MAX77540 Evaluation Kit

Evaluates: MAX77540 in WLP Package

General Description

The MAX77540 evaluation kit (EV kit) is a fully assembled and tested printed circuit board (PCB) that demonstrates the MAX77540 dual-phase configurable step-down regulator. The board is equipped with test points and jumpers for testing all pins on the device. Two potentiometers allow the user to adjust the SEL1/SEL2 configuration pins at will. There are also probe sockets on critical nodes (VOUTx, LXx) for precise measurements. The board also comes with some spare inductors (L3-L6) for testing out efficiency/performance tradeoffs. The PCB is designed with Maxim Integrated's recommended layout of the IC and external components. The IC sets default output voltages by way of R13 and R14 but can be changed with the potentiometers or through I2C communication. Maxim Integrated's graphical user interface (GUI) can be used by connecting a Windows®-based PC to J11 through a MAXUSB INTERFACE# device.

Ordering Information appears at end of data sheet.

Features

- Probe Sockets for High-Accuracy Measurements
- Test Points for all Features (POK, FPWM, EN, and IRQB)
- Default Output Voltage Adjustable through SEL
- Connector for Custom I²C Host

Check List

- The MAX77540 EV kit
- USB to I²C interface (MAXUSB INTERFACE#)
- USB Type-A to micro-USB cable
- Windows-based graphical user interface (GUI) software is available for use with the EV kit and can be downloaded from Maxim Integrated's website at https://www.maximintegrated.com/products/MAX77540EVKIT (under the Design Resources tab). Windows 7 or newer is required to use the EV kit GUI software.

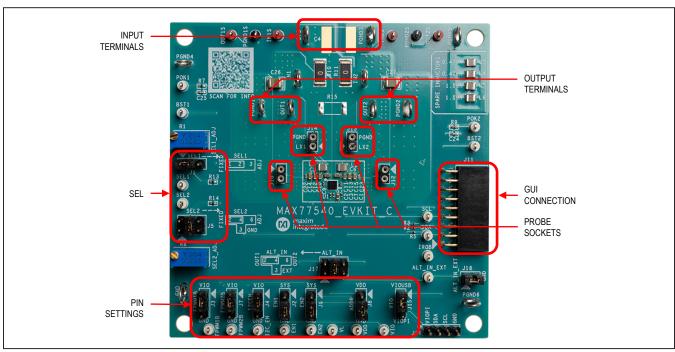


Figure 1. MAX77540 Evaluation Board

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



EV Kit Specification and Default Configuration

The MAX77540 EV kit comes with the following default settings:

- V_{OUT1} = 3.3V (dual phase)
- V_{OUT2} = 5.0V (ignored since buck is in dual phase)
- f_{SW} = 1.0MHz
- Skip mode
- Soft-start and DVS ramp up rate = 5.0mV/µs
- Soft-stop and DVS ramp down rate = -0.15mV/μs
- 100Ω active discharge enabled (1Ω is disabled)
- Current limit = 4.5A
- MAX77540AAWV+T installed

Table 1. EV Kit Default Specifications

SPECIFICATION	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Input Voltage		4.0		16.0	V
Output Voltage	Configurable by SEL or through I ² C	0.5		5.2	V
Output Current	Per phase	0		3	Α
Switching Frequency			1		MHz
Current Limit			4.5		А

Table 2. Default Shunt Positions and Jumper Descriptions

JUMPER	NODE OR FUNCTION	SHUNT POSITION	FUNCTION
J1	SEL1	1-2*	Connects SEL1 to fixed 75k resistor (3.3V _{OUT} default)
JI	SELI	2-3	Connects SEL1 to the potentiometer for adjustable default V _{OUT}
J2	EN1	1-2	Connects EN1 to SYS (enables Buck 1)
JZ	EINI	2-3*	Connects EN1 to GND (disables Buck 1)
J3	FPWM1B	1-2*	Connects FPWM1B to VIO (Buck 1 FPWM mode disabled)
JS	FFVVIVITO	2-3	Connects FPWM1B to GND (Buck 1 FPWM mode enabled)
14	IOC EN	1-2*	Connects I2C_EN to VIO (enables I2C)
J4	I2C_EN	2-3	Connects I2C_EN to GND (disables I2C)
		2-4	Connects SEL2 to fixed 100k resistor (5.0V _{OUT} default)
J5	SEL2	3-4*	Connects SEL2 to GND (enables dual-phase operation)
		4-6	Connects SEL2 to the potentiometer for adjustable default V _{OUT}
J6	EN2	1-2	Connects EN2 to SYS (enables Buck 2)
30	EINZ	2-3*	Connects EN2 to GND (disables Buck 2)
J7	FPWM2B	1-2*	Connects FPWM2B to VIO (Buck 2 FPWM mode disabled)
37	FF VVIVI2D	2-3	Connects FPWM2B to GND (Buck 2 FPWM mode enabled)
		1-2	Connects ADDR to VDD (sets I ² C address)
J8	ADDR	2-3*	Connects ADDR to GND (sets I ² C address)
		N/A	Leave floating to set third I ² C address
J11	USB connector (GUI)	N/A	GUI (MAXUSB_INTERFACE#) connector
J15	VIO	1-2*	Powers VIO from the GUI connector
313	VIO	2-3	Powers VIO from the external header J16
J16	External I ² C	N/A	External header for I ² C host
		2-4	Connects ALT_IN to OUT1
J17	ALT_IN	3-4*	Connects ALT_IN to the external test point ALT_IN_EXT
		4-6	Connects ALT_IN to OUT2
J18	ALT_IN_EXT		Connects ALT_IN_EXT to GND
R12	Phase configuration	N/A	Remove to separate OUT2 from OUT1

^{*}Default position.

