Click here to ask an associate for production status of specific part numbers.

Evaluates: MAX20480/ MAX20481

MAX20480 Evaluation Kit

General Description

The MAX20480 evaluation kit (EV kit) is a fully assembled and tested application circuit for the MAX20480 seven-input automotive power supply monitor. The test point taps allow for routing to other subsystems for monitoring. Connectors are provided for I²C communication.

The MAX20480 EV kit can also evaluate the MAX20481 IC. Simply replace the installed MAX20480 with the MAX20481 IC.

The MAX20481 does not have an I²C interface, so there is no requirement for the MINIQUSB+.

Benefits and Features

- Easy access inputs
  - IN1-IN5 provided
  - IN6, IN7 provided, with INM pin for remote ground connection
- ADDR pin and jumper for different address settings
- EN0, EN1 jumpers added for easy interface connections
- RC footprints on monitoring pins
- I²C connector

***Ordering Information* appears at end of data sheet.**

Quick Start

Required Equipment

- MAX20480 EV kit
- MINIQUSB EV kit
- Latest version of the MINIQUSB command module firmware (optional, USB cable included) available from www.maximintegrated.com/evkitsoftware
- Latest version of the MAX20480 EV kit software, available from www.maximintegrated.com/evkitsoftware
- Two adjustable DC supplies
- Digital multimeter (DMM)
- Oscilloscope

Procedure

The EV kit is fully assembled and tested.

Contact the factory for detailed testing.

Detailed Description

Register Settings

Register details are found in the *MAX20480 or MAX20481 data sheet*.

Address Setting

Address details are found in the *MAX20480 or MAX20481 data sheet*.

Table 1. MAX20480 EV Kit Default Jumper Settings

JUMPER	DEFAULT SHUNT POSITION	FUNCTION
J6	Shunt on pin 1 to pin 2	EN0 remains available for testing
J7	Shunt on pin 1 to pin 2	EN1 remains available for testing
J10	Shunt on pin 2 to pin 3	Shorts ADDR to ground for default address
J11	Shunt installed	Bypass the series 100kΩ on the ADDR pin
J16	Shunt installed	Connects INM to PCB Ground

