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

Evaluates: MAX96752

MAX96752 Evaluation Kit

General Description

The MAX96752 evaluation kit (EV kit) provides a proven design to evaluate the MAX96752 high-bandwidth Gigabit Multimedia Serial Link (GMSL) deserializer with spread spectrum and full-duplex control channel with the use of a standard FAKRA coaxial cable or HSD STQ cable. The EV kit also includes Windows® 10 application software to provide a simple graphical user interface (GUI) for exercising features of the device.

For complete GMSL evaluation, order the MAX96752 coax EV kit with a companion GMSL-2 serializer board (MAX96751 coax EV kit, see note in Ordering Information).

Note: In the following sections, deserializer means MAX96752 and serializer means MAX96751.

Note: This document applies to both coax and HSD-STQ evaluation kits, coax EV kit is referenced in this document.

Features

- GMSL-2 Deserializer EV Kit Cable of Driving a Dual oLDI Display
- Supports Video Replication and Dual-View Splitting for Driving Two Displays
- Accepts GMSL-2 Serial Data Through 50Ω FAKRA Coax or 100Ω HSD-STQ Connectors
- 3Gbps or 6Gbps Forward Link Rates for System and Power Flexibility
- Configurable Power-Over-Coax (PoC) and Line Fault Circuits
- I2S Audio Interface
- Header for GPIO, SPI, I2C, and UART Signals
- Tools to Characterize GMSL Channel Signal Integrity
- 12V DC Supply (Included), USB, PoC, or Externally Powered
- Windows 10-Compatible Applications Software (GUI)
- USB Controlled Interface (Included)
- Proven PCB Layout
- Fully Assembled and Tested

Quick Start

To start evaluating, there are a few installation and setup requirements. The procedure includes the necessary steps for the basic bring-up of the deserlializer EV kit. Figure 2 shows a typical application using an HDMI serializer with the oLDI deserializer.

Required Equipment

- MAX96752 Coax EV Kit
- MAX96751 Coax EV Kit
- FAKRA Coax Cable (Included)
- HDMI Video Source
- oLDI display and OLDI adapter board
- Computer with Windows 10 and an available USB port
- 12V DC, 500mA power supply

MAX96752 EV Kit Files

FILE	DESCRIPTION
GMSL SerDes Public GUI_ VX_X_X_X_Install.exe	Installs the evaluation kit files in your computer
GMSL SerDes Public GUI.exe	Graphical User Interface (GUI) program

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

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319-101040; Rev 0; 1/24

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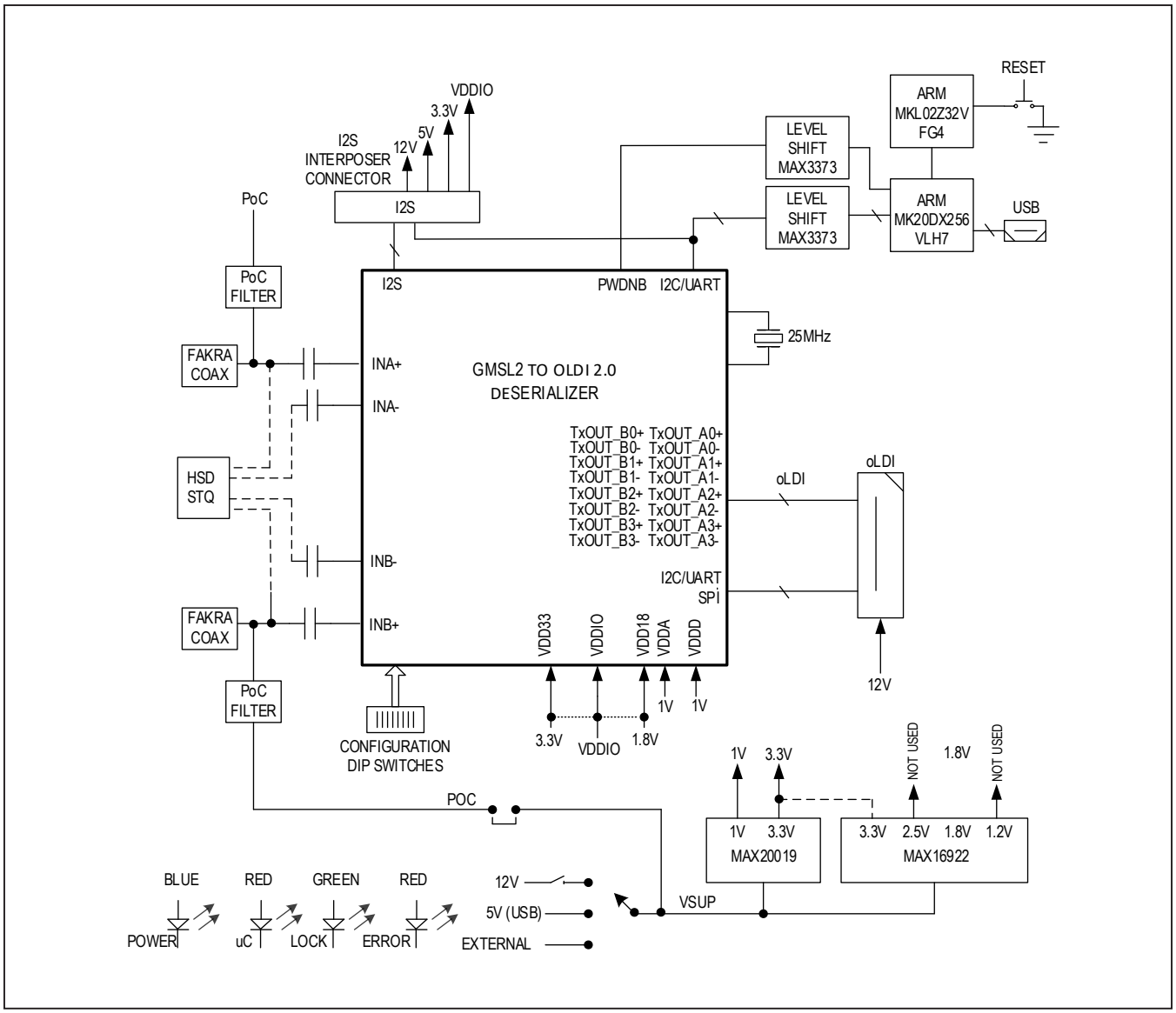