MAX77540 Evaluation Kit

Evaluates: MAX77540 in WLP Package

Quick Start

Required Equipment

- Adjustable DC power supply or applicable battery
- Multimeter
- MAXUSB_INTERFACE# for I²C serial interface (optional)
- USB Type-A to micro-USB cable (optional)

Windows-based PC with MAX77540 EV kit GUI (optional)

Setup Overview

<u>Figure 2</u> depicts a simplified block diagram of a typical EV kit setup. Attach more meters and scope probes as necessary. <u>Figure 3</u> depicts a typical application circuit of the MAX77540.

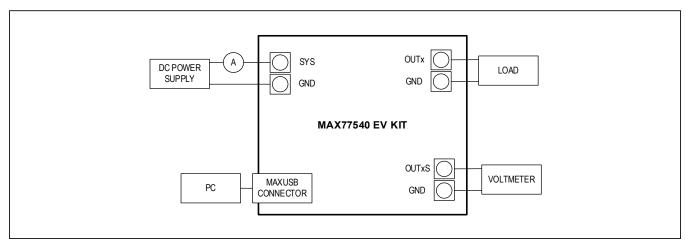


Figure 2. Simplified Setup Block Diagram

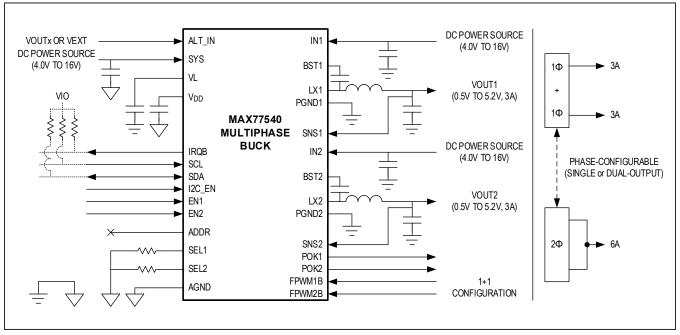


Figure 3. Application Circuit

Procedure

Follow this procedure for first time evaluation:

- 1) Ensure that the jumpers are configured as shown in Table 2.
- 2) Apply a valid voltage (like 7.6V) from a power supply to the SYS and PGND3 terminals of the EV kit. Do not turn it on yet.
- 3) **Important:** make sure the phase configuration is correct. See the *Phase Configuration* section.
- Connect a USB cable between the PC and the MAXUSB_INTERFACE# circuit, then connect the MAXUSB_INTERFACE# circuit to J11 on the EV kit.
- 5) Turn on the power supply and connect to the EV kit through the GUI.
- 6) Turn on Buck 1 by either with the GUI or moving the shunt on the EN1 jumper to SYS.
- 7) Measure OUT1 with a voltmeter. It should read 3.3V.
- Use the GUI to exercise the various features of the MAX77540.

Note: When powering down or power cycling the device, remove VIO (or set I2C_EN to ground through J4) before removing power from SYS.

The next steps of the procedure use the EV kit GUI and MAXUSB_INTERFACE# to evaluate MAX77540's I 2 C serial interface. If evaluation of the I 2 C serial interface is not required, the following steps can be skipped. The EV kit includes onboard 2.2k Ω pullup resistors (R4 and R7) to VIO.

Note: In the following sections, software-related items are identified as follows: Text in **bold** refers to items directly from the evaluation software. Text in **bold and underlined** refers to items from the Windows operating system.

- 9) Install GUI software. Visit the product webpage at https://www.maximintegrated.com/products/
 MAX77540EVKIT
 and navigate to the Design Resources to download the latest version of the EV kit software. Save the EV kit software installation file to a temporary folder and decompress the ZIP file. Run the .EXE file and follow the on-screen instructions to complete installation.
- 10) Turn off the 1.8V VIO power supply and input power supply connected in steps 4 and 5.

- 11) Disconnect the 1.8V VIO power supply connected in step 4 from the EV kit. MAXUSB_INTERFACE# has an on-board LDO to supply 1.8V to VIO.
- 12) Ensure SW1 and SW2 switches on the MAX-USB_INTERFACE# are set to the ON position. This enables I²C mode on MAXUSB INTERFACE#.
- 13) Connect the MAXUSB_INTERFACE# to the MAX77540 EV kit. Connect the MAXUSB_INTERFACE# to the PC's USB port with a USB Type-A to micro-USB cable.
- 14) Turn on the input power supply.
- 15) Open the GUI and click the **Device** button in the menu bar. Select **Connect** in the **Device** drop-down list. Wait for the device to respond, and in the **Synchronize** window, press the **Connect** button.
- 16) Drag the slide bar in the **Output Voltage Configura- tion** section to change the output voltage and click the **Write** button.
- 17) Confirm with a DVM that the software instruction to change output voltage was successful. If so, the I²C serial interface is confirmed to be working.

This concludes the Quick Start procedure. Users are now encouraged to further explore the device and its register settings with the GUI software. For more information on the GUI, see the *Detailed Description of Software* section.

