

## MAX32000 Evaluation Kit

Evaluates: MAX32000

### General Description

The MAX32000 evaluation kit (EV kit) is a fully assembled and tested printed circuit board (PCB) that simplifies evaluation and demonstrates the functionality of the MAX32000, a quad-channel pin electronics driver with calibration comparator and level-setting DACs. Standard 50Ω SMA connectors are included on the EV kit for the inputs and outputs to allow for quick and easy evaluation on the test bench.

The MAX32000 EV kit contains a microcontroller that translates between the SPI interface and USB to allow the user to configure internal registers and modes with graphical user interface (GUI) software running on a PC. The EV kit includes Windows® 10-compatible software that provides a simple GUI for configuration of all the MAX32000 registers through SPI. The EV kit is fully assembled and tested at the factory.

This document provides a list of equipment required to evaluate the device, straightforward test procedure to verify functionality, description of the EV kit circuit, component list, circuit schematic, and artwork for each layer of the PCB.

### Features

- Low Power at High Speed Maximizes Driver Performance
  - 700mW per Channel
  - 2.57Gbps at +1V Programmed
  - 280ps Typical Rise/Fall Times at +2V (20% to 80%)
  - Very Low Timing Dispersion at 50ps (typ)
  - Wide Voltage Range from -2V to +6V
  - Integrated VHH Programming Mode (4th-Level Drive) up to 13V
  - 100nA Low-Leak Mode
- Integrated Functionality Provides Value-Added Features
  - Programmable Double Time Constant Cable-Droop Compensation
  - Digital Slew-Rate Control for EMI-Sensitive Applications
  - Adjustable Output Resistance with 360mΩ Resolution
  - 22 DACs to Generate DC Voltage Levels for Control and Monitoring
  - 50MHz SPI Interface

### Quick Start

#### Required Equipment

This section lists the recommended test equipment to verify operation of the MAX32000. It is intended as a guide only and some substitutions are possible.

- MAX32000 EV kit
- Windows PC (Windows 10) with one to two USB 2.0 ports available
- Triple-output DC power supply
  - +9.25V/500mA
  - -5.25V/500mA
  - +3.3V/100mA
- Function/pulse generator (recommend differential output high speed up to 1.5GHz)
- High-speed oscilloscope (recommend 5GHz bandwidth)
- Digital multimeter
- SMA/SMA cable as needed for connection to the oscilloscope

#### Software and Drivers

The MAX32000 EV kit is used in conjunction with the Arm® Cortex®-M4F microcontroller MAX32625PICO application platform, or “PICO” board, to provide power and control the device through a software application or GUI. Users also have the option to connect using SPI through their system with the J1 header on the EV kit.

#### Install the MAX32000 EV Kit GUI Software

The installation process should take less than 10 minutes after downloading the software package.

- Download the MAX32000 EV kit software from the Maxim Integrated website, run the installation file, and install it.
- Start running the GUI program.

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

*Arm and Cortex are registered trademarks of Arm Limited  
Windows is a registered trademark of Microsoft Corporation.*

### Powering the EV Kit

- Set DC supply to +9.25V and connect (through an ammeter if desired) to headers VCC and ground GND on the EV kit. Do not turn on the supply.
- Set DC supply to +3.3V and connect (through an ammeter if desired) to headers VDD and ground GND on the EV kit. Do not turn on the supply.
- Set DC supply to -5.25V and connect (through an ammeter if desired) to headers VEE and ground GND on the EV kit. Do not turn on the supply.
- There are on-board linear regulators to power the MAX32000 VHH and VCTV; connect the jumpers in the default position, as shown in [Table 1](#) and [Table 2](#). Users also have the option to provide the VHH from an external power supply.
- Make sure the shunts of all jumpers are in the default positions, as shown in [Table 3](#).
- Verify that the heatsink is installed and flush on the top of the MAX32000 IC.

### Procedure

This section provides a step-by-step guide to operating the EV kit and testing the device functions.

**Caution: Do not turn on the DC power or function generator until all connections are completed. Connect all power-supply grounds to a single ground terminal.**

- 1) Set the function generator to output peak-to-peak amplitude of 400mV with offset +1.2V. Ensure that the outputs are disabled (high impedance). Set the pulse frequency to 20MHz, 50% duty cycle.
- 2) Connect the function generator output to the DATA0 SMA connector on the MAX32000 EV kit with an SMA cable.
- 3) Set the power supply to output +1.2V and connect to the NDATA0 SMA connector on the EV kit with an SMA cable.
- 4) Set the RCV0/NRCV0 to a differential logic-low (i.e.,  $VRCV0 < VNRCV0$ ) to disable the high-impedance output mode.
- 5) Connect the DUT0 SMA connector of the MAX32000 EV kit with a short SMA cable to the high-speed oscilloscope. Set the scope input impedance to 50Ω.
- 6) Verify the correct polarity, voltage, and current limit of all power supplies. Turn on the power supplies and function generator.
- 7) Connect the PC to the on-board MAX32625 PICO microcontroller module on the EV kit using the provided USB cable.
- 8) Select the COM port and click **Connect**. The MAX32000 GUI should indicate that the EV kit is connected in the status bar (outlined in blue), as shown in [Figure 2](#).
- 9) Put the EV kit into drive mode by setting the register values as shown on the Channel 0-tab seen in [Figure 1](#). In this mode, VDH is set to 3V and VDL to 0V for Channel 0.
- 10) Click the **Write All** button to write the data into the MAX32000 registers.
- 11) Set the oscilloscope to trigger on the DUT0 channel with the trigger level set to 0.5V. Set the time base to 20ns per division. A 0 to 1.5V square wave of 20MHz should appear on the oscilloscope.

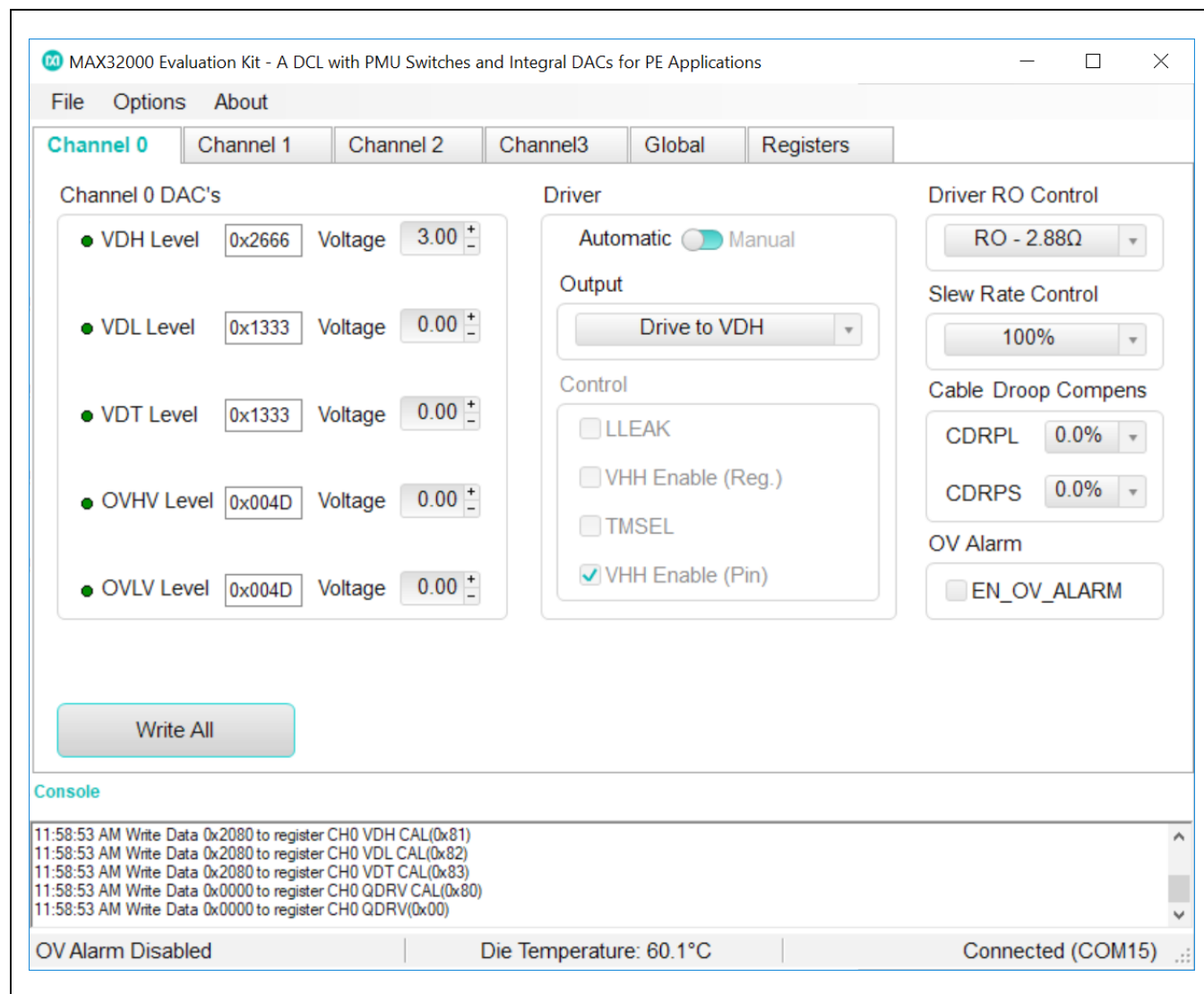


Figure 1. MAX32000 GUI Quick Start Settings (Channel 0 Tab)

Detailed Description

Detailed Description of Software

The MAX32000 GUI is organized into six tabs for all level-setting registers and control signal settings, plus the File menu to save and load all these settings. There are identical tabs that control the four different channels of the MAX32000. The global tab contains level-setting DAC controls shared across all four channels. The Registers tab consists of all the user registers in the MAX32000.

Channel Tab

Channel 0, Channel 1, Channel 2, and Channel 3 are identical and control four different MAX32000 channels independently. These tabs contain level-setting channel DACs and the QDRV Control Register, as shown in Figure 2. After setting DAC levels and control signals, click on the **Write All** button to load data into the MAX32000 through the SPI interface.

