

## General Description

The MAX77812 evaluation kit (EV kit) is a fully assembled and tested printed circuit board (PCB) that demonstrates the MAX77812. The EV kit allows for easy evaluation of each feature. It supports user-programmable phase configuration to one of five options:

- Single output in 4 phase configuration (default)
- Dual outputs in 3 + 1 phase configuration
- Dual outputs in 2 + 2 phase configuration
- Three outputs in 2 + 1 + 1 phase configuration
- Four outputs in 1 + 1 + 1 + 1 phase configuration

A Micro-B USB cable is included in the package to serve as the USB to I<sup>2</sup>C interface for easy testing. Windows®-based software provides a user-friendly interface to exercise the features of the MAX77812. This software offers a graphical user interface (GUI) as well as a register-based interface.

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

## Features

- 20A Maximum Output Current
- 2.5V to 5.5V Input Voltage Range
- Output Voltage Range from 0.25V to 1.525V in 5mV Steps
- ±0.5% (typ) DC Output Voltage Accuracy
- 91% Peak Efficiency at 3.8V<sub>IN</sub> 1.1V<sub>OUT</sub>, L = 220nH (9mΩ DCR)
- Enhanced Load Transient Response
- Programmable Ramp-Up and Ramp-Down Slew Rate
- Auto (SKIP/PWM) or Forced PWM Modes
- User-Selectable Phase Configurations
- Multifunction General-Purpose Inputs
- Watchdog Timer Reset Input
- Interrupt Output for Status and Fault Conditions
- High-Speed (Up to 3.4MHz) I<sup>2</sup>C Serial Interface with an Option for 30MHz SPI Interface

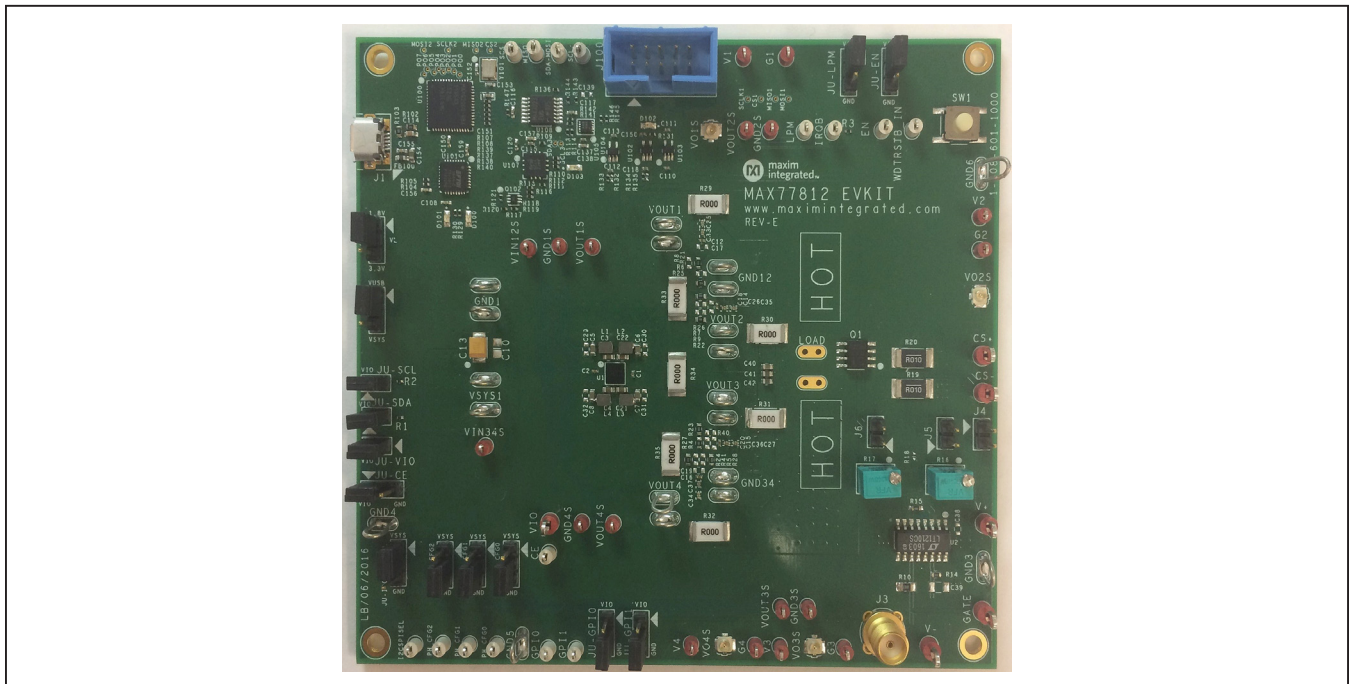


Figure 1. MAX77812 EV Kit Photo

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

**Quick Start**

**Required Equipment**

The MAX77812 evaluation package includes:

- MAX77812 EV kit
- Micro-B USB cable
- MAX77812 EV kit software (GUI)
- Adjustable DC power supply capable of supplying 12A
- Electronic load capable of sinking 20A
- Oscilloscope
- Two voltmeters
- Two ammeters

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

**Procedure**

The EV kit is fully assembled and tested. Follow the steps below to verify board operation:

- 1) Identify the connections and test points shown in [Figure 2](#). Confirm all shunts and jumpers are at their default positions as indicated in [Table 1](#).
- 2) Install the MAX77812 EV kit software (GUI) on to your PC as instructed. Connect the Micro-B USB cable between PC and MAX77812 EV kit.
- 3) Set up the test circuit as shown in [Figure 3](#). Preset the DC power supply to 3.8V and current limit to 0.5A. **Do not turn on the power supply until all connections are completed.**
- 4) Enable the power supply output and confirm the input current is low (< 100µA). Open the MAX77812 GUI window and click on **Device** then **Connect**. If the connection is successful, it displays the message **Currently connected to MINIQUSB CMOD and DEVICE MAX77812**. Click **Read and close** ([Figure 4](#)).
- 5) Go to the **Buck** then **Master 1** tab and select the following settings ([Figure 5](#)):
  - Buck Master1 Output to 1 = Enabled**
  - Buck Master1 Output Voltage to 1000mV**
  - Buck Master1 Current Limit (PMOS Peak/NMOS Valley) to 0x7 7.2A/4.8A.**
  - Click **Write**.
- 6) Verify that the voltage at V1 is approximately 1V.
- 7) AC measurements, e.g., output ripple and load transient can be monitored using oscilloscope at VO1S.

