

MAX8973A Evaluation Kit

Evaluates: MAX8973A

General Description

The MAX8973A evaluation kit (EV kit) is a fully assembled and tested printed circuit board (PCB) that demonstrates the MAX8973A. The EV kit allows for easy evaluation of each MAX8973A features.

The MAX8973A is a high-efficiency, three-phase, DC-DC step-down switching regulator that delivers up to 9A of output current in a compact footprint with excellent transient response. Each phase operates at a 2MHz fixed frequency, allowing the use of small magnetic components. Maxim Integrated's proprietary Rotational Phase Spreading algorithm optimizes efficiency at low output currents. Software-selectable forced-PWM mode allows either fixed-frequency operation, or improved efficiency at light load with a variable frequency in skip mode. The triple-inductor architecture reduces the size of the external components while providing the benefit of ripple current cancellation. An I²C 3.0-compatible serial interface, supporting clock rates up to 3.4MHz, controls key regulator parameters such as output voltage, output slew rate, and on/off control. An EN input enables and disables the output, while a DVS pin selects two different output voltages without relying on the serial interface. MAX8973A fully differential remote sense ensures precise DC regulation at the point of load.

Windows[®] based software provides a user-friendly interface to exercise the features of the MAX8973A. This software offers a graphical user interface (GUI) as well as a register-based interface.

Features

- Sense Points for High-Accuracy Measurements
- Test Points and Jumpers for Enable, DVS, and BIAS Enable
- Option to Enable Output Voltage Remote Sensing
- On-Board Electronic Load to Evaluate Static or Transient Load Up to 10A
- User Can Evaluate Preprogrammed Settings Without I²C Interface

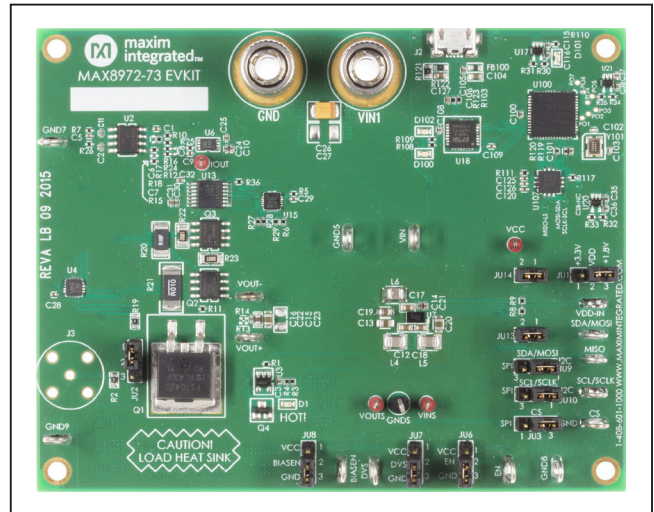


Figure 1. MAX8973A Evaluation Kit

Ordering Information appears at end of data sheet.

Windows is a registered trademark and registered service mark of Microsoft Corporation.

Default Configurations

- V_{IN} and V_{CC} = 2.6V to 4.5V
- V_{OUT} = 1.0V (when DVS = 0), 1.2V (when DVS = 1)
- I_{OUT} = 9A maximum
- Converter enable is disabled (EN = 0)
- EN pulldown resistance is enabled (nENPD_EN = 0)
- Forced PWM mode is disabled (FPWM = 0)
- Regulator bias is disabled (BIASEN = 0)
- Frequency shift (switching frequency per phase) = 2MHz typical (FREQSHIFT = 0)
- Falling slew rate is enabled (nFSR_EN = 0)
- Slew rate selection = 20mV/ μ s for startup/soft-stop and 50mV/ μ s for DVS (RAMP = 0b10)
- Remote sense is disabled (SNS_EN = 0)
- Output active discharge is disabled (AD_EN = 0)
- Enhanced transient response (ETR) sensitivity selection is disabled (CKADV = 0b11)
- Slope compensation and RCS Gain = Nominal (INDUCTOR = 0b01)
- Shunt positions (JU1-3, JU6-10, JU13-14) installed as shown in [Table 1](#)

Quick Start

Required Equipment

- MAX8973A evaluation package
 - MAX8973A EV kit
 - Micro-B USB cable
 - MAX8973A EV kit software (GUI)
- Adjustable DC power supply capable of supplying 6A
- Electronic load capable of sinking 9A (optional)
- Oscilloscope
- Two voltmeters
- Two ammeters

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

Quick Start Procedure

The EV kit is fully assembled and tested. See [Figure 2](#) and use the following steps to verify board operation:

- 1) Ensure all shunts are installed in the proper positions ([Table 1](#)).
- 2) Connect a disabled 3.6V bench power supply to the GND and VIN1 terminals (binding posts). Set the input current limit of the bench supply to 0.1A. Do not enable the output of the bench supply until prompted.
 - As an option, connect an ammeter set for its 10mA range in series with your power supply.
 - Note that GND5 and VIN loops are not suitable for high current applications.
- 3) Connect a voltmeter to the GNDS and VINS terminals to measure input voltage.
 - Note these are Kelvin sense points that route close to the device's input capacitors.
- 4) Connect a voltmeter to the GNDS and VOUTS terminals to measure output voltage.
 - Note these are Kelvin sense points that route close to the device's output capacitors.
- 5) Enable the output of the bench supply. Confirm that the input current is < 10 μ A.
- 6) Connect a Micro-B USB cable between a PC with the MAX8973A evaluation kit software installed and the MAX8973A evaluation kit.
- 7) Open the MAX897x GUI window ([Figure 3](#)).
- 8) In the **Communication Protocol:** drop-down menu, select **Auto**. Then click **Connect**. If the connection is successful, the blue question mark over the Maxim logo transitions to a green check mark, and the text box at the bottom of the window reads **Connected to I2C device at address 0x36** ([Figure 4](#)).
- 9) Increase the input current limit of the bench supply to 1A.
- 10) Click on **Enable Output** and verify that the output voltage should be about 1V.
- 11) Confirm the input current is from 120 μ A to 200 μ A.
- 12) This concludes the initial setup procedure and the board is now ready for evaluation of other features and register settings with the GUI.

Table 1. Default Shunt Positions and Jumper Descriptions

REFERENCE DESIGNATOR	DEFAULT POSITION	FUNCTION
JU1	2-3	1-2: Connects a 3.3V onboard LDO output to the VDD input. 2-3: Connects a 1.8V onboard LDO output to the VDD input.
JU2	1-2	1-2: Connects the output of the programmable electronic load to the gate of the onboard power FET for closed-loop load control. 2-3: Connects the gate of the onboard power FET to the J3 BNC connector to enable load transient testing with a function generator.
JU3	2-3	1-2: Connects pin D3 (CS) to the level translator. Used for SPI version only. 2-3: Connects pin D3 to GND.
JU6	2-3	1-2: Connects EN pin to VCC to enable the MAX8973A through hardware. 2-3: Connects EN pin to GND. The MAX8973A is enabled through software.
JU7	2-3	1-2: Connects DVS pin to VCC. DVS = VCC selects the target output voltage set in the VOUT_DVS register (address 0x01h). Default = 1.2V. 2-3: Connects DVS pin to GND. DVS = GND selects the target output voltage set in the VOUT register (address 0x00h). Default = 1.0V.
JU8	2-3	1-2: Connects BIASEN pin to VCC. BIASEN = VCC preenables the bias and reference circuitry, reducing the delay from the rising edge of EN to the MAX8973A switching. 2-3: Connects BIASEN pin to GND. BIASEN = GND does not preenable the bias and reference. The delay from the rising edge of EN to the MAX8973A switching includes the bias and reference settling times.
JU9	1-2	1-2: Connects SDA (I ² C) input/output from the MAXQ2000 to the MAX8973A. 2-3: Connects MOSI (SPI) output from the MAXQ2000 to the MAX8973A.
JU10	1-2	1-2: Connects SCL (I ² C) output from the MAXQ2000 to the MAX8973A. 2-3: Connects SCLK (SPI) output from the MAXQ2000 to the MAX8973A
JU13	1-2	1-2: Connects 470Ω pullup resistor from VDD to SDA/MOSI. Open: Disconnects SDA/MOSI pullup resistor from SDA/MOSI.
JU14	1-2	1-2: Connects 470Ω pullup resistor from VDD to SCL/SCLK. Open: Disconnects SDA/MOSI pullup resistor from SCL/SCLK.

