

General Description

The MAX77785/MAX77786 evaluation kits (EV kit) are fully assembled and tested printed circuit boards (PCB) that demonstrate the MAX77785/MAX77786 single-cell lithium-ion battery chargers.

The MAX77785/MAX77786 are for 1S Li+ battery applications and can operate with a 4.7V to 18.2V input voltage with a maximum charging current up to 3.5A/5.5A. The MAX77785/MAX77786 ICs offer a reverse boost as well as fully integrated low-power loss switches to provide small solution size and high efficiency. The EV kits demonstrate the performance of the MAX77785/MAX77786 charger and provide the convenience of evaluating full USB Type-C® power-delivery (PD) solutions with the MAX77958 USB Type-C PD controller. This combination allows fast charging of the battery through the USB Type-C port as well as reverse powering the USB Type-C port with battery on-the-go (OTG) mode.

A Micro-B USB cable is included in the EV kit to serve as the interface from a USB port on a Windows® PC to the subordinate I²C port on the MAX77785/MAX77786. Windows-based graphical user interface (GUI) software is available for use with the EV kit and can be downloaded from the Analog Devices, Inc. website at www.analog.com. Windows 7 or a newer Windows operating system is required to use the EV kit software.

MAX77785/MAX77786 EV Kit Files

FILE	DESCRIPTION
MAX77785_MAX77786.exe	Installs EV kit files onto computer

Ordering Information appears at end of data sheet.

USB Type-C is a registered trademark of USB Implementers Forum, Inc.

Windows is a registered trademark of Microsoft Corp.

Features

- High-Efficiency Single-Cell Switching Charger
 - Up to 5.5A Charging with the MAX77786
 - 90% Buck Efficiency at 4A, 15V Input
- 4.7V to 18.2V Input Operating-Voltage Range
- Reverse Boost with Programmable Output-Voltage Options up to 10.805V
- Charge-Status Output for LED
- Push-Button Input for Exiting from Ship Mode
- Dedicated Input for Suspend Mode (SUSPND)
- USB Type-C Version 1.3- and PD 3.0-Compliant
- Sink/Source/DRP Port Support
- Programmable Power Supply (PPS) Sink Support
- Fast Role-Swap Initial Sink Support
- Integrated V_{CONN} Switch with Overcurrent Protection (OCP)
- Support Try.Snk State
- Battery Charging 1.2 (BC1.2) Legacy Charger Detection
- Programmable Unplug Detection

Quick Start

Required Equipment

- MAX77785/MAX77786 EV kit
 - MAX77785EVKIT#/MAX77786EVKIT# board
 - Micro-B USB cable
 - MAX77785/MAX77786 EV kit software (GUI)
- USB Type-C or PD travel adapter (TA)
- Power supply
- Battery simulator
- Multimeters
- Windows-based PC
- Oscilloscope to monitor CC pin or other signals

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.

EV Kit Photo

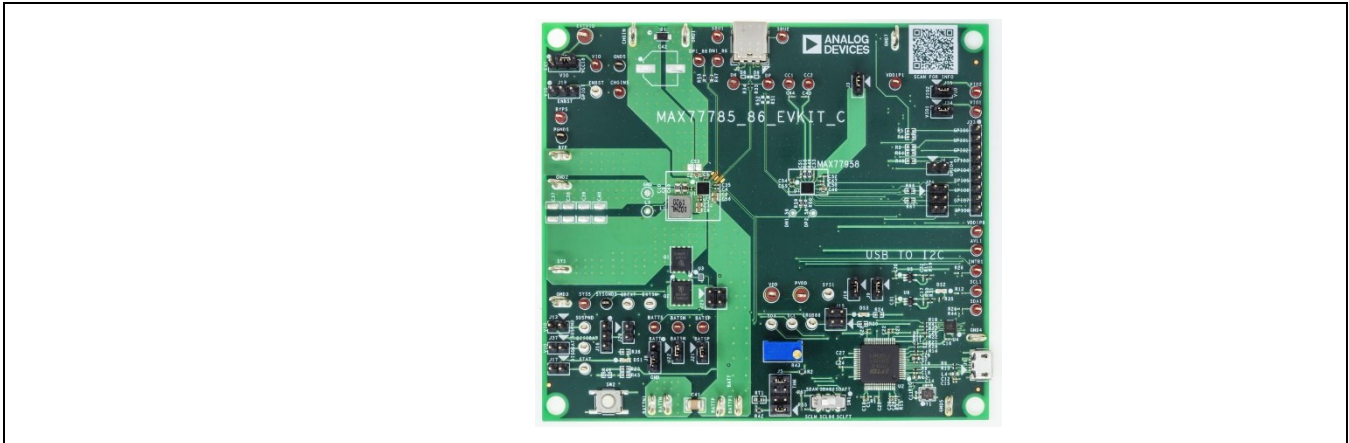


Figure 1. MAX77785/MAX77786 EV Kit Photo—Top View

Procedure

The EV kits are fully assembled and tested. Follow the steps to install the EV kit software, make required hardware connections, and start operation of the kit. The EV kit software can be run without hardware attached. Note that after communication is established, the IC must still be configured correctly for desired operation mode. Make sure the PC is connected to the internet throughout the process so that the USB driver can be automatically installed.

1. Visit www.analog.com to download the latest version of the MAX77785/MAX77786 EV kit software. Save the software to a temporary folder and unpack the zip file.
2. Install the EV kit software on the computer by running the MAX77785_MAX77786GUISetup.exe program inside the temporary folder. This copies the program files and creates an icon in the Windows **Start** menu. The software requires the .NET Framework 4.5 or later. If connected to the internet, Windows automatically updates the .NET Framework as needed.
3. The EV kit software launches automatically after installation, and it can be launched by clicking on its icon in the Windows **Start** menu.
4. Make jumper connections based on the default connection options in [Table 1](#). Change the jumper connections later when evaluating more features. For the SW1 on the EV kit, set the switch location to the right so that the MAX77785/MAX77786 I²C lines are connected directly to the USB-to-I²C translator (MAXUSB) communication interface. Later, the switch location can be set to the left so that the MAX77785/MAX77786 I²C lines are connected to MAX77958 I²C main.
5. Make connections to the EV kit board as shown in [EV Kit Configuration](#). The two main inputs to apply are the battery and the charging adaptor. For quick start evaluation, use a 5V power supply at the CHGIN input and a battery voltage greater than 3.8V at the BATT input. The optional voltmeter and ammeter location for testing charger efficiency is indicated in the [EV Kit Configuration](#). When set up properly with both CHGIN = 5V and BATT = 3.8V input, the SYS voltage is regulated above BATT by default.
6. Connect the EV kit to a USB port on the PC using a Micro-B USB cable.
7. Open the GUI software, click **Device** then **Connect**. A window pops up showing that a subordinate address corresponding to the MAX77785/MAX77786 and/or the MAX77958 has been found. If not, check the connection.
8. Start evaluating the part with the GUI software. Unlock the write protection and adjust the charger mode, the charging input current limit, and the charging current to start evaluating the basic charger features as described in the **Charger Configurations** tab section. Investigate the charger mode and other register settings to evaluate the smart power path and more features. Remove the CHGIN input and use the real travel adaptor to evaluate charging the battery through the USB Type-C port.

EV Kit Configuration

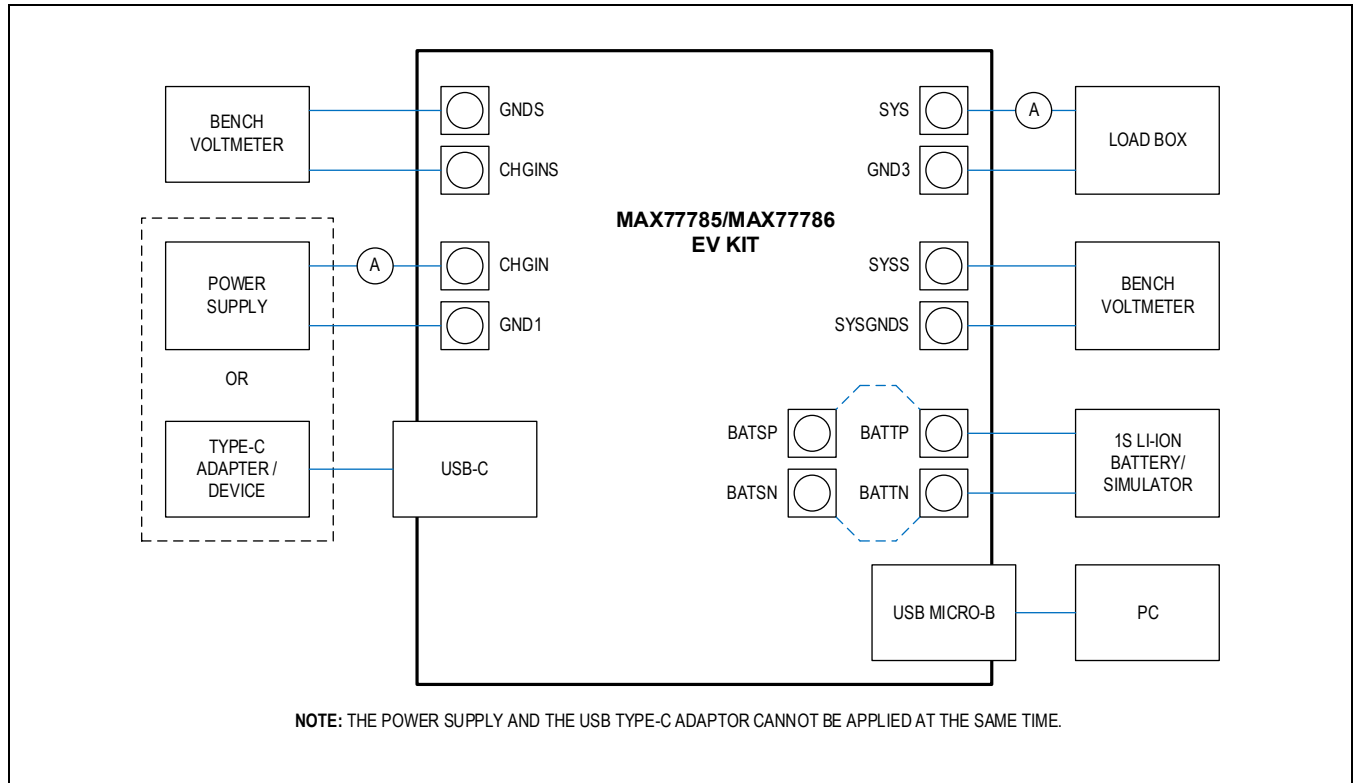


Table 1. Jumper Connection Guide

JUMPER	DEFAULT CONNECTION	FEATURE
J21	Closed	Open: Disconnect BATTSP from BATTN. Allows BATTSP pin to remote sense at battery positive terminal. *Closed: BATTSP sense point is directly at BATTN input terminal on the EV kit.
J22	Closed	Open: Disconnect BATTSP from BATTN. Allows BATTSP pin to remote sense at battery positive terminal. *Closed: BATTSP sense point is directly at BATTN input terminal on the EV kit.
J23	Open	*Open: Disable external BATT to SYS FET circuit. Close: Enable the external BATT to SYS FET path to further reduce the BATT to SYS on resistance. Need to connect J18 (pin 2-3) and J29 (close).
J18	1-2	*1-2: Enable QBEXT pin as PGOOD and disable external BATT to SYS FET circuit. 2-3: Connect 100kΩ pull-up for the external BATT to SYS FET circuit. Need to connect J23 (close) and J29 (close).
J29	Open	*Open: Disable external BATT to SYS FET circuit. Closed: Connect QBEXT pin to control external BATT to SYS FET circuit. Need to connect J23 (close) and J18 (2-3).

JUMPER	DEFAULT CONNECTION	FEATURE
J5	1-2 (ROOM): Closed 3-4 (NTC): Open 5-6 (POT): Open 7-8 (ENTH): Closed	All Open: Disable thermistor. Only 7-8 Closed: Enable thermistor function, connect THM pin to the battery pack's thermistor to directly measure battery temperature. 1-2, 7-8 Closed: A fixed 10kΩ pull-up and pull-down simulate a constant room temperature. 3-4, 7-8 Closed: Enable temperature measurement with an NTC resistor installed on the EV kit. 5-6, 7-8 Closed: Enable temperature measurement simulated with a potentiometer R43. Any other configuration: Do not configure.
J37	Open	*Open: Default operation. Closed: Force disconnect QBATT.
J13	Open	*Open: Default operation. Closed: Force SUSPEND = 1 to the charger.
J17	Open	*Open: STAT pin LED indicator is disabled. Closed: STAT pin LED indicator is enabled.
J7	2-3	Open: Do not configure. 1-2: VIO powered through EXT VIO with 1.8V external power supply. *2-3: VIO powered by USB Micro-B port connected to PC.
J19	Open	*Open: Disable reverse boost operation. 1-2: Enable reverse boost operation. 2-3: MAX77958 to disable/enable MAX77785/MAX77786 reverse boost operation.
J8	2-3	1-2: Do not configure. *2-3: MAX77785/MAX77786 EXTSM pin is an active-low input. Exit ship mode by push button (SW2).
J15	Open	*Open: MAX77785/MAX77786 IRQB is not connected. 1-2: MAX77785/MAX77786 connect to 100kΩ pull-up to VIO. 3-4: IRQB LED indicator is enabled.
J9	Closed	Open: MAX77958 VCONN is not powered. *Closed: MAX77958 VCONN is powered by SYS.
J3	Closed	Open: MAX77958 is not connected to VBUS. *Closed: MAX77958 is connected to VBUS.
J16	Closed	Open: MAX77958 is not powered by SYS. *Closed: MAX77958 is powered by SYS.
J4	Open	*Open: MAX77958 GPIO4 is not connected to MAX77785/MAX77786 IRQB. Closed: MAX77958 GPIO4 is connected to MAX77785/MAX77786 IRQB.
J24	5-6	1-2: MAX77958 subordinate address is selected to be 0b0100110. Do not connect 3-4 and 5-6. 3-4: MAX77958 subordinate address is selected to be 0b0100111. Do not connect 1-2 and 5-6. *5-6: MAX77958 subordinate address is selected to 0b0100101 by connecting the GPIO6 to GND. Default for GUI communication. Do not connect 1-2 and 3-4.
J33	Open	All MAX77958 GPIO pins at J33 are available to connect externally. Some GPIOs have reserved functionality. Refer to the MAX77958 data sheet for details.
J34	Closed	Open: MAX77958 VIO1 is not powered. *Closed: MAX77958 VIO1 is powered.
J35	Closed	Open: MAX77958 VIO2 is not powered. *Closed: MAX77958 VIO2 is powered.
SW1	1-2	*1-2: MAX77785/MAX77786 I²C lines are connected to the host directly. 2-3: MAX77785/MAX77786 I ² C lines are connected to the MAX77958 I ² C main.

*Default options are in bold.

