

General Description

The MAX77734 evaluation kit (EV kit) is a fully assembled and tested printed circuit board (PCB) that demonstrates the MAX77734. The EV kit allows for easy evaluation of the various MAX77734 features, including the linear charger, linear regulator, analog multiplexer, current sinks, and I²C interface.

Windows®-based software provides a user-friendly graphical interface as well as a detailed register-based interface to exercise the features of the MAX77734.

[Ordering Information](#) appears at end of data sheet.

Benefits and Features

- Easy to Use
 - GUI Drives I²C Interface
 - On-Board Thermistor
 - Red/Green LED
 - Assembled and Fully Tested
- Emulates System Loading
 - On-Board Electronic Load for LDO
 - Electronic Load has Steady-State, Transient, and Random Modes
- Demonstrates End-to-End Analog Multiplexer Implementation
 - On-Board ADC
- Evaluates Both Push-Button and Slider-Switch On-Key Options

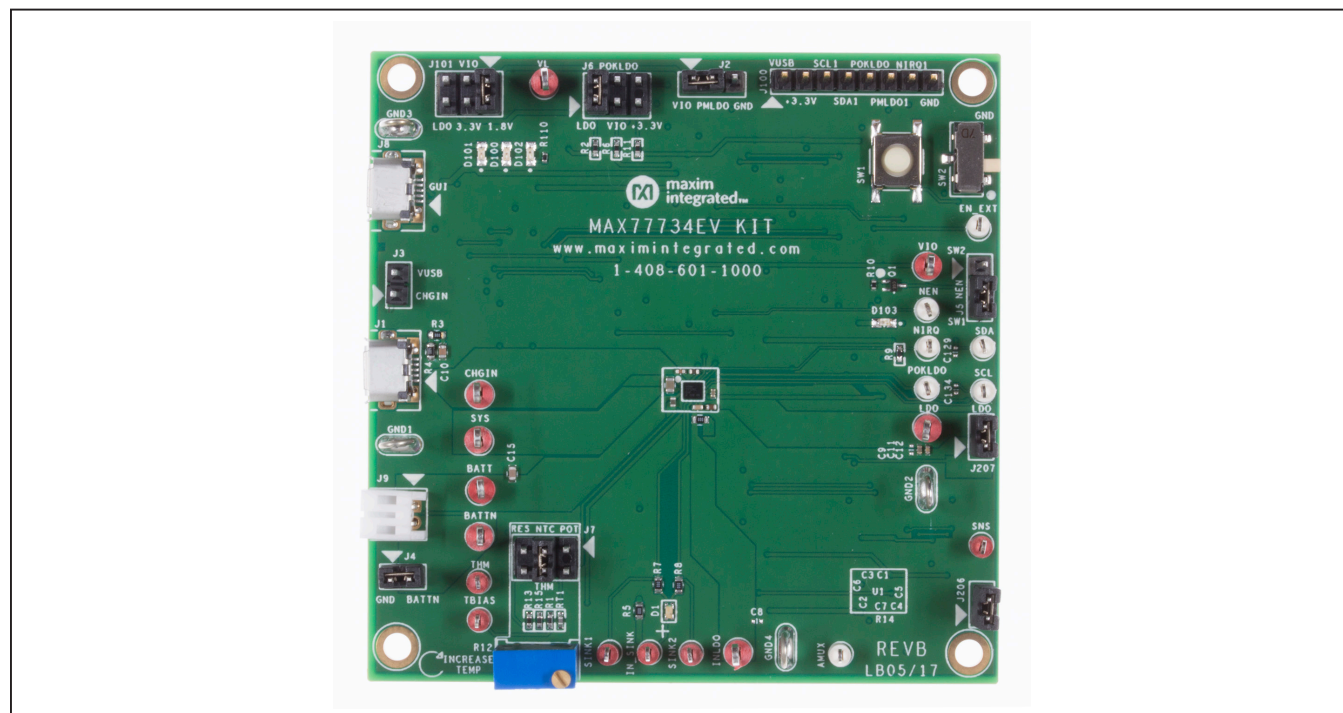


Figure 1. MAX77734 EV Kit Photo

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

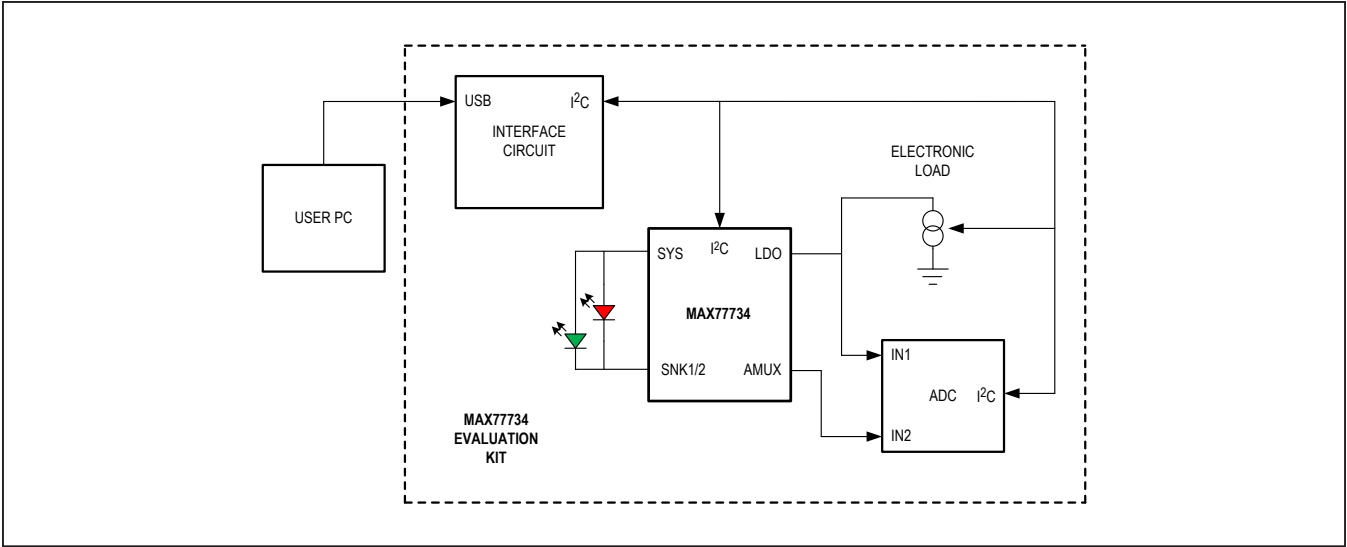


Figure 2. MAX77734 EV Kit Block Diagram

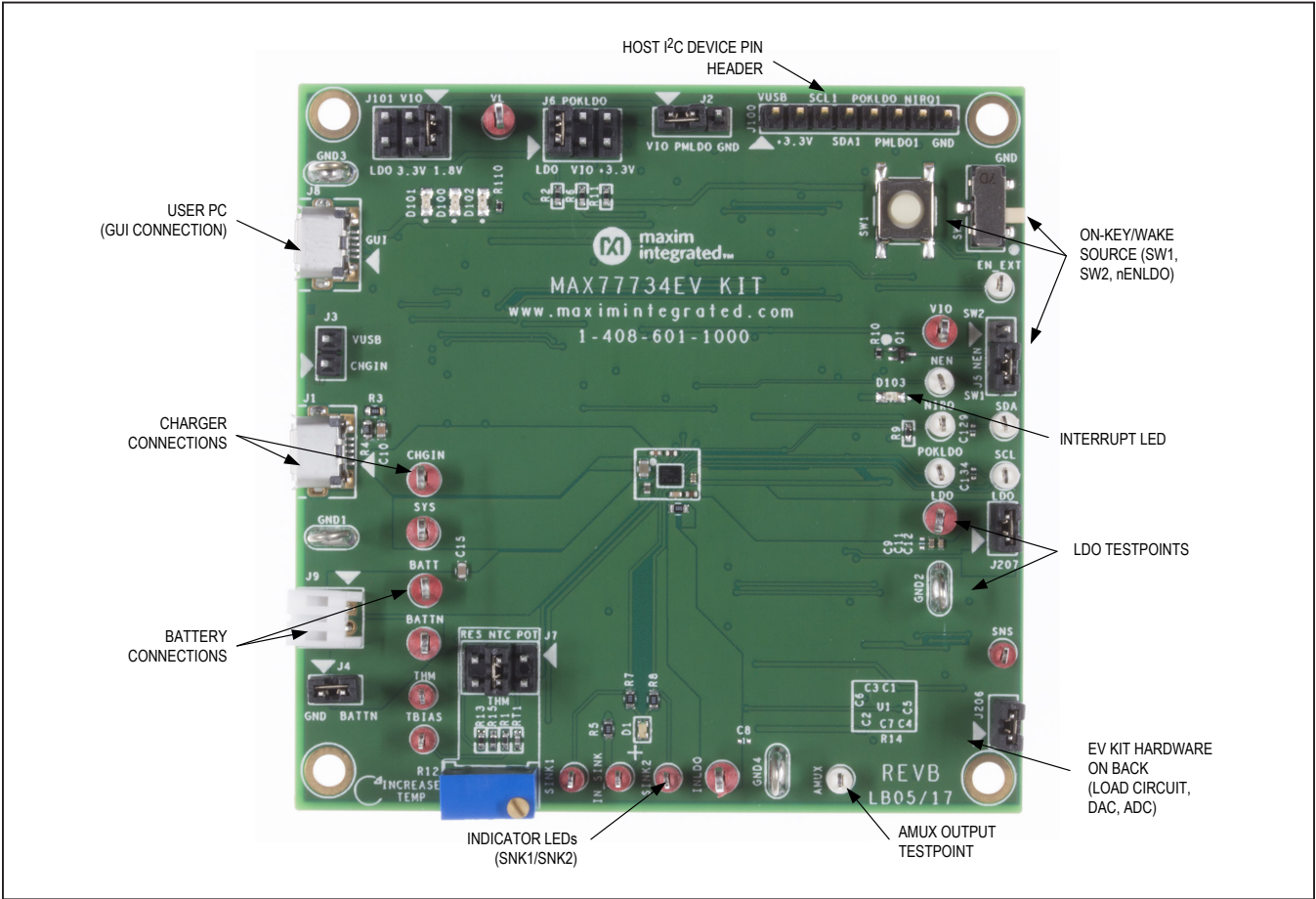


Figure 3. MAX77734 EV Kit Top View

Table 1. Default Shunt Positions and Jumper Descriptions

REFERENCE DESIGNATOR	DEFAULT POSITION	FUNCTION
J100	N/A	Do not connect shunts to J100.
J101	1-2	1-2: Connects a VIO to the 1.8V EVKIT logic rail. 3-4: Connects a VIO to the 3.3V EVKIT logic rail. 5-6: Connects a VIO to the LDO output.
J206	1-2	1-2: Connects the U203 amplifier to the gate of the Q203 load FET.
J207	1-2	1-2: Connects VLDO to load cell and the on-board ADC.
J1	N/A	USB-Micro adapter for powering CHGIN.
J2	1-2	1-2: Connects PMLDO to VIO (normal mode when pin-controlled). 2-3: Connects PMLDO to GND (low-power mode when pin-controlled).
J3	Not Installed	1-2: Connects VUSB to CHGIN. Do not install jumper when CHGIN is powered externally (through a power supply).
J4	1-2	1-2: Connects the negative battery terminal to GND.
J5	2-3	1-2: Connects nENLDO to SW2. 2-3: Connects nENLDO to SW1.
J6	1-2	1-2: Connects POKLDO to the LDO output. 3-4: Connects POKLDO to VIO. 5-6: Connects POKLDO to the 3.3V regulator on the EVKIT.
J7	3-4	1-2: Connects the THM pin to the divider through the potentiometer (R12). 3-4: Connects the THM pin to the divider through the on-board thermistor. 5-6: Connects the THM pin to the divider through a 10k resistor.