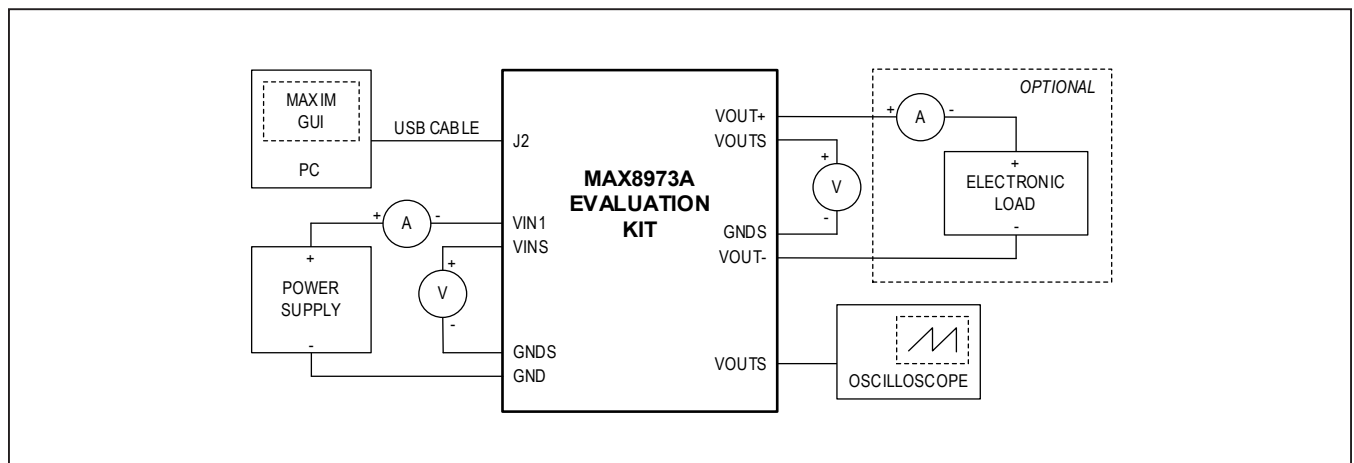


Figure 2. Quick Start Connection Diagram

Detailed Description of Hardware and Software

Using the MAX8973A GUI

The MAX8973A requires the use of a GUI in order to fully exercise the capabilities of the device. Figure 3 shows the main GUI window, prior to connecting to the device. See the [Quick Start Procedure](#) section for instructions on how to connect the device before using the GUI.

Obtaining the GUI

The MAX8973A GUI can be downloaded from the Maxim website (www.maximintegrated.com). Follow the instructions to install the GUI on a PC. During installation, wait a few minutes for your computer to install the USB

driver. Once the driver is successfully installed, a window appears to indicate that the **USB Serial Converter** is ready to use.

Connecting the GUI

Select **Auto** next to **Communication Protocol**. Click on **Connect** in the upper left corner of the GUI window. If a device is detected and connection is successful, the blue question mark over the Maxim logo transitions to a green check mark and **Connected to I2C device at address 0x36** replaces **DEMO MODE: Not connected** at the bottom of the window (Figure 3 and Figure 4). Another tab **Load Control** appears to the right of **MAX897x Registers**. See the [On-Board Electronic Load](#) section for a detailed description of the programmable on-board load.

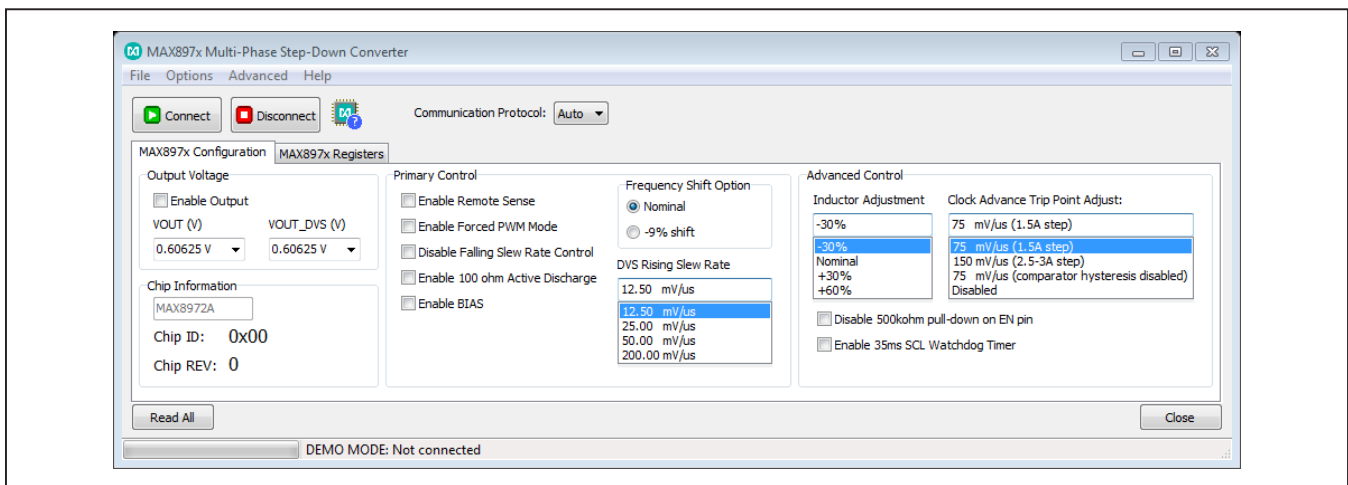


Figure 3. GUI Window—Not Connected

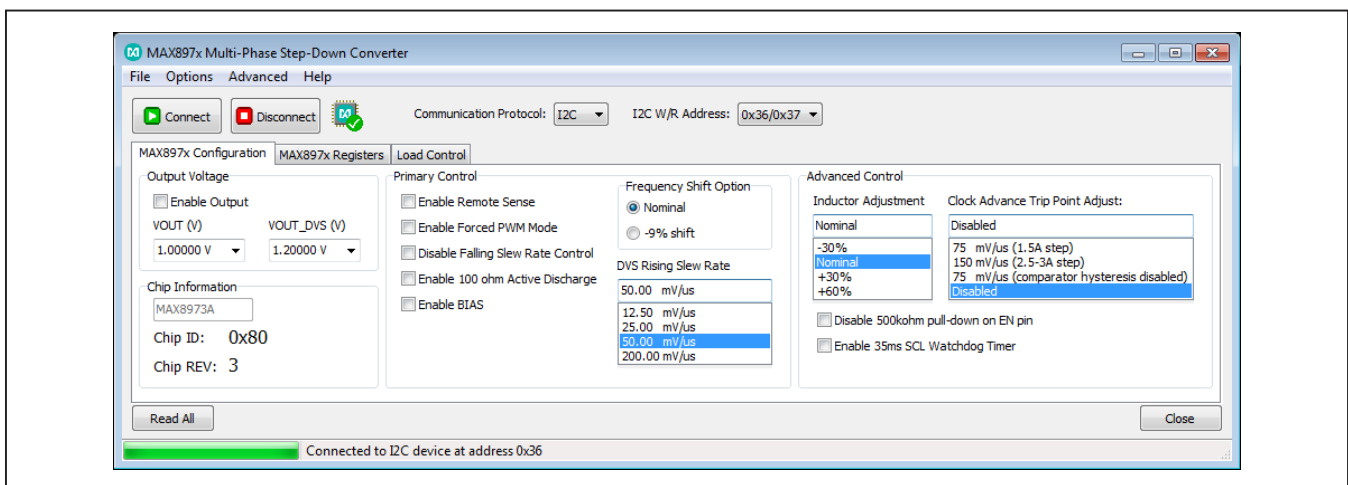


Figure 4. GUI Window—Connected

MAX897x Configuration: Output Voltage Control

The MAX8973A GUI can be used to enable the regulator and program the output voltage.