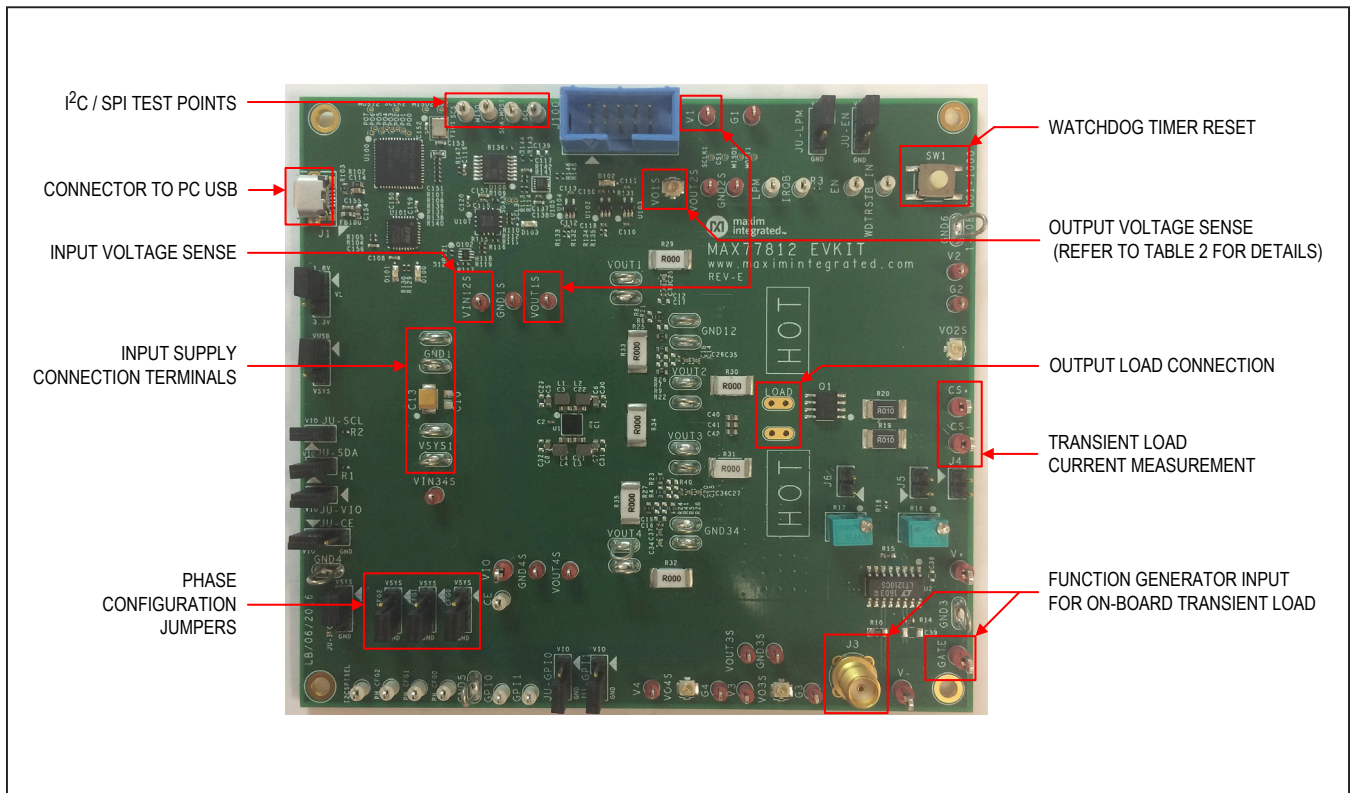


Figure 2. MAX77812 EV Kit Description

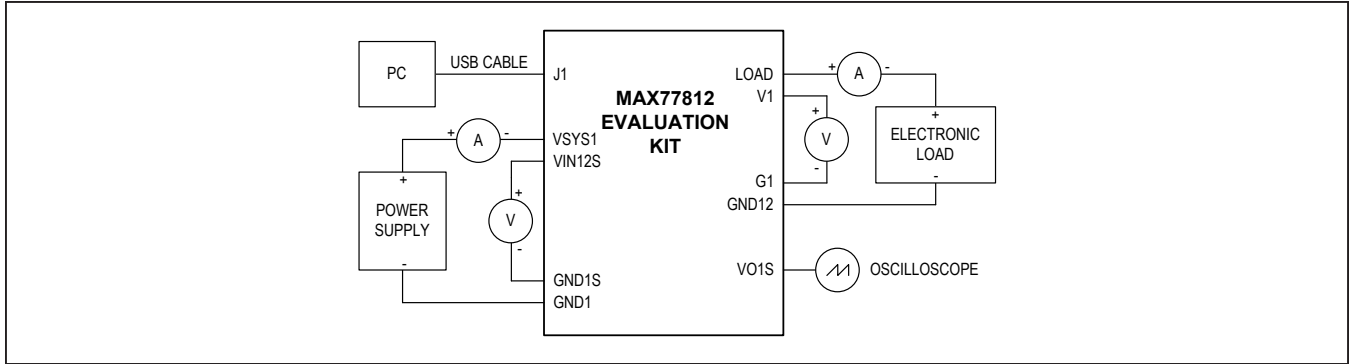


Figure 3. Quick Start Connection Diagram

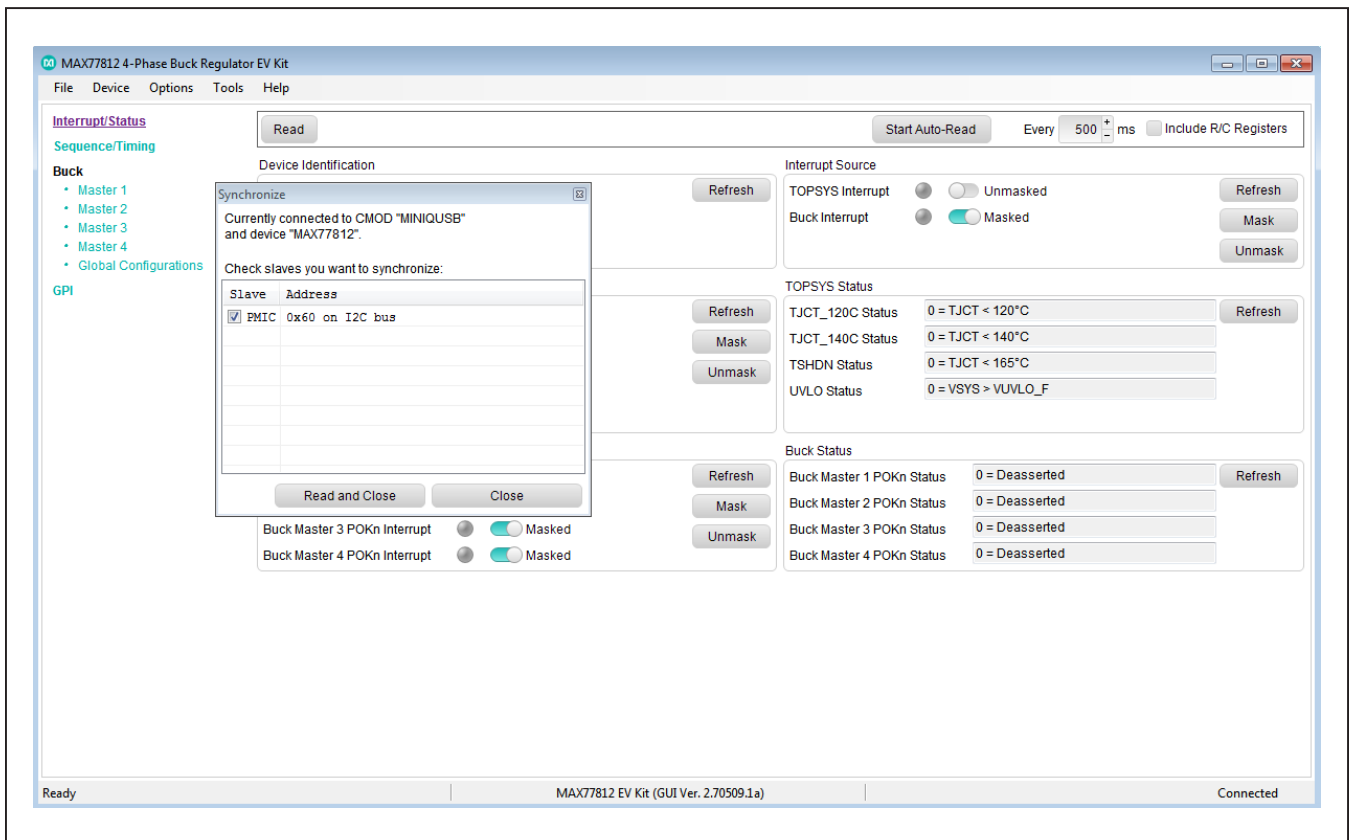


Figure 4. MAX77812 EV Kit GUI Connection

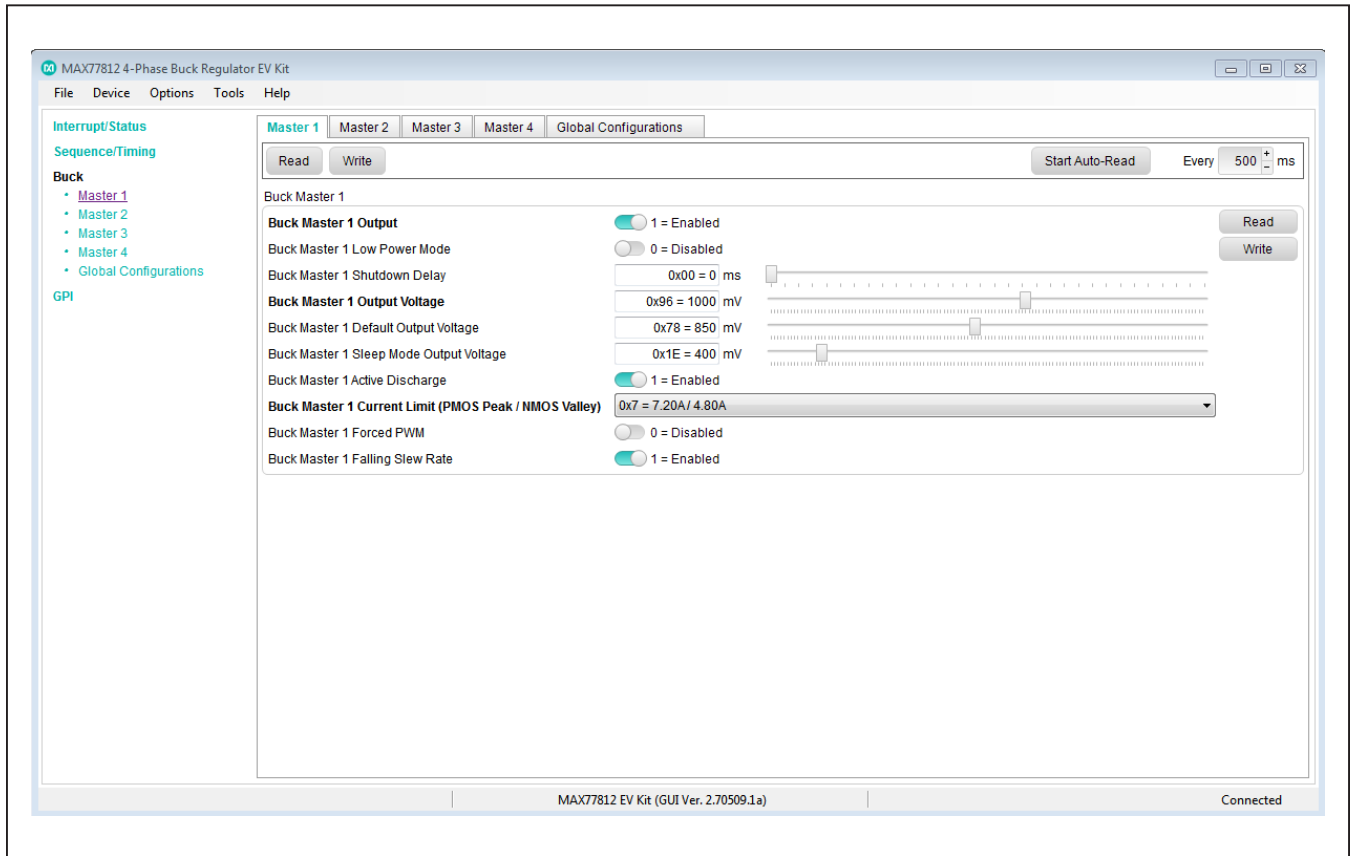


Figure 5. MAX77812 EV Kit GUI  $V_{OUT}$  Enable

## Detailed Description of Hardware and Software

### AC and DC Measurement Points

The EV kit has various optimized test points for AC and DC measurements to evaluate performance during load transient, output voltage ripple, load regulation, line regulation, output voltage accuracy and efficiency. These recommended test points are summarized in [Table 2](#).

**Table 1. Default Shunt Positions and Jumper Descriptions**

REFERENCE DESIGNATOR	DEFAULT POSITION	FUNCTION
JU-CE	1-2	Chip enable
JU-EN	2-3	Global enable
JU-LPM	2-3	Global low power mode
JU-GPIO	2-3	GPIO input
JU-GPI1	2-3	GPI1 input
JU-SCL	CLOSE	SCL pullup
JU-SDA	CLOSE	SDA pullup
JU-VIO	CLOSE	On-board VIO supply
J2 (MINIQ Supply)	1-2	V <sub>USB</sub> supply
J101 (V <sub>L</sub> Supply)	1-2	1.8V supply
J4	CLOSE	On-board transient load supply
J5	CLOSE	On-board transient load adjustment
J6	OPEN	On-board transient load adjustment
JU-I2C_SPI_SEL	2-3	Select I <sup>2</sup> C
JU-PH_CFG2	2-3	Select 4-phase configuration
JU-PH_CFG1	2-3	
JU-PH_CFG0	2-3	

**Table 2. Test Points**

CONFIGURATION	LOAD TRANSIENT, OUTPUT RIPPLE	LOAD REGULATION, LINE REGULATION, VOUT ACCURACY	EFFICIENCY	
			OUTPUT VOLTAGE	INPUT VOLTAGE
4 Phase	VO1S	V1/G1	VOUT1S/GND1S	VIN12S/GND1S
3 + 1 Phase	VO1S, VO4S	V1/G1, V4/G4	VOUT1S/GND1S, VOUT4S/GND4S	VIN12S/GND1S, VIN34S/GND4S
2 + 2 Phase	VO1S, VO3S	V1/G1, V3/G3	VOUT1S/GND1S, VOUT3S/GND3S	VIN12S/GND1S, VIN34S/GND3S
2 + 1 + 1 Phase	VO1S, VO3S, VO4S	V1/G1, V3/G3, V4/G4	VOUT1S/GND1S, VOUT3S/GND3S, VOUT4S/GND4S	VIN12S/GND1S, VIN34S/GND3S, VIN34S/GND4S
1 + 1 + 1 + 1 Phase	VO1S, VO2S, VO3S, VO4S	V1/G1, V2/G2, V3/G3, V4/G4	VOUT1S/GND1S, VOUT2S/GND2S, VOUT3S/GND3S, VOUT4S/GND4S	VIN12S/GND1S, VIN12S/GND2S, VIN34S/GND3S, VIN34S/GND4S

### Load Transient Testing

The MAX77812 EV kit has an on-board circuit to create fast load transients. Measurements should be done at VO1S. This enables SNS1P/SNS1N signals to sense directly across the output capacitor near the transient load for more accurate measurements. Connect a signal generator output (1.6V, 1kHz square, 20% duty cycle) to J3 to drive the on-board circuit. If needed, adjust the signal generator output and variable resistor R16 to change the load current level and slew rate.

To use the on-board fast-load transient circuit in other phase configurations, first program the EV kit as described in the [Phase Configuration Programming](#) section, then follow the guidance in [Table 3](#) and [Table 4](#) to select the desired master to connect to the on-board transient load output.

### GUI Programmable Features

The MAX77812 requires the use of the GUI to fully exercise the capabilities of the device. The MAX77812 features a number of different programmable options to customize the behavior of the buck regulator during startup, operation, and shutdown. [Figure 6](#) and [Figure 7](#) show the various GUI window settings to configure the MAX77812 to enable these options.