EV Kit Hardware

MAXUSB_INTERFACE#

The MAXUSB_INTERFACE# along with the companion EV kit GUI software allows users to easily change MAX77540's register settings with a Windows PC. Before connecting the MAXUSB_INTERFACE# to the EV kit's MAXUSB_INTERFACE# connector (J5), make sure the MAXUSB_INTERFACE# is configured with the following settings:

- SW1, SW2 to the ON position (This enables I²C mode on the MAXUSB_INTERFACE#.)
- V_L Jumper (J5) to 1.8V (This sets MAXUSB_ INTERFACE#'s V_{IO} voltage.)

MAXUSB_INTERFACE# also includes an on-board LDO that can supply necessary voltage to V_{IO} .

External I²C Bus

To use a different I²C host, disconnect the MAXUSB or the USB cable, and attach I²C wires to J16 on the EV kit.

Phase Configuration

To set the MAX77540 to dual-phase operation, **set J5 to the 3:4 position**. Use the nearby silk screen as a reference.

Phase configuration is set by SEL2. If SEL2 is shorted to GND (effectively 0Ω), the part will be in 2 phase; if SEL2 is higher than 200Ω , the part will be in 1+1 phase. Resistor R12 (on the bottom side of the board) connects the two outputs together. Ensure that R12 is installed/uninstalled based on desired phase configuration (See Table 3).

Change Default Setup with RSEL1/RSEL2

Note that the MAX77540 EV kit is default configured for dual-phase operation, with VOUT1 set to 3.3V and VOUT2 set to 5V (by way of R13 and R14). To evaluate other default configurations (for different voltages/ranges upon first power-up), change the resistance at SEL1/2 with either of the potentiometers or R13/R14. Refer to the device data sheet for more information.

High Temperature Testing

The MAX77540 is rated for operation under ambient temperatures up to 125°C. Note that not all components on the EV kit are rated for temperatures that high. Some ceramic capacitors experience extra leakage when put under temperatures higher than they are rated for, and supply current readings for the IC might be larger than expected. Double check the components on the EV kit if testing at 125°C ambient temperatures.

Table 3. Phase Configuration Truth Table

SEL2	R12	PHASE CONFIGURATION			
Ω0	0Ω	Dual Phase (2φ)			
0Ω	Open	Mismatch			
>200Ω	0Ω	Mismatch			
>200Ω	Open	Single Phase (1φ + 1φ)			

List of caps not rated for 125°C:

- C26, C27 (IN1, IN2 bulk capacitors)
- C5, C6, C7 (IN1, IN2, SYS bypass capacitors)
- C10-C15 (Buck 1 and 2 output capacitors)

Consider replacing these components if IC operation at 125°C ambient temperature is an important use case.

Test Points and Critical Node Measurement (VOUT and LX)

The EV kit comes with sockets presoldered onto the board for measuring the critical nodes VOUT1 (J10), LX1 (J14), VOUT2 (J12), and LX2 (J13). Use these probe sockets to eliminate as much noise as possible when measuring the critical nodes. To ensure best results, use a very short ground wire from the ground sleeve of the scope probe to the GND side of the probe socket, and use the bare tip of the probe directly to the signal side of the probe socket. Following these guidelines gives the most accurate results when measuring parameters like output voltage ripple, switching waveforms, and load transient response.



Figure 4. Example of Probing Sensitive Node

Table 4. Test Point Selection for Measurement

LOAD TRANSIENT,	LOAD REGULATION, LINE REGULATION,	EFFIC	SWITCHING NODE		
OUTPUT RIPPLE	VOUT ACCURACY	OUTPUT VOLTAGE	INPUT VOLTAGE	LX1	LX2
J10 (VOUT1 SOCKET), J12 (VOUT2 SOCKET)	INxS, OUTxS, PGNDxS	OUTxS, PGNDxS	INxS, OUTxS	J14	J13

Detailed Description of Software

The graphical user interface (GUI) software allows for quick, easy, and thorough evaluation of the MAX77540. The GUI drives I²C communication with the EV kit (The GUI along with the MAXUSB_INTERFACE# drives I²C communication with the EV kit). Every control in the GUI corresponds directly to a register within the MAX77540. Refer to the *Register Map* section of MAX77540 IC data sheet for a complete description of the registers. See Figure 5 for a screenshot of the GUI upon launch.

Installation

Visit the product webpage at https://www.maximinte-grated.com/products/MAX77540EVKIT and navigate to Design Resources to download the latest version of the EV kit software. Save the EV kit software installation file to a temporary folder and decompress the ZIP file. Run the .EXE installer and follow the on-screen instructions to complete the installation.

Windows Driver

After plugging in the MAXUSB_INTERFACE# to the PC with a micro-USB cable for the first time, wait about 30 seconds for Windows to automatically install the necessary drivers.

Connecting GUI

After opening the GUI, click the **Device** drop-down list in the upper left corner of the GUI window and select **Connect**.

The **Device Synchronization** menu opens (Figure 7) once the MAX77540 IC responds (voltages on SYS pin and V_{IO} pin must be valid on the MAX77540 IC for it to respond). The I²C address shown is MAX77540 IC's 7-bit slave address. The address shown changes depending on the EV kit's ADDR configuration. Click the **Connect and Read** button. The text at the bottom right of the GUI window changes from MAXUSB_INTERFACE# is Disconnected to MAXUSB INTERFACE# is Connected.