Enabling and Disabling the Regulator

Turn on the regulator by checking the box **Enable Output**. Turn off the regulator by unchecking the box **Enable Output**.

Alternatively, turn on the regulator by connecting the shunt on jumper JU6 between terminals 1 and 2. Turn off the regulator by connecting the shunt on jumper JU6 between terminals 2 and 3. The EN bit is logically OR'd with the EN pin.

Setting the Output Voltage

The MAX8973A features a programmable output voltage from 0.60625V to 1.4000V in 6.25mV increments. These settings can be configured using the **Output Voltage** section of the main GUI window.

Once connected to the GUI, the default voltages appear in the pulldown menus under VOUT (V) and VOUT_DVS (V). The output voltage listed under VOUT (V) is selected when the DVS pin is connected to GND (shunt on JU7 between terminals 2 and 3). The output voltage listed under VOUT_DVS (V) is selected when the DVS pin is connected to VCC (shunt on JU7 between terminals 1 and 2).

Alternatively, the DVS pin can be tied to GND or VCC, and the appropriate register (VOUT or VOUT_DVS) can be written to repeatedly in order to adjust the output voltage.

MAX897x Configuration: Primary Control

The MAX8973A features several different programmable options to customize the behavior of the regulator during startup, operation, and shutdown. These settings can be configured using the **Primary Control** section of the main GUI window.

Remote Sense (SNSEN)

The MAX8973A features remote sense capability, in addition to a high-bandwidth local feedback loop. The remote sense loop compensates for voltage droop in the power plane, thus reducing DC error at the point of load.

Checking the box **Enable Remote Sense** enables the remote sense amplifier in the MAX8973A. The remote

sense pins, SNS+ and SNS-, connect to the point-of-load capacitors (C15, C16, C22, and C23) through R13 and R14, respectively.

When using the remote sense feature, the output voltage should be measured at the VOUT+ and VOUT- wire loops, rather than across the VOUTS and GNDS kelvin sense points. The kelvin sense points measure the output voltage at the local output capacitors. The kelvin sense voltage increases, depending on load current, due to the voltage drop through the power plane and GND return.

Forced PWM Mode (FPWM_EN)

The MAX8973A features a forced-PWM mode for applications that require a fixed switching frequency regardless of load current.

Checking the box **Enable Forced PWM Mode** selects forced-PWM mode operation.

Falling Slew Rate Control (nFSR_EN)

The MAX8973A features a software-selectable mode of operation where the regulator actively sinks current from the output capacitors when:

- 1) The output voltage is changed from a higher value to a lower value.
- 2) The regulator is disabled.

Uncheck the box to **Disable Falling Slew Rate Control** to enable the falling slew rate control. When enabled, the falling slew rate control ramps down the output voltage at the rate selected by the DVS rising slew rate bits. If the load current causes the output voltage to fall faster than the selected slew rate, the regulator supplies current to the load to maintain the selected slew rate.

If the falling slew rate control is enabled when the regulator is disabled, the regulator actively pulls energy from the output capacitor until the output voltage has fallen to 100mV (typ), at which time the active discharge function is terminated.

Active Discharge Resistor

The MAX8973A features a 100Ω internal discharge resistor to discharge the output capacitors when the regulator is disabled. The active discharge resistor is independent of the falling slew rate control.

Check the box **Enable 100 ohm Active Discharge** to enable the discharge resistor when the regulator is disabled.

BIAS Enable

The MAX8973A features a mode of operation where the bias can be preenabled, reducing the delay from EN (pin or bit) rising to the MAX8973A regulator starting to switch. The BIASEN bit is logically OR'd with the BIASEN pin. When BIASEN (pin or bit) = 1, the startup delay is reduced from 240 μ s to 20 μ s.

Check the box **Enable BIAS** to preenable the bias and reference of the MAX8973A.

Switching Frequency

The MAX8973A features a software-selectable switching frequency. The default switching frequency is 2.0MHz. Check the box **-9% Shift** to reduce the MAX8973A switching frequency to 1.82MHz (typ).

DVS Rising Slew Rate

The MAX8973A features four software-selectable slew rates when increasing the output voltage. The slew rate selection also determines the soft-start slew rate when the regulator is enabled.

The DVS rising slew rate options are 12.5mV/ μ s, 25mV/ μ s, 50mV/ μ s, and 200mV/ μ s. The 12.5mV/ μ s, 25mV/ μ s, and 50mV/ μ s rising slew rates set a soft-start slew rate of 20mV/s. The 200mV/s rising slew rate sets a soft-start slew rate of 200mV/ μ s.

MAX897x Configuration: Advanced Controls

The MAX8973A features several advanced options to fine tune the behavior of the regulator during startup, operation, and shutdown. These settings can be configured using the **Advanced Control** section of the main GUI window.

Inductor Adjustment

The MAX8973A is optimized for use with 0.68 μ H inductor with 27m Ω DCR. The **Nominal** setting should always be used with the default components installed.

If the default inductor is removed and replaced with a lower inductance, it might be necessary to select the **-30%** setting. If a larger inductance, or an inductor with > 27m Ω is installed, then the **+30%** or **+60%** setting might be needed.

These settings should not be changed while the regulator is enabled because they affect the loop compensation.

Clock Advance Trip Point

The clock advance trip point sets the sensitivity of the enhanced transient response (ETR) circuitry. The default setting for ETR is **Disabled**. The other values (**75mV/ μ s** and **150mV/ μ s**) represent the slew rate on the output capacitors (induced by a fast load step) required to trigger the ETR circuitry.

The ETR circuitry speeds up the transient response for medium-to-large load steps.

EN Pulldown Resistor

The MAX8973A provides a pulldown resistor on the EN pin for use with systems in which the signal driving EN can float. Uncheck the box **Disable 500kohm pull-down on EN pin** to enable the pulldown resistor. Check the box to disable the pulldown resistor. The DISCH_ENb bit connects (active low) and disconnects the EN pulldown resistor.

SCL Watchdog Timer

The MAX8973A features an I²C watchdog timer that resets the I²C state machine if I²C communication fails during a transaction. Checking the box **Enable 35ms SCL Watchdog Timer** enables the watchdog timer. If enabled, the watchdog timer starts on an I²C START command. The watchdog timer resets on every SCL falling edge. The watchdog timer stops on an I²C STOP command.

Load Control: On-Board Electronic Load

The MAX8973A evaluation kit provides an on-board electronic load to simplify evaluation of the device. The on-board electronic load supports static loads of up to 10A, as well as transient loads of up to 10A, but not concurrently. Static or transient loads are selectable with the shunt position on jumper JU2. Note that under heavy static loads, the on-board electronic load can become hot. Do not touch the electronic load, particularly if the D1 LED is illuminated.

Static Loads

Install the shunt on jumper JU2 between terminals 1 and 2 to use the on-board electronic load to generate static loads on the MAX8973A output. Click on the **Load Control** tab in the GUI window to access the electronic load control GUI (Figure 5).

The electronic load features selectable full-scale load ranges of 10mA, 100mA, 1A, and 10A. Click on the radio button to select the desired load range.

Within each full-scale load range, load current is programmable with 12-bit resolution. Type the desired load current into the text box immediately below **Load Current** or use the slider bar to set the load current. When using the slider bar, the left and right arrows on the keyboard can be used to fine-tune the load current, 1LSB at a time.

Transient Loads

Install the shunt on jumper JU2 between terminals 2 and 3 to use the on-board electronic load to generate transient loads on the MAX8973A output. Click on the **Load Control** tab in the GUI window to access the electronic load control GUI (Figure 5).

