------|
| Altera Corp.                           | 800-800-3753  | www.altera.com              |
| AVX Corporation                        | 843-946-0238  | www.avxcorp.com             |
| KEMET Corp.                            | 864-963-6300  | www.kemet.com               |
| Murata Electronics North America, Inc. | 770-436-11105 | www.murata-northamerica.com |
| TDK Corp.                              | 847-803-6100  | www.component.tdk.com       |

**Note:** Indicate that you are using the MAX11665 when contacting these component suppliers.

## MAX11665 EV Kit Files

| FILE                    | DESCRIPTION                                |
|-------------------------|--|
| INSTALL.EXE             | Installs the EV kit files on your computer |
| MAX11665.EXE            | Application program                        |
| SLSUSB.DLL              | Software library file                      |
| SLSUSB.INF              | USB device driver file                     |
| SLSUSB.SYS              | USB device driver file                     |
| USB_Driver_Help_200.PDF | USB driver installation file               |

$\mu$ MAX is a registered trademark of Maxim Integrated Products, Inc.

# MAX11665 Evaluation Kit

## Quick Start

### Required Equipment

- MAX11665 EV kit
- +5.5V, 500mA DC power supply
- User-supplied Windows XP, Windows Vista, or Windows 7 PC with a spare USB port
- Function generator

**Note:** In the following sections, software-related items are identified by bolding. Text in **bold** refers to items directly from the EV kit software. Text in **bold and underlined** refers to items from the Windows operating system.

### Procedure

The EV kit is fully assembled and tested. Follow the steps below to verify board operation. **Caution: Do not turn on the power supply until all connections are completed.**

- 1) Uncompress the 11665Rxx.ZIP file in a temporary folder.
- 2) Install the EV kit software on your computer by running the INSTALL.EXE program inside the temporary folder. The program files are copied to your PC and icons are created in the Windows **All Programs** menu. During software installation, some versions of Windows may show a warning message indicating that this software is from an unknown publisher. This is not an error condition and it is safe to proceed with installation. Administrator privileges are required to install the software on Windows.
- 3) Verify that all jumpers are in their default positions, as shown in Table 1.
- 4) Connect the positive terminal of the +5.5V power supply to the VIN connector on the board. Connect the negative terminal of the same power supply to the GND connector on the board.
- 5) Set the signal source to generate a 100kHz, +1V peak-to-peak sinusoidal wave with +2V offset.
- 6) Connect the positive terminal of the function generator to the AIN\_DC or AIN\_DC\_SMA connector. Connect the negative terminal of the function generator to the GND connector.
- 7) Turn on the power supply.
- 8) Turn on the function generator.
- 9) Connect the USB cable from the PC to the EV kit board. Follow the instructions in the USB\_Driver\_Help\_200.pdf file to manually install the USB driver. Administrative privileges are required to install the USB device driver on Windows.
- 10) Start the EV kit software by opening its icon in the Windows **All Programs** menu. The EV kit software main window appears, as shown in Figure 1.
- 11) The main windows should display **Hardware Connected** in the bottom-left corner.
- 12) Check the **Remove DC** checkbox.
- 13) Press the **Start Conversion** button.
- 14) Verify that the **Frequency** displayed in the **Calculation** group box reads approximately 100000Hz.

# MAX11665 Evaluation Kit

Evaluates: MAX11665

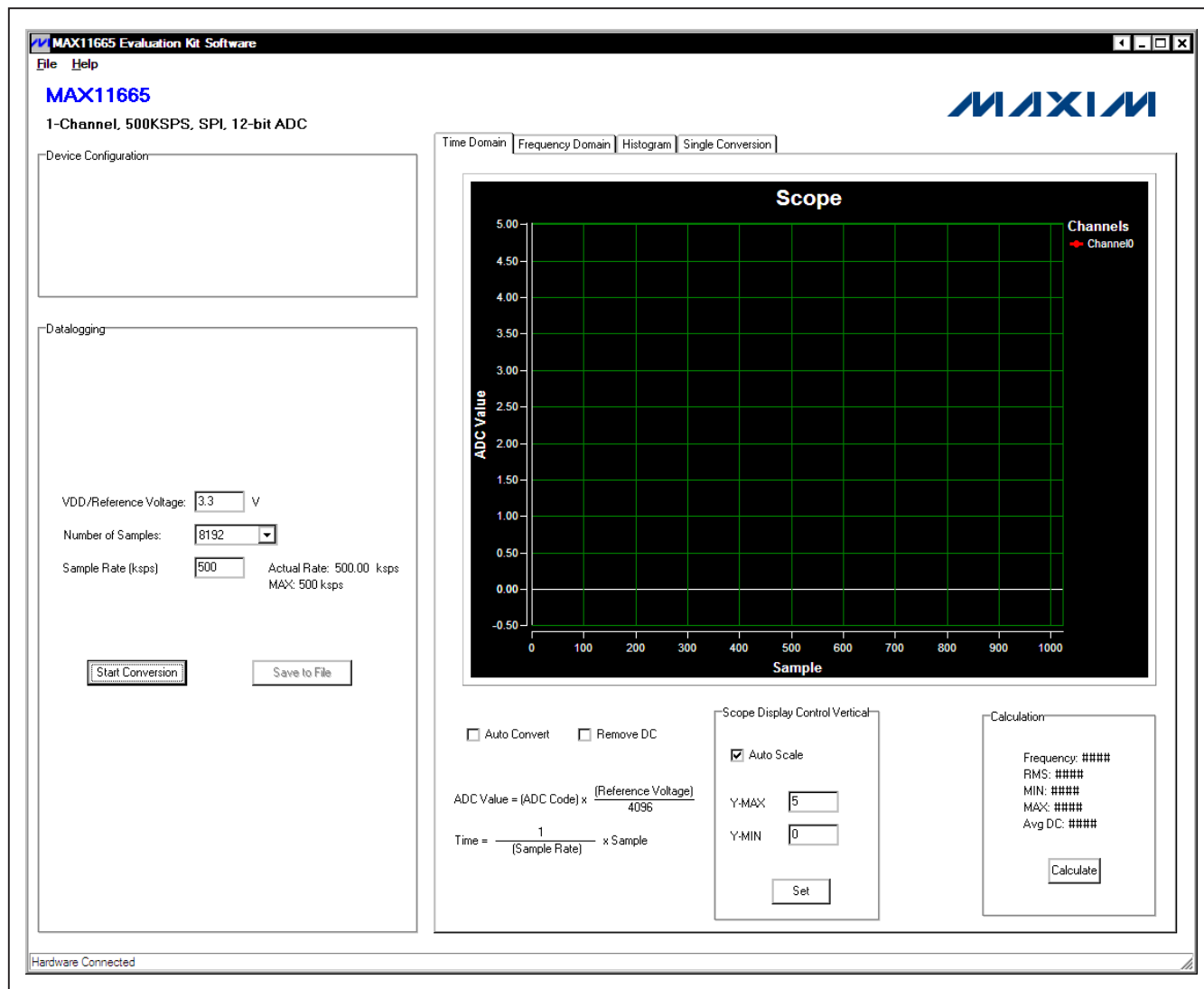


Figure 1. MAX11665 EV Kit Software Main Window

# MAX11665 Evaluation Kit

## **\_\_Detailed Description of Software**

The main window of the evaluation software (Figure 1) contains a **Datalogging** group box and four tabs to display the sampled data.

### **Data Logging**

In the **Datalogging** group box, the user can select the desired number of conversions from the **Number of Samples** drop-down list. Enter the desired sampling rate in the **Sample Rate (ksps)** edit box. The actual sampling rate is displayed at the right of the **Sample Rate (ksps)** edit box. Press the **Start Conversion** button to start sampling. After sampling is finished, the user can save the data to a file by pressing the **Save to File** button. The **Save to File** button is not active until the sampling is done.

### **Time Domain, Frequency Domain, Histogram, and Single Conversion Tabs**

After the **Start Conversion** button in the **Datalogging** group box is pressed, the sampled data in the time domain is plotted in the **Time Domain** tab sheet. The sampled data in the frequency domain is plotted in the **Frequency Domain** tab sheet and the histogram of the sampled signal is plotted in the **Histogram** tab sheet. The **Single Conversion** tab sheet displays one sampled data.

Check the **Auto Convert** checkbox to automatically and repeatedly perform the ADC conversions and update the active tab sheet.

### **Time Domain Tab**

In the **Time Domain** tab sheet (Figure 2), check the **Remove DC** checkbox to remove the DC component of the sampled signal. When the **Auto Scale** checkbox in the **Scope Display Control Vertical** group

box is checked, the software automatically scales the vertical axis in the plot. If the **Auto Scale** checkbox is unchecked, enter the appropriate values into the **Y-MAX** and **Y-MIN** edit boxes and press the **Set** button to set the boundaries for the vertical axis. The software automatically calculates the **Frequency**, **RMS**, **MIN**, **MAX**, and **Avg DC** of the sampled signal and displays the calculated values in the **Calculation** group box.

### **Frequency Domain Tab**

The **Frequency Domain** tab sheet (Figure 3) displays the FFT plot of the signal shown in the **Time Domain** tab sheet.

### **Histogram Tab**

The **Histogram** tab sheet (Figure 4) displays the histogram of the signal shown in the **Time Domain** tab sheet. The software automatically calculates the **Mean** and the **Std Dev** (standard deviation, sigma) and displays the calculated values in the **Calculation** group box.

The **Histogram Display Control** radio group box provides three options to scale the horizontal axis on the histogram:

- 1) **(Mean – 3 sigma) to (Mean + 3 sigma)**
- 2) **(Mean – 6 sigma) to (Mean + 6 sigma)**
- 3) User-defined range (**MIN**, **MAX**)

### **Single Conversion**

The **ADC Value Display** group box in the **Single Conversion** tab sheet (Figure 5) displays the **ADC Code** and calculated **Voltage** values for a single sample. Press the **Start Conversion** button in the **Datalogging** group box to update the status of the **ADC Value Display** group box.