J8	N/A	USB-Micro adapter for communications to a user PC (and use the GUI).
J9	N/A	Li+ battery connection.

Quick Start

Follow this procedure to familiarize yourself with the EV kit.

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.

Required Equipment

- MAX77734 EVKIT
- Windows-based PC
- Power supply
- Ammeter
- DVM
- Micro-USB cable
- GUI

Procedure

- 1) Install GUI software. Visit www.maximintegrated.com/evkitsoftware or the product folder at www.maximintegrated.com/max77734evkit to download the latest version of the EV kit software. Save the EV kit software to a temporary folder and decompress the ZIP file.
- 2) Install EV kit shunts per [Table 1](#).
- 3) Apply a 3.7V supply (set for 100mA current limit) through an ammeter (set for 1mA range) across the BATT and GND1 terminals of the EV kit. Turn the supply on.
- 4) Connect a Micro-B USB cable between the EV kit's J8 and your Windows-based PC.
- 5) Open the GUI and press the **Connect** button in the upper left corner. Wait for the device to respond, and in the **Synchronize** window, press the **Read and close** button.
- 6) Press the **on-key** (SW1).

- 7) On the **AMUX/ADC** tab of the GUI, click the **Read** button for VLDO. For the MAX77734C you should see 3.3V (see [Figure 4](#)).
- 8) Confirm with the ammeter that the quiescent current is approximately 17µA.
- 9) In the **LDO** tab of the GUI, set the LDO Power Mode Control bitfield to 0x0 = Forced Low-Power Mode.
- 10) Confirm with the ammeter that the quiescent current is now approximately 4.5µA.
- 11) Remove the supply from the BATT. Connect a partially discharged battery (or preloaded power supply) to BATT.
- 12) Make sure that there is no jumper installed at J3. Apply a 5V supply (set for 1A current limit) through an ammeter (set for 1A range) to the CHGIN and GND1 terminals of the EV kit. Turn the supply on.
- 13) In the GUI, set the VFAST_CHG register to 4.2V, set the IFAST_CHG register to some current that is safe for your battery (e.g., 30mA for a 45mAh cell) (see [Figure 5](#)).
- 14) Enable the charger with the CHG_EN bit.
- 15) Confirm on the ammeter that the charger is sourcing the IFAST_CHG current to the battery. Note that the current that appears on the ammeter should be the sum of IFAST_CHG and the quiescent current of the charger (~1.2mA).

This concludes the Quick Start procedure. Users are now encouraged to explore the device and its register settings with the GUI.

For more information on the GUI, see the [Software](#) section.

