

Evaluates: MAX96714, MAX96714F, and MAX96714R

General Description

The MAX96714 CSI evaluation kit (EV kit) provides a proven design to evaluate the MAX96714, MAX96714F, MAX96714R high-bandwidth gigabit multimedia serial link (GMSL) deserializer with CSI and full-duplex control channel with the use of a standard FAKRA coaxial cable. The EV kit also includes Windows® 7 and Windows 10 softwares that provide a simple graphical user interface (GUI) for exercising features of the device. The EV kit comes with a MAX96714/14F/14R IC installed.

For complete GMSL evaluation using a standard FAKRA coaxial cable, order the MAX96714 CSI EV kit and a companion serializer board (MAX96717 CSI EV kit referenced in this document).

Note: In the following sections, “serializer” means MAX96717, and “deserializer” means MAX96714, MAX96714F, and MAX96714R.

Note: This document applies to both coax HSD-STQ and HMTD-STP evaluation kits. The coax cable is referenced in this document.

MAX96714 EV Kit Files

FILE	DESCRIPTION
MAXSerDesEV-GMSL_Vxxxx_Install.exe	Installs the EV kit files in the computer
MAXSerDesEV-GMSL.exe	Graphical User Interface (GUI) program

*Coax EV kits are configured to use PoC and FAKRA connectors. For HMTD connector, order HMTD-specific EV kits as mentioned in the ordering information.

Windows is a registered trademark of Microsoft Corporation.

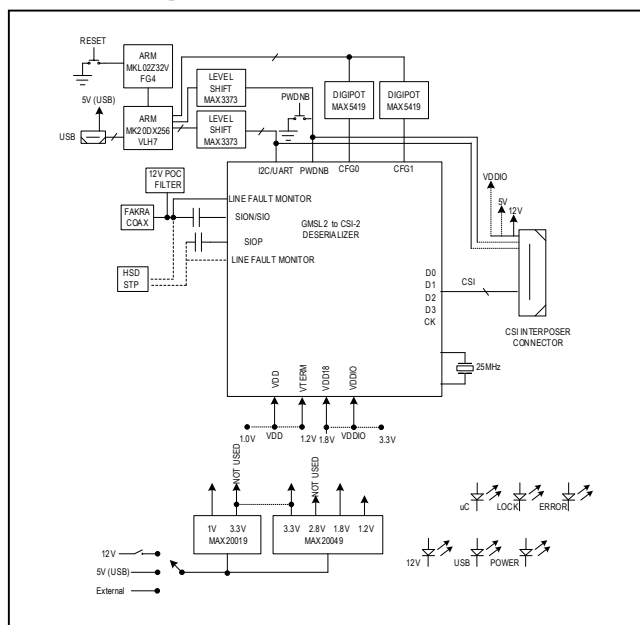
MAX96714 CSI Evaluation Kit

Features

- Serializer EV Kit Sends GMSL Data to a Deserializer which then Converts into MIPI CSI-2
- Proven PCB Layout
- Fully Assembled and Tested
- Accepts GMSL-2 Serial Data through FAKRA Connectors, and Outputs CSI-2 Data
- USB-Controlled Interface (Cable Included)
- USB, 12V Wall, Power-over-Coax (PoC*), or Externally Powered
- 12V Wall-Type Power Supply
- COAX Connector*
- HSD Connector*
- HMTD Connector*
- Windows 7 and Windows 10-Compatible Software

Ordering Information appears at end of data sheet.

Deserializer Evaluation Board Block Diagram



Quick Start

This procedure applies to both Coax, HSD and HMTD EV kits. The Coax evaluation kit is referenced in this document. [Figure 1](#) shows a typical application which uses the CSI serializer with the CSI deserializer.

Required Equipment

- MAX96717 CSI EV Kit
- MAX96714 CSI EV Kit
- 2m FAKRA cable assembly (included in the MAX96714 Coax EV Kit)
- CSI source, such as an image sensor, or CSI signal generator
- Computer with Windows 7 or Windows 10 PC with a spare USB port
- 12V DC, 500mA power supply

Procedure

Follow the steps below to verify board operation:

- 1) Download and install latest GMSL2 EV kit software from the Analog Devices website: www.analog.com or contact Analog Devices Applications.
 - Follow the *GMSL GUI User's Guide* instructions.
- 2) Configure the Serializer for I²C, Coax and 6Gbps (MAX96714), or 3Gbps (MAX96714F/R) operation. Refer to the MAX96717 CSI EV kit data sheet for details.
- 3) [Figure 2](#) shows the default positions of the on-board jumpers on the deserializer board in their default positions, with SW1 in the off position.
- 4) Set up the system as shown in [Figure 1](#).
 - Connect FAKRA cable from FAKRA PCB connector (A or B) between serializer and deserializer.
 - Connect +12V wall power supply into J12. Refer to [Figure 3](#) for power supply details and options.
- 5) Turn SW4 to the on position on both serializer and deserializer EV kits.
- 6) Verify that the blue/green Power LEDs are illuminated indicating that the boards are powered and that the red Teensy LED flashes on both serializer and deserializer.
- 7) Verify that LOCK_LED on both serializer and deserializer EV board lights up, indicating that the link has been successfully established. If the LOCK_LED is off, then refer to the Troubleshooting section at the end of this document. The ERRB LED is illuminated at the serializer because Line Fault Monitor is enabled by default, however the board is not configured to use line fault.
- 8) Start the GMSL2 EVKIT software.
- 9) When the GUI opens, it automatically searches for any active listener in both I²C and UART mode and identifies valid GMSL product (assuming proper jumper settings). Once the serializer and deserializer are identified, they are shown as tabs in the GUI.
- 10) Read registers in both deserializer and serializer to ensure both devices are active.
- 11) Basic bring-up is now complete. Refer to the *GMSL GUI User's Guide* for GUI operation, *GMSL2 User's Guide* for configuration of this device and its available features or Analog Devices Applications for additional details.