Figure 1. Deserializer Evaluation Board Block Diagram

Procedure

The MAX96752 COAX/STQ EV Kit is shipped with the PCB fully assembled and tested. Follow the steps below to verify board operation:

1) Download and install the latest GMSL public GUI from Analog.com.
2) Verify that the on-board jumpers on the deserializer board are in their default positions (Figure 3) with SW1 off.
3) Configure SW2 as shown in Figure 3 to set deserializer address to 0x90, COAX mode, and I2C control.
4) Connect the FAKRA cable from the OUTA+ terminal on the serialzer board to the INA+ terminal on the deserializer.
5) Connect the +12V wall DC power supply into J1. See Figure 4 for power supply details.
6) Turn SW1 on for both the serializer and deserializer EV kits.
7) Verify that the blue power LED and red Teensy® LED are illuminated.
8) Verify the LOCK LED on both serializer and deserializer EV kits light up, indicating that the link has been successfully established. If the LOCK_LED is off or ERRB LED is illuminated on the deserializer board, see the *Troubleshooting* section. Due to the default error conditions enabled on the serializer device versus the default hardware configuration of the serializer board, the ERRB LED is illuminated upon power-up.
9) Connect the USB cable between the PC and J4 on the serializer EV kit. Start the GUI by selecting Start | Programs | Maxim Integrated | MAXSerDesEV-GMSL.
10) When the GUI opens, it automatically searches for any active listener in both I2C and UART mode and identifies a valid GMSL product. Once the serializer and deserializer are identified, they are shown as tabs in the GUI.
11) Read register 0x00 in both deserializer and serializer to ensure both devices are active.
12) The basic bring-up is now complete. Refer to Help | User's Manual for GUI operation, GMSL2 User's Guide for configuration of this device and its available features, or Maxim Applications for additional details and support.