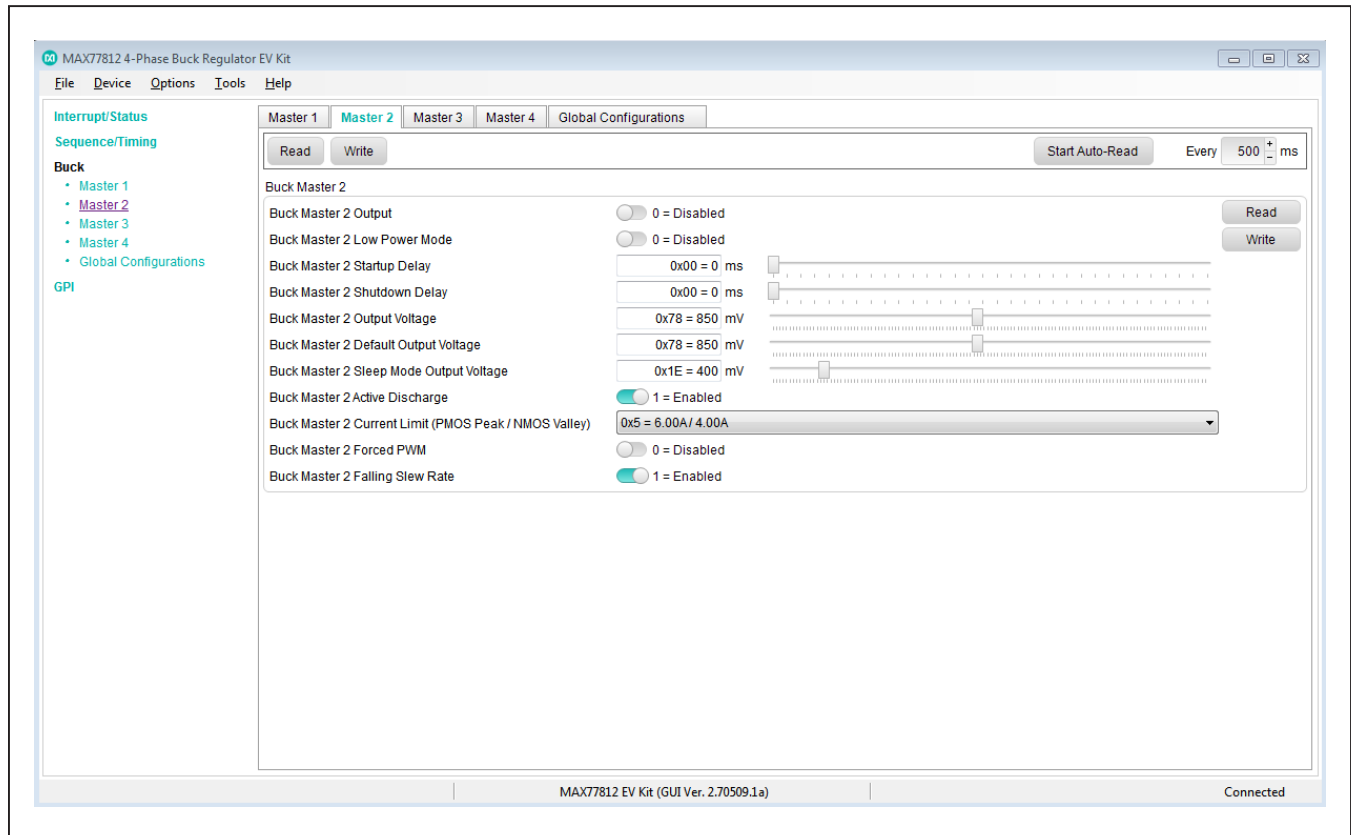


Figure 6. MAX77812 EV Kit Startup/Shutdown Delay, Low Power Mode, Forced PWM, Active Discharge, Output Voltage Settings

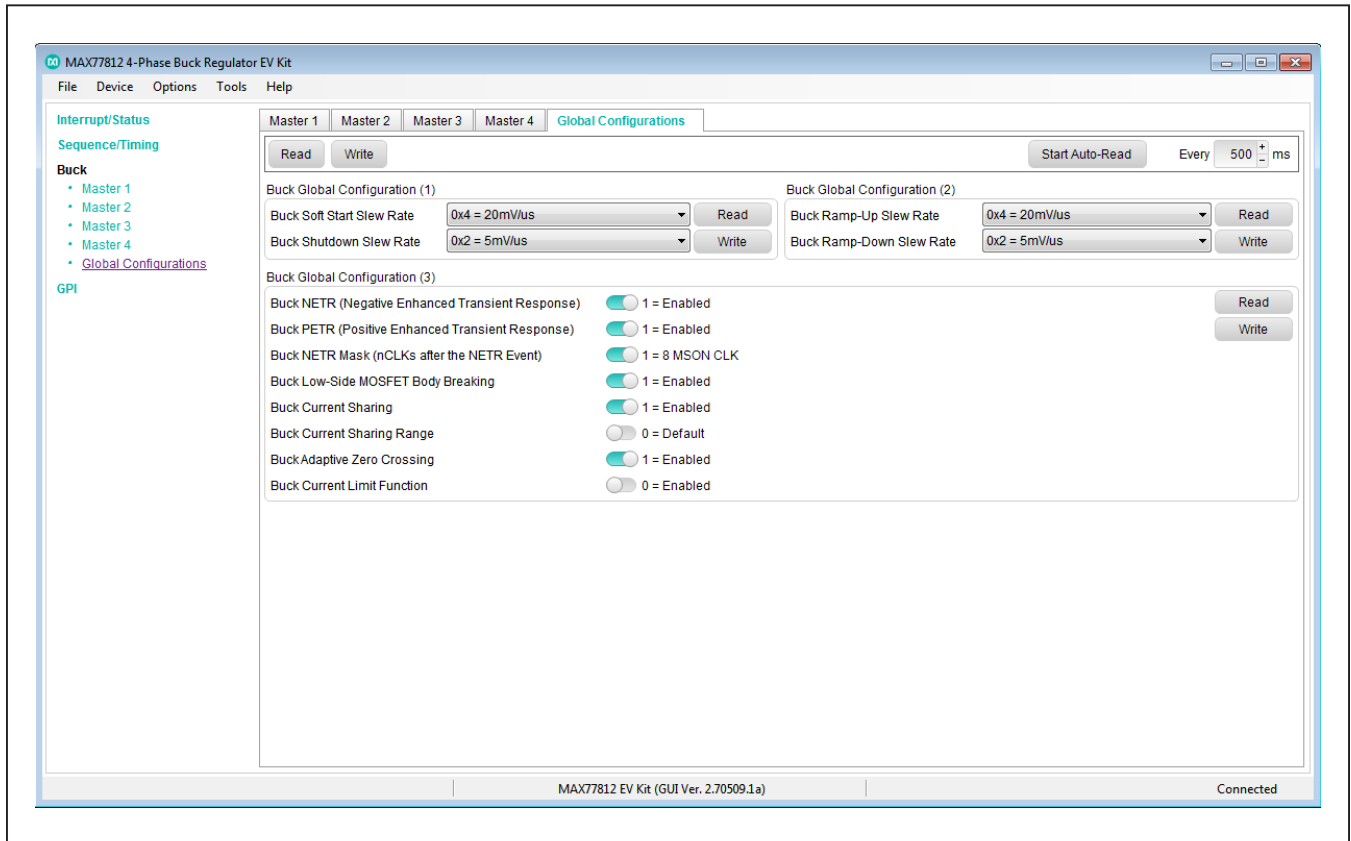


Figure 7. MAX77812 EV Kit Startup/Shutdown Slew Rate, Ramp-Up/Down Slew Rate, ETR, Current Sharing and Limit Function Settings

### Phase Configuration Programming

The MAX77812 supports user-programmable phase configurations. All supported phase configurations are shown below:

- 4-phase (Master 1)
- 3-phase (Master 1) + 1-phase (Master 4)
- 2-phase (Master 1) + 2-phase (Master 3)
- 2-phase (Master 1) + 1-phase (Master 3) + 1-phase (Master 4)

- 1-phase (Master 1) + 1-phase (Master 2) + 1-phase (Master 3) + 1-phase (Master 4)

The MAX77812 EV kit default setting is 4-phase. See the [Quick Start](#) section and [Table 1](#) for operating the EV kit in 4-phase configuration and its default settings. To program to other phase configurations, [Figure 8](#), [Table 3](#), and [Table 4](#) summarize the changes needed in GUI instructions and hardware setup as well as jumper and 0Ω resistor settings. [Table 4](#) also describes the options to select local or remote differential sense for each buck master.

**Table 3. Phase Configuration Programming**

CONFIGURATION	JU-PH_CFG2/ JU-PH_CFG1/ JU-PH_CFG0 SETTING	GUI OUTPUT VOLTAGES ENABLE SETTING
4 Phase	Low/Low/Low	4 Phase: <b>Buck Master 1 Output 1 = Enabled</b>
3 + 1 Phase	Low/Low/High	3 Phase: <b>Buck Master 1 Output 1 = Enabled</b> 1 Phase: <b>Buck Master 4 Output 1 = Enabled</b>
2 + 2 Phase	Low/High/Low	2 Phase: <b>Buck Master 1 Output 1 = Enabled</b> 2 Phase: <b>Buck Master 3 Output 1 = Enabled</b>
2 + 1 + 1 Phase	Low/High/High	2 Phase: <b>Buck Master 1 Output 1 = Enabled</b> 1 Phase: <b>Buck Master 3 Output 1 = Enabled</b> 1 Phase: <b>Buck Master 4 Output 1 = Enabled</b>
1 + 1 + 1 + 1 Phase	High/X/X	1 Phase: <b>Buck Master 1 Output 1 = Enabled</b> 1 Phase: <b>Buck Master 2 Output 1 = Enabled</b> 1 Phase: <b>Buck Master 3 Output 1 = Enabled</b> 1 Phase: <b>Buck Master 4 Output 1 = Enabled</b>

**Table 4. Programming Output Options**

CONNECT TO ON-BOARD TRANSIENT LOAD		PHASE CONFIGURATION							LOCAL SENSE							REMOTE SENSE AT TRANSIENT LOAD								
		R 29	R 30	R 31	R 32	R 33	R 34	R 35	R 6	R 8	R 7	R 9	R 4	R 40	R 5	R 41	R 21	R 25	R 22	R 26	R 23	R 27	R 24	R 28
4 Phase	Master 1	X	X	X	X												X	X	X	X	X	X	X	X
3 + 1 Phase	Master 1	X	X	X											X	X	X	X	X	X	X	X		
	Master 4				X	X	X		X	X	X	X	X	X									X	X
2 + 2 Phase	Master 1	X	X					X					X	X	X	X	X	X	X					
	Master 3			X	X	X			X	X	X	X									X	X	X	X
2 + 1 + 1 Phase	Master 1	X	X										X	X	X	X	X	X	X					
	Master 3			X		X			X	X	X	X			X	X					X	X		
	Master 4				X	X			X	X	X	X	X	X									X	X
1 + 1 + 1 + 1 Phase	Master 1	X									X	X	X	X	X	X	X	X						
	Master 2		X						X	X			X	X	X	X			X	X				
	Master 3			X					X	X	X	X			X	X					X	X		
	Master 4				X				X	X	X	X	X	X									X	X

X = Install a 0Ω resistor.