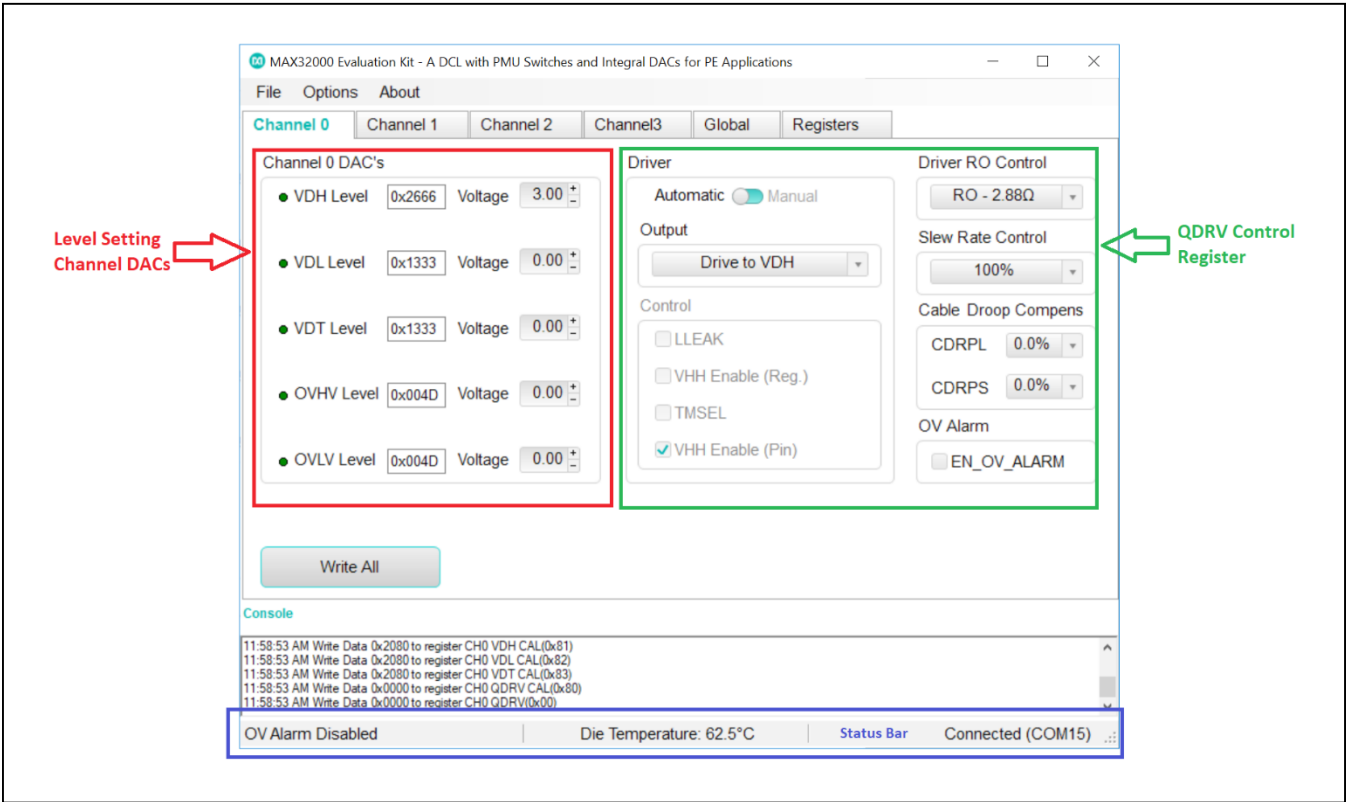


Figure 2. MAX32000 GUI Description (Channel 0 Tab)

Level-Setting Channel DACs

The Channel DACs group box contains signal level registers for VDH, VDL, VDT, OVHV, and OVLV level settings. Each voltage level can be set by entering value either in the voltage box or hexadecimal box. Finer adjustment can be made by clicking on the + or - sign of the voltage box. The VDHV, VDLV, and VDTV voltages have 16,384 steps corresponding to 14 bits. The OVHV and OVLV voltage have 256 steps corresponding to 8 bits. For all DACs, the calibration window is available by selecting Options | Change Calibration (Advance Users). The offset code is an integer value between 0 and 255, and the gain code is an integer value between 0 and 63, as shown in [Figure 3](#).

QDRV Control Register

The QDRV control register is a combination of the Driver, Slew Rate Control, Cable Droop Compensation, and OV Alarm group boxes. Driver output is chosen either automatically or manually by the slide bar in the Driver group box. In automatic mode, Driver output is selected from the output dropdown box. In manual mode, Driver output is selected based on the control group box settings. Adjustable driver output resistance is controlled by the Driver RO Control dropdown box. Driver slew rate and CDRP are controlled by the Slew Rate Control and CDC dropdown boxes respectively. Checking EN\_OV\_ALARM check box enables the overvoltage alarm setting in the respective channel.

Global Tab

The Global tab contains the Shared DACs, Temperature, and Comparator settings. VHH and the CMPV DAC's voltage level can be set by entering a value either in the Voltage box or the hexadecimal box. Enabling the temperature alarm and temperature sensor can be controlled in the Temperature Sensor box. Shunt the TALARM jumper between pins 2 and 3, enable temperature sen-

sor, and status bar of the MAX32000 GUI indicates the Die Temperature.

Registers Tab

There are two methods for configuring the MAX32000. The first method is through the GUI, as shown in [Figure 2](#). The second method is through the Registers tab, as shown in [Figure 4](#). The Registers tab allows execution of the serial commands manually. The Register tab can also be used as a debug tool because it is capable of writing to every register of the MAX32000.