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Ordering Information

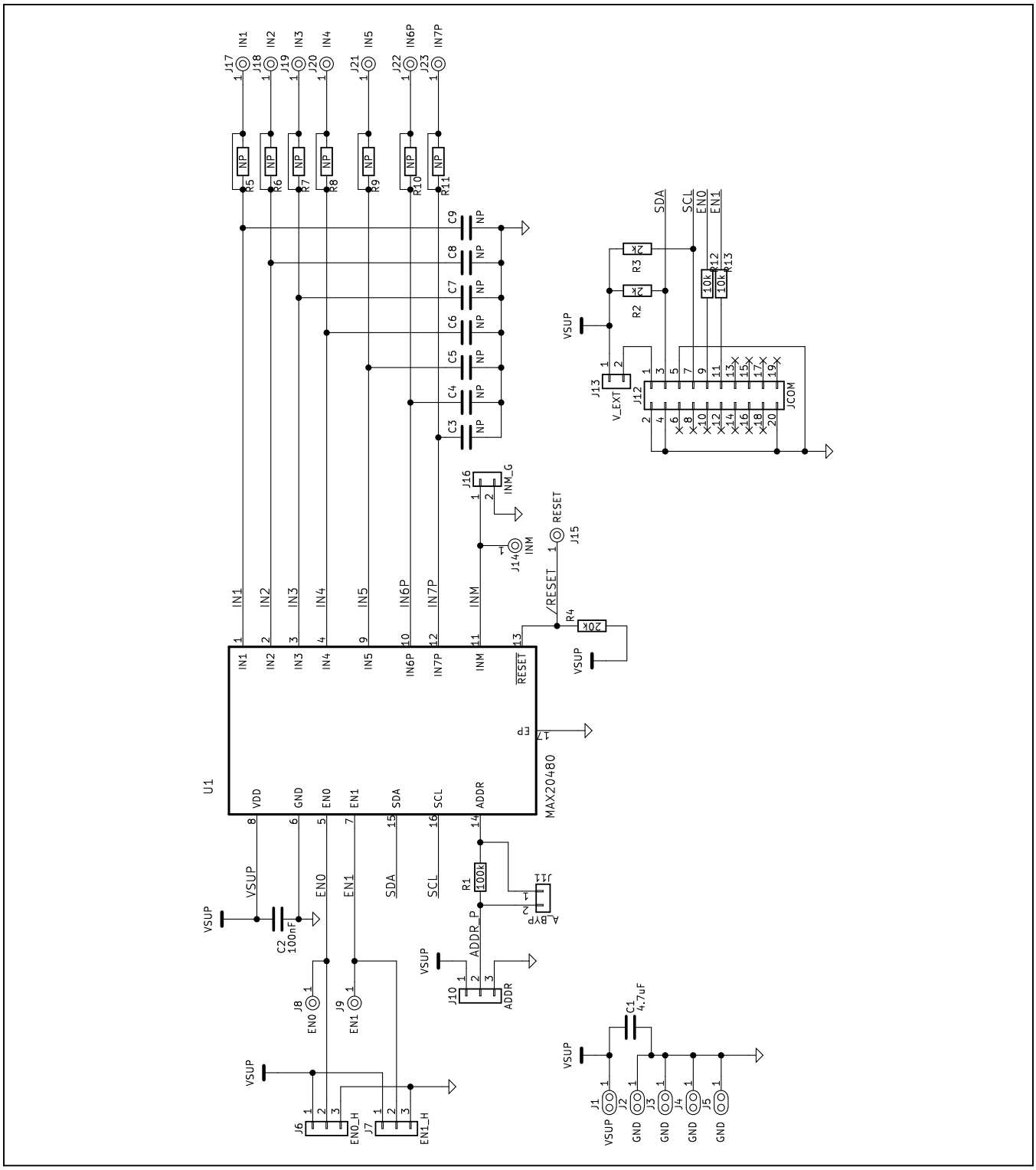
PART	TYPE
MAX20480EVKIT#	EV Kit
MINIQUSB+	Comm Interface