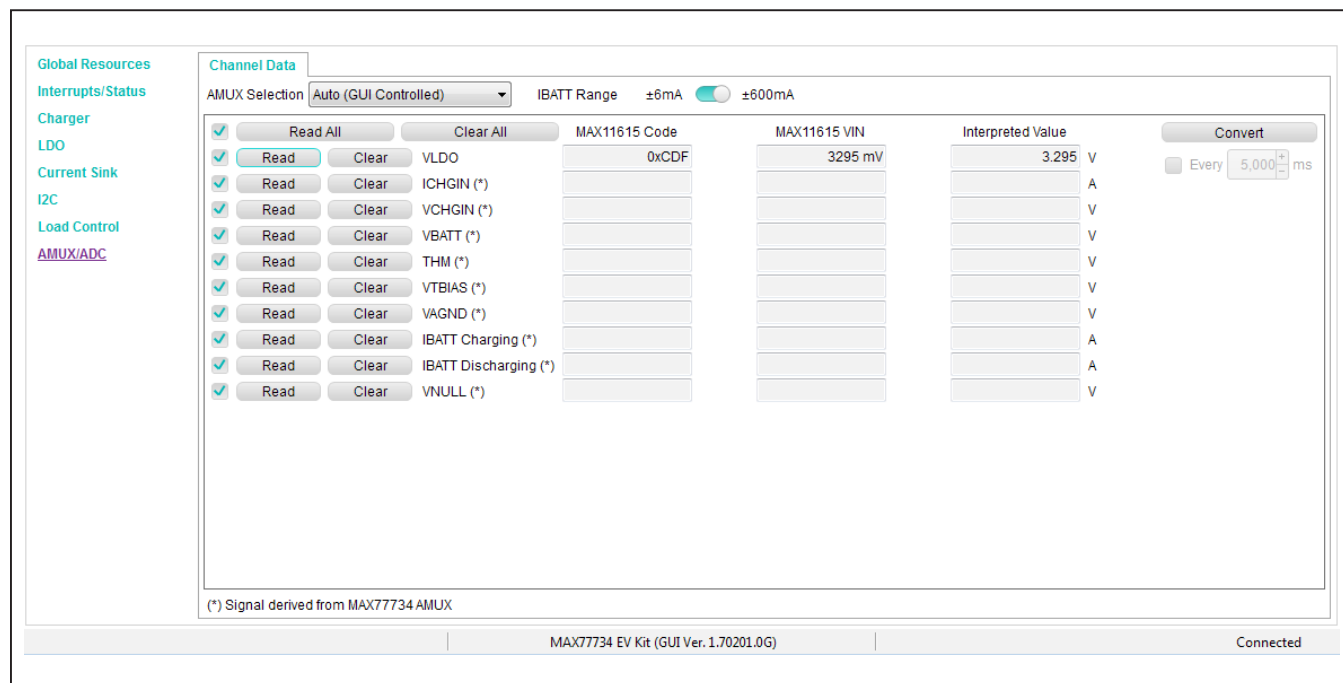


Figure 4. Quick Start: Regulator Check with the ADC

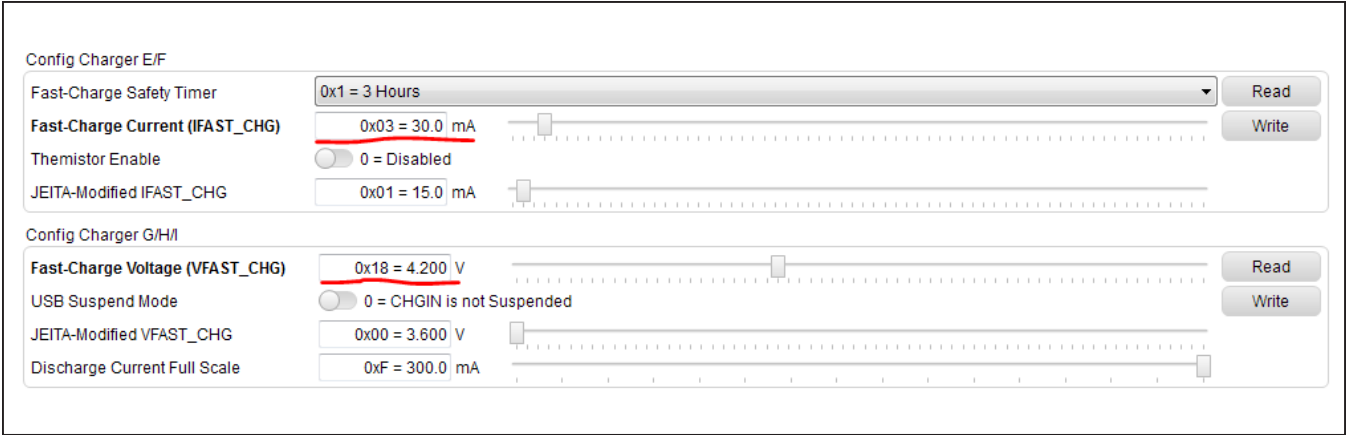


Figure 5. Quick Configuration of the Charger

EV Kit Features

On-Key Options

For applications that require the IC to enable with a user-interactable switch, the EV kit comes with two common types: the push-button (momentary) and the slide-switch (persistent). The active-low enable pin (nENLDO) has an internal pullup resistor. Select between either switch with the jumper J5. See the data sheet for more information on configuring the IC for momentary or persistent switches.

Temperature Monitoring

Jumper J7 allows selection between the following temperature monitoring options:

- 1) Potentiometer R12 (POT)
- 2) Fixed resistor divider R13 (RES)
- 3) 3380K negative temperature coefficient thermistor RT1 (NTC)

Use the potentiometer setting (POT) to quickly simulate a changing battery temperature to evaluate the charger’s JEITA safe charging response. Turn the potentiometer knob counter clock-wise to simulate decreasing battery temperature. Turn the knob clockwise to simulate increasing temperature. Use the resistor setting (RES) to permanently simulate a normal temperature (25°C). Use the thermistor setting (NTC) to evaluate the charger’s response to actual EVK temperature. The NTC beta parameter is 3380K. Temperature thresholds corresponding to this NTC beta are listed in [Table 2](#). Refer to the

Table 2. Trip Thresholds for 3380K Beta Thermistor

TRIP VOLTAGE (V)	TRIP TEMPERATURE (°C)
1.024	-10
0.976	-5
0.923	0
0.867	5
0.807	10
0.747	15
0.511	35
0.459	40
0.411	45
0.367	50
0.327	55
0.291	60

data sheet for guidance about how to design with different NTC beta.

The MAX77734 automatically biases the temperature monitoring circuit whenever CHGIN is valid or the MUX_SEL[3:0] bitfield is connecting the TBIAS or THM pins to the AMUX output. Refer to the *Adjustable Thermistor Temperature Monitors* section of the MAX77734 data sheet for more information.

Battery Terminal Jumper

There is a removable jumper (default installed, J4) near the Li+ battery connector (J9) that can be used to measure current from a real battery. The jumper is in series with the negative terminal of the battery connector. Remove J4 and place an ammeter across the two pins to measure current through the battery.

Electronic Load

The EV kit comes with an electronic load that allows the user to easily evaluate the LDO. An on-board DAC and op-amp configuration set the load current through I²C, and J207 connects the load to the output of the LDO. Emulate SYS loading by removing J207 and connecting pin 1 of the header to VSYS with a wire. To exercise the load transient response of the LDO, remove J206 and connect a signal generator to the gate of the load MOSFET (pin 2 of the header). Drive the MOSFET gate with a signal between ~1V (off) and ~3V (fully on) to apply transients to the output of the LDO (assuming J207 is installed). Note that there is a 1 ohm sense resistor that allows for a 1:1 conversion of load current to voltage.

On-Board ADC (MAX11644)

An on-board ADC is available to convert the voltage at the electronic load (LDO if J207 is installed) and the AMUX pin of the MAX77734. Use the GUI to convert these voltages to digital information.

Software

The graphical user interface (GUI) software allows for quick, easy, and thorough evaluation of the MAX77734. The GUI is designed to have individual tabs for each functional block of the device (global resources, interrupts/status, charger, LDO, current sinks, and AMUX/ADC) and two additional tabs for controlling EV kit hardware (load control and AMUX/ADC). See [Figure 7](#) for a screenshot of the GUI upon first opening.

Installation

Visit www.maximintegrated.com/evkitsoftware or the product folder at www.maximintegrated.com/max-77734evkit to download the latest version of the EV kit software. Save the EV kit software to a temporary folder and uncompress the ZIP file.