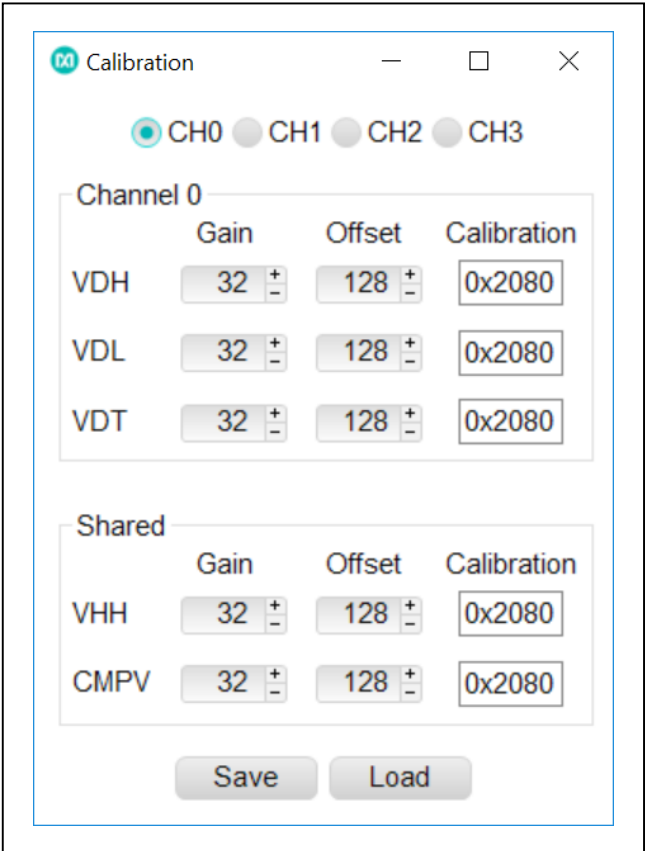


Figure 3. MAX32000 GUI—DAC Calibration Window

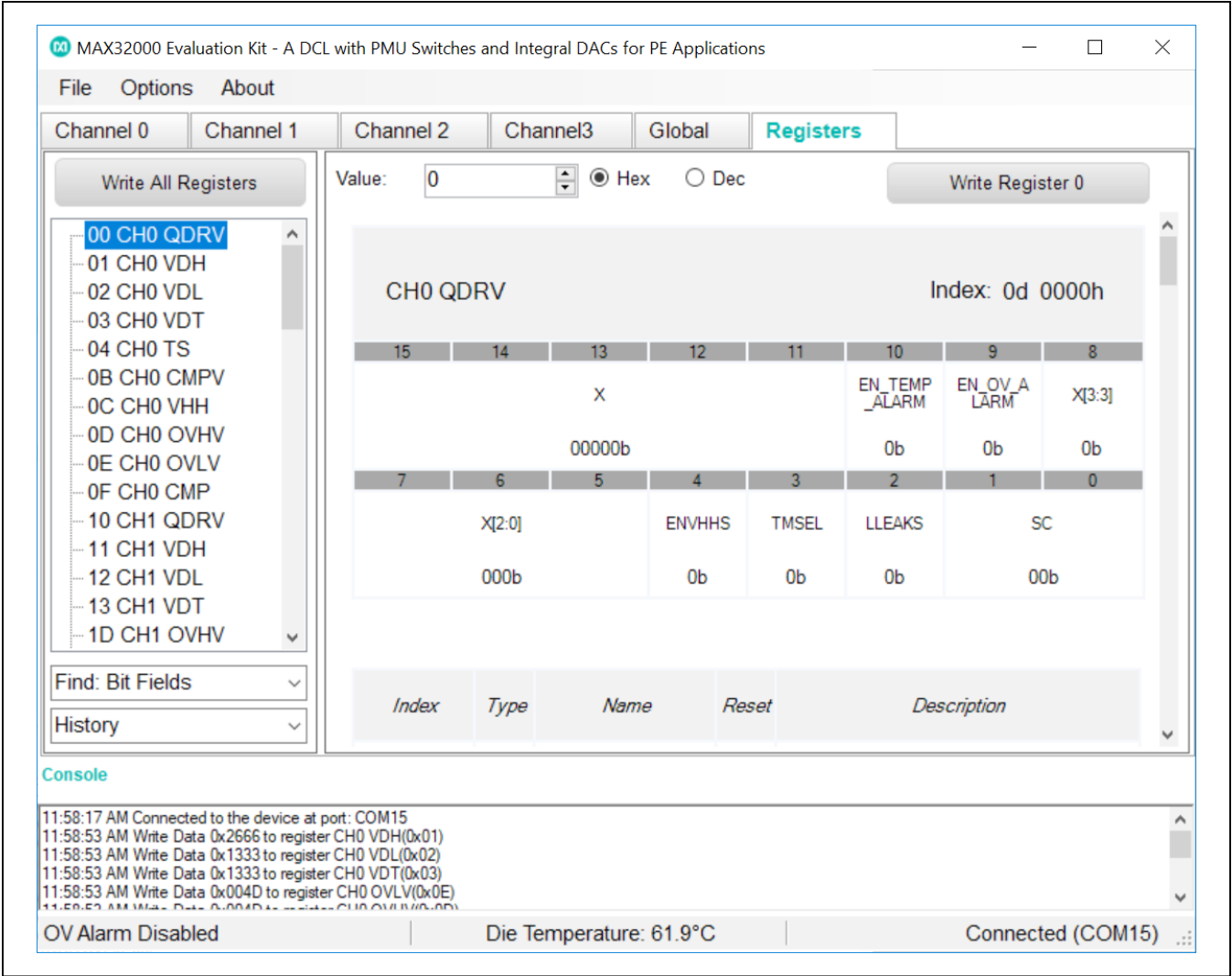


Figure 4. MAX32000 GUI—Registers Tab

## Detailed Description of Hardware

The MAX32000 EV kit is a fully assembled and tested PCB that evaluates the MAX32000 quad-channel driver with level-setting DACs and one common comparator. The EV kit includes SMA connections for the high-speed digital I/Os and the MAX32000 pin driver outputs. The MAX32000 EV kit is connected to the computer through the universal serial bus (USB) port.

### Power Supplies

Connect the power supplies using the high-current banana jacks, VEE (-5.25V), VCC (9.25V), and VDD (3.3V). Common for all the power supplies should be the GND banana jack on the MAX32000 EV kit. All power supplies should be within the range specified in the MAX32000 IC data sheet. The MAX32000 EV kit needs only three supplies to be connected to the board; all other supplies are generated through regulators on the EV kit board.

### High-Speed Digital I/Os

The top edge and the bottom edge of the PCB are populated with edge-launch SMA connectors and are the high-speed digital I/Os of the MAX32000. The inputs are terminated internally (nominally 50Ω to DATV\_ or RTV\_) to the MAX32000 IC. It is recommended that the CMP and NCMP outputs are connected to 50Ω terminated oscilloscope/logic analyzer at the end of the attached cable.

The board power supply (VCTV) is the voltage used to terminate the comparator outputs on the MAX32000 IC. Setting VCTV to +1.2V makes the high-speed digital I/Os compatible with LVDS levels.

The high-speed digital inputs (DATA\_/NDATA\_ and RCV\_/NRCV) are intended for use with a high-speed differential signal source such as LVDS, LVPECL, ECL, etc. If only a single-ended stimulus source is available, a converter consisting of a 1:1 ratio transformer (balun) can be used to produce a differential pair of inputs for the DATA\_/NDATA\_.

The high-speed digital outputs (CMP/NCMP) are intended for use with a high-speed differential logic analyzer. These outputs are internally pulled up to the VRCV voltage through internal 50Ω resistors. These outputs can be double terminated at the measurement instrument by external 50Ω resistors.

### Pin Driver Outputs

The quad-pin driver output pins (DUT\_) are accessed through the edge launch SMA connectors, located on the right edge of the PCB. The outputs have a typical output impedance of 50Ω, which can be adjusted by software.

### Test Points

There are 10 test points on the EV kit to facilitate performance analysis and circuit modification. The test points are listed in [Table 4](#).

### Device Ground Sense

The MAX32000 IC can sense the ground potential at the device under test (DUT). The MAX32000 EV kit is preconfigured to have the device ground-sense pin (DGS) connected to the ground plane through a 0Ω resistor (R9). If remote sensing is desired, remove R9 and connect the DGS pin to the remote DUT ground.

### Temperature Sensing

The MAX32000 EV kit provides the means to determine the MAX32000 IC's die temperature through the TEMP test point. During operation, the TEMP pin should be continuously monitored to ensure that the junction temperature does not exceed +150°C, which corresponds with +4.2V. During normal operation, a voltage of 3V to 3.6V is typical. Another way to monitor die temperature is provided in the MAX32000 GUI. On the Global tab, enable the temperature sensor and temperature alarm. The Status bar displays the MAX32000 die temperature, as shown in [Figure 5](#).



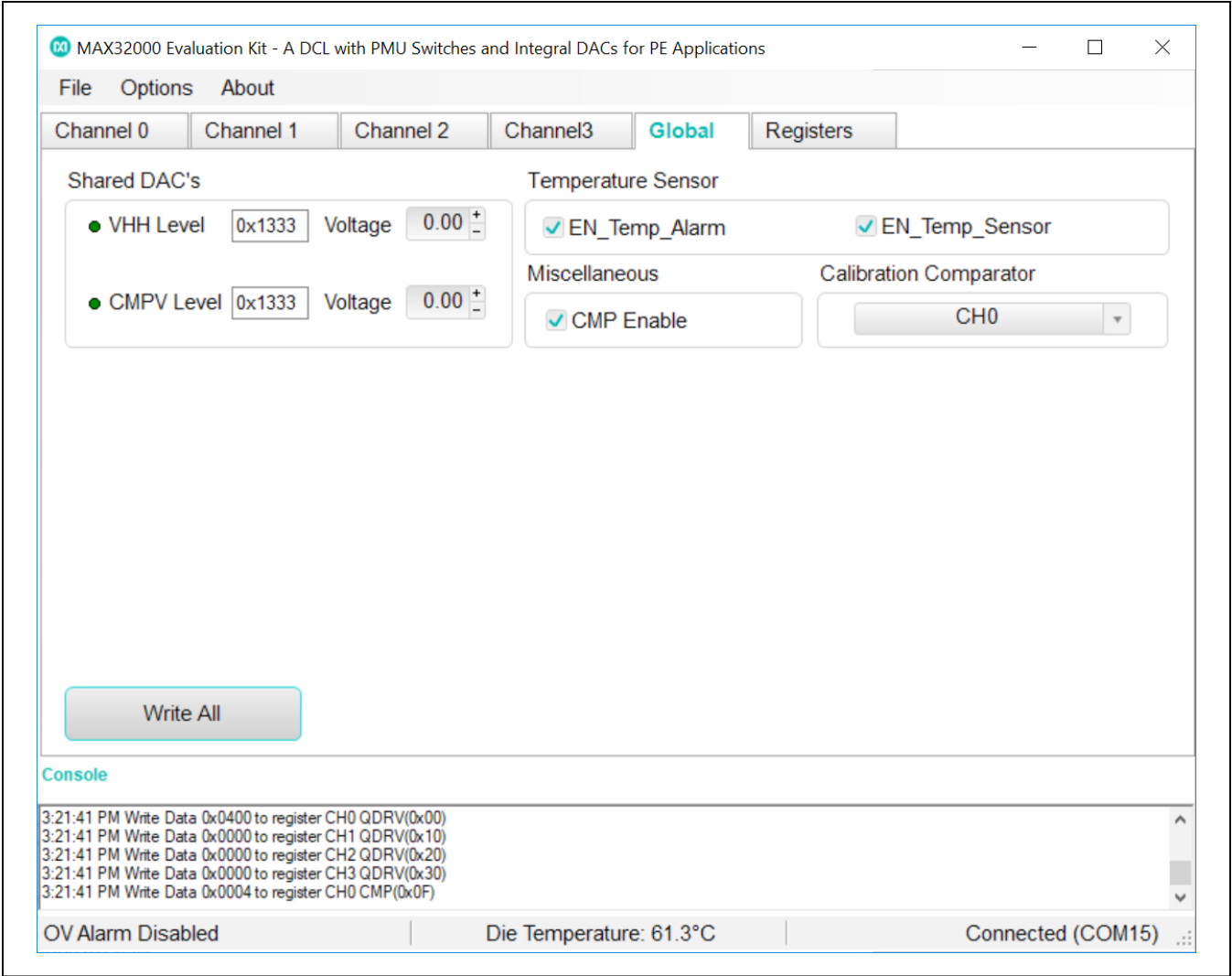


Figure 5. MAX32000 GUI—Global Tab



## Jumper Settings

Tables 1, 2, and 3 provide a list for jumper settings.

### Table 1. Power Supplies Jumper Settings

JUMPER	SHUNT POSITION	DESCRIPTION
J2	1-2*	Connects VEE to the negative power-supply input banana jack
	Open**	Disconnects VEE from the negative input power supply
J3	1-2*	Connects VCC to the positive power-supply input banana jack
	Open**	Disconnects VCC from the positive input power supply
J4	2-3*	Connects VHHP to the on-board regulator
	1-2	Connects VHHP to the input banana jack
J5	1-2*	Connects VDD to the digital power-supply input banana jack
	Open**	Disconnects VDD from the input power supply
EN_U6	1-2*	Enables VHHP boost regulator
	2-3	Disables VHHP boost regulator
EN	1-2*	Enables VCTV voltage regulator
	2-3	Disables VCTV voltage regulator

\* Indicates default jumper state.

\*\* Connect the power supply through an ammeter to monitor supply current

### Table 2. VCTV Regulator Jumper Settings

VCTV (V)	SELA STATE	SELB STATE
1.2	Unconnected*	1-2*
1.5	1-2	Unconnected
1.8	Unconnected	2-3
2.5	Unconnected	Unconnected
3.0	2-3	2-3
3.1	2-3	1-2
3.3	2-3	Unconnected
4.0	1-2	2-3
5.0	1-2	1-2

\* Indicates default jumper state.