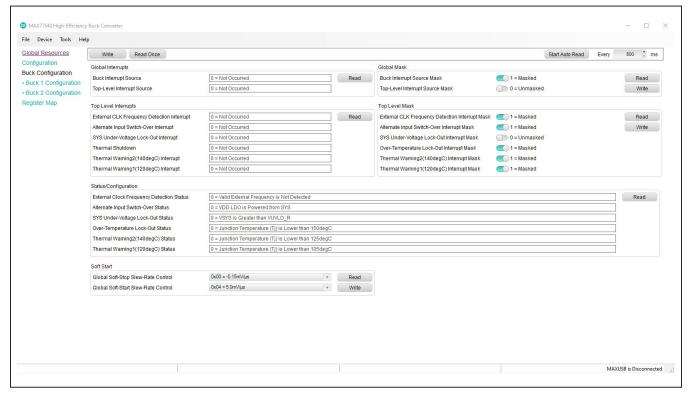


Figure 5. MAX77540 Evaluation Kit GUI Top-Level Interface (before Connecting)

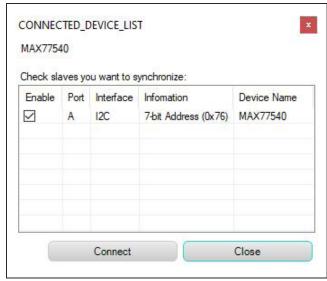


Figure 6. Port Synchronization Menu

Configuring the Regulator

The GUI has a **Configuration** tab for each buck (Buck 1 Configuration and Buck 2 Configuration). Use these to adjust the various parameters of each buck. Note that Buck 2 Configuration is disabled during dual-phase operation. Figure 7 shows a snapshot of the Buck 1 Configuration tab. To use the GUI, select the desired option in one of the interactable fields (button, slider, and drop-down list) and click the **Write** button next to it. Use the **Read** button to refresh the current state of the registers.

PCB Layout Guidelines

Careful circuit board layout is critical to achieve low switching power losses and clean, stable operation. Refer to https://www.maximintegrated.com/products/
MAX77540EVKIT for the PCB Layout Guideline section of the MAX77540 IC data sheet.

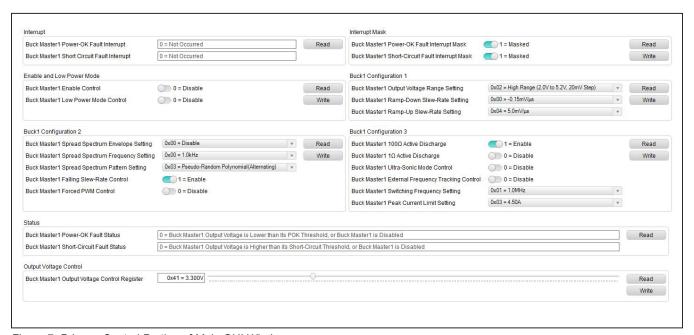


Figure 7. Primary Control Portion of Main GUI Window

Ordering Information

PART	U1 IC
MAX77540EVKIT#	MAX77540AAWV+T

#Denotes RoHS compliance.

MAX77540 EV Kit Bill of Materials

REF_DES	QTY*	MFG PART#	MANUFACTURER	VALUE	DESCRIPTION
C1, C2	2	C1005X7S1A225K050BC	TDK	2.2UF	CAPACITOR; SMT (0402); CERAMIC CHIP; 2.2UF; 10V; TOL=10%; TG=-55 DEGC TO +125 DEGC; TC=X7S
C3	1	C1005X7S1A105K; GRM155C71A105KE11	TDK; MURATA	1UF	CAPACITOR; SMT (0402); CERAMIC CHIP; 1UF; 10V; TOL=10%; MODEL=GRM SERIES; TG=-55 DEGC TO +125 DEGC; TC=X7S
C5, C6	2	C1608X5R1E106M080AC; CL10A106MA8NRNC; GRM188R61E106MA73; ZRB18AR61E106ME01; GRT188R61E106ME13	TDK; SAMSUNG ELECTRONICS; MURATA; MURATA	10UF	CAPACITOR; SMT (0603); CERAMIC CHIP; 10UF; 25V; TOL=20%; TG=-55 DEGC TO +85 DEGC; TC=X5R
C7	1	C1608X5R1E225K; TMK107ABJ225KA; TMK107BJ225KA; GRM188R61E225KA12	TDK; TAIYO YUDEN; TAIYO YUDEN; MURATA	2.2UF	CAPACITOR; SMT (0603); CERAMIC CHIP; 2.2UF; 25V; TOL=10%; MODEL=; TG=-55 DEGC TO +85 DEGC; TC=X5R
C8, C9	2	C1005X7R1C104K050BC; ATC530L104KT16; 0402YC104KAT2A; C0402X7R160-104KNE; CL05B104KO5NNNC; GRM155R71C104KA88; C1005X7R1C104K; CC0402KRX7R7BB104; EMK105B7104KV; CL05B104KO5	TDK; AMERICAN TECHNICAL CERAMICS; AVK; VENKEL LTD.; SAMSUNG ELECTRONICS; MURATA; TDK; YAGEO PHICOMP; TAIYO YUDEN; SAMSUNG ELECTRONICS	0.1UF	CAPACITOR; SMT (0402); CERAMIC CHIP; 0.1UF; 16V; TOL=10%; TG=-55 DEGC TO +125 DEGC; TC=X7R
C10-C15	12	C1608X5R1A226M080A; GRM188R61A226ME15	TDK; MURATA	22UF	CAPACITOR; SMT (0603); CERAMIC CHIP; 22UF; 10V; TOL=20%; TG=-55 DEGC TO +85 DEGC; TC=X5R
C22, C23	2	GRM155R71E104KE14; C1005X7R1E104K050BB; TMK105B7104KVH; CGJ2B3X7R1E104K050BB	MURATA; TDK; TAIYO YUDEN; TDK	0.1UF	CAPACITOR; SMT (0402); CERAMIC CHIP; 0.1UF; 25V; TOL=10%; MODEL=GRM SERIES; TG=-55 DEGC TO +125 DEGC; TC=X7R
L1, L2	2	DFE252012F-1R0M=P2; DFE252012F-1R0M	MURATA; MURATA	1UH	INDUCTOR; SMT (1008); METAL; 1UH; 20%; 3.3A
U1	1	MAX77540AAWV+	MAXIM	MAX775 40AAWV +	EVKIT PART-IC; MAX77540AAWV+; 6V INPUT DUAL-PHASE CONFIGURABLE 3A/PHASE HIGH-EFFICIENCY BUCK CONVERTER; PACKAGE OUTLINE: 21- 100414; PACKAGE CODE: W302P2Z+1; WLP30