The **Load Range** selection determines the amplitude of load transients that the electronic load can produce. An external function generator is required to drive the gate of the power device within the electronic load to generate the transient load. The amplitude of the function generator output determines the amplitude of the load transient, while the rise time determines the transient load slew rates. Load transient slew rates of approximately 50A/μs can be realized with the onboard electronic load.

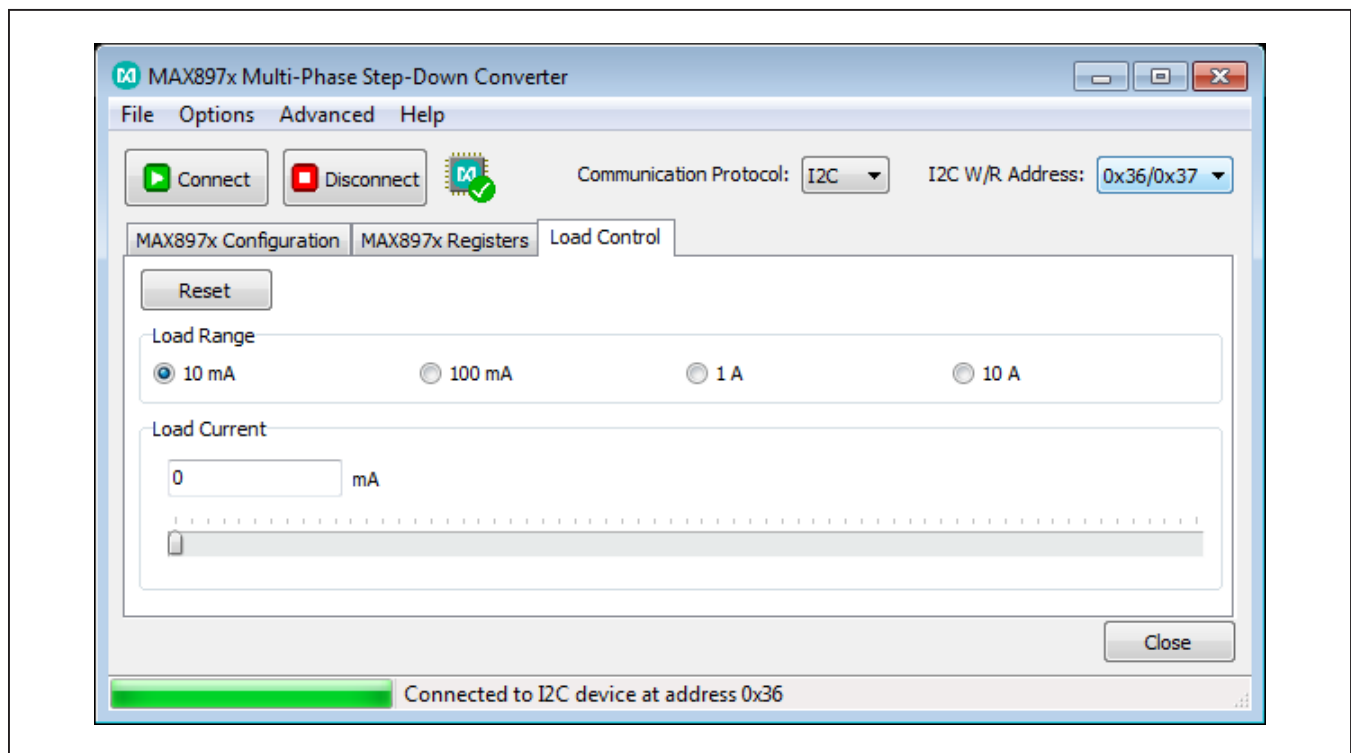


Figure 5. GUI Window—Electronic Load

Ordering Information

PART	TYPE
MAX8973AEVKIT#	EV Kit

#Denotes RoHS compliance.

MAX8973A EV Kit Bill of Materials

PART	QTY	DESCRIPTION
C1 C3 C16 C21 C32 C100 C101 C105 C108 C109 C120 C125	12	0.1 μ F 16V X5R Ceramic Capacitor 0402 Taiyo Yuden EMK105BJ104MV-F
C2 C11	2	4.7nF 50V X7R Ceramic Capacitor 0402 Murata GRM155R71H472KA01B
C5	1	1nF 50V X7R Ceramic Capacitor 0402 Murata GRM155R71H102KA01B
C6 C7 C9 C10 C24 C25	6	Ceramic Capacitor 0402 Not Installed
C8	1	Ceramic Capacitor 0603 Not Installed
C12 C17 C18	3	10 μ F 6.3V X5R Ceramic Capacitor 0603 TDK C1608X5R0J106KT
C13 C15 C19 C20	4	22 μ F 6.3V X7R Ceramic Capacitor 0805 Taiyo Yuden JMK212BJ226MG-T
C14 C28-30 C35-38 C115 C116 C126	11	1 μ F 10V X5R Ceramic Capacitor 0402 Taiyo Yuden LMK105BJ05KV
C22	1	1 μ F 10V X5R Ceramic Capacitor 0402 Taiyo Yuden EMK107BJ105MK-T
C23	1	Ceramic Capacitor 1206 Not installed
C26	1	100 μ F 6.3V Tantalum Capacitor 1210 AVX TCJB107M006R0070
C27	1	Tantalum Capacitor 1210 Not installed
C31	1	10nF X7R 50V Ceramic Capacitor 0402 Taiyo Yuden UMK105BJ103KV-F
C102 C103	2	8pF \pm 0.5pF 50V C0H Ceramic Capacitor 0402 Taiyo Yuden UMK105CH080DV
C104	1	4.7 μ F 16V X5R Ceramic Capacitor 0603 Taiyo Yuden EMK107ABJ475KA
C106	1	0.033 μ F \pm 10% 25V X7R Ceramic Capacitor 0402 TDK C1005X7R1E333K
C127	1	0.47 μ F \pm 10% 6.3V X7R Ceramic Capacitor 0603 Taiyo Yuden JMK107BJ474KA-T
R1	1	24.9k Ω SMT Resistor 0402 Vishay CRCW040224K9FK
R2	1	49.9 Ω SMT Resistor 0603 Yageo RC0603FR-0749R9L
R3 R8 R9	3	470 Ω SMT Resistor 0402 Vishay, CRCW0402470RFK
R4 R7 R10	3	10k Ω SMT Resistor 0402 Panasonic ERJ-2RKF1002

MAX8973A EV Kit Bill of Materials (continued)

PART	QTY	DESCRIPTION
R5 R6 R27-29 R31 R35 R36 R111	9	100kΩ 1% SMT Resistor 0402 Yageo RC0402FR-07100KL
R11	1	1MΩ SMT Resistor 0402 Vishay CRCW04021M00JN
R12 R24 R25	3	SMT Resistor 0402 Not Installed
R13 R14	2	SMT Resistor 0402 Not Installed (PCB SHORT)
R15 R16	2	1kΩ SMT Resistor 0402 Stackpole RMCF0402FT1K00
R17 R18 R26	3	20.5kΩ SMT Resistor 0402 Vishay CRCW040220K5FK
R19	1	1kΩ SMT Resistor 0603 Vishay CRCW06031K00JN
R20	1	100mΩ SMT Resistor 2010 Vishay WSLT2010R1000DEA18
R21	1	10mΩ SMT Resistor 2512 Vishay WSLP2512R0100DEA
R22	1	1Ω SMT Resistor 1206 Stackpole RNCP1206FTD1R00
R23	1	10Ω SMT Resistor 1206 Vishay CRCW120610R0FK
R30	1	169kΩ 1% SMT Resistor 0402 Panasonic ERJ-2RKF1693X
R32	1	47.5kΩ 1% SMT Resistor 0402 Vishay CRCW040247K5FK
R33	1	102kΩ 1% SMT Resistor 0402 Vishay CRCW0402102KFK
R34	1	105kΩ 1% SMT Resistor 0402 Panasonic ERJ-2RKF1053
R103 R123	2	27Ω SMT Resistor 0402 Vishay CRCW040227R0JN
R108 R109	2	100Ω SMT Resistor 0402 Panasonic ERJ-2RKF1000
R110	1	220Ω SMT Resistor 0402 Vishay, CRCW0402220RJN
R117	1	0Ω SMT Resistor 0402 Yageo RC0402JR-070RL
R119 R120	2	1.5kΩ SMT Resistor 0402 Panasonic ERJ-2GEJ152
R121	1	0Ω SMT Resistor 0603 Yageo RC0603JR-070RL