#Denotes RoHS compliant

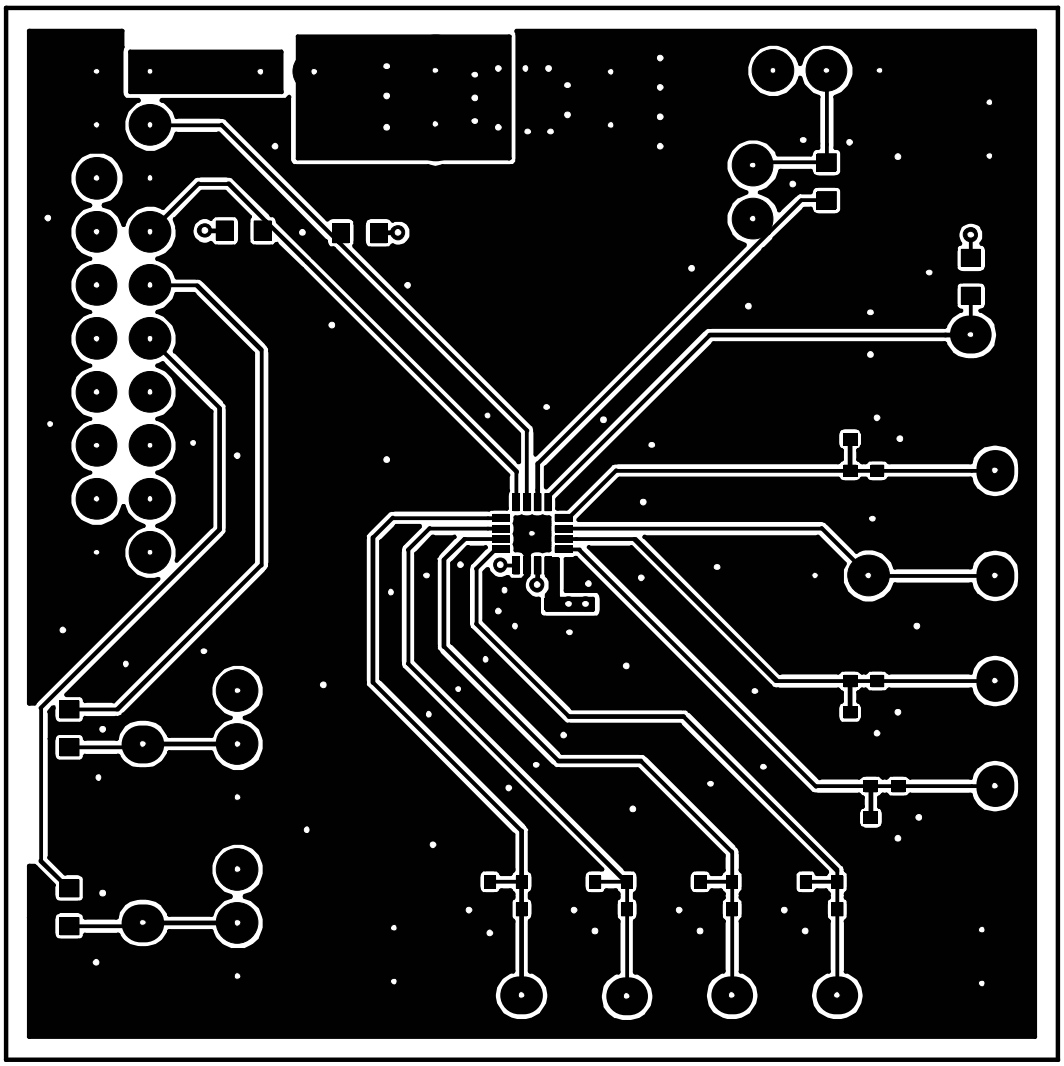
MAX20480 EV Kit Bill of Materials

QTY	REF DES	VALUE	DESCRIPTION	MFG PART #	MANUFACTURER
1	C1	4.7µF	Capacitor; SMT (0603); Ceramic; 4.7µF; 10V; Tol = 10%; Model = CGA Series; TG = -55°C TO +125°C; TC = X7R	CGA4J3X7R1A475K125AB	TDK
1	C2	0.1µF	Capacitor; SMT (0402); Ceramic Chip; 0.1µF; 10V; Tol = 10%; TG = -55°C to +125°C; TC = X7R	C0402X7R500-392KNE; GRM155R71H392KA01	VENKEL LTD./ MURATA
2	J1, J2	MAXIMPAD	EV Kit Parts; MAXIM Pad; Wire; Natural; Solid; Weico Wire; Soft Drawn Bus Type-S; 20AWG	9020 BUSS	WEICO WIRE
2	J11, J16	PCC03SAAN	Header; Male; Through Hole; Breakaway; Straight Angle; 2-Pin	PCC03SAAN	SULLINS ELECTRONICS CORP
1	J12	SSW-110-02-S-D-RA	Connector; Through Hole; SSW Series; Dual Row; Right Angle; 20-Pin; -55°C to +105°C	SSW_100-02-S-D-RA	SAMTEC
3	J6, J7, J10	PCC03SAAN	Header; Male; Through Hole; Breakaway; Straight Angle; 3-Pin	PCC03SAAN	SULLINS ELECTRONICS CORP.
11	J8, J9, J14, J15, J17, J18, J19, J20, J21, J22, J23	N/A	Test Point; Pin Dia = 0.015in; Total Length = 0.35in; Total Length = 0.063in; White; Phosphor Bronze Wire Silver Plate Finish; Recommended For Board Thickness = 0.062in; Not for Cold Test	5007	KEYSTONE
1	R1	100k	Resistor; 0603; 100kΩ; 1%; 100ppm; 0.1W; Thick Film	CRCW0603100KFKE	VISHAY DALE
2	R12, R13	10k	Resistor; 0603; 10kΩ; 1%; 100ppm; 0.1W; Thick Film	RC0603FR-0710KL	YAGEO
2	R2, R3	2k	Resistor; 0603; 2kΩ; 1%; 100ppm; 0.1W; Thick Film	CRCW06032K00FK	VISHAY DALE
1	R4	20k	Resistor; 0606; 20kΩ; 1%; 100ppm; 0.1W; Thick Film	CRCW060320K0FKE	VISHAY DALE
1	U1	MAX20480	EV Kit Part-IC; Seven-Input Automotive Power-System Monitor Family; QFN16-EP; Package Code: T1633Y+5	MAX20480DATEA/VY+	MAXIM