MAX77540 EV Kit Bill of Materials (continued)

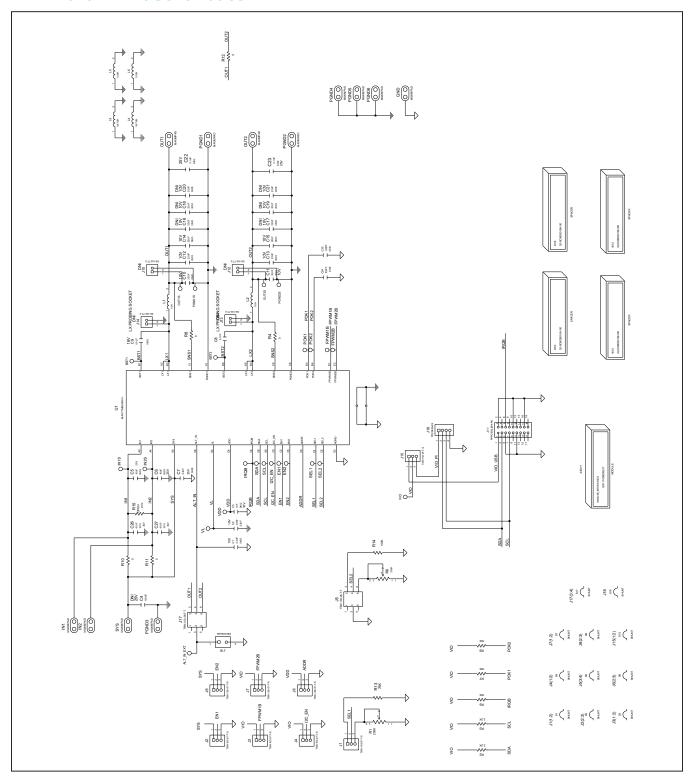
REF_DES	QTY*	MFG PART #	MANUFACTURER	VALUE	DESCRIPTION		
Components below this line are outside of the immediate MAX77540 evaluation circuit and solution silkscreen.							
ALT_IN_EXT, BST1, BST2, EN1, EN2, FPWM1B, FPWM2B, I2C_EN, IRQB, POK1, POK2, SCL, SDA, SEL1, SEL2, VDD, VIO, VL	18	5002	KEYSTONE	N/A	TEST POINT; PIN DIA=0.1IN; TOTAL LENGTH=0.3IN; BOARD HOLE=0.04IN; WHITE; PHOSPHOR BRONZE WIRE SILVER;		
C24, C25	2	C0402C101K5GAC; C1005C0G1H101K050BA	KEMET; TDK	100PF	CAPACITOR; SMT; 0402; CERAMIC; 100pF; 50V; 10%; C0G; -55degC to + 125degC; 0 +/-30PPM/degC		
C26, C27	2	TMK325ABJ476MM	TAIYO YUDEN	47UF	CAP; SMT (1210); 47UF; 20%; 25V; X5R; CERAMIC CHIP		
GND, IN1, IN2, OUT1, OUT2, PGND1- PGND6, SYS	12	9020 BUSS	WEICO WIRE	MAXIM PAD	EVK KIT PARTS; MAXIM PAD; WIRE; NATURAL; SOLID; WEICO WIRE; SOFT DRAWN BUS TYPE-S; 20AWG		
IN1S, IN2S, OUT1S, OUT2S	4	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-J4, J6-J8, J15	8	TSW-103-07-T-S	SAMTEC	TSW- 103-07- T-S	CONNECTOR; THROUGH HOLE; TSW SERIES; SINGLE ROW; STRAIGHT; 3PINS		
J5, J17	2	TSW-102-26-T-T	SAMTEC	TSW- 102-26- T-T	CONNECTOR; THROUGH HOLE; TSW SERIES; TRIPLE ROW; STRAIGHT; 6PINS		
J10, J12-J14	4	SS-102-TT-2	SAMTEC	SS-102- TT-2	IC-SOCKET; SIP; STRAIGHT; PRECISION MACHINED SOCKET STRIP; OPEN FRAME; 2PINS; 100MIL		
J11	1	PPPC092LJBN-RC	SULLINS ELECTRONICS CORP	PPPC09 2LJBN- RC	CONNECTOR; FEMALE; THROUGH HOLE; PPP SERIES; RIGHT ANGLE; 18PINS		
J16	1	PEC04SAAN	SULLINS ELECTRONICS CORP.	PEC04 SAAN	CONNECTOR; MALE; THROUGH HOLE; BREAKAWAY; STRAIGHT; 4PINS		
J18	1	PBC02SAAN	SULLINS ELECTRONICS CORP.	PBC02 SAAN	EVKIT PART-CONNECTOR; MALE; THROUGH HOLE; BREAKAWAY; STRAIGHT; 2PINS; -65 DEGC TO +125 DEGC;		