MAX8973A EV Kit Bill of Materials (continued)

PART	QTY	DESCRIPTION
R122	1	1MΩ SMT Resistor 0603 Vishay CRCW06031M00JN
L4 L5 L6	3	680nH Shielded 3.9A 31mΩ (max) 2520 Murata DFE252012F-R68M
FB100	1	Ferrite Bead SMT 0603 Murata BLM18PG221SN1
D1 D101	2	LED Red 0603 LITE-ON LTST-C190CKT
D100 D102	2	LED Yellow 0603 LITE-ON LTST-C190YKT
Y101	1	Crystal 16MHz 3.2mm x 2.5mm Kyocera CX3225SB16000D0FLJZZ
Q1	1	Power MOSFET D2PAK International Rectifier IRF3704ZS
Q2	1	N CH Power Trench MOSFET SO-8 Fairchild FDS6574A
Q3	1	Dual N-CH Power Trench MOSFET SO-8 Fairchild FDS6898A
Q4	1	N-Ch Enhancement Mode FET SOT23 Fairchild 2N7002ET1G
U2	1	Dual Op Amp SO-8 Maxim MAX4092ASA
U3	1	Resistor Programmable Temperature Switch Maxim MAX6509HAUK-T
U4	1	Analog Multiplexers TQFN 16-pin 3mm x 3mm Maxim MAX4899AEETE+
U6	1	IC TDFN 8-pin Not Installed
U7	1	4x7 0.4mm Pitch WLP Maxim MAX8973AEWI+
U13	1	4-Channel Low Power DACs TSSOP-14 Maxim MAX5815AAUD+
U15	1	General Purpose GPIO Expanders QFN-UT-20 Semtech SX1502IO87TRT
U17 U20 U21	3	Adjustable Voltage Low Noise LDO SC70-5 Maxim MAX8512EXK+T
U18	1	USB to Serial UART Interface TQFN5X5-32L FTDI FT232RQ
U100	1	Microcontroller TQFN-56 Maxim MAXQ2000-RBX+
U107	1	Level Translator QFN 4X4-12L Maxim MAX3395EETC+

MAX8973A EV Kit Bill of Materials (continued)

PART	QTY	DESCRIPTION
J2	1	Micro B Receptacle SMD Type Amphenol 10118192-0001LF
J3	1	BNC RF Connector Amphenol 112404
JU1-3 JU6-10	8	3 Pin Header 0.1"
JU13 J14	2	2 Pin Header 0.1"
GND VIN1	2	Machine Screw, Thumbscrew, Banana, 1/4-32IN, 11/32IN, Nickel Plated Brass Emerson Network Power 111-2223-001
GNDS	1	Test Point Big, Black Keystone 5011 (Digikey Part Number 5011K-ND)
VCC VINS VOUTS	3	Test Point Small, Red Keystone 5000 (Digikey Part Number 5000K-ND)
IOUT	1	Test Point Small Not Installed
P01-07	7	Test Point Via Do Not Stuff
BIASEN CS DVS EN GND5 GND7-9 MISO SCL/SCLK SDA/MOSI VDD-IN VIN VOUT+ VOUT-	15	Maxim Loop
-	1	PCB: MAX8973A EVKIT

MAX8973A EV Kit Schematics

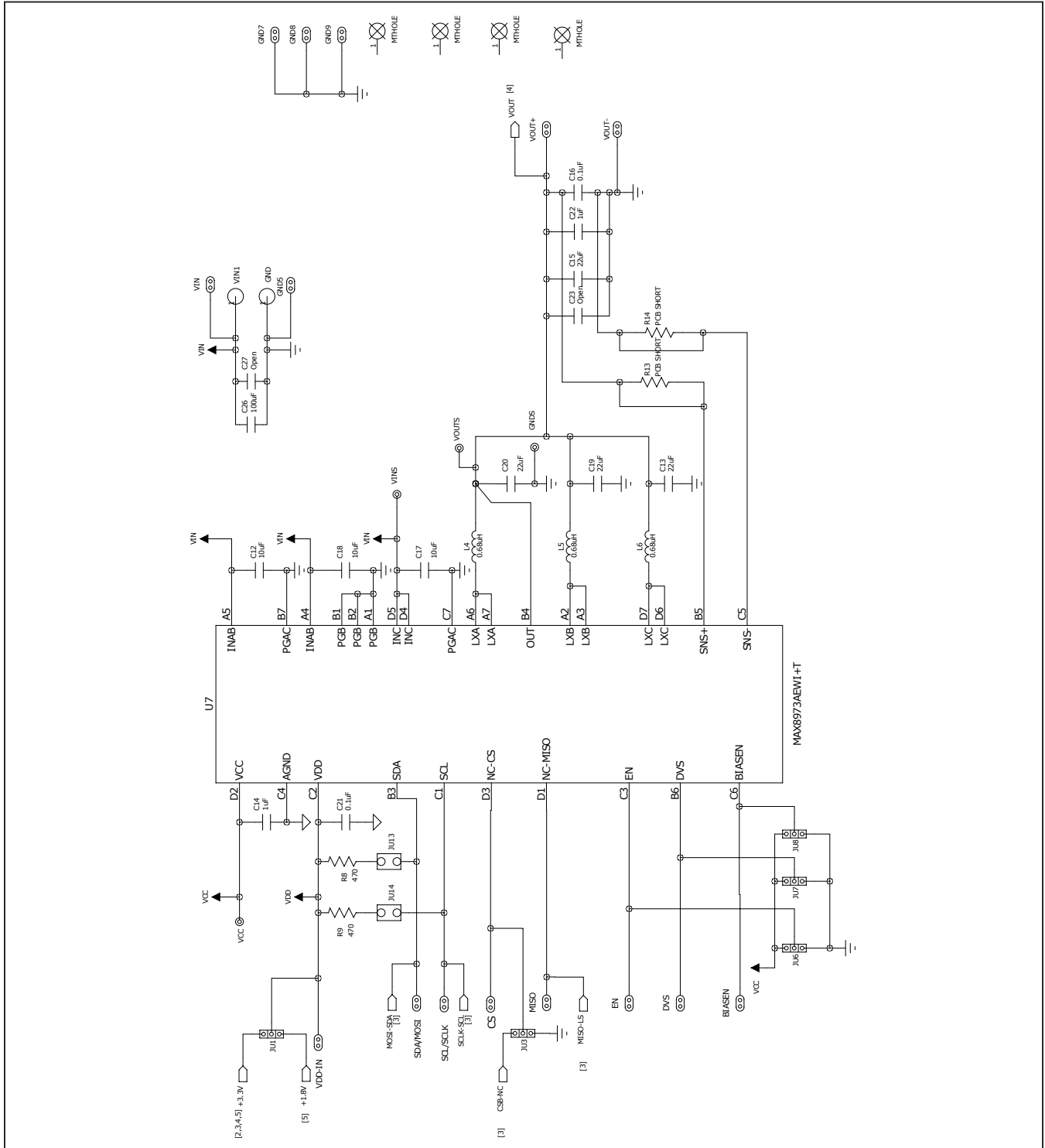


Figure 6. EV Kit Schematic—Sheet 1 of 5

MAX8973A EV Kit Schematics (continued)