# MAX11665 Evaluation Kit

Evaluates: MAX11665

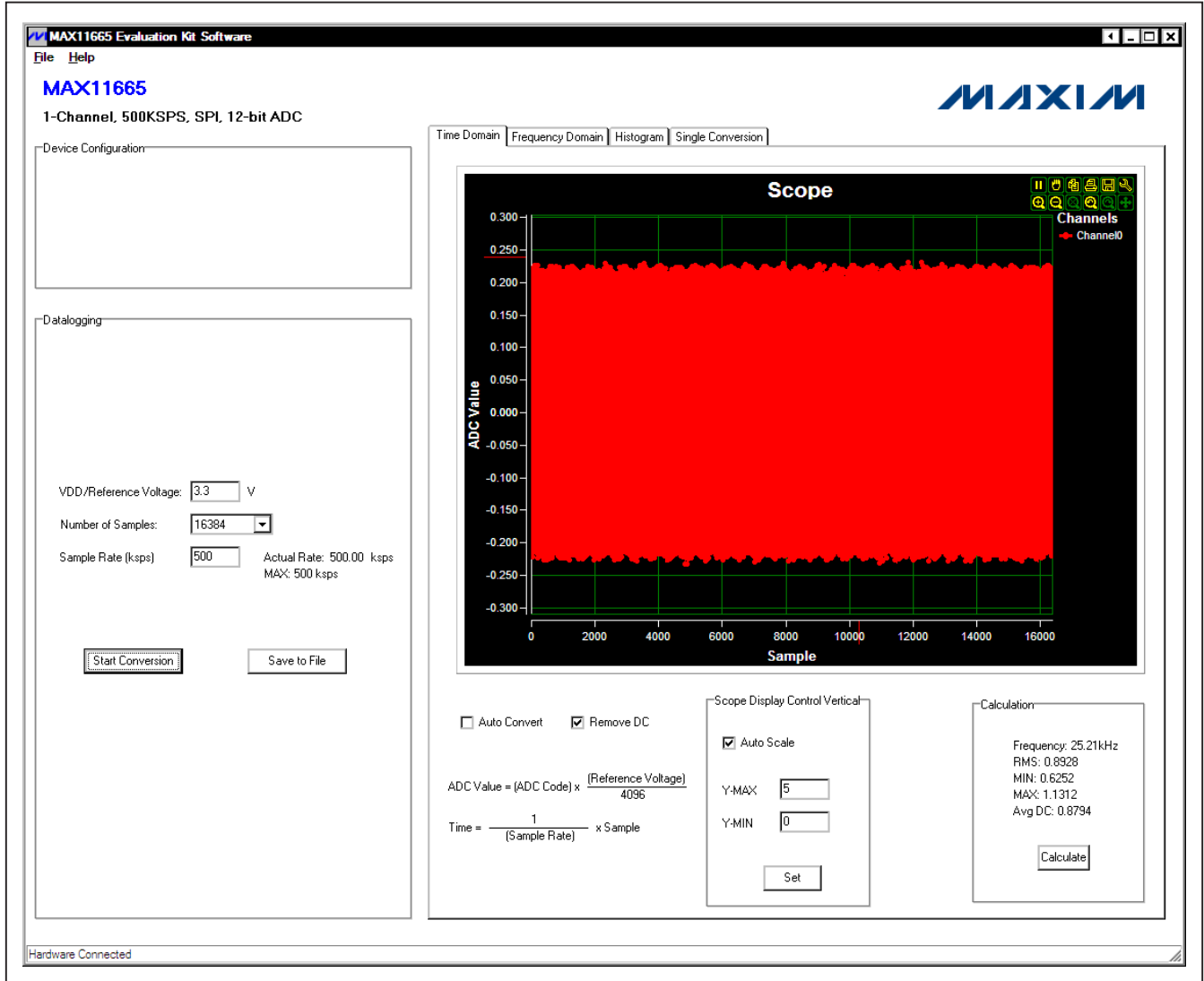


Figure 2. Time Domain Tab

# MAX11665 Evaluation Kit

Evaluates: MAX11665

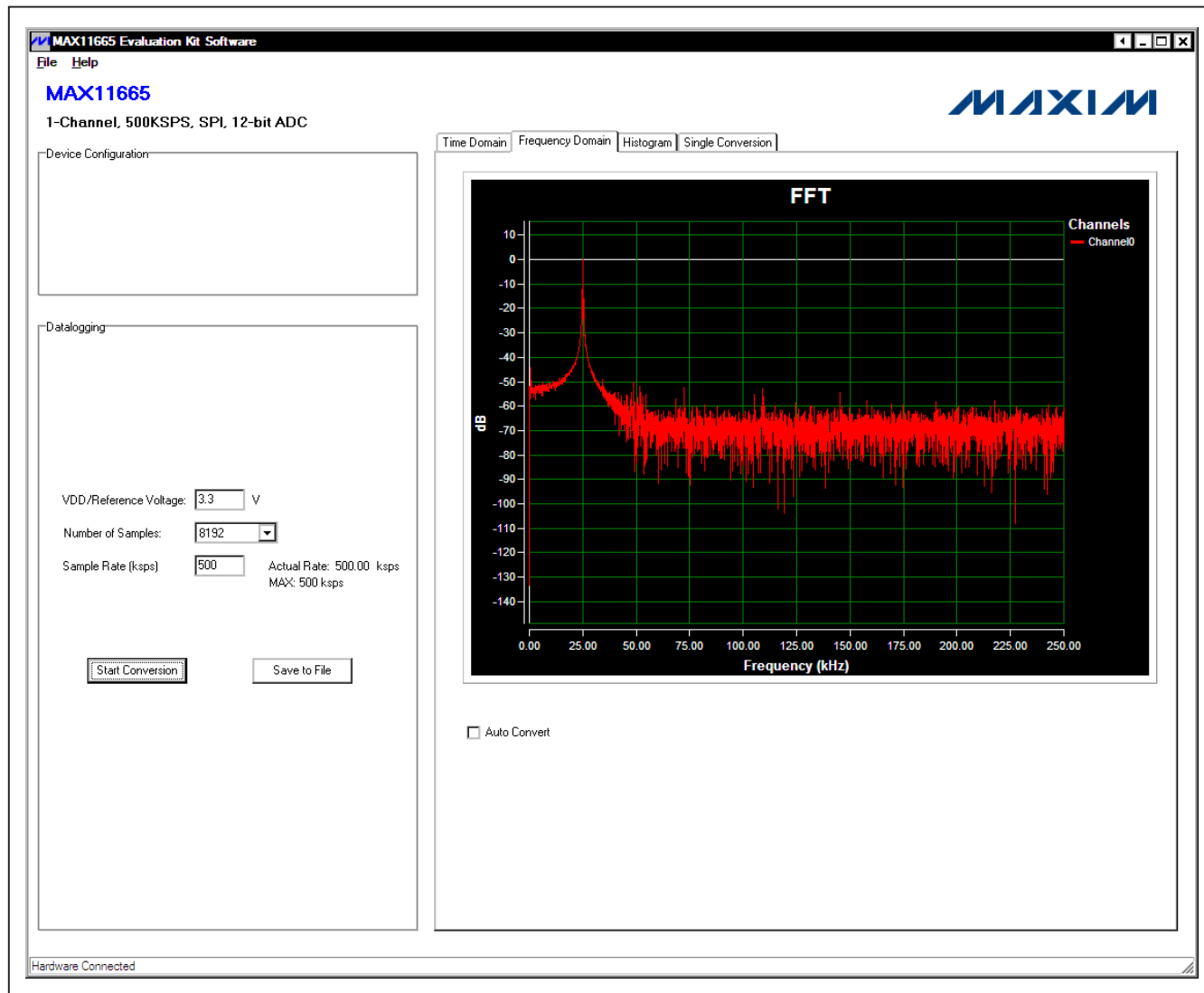


Figure 3. Frequency Domain Tab



# MAX11665 Evaluation Kit

Evaluates: MAX11665

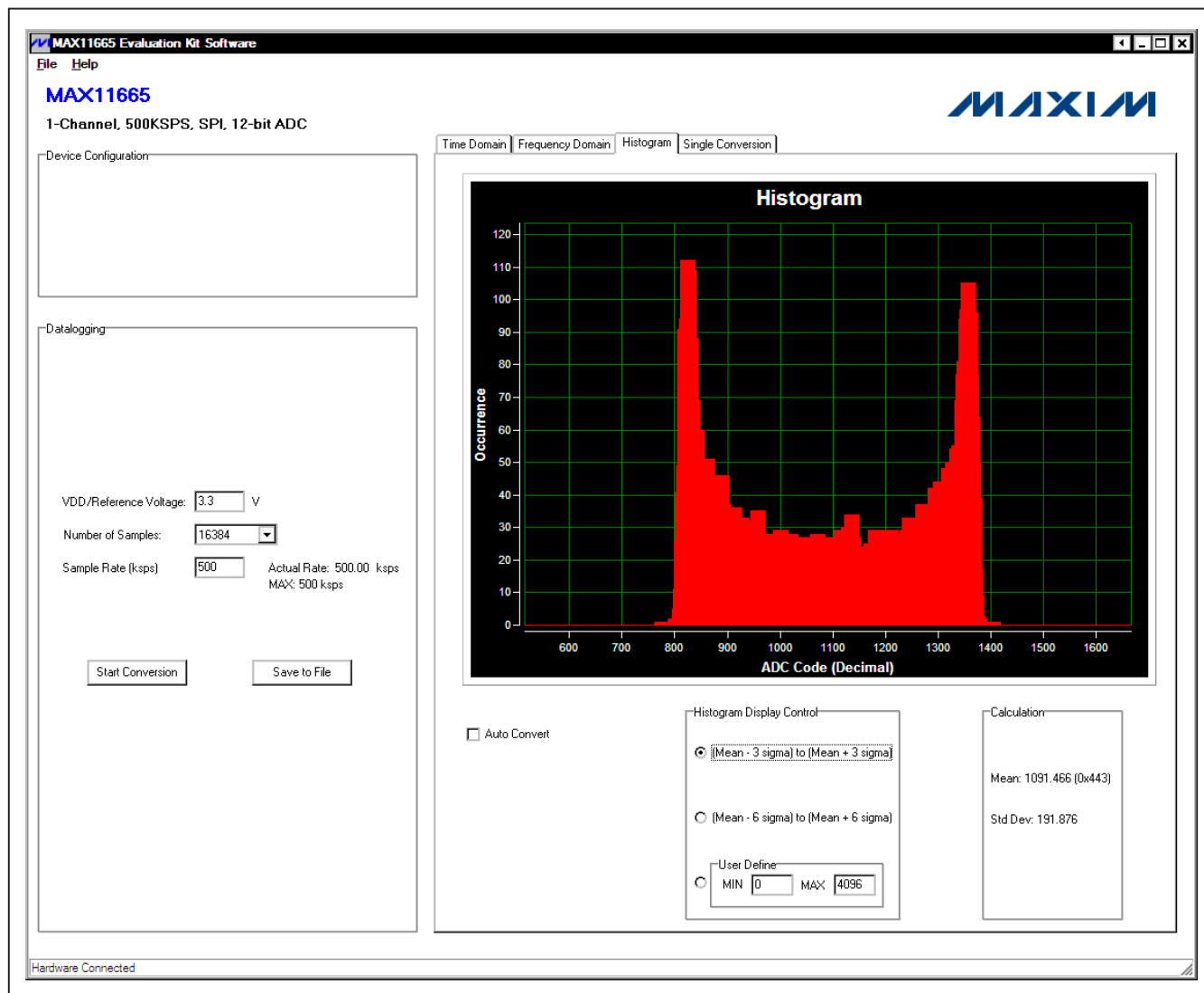


Figure 4. Histogram Tab

# MAX11665 Evaluation Kit

Evaluates: MAX11665

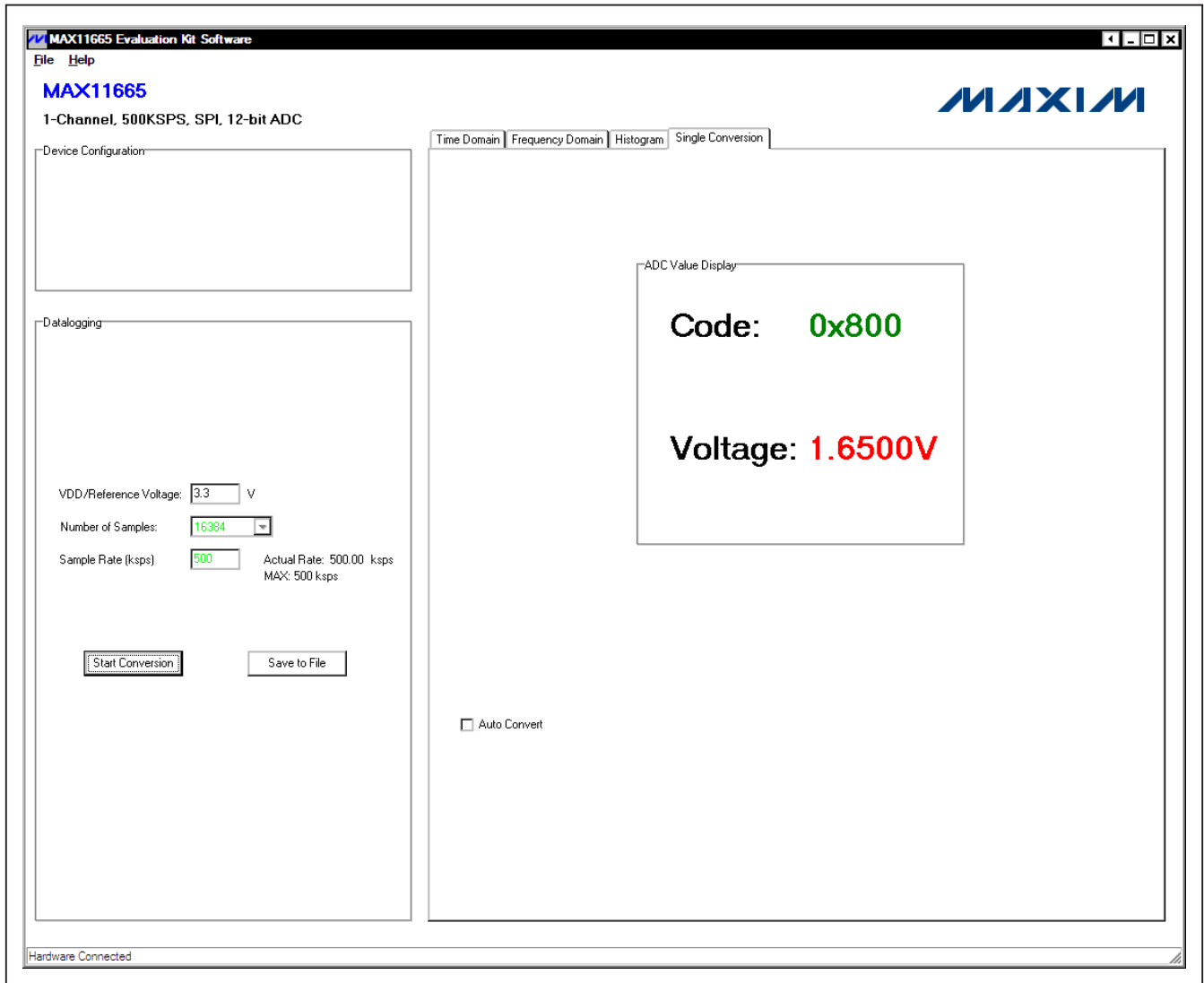


Figure 5. Single Conversion Tab

# MAX11665 Evaluation Kit

Evaluates: MAX11665

## Detailed Description of Hardware

The MAX11665 EV kit is a fully assembled and tested PCB that evaluates the MAX11665 12-bit, SPI-compatible 500ksps ADC. The EV kit comes with a MAX11665AUT+ in a 6-pin SOT package installed.

### Power Supply

A +5.5V power supply is required to power up the EV kit. Connect the positive terminal of the power supply to the VIN connector and the negative terminal to the GND connector.

### On-Board Input Buffer

An on-board input buffer (U9) is provided on the EV kit. Connect the +5V, GND, and -5V terminals of the power supply to the OP+, GND, and OP- connectors, respectively, to power the on-board buffer.

Move the shunt of JU18 to the 2-3 position and remove the shunts on JU19 and JU20. The user can connect

the AC signal to the AIN\_AC\_SMA or the AIN\_AC connector and connect the DC offset to the AIN\_DC\_SMA or the AIN\_DC connector. If the measuring signal has already been shifted above the ground level, short the AC input to ground by installing a shunt on JU19, and connect the measuring signal to the AIN\_DC\_SMA or the AIN\_DC connector. To bypass the buffer and connect the measuring signal directly to the AIN input of the ADC, move the shunt on JU18 to the 1-2 position. Finally, connect the measuring signal to the AIN\_DC\_SMA or the AIN\_DC connector.

### User-Supplied SPI Interface

For a user-supplied SPI interface, first move the shunts on JU12, JU13, and JU14 to the 2-3 position and connect the user-supplied  $\overline{CS}$ , SCLK, and MISO signals to the corresponding  $\overline{CS}$ , SCLK, and DOUT connectors on the EV kit.

**Table 1. Jumper Settings (JU1–JU8, JU12, JU13, JU14, JU16–JU20)**

| JUMPER | SHUNT POSITION | DESCRIPTION   |
|--------|----------------|---|
| JU1    | 1-2            | Connects the USB power to the input of the on-board LDO (U10).                        |
|        | 2-3*           | Connects the external power supply to the input of the on-board LDO (U10).            |
| JU2    | 1-2            | Connects the USB power to the input of the on-board LDO (U11).                        |
|        | 2-3*           | Connects the external power supply to the input of the on-board LDO (U11).            |
| JU3    | 1-2            | Connects the USB power to the input of the on-board LDO (U12).                        |
|        | 2-3*           | Connects the external power supply to the input of the on-board LDO (U12).            |
| JU4    | 1-2            | Connects the USB power to the input of the on-board LDO (U13).                        |
|        | 2-3*           | Connects the external power supply to the input of the on-board LDO (U13).            |
| JU5    | 1-2*           | The on-board LDO (U10) provides 3.3V output to the EV kit.                            |
|        | Open           | Disconnects the output of the on-board LDO (U10).                                     |
| JU6    | 1-2*           | The on-board LDO (U11) provides 1.8V output to the EV kit.                            |
|        | Open           | Disconnects the output of the on-board LDO (U11).                                     |
| JU7    | 1-2*           | The on-board LDO (U12) provides 2.5V output to the EV kit.                            |
|        | Open           | Disconnects the output of the on-board LDO (U12).                                     |
| JU8    | 1-2*           | The on-board LDO (U13) provides 1.2V output to the EV kit.                            |
|        | Open           | Disconnects the output of the on-board LDO (U13).                                     |
| JU12   | 1-2*           | Connects the SCLK signal of the ADC (U1) to the FPGA.                                 |
|        | 2-3            | Connects the SCLK signal of the ADC (U1) to the SCLK connector.                       |
| JU13   | 1-2*           | Connects the $\overline{CS}$ signal of the ADC (U1) to the FPGA.                      |
|        | 2-3            | Connects the $\overline{CS}$ signal of the ADC (U1) to the $\overline{CS}$ connector. |
| JU14   | 1-2*           | Connects the DOUT signal of the ADC (U1) to the FPGA.                                 |
|        | 2-3            | Connects the DOUT signal of the ADC (U1) to the DOUT connector.                       |

# MAX11665 Evaluation Kit

**Evaluates: MAX11665**

**Table 1. Jumper Settings (JU1–JU8, JU12, JU13, JU14, JU16–JU20) (continued)**

| JUMPER | SHUNT POSITION | DESCRIPTION   |
|--------|----------------|---|
| JU16   | 1-2*           | Connects the VDD input of the ADC (U1) to the output of the on-board 3.3V LDO.  |
|        | 2-3            | Connects the VDD input of the ADC (U1) to the VDD connector.  |
| JU17   | 1-2            | Connects OP- to GND.  |
|        | Open*          | Disconnects OP- from GND.   |
| JU18   | 1-2*           | Bypasses the on-board input buffer. Connects the AIN_DC_SMA or the AIN_DC connector to the AIN input of the ADC (U1).           |
|        | 2-3            | Connects the AIN input of the ADC (U1) to the output of the on-board buffer (U9).   |
| JU19   | 1-2            | Shorts the AC-signal input to GND.  |
|        | Open*          | Connects the signal from the AIN_AC_SMA connector to the inverting input of the on-board buffer (U9) through a 1kΩ resistor.    |
| JU20   | 1-2            | Shorts the DC signal input to GND.  |
|        | Open*          | Connects the signal from the AIN_DC_SMA connector to the noninverting input of the on-board buffer (U9) through a 1kΩ resistor. |

\*Default position.