**Table 3. Digital Interface Jumper Settings**

JUMPER	SHUNT POSITION	DESCRIPTION
RTV0	1-2*	Connects channel 0 receive termination input to GND
	Open	Disconnects channel 0 receive termination
RTV1	1-2*	Connects channel 1 receive termination input to GND
	Open	Disconnects channel 1 receive termination
RTV2	1-2*	Connects channel 2 receive termination input to GND
	Open	Disconnects channel 2 receive termination
RTV3	1-2*	Connects channel 3 receive termination input to GND
	Open	Disconnects channel 3 receive termination
DATV0	1-2*	Connects channel 0 data termination input to GND
	Open	Disconnects channel 0 data termination
DATV1	1-2*	Connects channel 1 data termination input to GND
	Open	Disconnects channel 1 data termination
DATV2	1-2*	Connects channel 2 data termination input to GND
	Open	Disconnects channel 2 data termination
DATV3	1-2*	Connects channel 3 data termination input to GND
	Open	Disconnects channel 3 data termination
OVALARM	1-2	Connect to external pullup resistor
	2-3*	Connect to picoboard using internal pullup resistor
TALARM	1-2	Connect to external pullup resistor
	2-3*	Connect to picoboard using internal pullup resistor

\* Indicates default jumper state.

**Table 4. Test Points and Their Functions**

TEST POINT	DESCRIPTION
RSTB	Active-Low Serial-Port Reset Input
LOADB	Active-Low Serial-Port Load Input
CSB	Active-Low Serial-Port Chip-Select Input
SCLK	Serial-Port Clock Input
DIN	Serial-Port Data Input
DOUT	Daisy Chain Output
ENVHVB	Active-Low High Voltage Enable Input
OVALARM	Overvoltage Alarm Output
TALARM	Temperature Alarm Output
TEMP	Temperature Sensor Output

**Ordering Information**

PART	TYPE
MAX32000EVKIT#	EV Kit

#Denotes RoHS compliant.

## MAX32000 EV Kit Bill of Materials

NOTE: DNI-> DO NOT INSTALL(PACKOUT); DNP-> DO NOT PROCURE						
ITEM	REF. DES	QTY	MFG PART #	MANUFACTURER	VALUE	DESCRIPTION
1	C1-C13	13	C0402C103K5RAC; GRM155R71H103KA88; C1005X7R1H103K050BE; C105B103KB5NNN;UMK105B7103KV	KEMET;MURATA; TDK;SAMSUNG ELECTRONIC;TAIYO YUDEN	0.01UF	CAPACITOR; SMT (0402); CERAMIC CHIP; 0.01UF; 50V; TOL=10%; TG=-55 DEGC TO +125 DEGC; TC=X7R
2	C14, C16, C22, C28	4	C1608X5R1E106M080AC;CL10A106MA9NRNC;GRM188R61E106ME13	TDK;SAMSUNG ELECTRONICS; MURATA;MURATA	10UF	CAPACITOR; SMT (0603); CERAMIC CHIP; 10UF; 25V; TOL=20%; TG=-55 DEGC TO +85 DEGC; TC=X8R
3	C15	1	C0603C473K5RAC;GRM188R71H473KA61;GCM188R71H473KA55;CGA3E2X7R1H473K080AA	KEMET;MURATA; MURATA;TDK	0.047UF	CAPACITOR; SMT (0603); CERAMIC CHIP; 0.047UF; 50V; TOL=10%; MODEL=X7R; TG=-55 DEGC TO +125 DEGC; TC=X7R
4	C17	1	GRM188C71E225KE11	MURATA	2.2UF	CAPACITOR; SMT (0603); CERAMIC CHIP; 2.2UF; 25V; TOL=10%; TG=-55 DEGC TO +125 DEGC; TC=X7S
5	C18, C23-C25, C27, C29, C31	7	GCJ188R71H104KA12; GCM188R71H104K; CGA3E2X7R1H104K080AA	MURATA;MURATA; TDK	0.1UF	CAPACITOR; SMT (0603); CERAMIC CHIP; 0.1UF; 50V; TOL=10%; TG=-55 DEGC TO +125 DEGC; TC=X7R; AUTO
6	C19, C21	2	GRM32ER71E226KE15; CL32B226KAJNFN; CL32B226KAJNNW; TMK325B7226KM	MURATA;SAMSUNG ELECTRO- MECHANICS;TA	22UF	CAPACITOR; SMT (1210); CERAMIC CHIP; 22UF; 25V; TOL=10%; TG=-55 DEGC TO +125 DEGC; TC=X7R
7	C20	1	C0402C472J5RAC	KEMET	4700PF	CAPACITOR; SMT; 0402; CERAMIC; 4700pF; 50V; 5%; X7R; - 55degC to + 125degC; 0 +/-15% degC MAX.
8	C26, C30, C32	3	UMK107BJ105KA;C1608X5R1H105K080AB;CL10A105K B5NNN;GRM188R61H105KAAL	TAIYO YUDEN;TDK; SAMSUNG;MURATA	1UF	CAPACITOR; SMT (0603); CERAMIC CHIP; 1UF; 50V; TOL=10%; MODEL=_MK SERIES; TG=-55 DEGC TO +85 DEGC
9	CMP, DATA0-DATA3, DUT0-DUT3, NCMP, NDATA0-NDATA3, NRCV0-NRCV3, RCV0-RCV3	22	142-0701-851	JOHNSON COMPONENTS	142-0701-851	CONNECTOR; END LAUNCH JACK RECEPTACLE; BOARD MOUNT; STRAIGHT THROUGH; 2PINS;
10	DATAV3, DATV0- DATV2, RTV0-RTV3	8	929400-01-02-RK	3M	929400-01-02-RK	CONNECTOR; MALE; THROUGH HOLE; PIN STRIP HEADER; STRAIGHT; 2PINS
11	EN, SELA, SELB	3	PEC03SAAN	SULLINS	PEC03SAAN	CONNECTOR; MALE; THROUGH HOLE; BREAKAWAY; STRAIGHT; 3PINS
12	EN_U6_J4, OVALARM, TALARM	4	PBC03SAAN	SULLINS	PBC03SAAN	CONNECTOR; MALE; THROUGH HOLE; BREAKAWAY; STRAIGHT; 3PINS; -65 DEGC TO +125 DEGC

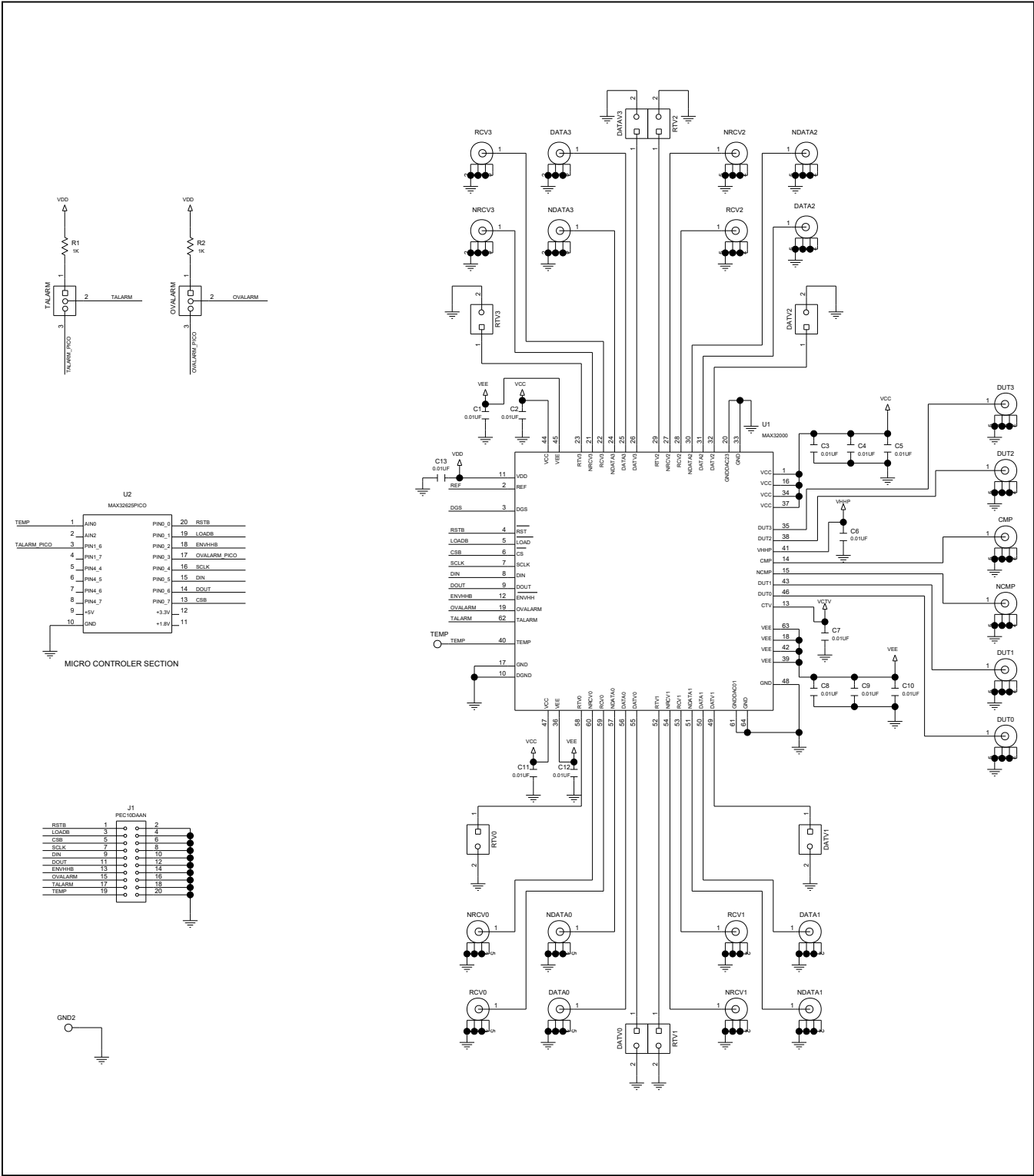
## MAX32000 EV Kit Bill of Materials (continued)