Detailed Description of Hardware

This EV kit should be used with the following documents:

- MAX77785/MAX77786 and MAX77958 IC data sheets
- MAX77785/MAX77786 EV kit data sheet (this document)
- MAX77785_MAX77786GUISetup.exe EV kit software

These documents, or links to them, are included in the MAX77785/MAX77786 EV kit package. For the latest versions of the documents listed above, go to: www.analog.com.

Detailed Description of Software

The GUI allows for quick, easy, and thorough evaluation of the MAX77785/MAX77786 and MAX77958. Every control in the GUI corresponds to a register in the MAX77785/MAX77786 and MAX77958. Refer to the *Register Map* section in the MAX77785/MAX77786 and MAX77958 IC data sheets for a complete description.

Software Installation

The MAX77785/MAX77786 EV kit GUI can be downloaded from Analog Devices' website at www.analog.com. Save the EV kit software to a temporary folder and decompress the ZIP file. Run the .EXE file and follow the on-screen instructions to complete the installation.

Windows Driver

After connecting the Micro-USB cable between the PC and the EV kit for the first time, wait for Windows to automatically install the drivers for the USB-to-I²C interface.

Establish Communication

When the device is powered up by the CHGIN or BATT input, click **Device** and then click **Connect** to communicate with the IC. [Figure 2](#) shows the correct detection result. Click **Close** to establish the connection.

Before configuring any tab, click **Read** to make sure all the displayed configurations are in sync with the IC configuration state. Alternatively, click **Start Auto-Read** and set the corresponding read frequency to keep this page up to date at all times. Follow the guidance in the MAX77785/MAX77786 IC data sheet for the detailed usage of each register. When trying to write to a register with the write button, disable the **Start Auto-Read** feature.

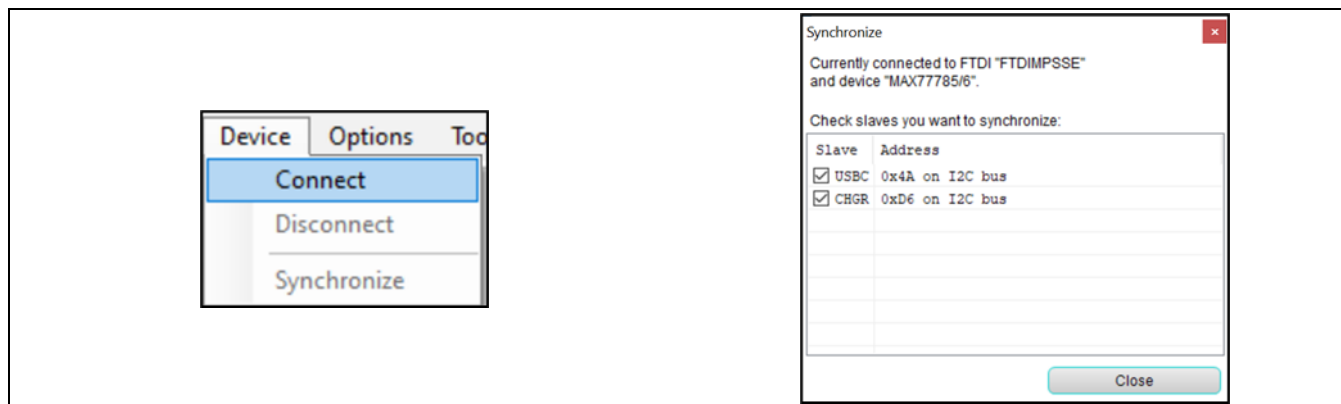


Figure 2. MAX77785/MAX77786 EV Kit GUI—Device and Connect Resulting Window

Top Tab

The **Top** tab displays the top-level configuration settings for the IC. [Figure 3](#) shows the format of the Top tab. Information is grouped by function and each is detailed separately. The masked top interrupt is not reflected on the IRQB pin, while the unmasked interrupt is reflected on the IRQB pin. The **Top Status Indicator** section includes controls the top-level settings. The **Software Reset** command is 0xA5.

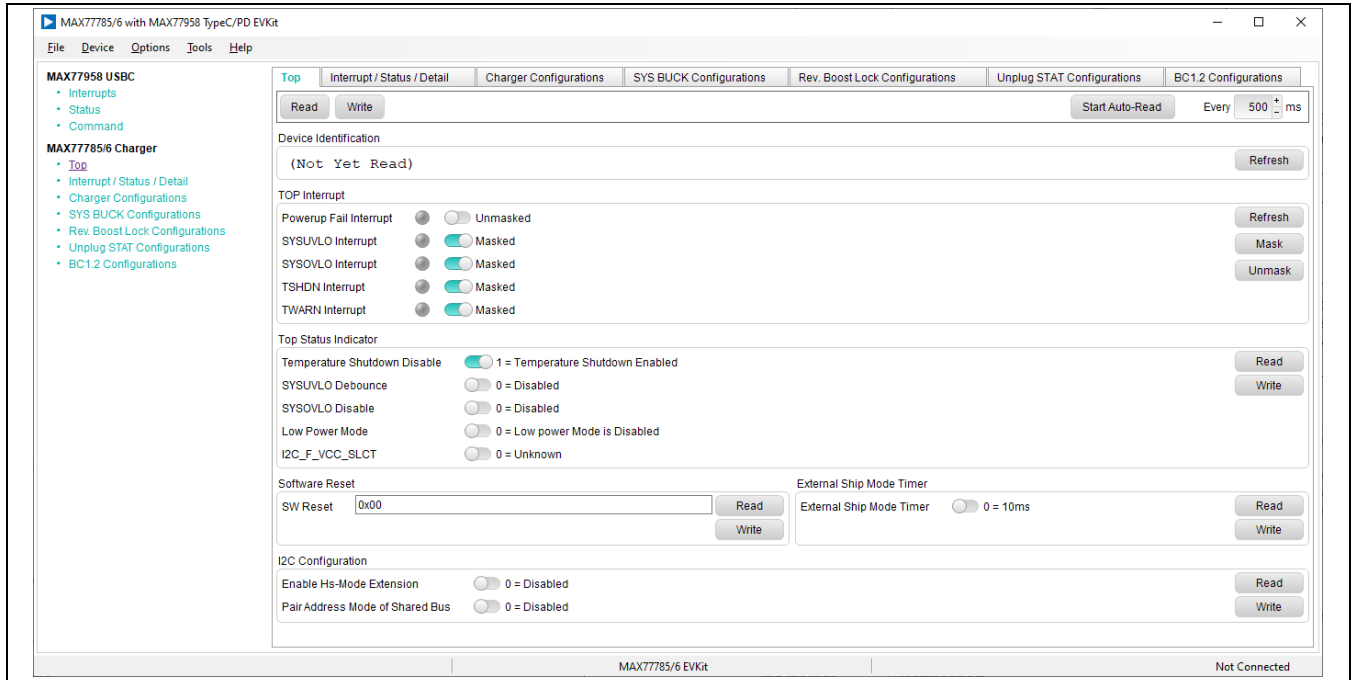


Figure 3. MAX77785/MAX77786 EV Kit GUI—Top Tab

Interrupt / Status / Detail Tab

The **Interrupt / Status / Detail** tab displays the charger interrupt setting, charger status, and charger detail status for the IC. [Figure 4](#) shows the format of the **Interrupt / Status / Detail** tab. The masked charger interrupt is not reflected on the IRQB pin, while the unmasked interrupt is reflected on the IRQB pin. The detailed status of the charger helps diagnose the state of the charger operation. Also, the detailed charger status is the basis of the interrupt status. Refer to the description of the CHG_DETAILS_0/1/2 register in the IC data sheet for more details.

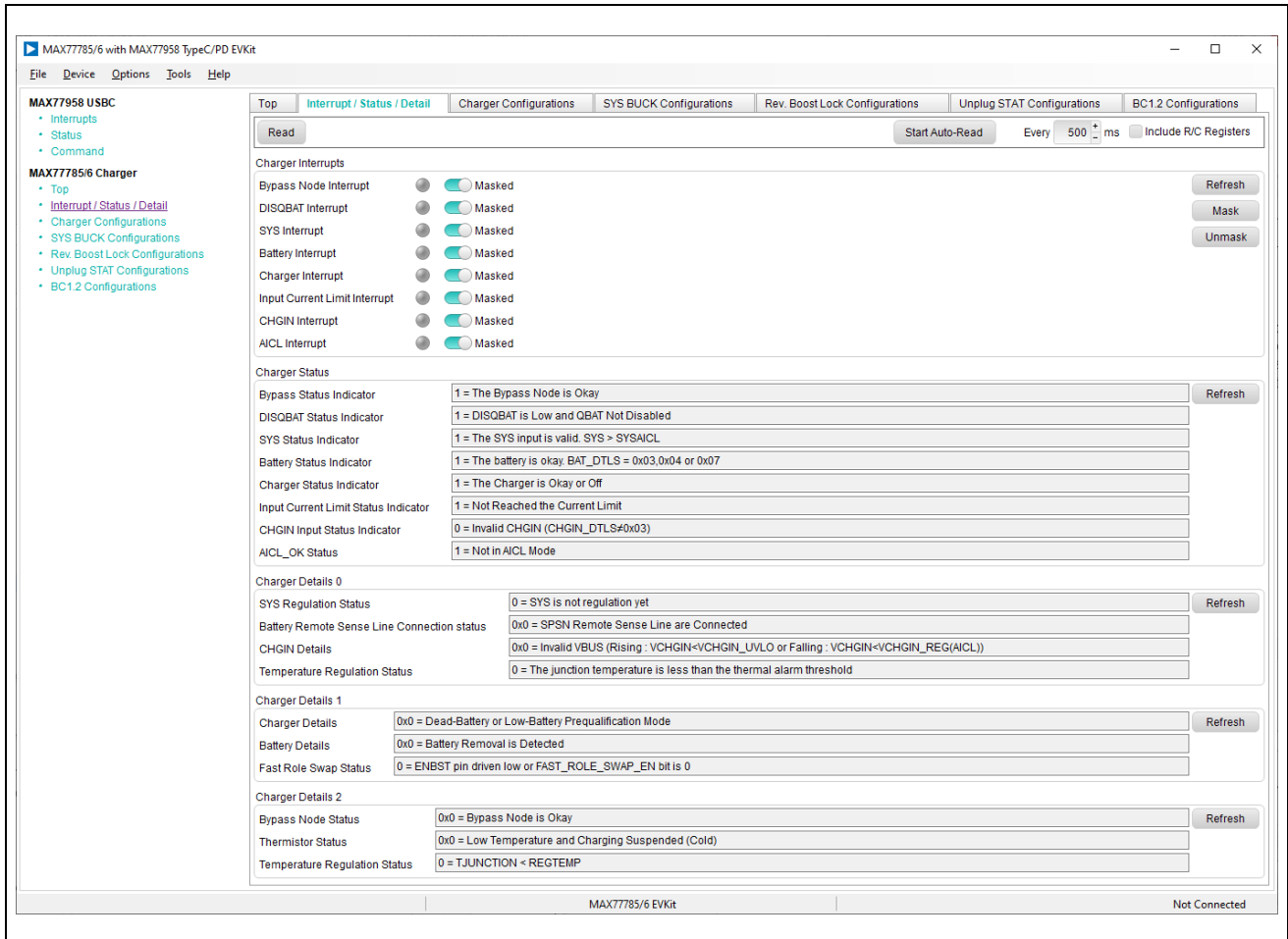


Figure 4. MAX77785/MAX77786 EV Kit GUI—Interrupt, Status, and Detail Tab

Charger Configurations Tab

The **Charger Configurations** tab ([Figure 5](#)) displays the charger configuration settings corresponding to registers 0x16 to 0x1F. To unlock, use the **Unlock** button. Then, read to make sure the change is in place. After the unlock, all the configuration registers can be configured. To get started charging a battery with the desired current setting, set **CHGIN Input Current Limit** and **Fast Charge Current Selection**, then set **MODE Configuration = 0x05** to switch from buck-only mode to charging mode.

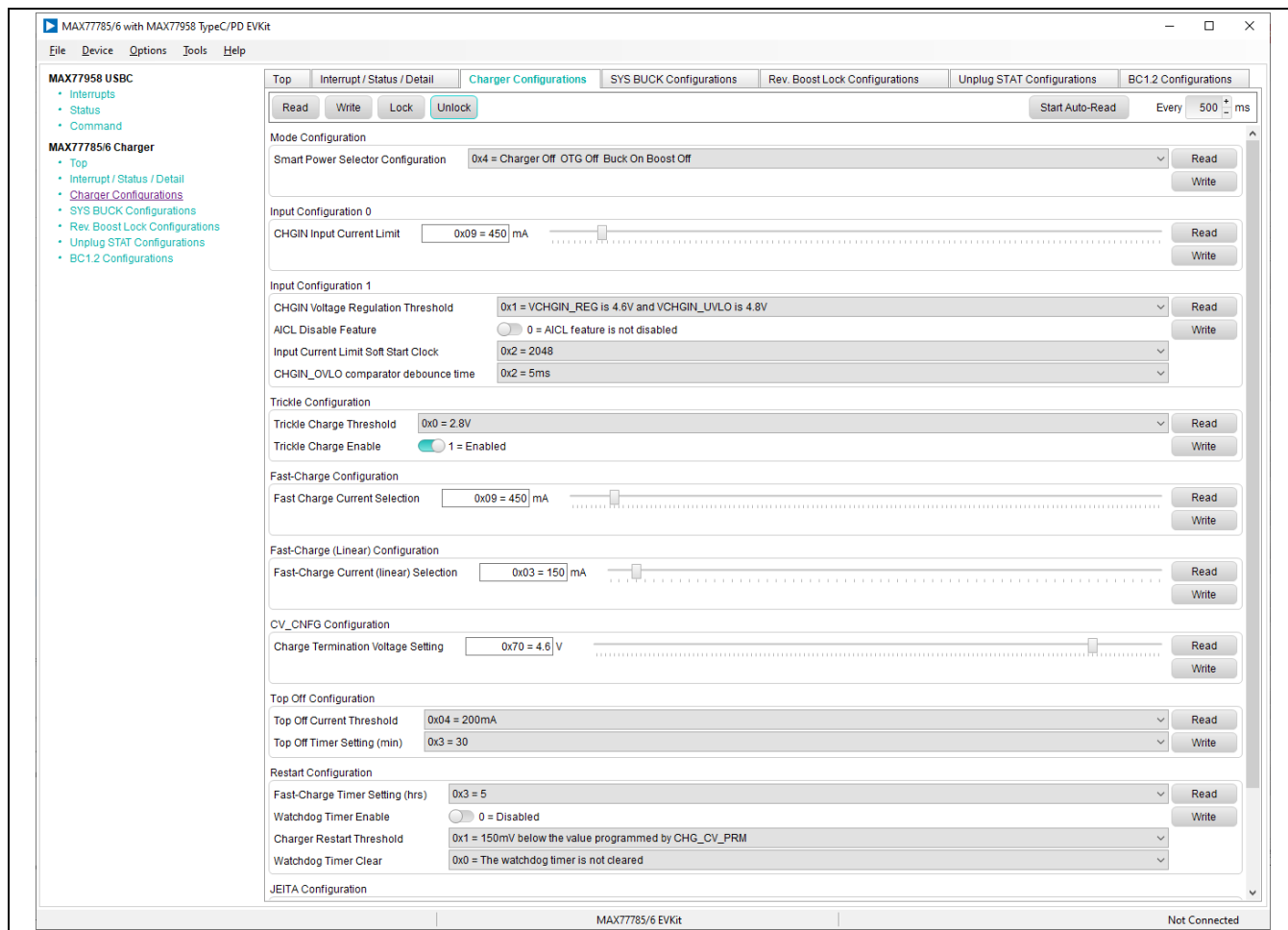


Figure 5. MAX77785/MAX77786 EV Kit GUI—Charger Configurations Tab

SYS BUCK Configurations Tab

The **SYS BUCK Configurations** tab (Figure 6) displays the QBAT, SYS, BUCK, and linear charger configurations.