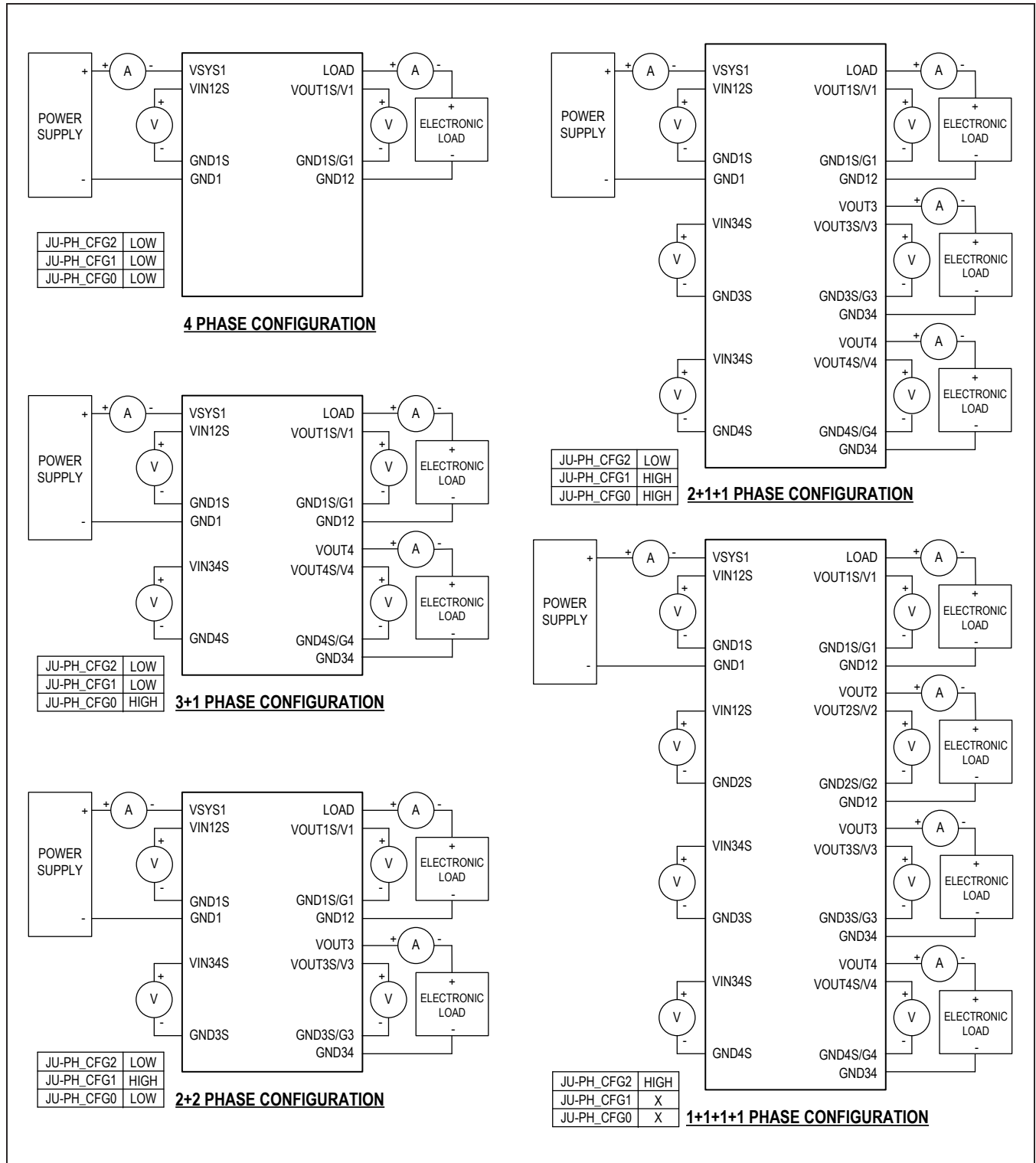


Figure 8. Various Phase Configurations Hardware Setup

## Component Suppliers

SUPPLIER	PHONE	WEBSITE
MURATA	770-436-1300	www.murata-northamerica.com
KEYSTONE	718-956-8900	www.keyelco.com
LITE-ON ELECTRONICS; INC.	408-946-4873	www.us.lite-on.com
NXP SEMICONDUCTORS	800-521-6274	www.nxp.com
WEICO WIRE	631-254-2970	www.weicowire.com
FCI CONNECT	800-237-2374	www.fci.com
SAMTEC	800-726-8329	www.semtec.com
SULLINS ELECTRONICS CORP.	888-774-3100	www.sullinscorp.com
TOKO	847-803-6100	www.tokoam.com
FAIRCHILD SEMICONDUCTOR	408-822-2000	www.fairchildsemi.com
VISHAY DALE	402-563-6866	www.vishay.com
YAGEO PHICOMP	408-240-6200	www.yageo.com
BOURNS	951-781-5500	www.bourns.com
PANASONIC	800-344-2112	www.panasonic.com
FUTURE TECHNOLOGY DEVICES	503-547-0988	www.ftdichip.com
HIROSE ELECTRIC CO LTD.	805-522-7958	www.hirose-connector.com
KYOCERA-KINSEKI	864-967-2150	www.global.kyocera.com
TE CONNECTIVITY	800-522-6752	www.te.com
JOHNSON COMPONENTS	507-833-8822	www.cinchconnectivity.com
ALPS ELECTRIC	+81 (3) 5499-8154	www.alps.com

**Note:** Indicate that you are using the MAX77812 when contacting these component suppliers.

## Ordering Information

PART	TYPE
MAX77812EVKIT#	EV Kit

#Denotes RoHS compliant.

**MAX77812 EV Kit Bill of Materials**

PART	QTY	DESCRIPTION
C1	1	CAPACITOR; SMT 0402; CERAMIC; 1UF; 10V; 10%; X5R MURATA GRM188R61A105KA61
C2, C12, C14-C16	5	CAPACITOR; SMT 0402; CERAMIC; 0.1uF; 10V; 10%; X5R MURATA GRM155R71A104KA01D
C3, C4, C21, C22	4	CAPACITOR; SMT 0603; CERAMIC; 10UF; 6.3V; 5%; X5R MURATA GRM188R60J106ME47J
C5-C8	4	CAPACITOR; SMT 0603; CERAMIC; 22UF; 6.3V; 20%; X5R MURATA GRM188C80J226ME15D
C13	1	CAPACITOR; SMT 3528; TANTALUM; 100UF; 6.3V; 20% AVX TCJB107M006R0070
C25-C27, C33-C37	8	CAPACITOR; SMT 0402; CERAMIC; 4.3UF; 4V; 20%; X5R MURATA LLD154R60G435ME01
C40-C42	3	CAPACITOR; SMT 0603; CERAMIC; 10UF; 16V; 20%; X5R MURATA GRM188R61C106MA73D
C108, C116, C117, C138, C150, C151, C155-C157, C159	10	CAPACITOR; SMT 0402; CERAMIC; 0.1UF; 25V; 10%; X7R MURATA GRM155R71E104KE14
C110-C113, C115, C118, C120, C137, C158	9	CAPACITOR; SMT 0402; CERAMIC; 1UF; 6.3V; 10%; X5R MURATA GRM155R60J105KE19D
C114	1	CAPACITOR; SMT; 0603; CERAMIC; 0.47uF; 10V; 10% MURATA GRM188R61A474KA61D
C152, C153	2	CAPACITOR; SMT; 0402; CERAMIC; 8.2pF; 50V; 0.25% MURATA GJM1555C1H8R2CB01D
C154	1	CAPACITOR; SMT 0603; CERAMIC; 4.7UF; 16V; 10%; X5R GRM188R61C475KAAJD
CE, EN, LPM, SCL, SCS, GPIO, GPI1, IRQB, MISO, PH_CFG0- PH_CFG2, SDA-MOSI, I2CSPISSEL, WDTRSTB_IN	15	TEST POINT; PIN DIA=0.1IN; TOTAL LENGTH=0.3IN KEYSTONE 5002
V+, V-, CS+, CS-, VIO, GATE	6	TESTPOINT; MULTIPURPOSE KEYSTONE 5010
D100, D101	2	DIODE; LED; STANDARD; YELLOW; SMT 0603; PIV=5.0V; IF=0.02A LITE-ON LTST-C190YKT
D102, D103	2	DIODE; LED; STANDARD; RED; SMT 0603; PIV=5.0V; IF=0.04A LITE-ON LTST-C190CKT
FB100	1	INDUCTOR; SMT 0603; FERRITE-BEAD; 220; +/-25%; 1.4A MURATA BLM18PG221SN1
G1-G4, V1-V4, GND1S-GND4S, VIN12S, VIN34S, VOUT1S- VOUT4S	18	TEST POINT; PIN DIA=0.1IN; TOTAL LENGTH=0.3IN KEYSTONE 5000
GND1-GND6, GND12, GND34, VOUT1-VOUT4, VSYS1, VSYS2, GND12A, GND34A, VOUT1A- VOUT4A	20	MAXIM PAD; WIRE; 20AWG WEICO 9020 BUSS
J1	1	CONNECTOR; FEMALE; SMT; MICRO USB B-TYPE REVERSE; 5PINS FCI CONNECT 10103592-0001LF
J2, J101, JU-CE, JU-EN, JU-LPM, JU-GPI0, JU-GPI1, JU-PH_CFG0- JU-PH_CFG2, JU-I2C_SPI_SEL	11	CONNECTOR; THROUGH HOLE; SINGLE ROW; STRAIGHT; 3PINS SAMTEC TSW-103-07-L-S
J4-J6	3	CONNECTOR; MALE; THROUGH HOLE; STRAIGHT; 2PINS SULLINS PBC02SAAN
J100	1	CONNECTOR; MALE; THROUGH HOLE; STRAIGHT; 10PINS TE CONNECTIVITY 2-1761603-3
JU-SCL, JU-SDA, JU-VIO	3	CONNECTOR; THROUGH HOLE; 2PINS SAMTEC TSW-102-07-T-S
L1-L4	4	INDUCTOR; SMT 2520; 0.22UH; ±20%; 7A ALPS GLULMR2201A