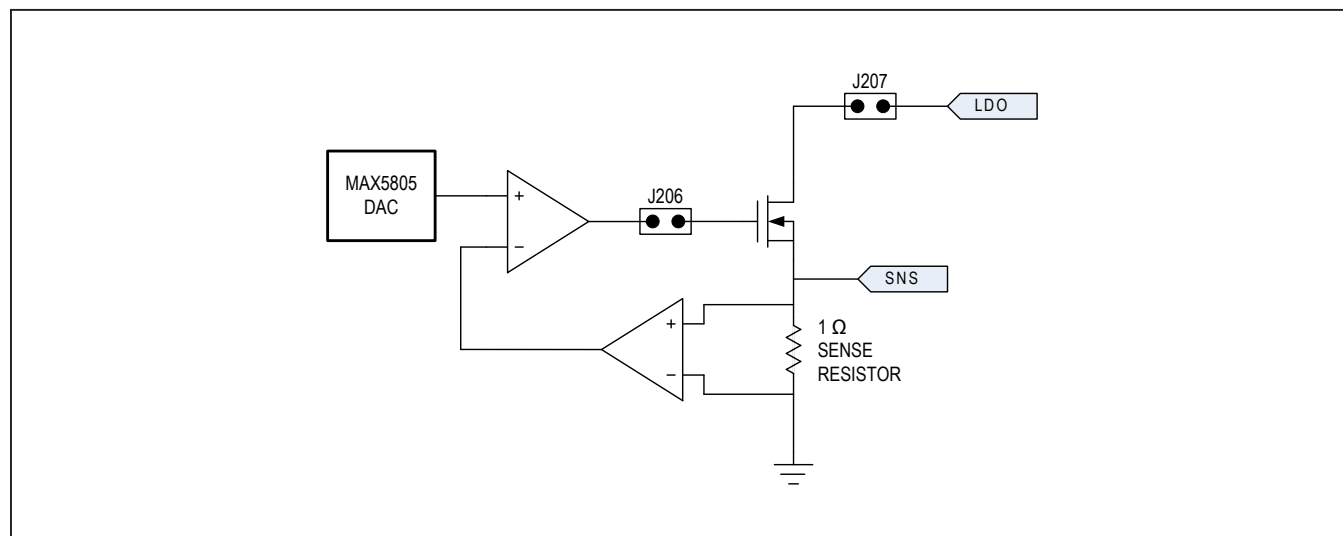


Figure 6. Electronic Load Block Diagram

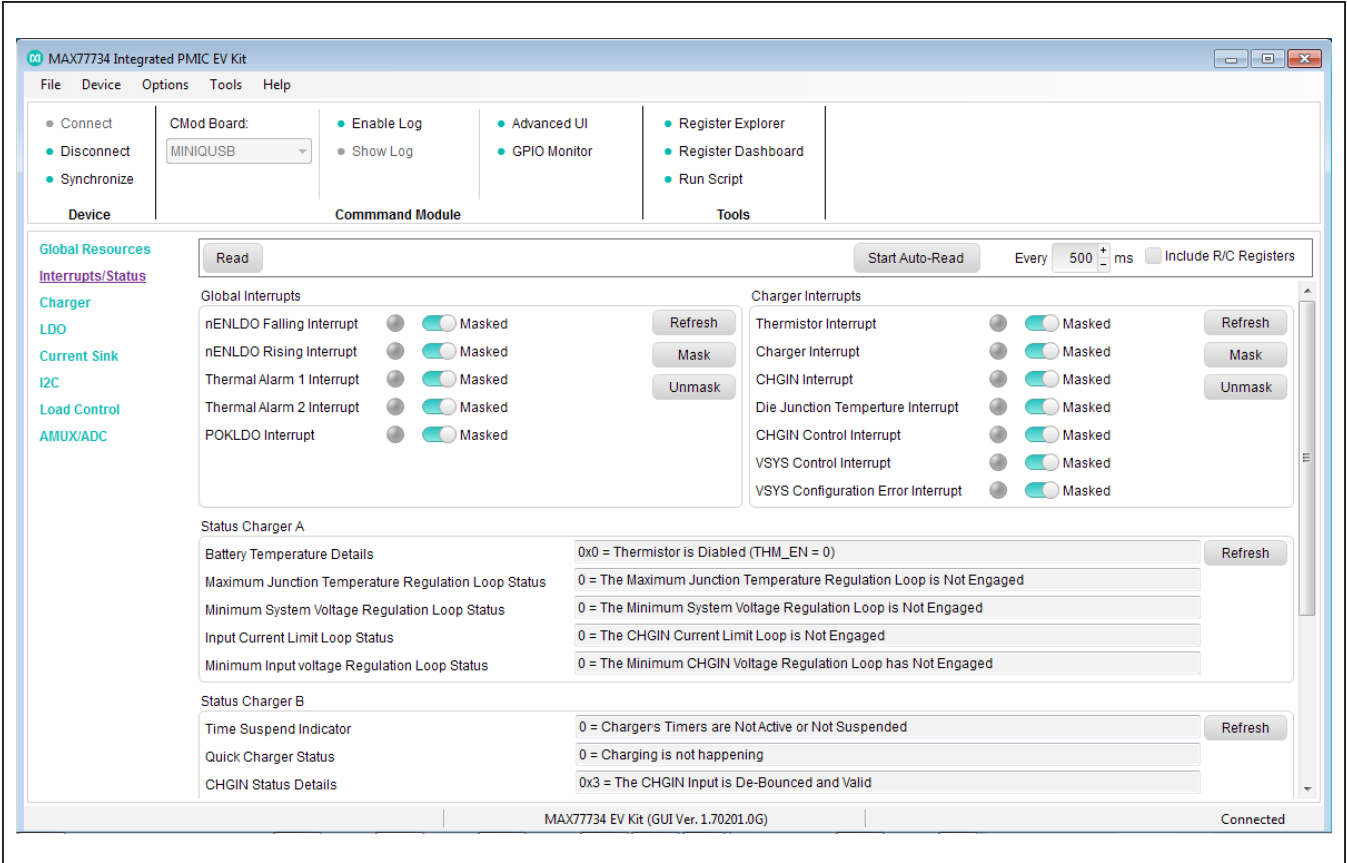


Figure 7. MAX77734 EV Kit GUI Top-Level Interface

Windows Drivers

Upon connection of a Micro-USB cable between your PC and the EV kit for the first time, you need to wait a few minutes for Windows to automatically install the necessary drivers.

Graphical User Interface (GUI) Details

The GUI drives I²C communication with the EV kit. Every control in the GUI (excluding the **Load Control** and **AMUX/ADC** tabs) corresponds directly to a register within the MAX77734. Refer to the register map in the device data sheet for a complete description of the registers. The **Load Control** and **AMUX/ADC** tabs provide additional functionality with the EV kit.

Load Control Tab

The **Load Control** tab contains controls for setting load on the LDO output. The GUI is capable of setting steady-state, transient, and random load currents. To set a load current, use the slider bar or text field to input a value (mA) and press the **Enable** button. Shuffle through the modes to exercise different load conditions. The offset and gain values are set by Maxim and do not need to be altered.

AMUX/ADC Tab

The **AMUX/ADC** tab allows users to convert important voltage and current signals to digital readings. To read a signal, click the **Read** button and examine the **Interpreted Value** column.