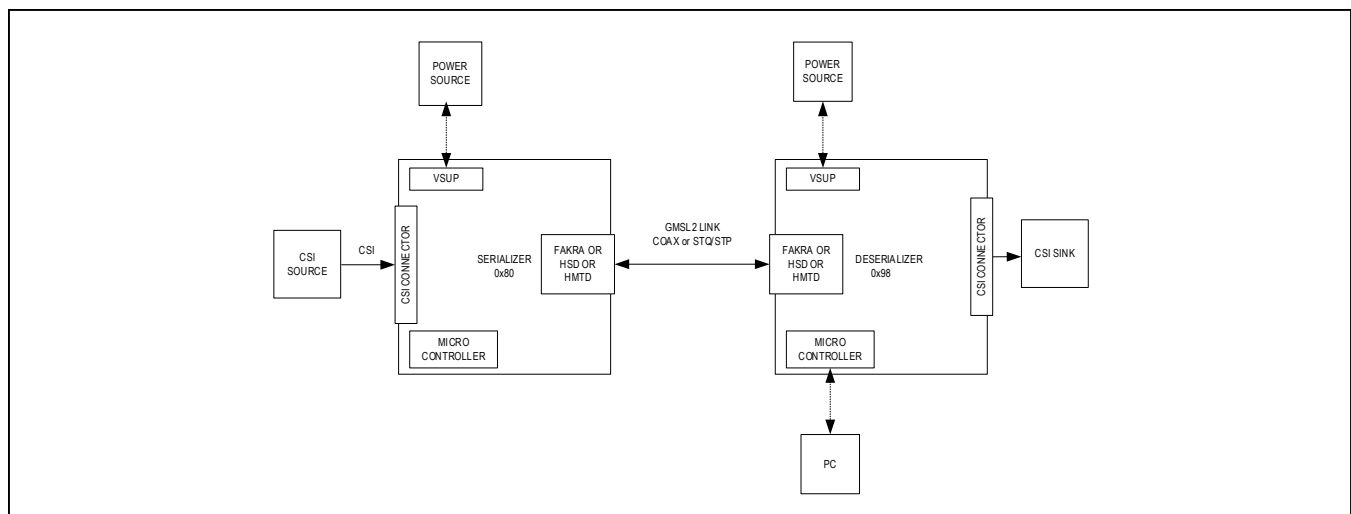


Figure 1. GMSL System Board Block Diagram

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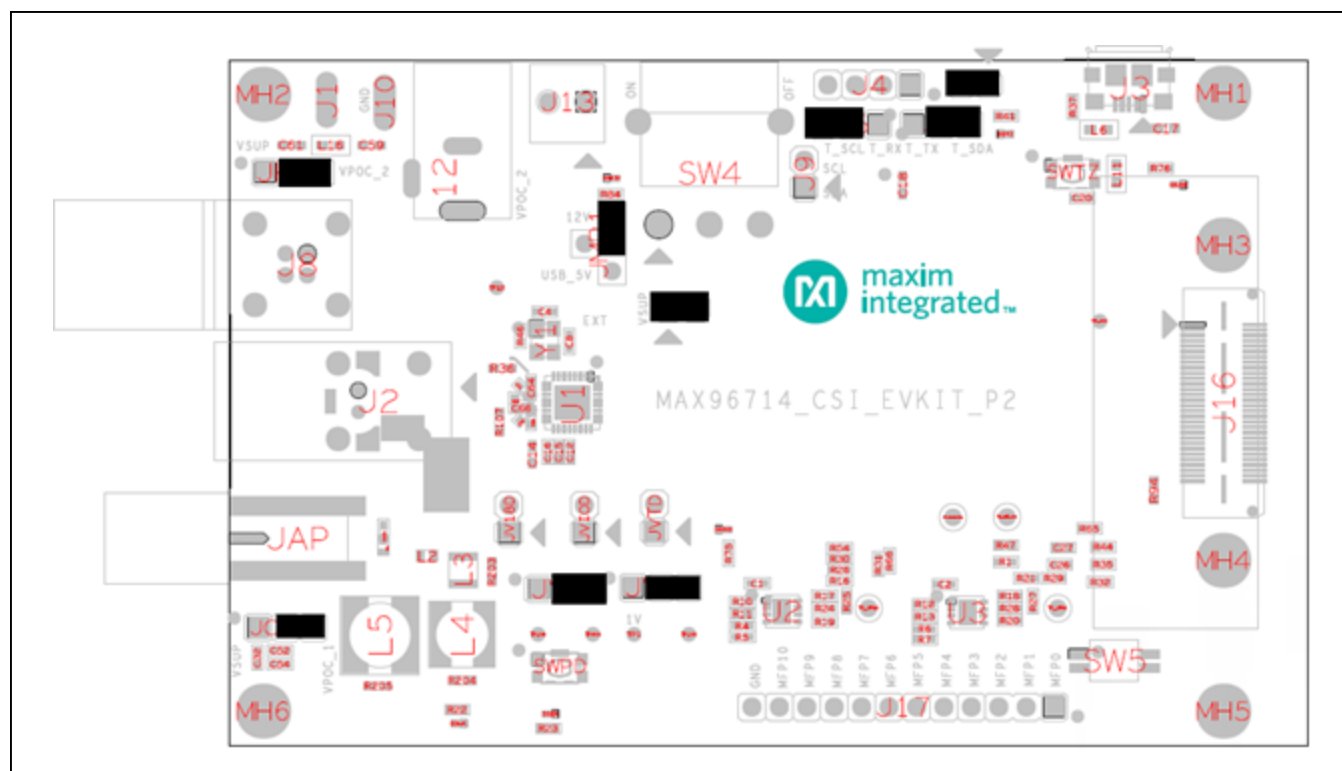


Figure 2. Deserializer Default Jumper Settings

Table 1. Jumper Description

JUMPER	SIGNAL	DEFAULT POSITION	FUNCTION
J1	VEXT	—	External DC input header
J3	USB	—	USB connector
J4	—	—	External I ² C header
J5	SCL_TX	SCL	I ² C or UART connection to serializer
J6	SDA_RX	SDA	I ² C or UART connection to serializer
J8	SIOP/N, 12V	—	STP input. Optionally sources/provides power
J9	RX/SDA TX/SCL	—	Internal I ² C header (connected directly to IC)
J10	GND	—	Ground input
J12	12V	—	12V DC input jack
J13	12V	—	12V DC input header
J16	CSI	—	CSI output. Optionally sources/provides power, GPIO, I ² C/UART
J17	MFP	—	MFP pin header
JAP	SIO	—	Coax input
JCOAX	COAX power	VPOC1	Select between VSUP input and VPOC1 output for the COAX connector
JHSD	HSD power	—	Select between VSUP input and VPOC2 output for the HSD connector
JPOC	VSUP	Closed	Provides power for PoC protector IC

Table 1. Jumper Description (continued)

JUMPER	SIGNAL	DEFAULT POSITION	FUNCTION
JV18D	VDD18	DNI	Cutable trace to measure VDD18
JVIO	VDDIO	3.3V	Select between 1.8V and 3.3V
JVIOD	VDDIO	DNI	Cutable trace to measure device VDDIO
JVDD	VDD	1.2V	Select between 1.0V and 1.2V
JVREF	3.3V	Closed	External SDA/SCL level shifter IOVDD set to 3.3V
JVTD	VTERM	DNI	Cutable Trace to measure VTERM
C63/C64/C71	SION/SIO	—	Select between FAKRA HSD and HMTD connector
C65/C66/C70	SIONP	—	Select between 50Ω AC termination HSD and HMTD connector
R14/R8	LOCK LED	R14 (MFP5)	Select between LOCK and LOCK_ERRB for LOCK LED
R24/25	CFG0	R24 (Digipot)	Select between resistor divider and digital pot for CFG0
R27/28	CFG1	R28 (Digipot)	Select between resistor divider and digital pot for CFG1
R30	ALT_SDA	DNI	Connect alternate SDA to MFP1
R31	ALT_SCL	DNI	Connect alternate SCL to MFP2
R33/R34	FSYNC	R33 (MFP0)	Select between MFP0 and MFP2 for FSYNC
R74/R93	SW_AD0	R74 (high)	Selects I ² C address for MFP analog
R96/R108	SW_AD1	R96 (high)	Selects I ² C address for MFP analog
R82/R83	POC_ADDR	R83 (0x50)	Selects I ² C address for PoC Protector
R87/88	POC_SCL	R88 (ALT I ² C)	Select between I ² C and ALT I ² C for PoC protector
R89/90	POC_SDA	R89 (ALT I ² C)	Select between I ² C and ALT I ² C for PoC protector
R91	ERRB	DNI	Connects ERRB to CSI connector
R92	LOCK	DNI	Connects LOCK to CSI connector
R94	VDDIO	DNI	Connects VDDIO to CSI connector
R95	PWDNB	DNI	Connects PWDNB to CSI connector
R97	USB_5V	DNI	Connects USB_5V to CSI connector
R99	FSYNC	DNI	Connects FSYNC to CSI connector
R98	12V	0Ω (closed)	Connects 12V to CSI connector
R100	LFLT	DNI	Connects GMSL line with LMN0 input
R101/R103	Power over HSD	R101 (power)	Selects between power an GND for unused HSD pin 4
R102/R104	Power over HSD	R104 (GND)	Selects between power an GND for unused HSD pin 2
SW5	EXT_SDA/TX	Closed	Connects EXT_SDA/TX to CSI connector
SW5	EXT_SCL/RX	Closed	Connects EXT_SCL/RX to CSI connector
TP1	1V	—	1V power test point
TP12	+12V	—	+12V input power test point
TP1V2	1V2	—	1.2V power test point
TP1V8	1V8	—	1.8V power test point
TP_2V8	2V8	—	2.8V power test point
TP3V3	3V3	—	3.3V power test point

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Table 2. Items included in the Evaluation Kit Package

ITEM DESCRIPTION	QTY
MAX96714, MAX96714F, or MAX96714R Variant EV Kit	1
USB Cable	1
+12V Wall Supply	1
COAX Cable for COAX EV Kits	1
STP Cable for HMTD EV Kits	1
STQ Cable for HSD EV Kits	1

Troubleshooting

Possible causes of board test failure:

- 1) The cable is not properly connected between serial-izer and deserializer.

2) Incorrect jumper setting on the deserializer board: reverify.

3) Incorrect jumper setting on the serializer board: reverify.

4) Incorrect CFG pin voltage setting on the deserializer board: reverify.

5) Check and verify that the USB cable has been prop-erly connected.

6) The USB port is locked.

7) Exit Application, GUI.
- 8) Relaunch GUI.

9) Exit Application, GUI.

10) Remove the USB cable from the board and re-insert.

11) Relaunch GUI.

12) Deserializer board is faulty: try a different board (if available).

13) Serializer board is faulty: try a different board (if available).

Detailed Description of Hardware (or Software)

The power configuration of the EV kit hardware may be reconfigured to allow external supply connections. [Figure 3](#) shows the power connection options.