MAX20480 EV Kit Schematic

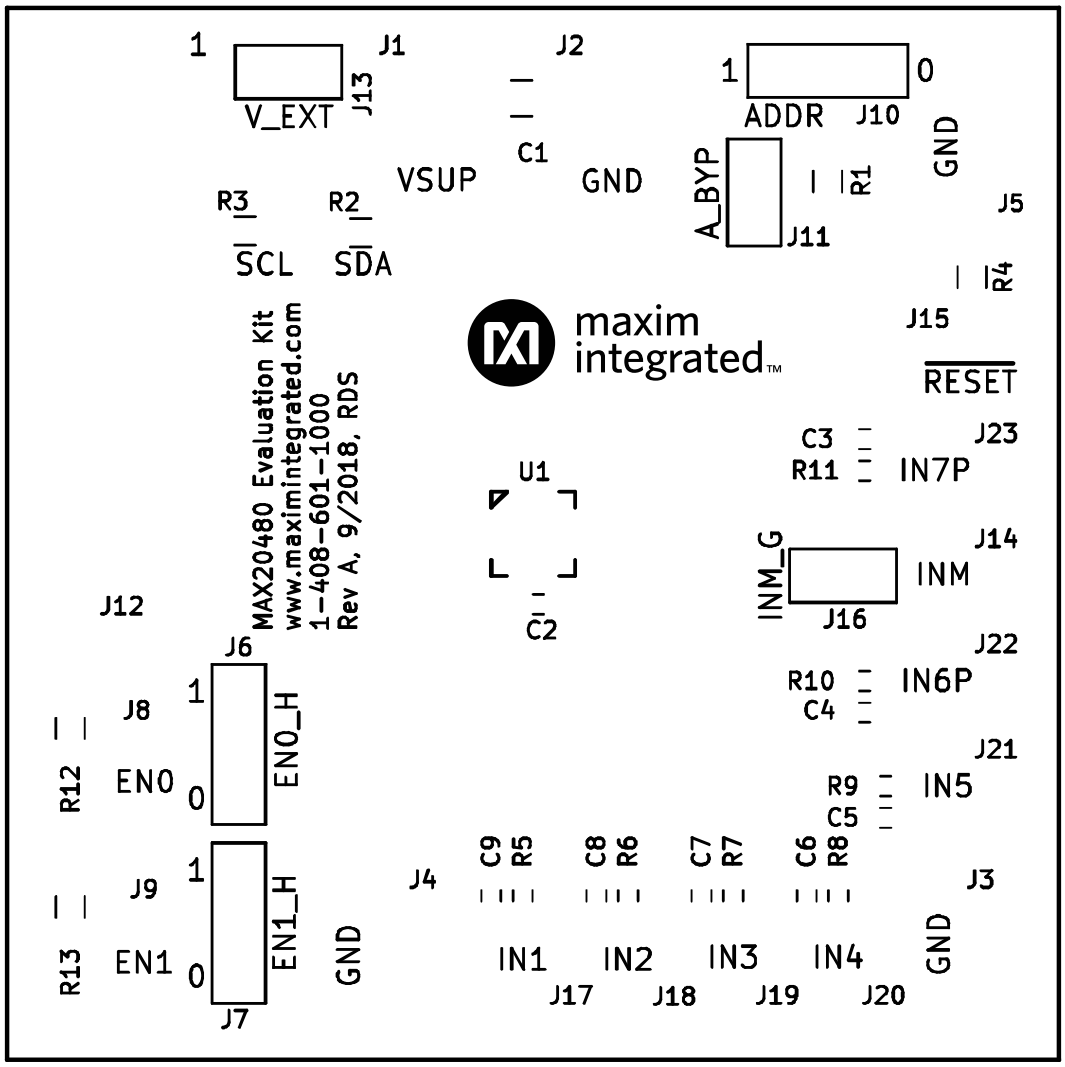


MAX20480 EV Kit PCB Layouts