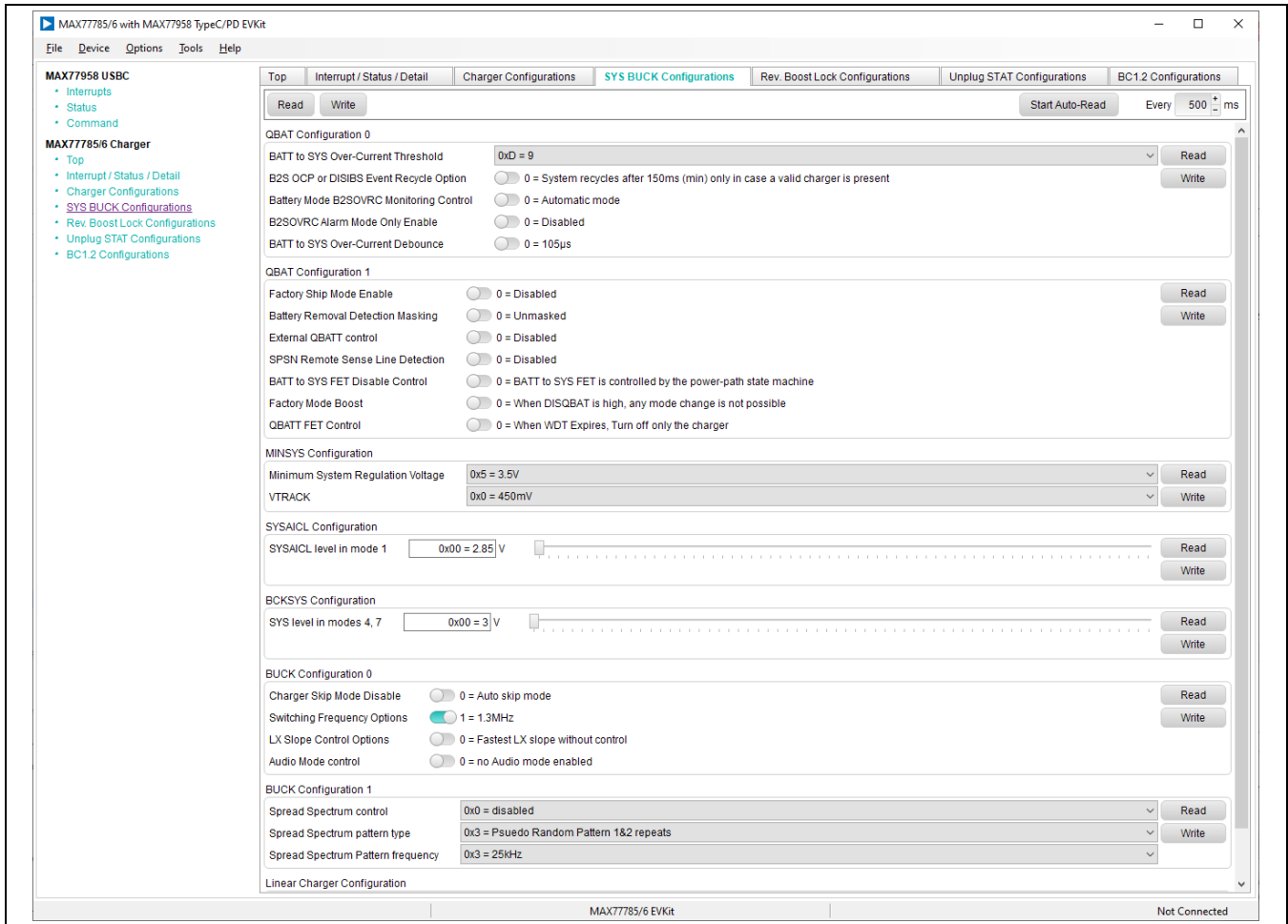


Figure 6. MAX77785/MAX77786 EV Kit GUI—SYS BUCK Configurations Tab

Rev. Boost Lock Configurations Tab

The **Rev. Boost Lock Configurations** tab ([Figure 7](#)) displays charger settings protection and reverse boost configurations.

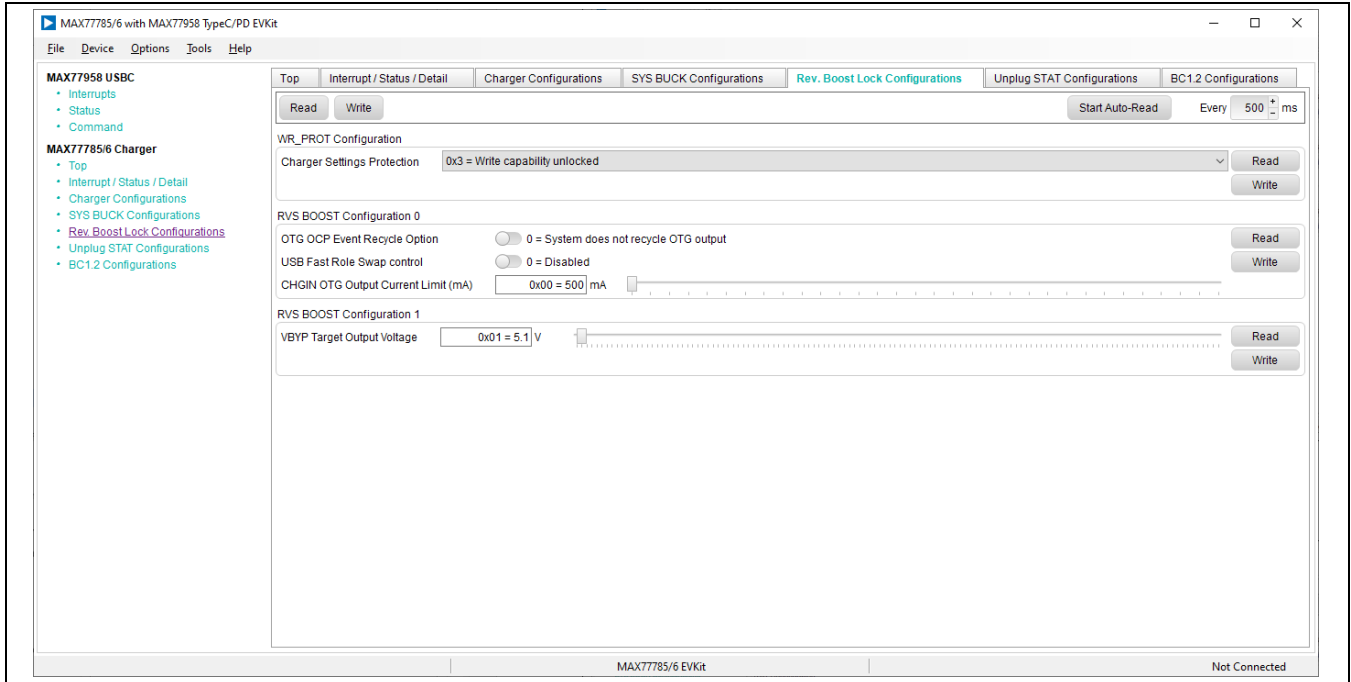


Figure 7. MAX77785/MAX77786 EV Kit GUI—Rev. Boost Lock Configurations Tab

Unplug STAT Configurations Tab

The Unplug STAT Configurations tab (Figure 8) displays the Unplug Configuration and STAT Configuration.

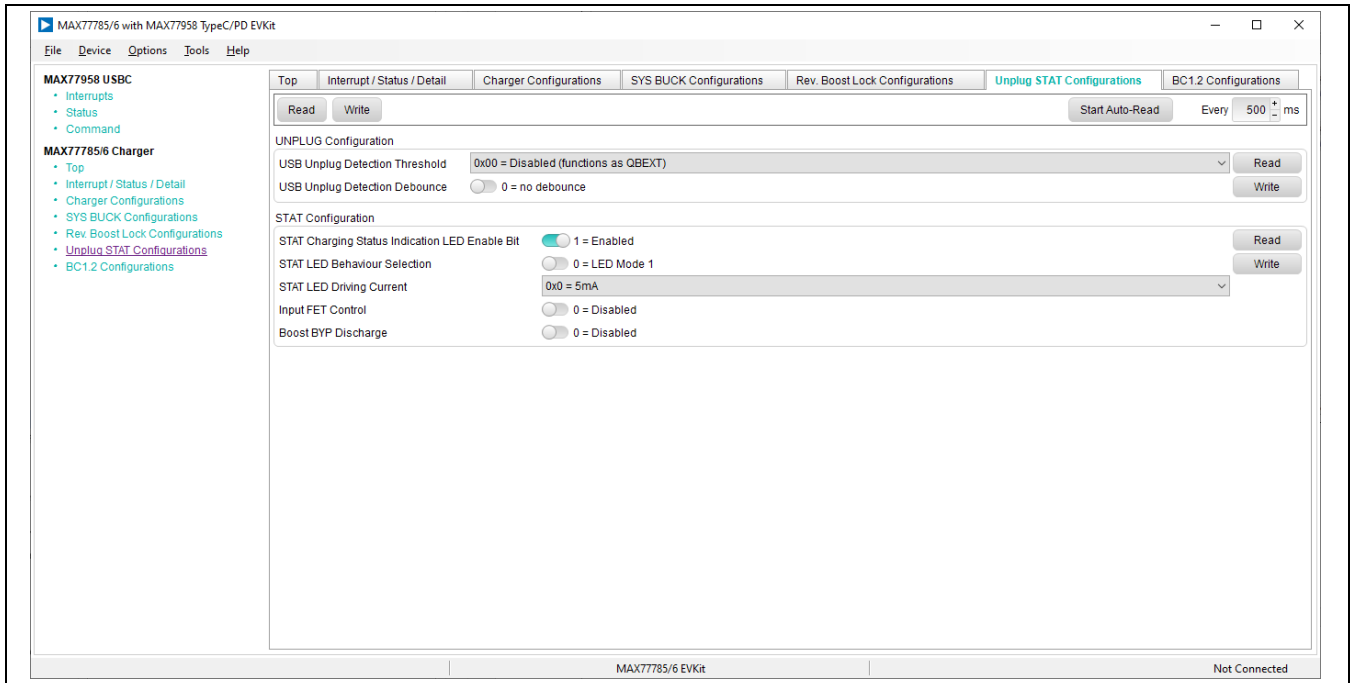


Figure 8. MAX77785/MAX77786 EV Kit GUI—Unplug STAT Configurations Tab

BC1.2 Configurations Tab

The **BC1.2 Configurations** tab ([Figure 9](#)) displays the BC1.2 detections.

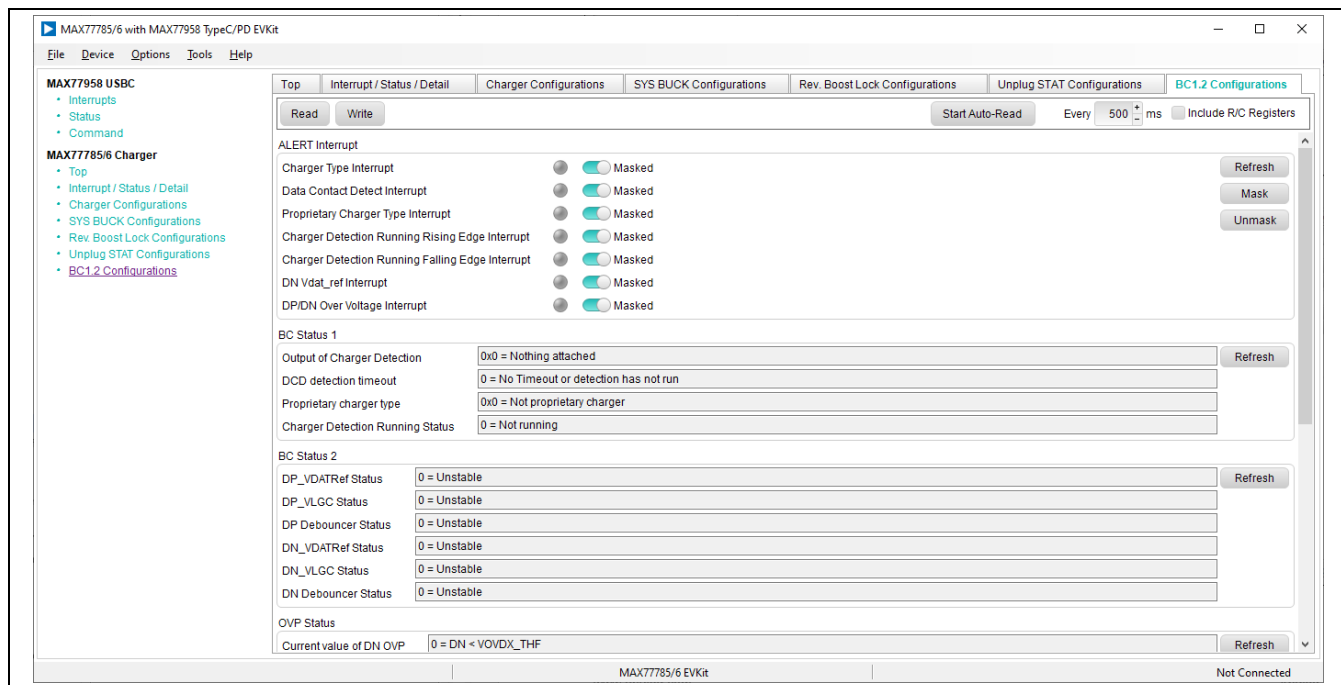


Figure 9. MAX77785/MAX77786 EV Kit GUI—BC1.2 Configurations Tab

Test with MAX77958 and USB Type-C Port Interface

Configuration Channel (CC) Detection Test

1. Connect a USB Type-C adapter to the EV kit and observe whether the MAX77958 detects sink and configures input current limit correctly.
2. Connect a USB Type-C cable from a Type-C dual role port (source preferred) device to see whether the MAX77958 detects CC pin state machine detection and configures the input current limit correctly.