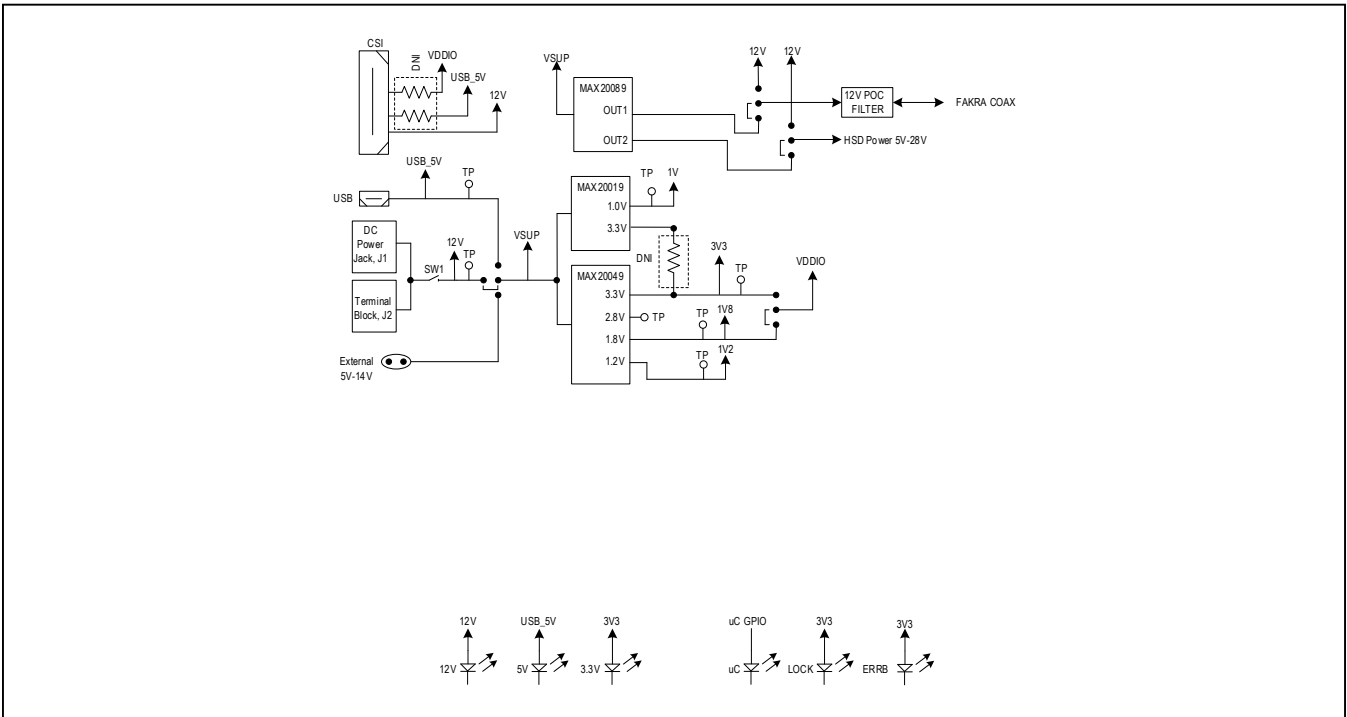


Figure 3. Serializer Evaluation Board Power Connection Diagram

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Component Suppliers

SUPPLIER	PHONE	WEBSITE
Amphenol RF	800-627-7100	www.amphenolrf.com
Hong Kong X'tals Ltd.	852-35112388	www.hongkongcrystal.com
Murata Electronics North America, Inc.	770-436-1300	www.murata-northamerica.com
ON Semiconductor	602-244-6600	www.onsemi.com
Rosenberger Hochfrequenztechnik GmbH	011-49-86 84-18-0	www.rosenberger.de
TDK Corp.	847-803-6100	www.component.tdk.com

Note: Indicate that you are using the MAX96751 or MAX96753 when contacting these component suppliers.

Ordering Information

PART	TYPE
MAX96714-BAK-EVK#	Full Speed CSI-2 to GMSL2 Deserializer w/ COAX
MAX96714F-BAK-EVK#	Speed Limited CSI-2 to GMSL2 Deserializer w/ COAX
MAX96714R-BAK-EVK#	Non-ASIL Speed Limited CSI-2 to GMSL2 Deserializer w/ COAX
MAX96714-BBK-EVK#	Full Speed CSI-2 to GMSL2 Deserializer w/ HSD
MAX96714F-BBK-EVK#	Speed Limited CSI-2 to GMSL2 Deserializer w/ HSD
MAX96714R-BBK-EVK#	Non-ASIL Speed Limited CSI-2 to GMSL2 Deserializer w/ HSD
MAX96714-BCK-EVK#	Full Speed CSI-2 to GMSL2 Deserializer w/ HMTD
MAX96714F-BCK-EVK#	Speed Limited CSI-2 to GMSL2 Deserializer w/ HMTD
MAX96714R-BCK-EVK#	Non-ASIL Speed Limited CSI-2 to GMSL2 Deserializer w/ HMTD

#Denotes RoHS compliance.

Note: The MAX96714, MAX96714F, and MAX96714R EV kits are normally ordered with a companion deserializer board:
- The MAX96717 EV kit

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MAX96714 EV Kit Bill of Materials