MAX77734 EV Kit Bill of Materials

REF_DES	DNI/DNP	QTY	MFG PART #	MANUFACTURER	VALUE	DESCRIPTION
NEN, SCL, SDA, AMUX, NIRO, EN_EXT, POKLDO		7	5002	KEystone	N/A	TEST POINT; PIN DIA=0.1IN; TOTAL LENGTH=0.3IN; BOARD HOLE=0.04IN; WHITE; PHOSPHOR BRONZE WIRE SILVER;
VL, LDO, SYS, VIO, BATT, BATTN, CHGIN, INLDO		8	5010	KEystone	N/A	TESTPOINT WITH 1.80MM HOLE DIA, RED, MULTIPURPOSE;
C1		1	C1005X5R1E225K050	TDK	2.2UF	CAPACITOR; SMT (0402); CERAMIC CHIP; 2.2UF; 25V; TOL=10%; TG=-55 DEGC TO +85 DEGC; TC=X5R
C2		1	GRM155R60J475ME87; GRM153R60J475ME15	MURATA	4.7UF	CAPACITOR; SMT (0402); CERAMIC CHIP; 4.7UF; 6.3V; TOL=20%; TG=-55 DEGC TO +85 DEGC; TC=X5R
C3		1	GRM155R70J105MA12	MURATA	1UF	CAPACITOR; SMT (0402); CERAMIC CHIP; 1UF; 6.3V; TOL=20%; TG=-55 DEGC TO +125 DEGC; TC=X7R
C4		1	GRM155C80J225KE95	MURATA	2.2UF	CAPACITOR; SMT (0402); CERAMIC CHIP; 2.2UF; 6.3V; TOL=10%; TG=-55 DEGC TO +105 DEGC; TC=X6S
C5, C11		2	ANY	ANY	0.1UF	CAPACITOR; SMT; 0402; CERAMIC; 0.1uF; 10V; 10%; X5R; -55degC to + 125degC; 0 +/-30PPM/degC; FORMFACTOR ;
C6		1	C1608X5R0J226M080AC	TDK	22UF	CAPACITOR; SMT (0603); CERAMIC CHIP; 22UF; 6.3V; TOL=20%; MODEL=C SERIES; TG=-55 DEGC TO +85 DEGC; TC=X5R
C7		1	ANY	ANY	10UF	CAPACITOR; SMT (0402); CERAMIC CHIP; 10UF; 6.3V; TOL=20%; MODEL=; TG=-55 DEGC TO +85 DEGC; TC=X5R; FORMFACTOR
C10, C114		2	ANY	ANY	0.47UF	CAPACITOR; SMT; 0603; CERAMIC; 0.47uF; 10V; 10%; X5R; -55degC to + 125degC; ; FORMFACTOR
C12		1	ANY	ANY	0.01UF	CAPACITOR; SMT (0402); CERAMIC CHIP; 0.01UF; 6.3V; TOL=10%; MODEL=C0402C SERIES; TG=-55 DEGC TO +125 DEGC; TC=X7R
C14, C108, C150, C151, C155-C157, C159, C217, C221-C223, C234, C235, C237, C244		16	ANY	ANY	0.1UF	CAPACITOR; SMT (0402); CERAMIC CHIP; 0.1UF; 25V; TOL=10%; MODEL=C SERIES; TG=-55 DEGC TO +125 DEGC; TC=X7R; FORMFACTOR
C15		1	GRM188R61A105KA61; C1608X5R1A105K	MURATA/TKD	1UF	CAPACITOR; SMT (0603); CERAMIC CHIP; 1UF; 10V; TOL=10%; MODEL=; TG=-55 DEGC TO +85 DEGC; TC=X5R;
C110-C113, C115, C118, C120, C158, C242		9	ANY	ANY	1UF	CAPACITOR; SMT (0402); CERAMIC CHIP; 1UF; 6.3V; TOL=20%; MODEL=C SERIES; TG=-55 DEGC TO +85 DEGC; TC=X5R ; FORMFACTOR
C152, C153		2	GRM1555C1H150FA01	MURATA	15PF	CAPACITOR; SMT (0402); CERAMIC CHIP; 15PF; 50V; TOL=1%; TG=-55 DEGC TO +125 DEGC; TC=C0G
C154		1	ANY	ANY	4.7UF	CAPACITOR; SMT (0402); CERAMIC CHIP; 4.7UF; 10V; TOL=20%; MODEL=C SERIES; TG=-55 DEGC TO +85 DEGC; TC=X5R; FORMFACTOR
C216		1	ANY	ANY	1000PF	CAPACITOR; SMT (0402); CERAMIC CHIP; 1000PF; 50V; TOL=10%; MODEL=C0G; TG=-55 DEGC TO +125 DEGC; TC=+; FORMFACTOR
C218, C219		2	C0402C180J5GAC; GRM1555C1H180JA01J;C1005C0G1H180J050	KEMET/MURATA/TKD	18PF	CAPACITOR; SMT (0402); CERAMIC CHIP; 18PF; 50V; TOL=5%; TG=-55 DEGC TO +125 DEGC; TC=C0G
C220, C249, C251		3	C1005X5R1H472K050	TDK	4700PF	CAPACITOR; SMT (0402); CERAMIC CHIP; 4700PF; 50V; TOL=10%; TG=-55 DEGC TO +85 DEGC; TC=X5R
D1		1	HSMF-C163	AVAGO TECHNOLOGIES	HSMF-C163	DIODE; LED; MINIATURE BI-COLOR SURFACE MOUNT CHIPLED; RED-GREEN; SMT (0603); VF=1.9V; 3.4V; IF=0.02A; 0.01A
D100, D101		2	LTST-C190YKT	LITE-ON ELECTRONICS; INC.	LTST-C190YKT	DIODE; LED; STANDARD; YELLOW; SMT (0603); PIV=5.0V; IF=0.02A; -55 DEGC TO +85 DEGC
D102, D103		2	LTST-C190CKT	LITE-ON ELECTRONICS; INC.	LTST-C190CKT	DIODE; LED; STANDARD; RED; SMT (0603); PIV=5.0V; IF=0.04A; -55 DEGC TO +85 DEGC
FB100		1	BLM18PG221SN1	MURATA	220	INDUCTOR; SMT (0603); FERRITE-BEAD; 220; TOL=+/-25%; 1.4A; -55 DEGC TO +125 DEGC
GND1-GND4		4	9020 BUSS	WEICO WIRE	MAXIMPA D	EVK KIT PARTS; MAXIM PAD; WIRE; NATURAL; SOLID; WEICO WIRE; SOFT DRAWN BUS TYPE-S; 20AWG
SNS, THM, SINK1, SINK2, TBIAS, IN_SINK		6	5000	KEystone	N/A	TEST POINT; PIN DIA=0.1IN; TOTAL LENGTH=0.3IN; BOARD HOLE=0.04IN; RED; PHOSPHOR BRONZE WIRE SILVER PLATE FINISH;
J1, J8		2	10103592-0001LF	FCI CONNECT	10103592-0001LF	CONNECTOR; FEMALE; SMT; MICRO USB B-TYPE REVERSE; RIGHT ANGLE; 5PINS

MAX77734 EV Kit Bill of Materials (continued)