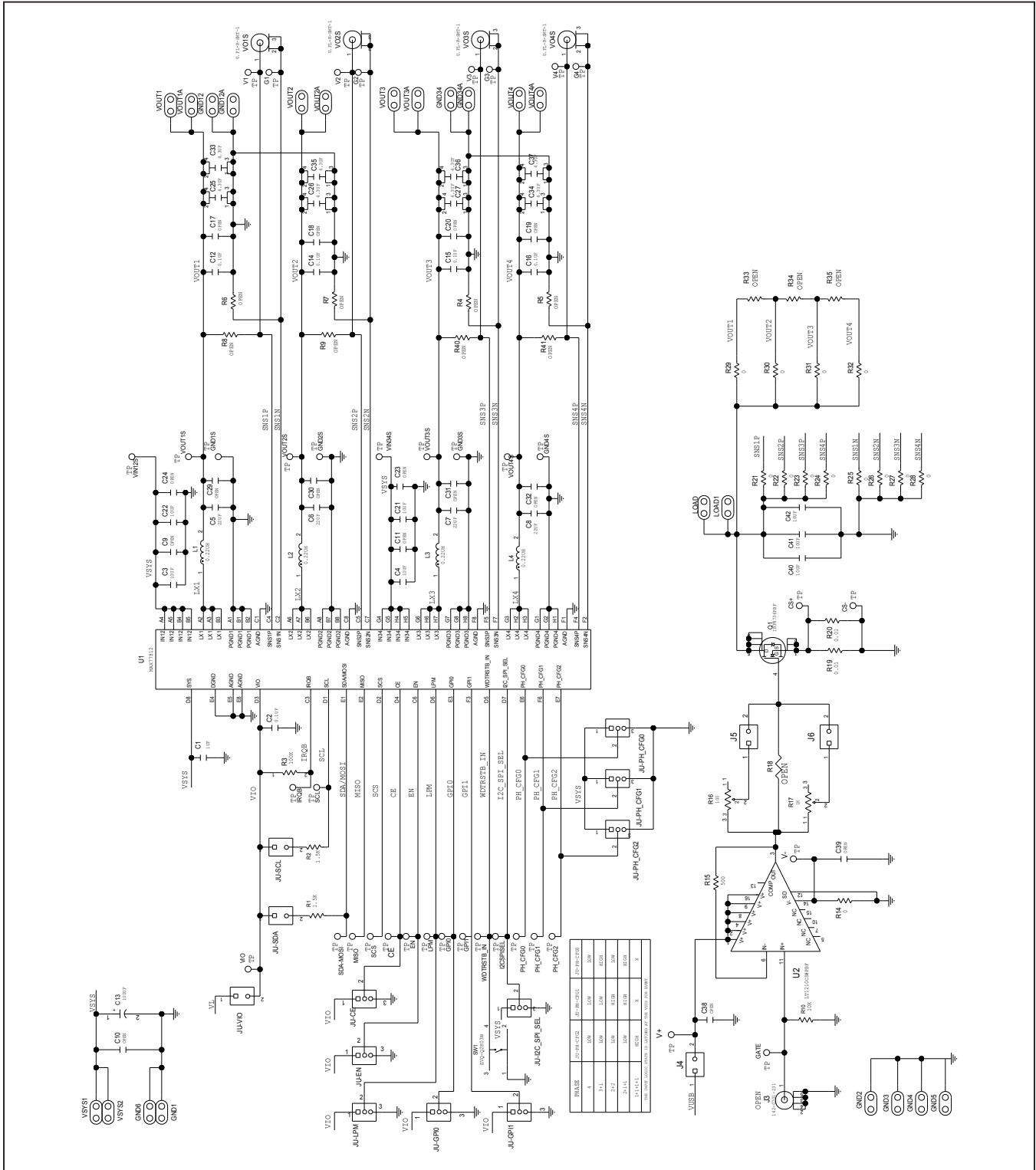
## MAX77812 EV Kit Bill of Materials (continued)

PART	QTY	DESCRIPTION
LOAD, LOAD1	2	MAXIM PAD
Q1	1	TRAN; HEXFET POWER MOSFET; NCH; SO-8; PD-(2.5W); I-(18A); V-(30V) INTERNATIONAL RECTIFIER IRF8736PBF
Q102	1	TRAN; DUAL N-CHANNEL 2.5V SPECIFIED POWER TRENCH MOSFET; NCH; SOT563-6; PD-(0.625W); I-(0.6A); V-(20V) FAIRCHILD FDY3000NZ
R1, R2	2	RESISTOR, 0402, 1.5k $\Omega$ , 1%, 100PPM, 0.0625W, THICK FILM VISHAY CRCW04021K50FK
R3, R120	2	RESISTOR; 0402; 100k $\Omega$ ; 1%; 100PPM; 0.0625W; THICK FILM VISHAY CRCW0402100KFK YAGEO PHICOMP RC0402FR-07100KL
R10	1	RESISTOR, 0805, 10k $\Omega$ , 1%, 100PPM, 0.125W, THICK FILM
R15	1	RESISTOR, 0603, 500 $\Omega$ , 1%, 100PPM, 0.10W, THICK FILM VISHAY CRCW0603500RFK
R16	1	RESISTOR; THROUGH HOLE-RADIAL LEAD; 100 $\Omega$ ; 5%; 10PPM; 0.25W; METAL FOIL VISHAY FOIL RESISTOR Y4053100R000J0
R17	1	RESISTOR; THROUGH HOLE-RADIAL LEAD; 1k $\Omega$ ; 5%; 10PPM; 0.25W; METAL FOIL VISHAY FOIL RESISTOR Y40531K00000J0
R19, R20	2	RESISTOR; 2512; 0.01 $\Omega$ ; 1%; 75PPM; 3.0W; THICK FILM BOURNS CRA2512-FZ-R010ELF
R14, R21-R28, R102	10	RESISTOR; 0603; 0 $\Omega$ ; 0%; JUMPER; 0.10W; THICK FILM VISHAY CRCW06030000Z0EA
R29-R32	4	RESISTOR; 2512; 0 $\Omega$ ; 1%; JUMPER; 1.0W; METAL FILM VISHAY CRCW25120000ZS
R103	1	RESISTOR; 0603; 1M $\Omega$ ; 1%; 100PPM; 0.10W; THICK FILM YAGEO RC0402FR-071ML
R104, R105	2	RESISTOR, 0402, 22 $\Omega$ , 1%, 100PPM, 0.0625W, THICK FILM YAGEO RC0402FR-0722R
R107, R108, R112-R118, R133, R134, R136-R147	23	RESISTOR; 0402; 0 $\Omega$ ; 0%; JUMPER; 0.10W; THICK FILM VISHAY CRCW04020000ZS
R109, R110	2	RESISTOR, 0402, 4.7k $\Omega$ , 1%, 100PPM, 0.0625W, THICK FILM VISHAY CRCW04024K70FK
R111, R131	2	RESISTOR, 0402, 470 $\Omega$ , 1%, 100PPM, 0.0625W, THICK FILM VISHAY CRCW0402470RFK
R119	1	RESISTOR; 0402; 1M $\Omega$ ; 1%; 100PPM; 0.10W; THICK FILM PANASONIC ERJ-2RKF1004
R121	1	RESISTOR; 0402; 10k $\Omega$ ; 1%; 100PPM; 0.0625W; THICK FILM VISHAY DALE CRCW040210K0FK YAGEO PHICOMP RC0402FR-0710K
R129, R130	2	RESISTOR; 0402; 100 $\Omega$ ; 1%; 100PPM; 0.063W; THICK FILM VISHAY DALE CRCW0402100RFL PANASONIC 9C04021A1000FL YAGEO PHICOMP RC0402FR-07100RL
R33-R35	0	RESISTOR; 2512; 0 $\Omega$ ; 1%; JUMPER; 1.0W; METAL FILM VISHAY CRCW25120000ZS
SW1	1	SWITCH; SPST; SMT; 15V; 0.02A; LIGHT TOUCH SWITCH PANASONIC EVQ-Q2K03W
U1	1	IC; MAX77812; 64 BUMPS WLP PKG. 0.40mm PITCH MAXIM 77812
U2	1	IC; AMP; 1.1A; 35MHz CURRENT FEEDBACK AMPLIFIER; NSOIC16 LINEAR TECHNOLOGY LT1210CS#PBF
U100	1	IC; CTRL; LOW-POWER LCD MICROCONTROLLER; TQFN56-EP 8X8 MAXIM MAXQ2000-RBX+
U101	1	IC; INFC; UART INTERFACE IC USB TO SERIAL; QFN32-EP 5X5 FUTURE TECHNOLOGY FT232RQ

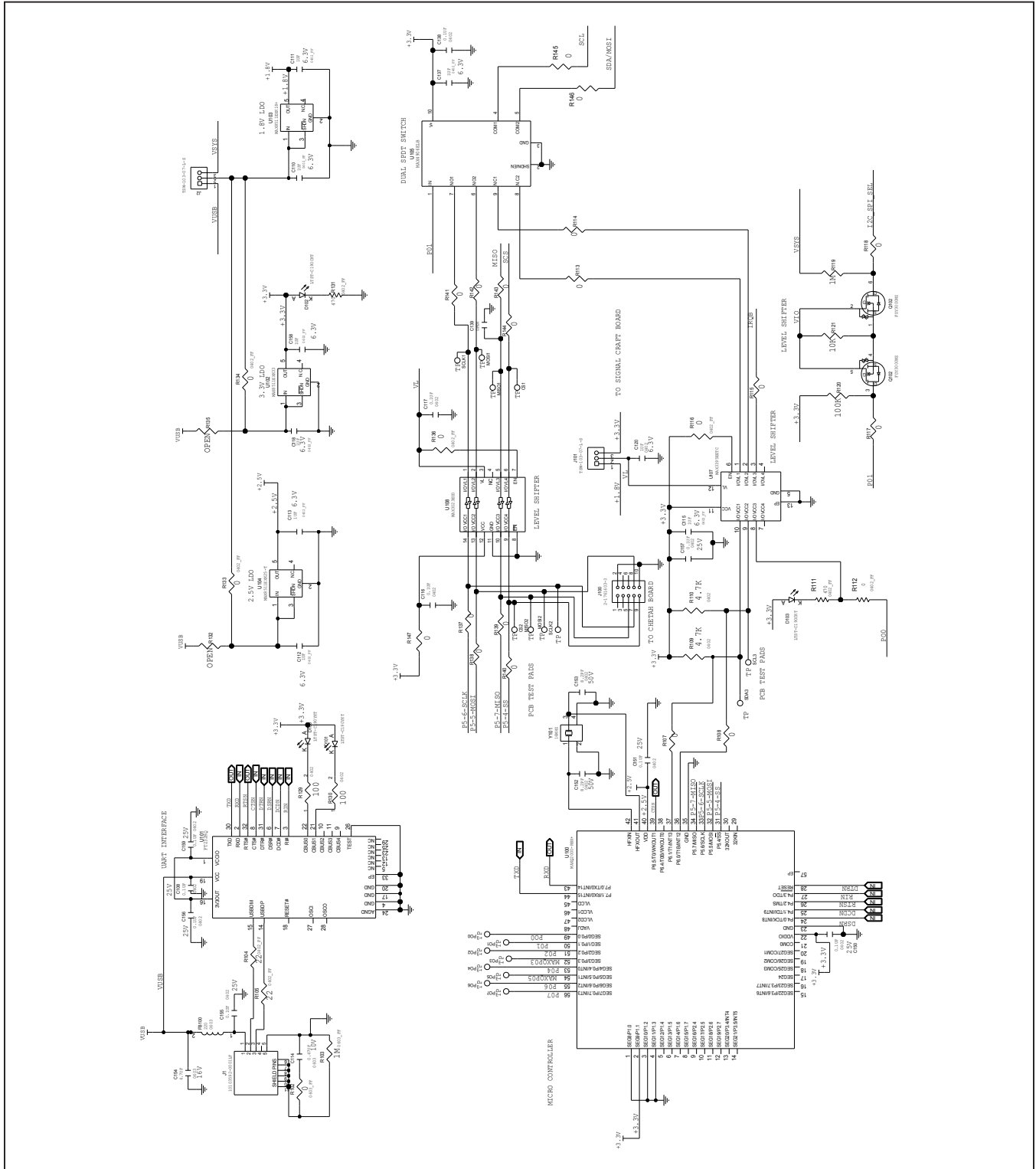
## MAX77812 EV Kit Bill of Materials (continued)