ITEM	REF DES	DNI/DNP	QTY	MFG PART #	MANUFACTURER	VALUE	DESCRIPTION	COMMENTS
1		12	1	PJ-002AH	CUI INC.	PJ-002AH	CONNECTOR, MALE, THROUGH HOLE, DC POWER JACK, RIGHT ANGLE, 3PINS	
2	C1-C3, C9, C11, C13, C16, C19-C22, C24-C32, C37, C45, C50, C52, C53, C56, C60	-	27	C1005X7R1C104K050BQC; ATC530L104KT16.0402YC104KAT2A; C0402X7R160-104KNE;CL05B104K05NNNC; GRM155R71C104KA88;C1005X7R1C104K; C0402KX7R78B104; EMK105B7104KV;CL05B104K05	TDK;AMERICAN TECHNICAL CERAMICS;AVX;VENKEL LTD.;SAMSUNG ELECTRONICS;MURATA;TDK;YAGIED PHICOMP;TAIYO YUDEN;SAMSUNG ELECTRONICS	0.1UF	CAP, SMT (0402); 0.1UF; 10%; 16V; X7R, CERAMIC	
3	C4	-	1	C1005C0G1H220G050	TDK	22PF	CAP, SMT (0402); 22PF; 2%; 50V; COG, CERAMIC	
4	C5, C10, C12, C15	-	4	C0402C103KGRAC;GRM155R71H103KA88; C1005X7R1H103K050BE;CL05B103KBSNNN; UMK105B7103KV	KEMET;MURATA;TDK;SAMSUNG ELECTRONIC;TAIYO YUDEN	0.01UF	CAP, SMT (0402); 0.01UF; 10%; 50V; X7R, CERAMIC	
5	C6	-	1	TAJCA76K0220RNU	AVX	47UF	CAP, SMT (6032); 47UF; 10%; 20V; TANTALUM	
6	C7, C14, C17, C35, C43, C46, C49, C51, C55, C57, C58, C67-C69	-	14	GR1188R61C106KE13	MURATA	10UF	CAP, SMT (0603); 10UF; 10%; 16V; X5R, CERAMIC	
7	C8	-	1	C0402C0G500270JNP; GRM1555C1H270JA01	VENKEL LTD.;MURATA	27PF	CAP, SMT (0402); 27PF; 5%; 50V; COG, CERAMIC	
8	C18, C23, C38	-	3	GRM188Z71C225KE43	MURATA	2.2UF	CAP, SMT (0603); 2.2UF; 10%; 16V; X7R, CERAMIC	
9	C33, C40	-	2	GRM31CR71A226KE15;GM31CR71A226KE1	MURATA;MURATA	22UF	CAP, SMT (1206); 22UF; 10%; 10V; X7R, CERAMIC	
10	C34	-	1	GMK107BJ105KA; C1608X5R1V105K080AB	TAIYO YUDEN;TDK	1.0UF	CAP, SMT (0603); 1.0UF; 10%; 35V; X5R, CERAMIC	
11	C36, C39	-	2	0805YCA75MA12A	AVX	4.7UF	CAP, SMT (0805); 4.7UF; 20%; 16V; X7R, CERAMIC	
12	C41, C42, C44	-	3	C1608X5R1E225K;TMK107ABJ225KA; TMK107B.J225KA;GRM188R61E225KA12	TDK;TAIYO YUDEN;TAIYO YUDEN;MURATA	2.2UF	CAP, SMT (0603); 2.2UF; 10%; 25V; X5R, CERAMIC	
13	C47, C48	-	2	GRM155R71E104KE14;C1005X7R1E104K050BB; TMK105B7104KVH;CGJ2B3X7R1E104K050BB	MURATA;TDK;TAIYO YUDEN;TDK	0.1UF	CAP, SMT (0402); 0.1UF; 10%; 25V; X7R, CERAMIC	
14	C54	-	1	GRM155R71H103JA88	MURATA	0.01UF	CAP, SMT (0402); 0.01UF; 5%; 50V; X7R, CERAMIC	
15	C59, C61	-	2	C1608X5R0J475MD80AB; GRM188R60J475ME19; JMK107BJ475MA	TDK;MURATA;TAIYO YUDEN	4.7UF	CAP, SMT (0603); 4.7UF; 20%; 6.3V; X5R, CERAMIC	
16	C62	-	1	T491X107K025A	KEMET	100UF	CAP, SMT (7343-43); 100UF; 10%; 25V; TANTALUM	
17	C64, C65	-	2	UMK105B.J224KV	TAIYO YUDEN	0.22UF	CAP, SMT (0402); 0.22UF; 10%; 50V; X5R, CERAMIC	
18	D1	-	1	ES1D	FAIRCHILD SEMICONDUCTOR	ES1D	DIODE, RECT, SMA (DO-214AC); PV=200V; IF=1A	
19	D2	-	1	B360B-13-F	DIODES INCORPORATED	B360B-13-F	DIODE, SCH, SCHOTTKY BARRIER DIODE, SMB; PV=60V; IR=3A; -55 DEGC TO +125 DEGC	
20	DS3V3, DS12V, DSLK, DSUSB	-	4	SML-P11MTT86	ROHM	SML-P11MTT86	DIODE, LED, SMT; PV=5V; IF=0.02A	
21	DSER, DSTZ	-	2	SML-P11UTT86	ROHM	SML-P11UTT86	DIODE, LED, SMT; PV=1.8V; IF=0.02A	
22	J1, J10	-	2	9020 BUSS	WAGO WIRE		EVK KIT PARTS; MAXIM PAD, WIRE, NATURAL; SOLID; WAGO WIRE, SOFT DRAWN BUS TYPE-S; 20AWG	
23	J3	-	1	1981568-1	TE CONNECTIVITY	1981568-1	CONNECTOR, FEMALE, SMT; MICRO USB STANDARD TYPE B ASSY; RIGHT ANGLE, 5PINS	
24	J4	-	1	PBC04SAAN	SULLINS ELECTRONICS CORP.	PBC04SAAN	CONNECTOR, MALE, THROUGH HOLE, BREAKAWAY; STRAIGHT; 4PINS; -65 DEGC TO +125 DEGC	
25	J5, J6, JHSD, JVDD, JVIO	-	5	PBC03SAAN	SULLINS	PBC03SAAN	CONNECTOR, MALE, THROUGH HOLE, BREAKAWAY; STRAIGHT; 3PINS; -65 DEGC TO +125 DEGC	
26	J8	-	1	D4S20L-40MA5-Z	ROSENBERGER	D4S20L-40MA5-Z	EVKIT-CONNECTOR, MALE, THROUGH HOLE, D4S20L-40MA5 SERIES; RIGHT ANGLE, 4PINS	