MAX77540 EV Kit Bill of Materials (continued)

REF_DES	QTY*	MFG PART#	MANUFACTURER	VALUE	DESCRIPTION
L3, L4	2	DFE252012F-R47M	MURATA	0.47UH	INDUCTOR; SMT (1008); METAL; 0.47UH; 20%; 4.9A
L5, L6	2	DFE252012F-1R5M	MURATA	1.5UH	INDUCTOR; SMT (1008); SHIELDED; 1.5UH; 20%; 2.7A
PGND1S, PGND2S	2	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;
R1, R6	2	3296Y-1-204LF	BOURNS	200K	RESISTOR; THROUGH HOLE-RADIAL LEAD; 3296 SERIES; 200K OHM; 10%; 100PPM; 0.5W
R2, R3	2	CRCW04022K20FK; RC0402FR-072K2L	VISHAY DALE; YAGEO PHICOMP	2.2K	RESISTOR, 0402, 2.2K OHM, 1%, 100PPM, 0.0625W, THICK FILM
R4, R8	2	ERJ-2GE0R00	PANASONIC	0	RESISTOR; 0402; 0 OHM; 0%; JUMPER; 0.10W; THICK FILM
R5, R7, R9	3	CRCW040210K0FK; RC0402FR-0710KL	VISHAY DALE; YAGEO PHICOMP	10K	RESISTOR; 0402; 10K; 1%; 100PPM; 0.0625W; THICK FILM
R10-R12	3	CRCW25120000ZS	VISHAY DALE	0	RESISTOR; 2512; 0 OHM; 1%; JUMPER; 1.0W; METAL FILM
R13	1	CRCW040275K0FK; RC0402FR-0775KL	VISHAY; YAGEO	75K	RESISTOR; 0402; 75K OHM; 1%; 100PPM; 0.063W; THICK FILM
R14	1	CRCW0402100KFK; RC0402FR-07100KL	VISHAY; YAGEO	100K	RESISTOR; 0402; 100K; 1%; 100PPM; 0.0625W; THICK FILM
PCB	1	MAX77540	MAXIM	РСВ	PCB:MAX77540
C4	0	KTJ250B107M76BFT00	UNITED CHEMI-CON	100UF	CAP; SMT (3126); 100UF; 20%; 25V; X7R; CERAMIC CHIP
R15	0	N/A	N/A	OPEN	RES; SMT (2512); OPEN