PART	QTY	DESCRIPTION
U102	1	IC; VREG; ULTRA-LOW-NOISE, HIGH PSRR, LOW-DROPOUT, LINEAR REGULATOR; SC70-5 MAXIM MAX8511EXK33+
U103	1	IC; VREG; ULTRA-LOW-NOISE; HIGH PSRR; LOW-DROPOUT; LINEAR REGULATOR; SC70-5 MAXIM MAX8511EXK18+
U104	1	IC; VREG; ULTRA-LOW-NOISE HIGH PSRR LOW-DROPOUT LINEAR REGULATOR; SC70-5 MAXIM MAX8511EXK25+
U105	1	HIGH-/FULL-SPEED USB 2.0 SWITCH, DUALSPDT MAXIM MAX4906ELB+
U107	1	IC; TRANS; 15kV ESD-PROTECTED HIGH-DRIVE CURRENT QUAD-LEVEL TRANSLATOR WITH SPEED-UP CIRCUITRY; TQFN12 4X4 MAXIM MAX3395EETC
U108	1	IC; TRANS; QUAD-LEVEL TRANSLATOR; TSSOP14 MAXIM MAX3023EUD
VO1S-VO4S	4	CONNECTOR; MALE; SMT; ULTRA SMALL SURFACE MOUNT COAXIAL CONNECTOR; STRAIGHT; 2PINS HIROSE ELECTRIC U.FL-R-SMT-1
Y101	1	CRYSTAL; SMT 3225 3.2X2.5; 8PF; 16MHz; +/-10PPM; +/-15PPM KYOCERA-KINSEKI CX3225SB16000D0FLJZZ
J3	0	NOT INSTALLED: CONNECTOR; FEMALE THREADED; THROUGH HOLE; SMA; 5PINS JOHNSON COMPONENTS 142-0701-231
C9,C11,C17-C20,C23,C24, C29-C32,C38,C139	0	NOT INSTALLED: CAPACITOR; SMT 0603
C10	0	NOT INSTALLED: CAPACITOR; SMT 0805
C39	0	NOT INSTALLED: CAPACITOR; SMT 1206
R4-R9,R40,R41	0	NOT INSTALLED: RESISTOR; 0603; 0 OHM Vishay CRCW06030000Z0EA
R18,R132,R135	0	NOT INSTALLED: RESISTOR; 0402
PCB	1	PCB: MAX77812 EVALUATION KIT+

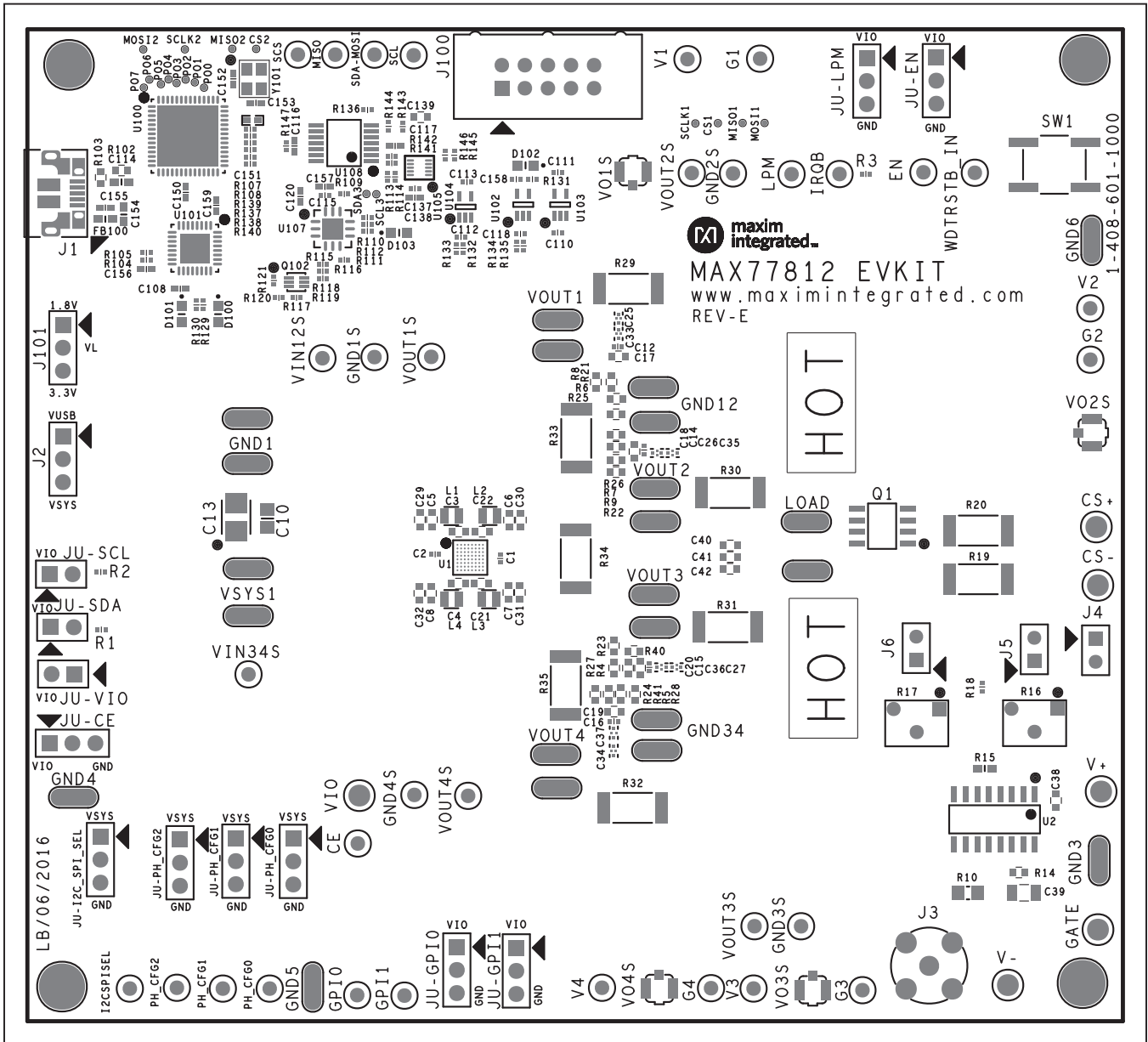
MAX77812 EV Kit Schematics



MAX77812 EV Kit Schematics (continued)