27	J9, JPOC, JV18D, JV10D, JVREF, JVTD	-	6	PBC02SAAN	SULLINS ELECTRONICS CORP.	PBC02SAAN	CONNECTOR, MALE, THROUGH HOLE, BREAKAWAY; STRAIGHT; 2PINS	
28	J13	-	1	393570002	MOLEX	393570002	CONNECTOR, FEMALE, THROUGH HOLE, 0.3MM RITCH BEAU EUROSTYLE FIXED MOUNT PCB TERMINAL BLOCK; RIGHT ANGLE, 2PINS	
29	J16	-	1	QSH-030-01-L-D-A	SAMTEC	QSH-030-01-L-D-A	CONNECTOR, MALE, SMT, HI-SPEED GROUND PLANE SOCKETS; STRAIGHT THROUGH, 60PINS; -55 DEGC TO +125DEGC	
30	J17	-	1	PBC12SAAN	SULLINS ELECTRONICS CORP.	PBC12SAAN	CONNECTOR, MALE, THROUGH HOLE, BREAKAWAY; STRAIGHT; 12PINS; -65 DEGC TO +125 DEGC	
31	JMP1	-	1	PBC04SAAN	SULLINS ELECTRONICS CORP.	PBC04SAAN	CONNECTOR, MALE, THROUGH HOLE, BREAKAWAY; STRAIGHT; 4PINS	
32	L1, L2	-	2	PFL1609-471ME	COILCRAFT	0.47UH	INDUCTOR, SMT; SHIELDED, 0.47UH; 20%; 1.3A	
33	L3	-	1	1210POC-682MR	COILCRAFT	6.8UH	EVKIT PART-INDUCTOR, SMT; FERRITE; CHOKE; TOL=+/-20%; 1A	
34	L4	-	1	MSS6132T-223ML	COILCRAFT	22UH	INDUCTOR, SMT; SHIELDED, 22UH; 20%; 1.9A	
35	L5	-	1	MST7341T-104ML	COILCRAFT	100UH	INDUCTOR, SMT; FERRITE, 100UH; 20%; 1.15A	
36	L6, L8-L11	-	5	BLM18KG601SN1	MURATA	600	INDUCTOR, SMT (0603); FERRITE-BEAD; 600; TOL=+/-25%; 1.3A	
37	L7	-	1	RFCMF1220100M3	WALSIN TECHNOLOGY CORPORATION	RFCMF1220100M3	INDUCTOR, SMT; CERAMIC CHIP; CHOKE; 0.3A	
38	L12	-	1	TFM201610ALMA-2R2MTAA	TDK	2.2UH	INDUCTOR, SMT (2016); THIN FILM, 2.2UH, TOL=+/-20%; 2.1A	
39	L13, L14	-	2	TFM25012ALMA-3R3MTAA	TDK	3.3UH	EVKIT PART-INDUCTOR, SMT; ORIGINAL FINE COPPER, 3.3UH, TOL=+/-20%; 2.2A	
40	L15	-	1	DIF252012P-4R7MHF2	MURATA	4.7UH	INDUCTOR, SMT (2520); FERRITE CORE, 4.7UH; TOL=+/-20%; 1.7A	
41	L16	-	1	BLM18SG121TN1	MURATA	120	INDUCTOR, SMT (0603); FERRITE-BEAD; 120; TOL=+/-25%; 3A	
42	R1, R2, R9, R15, R30-R32, R35, R44, R47, R51-R55, R57, R58, R60, R63, R65, R66, R74, R84, R96	-	24	ERJ-2GEJ103	PANASONIC	10K	RES, SMT (0402); 10K; 5%; +/-200PPM/DEGC; 0.1000W	
43	R3, R4, R6, R10-R14, R24, R28, R33, R37, R42, R43, R45, R46, R48-R50, R56, R59, R61, R62, R64, R77-R80, R83, R88, R89, R101, R104	-	33	ERJ-2GE0R00	PANASONIC	0	RES, SMT (0402); 0; JUMPER; JUMPER; 0.1000W	
44	R16	-	1	ERJ-2RKF8062	PANASONIC	80.6K	RES, SMT (0402); 80.6K; 1%; +/-100PPM/DEGC; 0.1000W	
45	R17-R20	-	4	ERJ-2RKF4991	PANASONIC	4.99K	RES, SMT (0402); 4.99K; 1%; +/-100PPM/DEGC; 0.1000W	
46	R21	-	1	CRCW040268K1FK	VISHAY DALE	68.1K	RES, SMT (0402); 68.1K; 1%; +/-100PPM/DEGC; 0.0630W	
47	R22, R23, R41, R75	-	4	ERJ-2RKF1001	PANASONIC	1K	RES, SMT (0402); 1K; 1%; +/-100PPM/DEGC; 0.1000W	
48	R26	-	1	CRCW040220K5FK	VISHAY DALE	20.5K	RES, SMT (0402); 20.5K; 1%; +/-100PPM/DEGC; 0.0630W	
49	R29	-	1	CRCW040232K4FK	VISHAY DALE	32.4K	RES, SMT (0402); 32.4K; 1%; +/-100PPM/DEGC; 0.0630W	
50	R36	-	1	CRCW0603402RFK	VISHAY DALE	402	RES, SMT (0603); 402; 1%; +/-100PPM/DEGC; 0.1000W	
51	R38, R39	-	2	CRCW040233R0FK	VISHAY DALE	33	RES, SMT (0402); 33; 1%; +/-100PPM/DEGC; 0.0630W	
52	R40	-	1	ERJ-2RKF4700	PANASONIC	470	RES, SMT (0402); 470; 1%; +/-100PPM/DEGC; 0.1000W	
53	R67-R71, R73, R98	-	7	CRCW06030000ZS;MCR03EZFPJ000;ERJ-3GEY0R00;CR0603AJJ-000ELF	VISHAY-ROHM SEMICONDUCTOR;PANASONIC;BOURNS	0	RES, SMT (0603); 0; JUMPER; JUMPER; 0.1000W	
54	R76	-	1	CRCW04022K20FK;RCD402FR-072K2L	VISHAY DALE;YAGIED PHICOMP	2.2K	RES, SMT (0402); 2.2K; 1%; +/-100PPM/DEGC; 0.0630W	
55	R81	-	1	ERJ-2GEJ104	PANASONIC	100K	RES, SMT (0402); 100K; 5%; +/-200PPM/DEGC; 0.1000W	

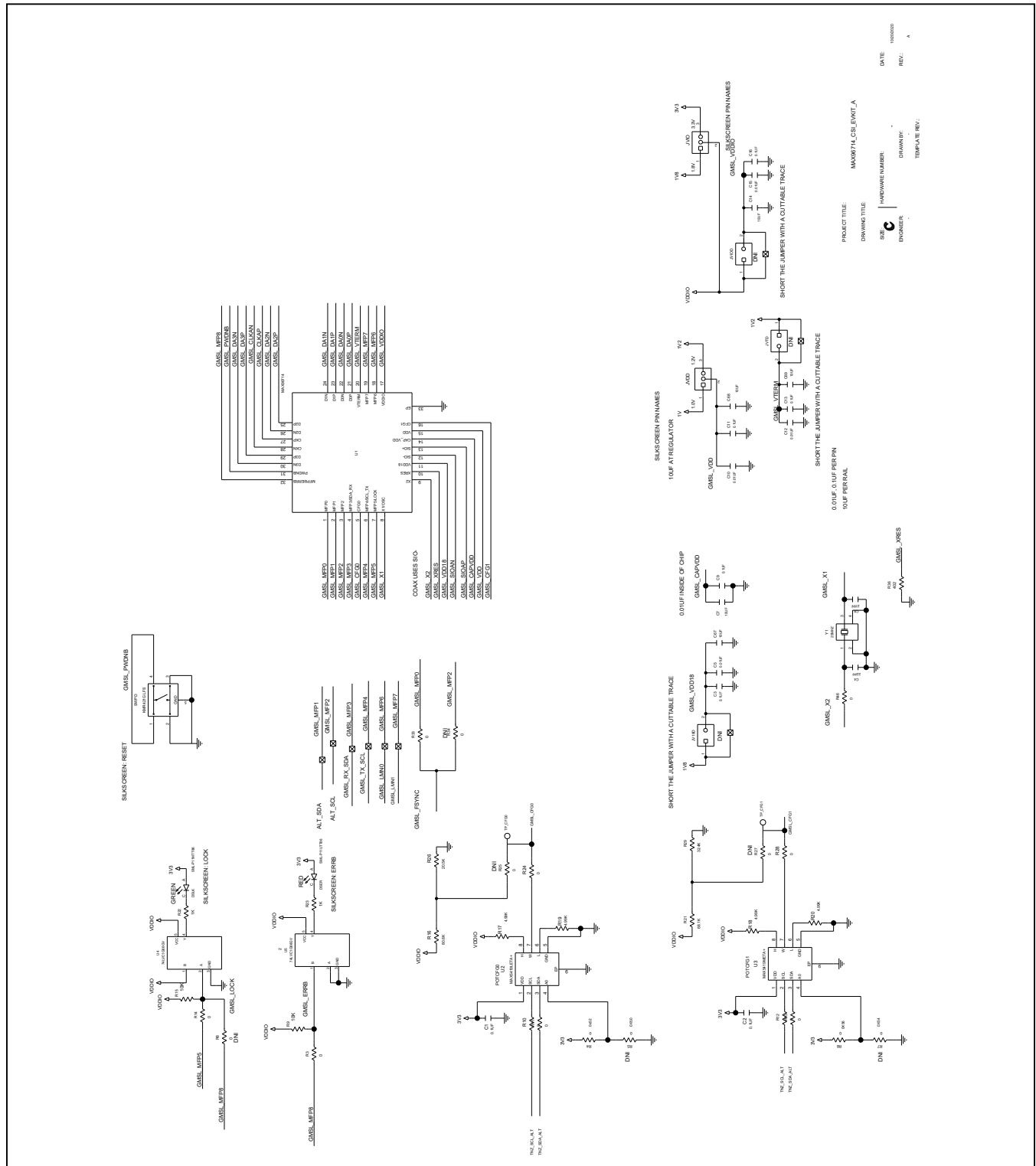
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MAX96714F, and MAX96714R