REF_DES	DNI/DNP	QTY	MFG PART #	MANUFACTURER	VALUE	DESCRIPTION
J2, J5		2	TSW-103-07-T-S	SAMTEC	TSW-103-07-T-S	CONNECTOR; THROUGH HOLE; TSW SERIES; SINGLE ROW; STRAIGHT; 3PINS
J3, J4, J206, J207		4	TSW-102-07-T-S	SAMTEC	TSW-102-07-T-S	CONNECTOR; THROUGH HOLE; TSW SERIES; SINGLE ROW; STRAIGHT; 2PINS; -55 DEGC TO +105 DEGC
J6, J7, J101		3	TSW-103-07-L-D	SAMTEC	TSW-103-07-L-D	CONNECTOR; MALE; THROUGH HOLE; THROUGH HOLE 0.025 POST HEADER; STRAIGHT; 6PINS
J9		1	S2B-PH-K-S(LF)(SN)	JST MANUFACTURING	S2B-PH-K-S(LF)(SN)	CONNECTOR; MALE; THROUGH HOLE; 2.0MM PITCH; DISCONNECTABLE CRIMP STYLE CONNECTOR; SIDE ENTRY TYPE; RIGHT ANGLE; 2PINS
J100		1	PEC08SAAN	SULLINS ELECTRONICS CORP.	PEC08SAAN	CONNECTOR; MALE; THROUGH HOLE; .100IN CONTACT CENTER; MALE BREAKAWAY HEADER ; STRAIGHT; 8PINS
Q1		1	FDY300NZ	FAIRCHILD SEMICONDUCTOR	FDY300NZ	TRAN; SINGLE N-CHANNEL 2.5V SPECIFIED POWERTRENCH MOSFET; NCH; SC89; PD-(0.625W); I-(0.6A); V-(20V)
Q203		1	IRFHM8337TRPBF	INTERNATIONAL RECTIFIER	IRFHM8337TRPBF	TRAN; HEXFET POWER MOSFET; NCH; PQFN8; PD-(2.8W); I-(18A); V-(30V)
Q205		1	FDN360P	FAIRCHILD SEMICONDUCTOR	FDN360P	TRANSISTOR, MOSFET P-CHANNEL, SUPERSOT-3, PD=0.5W, ID=-2.0A, VDS=-30V, VGSS=+/-20V
Q206		1	2N7002	N/A	2N7002	TRAN; ; NCH; SOT-23; PD-(0.33W); IC-(0.5A); VCEO-(60V); -55 DEGC TO +150 DEGC
R1, R13, R15, R287, R288		5	CRCW040210K0FK; RC0402FR-0710K	VISHAY DALE; YAGEO PHICOMP	10K	RESISTOR; 0402; 10K; 1%; 100PPM; 0.0625W; THICK FILM
R3, R142, R277, R279		4	ANY	ANY	0	RESISTOR; 0603; 0 OHM; 0%; JUMPER; 0.10W; THICK FILM; FORMFACTOR
R4, R122		2	ANY	ANY	1M	RESISTOR; 0603; 1M; 1%; 100PPM; 0.10W; THICK FILM; FORMFACTOR
R5, R7, R8, R14		4	CRCW06030000Z0	VISHAY DALE	0	RESISTOR; 0603; 0 OHM; 0%; JUMPER; 0.1W; THICK FILM
R12		1	3296Y-1-204LF	BOURNS	200K	RESISTOR; THROUGH HOLE-RADIAL LEAD; 3296 SERIES; 200K OHM; 10%; 100PPM; 0.5W
R100, R118		2	ANY	ANY	4.7K	RESISTOR, 0402, 4.7K OHM, 1%, 100PPM, 0.0625W, THICK FILM; FORMFACTOR
R103, R123, R150		3	ANY	ANY	22	RESISTOR, 0402, 22 OHM, 1%, 100PPM, 0.0625W, THICK FILM; FORMFACTOR
R107, R108		2	ANY	ANY	2.2K	RESISTOR, 0402, 2.2K OHM, 1%, 100PPM, 0.0625W, THICK FILM; FORMFACTOR
R110		1	CRCW0402470RFK	VISHAY DALE	470	RESISTOR, 0402, 470 OHM, 1%, 100PPM, 0.0625W, THICK FILM
R2, R6, R9-R11, R115, R132, R157, R159, R161, R214, R280, R283		13	ANY	ANY	100K	RESISTOR; 0402; 100K; 1%; 100PPM; 0.0625W; THICK FILM; FORMFACTOR
R133, R135, R136, R143, R148, R152, R155, R162-R165, R210-R213, R251, R259, R285, R286, R303, R304		21	ANY	ANY	0	RESISTOR; 0402; 0 OHM; 1%; 100PPM; 0.0625W; THICK FILM; FORMFACTOR
R151		1	CRCW0402150RFK; 9C04021A1500FL	VISHAY DALE	150	RESISTOR; 0402; 150 OHM; 1%; 100PPM; 0.0625W; THICK FILM
R156		1	CRCW0402105KFK	VISHAY DALE	105K	RESISTOR; 0402; 105K OHM; 1%; 100PPM; 0.063W ; THICK FILM
R158		1	CRCW0402169KFK	VISHAY DALE	169K	RESISTOR; 0402; 169K OHM; 1%; 100PPM; 0.063W; THICK FILM
R160		1	CRCW04024752FK; 9C04021A4752FLHF3; CRCW040247K5FK	VISHAY DALE	47.5K	RESISTOR; 0402; 47.5K; 1%; 100PPM; 0.0625W; THICK FILM
R109, R111, R248		3	CRCW0402100RFK; 9C04021A1000FL; RC0402FR-07100RL	VISHAYDALE; PANASONI C; YAGEOPHYCOMP	100	RESISTOR; 0402; 100OHM; 1%; 100PPM; 0.063W; THICKFILM
R249		1	CRCW0402680RFK; RC0402FR-07680RL	VISHAY DALE/YAGEO PHICOMP	680	RESISTOR, 0402, 680 OHM, 1%, 100PPM, 0.0625W, THICK FILM
R250		1	CRCW040220K0FK	VISHAY DALE	20K	RESISTOR; 0402; 20K OHM; 1%; 100PPM; 0.063W; THICK FILM
R252, R253		2	CRCW04024991FK	VISHAY DALE	4.99K	RESISTOR; 0402; 4.99K; 1%; 100PPM; 0.0625W; THICK FILM
R254, R255		2	ANY	ANY	1K	RESISTOR; 0402; 1K; 1%; 100PPM; 0.0625W; THICK FILM; FORMFACTOR
R257		1	CRCW04021M00FK	VISHAY DALE	1M	RESISTOR; 0402; 1M; 1%; 100PPM; 0.0625W; THICK FILM
R258		1	CSR1206FT1R00	STACKPOLE ELECTRONICS INC.	1	RESISTOR; 1206; 1 OHM; 1%; 100PPM; 0.5W; THICK FILM

MAX77734 EV Kit Bill of Materials (continued)

REF_DES	DNI/DNP	QTY	MFG PART #	MANUFACTURER	VALUE	DESCRIPTION
R299		1	ERJ-2RKF4703X	PANASONIC	470K	RESISTOR, 0402, 470K OHM, 1%, 100PPM, 0.0625W, THICK FILM
R300		1	CRCW0402649KFK	VISHAY DALE	649K	RESISTOR; 0402; 649K OHM; 1%; 100PPM; 0.063W; THICK FILM
RT1		1	NCP15XH103F03RC	MURATA	10K	THERMISTOR; SMT (0402); THICK FILM (NICKEL PLATED); 10K; TOL=+/-1%
SW1		1	EVQ-Q2K03W	PANASONIC	EVQ-Q2K03W	SWITCH; SPST; SMT; 15V; 0.02A; LIGHT TOUCH SWITCH; RCOIL= OHM; RINSULATION= OHM; PANASONIC
SW2		1	CL-SB-12B-11	NIDEC COPAL ELECTRONICS CORP	CL-SB-12B-11	SWITCH; SPDT; SMT; 12V; 0.02A; CL-SB SERIES; SLIDE SWITCH; RCOIL=0.05 OHM; RINSULATION=100M OHM; NIDEC COPAL ELECTRONICS CORP
U1		1	MAX77734CENP+T	MAXIM	MAX77734CENP+T	EVKIT PART-IC; MAX77734; MD34; 0.4MM PITCH PACKAGE; BGA20; PACKAGE OUTLINE: 21-100154; PACKAGE CODE: N201B2+1
U100		1	MAXQ2000-RBX+	MAXIM	MAXQ2000-RBX+	IC; CTRL; LOW-POWER LCD MICROCONTROLLER; TQFN56-EP 8X8
U101		1	FT232RQ	FUTURE TECHNOLOGY DEVICES INTL LTD.	FT232RQ	IC; INFC; UART INTERFACE IC USB TO SERIAL; QFN32-EP 5X5
U102-U104		3	MAX8512EXK	MAXIM	MAX8512EXK	IC, VREG, Ultra-Low-Noise, High PSRR, Adjustable Vout, SC70-5
U107		1	MAX3395ETC	MAXIM	MAX3395ETC	IC; TRANS; 15KV ESD-PROTECTED HIGH-DRIVE CURRENT QUAD-LEVEL TRANSLATOR WITH SPEED-UP CIRCUITRY; TQFN12 4X4
U108		1	24AA02T-I/OT	MICROCHIP	24AA02T-I/OT	IC; EPROM; 2K I2C SERIAL EEPROM; SOT23-5
U203		1	MAX44251AUA+	MAXIM	MAX44251AUA+	IC; OPAMP; ULTRA-PRECISION; LOW-NOISE OP AMP; UMAX8
U205		1	MAX5805AUB+	MAXIM	MAX5805AUB+	IC; DAC; ULTRA-SMALL, SINGLE-CHANNEL, 12-BIT BUFFERED OUTPUT DAC WITH INTERNAL REFERENCE AND I2C INTERFACE; UMAX10
U209		1	MAX11644EUA+	MAXIM	MAX11644EUA+	IC; ADC; LOW-POWER; 2-CHANNEL; I2C; 12-BIT ADCS IN ULTRA-TINY 1.9MMX2.2MM PACKAGE; UMAX8 1.9X2.2
U210		1	MAX6037BAUK41+	MAXIM	MAX6037BAUK41+	IC; VREF; LOW-POWER; FIXED; ADJUSTABLE REFERENCE WITH SHUTDOWN; SOT23-5
Y101		1	CX3225SB16000D0FLJZZ	KYOCERA-KINSEKI	16MHZ	CRYSTAL; SMT (3225) 3.2X2.5; 8PF; 16MHZ; +/-10PPM; +/-15PPM
PCB		1	MAX77734_SOLDERDOWN_REVB	MAXIM	PCB	PCB:MAX77734_SOLDERDOWN_REVB
R260	DNP	0	N/A	N/A	OPEN	RESISTOR; 0402; OPEN; FORMFACTOR
C8, C9, C129, C134	DNP	0	N/A	N/A	OPEN	CAPACITOR; SMT (0402); OPEN; FORMFACTOR