USB Power-Delivery Test

1. Source capability request function test.
2. Connect USB power-delivery AC adapter to the EV kit.
3. Use a voltmeter to monitor the voltage on VBUS.
4. Go to **Command > Get SrcCap (0x31)**, click on **Write** to execute the command, the MAX77958 sends this command over the CC pin to the TA. The TA provides a list of available source capabilities.
5. Review the source capabilities and make a note of the desired PDO. Go to **SrcCap Request (0x32)**. Set the value of the PDO and press the **Write** button to request for the BUS voltage/current.

BC1.2 Charger Type Detection

Plug in the USB Type-A to Type-C cable from a BC1.2 adapter or other legacy port. Check the MAX77958 BC status under the **BC Status** tab of the MAX77958 GUI to see if the USB Type-C detects the correct charger type.

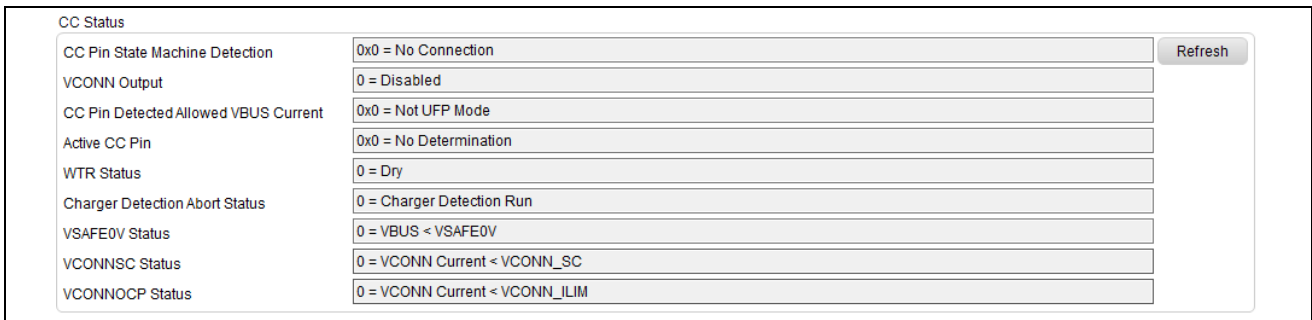


Figure 10. MAX77785/MAX77786 EV Kit GUI—CC Status after Connecting the USB Type-C Connector of EV Kit to a TA

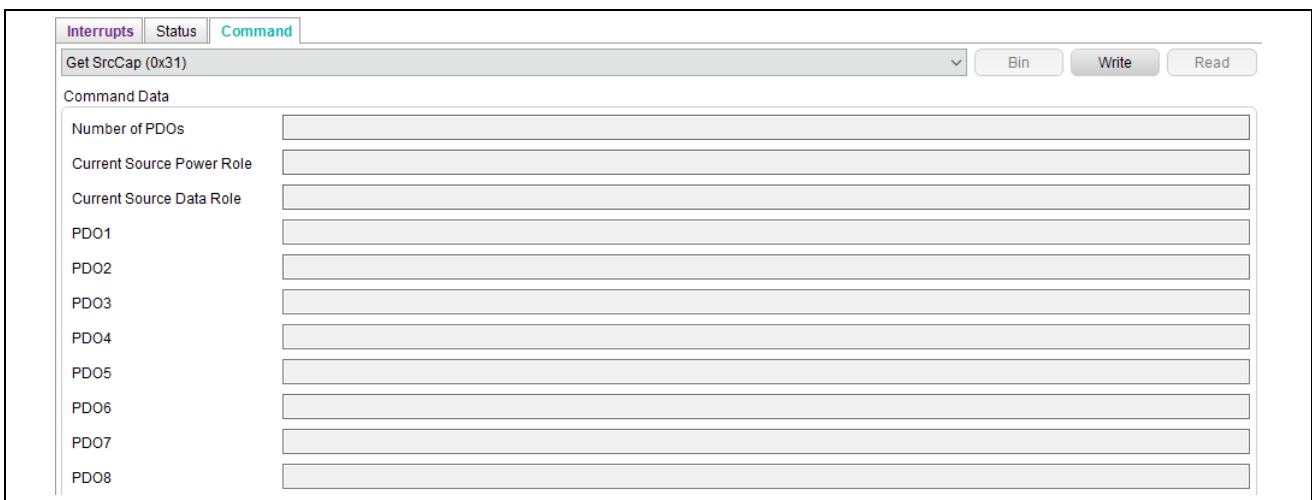


Figure 11. MAX77785/MAX77786 EV Kit GUI—Get Source Capability (Get SrcCap) Under the Command Section

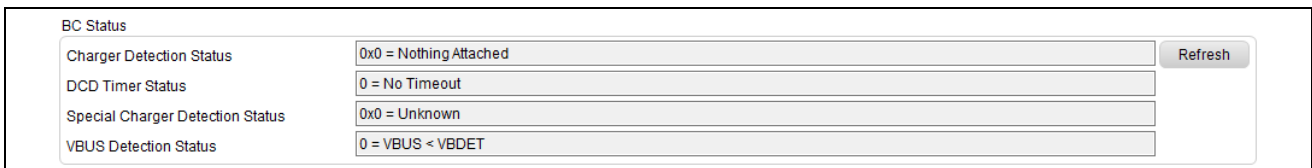


Figure 12. MAX77785/MAX77786 EV Kit GUI—BC Status after Connecting the USB Type-C Connector of EV Kit to Standard Downstream Port (SDP)

Detailed Description of Firmware for the MAX77958

The firmware of the MAX77958 consists of two main parts; the core firmware and the customization script. The core firmware is compliant with the USB Type-C 1.3 and PD 3.0 specifications. The customization script is based on the application system, giving more flexibility for system design. It is based on the customization script update, which can achieve functions such as GPIO matrix control and charger configuration initialization, etc. Future USB Type-C and PD specification changes can be accommodated by updating the MAX77958 core firmware. See the [Core Firmware Update](#) section of this data sheet.

See the [MAX77958 Customization Script Block Update](#) section of this data sheet and refer to the [MAX77958 Customization Script and OPCode Command Guide](#) for details about the customization script.

MAX77958 Customization Script Block Update

The customization script defines the application-specific behavior of the MAX77958. An example is setting the input current limit of the charger when USB device detection is completed.

1. Follow the initial test setup to connect the GUI with the MAX77785/MAX77786 EV kit.
2. Connect 3.8V to BATT. Do not disconnect the EV kit from the PC during the customization script block update.
3. Click on **Tools** in the menu bar and then go to **CUS Script Update**.
4. Click on the **Open** button in the pop-up window to load the latest customization script, and then click on **Start** to activate the customization script update.

[Figure 13](#) and [Figure 14](#) show the customization script update process.

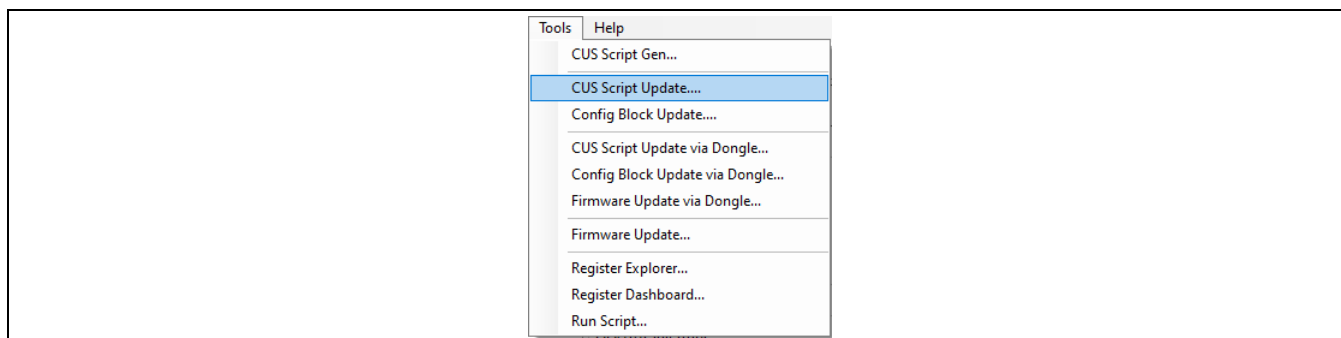


Figure 13. MAX77785/MAX77786 EV Kit GUI—Customization Script Block Update

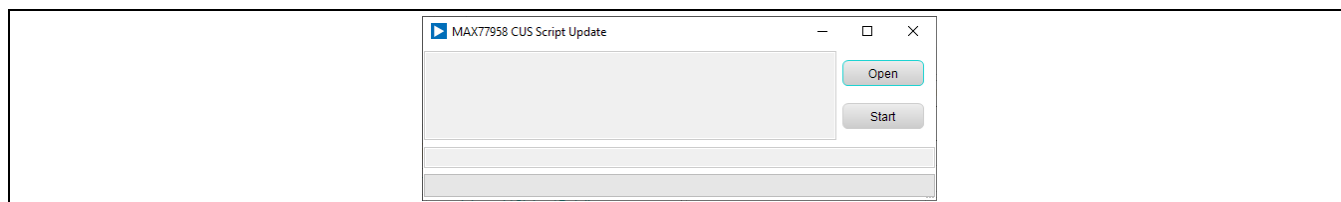


Figure 14. MAX77785/MAX77786 EV Kit GUI—CUS Script Update

Core Firmware Update

Follow the initial test setup to connect the GUI with the MAX77785/MAX77786 EV kit.

1. Connect 3.8V to BATT and do not disconnect the EV kit from the PC during the firmware update.
2. Click on **Tools** in the menu bar and then go to **Firmware Update**.
3. Click on the **Open** button in the pop-up window to load the latest firmware. In the file select window, click on the **.bin** file, and then select **Start** to activate the firmware update.

[Figure 15](#) and [Figure 16](#) show the firmware update process when complete.

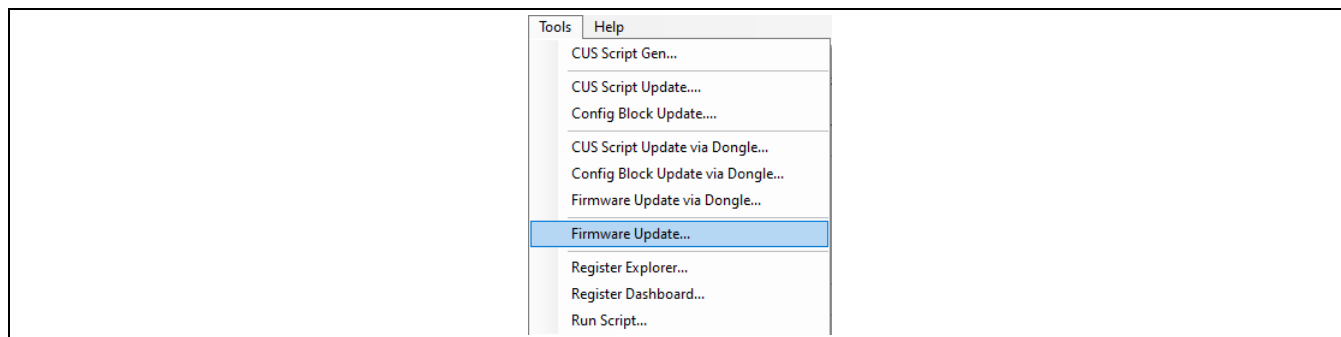


Figure 15. MAX77785/MAX77786 EV Kit GUI—Firmware Update

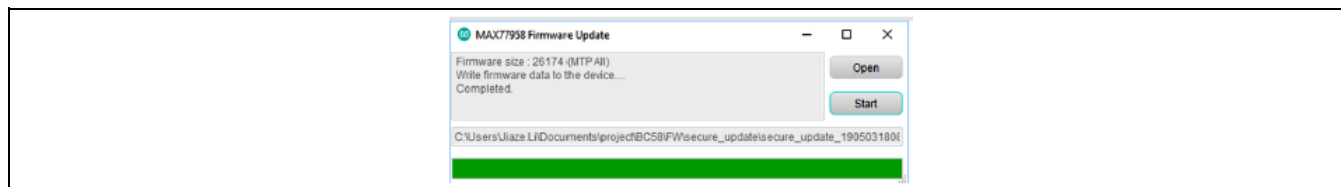


Figure 16. MAX77785/MAX77786 EV Kit GUI—Firmware Update Process Complete

Script Automation

A Python-based script system is embedded in the GUI software to allow automating or configuring multiple registers sequentially with ease. To evaluate through Python-based commands, click **Tools > Run Script File**. A script window pops up, as shown in [Figure 17](#). The first tab consists of a script editor and an embedded Python terminal interface. The second tab provides a Python I/O console. The help button provides a coding tutorial for this script window. Click the **Run** button to execute the script. The script feature helps with testing out a sequence of the configuration automatically.

Optional Tools

For I²C-communication debugging, more tools are available at **Options > CMOD Advanced UI** ([Figure 18](#)). With the proper test set-up procedure described in this document, these tools do not need to be used to evaluate the MAX77785/MAX77786 and MAX77958. However, other subordinate devices can be tested with the I²C debugging tools and the GUI software when connected to the MAX77785/MAX77786 and MAX77958 with the SDA and SCL pins. If successful, the user can automate multiple subordinate devices through the script window.

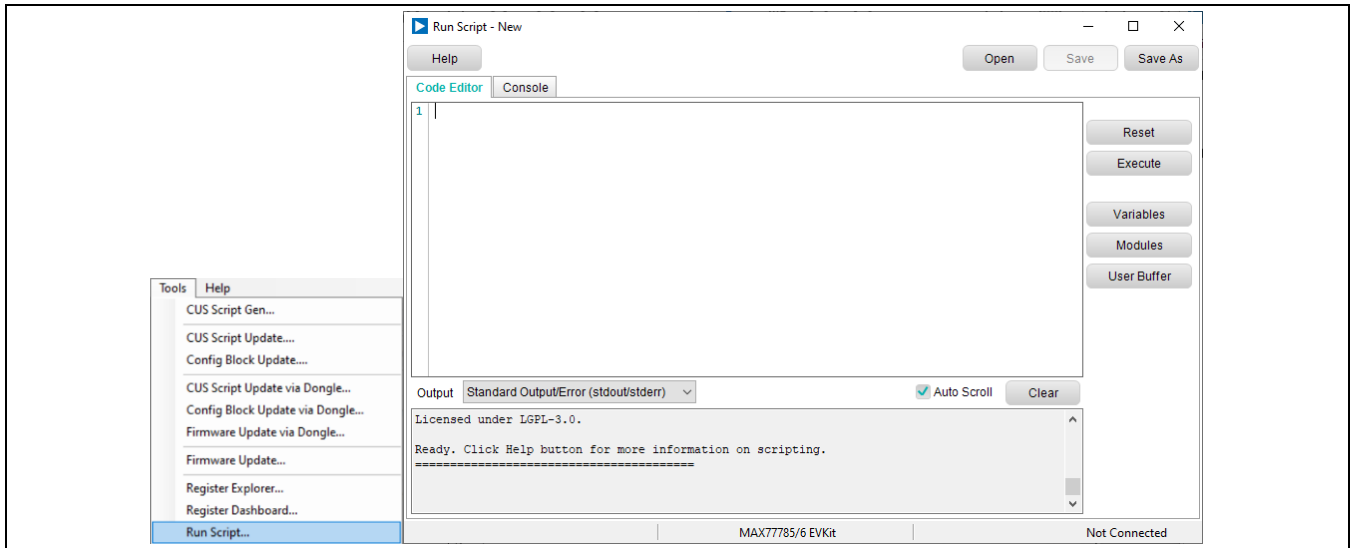


Figure 17. MAX77785/MAX77786 EV Kit GUI—Script Window

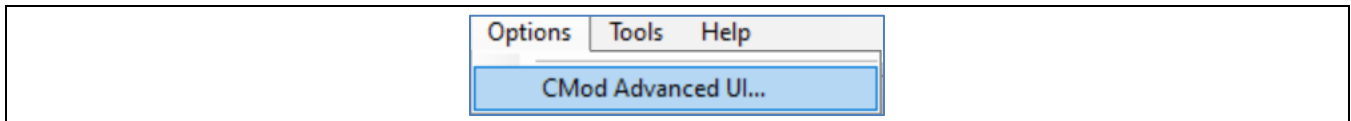


Figure 18. MAX77785/MAX77786 EV Kit GUI—CMOD Advanced UI

Ordering Information

PART	TYPE
MAX77785EVKIT#	EV Kit
MAX77786EVKIT#	EV Kit

#Denotes RoHS-compliant.