ITEM	REF DES	QTY	MFG PART #	MANUFACTURER	VALUE	DESCRIPTION
13	GND, GND1, VCC, VDD, VEE, VHHP	6	3267	POMONA ELECTRONICS	3267	CONNECTOR, MALE; PANELMOUNT; STANDARD UNINSULATED BANANA JACK; STRAIGHT; 1PIN
14	GND2, TEMP, VHHP_BOOST	3	5012	KEYSTONE	N/A	TEST POINT; PIN DIA=0.125IN; TOTAL LENGTH=0.445IN; BOARD HOLE=0.063IN; WHITE; PHOSPHOR BRONZE WIRE SILVER PLATE FINISH;
15	J1	1	PEC10DAAN	SULLINS ELECTRONICS CORP	PEC10DAAN	CONNECTOR; MALE; THROUGH HOLE; BREAKAWAY; STRAIGHT; 20PINS
16	J2, J3, J5	3	PEC02SAAN	SULLINS	PEC02SAAN	CONNECTOR; MALE; THROUGH HOLE; BREAKAWAY; STRAIGHT; 2PINS
17	L1	1	SD43-332MIL	COLCRAFT	3.3UH	INDUCTOR; SMT; FERRITE CORE; 3.3UH; TOL=+/-20%; 3.3A
18	L2, L4, L5	3	DFE252012F-100M	MURATA	10UH	INDUCTOR; SMT (1008); SHIELDED; 10UH; 20%; 0.95A
19	MH1-MH4	4	9032	KEYSTONE	9032	MACHINE FABRICATED; ROUND-THRU HOLE SPACER; NO THREAD; M3.5; 5/8IN; NYLON
20	R1, R2, R8	3	CRCW06031K00FK; ERJ-3EKF1001	VISHAY DALE; PANASONIC	1K	RESISTOR; 0603; 1K; 1%; 100PPM; 0.10W; THICK FILM
21	R5	1	CR0603-FX-1001ELF	BOURNS	1K	RESISTOR; 0603; 1K OHM; 1%; 100PPM; 0.10W; THICK FILM
22	R6	1	ERJ-3EKF1303	PANASONIC	130K	RESISTOR; 0603; 130K OHM; 1%; 100PPM; 0.10W; THICK FILM
23	R7	1	CHPHT0603K1002FGT	VISHAY SERNICE	10K	RESISTOR; 0603; 10K OHM; 1%; 100PPM; 0.0125W; THICK FILM
24	R9	1	CRCW060300000ZS; MCR03EZP J000; ERJ-3GEY0R00	VISHAY DALE; ROHM; PANASONIC	0	RESISTOR; 0603; 0 OHM; 0%; JUMPER; 0.10W; THICK FILM
25	U1	1	MAX32000	MAXIM	MAX32000	EVKIT PART - IC; MAX32000; PACKAGE OUTLINE DRAWING: 21-0162; PACKAGE CODE: C64E+9R; PACKAGE LAND PATTERN: 90-0164
26	U2	1	MAX32625PICO	MAXIM	MAX32625PICO	MODULE; BOARD: MAX32625PICO BOARD DESIGN FOR MAX32625 ARM CORTEX-M4F; BOARD; LAMINATED PLASTIC WITH COPPER CLAD;
27	U3	1	MAX38903AATB+	MAXIM	MAX38903AATB+	IC; REG; 1.7V-5.5VIN; 1A LOW NOISE LDO LINEAR REGULATORS; TDFN10-EP

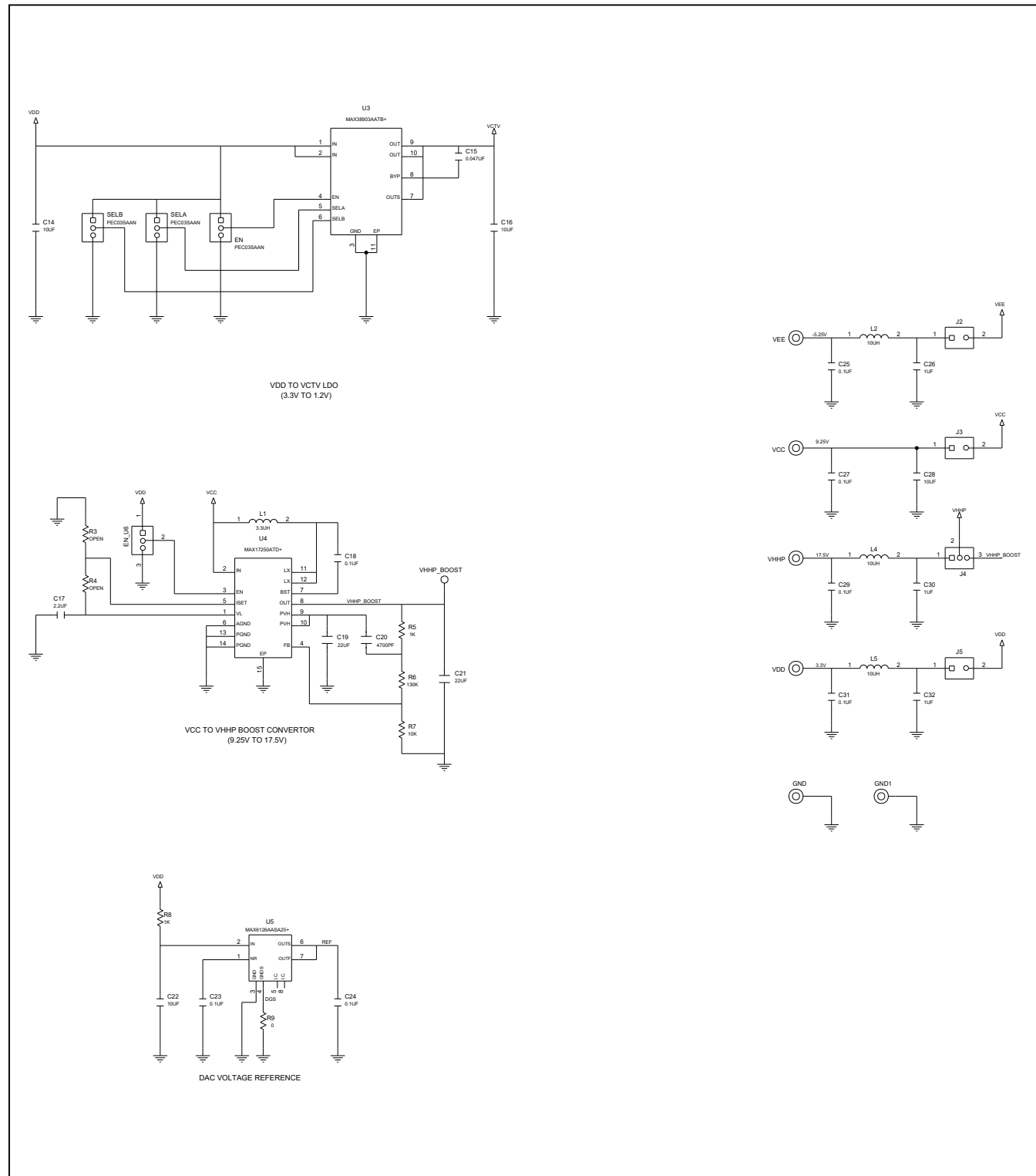
## MAX32000 EV Kit Bill of Materials (continued)

ITEM	REF DES	QTY	MFG PART #	MANUFACTURER	VALUE	DESCRIPTION
28 U4		1	MAX17250ATD+	MAXIM	MAX17250ATD+	EVKIT PART - IC; CONV; 2.7V TO 18V; BOOST CONVERTER WITH 0.1MICROAMPERE TRUE SHUTDOWN; SHORT CIRCUIT PROTECTION AND SELECTABLE INPUT CURRENT LIMIT; PKG. OUTLINE: 21-0137; PKG. CODE: T1433-2C; LAND PATTERN: 90-0063; TDFN14-EP
29 U5		1	MAX6126AASA25+	MAXIM	MAX6126AASA25+	IC; VREF: ULTRA HIGH PRECISION; ULTRA LOW NOISE VOLTAGE REFERENCE; SOIC8 150MIL; VOUT=2.5V, 3PPM/DEGC MAX TEMPCO; NSOIC8
30 Z1		1	10-6327-01G	AAVID	10-6327-01G	MACHINE FABRICATED; Q-PUSHPIN; 28.5MMX28.5MMX10MM; BGA SPRING TYPE; BLACK ANNOXIDIZED ALUMINUM
31 PCB		1	MAX32000	MAXIM	PCB	PCB:MAX32000
32 MISC1	DNI	1	3025010-03	QUALTEK ELECTRONICS CORP	3025010-03	CONNECTOR; MALE; USB-A_MINI-B; USB 4P(A)/M - USB MINI 5P(B)/M; STRAIGHT; .36IN
33 R3, R4	DNP	0	N/A	N/A	OPEN	PACKAGE OUTLINE 0603 RESISTOR
TOTAL		105				