NOTE: DNI-DO NOT INSTALL (PACKOUT); DNP-DO NOT PROCURE

Ordering Information

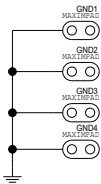
PART	TYPE
MAX77734EVKIT#	EV Kit

#Denotes RoHS compliant.

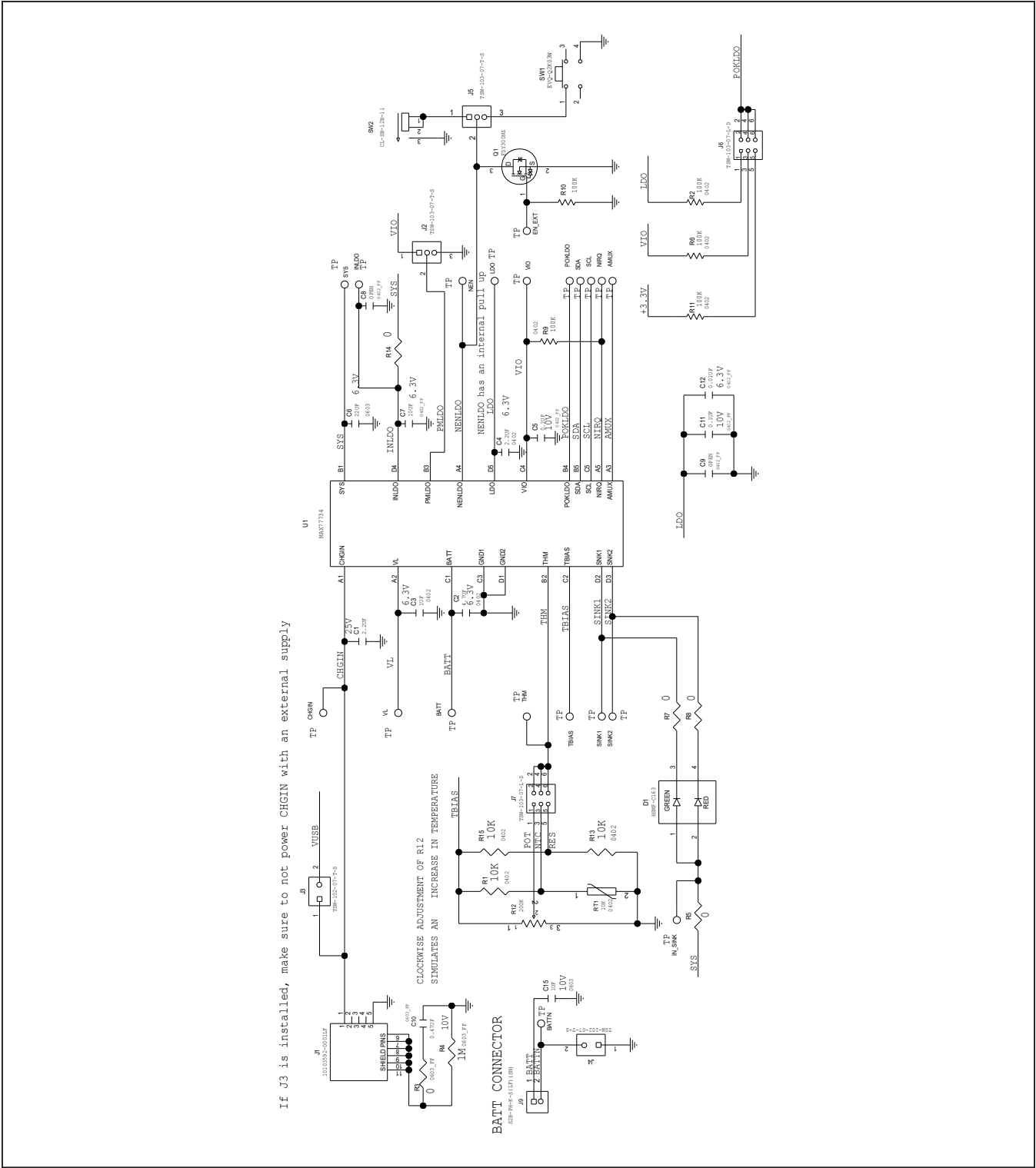
MAX77734 EV Kit Schematic

PART NUMBER	PIN STRAP	7-BIT	8-BIT WRITE	8-BIT READ
MAX77734 (PMIC)	ADDR OTP BIT = 0	0x40 0b100 0000	0x80 0b1000 0000	0x81 0b1000 0001
MAX77734 (PMIC)	ADDR OTP BIT = 1	0x48 0b100 0000	0x90 0b1001 0000	0x91 0b1001 0001
MAX11644 (ADC)	N/A	0x36 0b011 0110	0x6C 0b0110 1100	0x6D 0b0110 1101
MAX5805 (DAC)	ADDR PIN = GND	0x18 0b001 1000	0x30 0b0011 0000 0x32 *** 0b0011 0010	0x31 0b0011 0001
24AA02 (EEPROM)	N/A	0x50 TO 0x57 0b101 0xxx	0xA0...0xAE 0b1010 xxx0	0xA1...0xAF 0b1010 xxx1