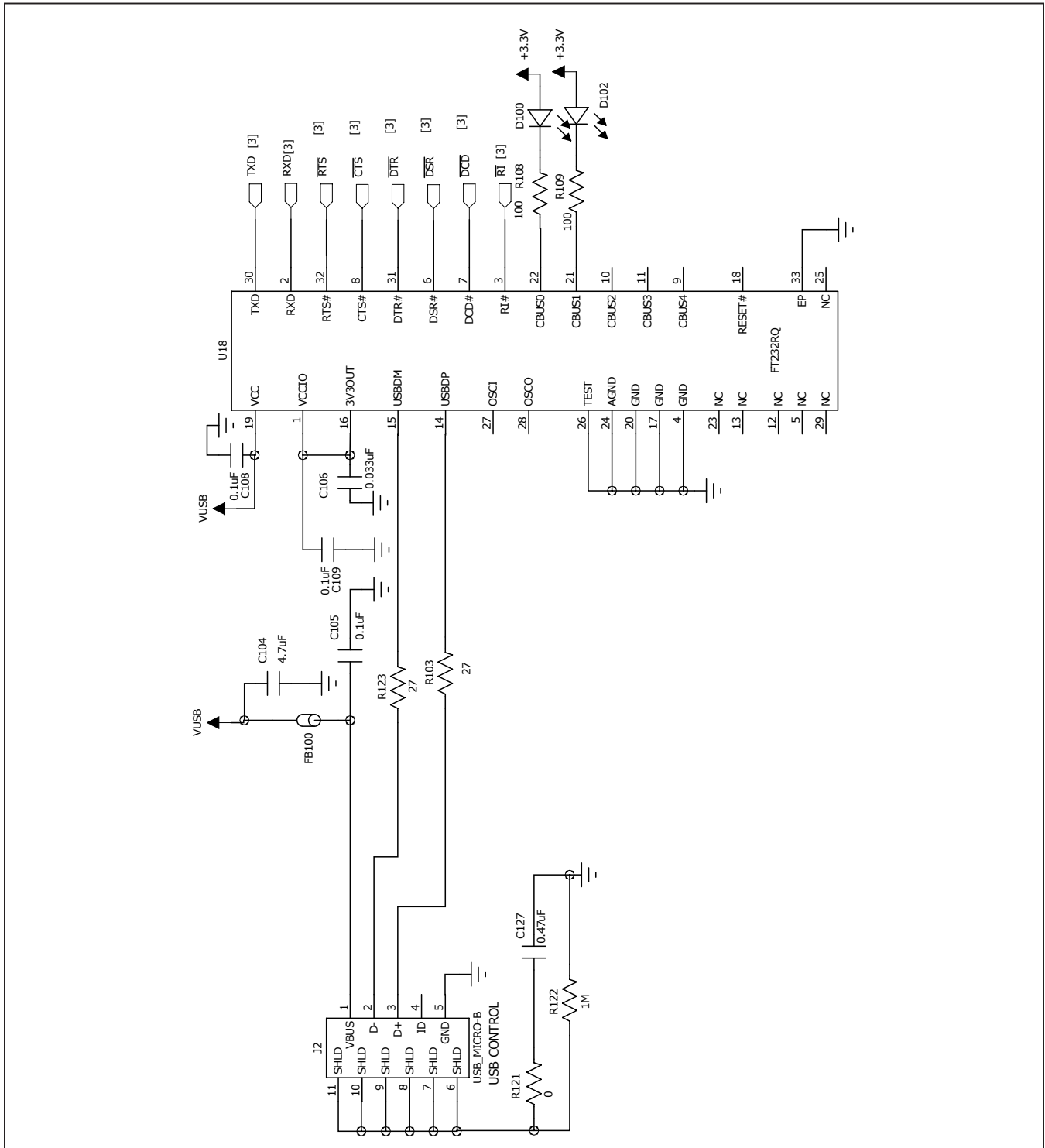


Figure 7. EV Kit Schematic—Sheet 2 of 5

MAX8973A EV Kit Schematics (continued)

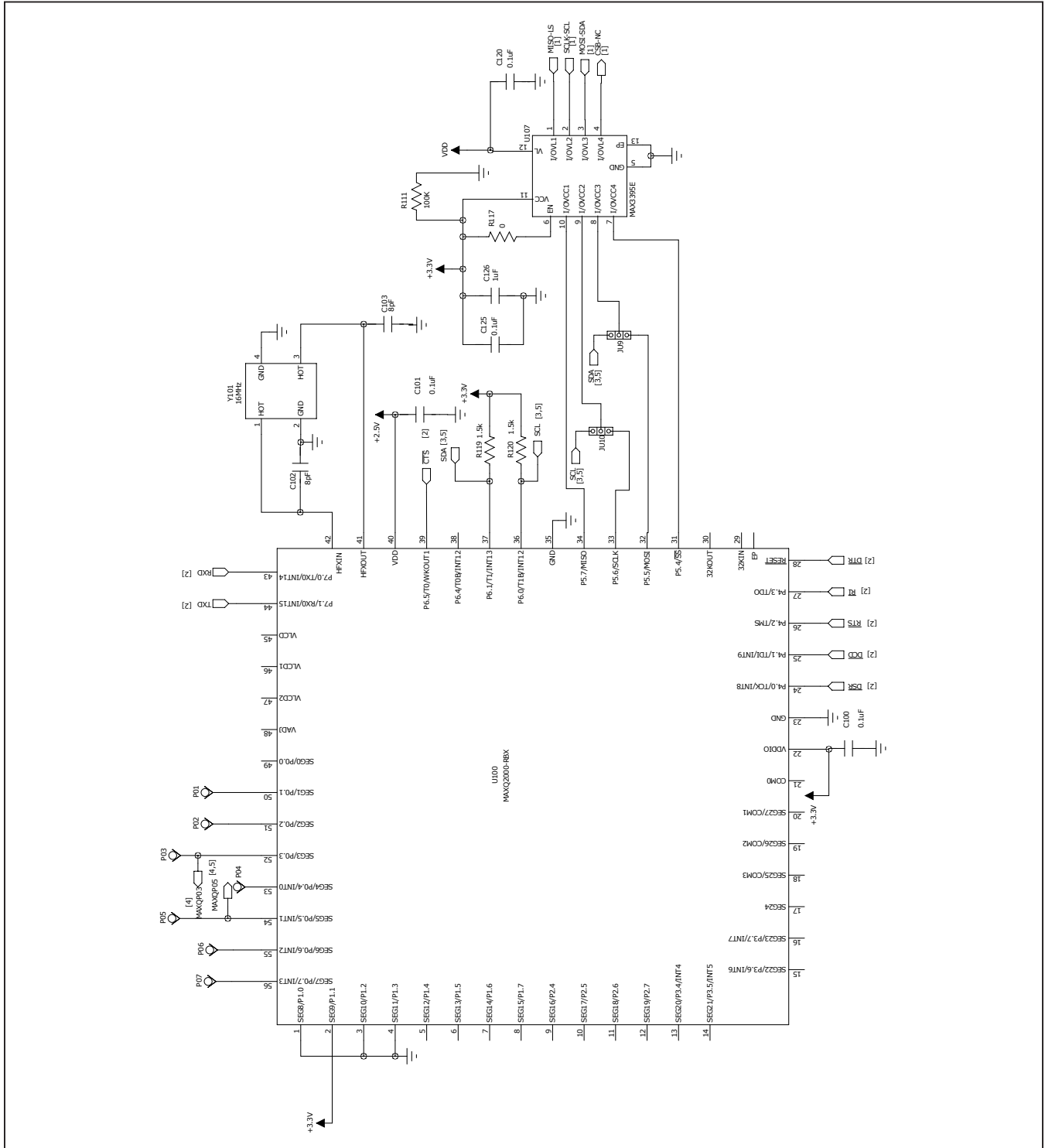


Figure 8. EV Kit Schematic—Sheet 3 of 5

MAX8973A EV Kit Schematics (continued)