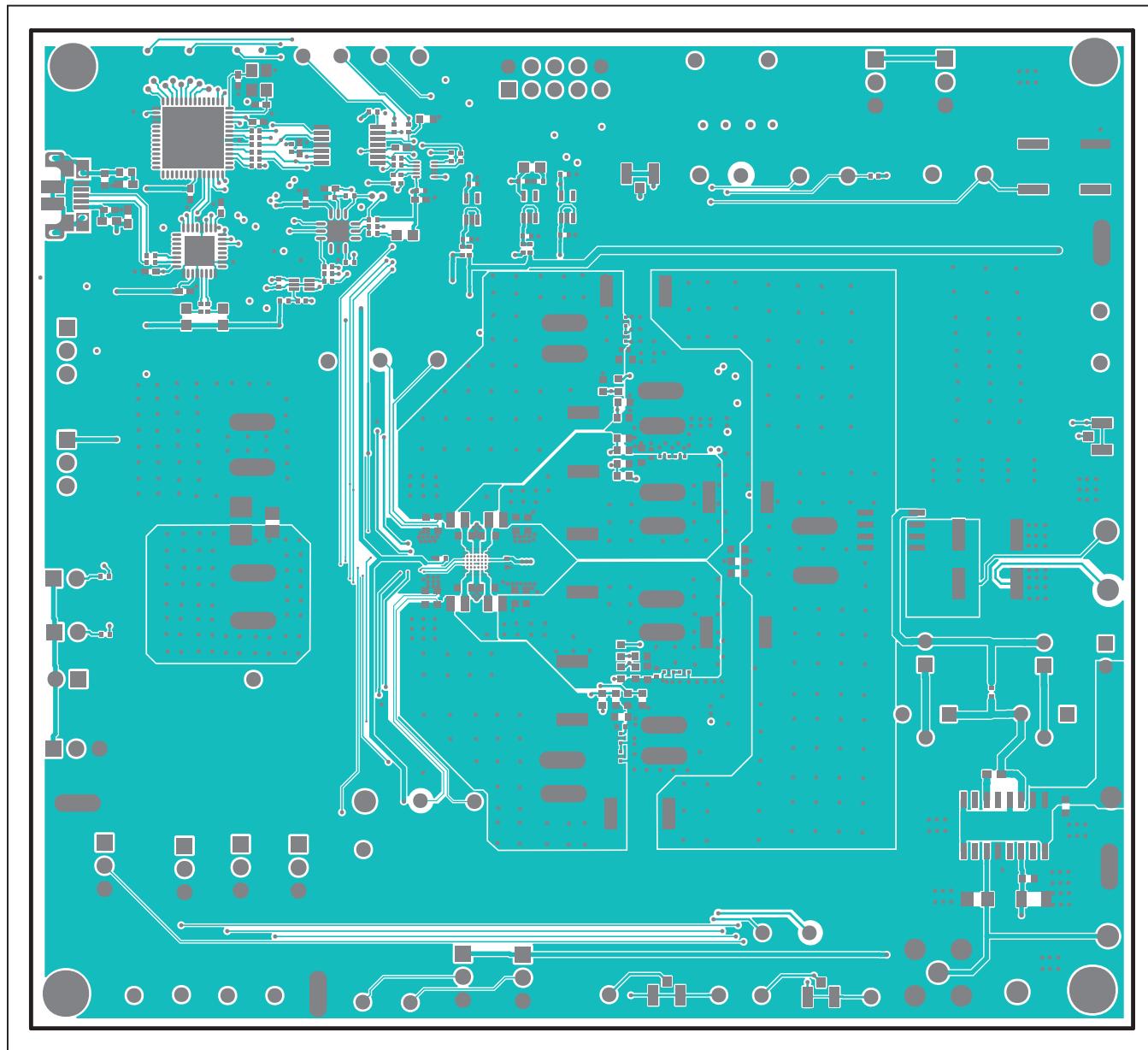
MAX77812 EV Kit PCB Layouts



MAX77812 EV Kit Component Placement Guide—Top Silkscreen

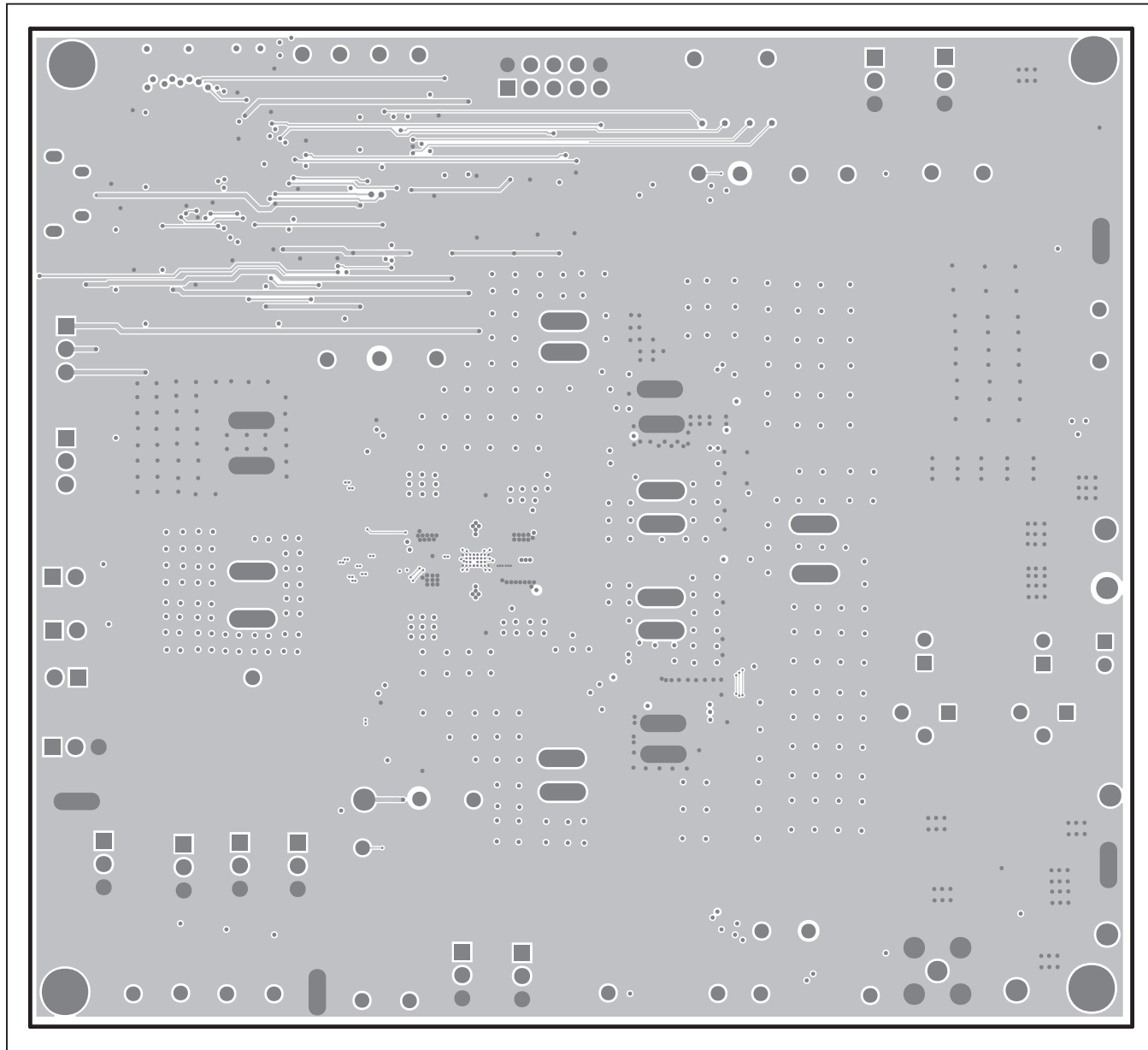


MAX77812 EV Kit PCB Layouts (continued)



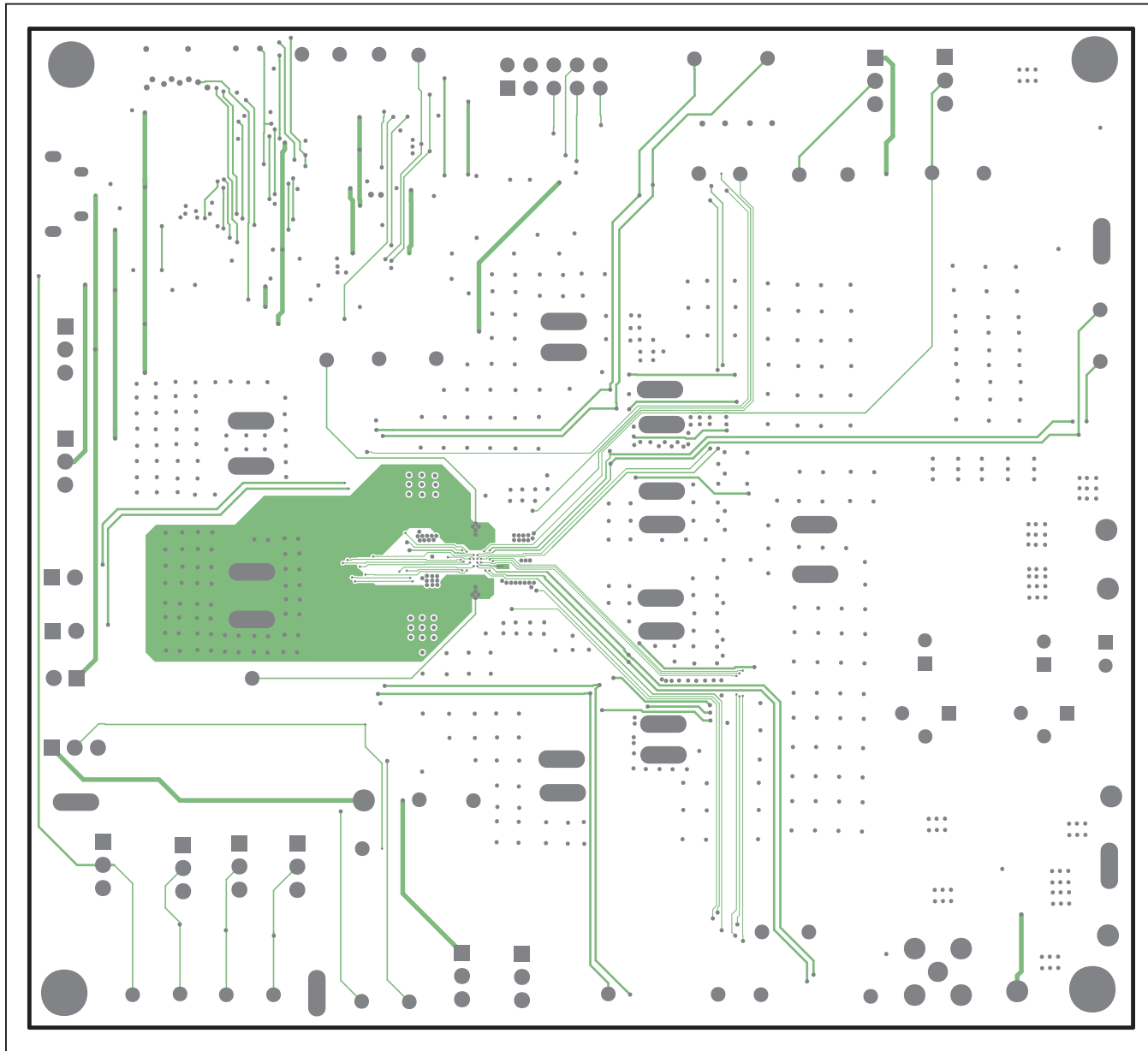
MAX77812 EV Kit PCB Layout—Top Layer

MAX77812 EV Kit PCB Layouts (continued)



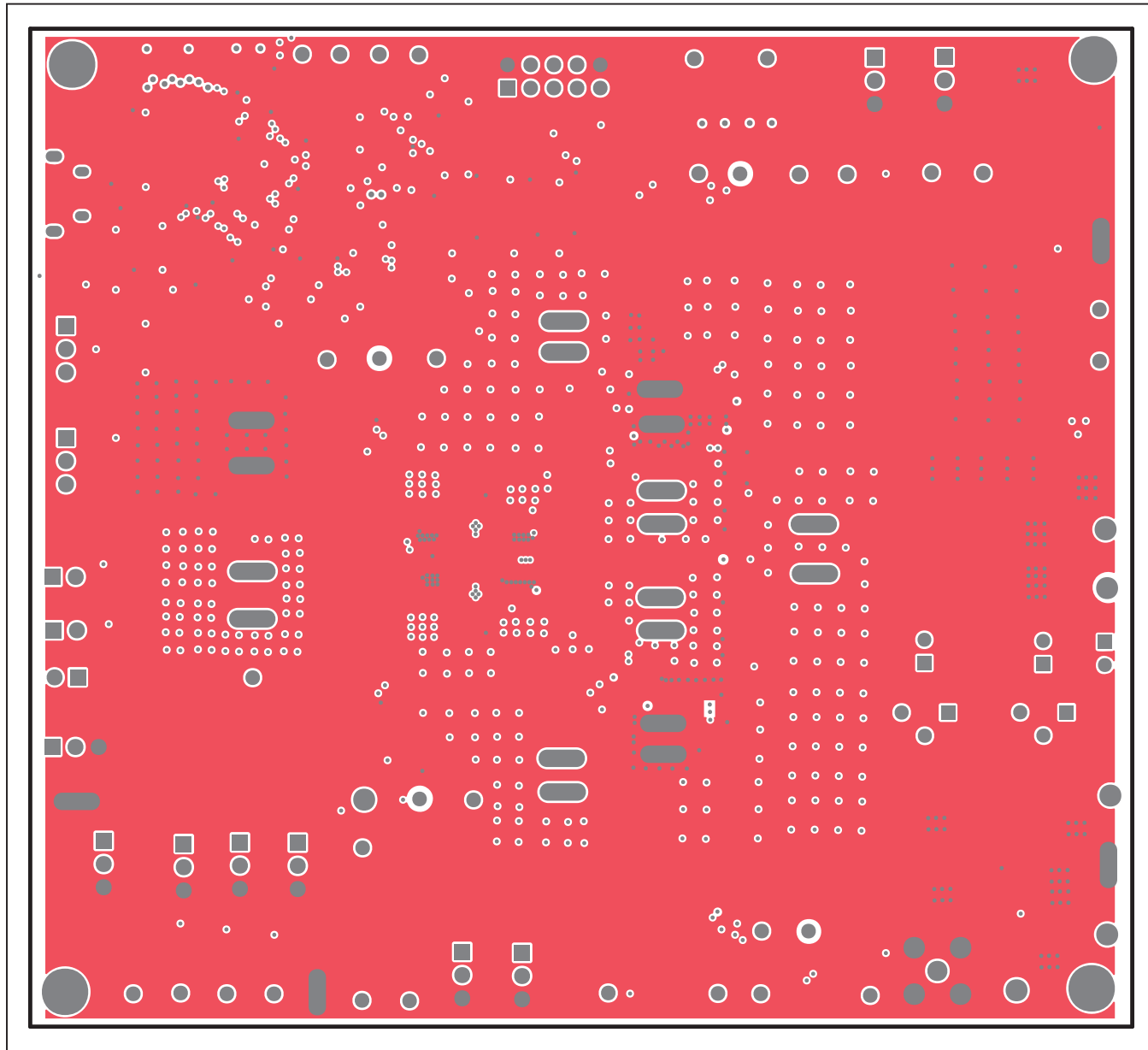
MAX77812 EV Kit PCB Layout—Internal Layer 2

MAX77812 EV Kit PCB Layouts (continued)