MAX77785 EV Kit Bill of Materials

ITEM	REF_DES	DNI/DNP	QTY	MFG PART #	MANUFACTURER	VALUE	DESCRIPTION
1	AVL1, BATSN, BATSP, BATT5, BYPS, CC1, CC2, CHGINS, DN, DN1_86, DP, DP1_86, INTB1, SBU1, SBU2, SCL1, SDA1, SYS1, SYSS, VDD1P1, VDD1P8, VIO, VIO1, VIO2	—	24	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;
2	BATTN, BATTN1, BATTP, BATTP1, BYP, CHGIN, GND1-GND5, GND7, SYS	—	13	9020 BUSS	WEICO WIRE	MAXIMPAD	EVK KIT PARTS; MAXIM PAD; WIRE; NATURAL; SOLID; WEICO WIRE; SOFT DRAWN BUS TYPE-S; 20AWG
3	C1, C5, C15, C18-C21, C23-C29, C36	—	15	GRM155R71A104JA01	MURATA	0.1UF	CAP; SMT (0402); 0.1UF; 5%; 10V; X7R; CERAMIC
4	C2	—	1	C1608X5R1V225K080AC ; GRM188R6YA225KA12	TDK; MURATA	2.2UF	CAP; SMT (0603); 2.2UF; 10%; 35V; X5R; CERAMIC
5	C3, C4, C16, C17, C30-C32	—	7	C0402C105K8PAC; CC0402KRX5R6BB105	KEMET; YAGEO	1UF	CAP; SMT (0402); 1UF; 10%; 10V; X5R; CERAMIC
6	C6, C10	—	2	C2012X5R1V226M125AC	TDK	22UF	CAP; SMT (0805); 22UF; 20%; 35V; X5R; CERAMIC
7	C7, C49	—	2	C1005X7R1H104K050BB ; GRM155R71H104KE14; C1005X7R1H104K050BE ; UMK105B7104KV-FR; 04025C104KAT2A	TDK; MURATA; TDK; TAIYO YUDEN; AVX	0.1UF	CAP; SMT (0402); 0.1UF; 10%; 50V; X7R; CERAMIC
8	C8, C9, C34, C56	—	4	CL10A226M07JZNC	SAMSUNG ELECTRONICS	22UF	CAP; SMT (0603); 22UF; 20%; 16V; X5R; CERAMIC
9	C11, C14, C43, C44	—	4	C0402C0G500270JNP; GRM1555C1H270JA01	VENKEL LTD.; MURATA	27PF	CAP; SMT (0402); 27PF; 5%; 50V; COG; CERAMIC
10	C12, C13, C22	—	3	ZRB15XR61A475ME01; CL05A475MPSNRN; GRM155R61A475MEAA; C1005X5R1A475M050BC	MURATA; SAMSUNG; MURATA; TDK	4.7UF	CAP; SMT (0402); 4.7UF; 20%; 10V; X5R; CERAMIC
11	C33, C50, C54, C55	—	4	CL05A105K05N1NN	SAMSUNG	1UF	CAP; SMT (0402); 1UF; 10%; 16V; X5R; CERAMIC
12	C35	—	1	C0402C103K5RAC; GRM155R71H103KA88; C1005X7R1H103K050BE ; CL05B103KB5N1NN; UMK105B7103KV	KEMET; MURATA; TDK; SAMSUNG ELECTRONIC; TAIYO YUDEN	0.01UF	CAP; SMT (0402); 0.01UF; 10%; 50V; X7R; CERAMIC
13	C41	—	1	GRM32ER60J227ME05	MURATA	220UF	CAP; SMT (1210); 220UF; 20%; 6.3V; X5R; CERAMIC
14	C46	—	1	GRM188R71A225KE15; CL10B225KPB8N1N; C1608X7R1A225K080AC ; C0603C225K8RAC	MURATA; SAMSUNG; TDK; KEMET	2.2UF	CAP; SMT (0603); 2.2UF; 10%; 10V; X7R; CERAMIC
15	C47, C51	—	2	ANY	ANY	1UF	CAPACITOR; SMT (0402); CERAMIC CHIP; 1UF; 6.3V; TOL=10%; MODEL=-; TG=-55 DEGC TO +85 DEGC; TC=X5R;
16	C52	—	1	C1005X5R1V105K050BC	TDK	1UF	CAP; SMT (0402); 1UF; 10%; 35V; X5R; CERAMIC
17	D1	—	1	PTVS22V51UR	NEXPERIA	20V	DIODE; TVS; SMT (SOD-123W); VRM=20V; IPP=11.3A
18	DISOBAT, ENBST, EXTSM, IRQB86, QBEXT, SCL, SDA, STAT, SUSPND	—	9	5002	KEYSTONE	N/A	TEST POINT; PIN DIA=0.1IN; TOTAL LENGTH=0.3IN; BOARD HOLE=0.04IN; WHITE; PHOSPHOR BRONZE WIRE SILVER;
19	DS1-DS3	—	3	BR1111C-TR	STANLEY ELECTRIC CO	BR1111C-TR	DIODE; LED; 1111C SERIES; RED; SMT (0603); PIV=1.7V; IF=0.025A
20	EXTVIO, PVDD, VDD	—	3	5010	KEYSTONE	N/A	TEST POINT; PIN DIA=0.125IN; TOTAL LENGTH=0.445IN; BOARD HOLE=0.063IN; RED; PHOSPHOR BRONZE WIRE SIL;
21	GNDS, PGND5, SYSGNDS	—	3	5001	KEYSTONE	N/A	TEST POINT; PIN DIA=0.1IN; TOTAL LENGTH=0.3IN; BOARD HOLE=0.04IN; BLACK; PHOSPHOR BRONZE WIRE SILVER PLATE FINISH;
22	J1	—	1	10118193-0001LF	FCI CONNECT	10118193-0001LF	CONNECTOR; FEMALE; SMT; MICRO USB B TYPE RECEPTACLE; RIGHT ANGLE; 5PINS
23	J2	—	1	12401832E402A	AMPHENOL	12401832E402A	CONNECTOR; FEMALE; SMT; USB TYPE C CONNECTOR; RIGHT ANGLE; DUAL ROW; 24PINS
24	J3, J4, J9, J16, J34, J35	—	6	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
25	J5	—	1	PBC04DAAN	SULLINS ELECTRONICS CORP.	PBC04DAAN	CONNECTOR; MALE; THROUGH HOLE; BREAKAWAY; STRAIGHT; 8PINS; -65 DEGC TO +125 DEGC
26	J7, J8, J18, J19	—	4	PBC03SAAN	SULLINS ELECTRONICS CORP.	PBC03SAAN	CONNECTOR; MALE; THROUGH HOLE; BREAKAWAY; STRAIGHT; 3PINS; -65 DEGC TO +125 DEGC
27	J13, J17, J21, J22, J29, J37	—	6	PBC02SAAN	SULLINS ELECTRONICS CORP.	PBC02SAAN	CONNECTOR; MALE; THROUGH HOLE; BREAKAWAY; STRAIGHT; 2PINS
28	J15, J23	—	2	PBC02DAAN	SULLINS ELECTRONIC CORP.	PBC02DAAN	CONNECTOR; MALE; THROUGH HOLE; BREAKAWAY; STRAIGHT; 4PINS
29	J24	—	1	PBC03DAAN	SULLINS ELECTRONICS CORP.	PBC03DAAN	CONNECTOR; MALE; THROUGH HOLE; BREAKAWAY; STRAIGHT; 6PINS; -65 DEGC TO +125 DEGC
30	J33	—	1	PBC09SAAN	SULLINS ELECTRONICS CORP.	PBC09SAAN	CONNECTOR; MALE; THROUGH HOLE; BREAKAWAY; STRAIGHT; 9PINS; -65 DEGC TO +125 DEGC

MAX77785/MAX77786 Evaluation Kits

Evaluates: MAX77785/
MAX77786/MAX77958

ITEM	REF_DES	DNI/DNP	QTY	MFG PART #	MANUFACTURER	VALUE	DESCRIPTION
31	L1	—	1	PA5002.102NLT	PULSE ELECTRONICS	1UH	INDUCTOR; SMT; SHIELDED; 1UH; 20%; 10.5A
32	L2-L4	—	3	BLM18AG601SN1	MURATA	600	INDUCTOR; SMT (0603); FERRITE-BEAD; 600; TOL=+/-; 0.5A
33	MH1-MH4	—	4	9032	KEystone	9032	MACHINE FABRICATED; ROUND-THRU HOLE SPACER; NO THREAD; M3.5; 5/8IN; NYLON
34	MISC1	—	1	AK67421-1-R	ASSMANN	AK67421-1-R	CONNECTOR; MALE; USB; USB2.0 MICRO CONNECTION CABLE; USB B MICRO MALE TO USB A MALE; STRAIGHT; 5PINS-4PINS
35	Q1, Q2	—	2	BSC014N04LSI	INFINEON	BSC014N04LSI	TRAN; OPTIMOS POWER MOSFET; NCH; PG-3DSON8 FL; PD-(96W); ID-(195A); V-(40V)
36	R1, R7, R14-R16, R18, R22, R32-R34, R44	—	11	ERJ-2GE0R00	PANASONIC	0	RES; SMT (0402); 0; JUMPER; JUMPER; 0.1000W
37	R2, R42	—	2	CRCW060310K0FK; ERJ-3EF1002; AC0603FR-0710KL; RMCF0603FT10K0	VISHAY; PANASONIC; YAGEO; STACKPOLE	10K	RES; SMT (0603); 10K; 1%; +/-100PPM/DEGC; 0.1000W
38	R4, R6	—	2	ERJ-2RKF6493	PANASONIC	649K	RES; SMT (0402); 649K; 1%; +/-100PPM/DEGC; 0.1000W
39	R5, R64	—	2	ERJ-2RKF1203	PANASONIC	120K	RES; SMT (0402); 120K; 1%; +/-100PPM/DEGC; 0.1000W
40	R8	—	1	CRCW040212K0FK; MCR01MZPF1202	VISHAY DALE; ROHM SEMICONDUCTOR	12K	RES; SMT (0402); 12K; 1%; +/-100PPM/DEGC; 0.0630W
41	R9, R13	—	2	RC0402FR-0727RL	YAGEO	27	RES; SMT (0402); 27; 1%; +/-100PPM/DEGC; 0.0630W
42	R10	—	1	CRCW04021M00FK	VISHAY DALE	1M	RES; SMT (0402); 1M; 1%; +/-100PPM/DEGC; 0.0630W
43	R11, R45	—	2	RC0402FR-071KL; MCR01MZPF1001	YAGEO; ROHM SEMICONDUCTOR	1K	RES; SMT (0402); 1K; 1%; +/-100PPM/DEGC; 0.0630W
44	R12, R21	—	2	CRCW04022K20JN	VISHAY DALE	2.2K	RES; SMT (0402); 2.2K; 5%; +/-200PPM/DEGC; 0.0630W
45	R17	—	1	CRCW04024752FK; 9C04021A4752FLHF3; CRCW040247K5FK	VISHAY DALE; YAGEO; VISHAY DALE	47.5K	RES; SMT (0402); 47.5K; 1%; +/-100PPM/DEGC; 0.0630W
46	R19, R20, R23, R31, R41	—	5	CRCW0402100KFK; RC0402FR-07100KL	VISHAY; YAGEO	100K	RES; SMT (0402); 100K; 1%; +/-100PPM/DEGC; 0.0630W
47	R24, R38	—	2	9C04021A10R0FL	YAGEO	10	RES; SMT (0402); 10; 1%; +/-100PPM/DEGC; 0.0630W
48	R26, R48	—	2	CRCW0402200KFK; RF73H1ELTP2003	VISHAY DALE; KOA SPEER ELECTRONICS	200K	RES; SMT (0402); 200K; 1%; +/-100PPM/DEGC; 0.0630W
49	R27, R28	—	2	CRCW04024K70FK; MCR01MZPF4701	VISHAY DALE; ROHM SEMICONDUCTOR	4.7K	RES; SMT (0402); 4.7K; 1%; +/-100PPM/DEGC; 0.0630W
50	R30	—	1	CRCW0402169KFK	VISHAY DALE	169K	RES; SMT (0402); 169K; 1%; +/-100PPM/DEGC; 0.0630W
51	R35	—	1	CRCW0402470RFF	VISHAY DALE	470	RES; SMT (0402); 470; 1%; +/-100PPM/DEGC; 0.0630W
52	R43	—	1	3296Y-1-104LF	BOURNS	100K	RESISTOR; THROUGH HOLE-RADIAL LEAD; 3296 SERIES; 100K OHM; 10%; 100PPM; 0.5W
53	R46	—	1	ERJ-2RKF4701	PANASONIC	4.7K	RES; SMT (0402); 4.7K; 1%; +/-100PPM/DEGC; 0.1000W
54	R47, R49, R50, R53, R59, R60	—	6	CRCW0603000020EAHP	VISHAY DRALORIC	0	RES; SMT (0603); 0; JUMPER; JUMPER; 0.2500W
55	R55, R57	—	2	RC0402FR-072K2L	YAGEO	2.2K	RES; SMT (0402); 2.2K; 1%; +/-100PPM/DEGC; 0.0630W
56	R66, R67	—	2	CRCW0402330KFK	VISHAY DALE	330K	RES; SMT (0402); 330K; 1%; +/-100PPM/DEGC; 0.0630W
57	RT1	—	1	NTCG163JF103F	TDK	10K	THERMISTOR; SMT (0603); THICK FILM (NICKEL PLATED); 10K; TOL=+/-1%
58	SW1	—	1	CL-SB-22C-02	COPAL ELECTRONICS INC.	CL-SB-22C-02	SWITCH; DPDT; THROUGH HOLE; 12V; 0.2A; ON-ON; RCOIL=0.05 OHM; RINSULATION=10M OHM; COPAL ELECTRONICS INC.; -40 DEGC TO +85 DEGC
59	SW2	—	1	EVQ-Q2K03W	PANASONIC	EVQ-Q2K03W	SWITCH; SPST; SMT; 15V; 0.02A; LIGHT TOUCH SWITCH; RCOIL= OHM; RINSULATION= OHM; PANASONIC
60	U1	—	1	MAX77785	ANALOG DEVICES	MAX77785	EVKIT PART - IC; MAX77785; 21VIN; 3.5A 1-CELL Li+ BATTERY CHARGER WITH; SMART POWER SELECTOR AND OTG FOR USB-C PD
61	U2	—	1	FT2232HL	FUTURE TECHNOLOGY DEVICES INTL LTD.	FT2232HL	IC; MMRY; DUAL HIGH-SPEED USB TO MULTIPURPOSE UART/FIFO; LQFP64
62	U3	—	1	TCK402G	TOSHIBA	TCK402G	IC; ASW; CMOS LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC; WLCS56
63	U4	—	1	MAX14611ETD+	ANALOG DEVICES	MAX14611ETD+	IC; TRANS; QUAD BIDIRECTIONAL LOW-VOLTAGE LOGIC LEVEL TRANSLATOR; TDFN14-EP
64	U5, U6	—	2	MAX8512EXK+	ANALOG DEVICES	MAX8512EXK	IC; VREG; Ultra-Low-Noise; High PSRR; Adjustable Vout; SC70-5
65	U7	—	1	MAX77958DEWV+	ANALOG DEVICES	MAX77958DEWV+	EVKIT PART - IC; STANDALONE USB TYPE-C AND USB POWER DELIVERY CONTROLLER; WLP30; PACKAGE OUTLINE: 21-100339; PACKAGE CODE: W302B3+1
66	Y1	—	1	7M-12.000MAAJ	TXC CORPORATION	12MHZ	CRYSTAL; SMT; 12MHZ; 18PF; TOL = +/-30PPM; STABILITY = +/-30PPM
67	PCB	—	1	MAX7778586	ANALOG DEVICES	PCB	PCB:MAX7778586
68	C37-C40	DNP	0	EMK325ABJ107MM	TAIYO YUDEN	100UF	CAP; SMT (1210); 100UF; 20%; 16V; X5R; CERAMIC
69	C42	DNP	0	EEE-FK1V101P	PANASONIC	100UF	CAP; SMT (CASE F); 100UF; 20%; 35V; ALUMINUM-ELECTROLYTIC
70	D8, D9	DNP	0	PESD4V0V1BSF	NEXPERIA	4V	EVKIT PART-DIODE; TVS; SMT (SOD962-2); VRM=+/-4V; IPP=N/A
71	R51, R52	DNP	0	CRCW06031R00JN	VISHAY DALE	1	RES; SMT (0603); 1; 5%; +/-200PPM/DEGC; 0.1000W
72	C45, C48	DNP	0	N/A	N/A	OPEN	CAPACITOR; SMT (0805); OPEN; FORMFACTOR
73	C53	DNP	0	N/A	N/A	OPEN	CAPACITOR; SMT (0805); OPEN; IPC MAXIMUM LAND PATTERN
74	R3	DNP	0	N/A	N/A	OPEN	RESISTOR; 0402; OPEN; FORMFACTOR