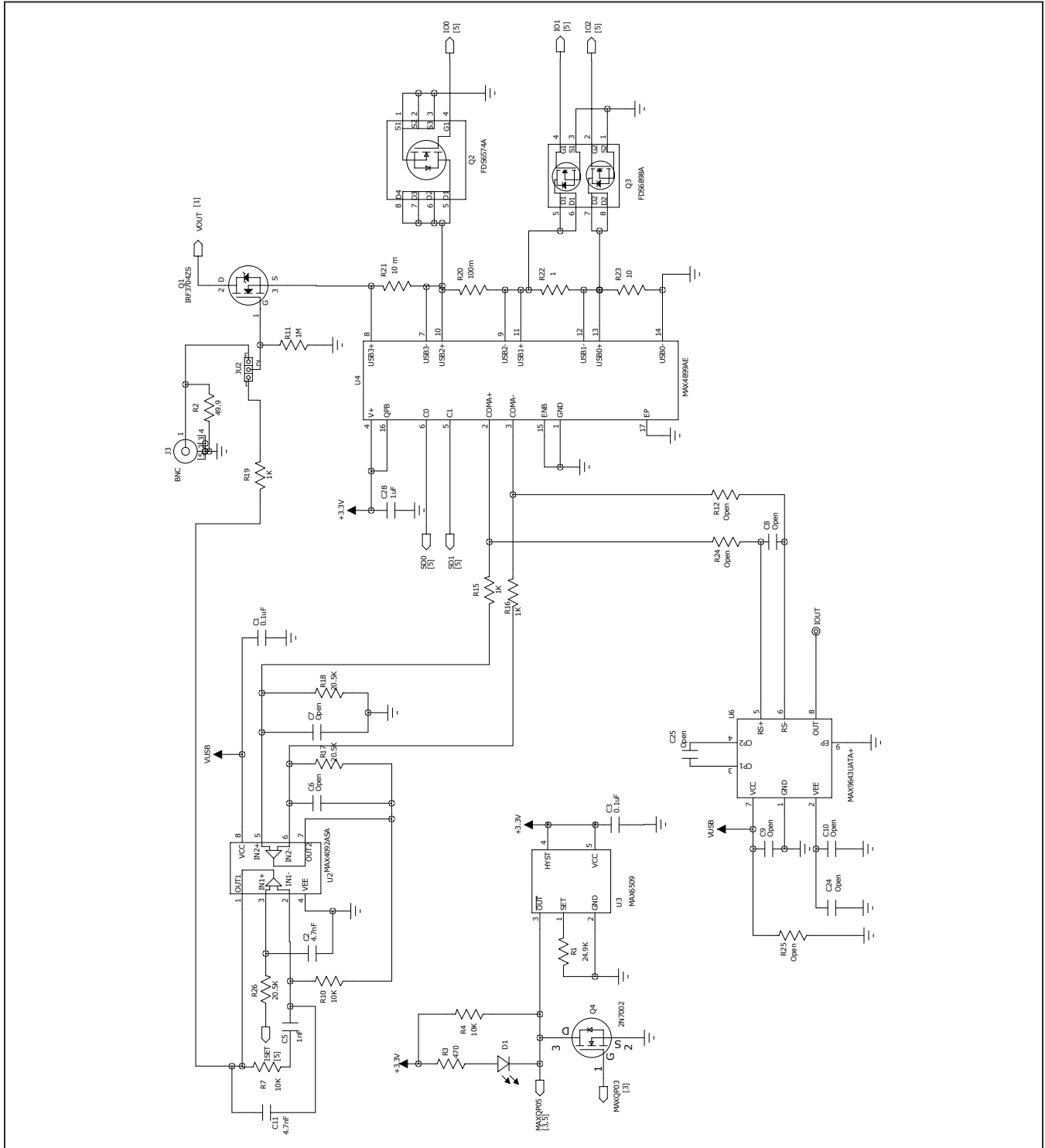


Figure 9. EV Kit Schematic—Sheet 4 of 5

MAX8973A EV Kit Schematics (continued)