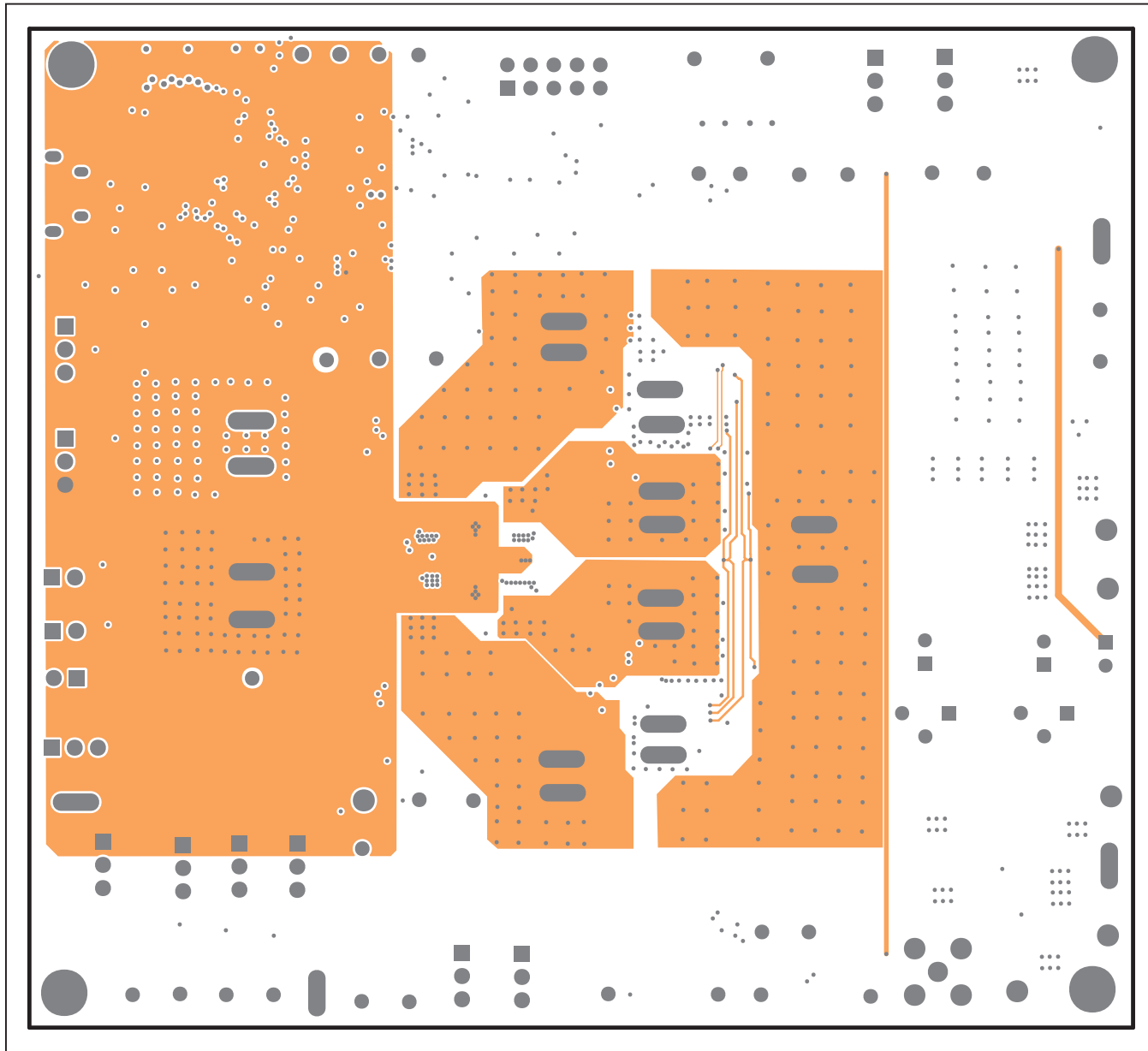
MAX77812 EV Kit PCB Layout—Internal Layer 3

**MAX77812 EV Kit PCB Layouts (continued)**



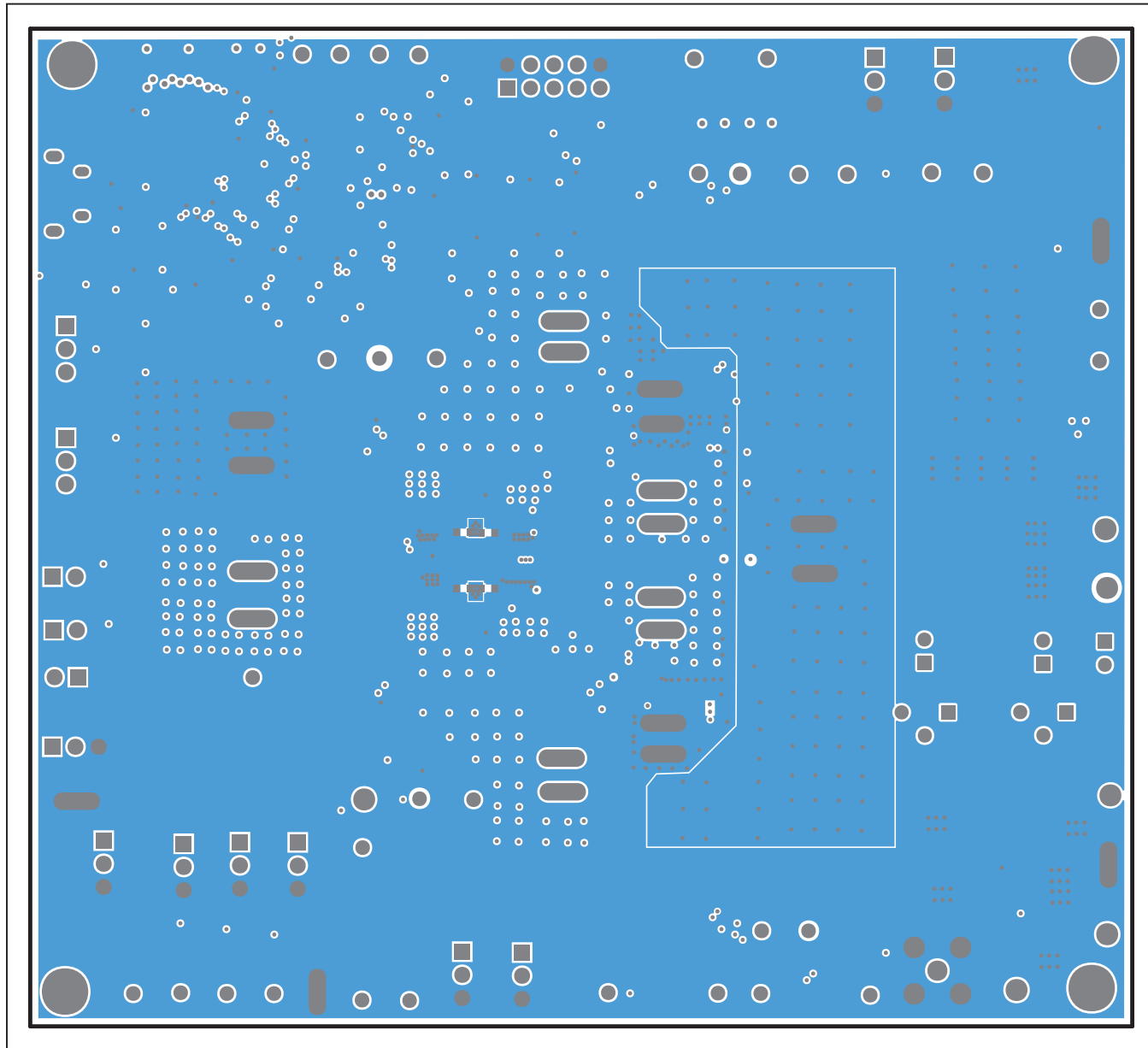
MAX77812 EV Kit PCB Layout—Internal Layer 4

MAX77812 EV Kit PCB Layouts (continued)



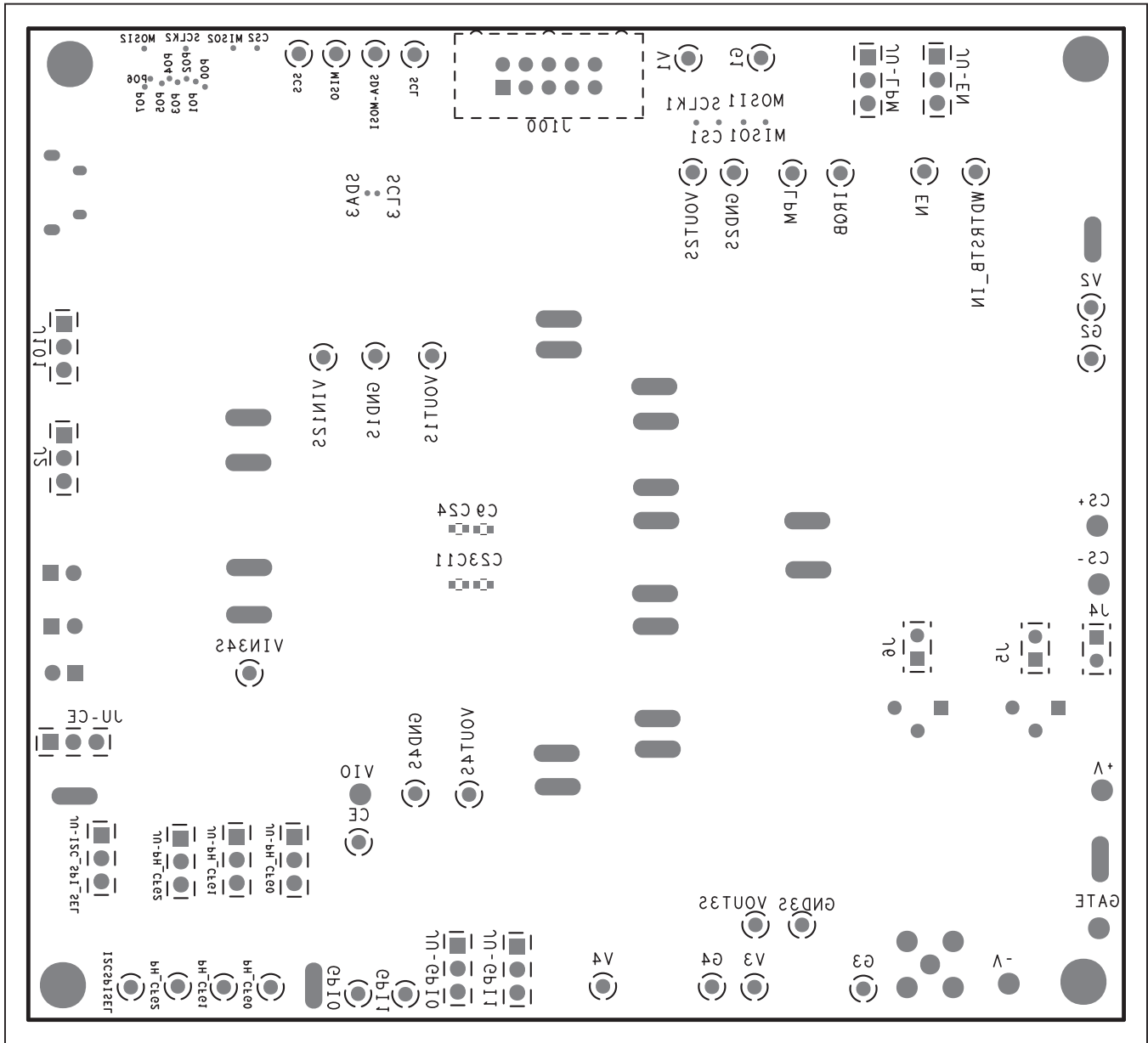
MAX77812 EV Kit PCB Layout—Internal Layer 5

MAX77812 EV Kit PCB Layouts (continued)



MAX77812 EV Kit PCB Layout—Bottom Layer

MAX77812 EV Kit PCB Layouts (continued)



## Revision History

REVISION NUMBER	REVISION DATE	DESCRIPTION	PAGES CHANGED
0	6/16	Initial release	—
1	7/16	Updated Figure 1, Figure 2, Table 1, Table 2, <i>Load Transient Testing</i> section, <i>Phase Configuration Programming</i> section, Table 3, Bill of Materials, Schematics, PCB Layouts, and added Table 4	1, 2, 6, 7, 9, 12–24
2	4/17	Updated Figures 1–8, Table 2, Schematics, PCB Layouts, Bill of Materials, and text in <i>Features</i> and <i>Quick Start</i> sections	1–13, 15–24
3	5/17	Updated Figures 2–8, Table 1, Table 2, Bill of Materials, and text in <i>Features</i> and <i>Quick Start</i> sections	1–7, 9, 11–13
4	12/17	Updated <i>Features</i> section, Figure 1, Figure 2, <i>Component Suppliers</i> table, and <i>MAX77812 EV Kit Bill of Materials</i> table	1, 2, 10, 11

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