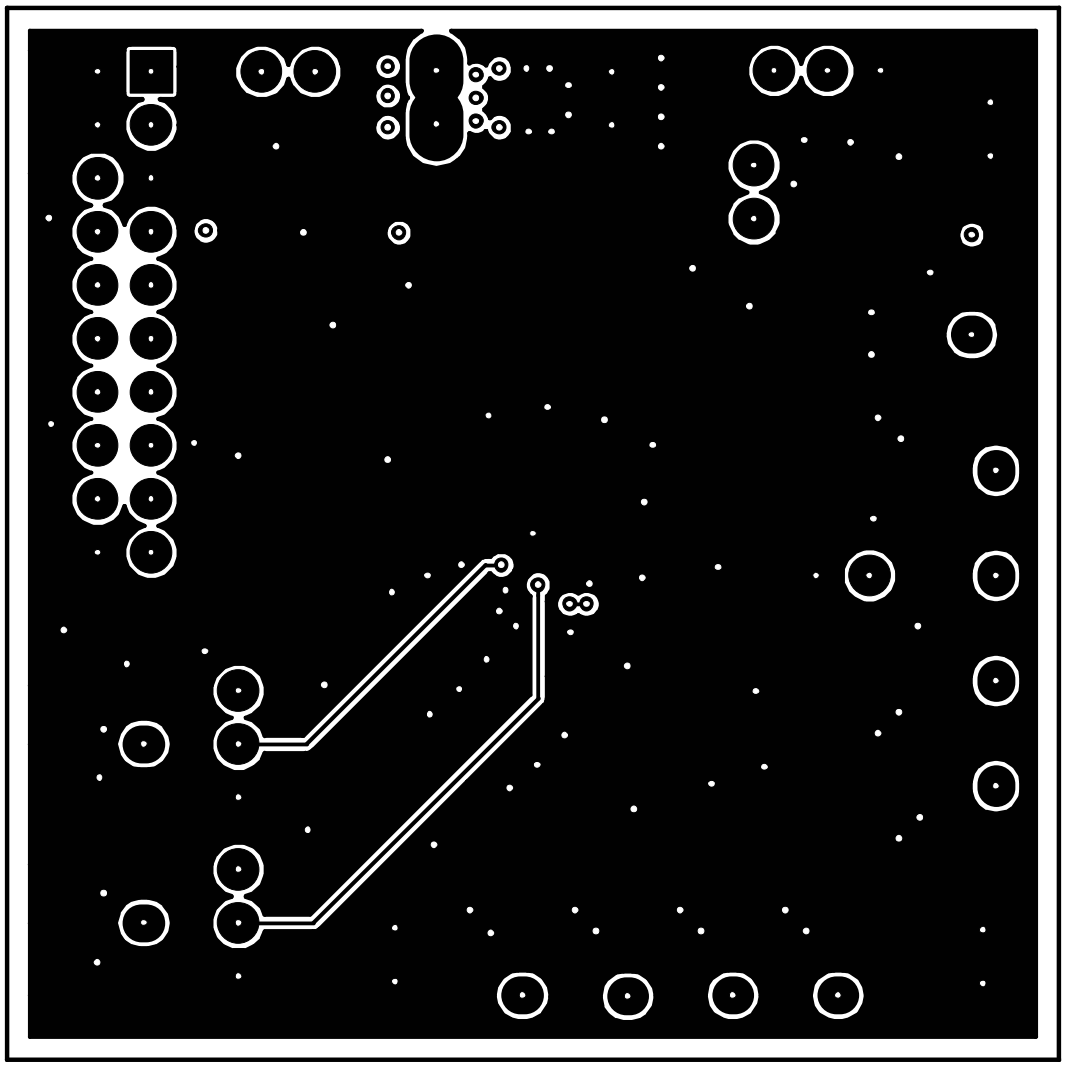
MAX20480 EV Kit Component Placement Guide – Top

MAX20480 EV Kit PCB Layouts (continued)