MAX77786 EV Kit Bill of Materials

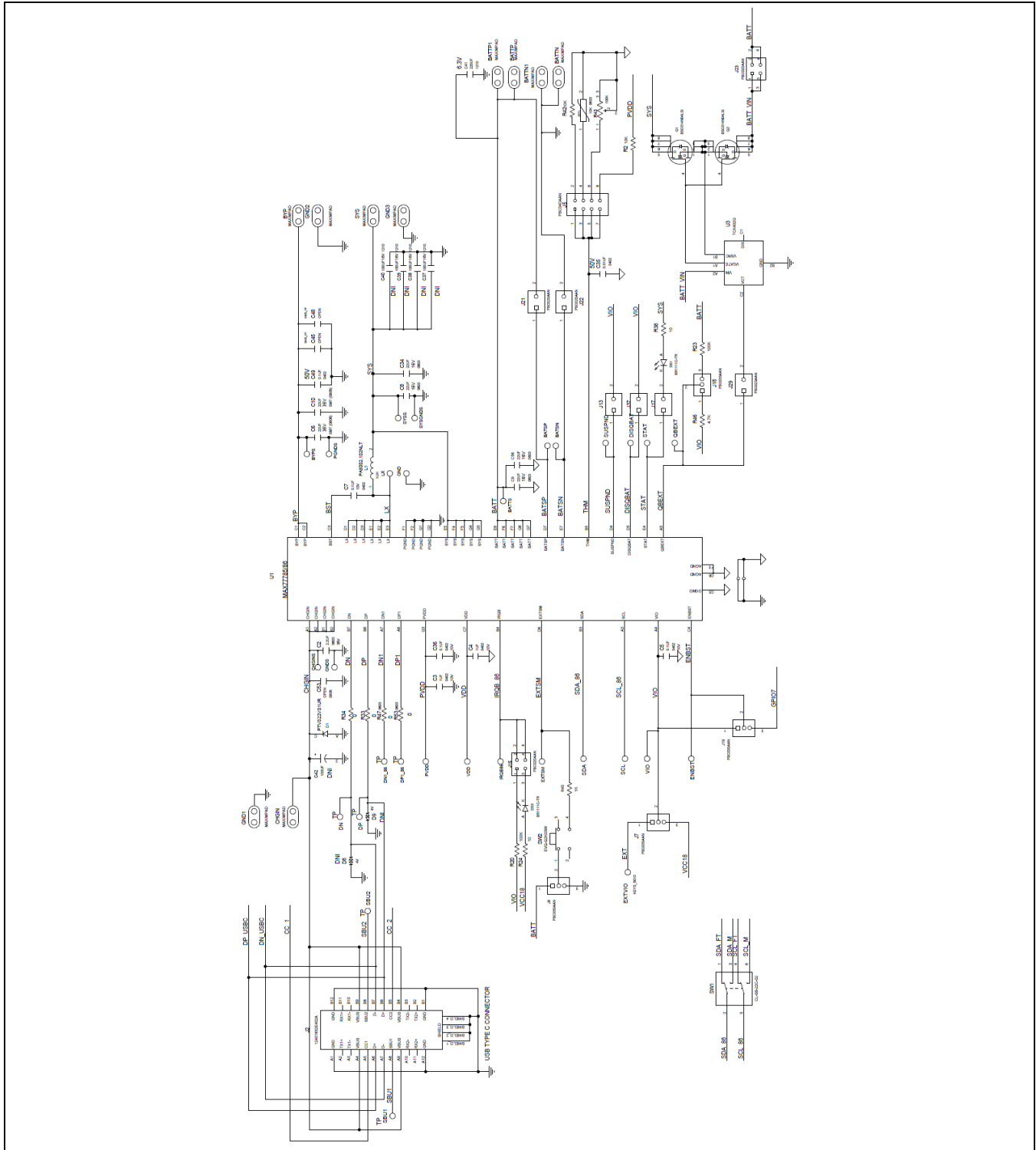
ITEM	REF_DES	DNI/DNP	QTY	MFG PART #	MANUFACTURER	VALUE	DESCRIPTION
1	AVL1, BATSN, BATSP, BATT5, BYPS, CC1, CC2, CHGINS, DN, DN1_86, DP, DP1_86, INTB1, SBU1, SBU2, SCL1, SDA1, SYS1, SYSS, VDD1P1, VDD1P8, VIO, VIO1, VIO2	—	24	5000	KEYSTONE	N/A	TEST POINT; PIN DIA=0.1IN; TOTAL LENGTH=0.3IN; BOARD HOLE=0.04IN; RED; PHOSPHOR BRONZE WIRE SILVER PLATE FINISH;
2	BATTN, BATTN1, BATTP, BATTP1, BYP, CHGIN, GND1-GND5, GND7, SYS	—	13	9020 BUSS	WEICO WIRE	MAXIMPAD	EVK KIT PARTS; MAXIM PAD; WIRE; NATURAL; SOLID; WEICO WIRE; SOFT DRAWN BUS TYPE-S; 20AWG
3	C1, C5, C15, C18-C21, C23-C29, C36	—	15	GRM155R71A104JA01	MURATA	0.1UF	CAP; SMT (0402); 0.1UF; 5%; 10V; X7R; CERAMIC
4	C2	—	1	C1608X5R1V225K080AC ; GRM188R6YA225KA12	TDK; MURATA	2.2UF	CAP; SMT (0603); 2.2UF; 10%; 35V; X5R; CERAMIC
5	C3, C4, C16, C17, C30-C32	—	7	C0402C105K8PAC; CC0402KRX5R6BB105	KEMET; YAGEO	1UF	CAP; SMT (0402); 1UF; 10%; 10V; X5R; CERAMIC
6	C6, C10	—	2	C2012X5R1V226M125AC	TDK	22UF	CAP; SMT (0805); 22UF; 20%; 35V; X5R; CERAMIC
7	C7, C49	—	2	C1005X7R1H104K050BB ; GRM155R71H104KE14; C1005X7R1H104K050BE ; UMK105B7104KV-FR; 04025C104KAT2A	TDK; MURATA; TDK; TAIYO YUDEN; AVX	0.1UF	CAP; SMT (0402); 0.1UF; 10%; 50V; X7R; CERAMIC
8	C8, C9, C34, C56	—	4	CL10A226M07JZNC	SAMSUNG ELECTRONICS	22UF	CAP; SMT (0603); 22UF; 20%; 16V; X5R; CERAMIC
9	C11, C14, C43, C44	—	4	C0402C0G500270JNP; GRM1555C1H270JA01	VENKEL LTD.; MURATA	27PF	CAP; SMT (0402); 27PF; 5%; 50V; COG; CERAMIC
10	C12, C13, C22	—	3	ZRB15XR61A475ME01; CL05A475MPSNRN; GRM155R61A475MEAA; C1005X5R1A475M050BC	MURATA; SAMSUNG; MURATA; TDK	4.7UF	CAP; SMT (0402); 4.7UF; 20%; 10V; X5R; CERAMIC
11	C33, C50, C54, C55	—	4	CL05A105K05NNN	SAMSUNG	1UF	CAP; SMT (0402); 1UF; 10%; 16V; X5R; CERAMIC
12	C35	—	1	C0402C103K5RAC; GRM155R71H103KA88; C1005X7R1H103K050BE ; CL05B103KB5NNN; UMK105B7103KV	KEMET; MURATA; TDK; SAMSUNG ELECTRONIC; TAIYO YUDEN	0.01UF	CAP; SMT (0402); 0.01UF; 10%; 50V; X7R; CERAMIC
13	C41	—	1	GRM32ER60J227ME05	MURATA	220UF	CAP; SMT (1210); 220UF; 20%; 6.3V; X5R; CERAMIC
14	C46	—	1	GRM188R71A225KE15; CL10B225KP8NNN; C1608X7R1A225K080AC ; C0603C225K8RAC	MURATA; SAMSUNG; TDK; KEMET	2.2UF	CAP; SMT (0603); 2.2UF; 10%; 10V; X7R; CERAMIC
15	C47, C51	—	2	ANY	ANY	1UF	CAPACITOR; SMT (0402); CERAMIC CHIP; 1UF; 6.3V; TOL=10%; MODEL=; TG=-55 DEGC TO +85 DEGC; TC=X5R;
16	C52	—	1	C1005X5R1V105K050BC	TDK	1UF	CAP; SMT (0402); 1UF; 10%; 35V; X5R; CERAMIC
17	D1	—	1	PTVS2V51UR	NEXPERIA	20V	DIODE; TVS; SMT (SOD-123W); VRM=20V; IPP=11.3A
18	DISOBAT, ENBST, EXTSM, IRQB86, QBEXT, SCL, SDA, STAT, SUSPND	—	9	5002	KEYSTONE	N/A	TEST POINT; PIN DIA=0.1IN; TOTAL LENGTH=0.3IN; BOARD HOLE=0.04IN; WHITE; PHOSPHOR BRONZE WIRE SILVER;
19	DS1-DS3	—	3	BR1111C-TR	STANLEY ELECTRIC CO	BR1111C-TR	DIODE; LED; 1111C SERIES; RED; SMT (0603); PIV=1.7V; IF=0.025A
20	EXTVIO, PVDD, VDD	—	3	5010	KEYSTONE	N/A	TEST POINT; PIN DIA=0.125IN; TOTAL LENGTH=0.445IN; BOARD HOLE=0.063IN; RED; PHOSPHOR BRONZE WIRE SIL;
21	GNDS, PGND5, SYSGNDS	—	3	5001	KEYSTONE	N/A	TEST POINT; PIN DIA=0.1IN; TOTAL LENGTH=0.3IN; BOARD HOLE=0.04IN; BLACK; PHOSPHOR BRONZE WIRE SILVER PLATE FINISH;
22	J1	—	1	10118193-0001LF	FCI CONNECT	10118193-0001LF	CONNECTOR; FEMALE; SMT; MICRO USB B TYPE RECEPTACLE; RIGHT ANGLE; 5PINS
23	J2	—	1	12401832E402A	AMPHENOL	12401832E402A	CONNECTOR; FEMALE; SMT; USB TYPE C CONNECTOR; RIGHT ANGLE; DUAL ROW; 24PINS
24	J3, J4, J9, J16, J34, J35	—	6	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
25	J5	—	1	PBC04DAAN	SULLINS ELECTRONICS CORP.	PBC04DAAN	CONNECTOR; MALE; THROUGH HOLE; BREAKAWAY; STRAIGHT; 8PINS; -65 DEGC TO +125 DEGC
26	J7, J8, J18, J19	—	4	PBC03SAAN	SULLINS	PBC03SAAN	CONNECTOR; MALE; THROUGH HOLE; BREAKAWAY; STRAIGHT; 3PINS; -65 DEGC TO +125 DEGC
27	J13, J17, J21, J22, J29, J37	—	6	PBC02SAAN	SULLINS ELECTRONICS CORP.	PBC02SAAN	CONNECTOR; MALE; THROUGH HOLE; BREAKAWAY; STRAIGHT; 2PINS
28	J15, J23	—	2	PBC02DAAN	SULLINS ELECTRONIC CORP.	PBC02DAAN	CONNECTOR; MALE; THROUGH HOLE; BREAKAWAY; STRAIGHT; 4PINS
29	J24	—	1	PBC03DAAN	SULLINS ELECTRONICS CORP.	PBC03DAAN	CONNECTOR; MALE; THROUGH HOLE; BREAKAWAY; STRAIGHT; 6PINS; -65 DEGC TO +125 DEGC
30	J33	—	1	PBC09SAAN	SULLINS ELECTRONICS CORP.	PBC09SAAN	CONNECTOR; MALE; THROUGH HOLE; BREAKAWAY; STRAIGHT; 9PINS; -65 DEGC TO +125 DEGC
31	L1	—	1	PA5002.102NLT	PULSE ELECTRONICS	1UH	INDUCTOR; SMT; SHIELDED; 1UH; 20%; 10.5A
32	L2-L4	—	3	BLM18AG601SN1	MURATA	600	INDUCTOR; SMT (0603); FERRITE-BEAD; 600; TOL=+/-; 0.5A
33	MH1-MH4	—	4	9032	KEYSTONE	9032	MACHINE FABRICATED; ROUND-THRU HOLE SPACER; NO THREAD; M3.5; 5/8IN; NYLON
34	MISC1	—	1	AK67421-1-R	ASSMANN	AK67421-1-R	CONNECTOR; MALE; USB; USB2.0 MICRO CONNECTION CABLE; USB B MICRO MALE TO USB A MALE; STRAIGHT; 5PINS-4PINS
35	Q1, Q2	—	2	BSC014N04LSI	INFINEON	BSC014N04LSI	TRAN; OPTIMOS POWER MOSFET; NCH; PG-TDSON8 FL; PD-(96W); ID-(195A); V-(40V);
36	R1, R7, R14-R16, R18, R22, R32-R34, R44	—	11	ERJ-2GE0R00	PANASONIC	0	RES; SMT (0402); 0; JUMPER; JUMPER; 0.1000W
37	R2, R42	—	2	CRCW060310K0FK; ERJ-3EKF1002;	VISHAY; PANASONIC;	10K	RES; SMT (0603); 10K; 1%; +/-100PPM/DEGC; 0.1000W