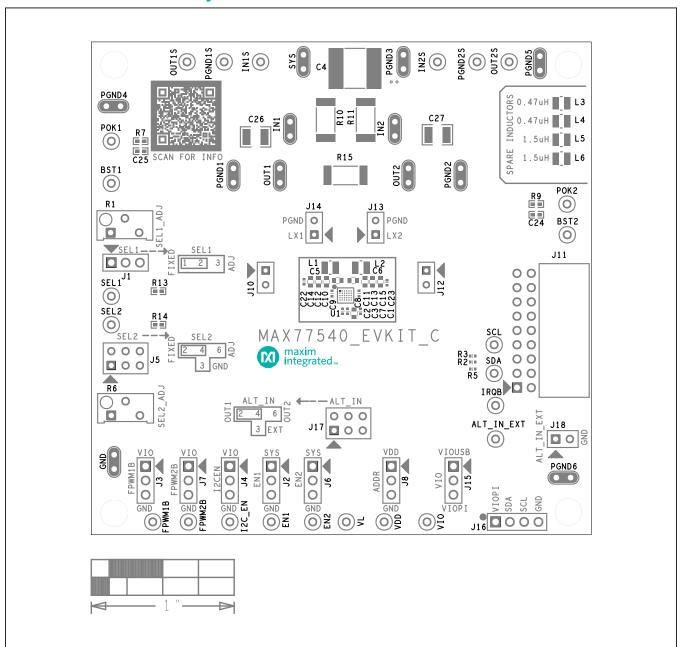
WLP Package

MAX77540 EV Kit Schematics



WLP Package

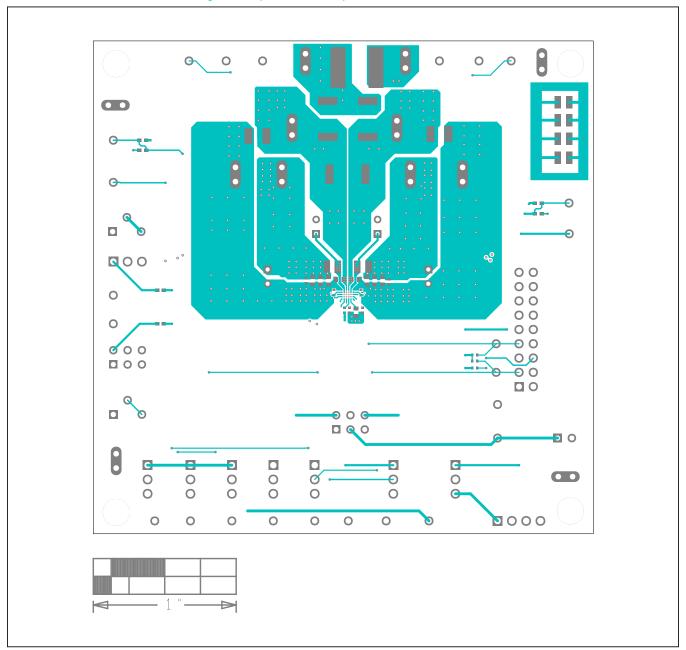
MAX77540 EV Kit PCB Layouts



MAX77540 EV Kit Component Placement Guide—Top Silkscreen

WLP Package

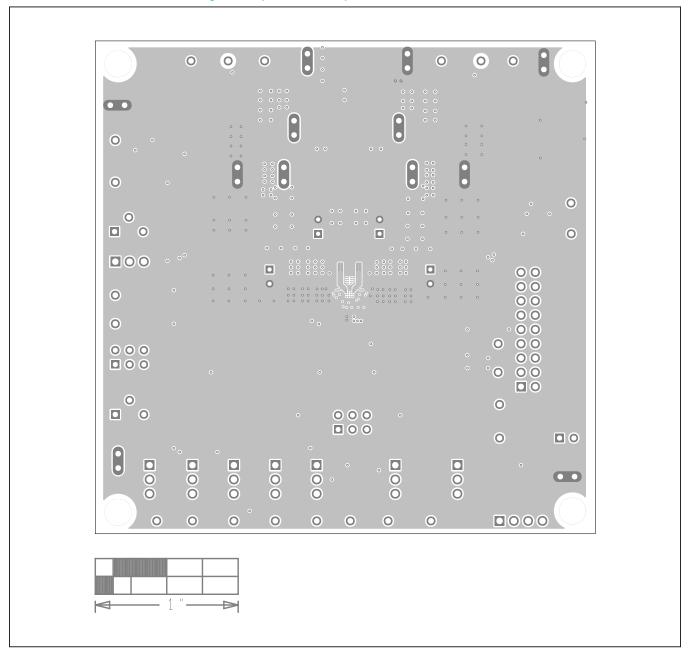
MAX77540 EV Kit PCB Layouts (continued)



MAX77540 EV Kit PCB Layout—Top Layer

WLP Package

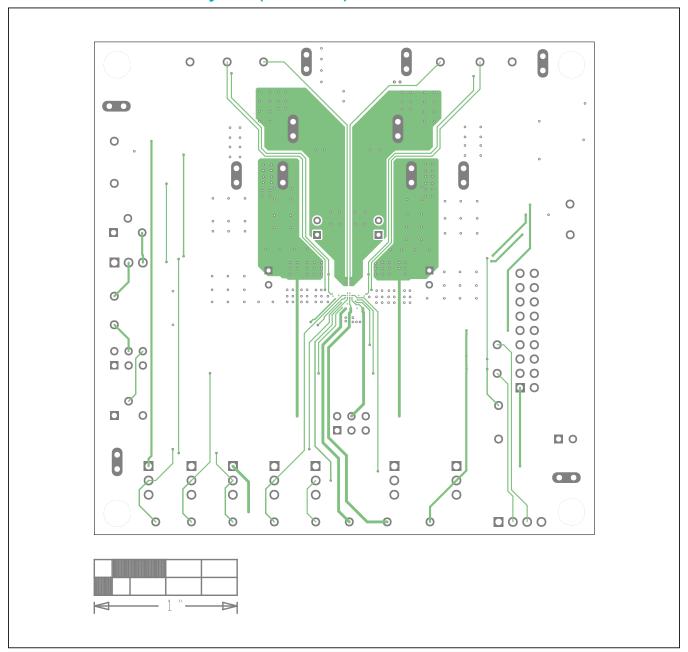
MAX77540 EV Kit PCB Layouts (continued)



MAX77540 EV Kit PCB Layout—Inner Layer 2

WLP Package

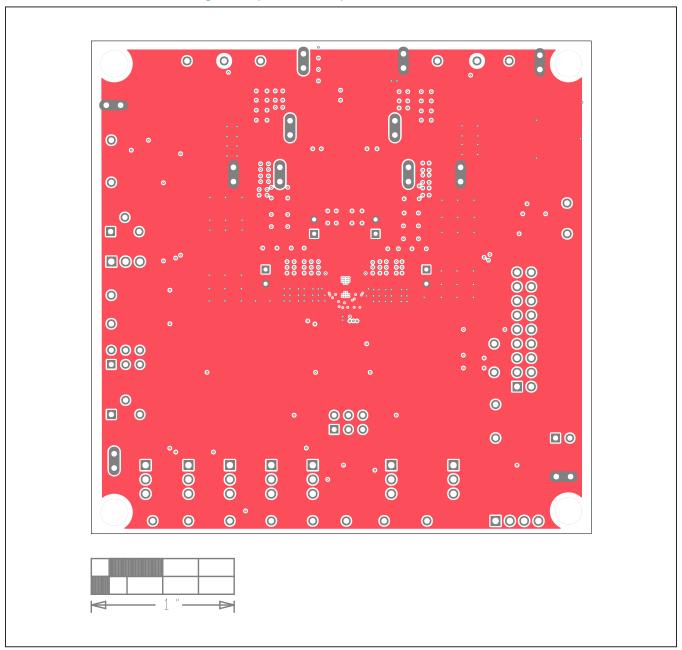
MAX77540 EV Kit PCB Layouts (continued)