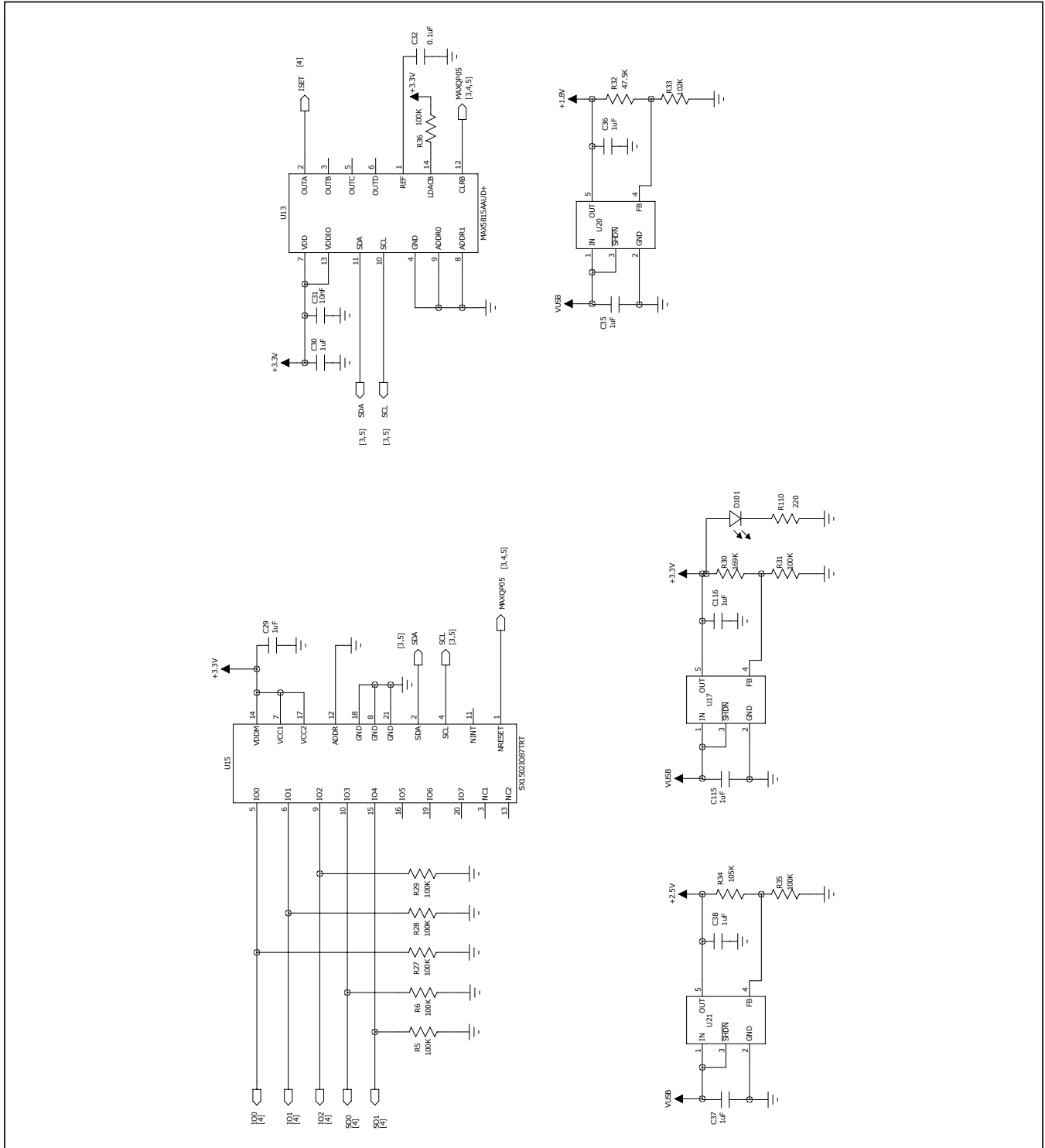


Figure 10. EV Kit Schematic—Sheet 5 of 5

MAX8973A EV Kit PCB Layouts

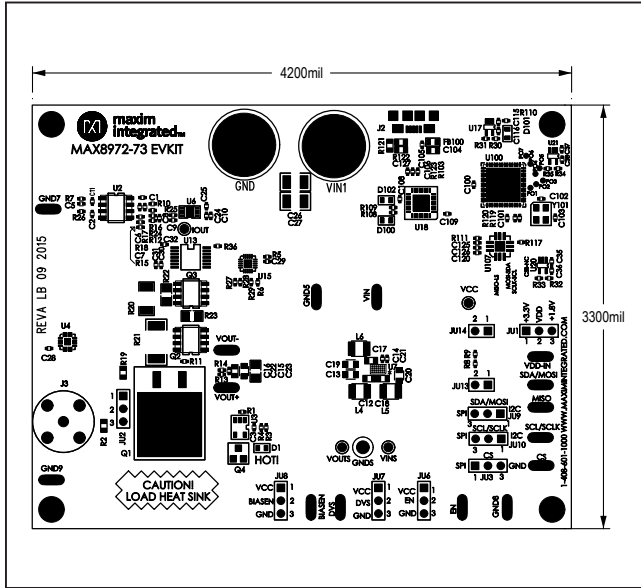


Figure 11. EV Kit Layout—Assembly Top

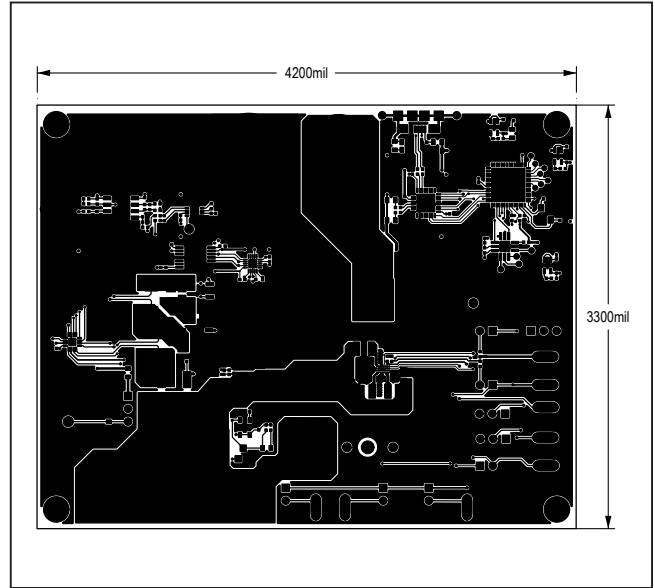


Figure 13. EV Kit Layout—Top Layer

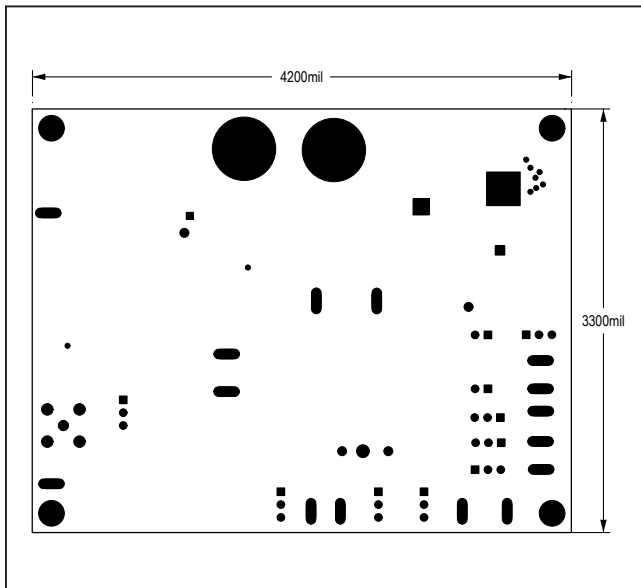


Figure 12. EV Kit Layout—Assembly Bottom

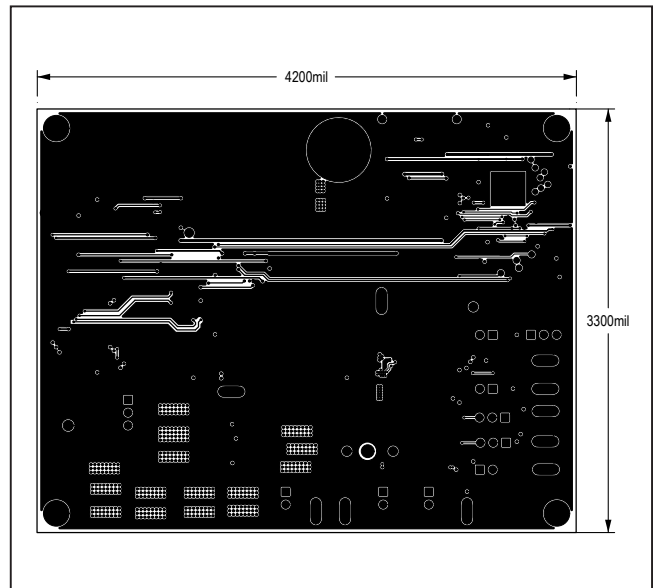


Figure 14. EV Kit Layout—Inner 2nd Layer

MAX8973A EV Kit PCB Layouts (continued)

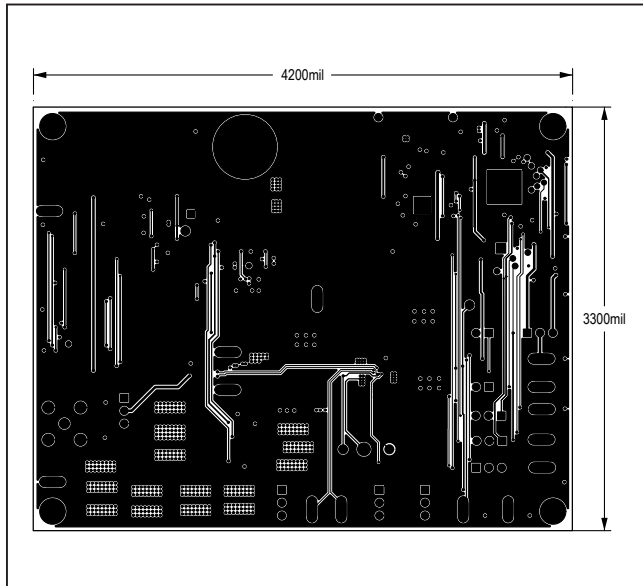


Figure 15. EV Kit Layout—Inner 3rd Layer

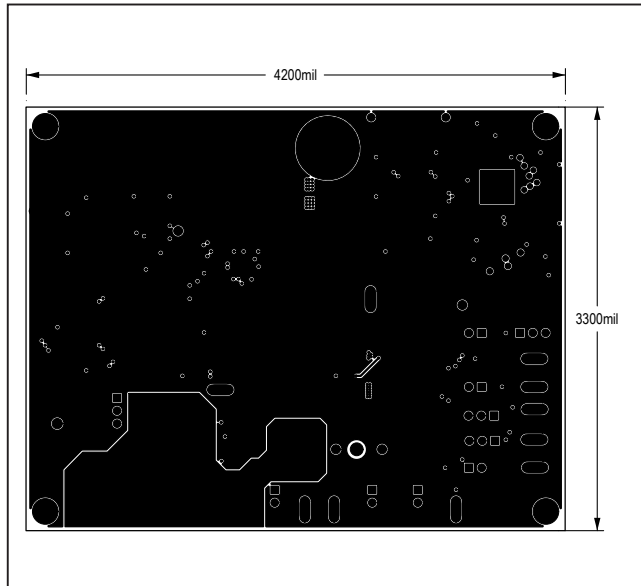


Figure 16. EV Kit Layout—Bottom Layer

Revision History

REVISION NUMBER	REVISION DATE	DESCRIPTION	PAGES CHANGED
0	3/20	Initial release	—
1	4/20	Corrected typo in <i>Ordering Information</i> table	7

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