# MAX11665 Evaluation Kit

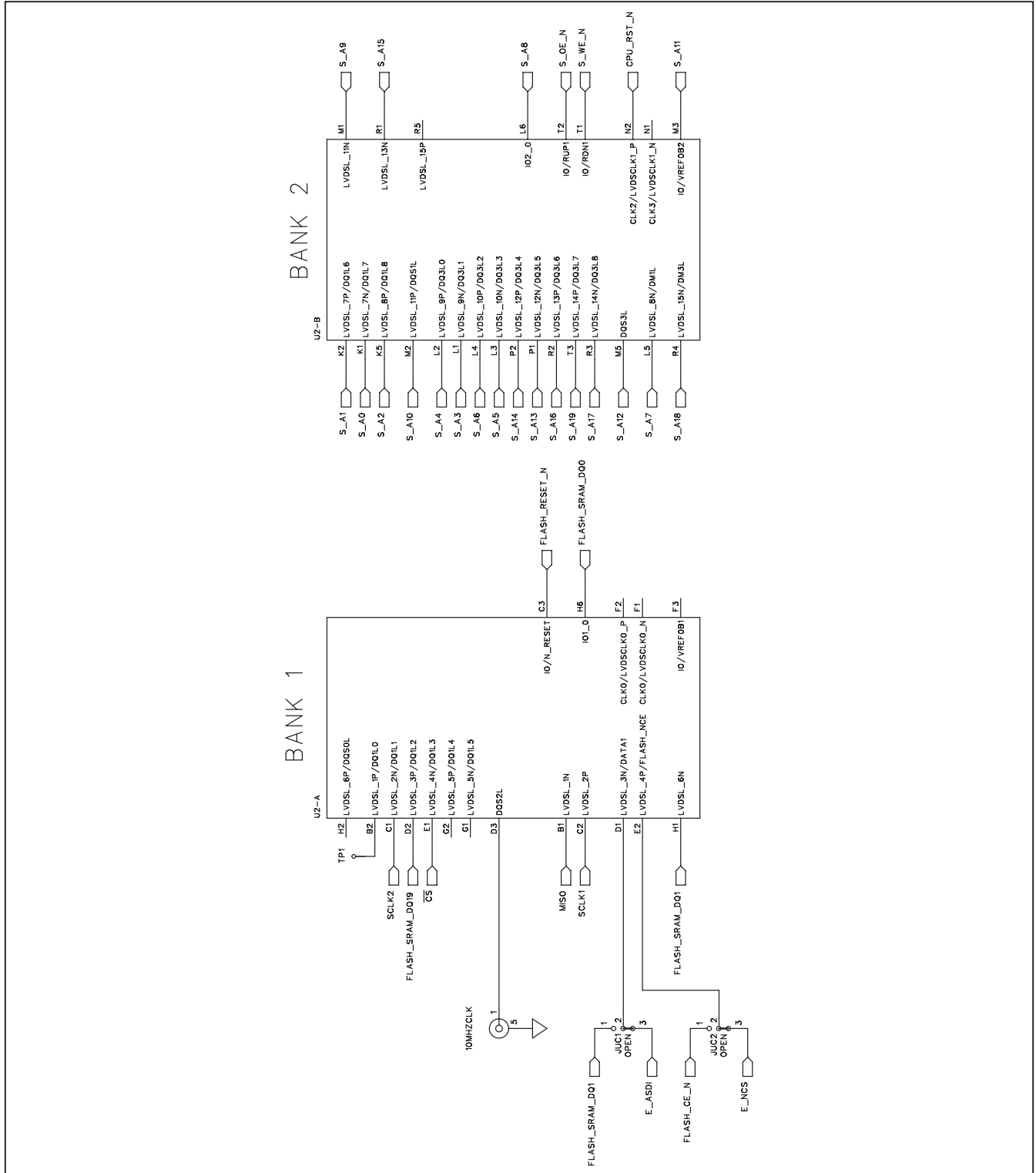


Figure 6b. MAX11665 EV Kit Schematic (Sheet 2 of 12)

# MAX11665 Evaluation Kit

Evaluates: **MAX11665**

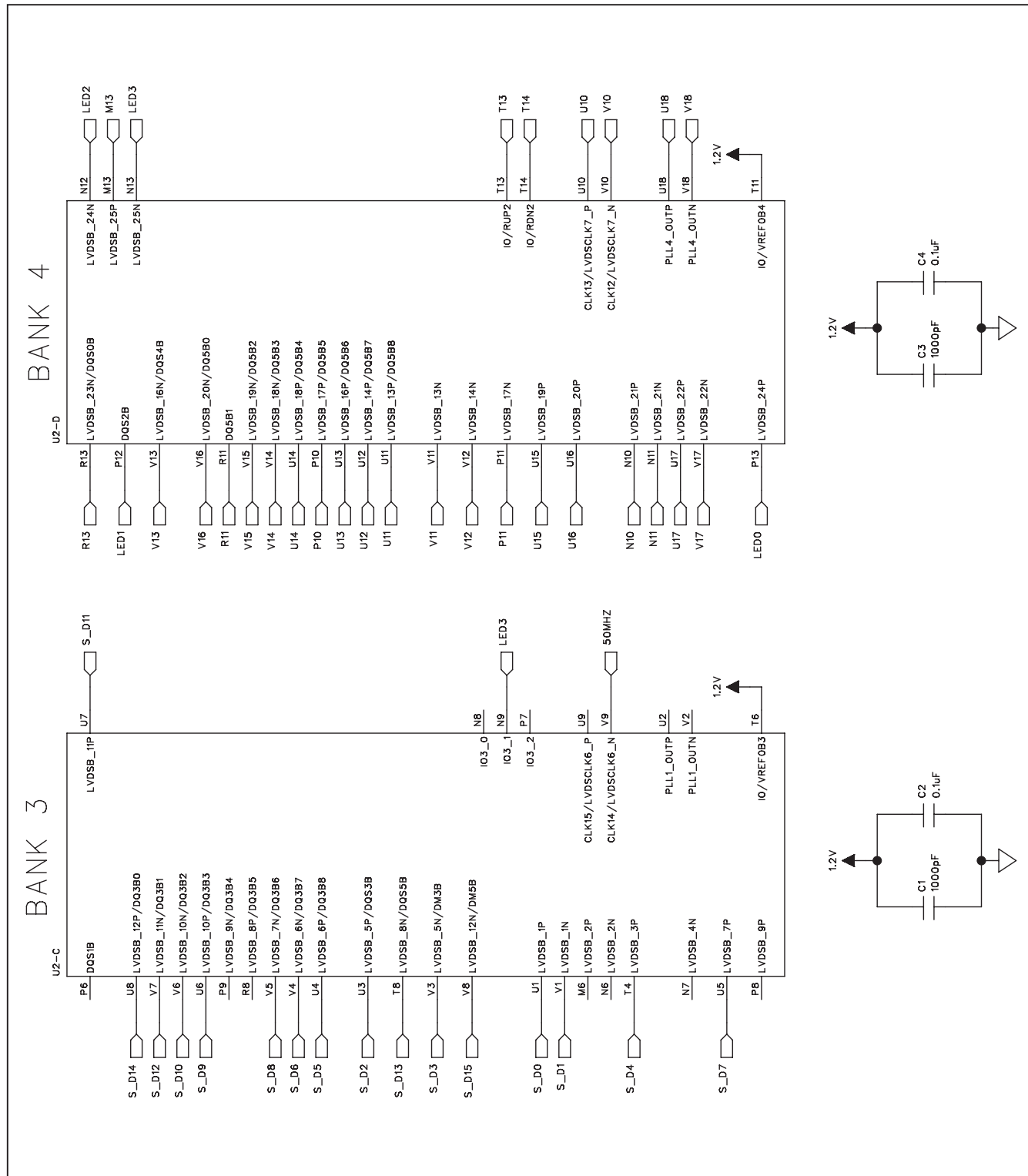


Figure 6c. MAX11665 EV Kit Schematic (Sheet 3 of 12)

# MAX11665 Evaluation Kit

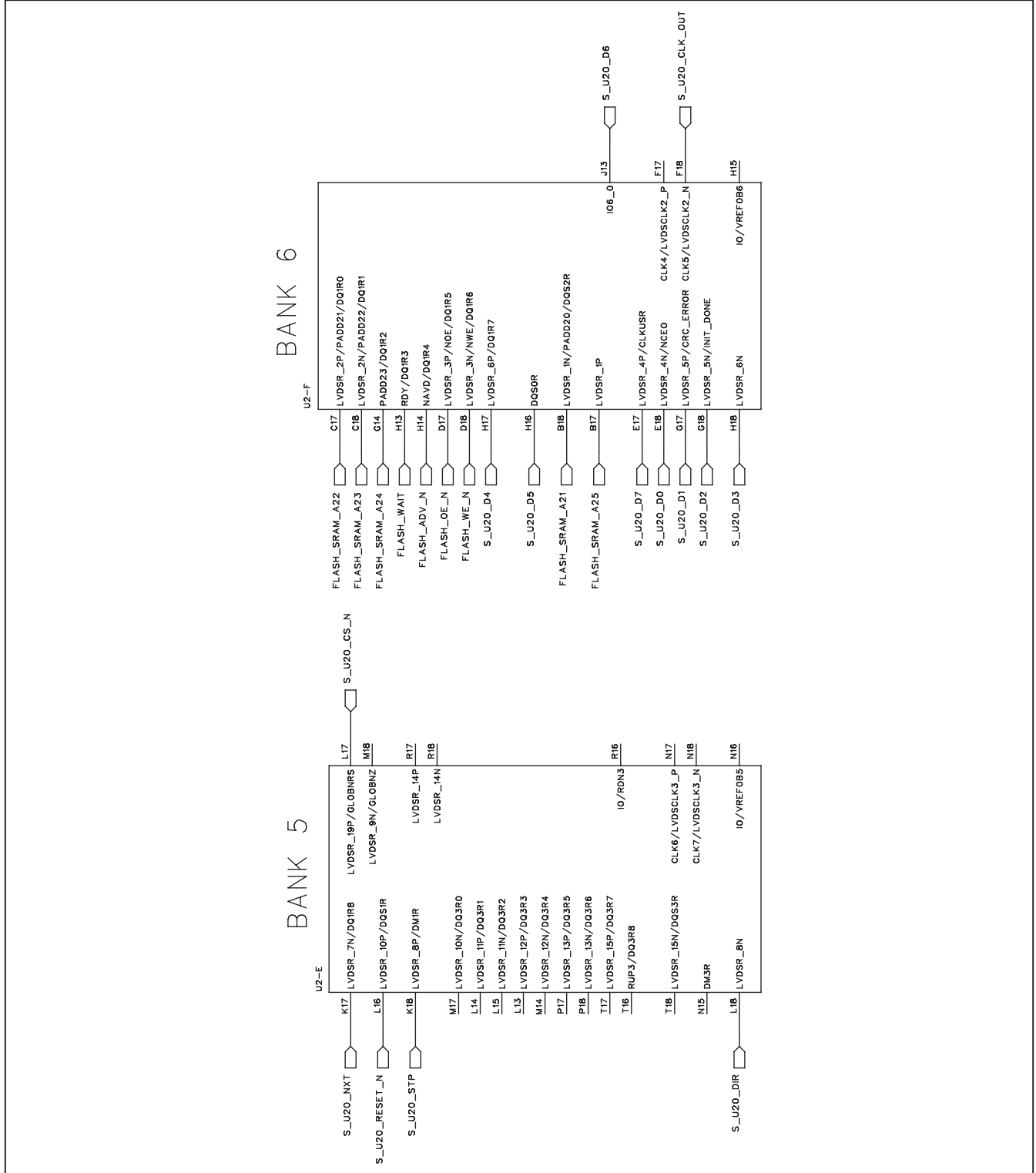


Figure 6d. MAX11665 EV Kit Schematic (Sheet 4 of 12)



# MAX11665 Evaluation Kit

Evaluates: MAX11665

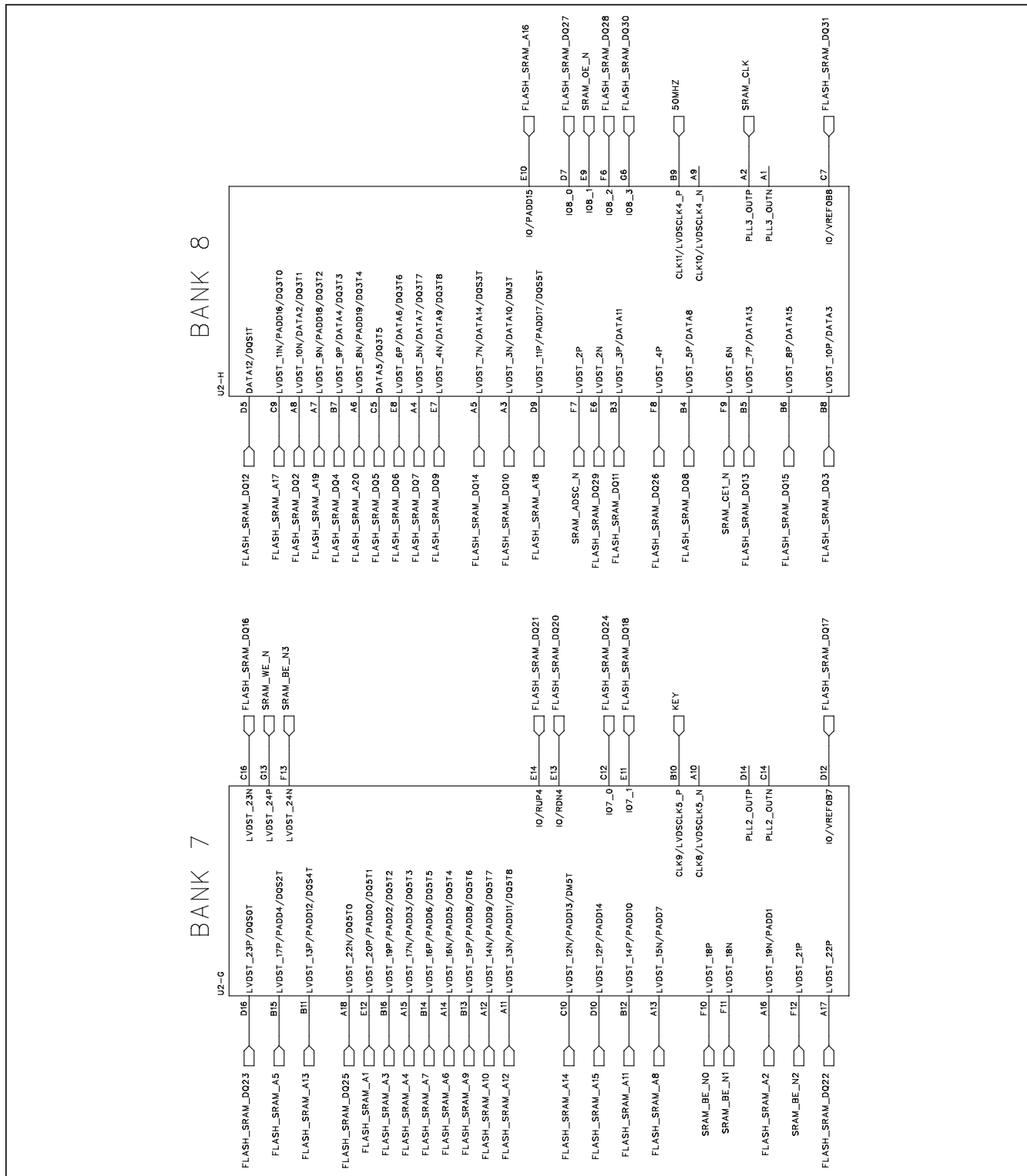


Figure 6e. MAX11665 EV Kit Schematic (Sheet 5 of 12)

# MAX11665 Evaluation Kit

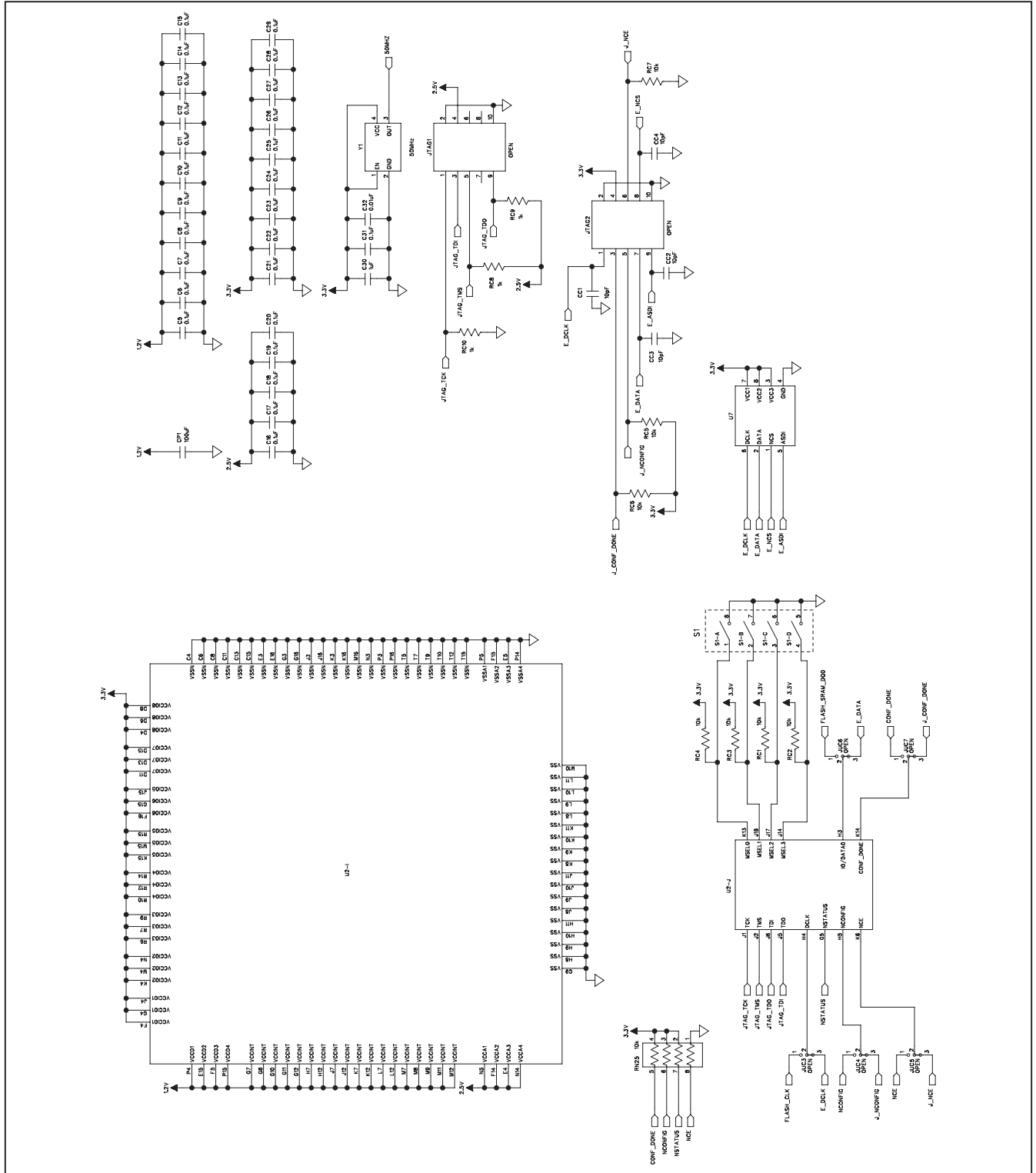


Figure 6f. MAX11665 EV Kit Schematic (Sheet 6 of 12)