MAX77785/MAX77786 Evaluation Kits

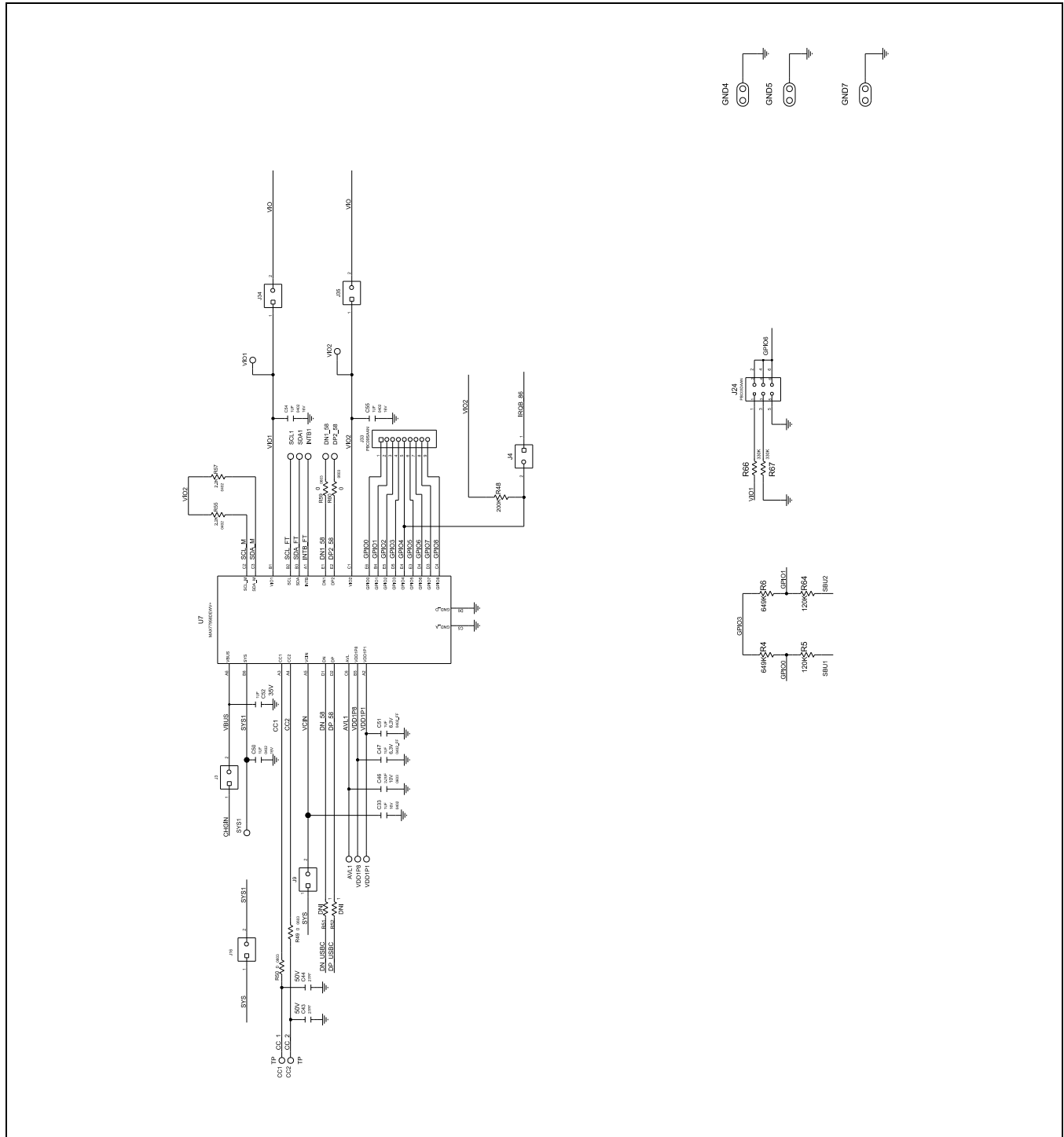
Evaluates: MAX77785/ MAX77786/MAX77958

ITEM	REF_DES	DNI/DNP	QTY	MFG PART #	MANUFACTURER	VALUE	DESCRIPTION
				AC0603FR-0710KL; RMC0603FT110K0	YAGEO; STACKPOLE		
38	R4, R6	—	2	ERJ-2RKF6493	PANASONIC	649K	RES; SMT (0402); 649K; 1%; +/-100PPM/DEGC; 0.1000W
39	R5, R64	—	2	ERJ-2RKF1203	PANASONIC	120K	RES; SMT (0402); 120K; 1%; +/-100PPM/DEGC; 0.1000W
40	R8	—	1	CRCW040212K0FK; MCR01MZPF1202	VISHAY DALE; ROHM SEMICONDUCTOR	12K	RES; SMT (0402); 12K; 1%; +/-100PPM/DEGC; 0.0630W
41	R9, R13	—	2	RC0402FR-0727RL	YAGEO	27	RES; SMT (0402); 27; 1%; +/-100PPM/DEGC; 0.0630W
42	R10	—	1	CRCW04021M00FK	VISHAY DALE	1M	RES; SMT (0402); 1M; 1%; +/-100PPM/DEGC; 0.0630W
43	R11, R45	—	2	RC0402FR-071KL; MCR01MZPF1001	YAGEO; ROHM SEMICONDUCTOR	1K	RES; SMT (0402); 1K; 1%; +/-100PPM/DEGC; 0.0630W
44	R12, R21	—	2	CRCW04022K20JN	VISHAY DALE	2.2K	RES; SMT (0402); 2.2K; 5%; +/-200PPM/DEGC; 0.0630W
45	R17	—	1	CRCW04024752FK; 9C04021A4752FLHF3; CRCW040247K5FK	VISHAY DALE; YAGEO; VISHAY DALE	47.5K	RES; SMT (0402); 47.5K; 1%; +/-100PPM/DEGC; 0.0630W
46	R19, R20, R23, R31, R41	—	5	CRCW0402100KFK; RC0402FR-07100KL	VISHAY; YAGEO	100K	RES; SMT (0402); 100K; 1%; +/-100PPM/DEGC; 0.0630W
47	R24, R38	—	2	9C04021A10R0FL	YAGEO	10	RES; SMT (0402); 10; 1%; +/-100PPM/DEGC; 0.0630W
48	R26, R48	—	2	CRCW0402200KFK; RF73H1ELTP2003	VISHAY DALE; KOA SPEER ELECTRONICS	200K	RES; SMT (0402); 200K; 1%; +/-100PPM/DEGC; 0.0630W
49	R27, R28	—	2	CRCW04024K70FK; MCR01MZPF4701	VISHAY DALE; ROHM SEMICONDUCTOR	4.7K	RES; SMT (0402); 4.7K; 1%; +/-100PPM/DEGC; 0.0630W
50	R30	—	1	CRCW0402169KFK	VISHAY DALE	169K	RES; SMT (0402); 169K; 1%; +/-100PPM/DEGC; 0.0630W
51	R35	—	1	CRCW0402470RKF	VISHAY DALE	470	RES; SMT (0402); 470; 1%; +/-100PPM/DEGC; 0.0630W
52	R43	—	1	3296Y-1-104LF	BOURNS	100K	RESISTOR; THROUGH HOLE-RADIAL LEAD; 3296 SERIES; 100K OHM; 10%; 100PPM; 0.5W
53	R46	—	1	ERJ-2RKF4701	PANASONIC	4.7K	RES; SMT (0402); 4.7K; 1%; +/-100PPM/DEGC; 0.1000W
54	R47, R49, R50, R53, R59, R60	—	6	CRCW0603000020EAHP	VISHAY DRALORIC	0	RES; SMT (0603); 0; JUMPER; JUMPER; 0.2500W
55	R55, R57	—	2	RC0402FR-072K2L	YAGEO	2.2K	RES; SMT (0402); 2.2K; 1%; +/-100PPM/DEGC; 0.0630W
56	R66, R67	—	2	CRCW0402330KFK	VISHAY DALE	330K	RES; SMT (0402); 330K; 1%; +/-100PPM/DEGC; 0.0630W
57	RT1	—	1	NTCG163JF103F	TDK	10K	THERMISTOR; SMT (0603); THICK FILM (NICKEL PLATED); 10K; TOL=+/-1%
58	SW1	—	1	CL-SB-22C-02	COPAL ELECTRONICS INC.	CL-SB-22C-02	SWITCH; DPDT; THROUGH HOLE; 12V; 0.2A; ON-ON; RCOIL=0.05 OHM; RINSULATION=10M OHM; COPAL ELECTRONICS INC.; -40 DEGC TO +85 DEGC
59	SW2	—	1	EVQ-Q2K03W	PANASONIC	EVQ-Q2K03W	SWITCH; SPST; SMT; 15V; 0.02A; LIGHT TOUCH SWITCH; RCOIL= OHM; RINSULATION= OHM; PANASONIC
60	U1	—	1	MAX77786	ANALOG DEVICES	MAX77786	EVKIT PART - IC; MAX77786; 21VIN; 5.5A 1-CELL LI+ BATTERY CHARGER WITH; SMART POWER SELECTOR AND OTG FOR USBC PD
61	U2	—	1	FT2232HL	FUTURE TECHNOLOGY DEVICES INTL LTD.	FT2232HL	IC; MMRY; DUAL HIGH-SPEED USB TO MULTIPURPOSE UART/FIFO; LQFP64
62	U3	—	1	TCK402G	TOSHIBA	TCK402G	IC; ASW; CMOS LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC; WLCCSP6
63	U4	—	1	MAX14611ETD+	ANALOG DEVICES	MAX14611ETD+	IC; TRANS; QUAD BIDIRECTIONAL LOW-VOLTAGE LOGIC LEVEL TRANSLATOR; TDFN14-EP
64	U5, U6	—	2	MAX8512EXK+	ANALOG DEVICES	MAX8512EXK	IC; VREG; Ultra-Low-Noise, High PSRR, Adjustable Vout, SC70-5
65	U7	—	1	MAX77958DEWV+	ANALOG DEVICES	MAX77958DEW V+	EVKIT PART - IC; STANDALONE USB TYPE-C AND USB POWER DELIVERY CONTROLLER; WLP30; PACKAGE OUTLINE: 21-100339; PACKAGE CODE: W302B3+1
66	Y1	—	1	7M-12.000MAAJ	TXC CORPORATION	12MHZ	CRYSTAL; SMT; 12MHZ; 18PF; TOL = +/-30PPM; STABILITY = +/- 30PPM
67	PCB	—	1	MAX7778586	ANALOG DEVICES	PCB	PCB:MAX7778586
68	C37-C40	DNP	0	EMK325AB107MM	TAIYO YUDEN	100UF	CAP; SMT (1210); 100UF; 20%; 16V; X5R; CERAMIC
69	C42	DNP	0	EEE-FK1V101P	PANASONIC	100UF	CAP; SMT (CASE F); 100UF; 20%; 35V; ALUMINUM-ELECTROLYTIC
70	D8, D9	DNP	0	PESD4V0W1BSF	NEXPERIA	4V	EVKIT PART-DIODE; TVS; SMT (SOD962-2); VRM=+/-4V; IPP=N/A
71	R51, R52	DNP	0	CRCW06031R00JN	VISHAY DALE	1	RES; SMT (0603); 1; 5%; +/-200PPM/DEGC; 0.1000W
72	C45, C48	DNP	0	N/A	N/A	OPEN	CAPACITOR; SMT (0805); OPEN; FORMFACTOR
73	C53	DNP	0	N/A	N/A	OPEN	CAPACITOR; SMT (0805); OPEN; IPC MAXIMUM LAND PATTERN
74	R3	DNP	0	N/A	N/A	OPEN	RESISTOR; 0402; OPEN; FORMFACTOR