MAX32000 EV Kit Schematic



## MAX32000 EV Kit Schematic (continued)



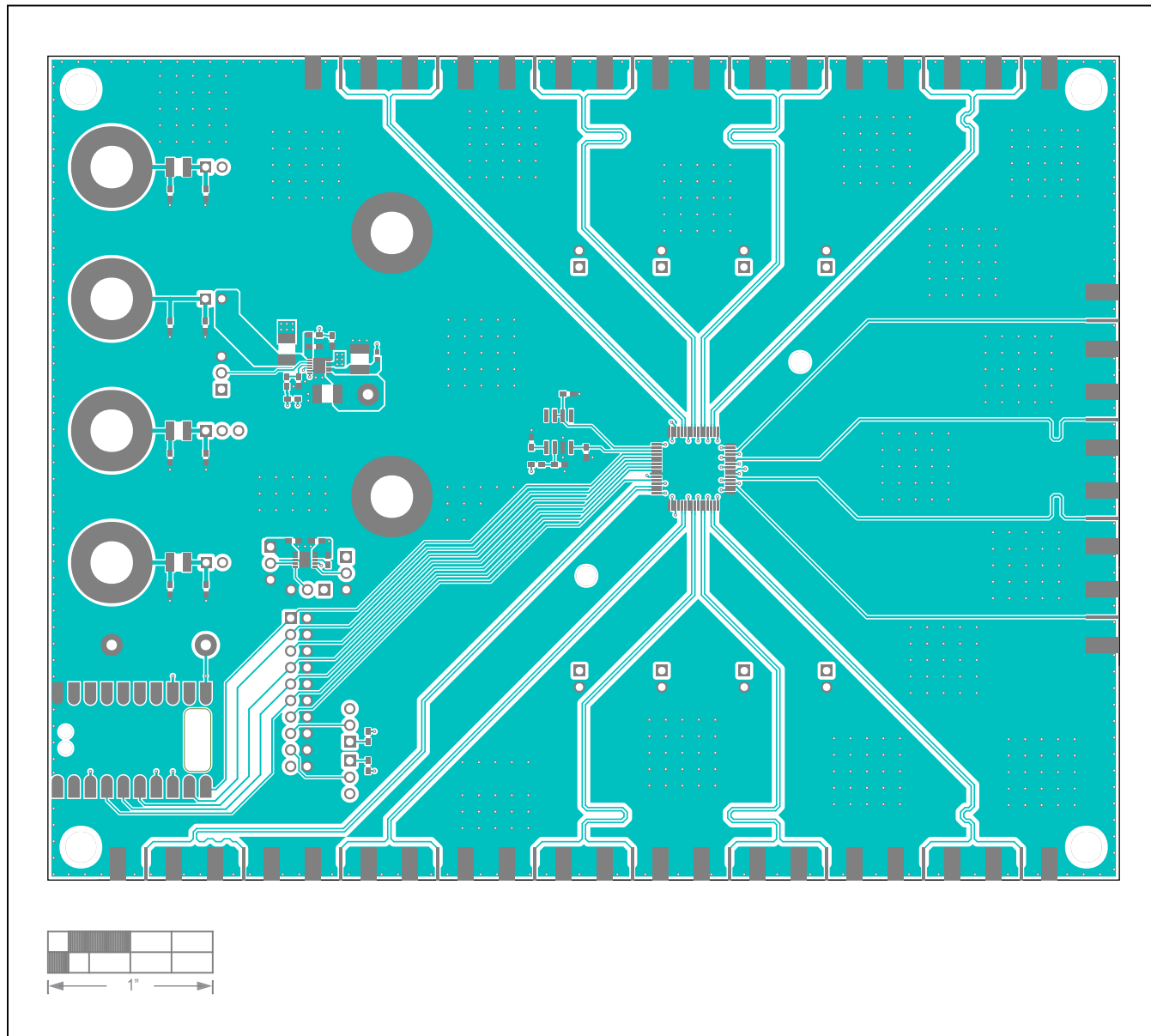


The diagram shows the MAX32000 EVK IT\_C PCB layout. Key components and features include:

- Connectors:** J1 (20-pin), J2, J3, J4, J5, J6, J7, J8, J9, J10, J11, J12, J13, J14, J15, J16, J17, J18, J19, J20, J21, J22, J23, J24, J25, J26, J27, J28, J29, J30, J31, J32, J33, J34, J35, J36, J37, J38, J39, J40, J41, J42, J43, J44, J45, J46, J47, J48, J49, J50, J51, J52, J53, J54, J55, J56, J57, J58, J59, J60, J61, J62, J63, J64, J65, J66, J67, J68, J69, J70, J71, J72, J73, J74, J75, J76, J77, J78, J79, J80, J81, J82, J83, J84, J85, J86, J87, J88, J89, J90, J91, J92, J93, J94, J95, J96, J97, J98, J99, J100.
- Components:** U1 (MAX32000), U2 (MAX32000), U3 (MAX32000), U4 (MAX32000), U5 (MAX32000), U6 (MAX32000), U7 (MAX32000), U8 (MAX32000), U9 (MAX32000), U10 (MAX32000), U11 (MAX32000), U12 (MAX32000), U13 (MAX32000), U14 (MAX32000), U15 (MAX32000), U16 (MAX32000), U17 (MAX32000), U18 (MAX32000), U19 (MAX32000), U20 (MAX32000), U21 (MAX32000), U22 (MAX32000), U23 (MAX32000), U24 (MAX32000), U25 (MAX32000), U26 (MAX32000), U27 (MAX32000), U28 (MAX32000), U29 (MAX32000), U30 (MAX32000), U31 (MAX32000), U32 (MAX32000), U33 (MAX32000), U34 (MAX32000), U35 (MAX32000), U36 (MAX32000), U37 (MAX32000), U38 (MAX32000), U39 (MAX32000), U40 (MAX32000), U41 (MAX32000), U42 (MAX32000), U43 (MAX32000), U44 (MAX32000), U45 (MAX32000), U46 (MAX32000), U47 (MAX32000), U48 (MAX32000), U49 (MAX32000), U50 (MAX32000), U51 (MAX32000), U52 (MAX32000), U53 (MAX32000), U54 (MAX32000), U55 (MAX32000), U56 (MAX32000), U57 (MAX32000), U58 (MAX32000), U59 (MAX32000), U60 (MAX32000), U61 (MAX32000), U62 (MAX32000), U63 (MAX32000), U64 (MAX32000), U65 (MAX32000), U66 (MAX32000), U67 (MAX32000), U68 (MAX32000), U69 (MAX32000), U70 (MAX32000), U71 (MAX32000), U72 (MAX32000), U73 (MAX32000), U74 (MAX32000), U75 (MAX32000), U76 (MAX32000), U77 (MAX32000), U78 (MAX32000), U79 (MAX32000), U80 (MAX32000), U81 (MAX32000), U82 (MAX32000), U83 (MAX32000), U84 (MAX32000), U85 (MAX32000), U86 (MAX32000), U87 (MAX32000), U88 (MAX32000), U89 (MAX32000), U90 (MAX32000), U91 (MAX32000), U92 (MAX32000), U93 (MAX32000), U94 (MAX32000), U95 (MAX32000), U96 (MAX32000), U97 (MAX32000), U98 (MAX32000), U99 (MAX32000), U100 (MAX32000).
- QR Code:** A QR code is located on the right side of the board, labeled "SCAN FOR INFO".
- Dimensions:** The board has a width of 1 inch.