# MAX11665 Evaluation Kit

Evaluates: MAX11665

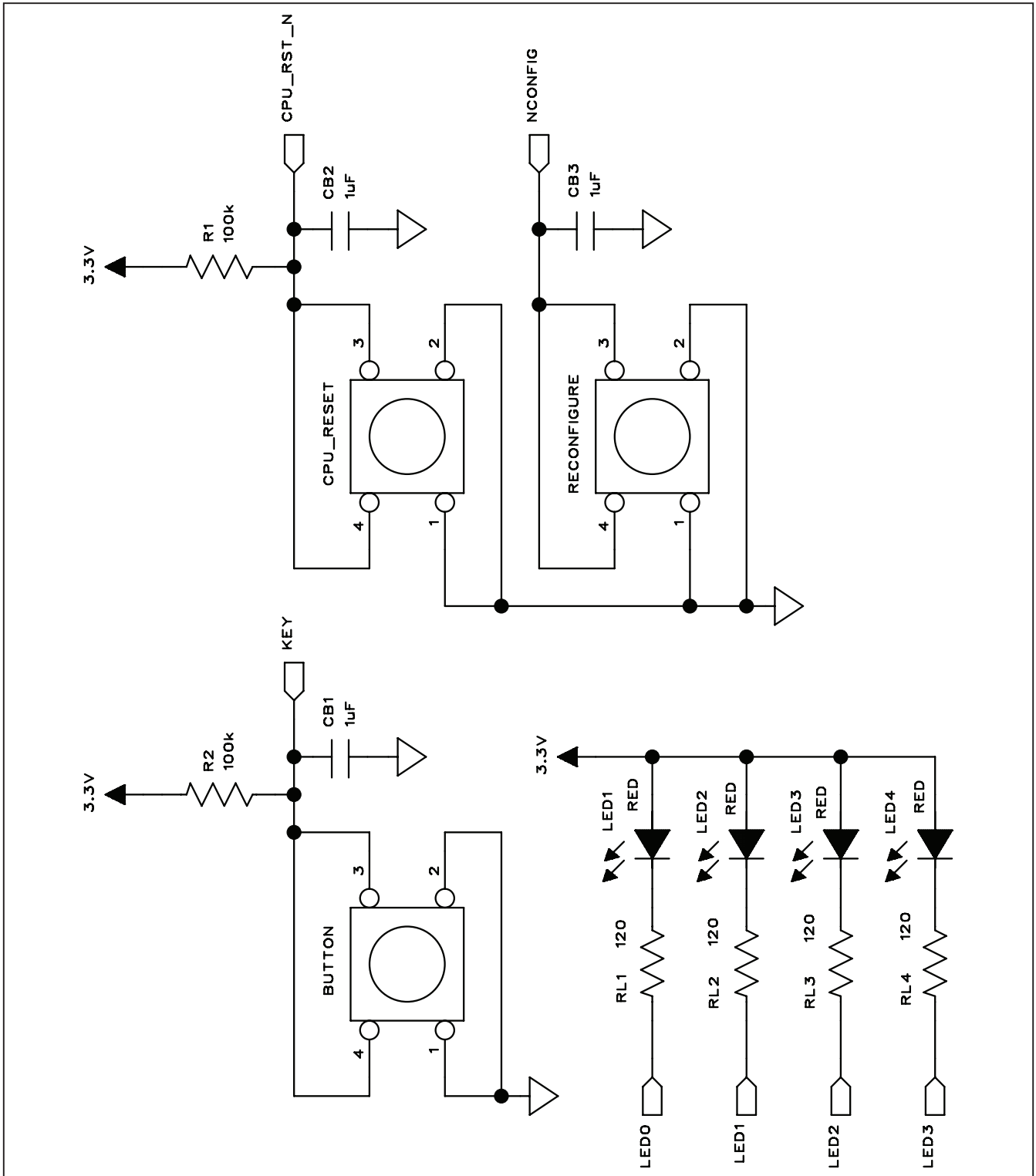


Figure 6g. MAX11665 EV Kit Schematic (Sheet 7 of 12)

# MAX11665 Evaluation Kit

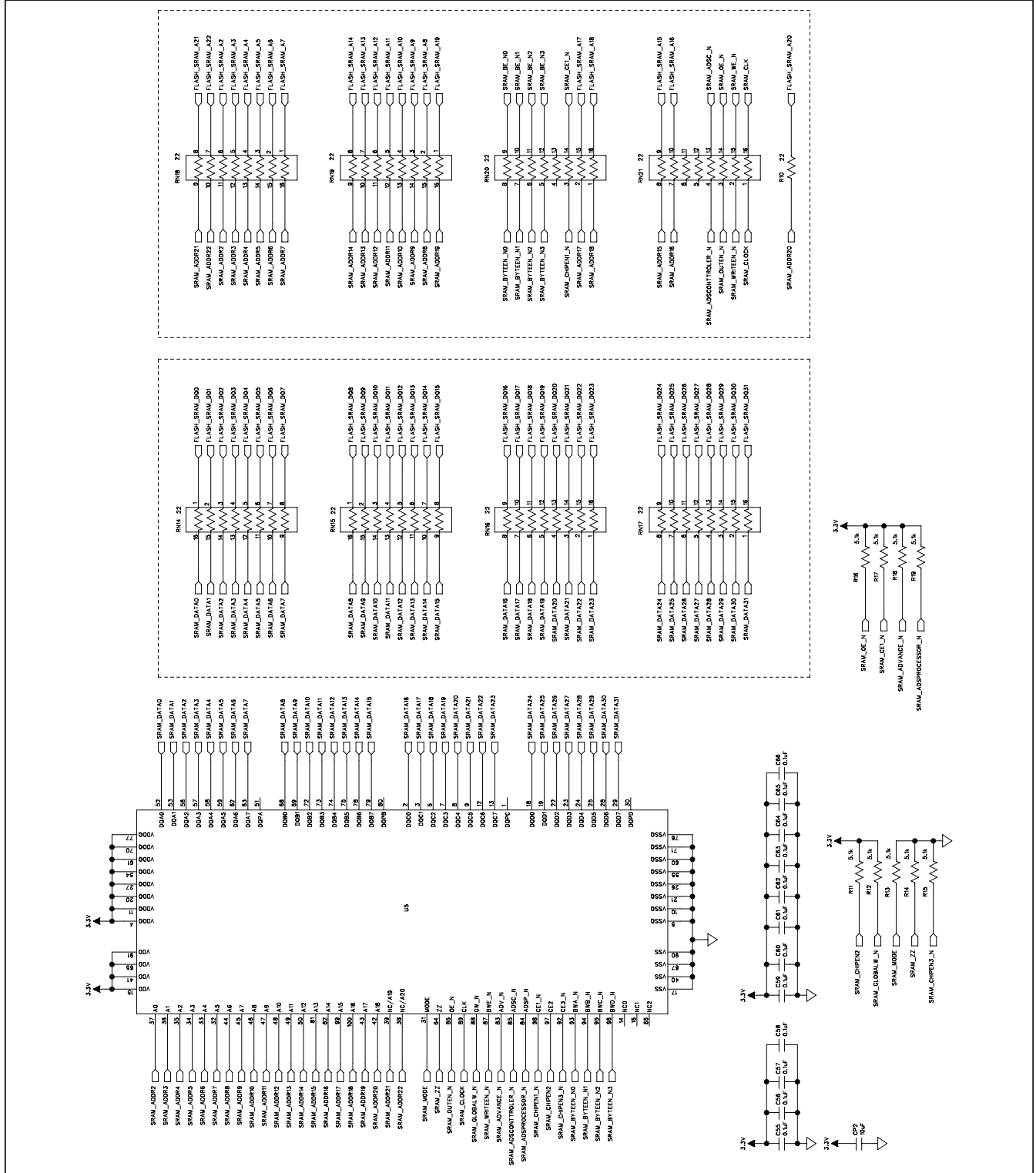


Figure 6h. MAX11665 EV Kit Schematic (Sheet 8 of 12)

# MAX11665 Evaluation Kit

Evaluates: MAX11665

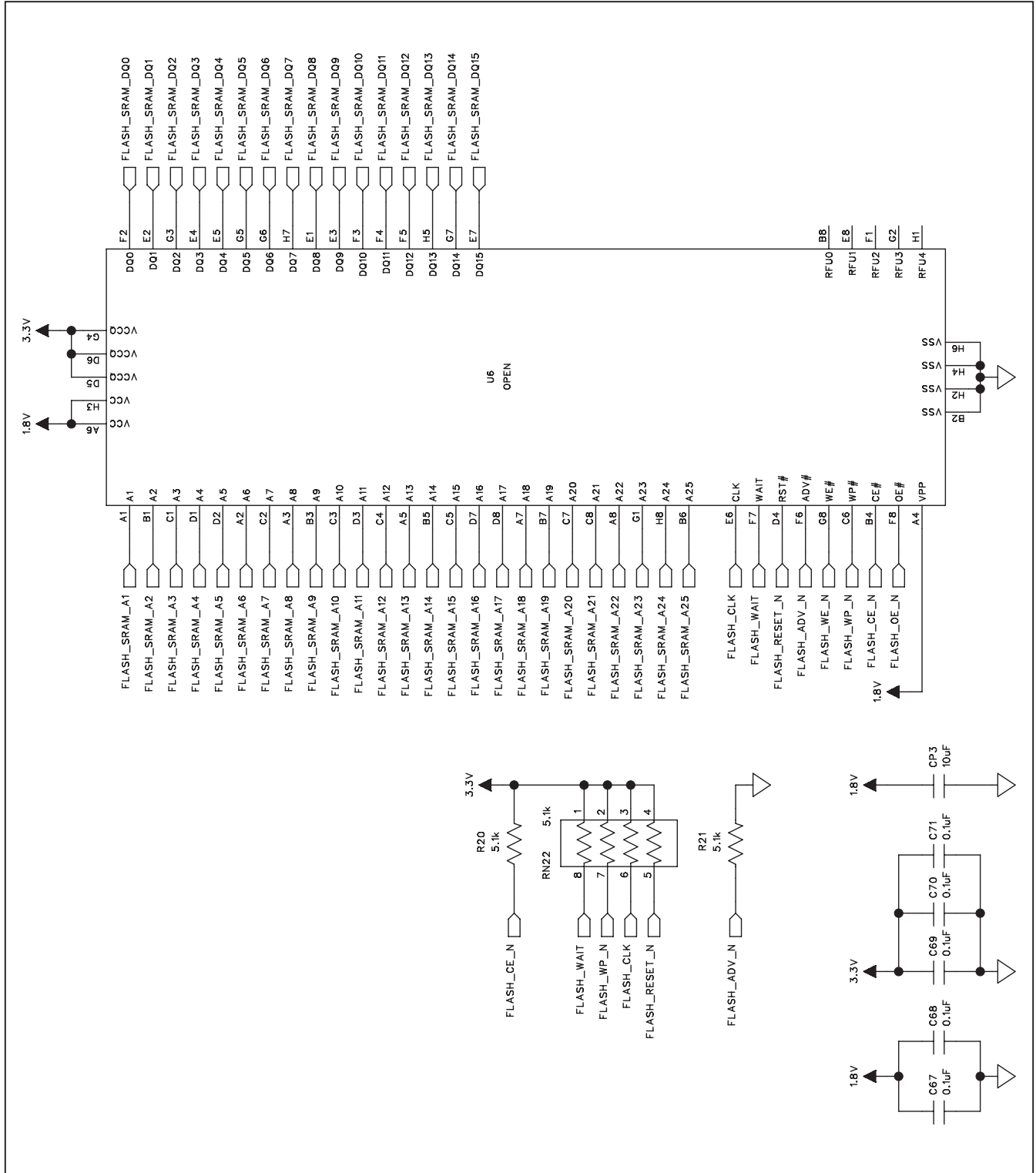


Figure 6i. MAX11665 EV Kit Schematic (Sheet 9 of 12)

# MAX11665 Evaluation Kit

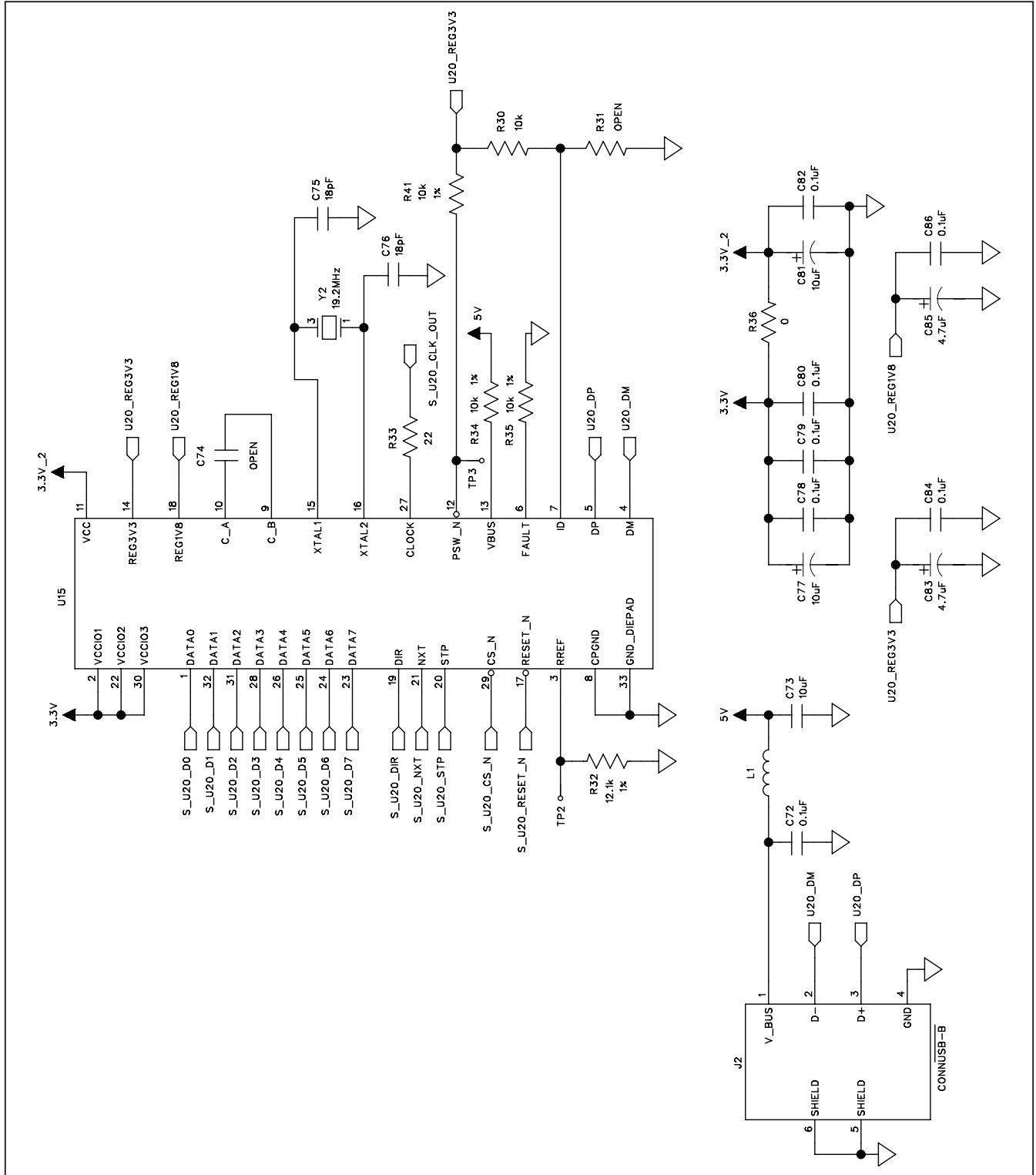


Figure 6j. MAX11665 EV Kit Schematic (Sheet 10 of 12)