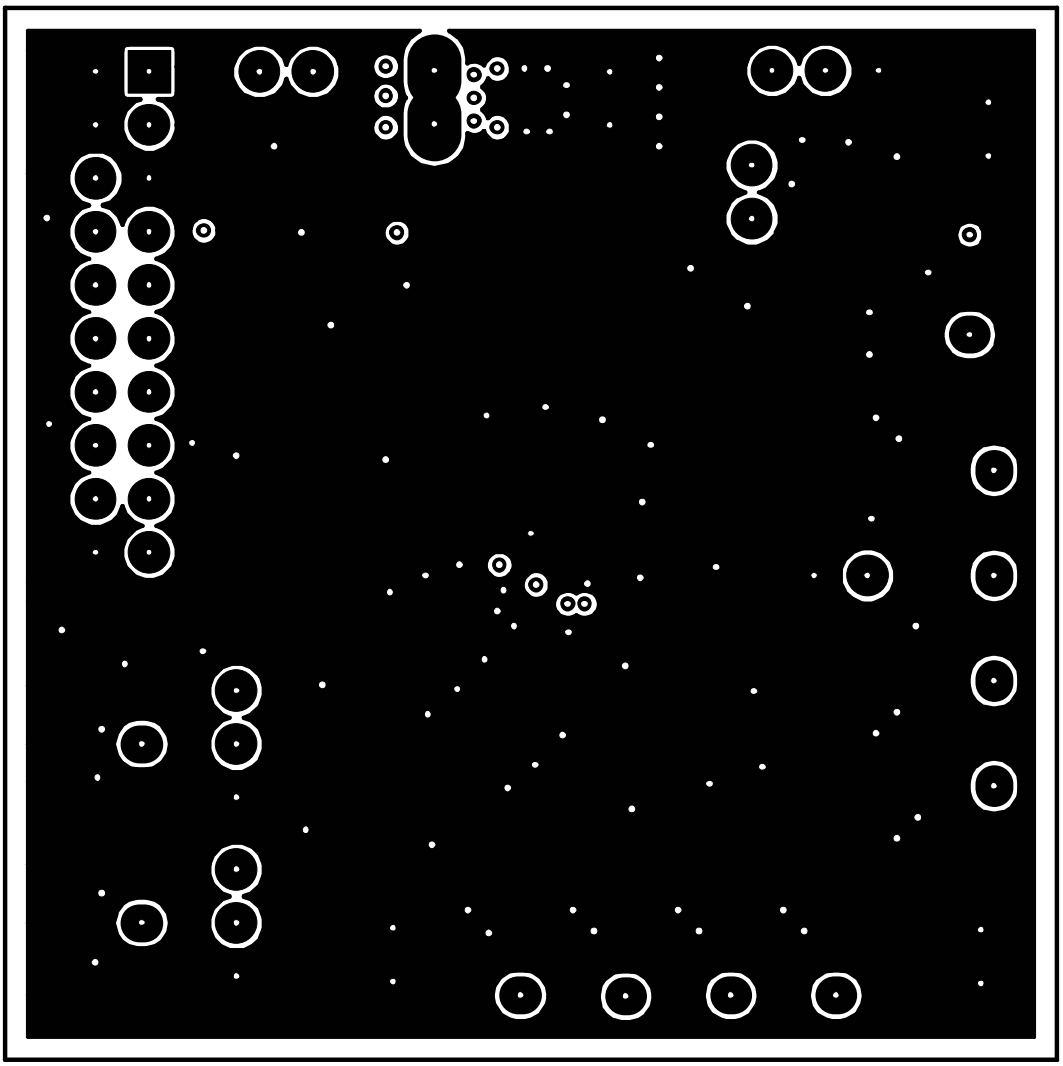
MAX20480 EV Kit Component Placement Guide – Silkscreen

MAX20480 EV Kit PCB Layouts (continued)