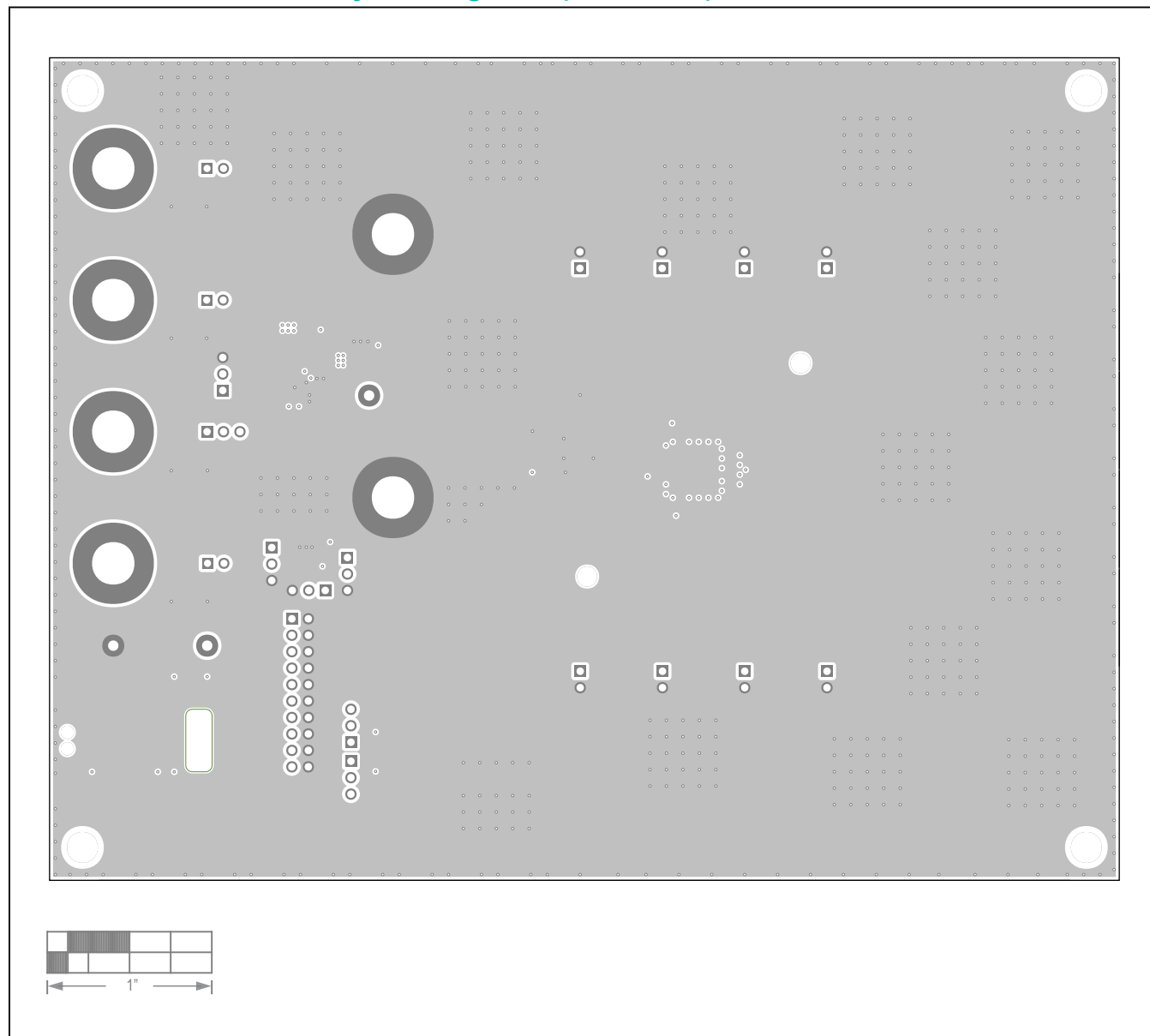
MAX32000 EV Kit—Top Silkscreen

## MAX32000 EV Kit PCB Layout Diagrams (continued)



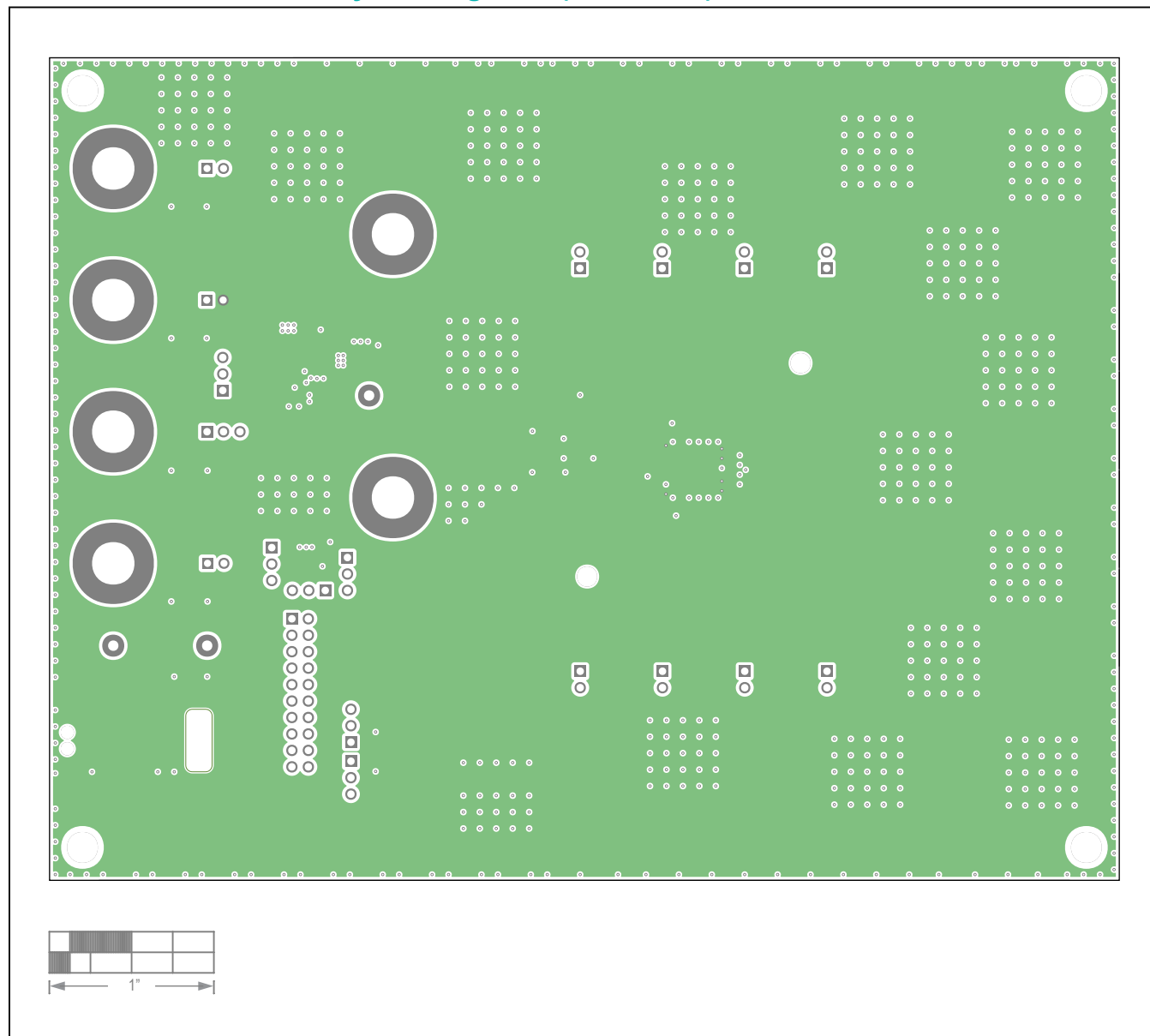
MAX32000 EV Kit—Top

## MAX32000 EV Kit PCB Layout Diagrams (continued)

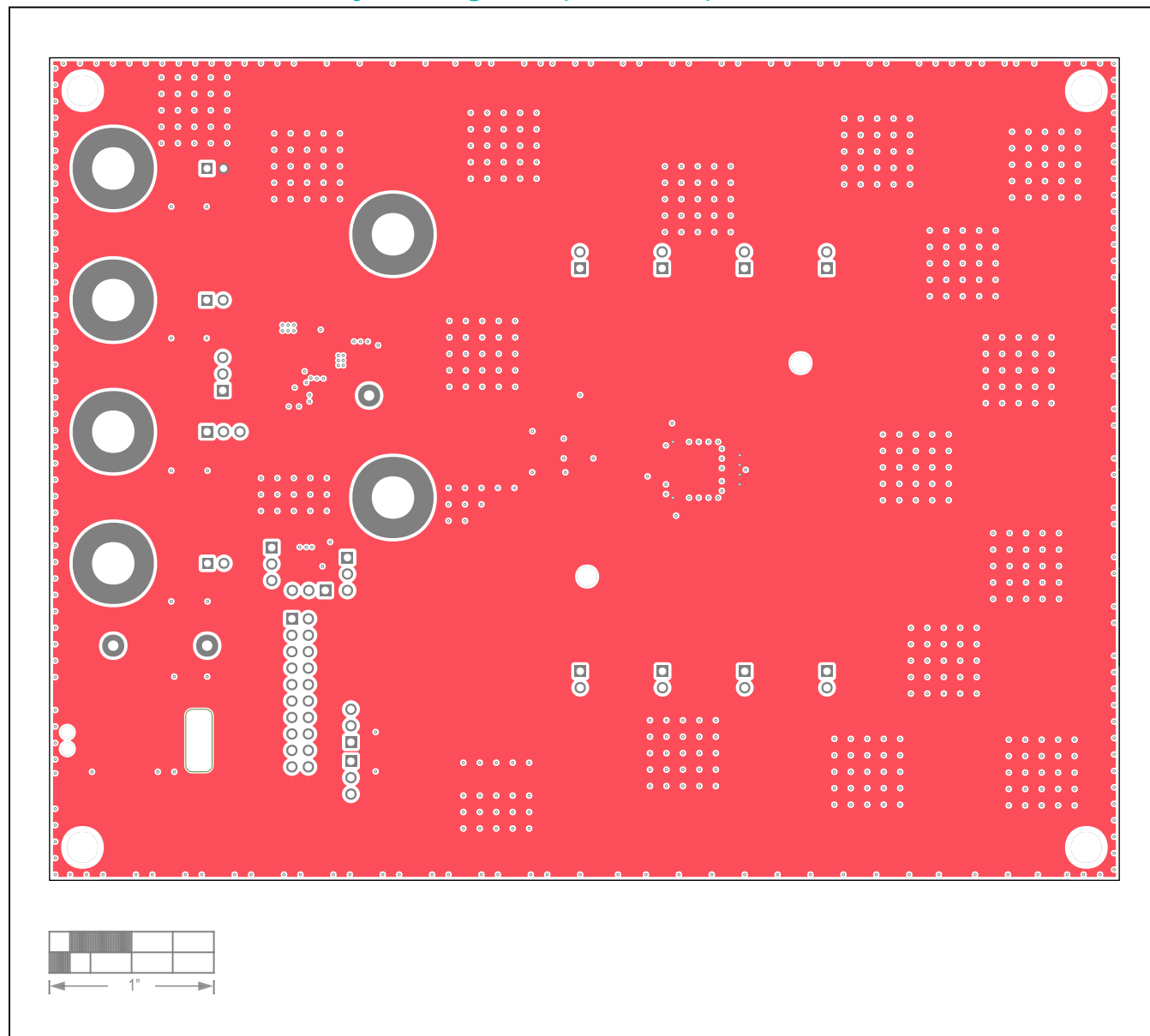


MAX32000 EV Kit—GND

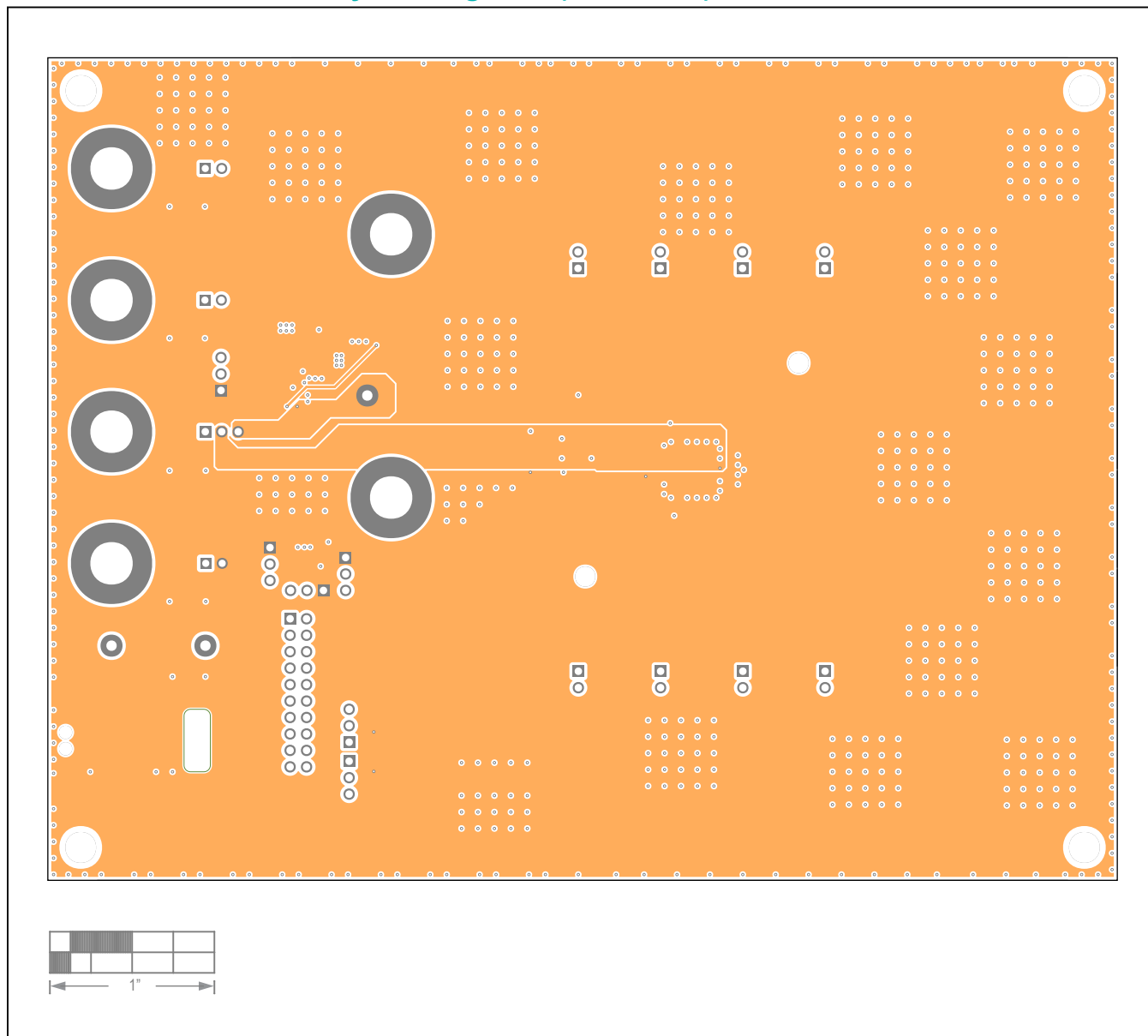
## MAX32000 EV Kit PCB Layout Diagrams (continued)