# MAX11665 Evaluation Kit

Evaluates: MAX11665

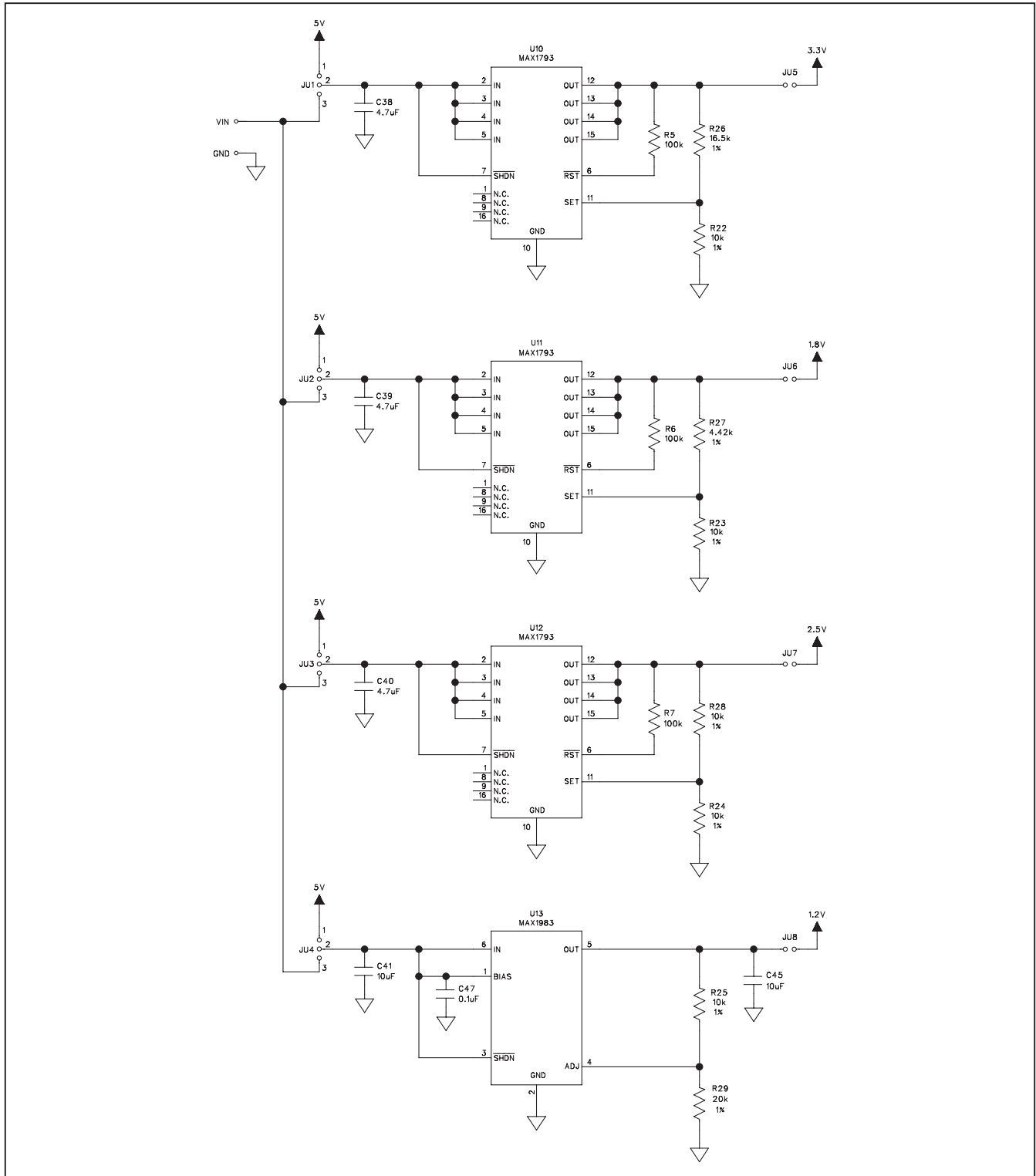


Figure 6k. MAX11665 EV Kit Schematic (Sheet 11 of 12)

# MAX11665 Evaluation Kit

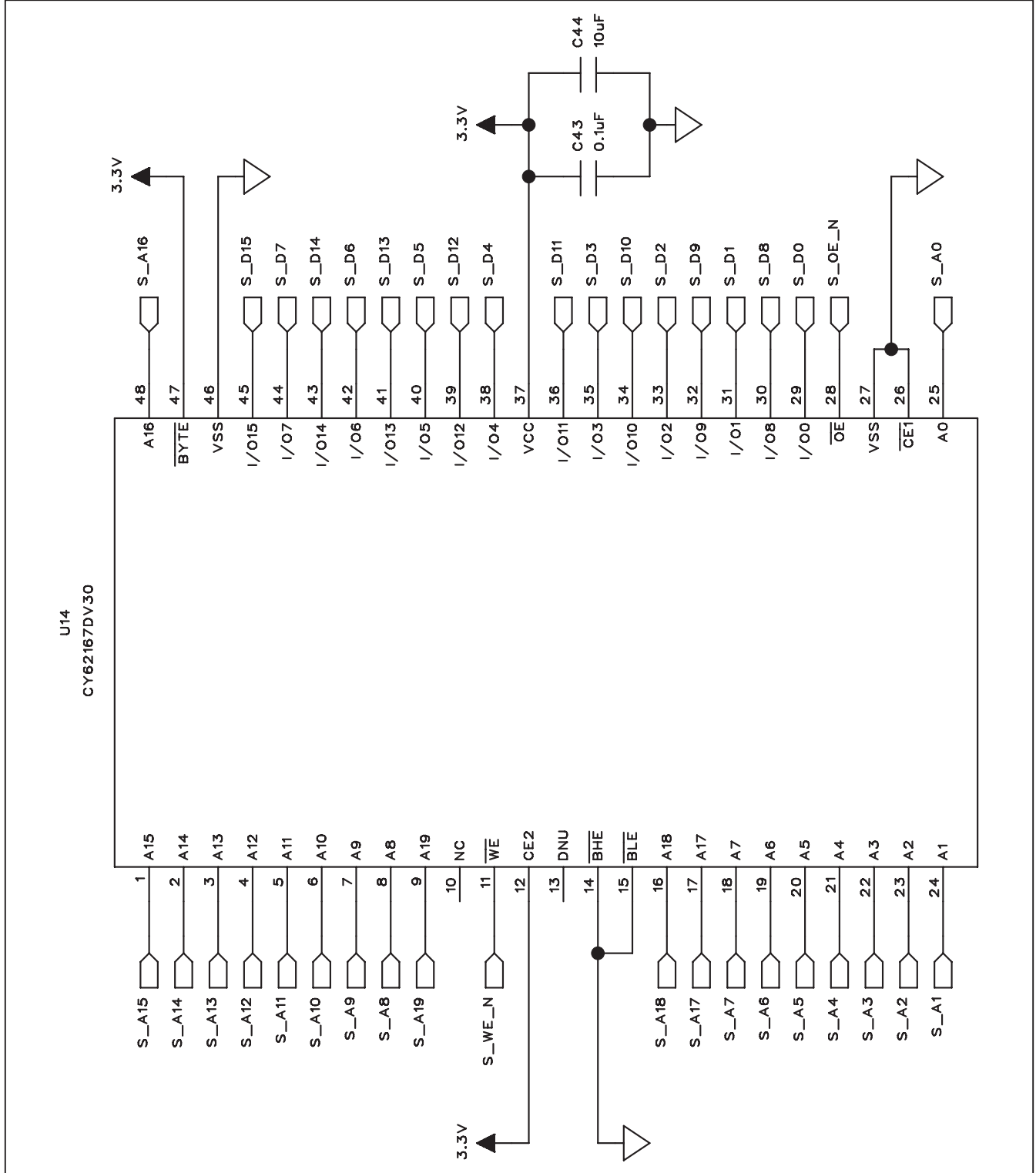


Figure 6I. MAX11665 EV Kit Schematic (Sheet 12 of 12)