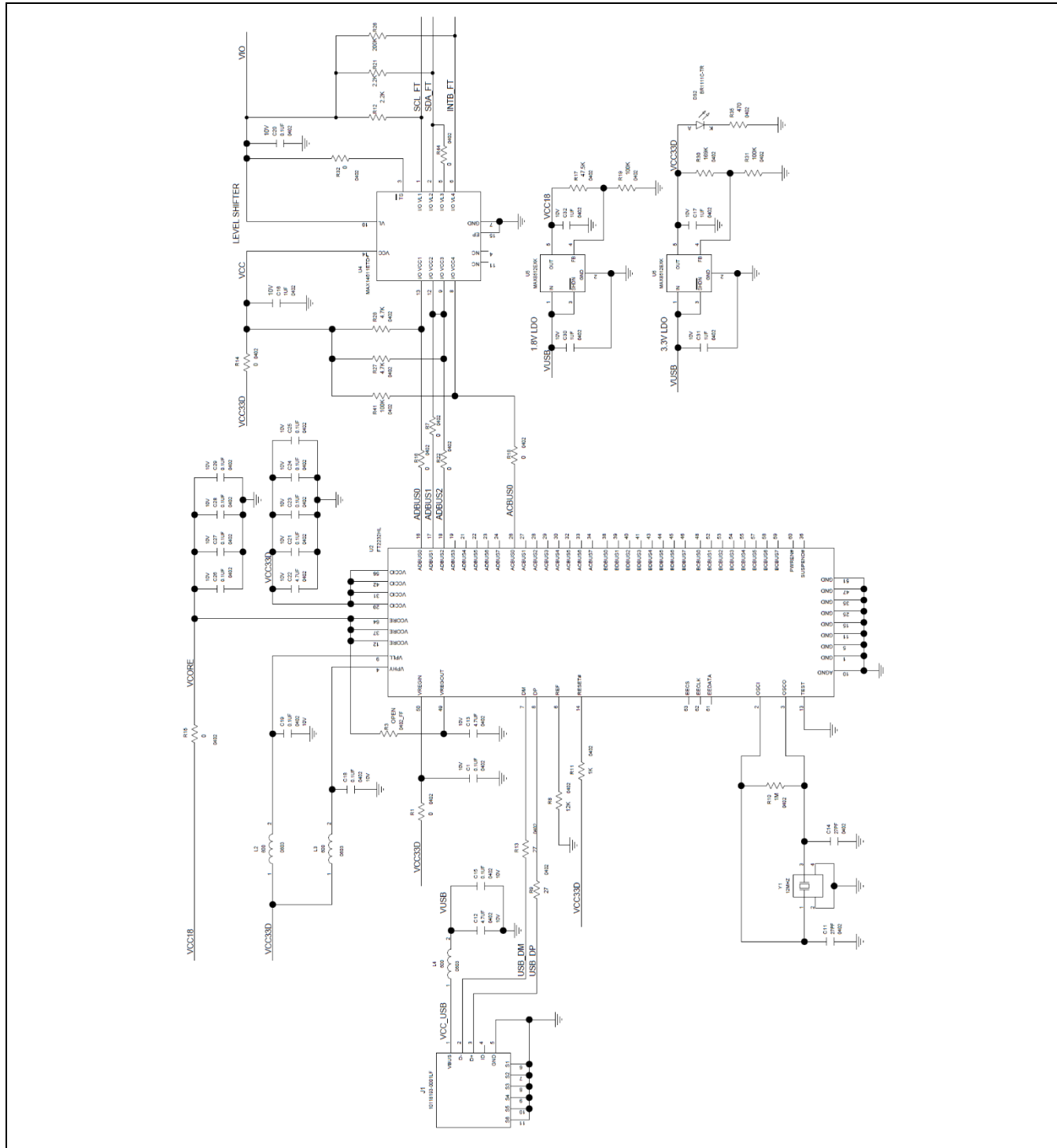
MAX77785/MAX77786 EV Kit Schematic



MAX77785/MAX77786 EV Kit Schematic (continued)



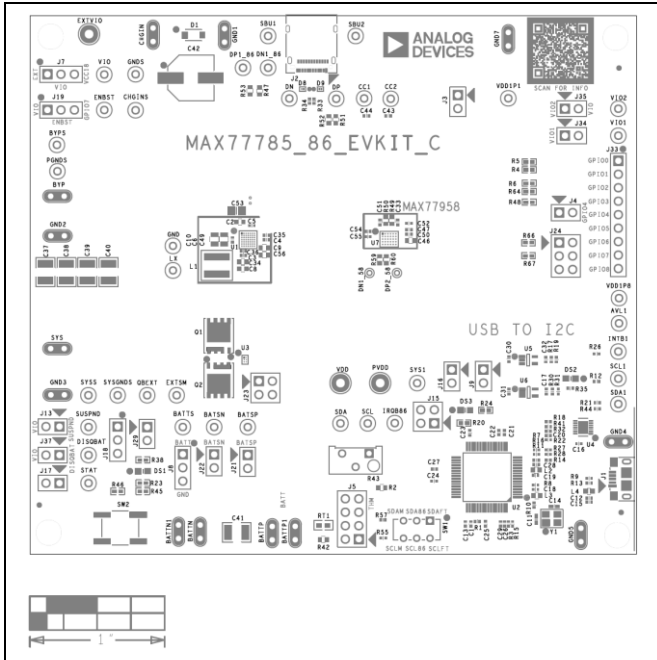
MAX77785/MAX77786 EV Kit Schematic (continued)



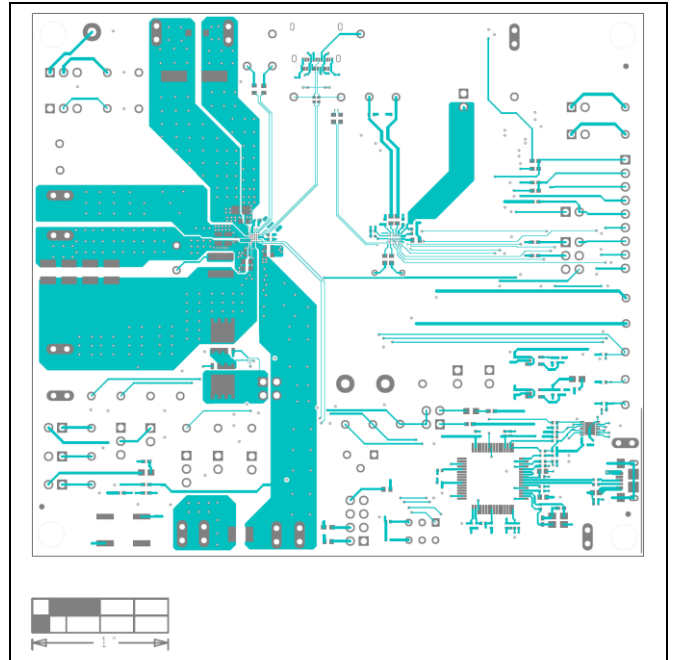
MAX77785/MAX77786 Evaluation Kits

Evaluates: MAX77785/
MAX77786/MAX77958

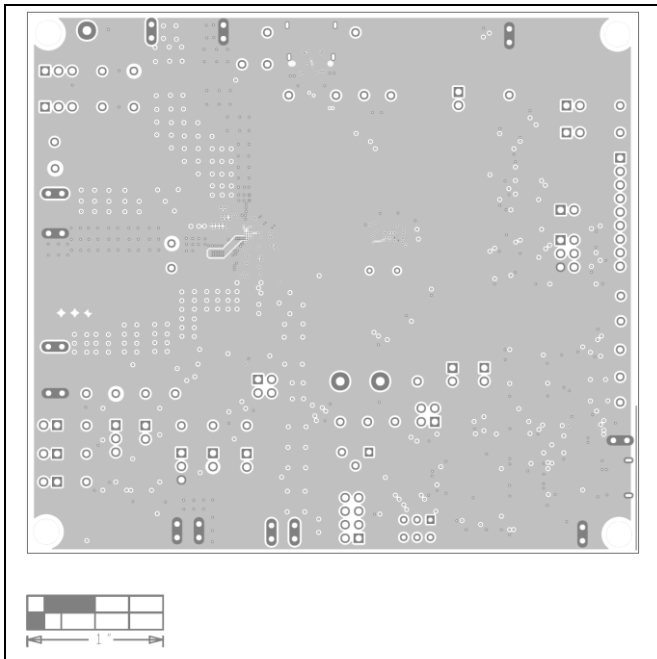
MAX77785/MAX77786 EV Kit PCB Layout



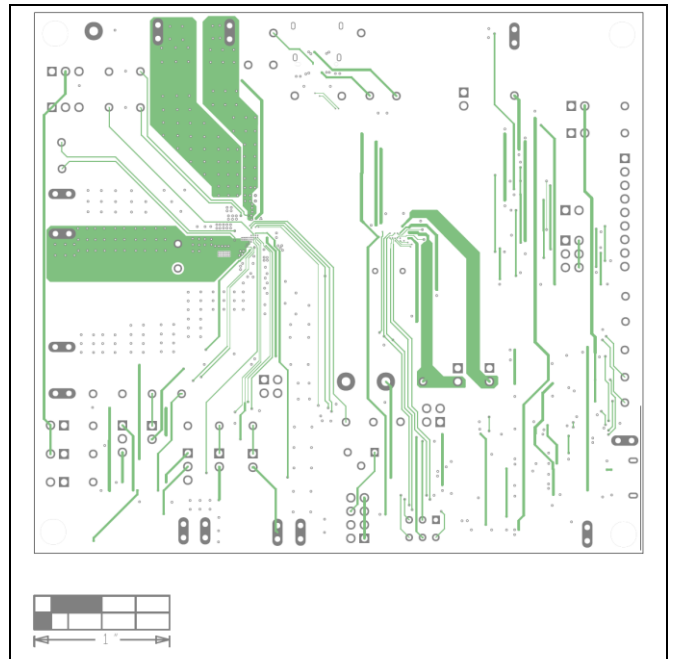
MAX77785/MAX77786 EV Kit Component Placement Guide—
Top Silkscreen



MAX77785/MAX77786 EV Kit PCB Layout—Top

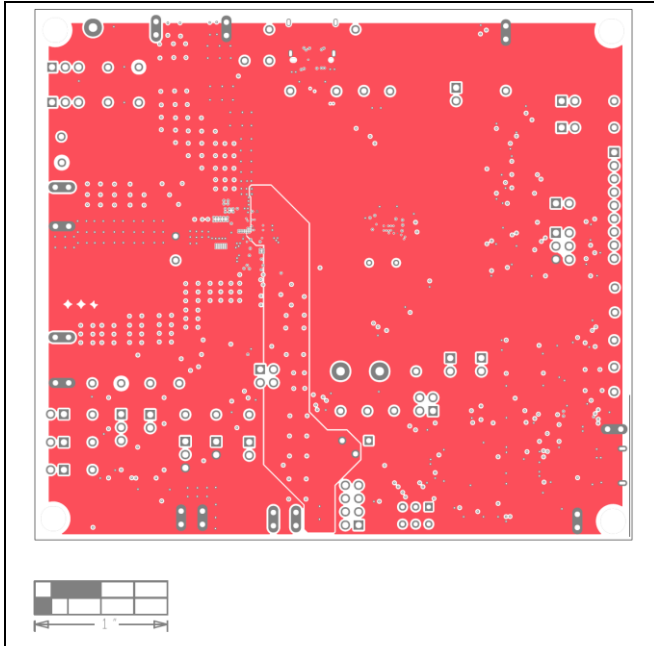


MAX77785/MAX77786 EV Kit PCB Layout—Layer 2

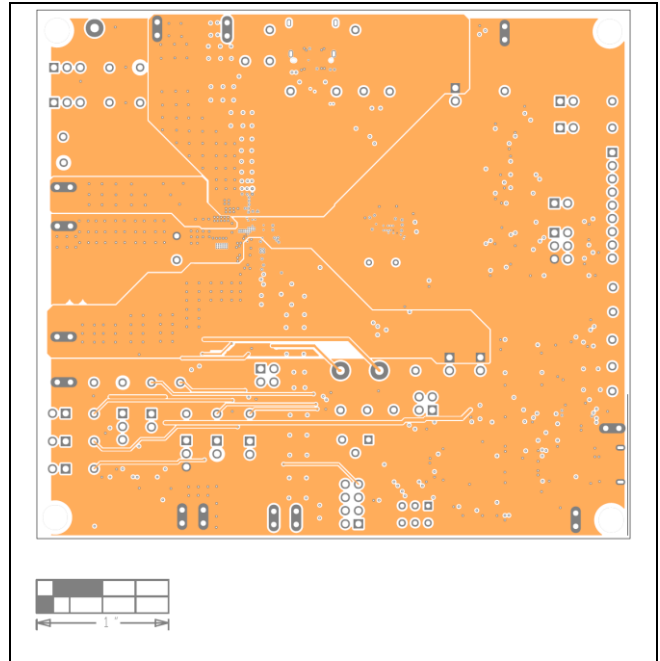


MAX77785/MAX77786 EV Kit PCB Layout—Layer 3

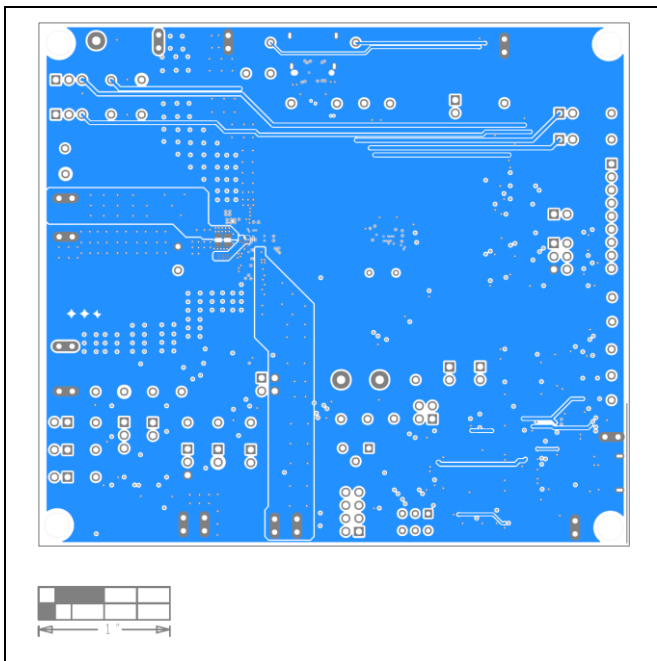
MAX77785/MAX77786 EV Kit PCB Layout
(continued)



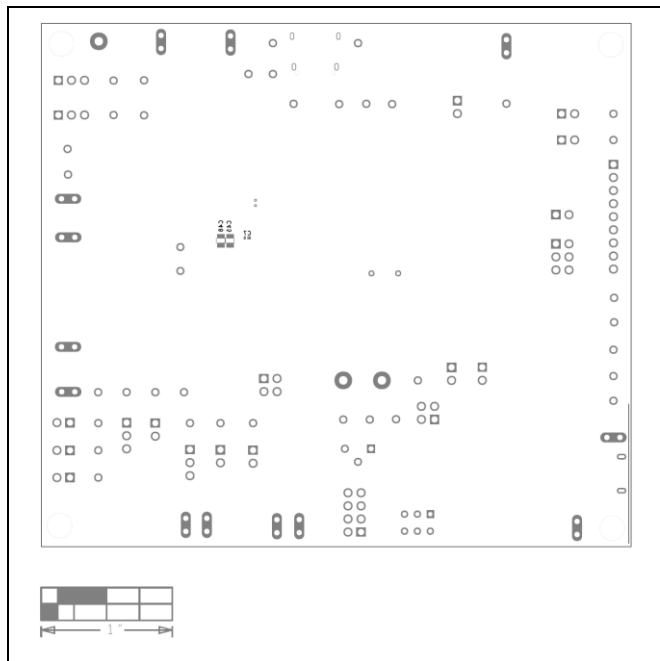
MAX77785/MAX77786 EV Kit PCB Layout—Layer 4



MAX77785/MAX77786 EV Kit PCB Layout—Layer 5



MAX77785/MAX77786 EV Kit PCB Layout—Bottom



MAX77785/MAX77786 EV Kit Component Placement Guide—
Bottom Silkscreen

Revision History

REVISION NUMBER	REVISION DATE	DESCRIPTION	PAGES CHANGED
0	10/23	Initial release	—
1	1/24	Updated <i>Features</i> and <i>Procedure</i> sections and EV kit photo	1, 2