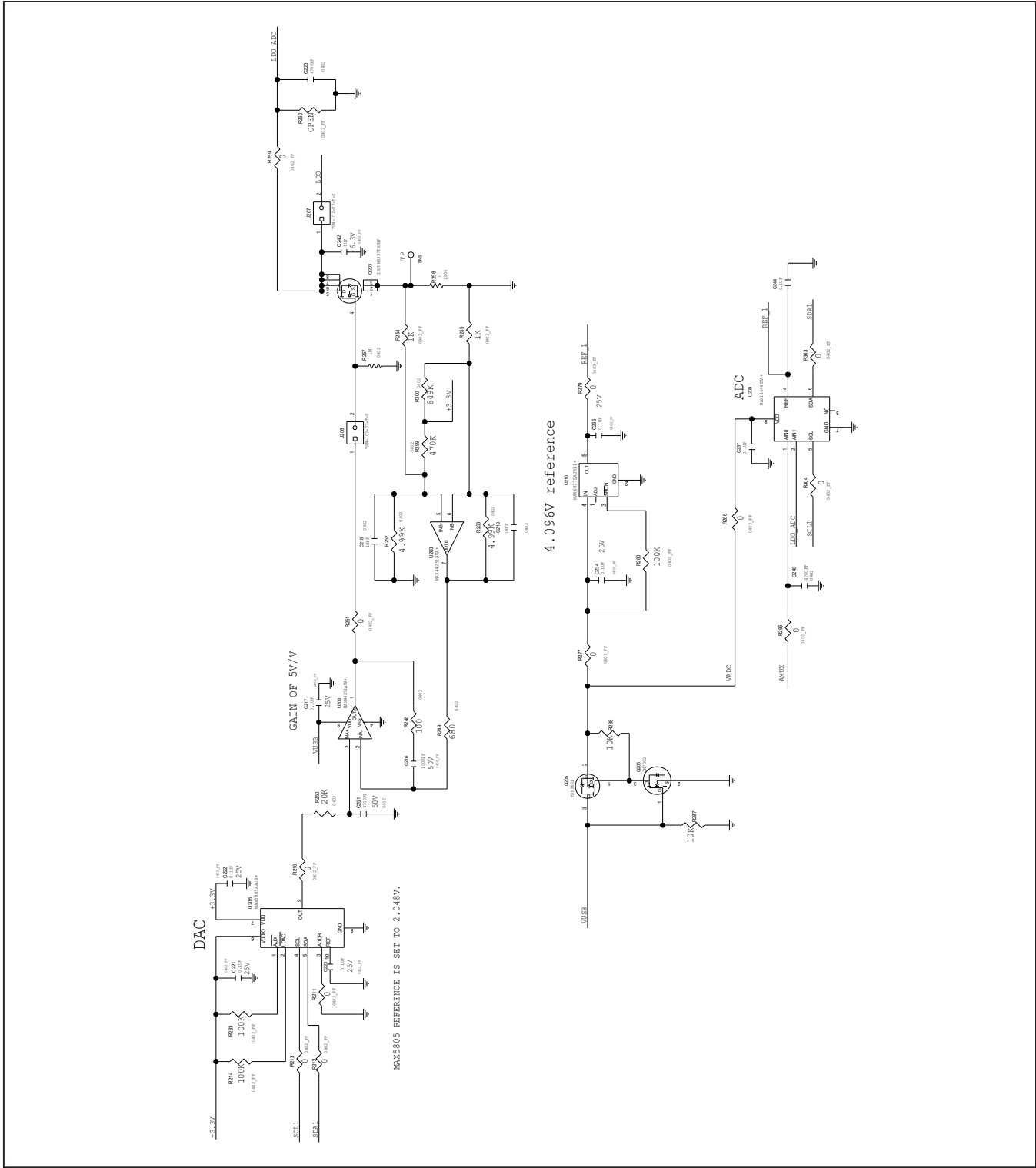
*** MAX5805 also responds to Broadcast Address 0b0011 0010 (8-bit)



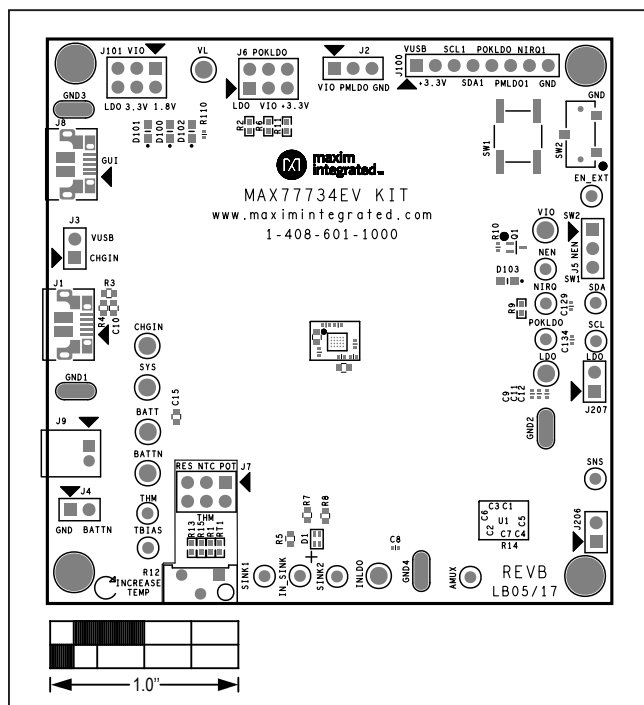
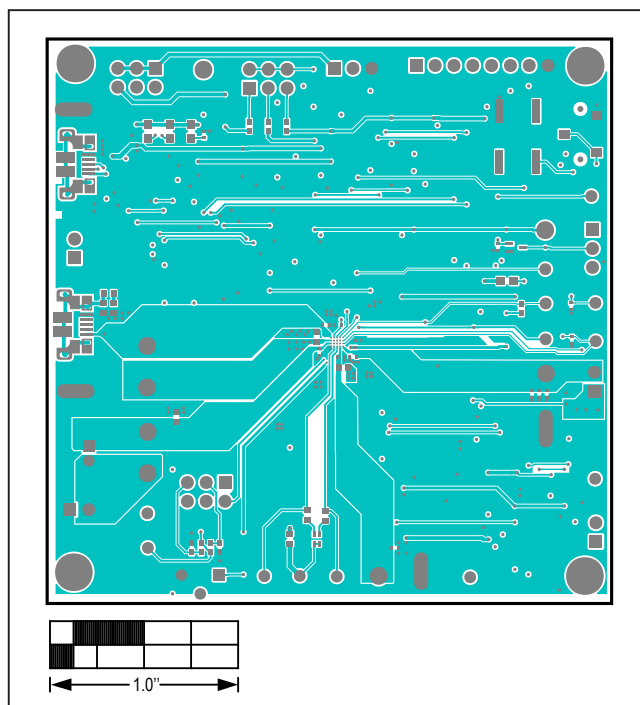
MAX77734 EV Kit Schematic (continued)



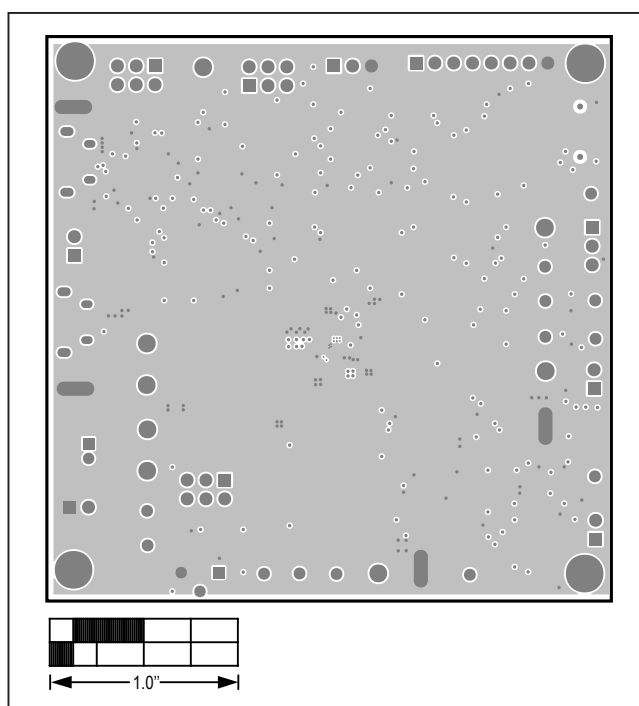
MAX77734 EV Kit Schematic (continued)



MAX77734 EV Kit PCB Layouts

MAX77734 EV Kit Component Placement Guide—
Top Silkscreen

MAX77734 EV Kit PCB Layout—Top Layer



MAX77734 EV Kit PCB Layout—Internal Layer 2

Revision History

REVISION NUMBER	REVISION DATE	DESCRIPTION	PAGES CHANGED
0	9/17	Initial release	—

For pricing, delivery, and ordering information, please contact Maxim Direct at 1-888-629-4642, or visit Maxim Integrated's website at www.maximintegrated.com.

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