# MAX11665 Evaluation Kit

Evaluates: MAX11665

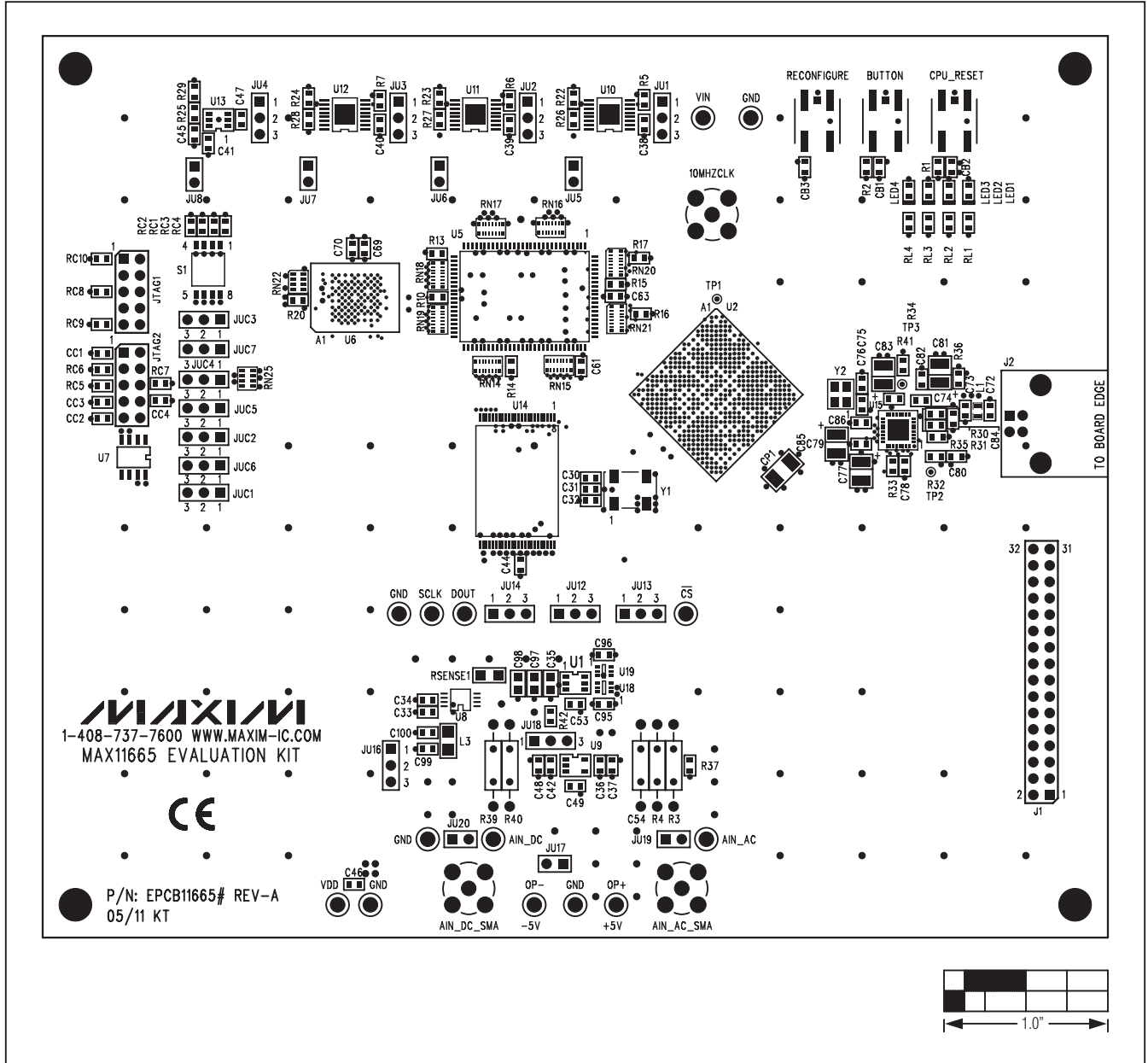


Figure 7. MAX11665 EV Kit Component Placement Guide—Top

# MAX11665 Evaluation Kit

Evaluates: MAX11665

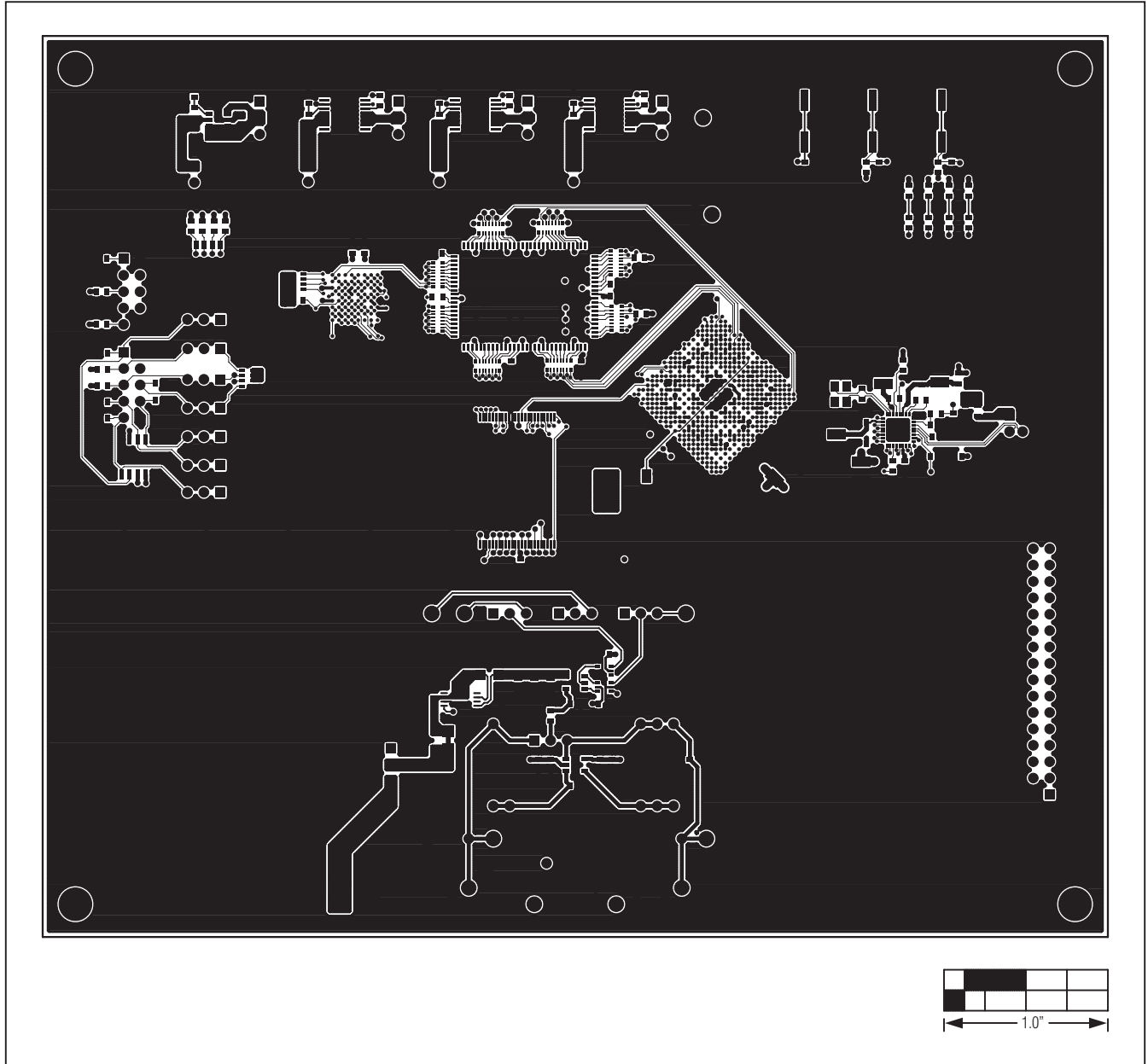


Figure 8. MAX11665 EV Kit PCB Layout—Component Side

# MAX11665 Evaluation Kit

Evaluates: MAX11665

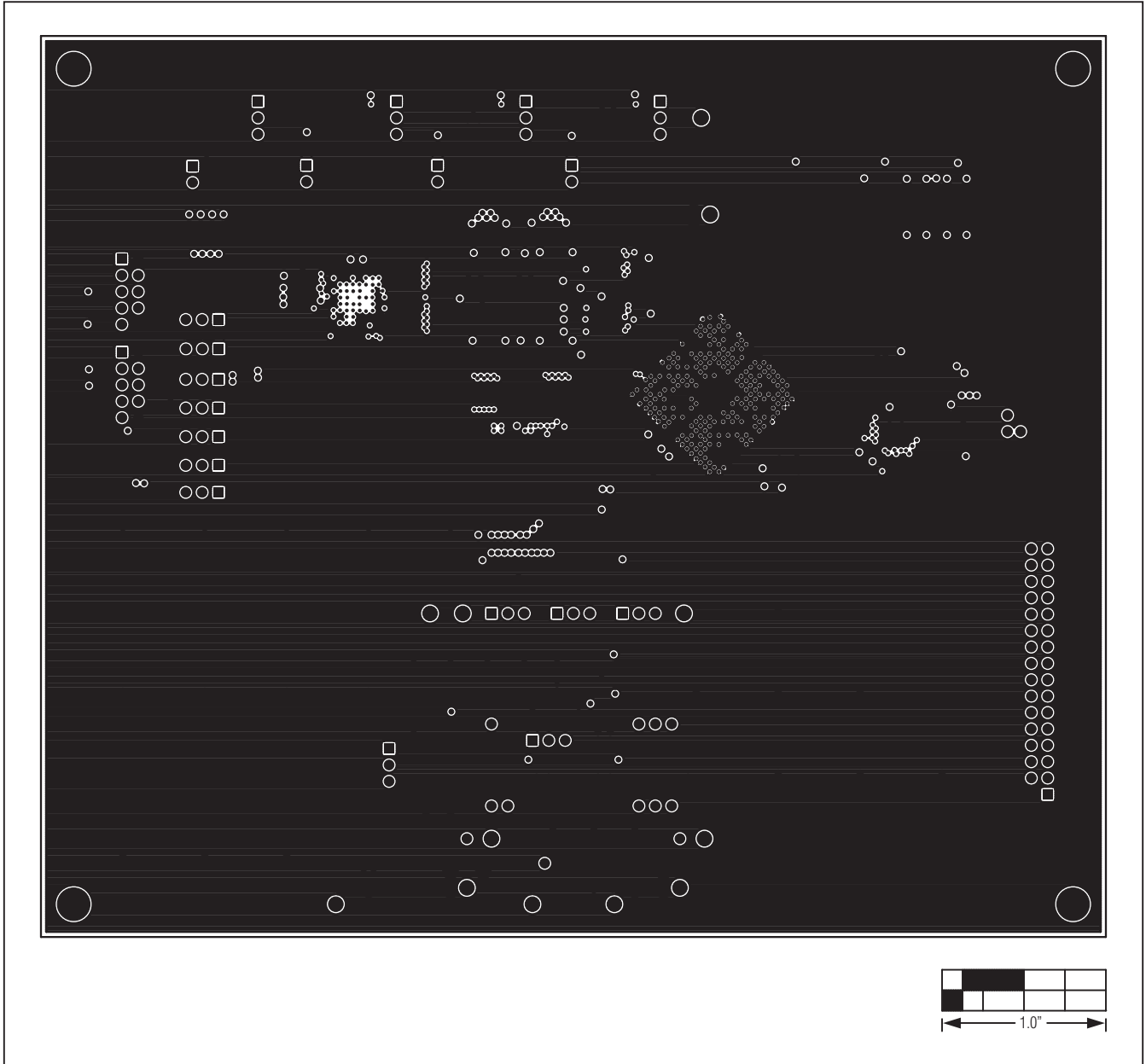


Figure 9. MAX11665 EV Kit PCB Layout—Layer 2

# MAX11665 Evaluation Kit

Evaluates: MAX11665

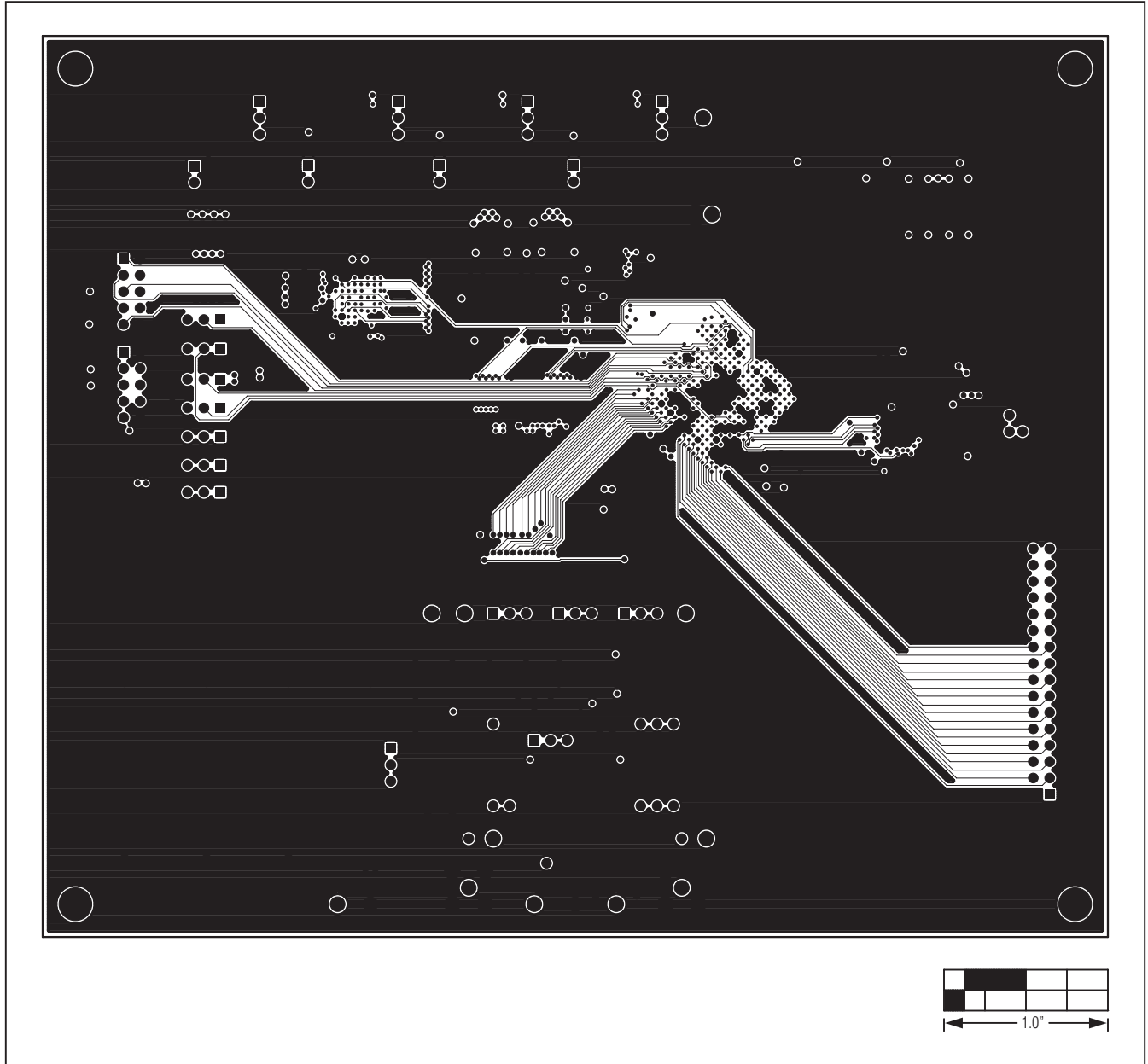


Figure 10. MAX11665 EV Kit PCB Layout—Layer 3

# MAX11665 Evaluation Kit

Evaluates: MAX11665

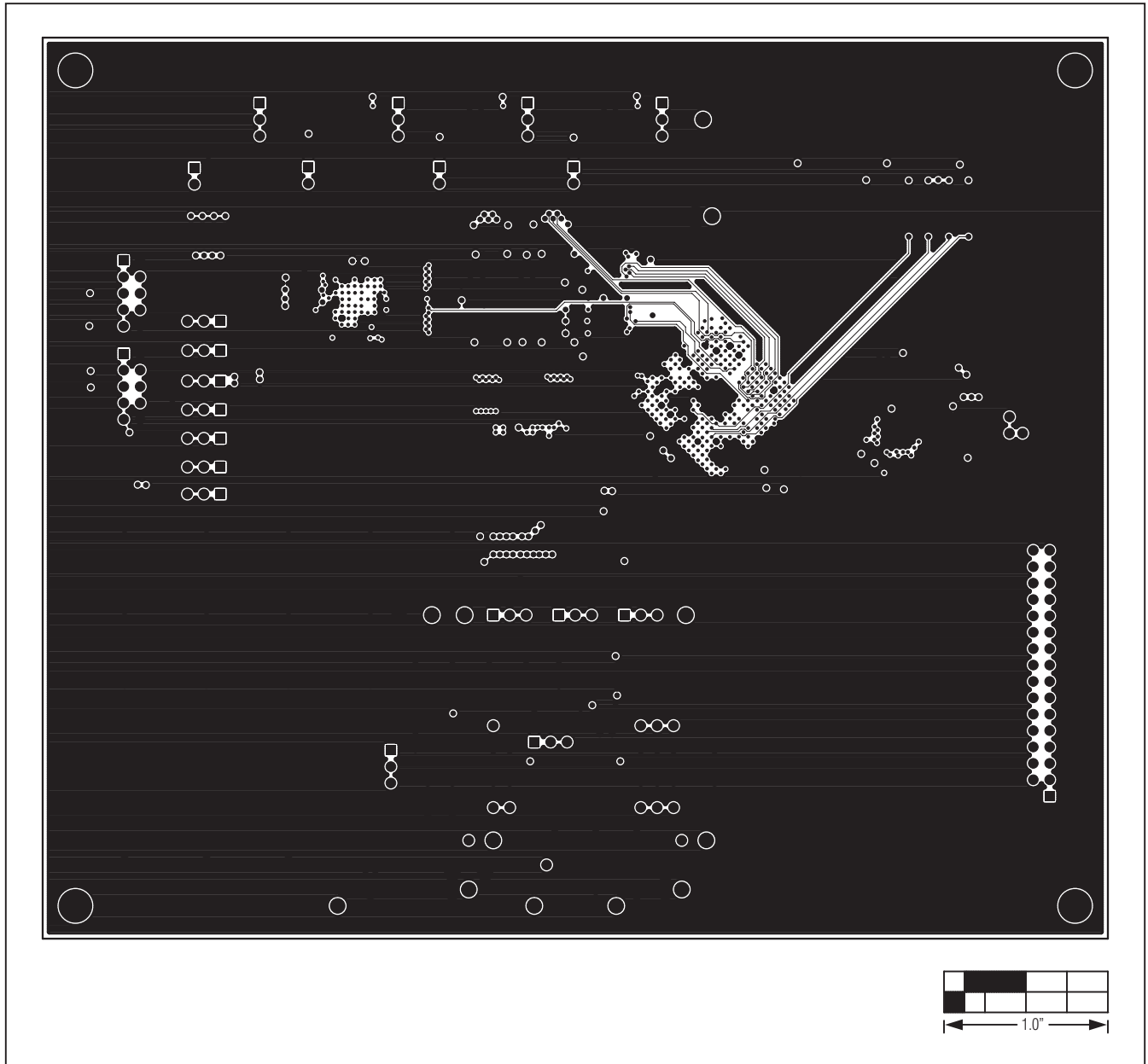


Figure 11. MAX11665 EV Kit PCB Layout—Layer 4

# MAX11665 Evaluation Kit

Evaluates: MAX11665