MAX96714 EV Kit Bill of Materials (continued)

ITEM	REF DES	DN/DNP	QTY	MFG PART #	MANUFACTURER	VALUE	DESCRIPTION	COMMENTS
56	R86	-	1	CRCW04021K00FK; RC0402FR-071KL;MCRD1MZPF1001	VISHAY DALEYAGEO PHICOMP/ROHM SEMI	1K	RES: SMT (0402); 1K; 1%; +/-100PPM/DEGC; 0.0630W	
57	R105	-	1	ERJ-2RK4872	PANASONIC	48.7K	RES: SMT (0402); 48.7K; 1%; +/-100PPM/DEGC; 0.1000W	
58	R106	-	1	CRCW040242K2FK;RC0402FR-0742K2L	VISHAY DALEYAGEO	42.2K	RES: SMT (0603); 42.2K; 1%; +/-100PPM/DEGC; 0.0630W	
59	R107	-	1	CRCW060349R9FK	VISHAY DALE	49.9	RES: SMT (0603); 49.9; 1%; +/-100PPM/DEGC; 0.1000W	
60	R203-R205	-	3	ERJ-3EK5F101	PANASONIC	5.1K	RES: SMT (0603); 5.1K; 1%; +/-100PPM/DEGC; 0.1000W	
61	SW4	-	1	1101-M2-S3-A-Q-E-2	C&K COMPONENTS	1101-M2-S3-A-Q-E-2	SWITCH: SPDT; THROUGH HOLE; RIGHT ANGLE; 120V; 6A; 1000 SERIES; ROIL=0.1 OHM; RINSULATION=100G OHM	
62	SW5	-	1	97C02	GRAYHILL	97C02	SWITCH: SPST; SMT; 24V; 0.025A; UNSEALED HALF-PITCH DIP SWITCH; ROIL= 0.1 OHM; RINSULATION=100M OHM; GRAYHILL; -40 DEGC TO +85 DEGC	
63	SWPD, SWTZ	-	2	KMR421G LFS	C&K COMPONENTS	KMR421G LFS	SWITCH: SPST; SMT; STRAIGHT; 32V; 0.05A; MICROMINATURE SMT TOP ACTUATED; ROIL=0.1 OHM OHM; RINSULATION=1G OHM OHM	
64	TP_CFG0, TP_CFG1	-	2	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	
65	U1	-	1	MAX96714GTJVV+MAX96714FGTJV+MAX96714RGTJ JV+MAX96714GTJVV+MAX96714FGTJVV+MAX96714RGTJVV+	MAXIM	MAX96714	EVKIT PART - IC; MAX96714; PACKAGE OUTLINE DRAWING: 21-0140; LAND PATTERN: 90-0013	
66	U2	-	1	MAX5419LETA+	MAXIM	MAX5419LETA+	IC; DPOT; 200K OHM; 256-TAP NONVOLATILE 2C-INTERFACE DIGITAL POTENTIOMETER; TDFN8-EP	
67	U3	-	1	MAX5419META+	MAXIM	MAX5419META+	IC; DPOT; 200K OHM; 256-TAP NONVOLATILE 2C-INTERFACE DIGITAL POTENTIOMETER; TDFN8-EP	
68	U4, U5	-	2	74LVC1G86GV	NXP	74LVC1G86GV	IC; XOR; 2-INPUT EXCLUSIVE-OR GATE; SOT753	
69	U6	-	1	MK20DX256VLH7	FREESCALE	MK20DX256VLH7	IC; UCON; KINETIS K2X MCU FAMILY; LOFP64	
70	U7	-	1	IC_MKL02232_QFN16	PJRC	IC_MKL02232_QFN16	IC; UCON; KINETIS KL02 32 KB FLASH; 48 MHz; CORTEX-M0+ BASED MICROCONTROLLER; MKL02 CHIP WITH PRE-PROGRAMMED TEENSY LC AND 3.2 BOOTLOADER; QFN16-EP	
71	U8	-	1	MAX3378EETD+	MAXIM	MAX3378EETD+	IC; TRANS; +/-15KV ESD-PROTECTED; 1UA; 16MBPS; QUAD LOW-VOLTAGE LEVEL TRANSLATOR; TDFN14-EP 3X3	
72	U9, U10	-	2	MAX3373E8KA+	MAXIM	MAX3373E8KA+	IC; TRANS; +/-15KV ESD-PROTECTED; 16MBPS; DUAL LOW-VOLTAGE LEVEL TRANSLATOR; SOT23-8	
73	U11	-	1	MAX14662ET+	MAXIM	MAX14662ET+	IC; SPST; BEYOND-THE-RAILS 8 X SPST; TQFN28-EP 4X4	
74	U12	-	1	MAX20049DATEE/VY+	MAXIM	MAX20049DATEE/VY+	IC; CONV; FLEXIBLE; COMPACT QUAD POWER SUPPLY WITH 2.2MHZ; 500MA BUCK CONVERTERS AND DUAL LDOS FOR AUTOMOTIVE CAMERA MODULES; TQFN16-EP	
75	U13	-	1	MAX20019ATBIV+	MAXIM	MAX20019ATBIV+	EVKIT PART-IC; VCON; 3.2MHZ; 500MLIUMPERE DUAL STEP-DOWN CONVERTER FOR AUTOMOTIVE CAMERA; PACKAGE OUTLINE: 21-100125; LAND PATTERN DRAWING NO.: 90-100079; PACKAGE CODE: T1032+2C; TDFN10-EP	
76	U14	-	1	MAX20087ATPA/VY+	MAXIM	MAX20087ATPA/VY+	EVKIT PART - IC; MAX20087; QUAD CAMERA POWER PROTECTOR; TQFN20-EP; PACKAGE OUTLINE DRAWING: 21-0139; LAND PATTERN DRAWING: 90-0409; PACKAGE CODE: T2044+4C	
77	Y1	-	1	ECS-250-18-33Q-D5	ECS INC	25MHZ	CRYSTAL; SMT 3.2X2.5; 18PF; 25MHZ; +/-30PPM; +/-100PPM	
78	Y2	-	1	CX2016DB16000D0WZRC1	KYOCERA	16MHZ	CRYSTAL; SMT 2.0 MM X 1.6 MM; 8PF; 16MHZ; +/-25PPM; +/-40PPM	
79	PCB	-	1	MAX96714CSI	MAXIM	PCB	PCB;MAX96714CSI	
80	EV_KIT_BOX2	-	1	GKPYACRYL-001	GEEKIFY	N/A	EVKIT PART-ACCESSORY; PLASTIC COVER; TOP PLASTIC COVER WITH MAXIM LOGO	
81	EV_KIT_BOX2	-	1	GKPYACRYL-002	GEEKIFY	N/A	EVKIT PART-ACCESSORY; PLASTIC COVER; BOTTOM PLASTIC COVER WITHOUT MAXIM LOGO	
82	EV_KIT_BOX2	-	4	BS34CL06X25AP	BUMPER SPECIALTIES INC.	N/A	BUMPER; CLEAR-CYLINDRICAL SHAPE; 0.375D0.125H; POLYURETHANE	
83	EV_KIT_BOX2	-	4	4802	KEYSTONE	N/A	STANDOFF; MALE; FEMALE-THREADED; HEX; 4-40IN; 0.50IN; NYLON	
84	EV_KIT_BOX2	-	4	1902D	KEYSTONE	N/A	STANDOFF; FEMALE-THREADED; HEX; 4-40IN; 3/4IN; NYLON	
85	EV_KIT_BOX2	-	8	NY PMS 440 0025 PH	B&F FASTENER SUPPLY	N/A	MACHINE SCREW; PHILLIPS; PAN; 4-40; 1/4IN; NYLON	
86	EV_KIT_BOX1	-	2	24480	KEYSTONE	N/A	STANDOFF; FEMALE-THREADED; HEX; M5; 5MM; STEEL	
87	EV_KIT_BOX1	-	4	RM3X4MM Z701	APM HEXSEAL	N/A	MACHINE SCREW; PHILLIPS; PAN; M5; 4MM; STAINLESS STEEL	
88	EV_KIT_BOX5	-	10	NPD02SXON-RC	SULLINS ELECTRONICS CORP.	N/A	CONNECTOR; FEMALE; MINI SHUNT; 0.100IN CC; OPEN TOP; JUMPER; STRAIGHT; 2PINS	
89	PACKOUT_BOX	DNP	1	AK67421-0.5	ASSMANN	N/A	CONNECTOR; USB CABLE; MALE-MALE; USB_2.0; 5PINS-4PINS; 500MM	
90	PACKOUT_BOX	DNP	1	WSU120-2000	TRIAD MAGNETICS	N/A	ACCESSORY; WALL ADAPTER; V1(90-264VAC); V0(12VDC); 6FT	
91	PACKOUT_BOX	DNP	1	LD5-101-2000-Z-Z	ROSENBERGER	N/A	CONNECTOR; HSD CABLE; MALE-MALE; WIREMOUNT; 4PINS-4PINS; 2000MM	
92	C63, C66, C70, C71	DNP	0	UMK105BJ224KV	TAIYO YUDEN	0.22UF	CAP; SMT (0402); 0.22UF; 10%; 50V; X5R; CERAMIC	
93	J2	DNP	0	ES201-40MT5-Z	ROSENBERGER	ES201-40MT5-Z	EVKIT PART - CONNECTOR; MALE; THROUGH HOLE; PLUG PCB; RIGHT ANGLE; 2PINS;	
94	JAP	DNP	0	59S2AQ-40MT5-Z_1	ROSENBERGER	59S2AQ-40MT5-Z_1	CONNECTOR; MALE; THROUGH HOLE; FAKRA-HF RIGHT ANGLE PLUG PCB WITH HOUSING; RIGHT ANGLE; 5PINS	
95	JCOAX	DNP	0	PBC03SAAN	SULLINS	PBC03SAAN	CONNECTOR; MALE; THROUGH HOLE; BREAKAWAY; STRAIGHT; 3PINS; -65 DEGC TO +125 DEGC	
96	R5, R7, R8, R25, R27, R34, R82, R85, R87, R90, R102, R103	DNP	0	ERJ-2GE0R00	PANASONIC		0 RES: SMT (0402); 0; JUMPER; JUMPER; 0.1000W	
97	R72, R91, R92, R94, R95, R97, R99	DNP	0	CRCW06030000ZS;MCR03EZPJ000;ERJ-3GEY0R00;CR0603AJ-000ELF	VISHAY/ROHM SEMICONDUCTOR;PANASONIC;BOURNS		0 RES: SMT (0603); 0; JUMPER; JUMPER; 0.1000W	
98	R93, R106	DNP	0	ERJ-2GE1103	PANASONIC	10K	RES: SMT (0402); 10K; 5%; +/-200PPM/DEGC; 0.1000W	
99	R100	DNP	0	ERJ-2RK4872	PANASONIC	48.7K	RES: SMT (0402); 48.7K; 1%; +/-100PPM/DEGC; 0.1000W	
100	TP_ALT_SQ, TP_ALT_SDA	DNP	0	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	
TOTAL			265					