MAX77540 EV Kit PCB Layout—Inner Layer 3

WLP Package

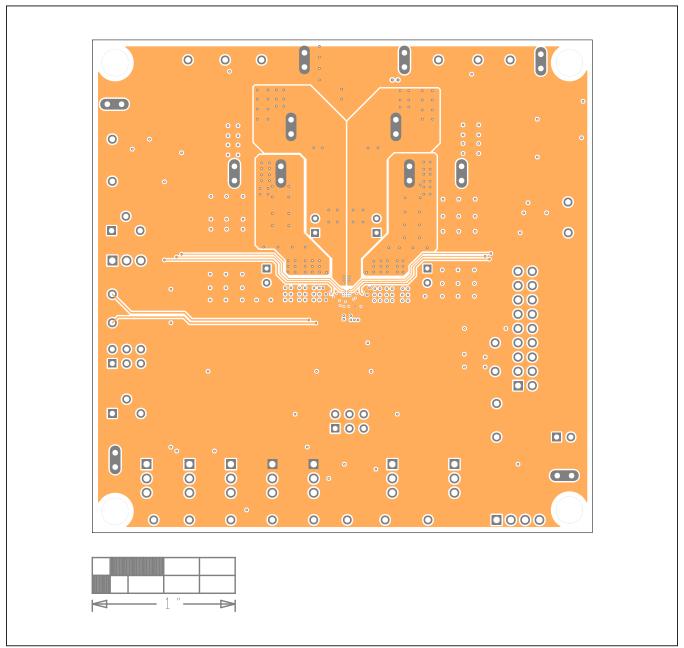
MAX77540 EV Kit PCB Layouts (continued)



MAX77540 EV Kit PCB Layout—PWR

WLP Package

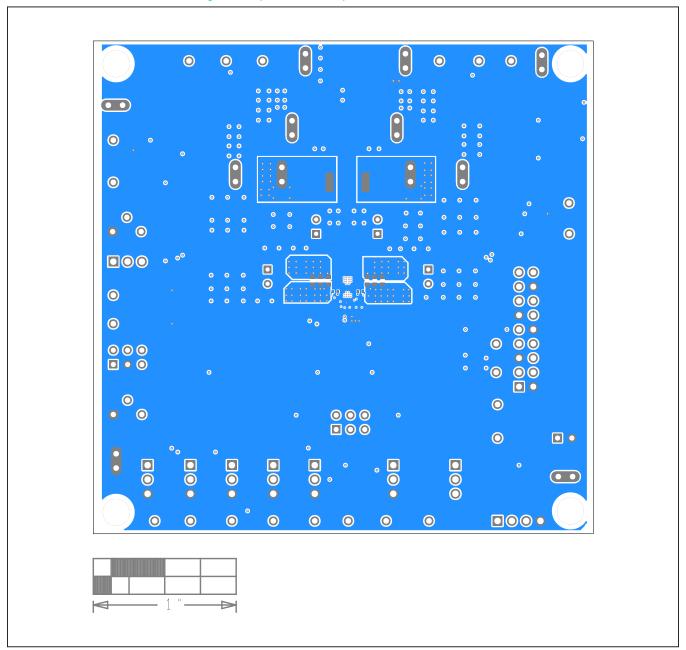
MAX77540 EV Kit PCB Layouts (continued)



MAX77540 EV Kit PCB Layout—GND

WLP Package

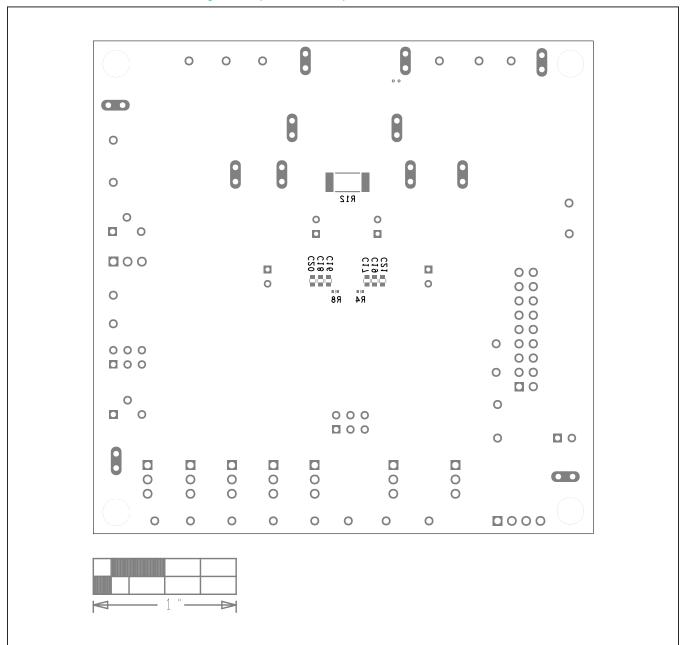
MAX77540 EV Kit PCB Layouts (continued)



MAX77540 EV Kit PCB Layout—Bottom

WLP Package

MAX77540 EV Kit PCB Layouts (continued)



MAX77540 EV Kit Component Placement Guide—Bottom Silkscreen

MAX77540 Evaluation Kit

Evaluates: MAX77540 in

WLP Package

Revision History

REVISION NUMBER	REVISION DATE	DESCRIPTION	PAGES CHANGED
0	7/21	Initial release	_

For pricing, delivery, and ordering information, please visit Maxim Integrated's online storefront at https://www.maximintegrated.com/en/storefront/storefront.html.

Maxim Integrated cannot assume responsibility for use of any circuitry other than circuitry entirely embodied in a Maxim Integrated product. No circuit patent licenses are implied. Maxim Integrated reserves the right to change the circuitry and specifications without notice at any time.