MAX32000 EV Kit— $V_{CC}$

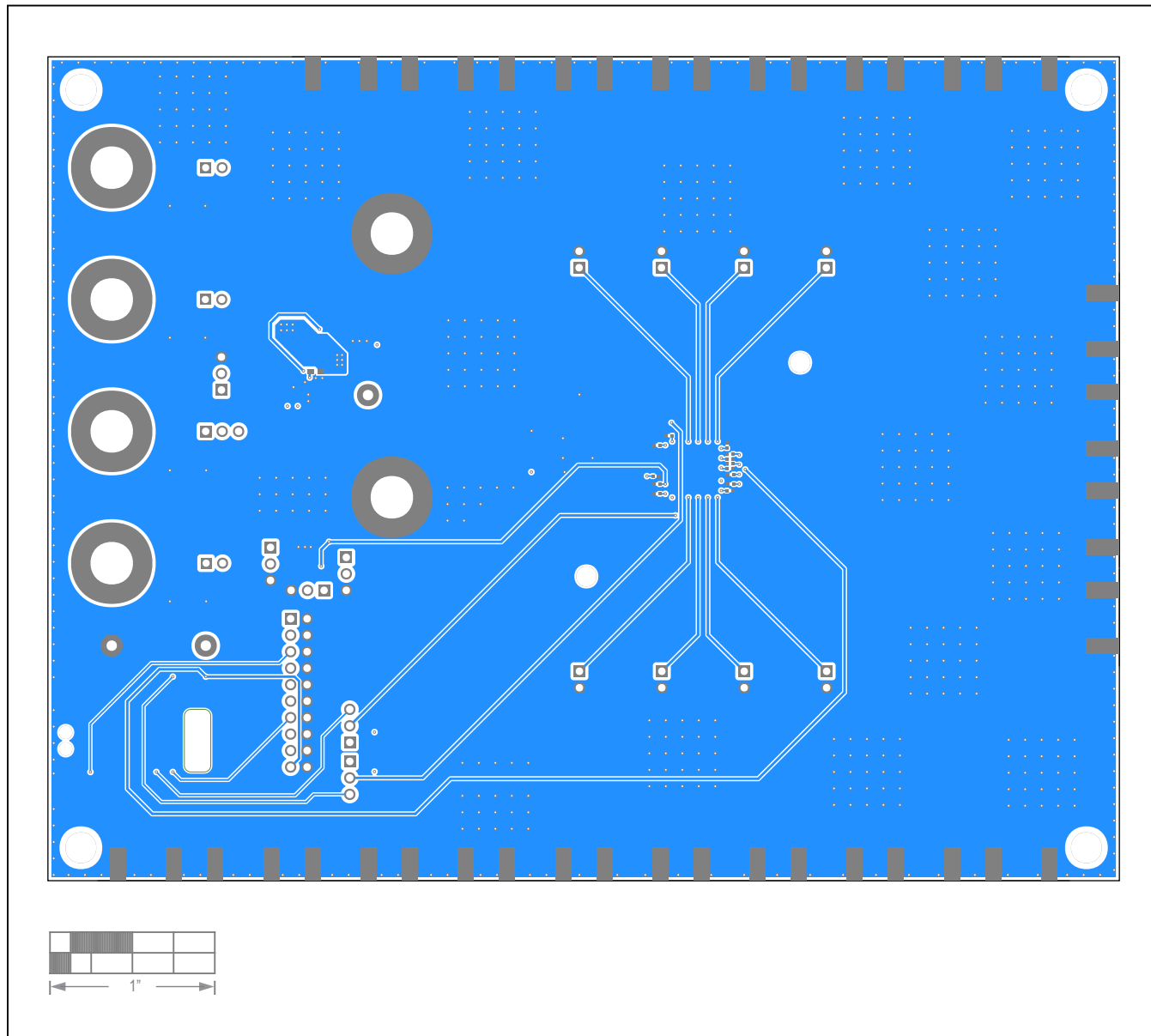
## MAX32000 EV Kit PCB Layout Diagrams (continued)

MAX32000 EV Kit— $V_{EE}$

## MAX32000 EV Kit PCB Layout Diagrams (continued)

MAX32000 EV Kit— $V_{DD}$

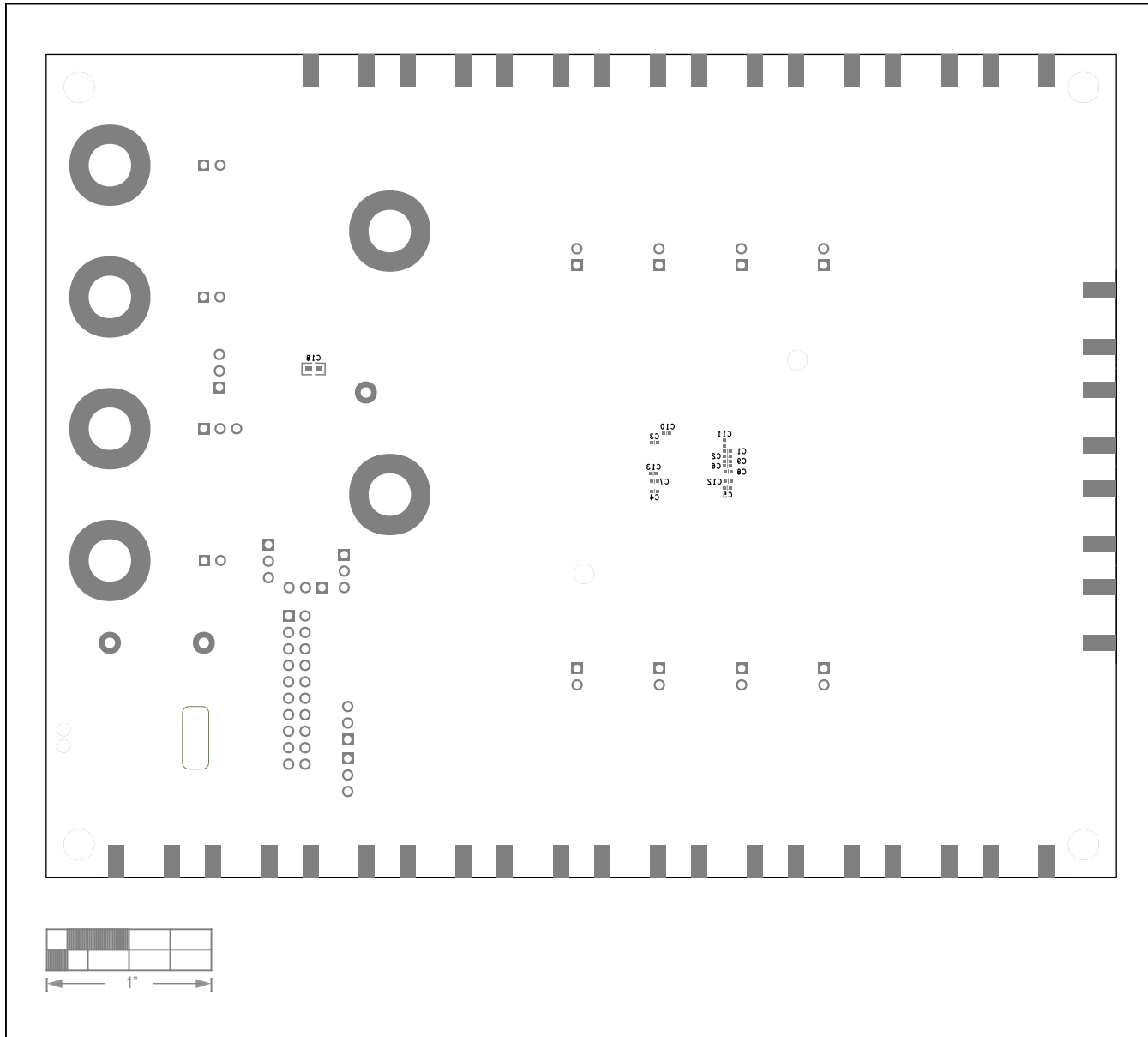
## MAX32000 EV Kit PCB Layout Diagrams (continued)



MAX32000 EV Kit—Bottom



## MAX32000 EV Kit PCB Layout Diagrams (continued)



MAX32000 EV Kit—Bottom Silkscreen

## Revision History

REVISION NUMBER	REVISION DATE	DESCRIPTION	PAGES CHANGED
0	1/20	Initial release	—

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