MAX96714 EV Kit Schematics

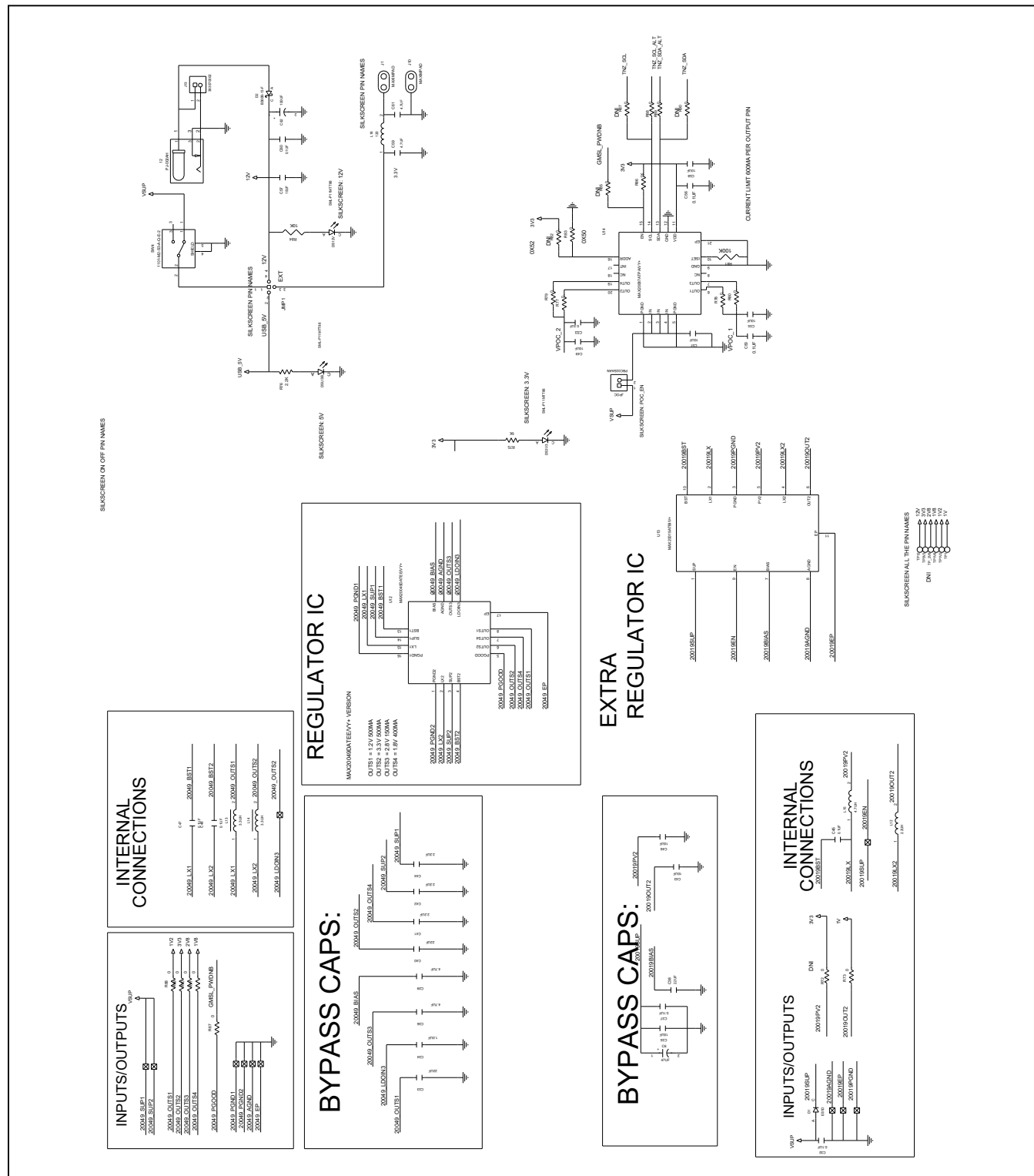


Evaluates: MAX96714,
MAX96714F, and MAX96714R

MAX96714 CSI Evaluation Kit

Evaluates: MAX96714,
MAX96714F, and MAX96714R

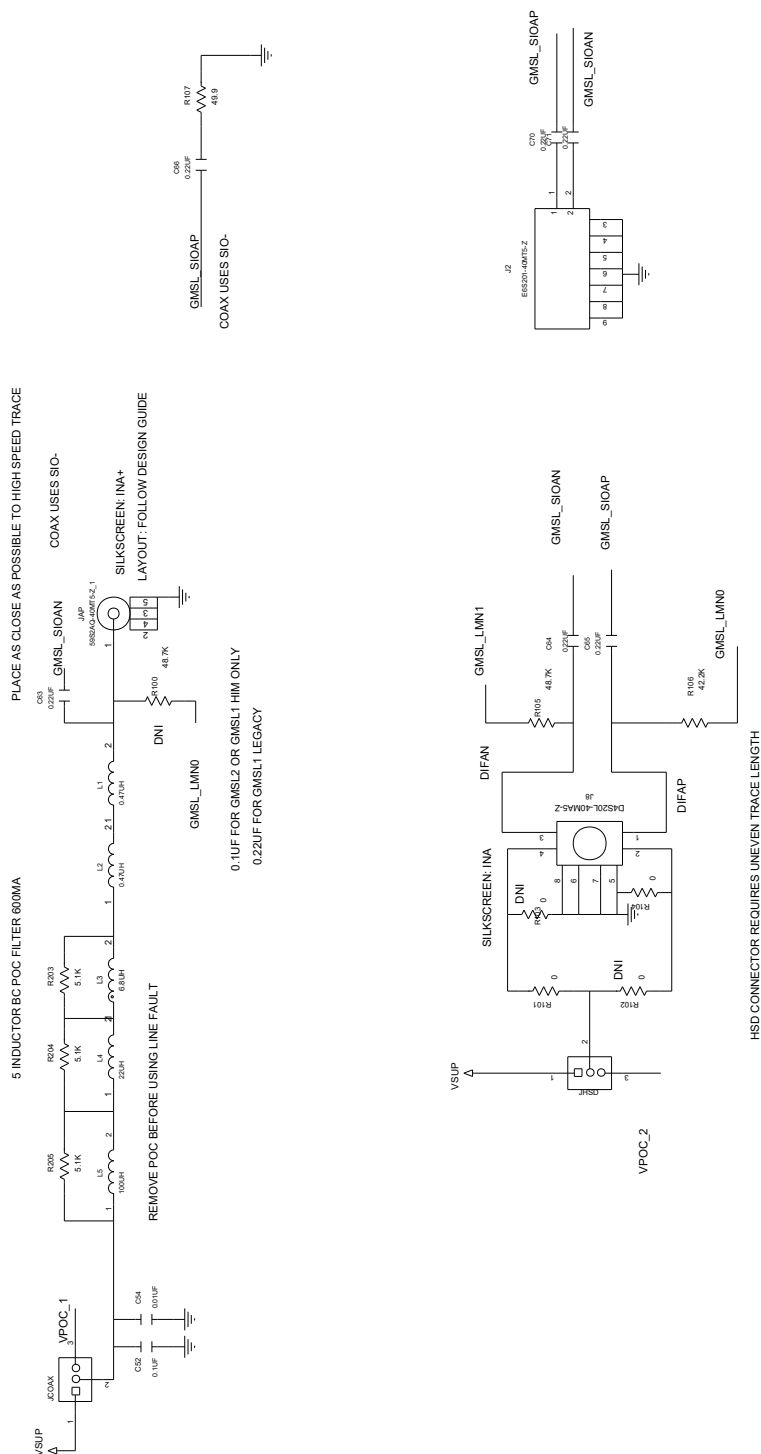
MAX96714 EV Kit Schematics (continued)



MAX96714 CSI Evaluation Kit

Evaluates: MAX96714,
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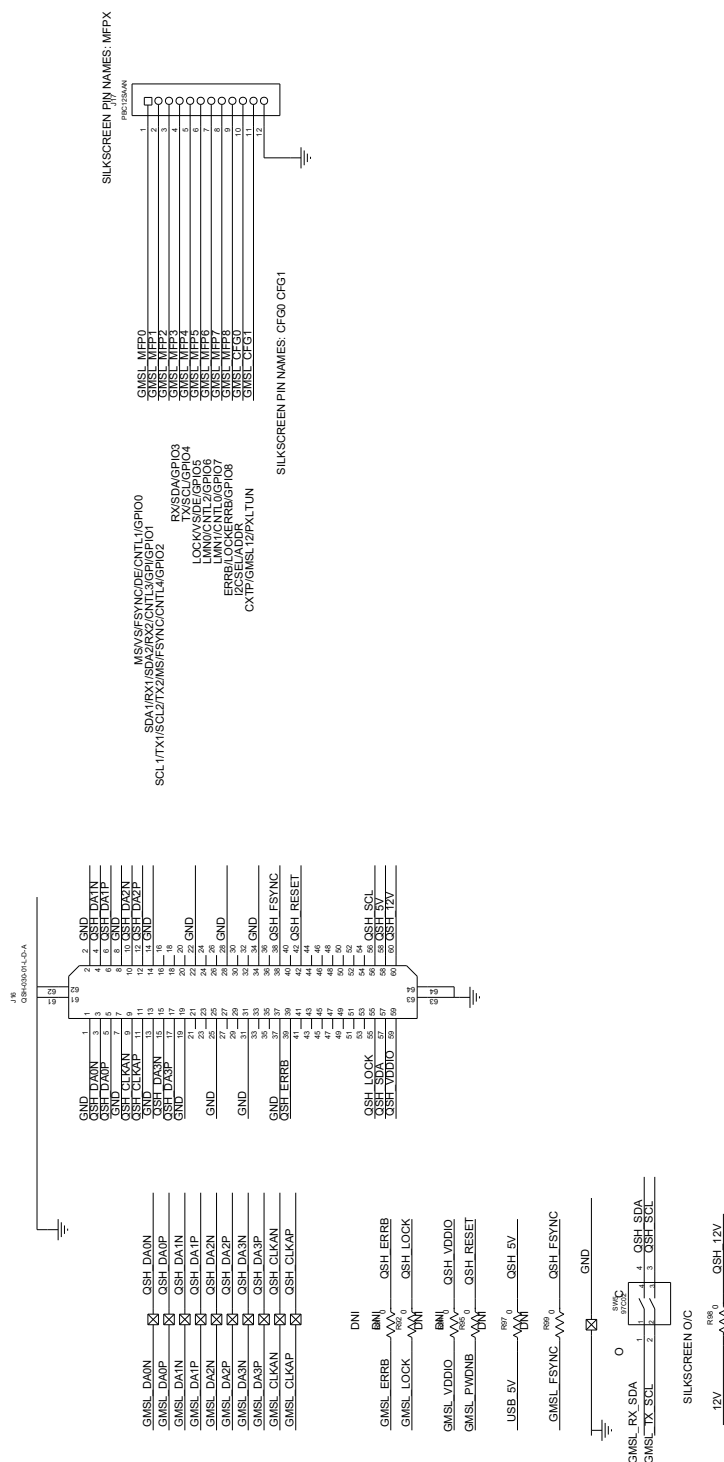
MAX96714 EV Kit Schematics (continued)



MAX96714 CSI Evaluation Kit

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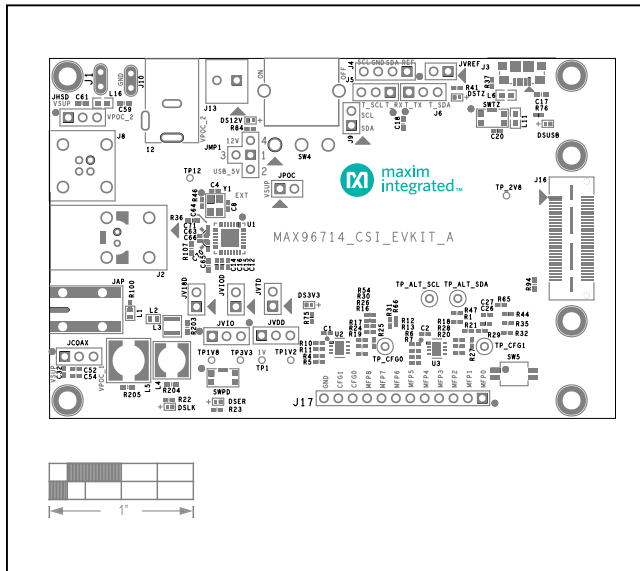
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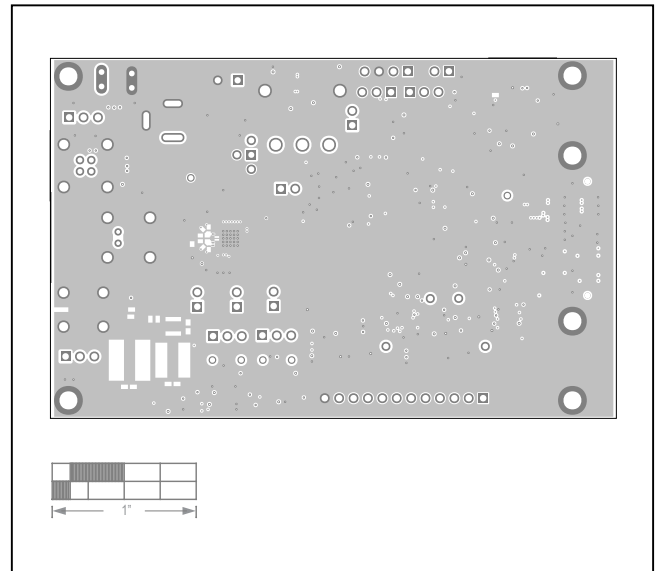
MAX96714 CSI Evaluation Kit

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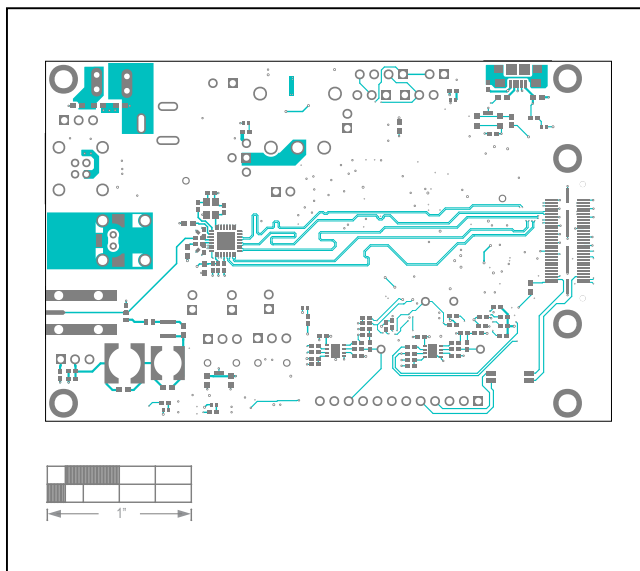
MAX96714 EV Kit PCB Layout