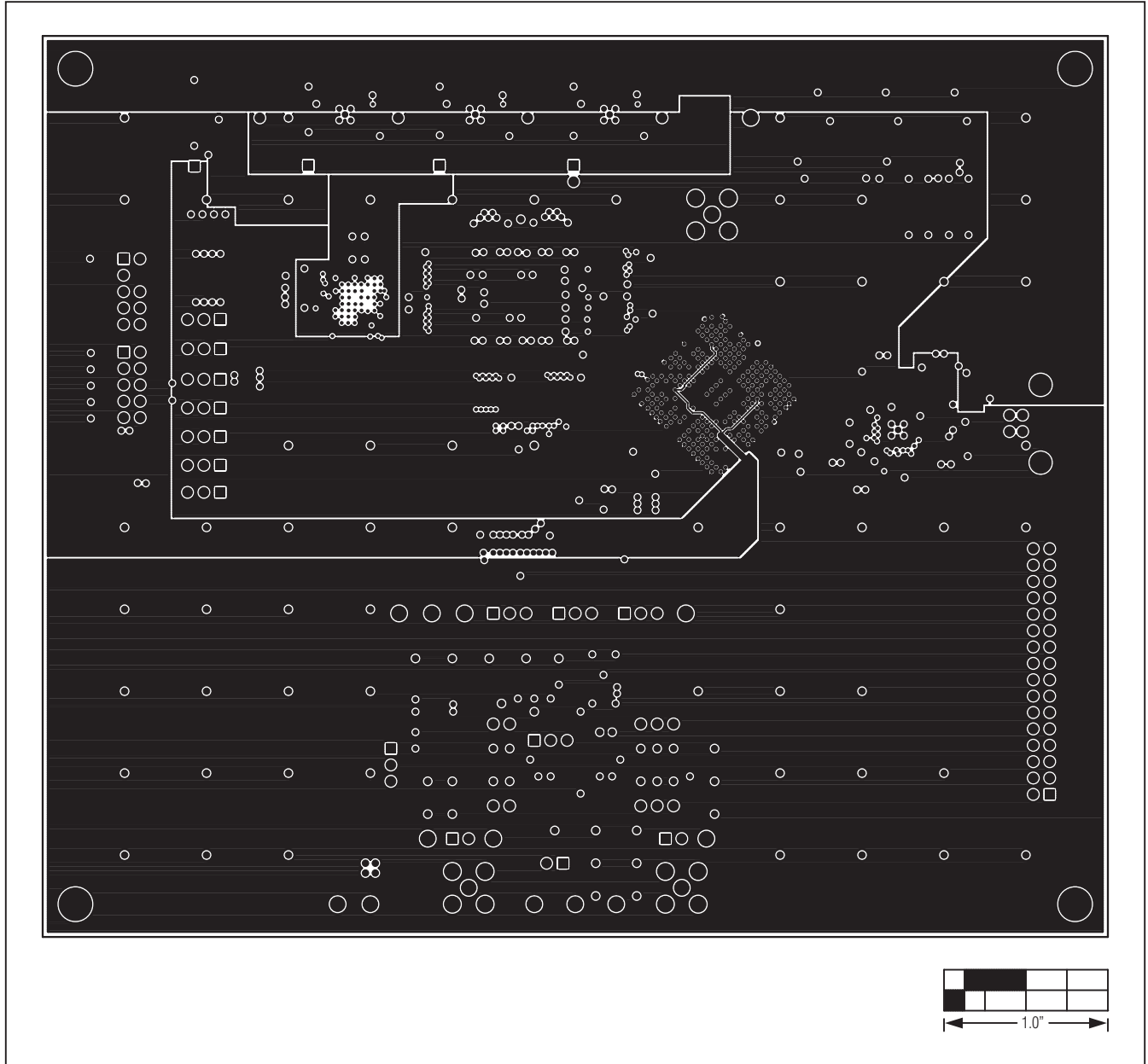


Figure 12. MAX11665 EV Kit PCB Layout—Layer 5

# MAX11665 Evaluation Kit

Evaluates: MAX11665

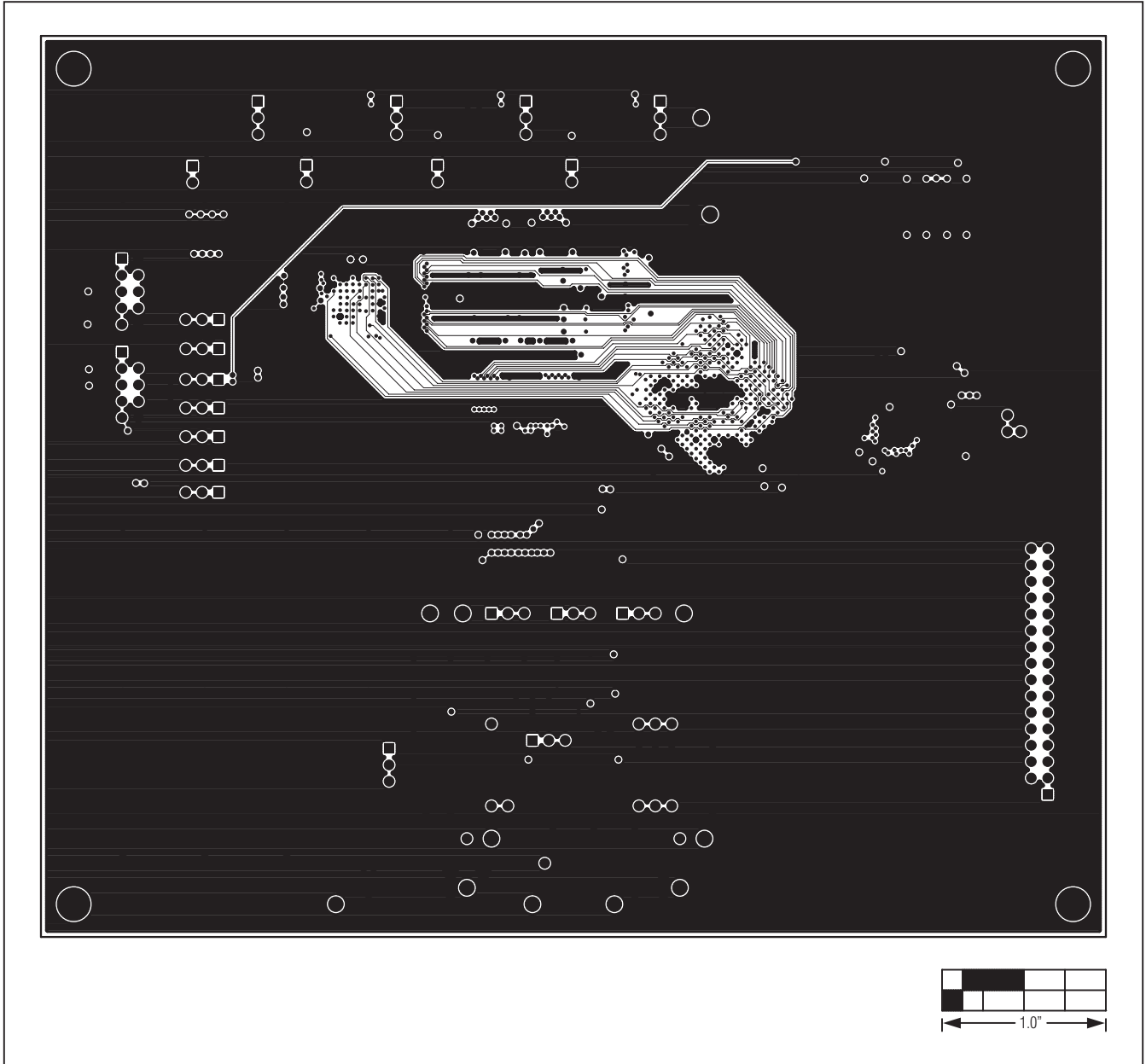


Figure 13. MAX11665 EV Kit PCB Layout—Layer 6

# MAX11665 Evaluation Kit

Evaluates: MAX11665

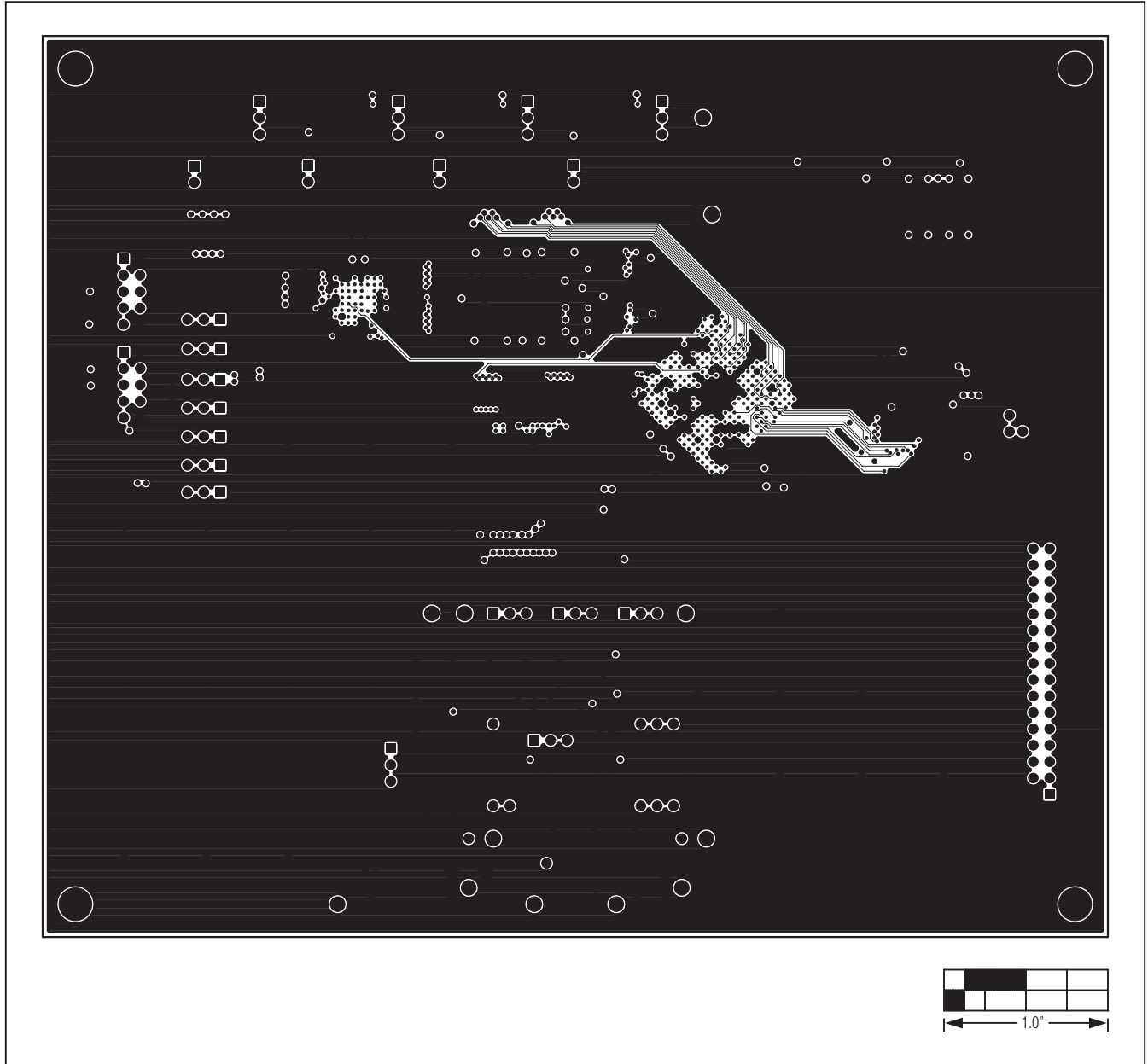


Figure 14. MAX11665 EV Kit PCB Layout—Layer 7



# MAX11665 Evaluation Kit

Evaluates: MAX11665

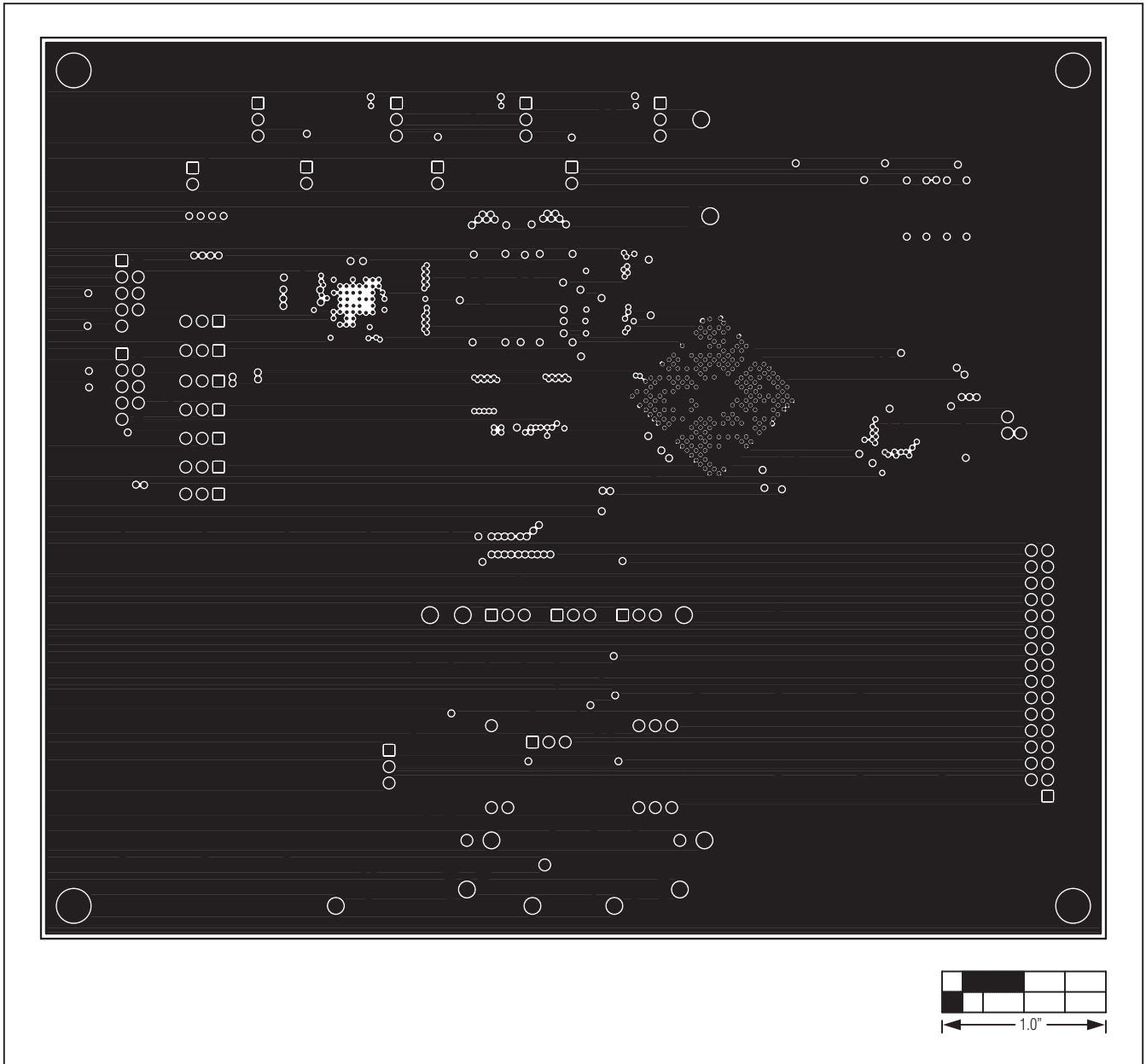


Figure 15. MAX11665 EV Kit PCB Layout—Layer 8

# MAX11665 Evaluation Kit

Evaluates: MAX11665

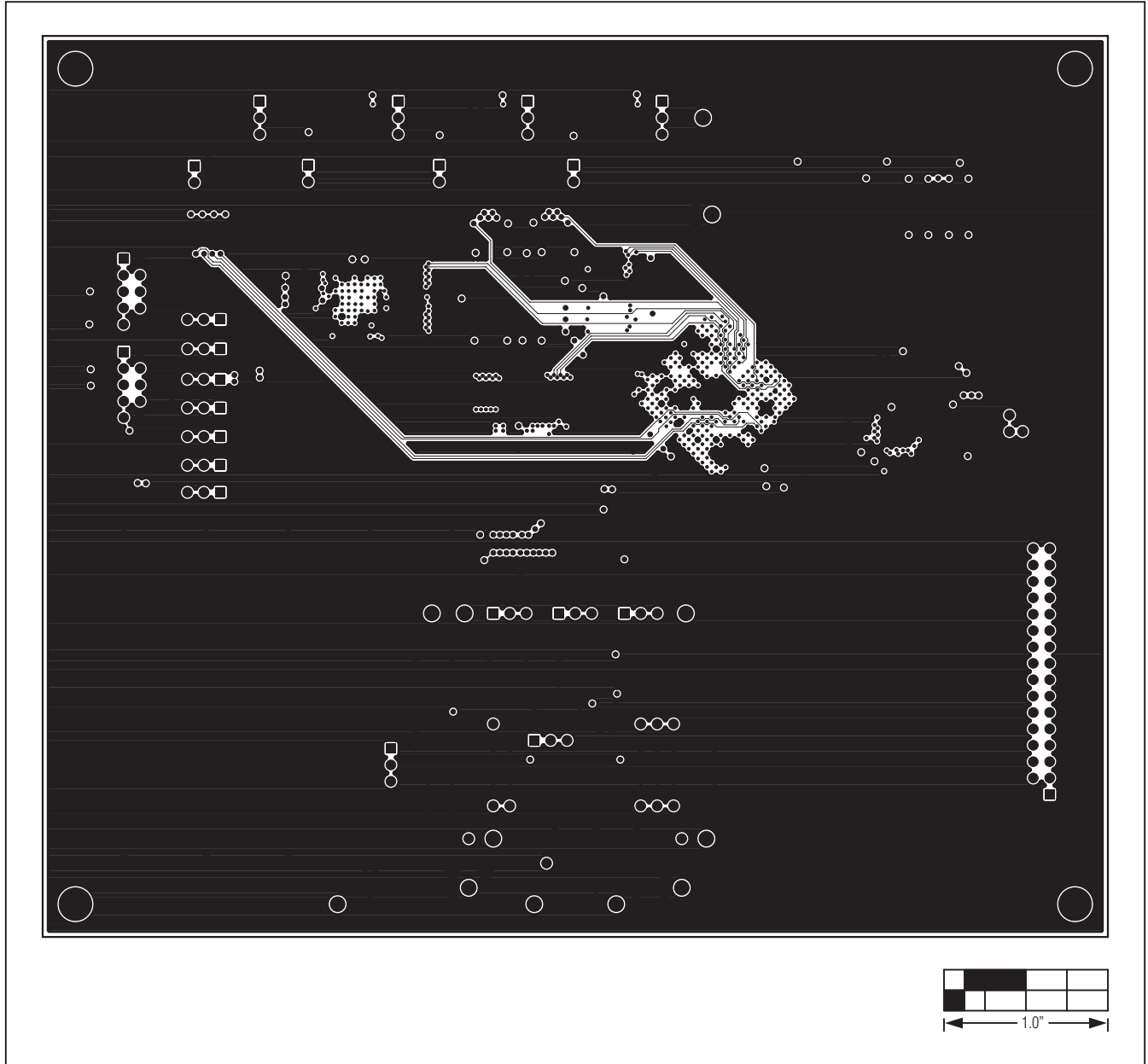


Figure 16. MAX11665 EV Kit PCB Layout—Layer 9

# MAX11665 Evaluation Kit

Evaluates: MAX11665

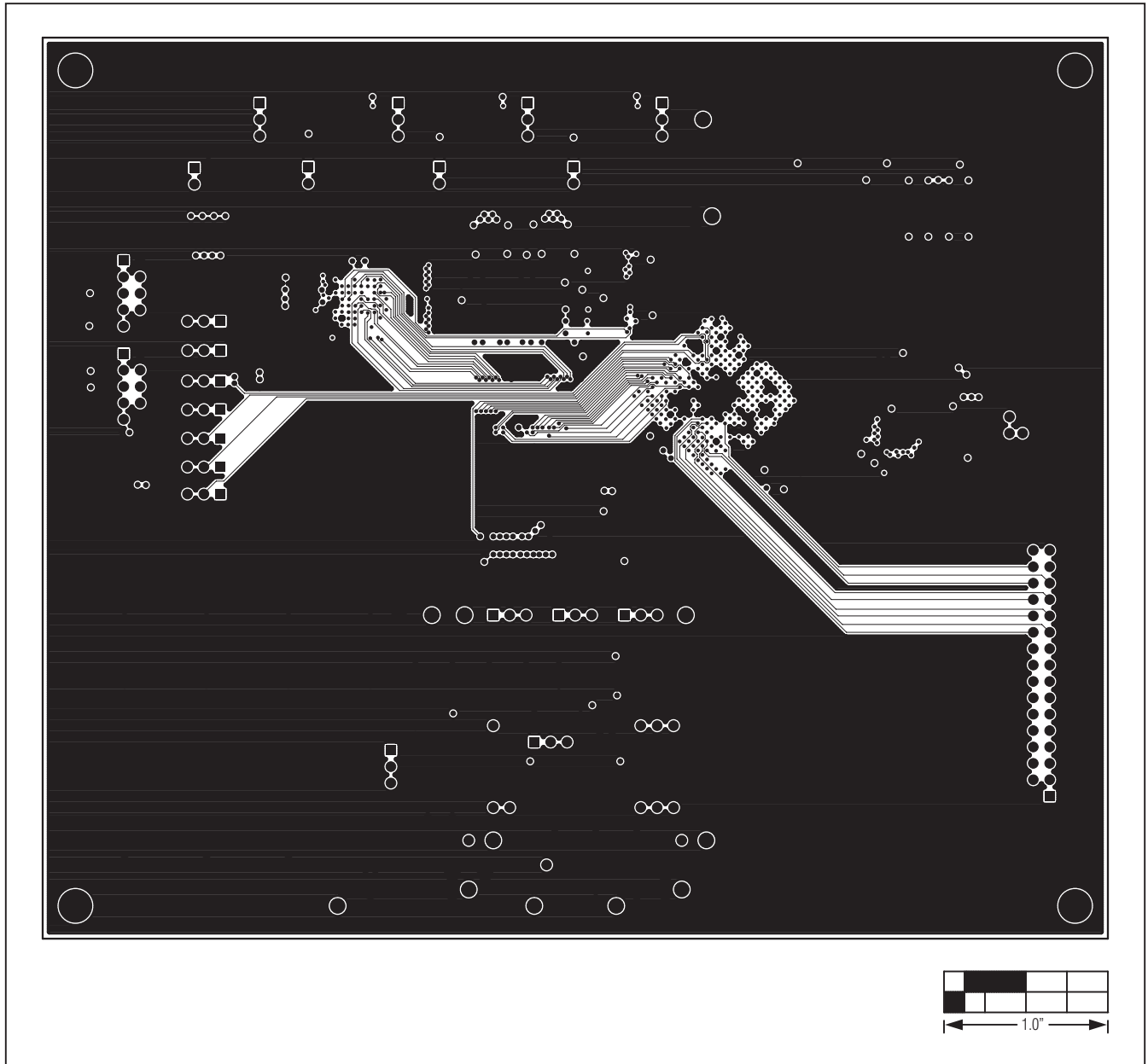


Figure 17. MAX11665 EV Kit PCB Layout—Layer 10