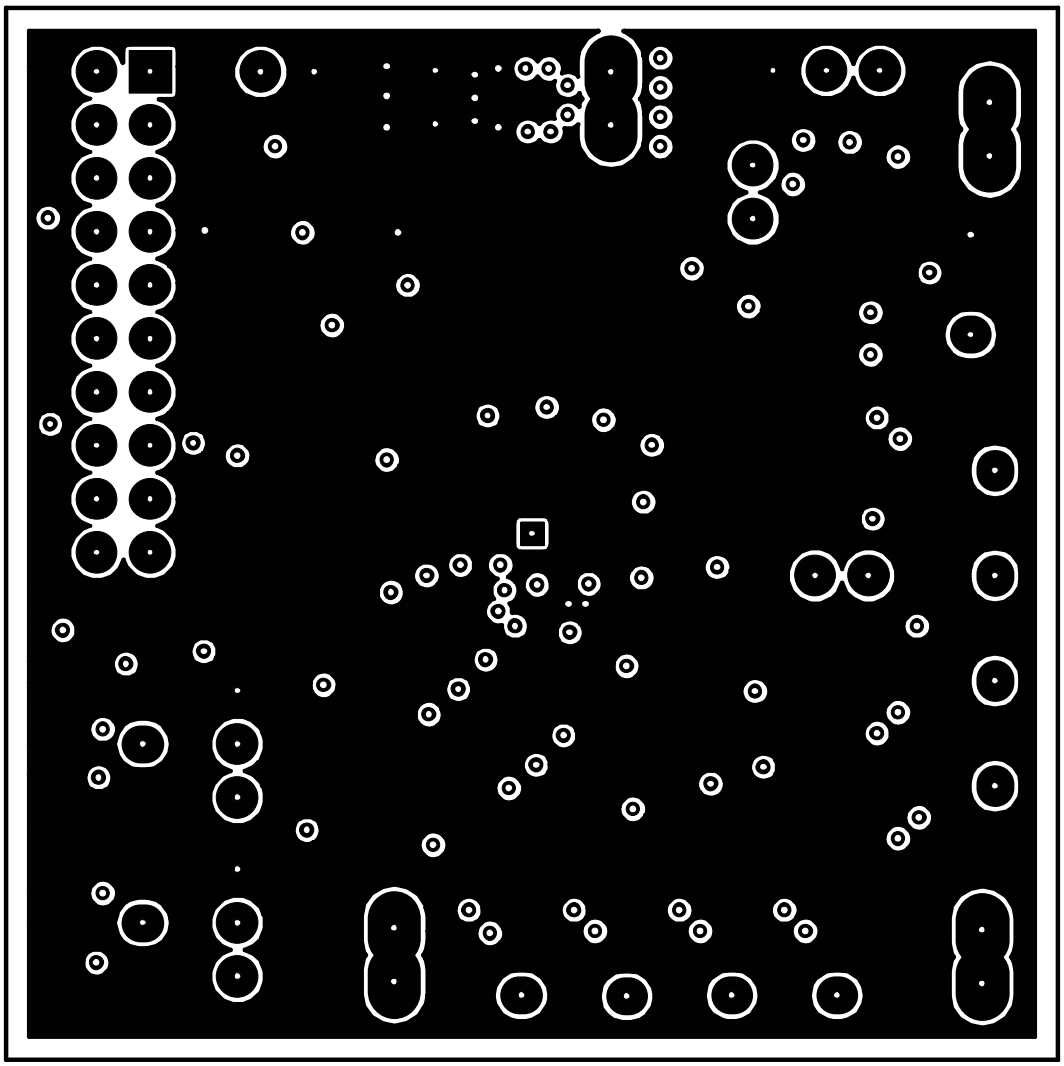
MAX20480 EV Kit Component Placement Guide – Bottom

MAX20480 EV Kit PCB Layouts (continued)



MAX20480 EV Kit Component Placement Guide – Internal 2

MAX20480 EV Kit PCB Layouts (continued)



MAX20480 EV Kit Component Placement Guide – Internal 3

Revision History

REVISION NUMBER	REVISION DATE	DESCRIPTION	PAGES CHANGED
0	3/19	Initial release	—
1	4/19	Updated *Ordering Information* and *MAX20480 EV Kit Bill of Materials*	2
2	9/21	Updated title, *General Description*, *Detailed Description*, *MAX20480 EV Kit Bill of Materials*	1, 2

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