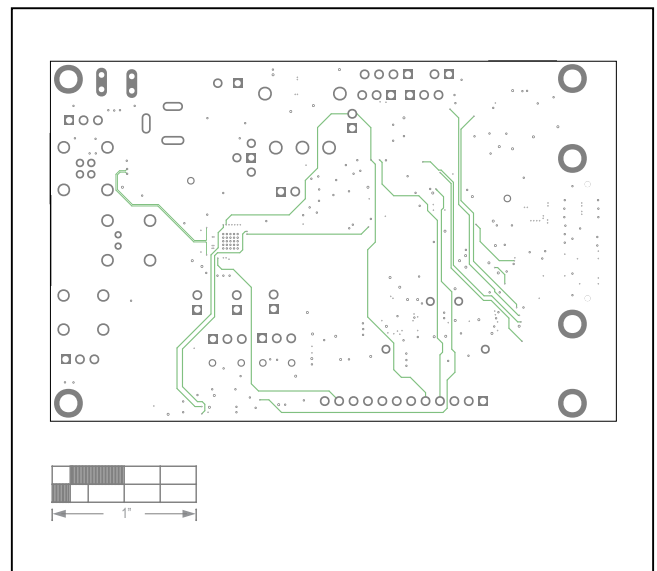
Silk Top



Layer 2



Top

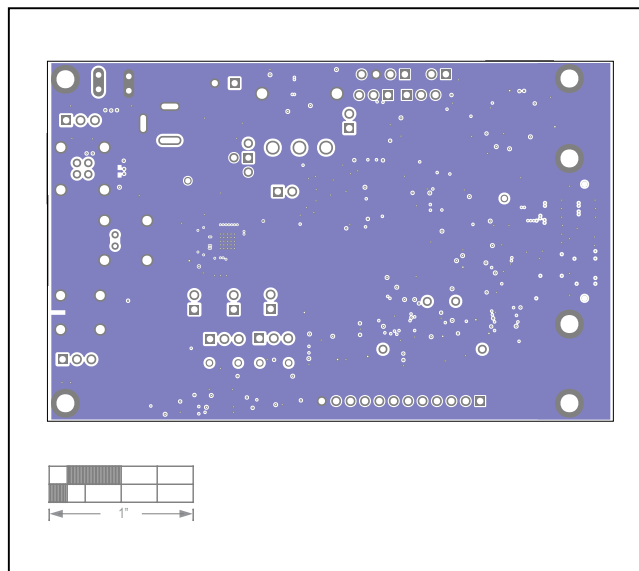
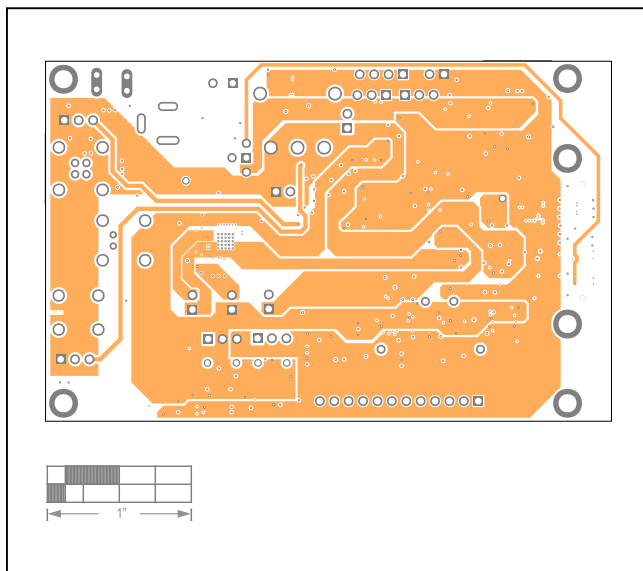
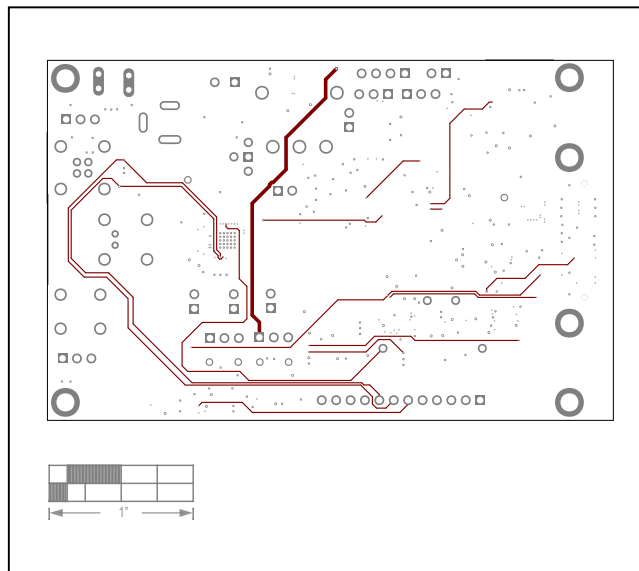
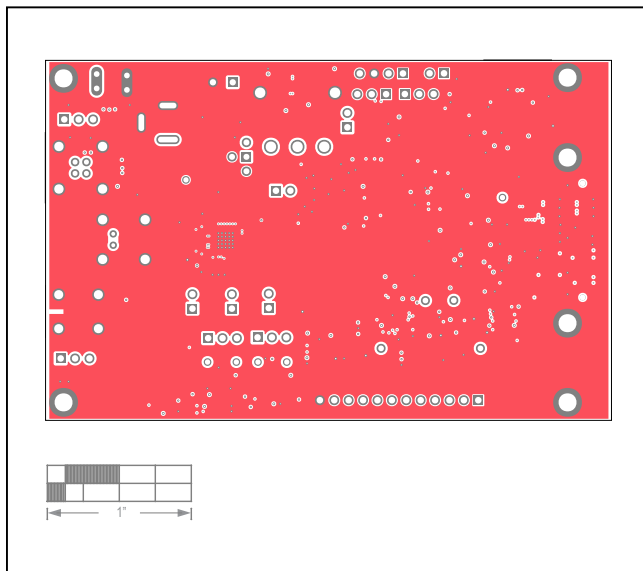


Layer 3

MAX96714 CSI Evaluation Kit

Evaluates: MAX96714,
MAX96714F, and MAX96714R

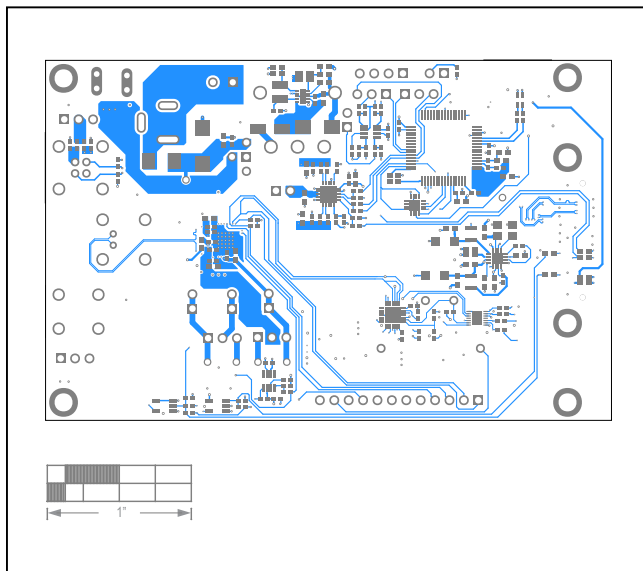
MAX96714 EV Kit PCB Layout



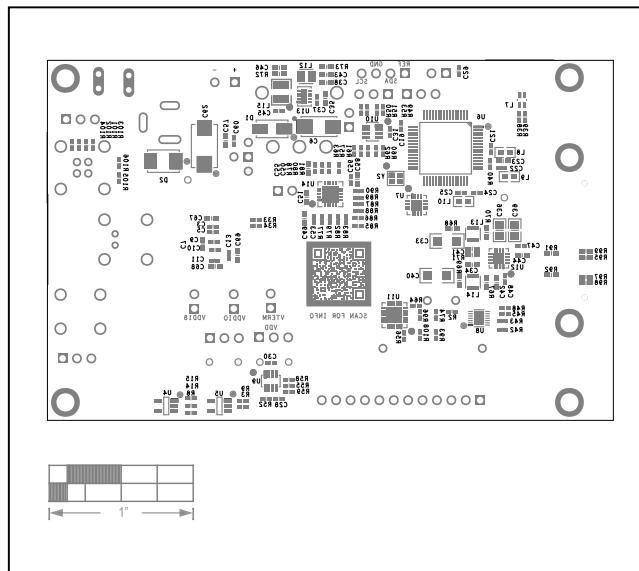
MAX96714 CSI Evaluation Kit

Evaluates: MAX96714,
MAX96714F, and MAX96714R

MAX96714 EV Kit PCB Layout



Bottom



Silk Bottom

MAX96714 CSI Evaluation Kit

Evaluates: MAX96714,
MAX96714F, and MAX96714R

Revision History

REVISION NUMBER	REVISION DATE	DESCRIPTION	PAGES CHANGED
0	9/21	Initial release	—
1	6/23	Replaced MAX9295A reference with MAX96717.	1, 2, 6



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