# MAX11665 Evaluation Kit

Evaluates: MAX11665

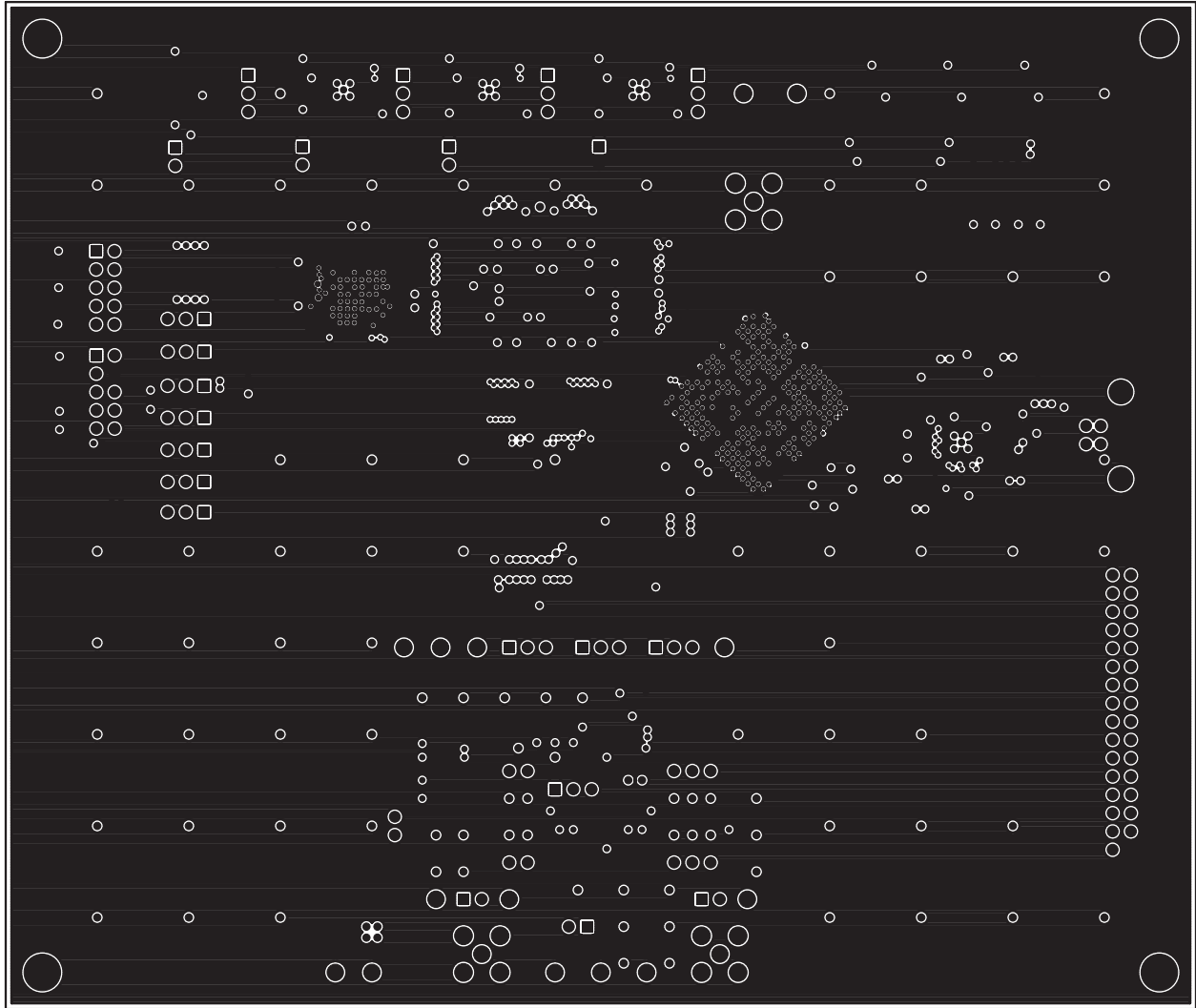


Figure 18. MAX11665 EV Kit PCB Layout—Layer 11

# MAX11665 Evaluation Kit

Evaluates: MAX11665

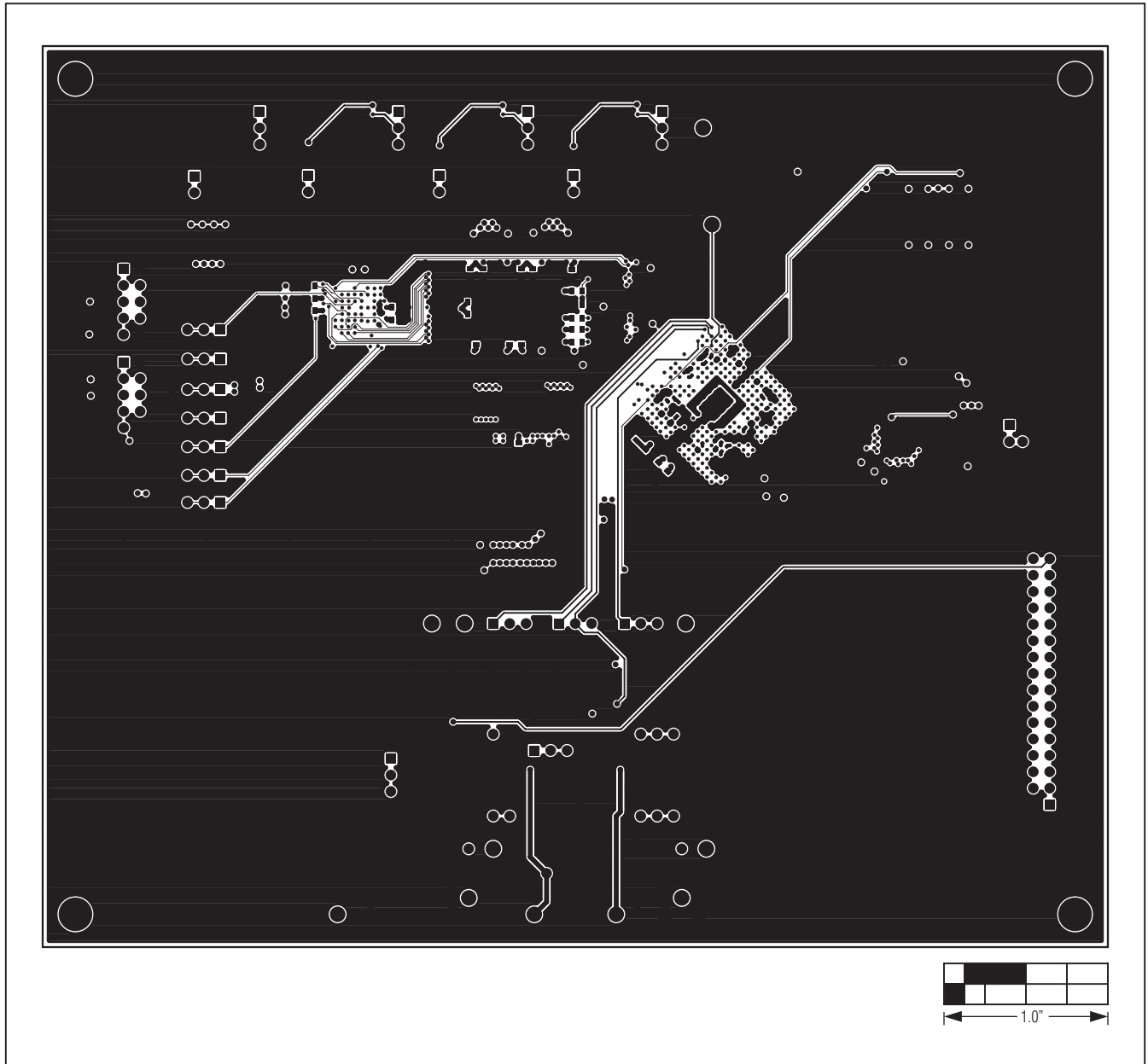


Figure 19. MAX11665 EV Kit PCB Layout—Bottom Side

# MAX11665 Evaluation Kit

Evaluates: MAX11665

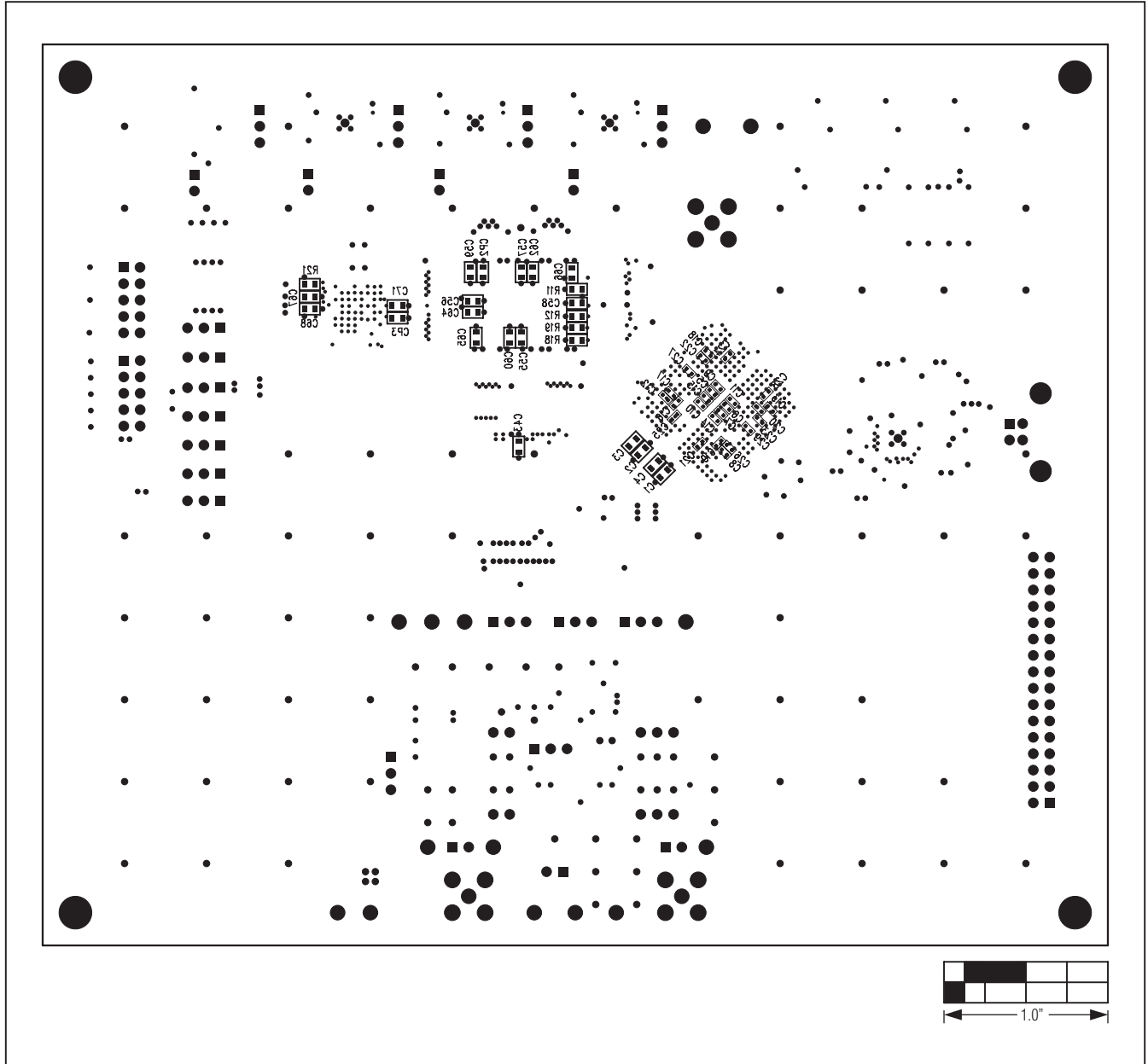


Figure 20. MAX11665 EV Kit Component Placement Guide—Bottom

# MAX11665 Evaluation Kit

## Revision History

| REVISION NUMBER | REVISION DATE | DESCRIPTION     | PAGES CHANGED |
|-----------------|---------------|-----------------|---------------|
| 0               | 6/11          | Initial release | —             |

**Evaluates: MAX11665**

*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 \_\_\_\_\_ 39**