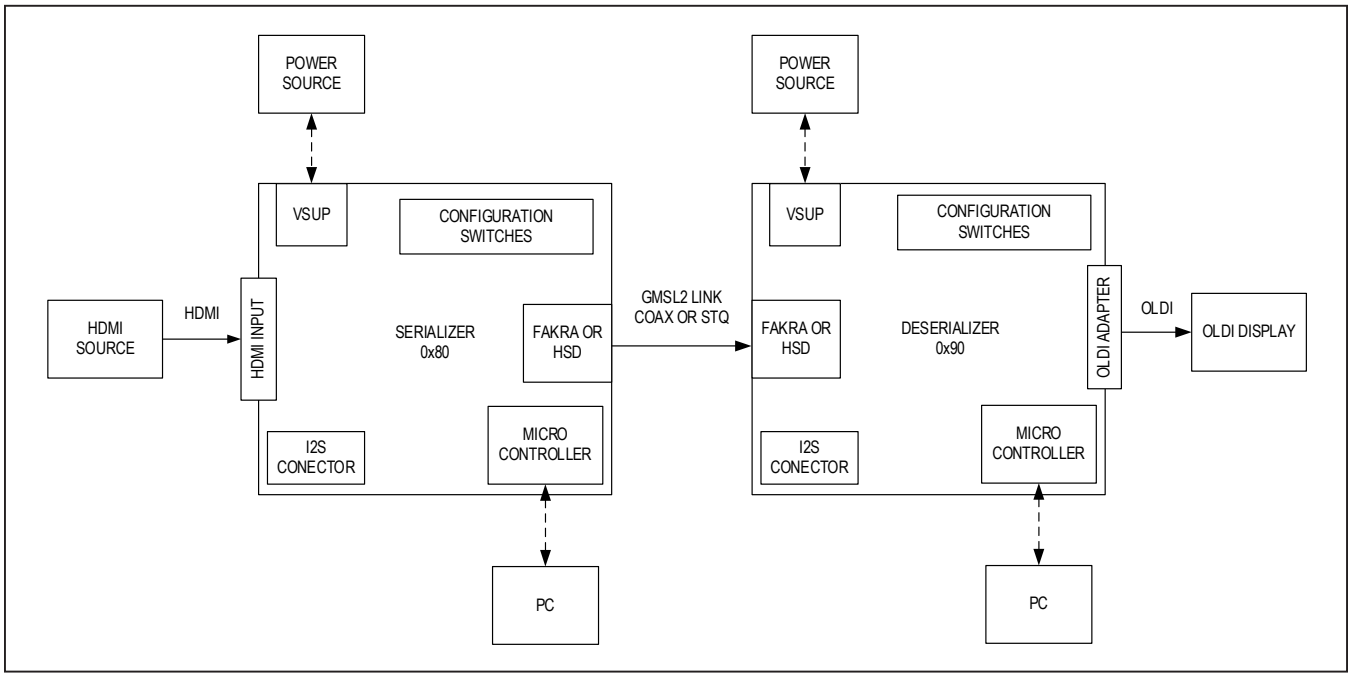

Figure 2. Typical GMSL System Evaluation Setup Block Diagram

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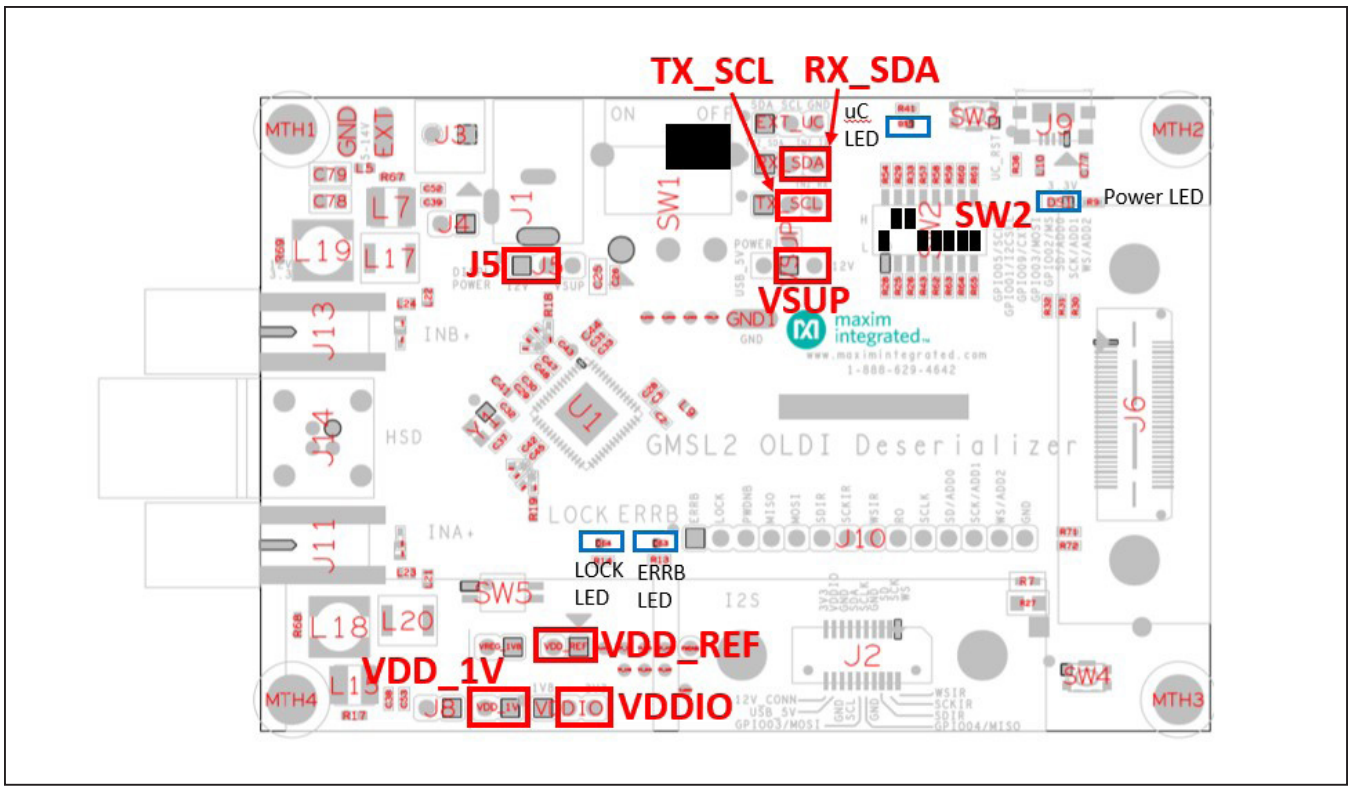


Figure 3. Deserializer Evaluation Board Default Jumper and Switch Positions

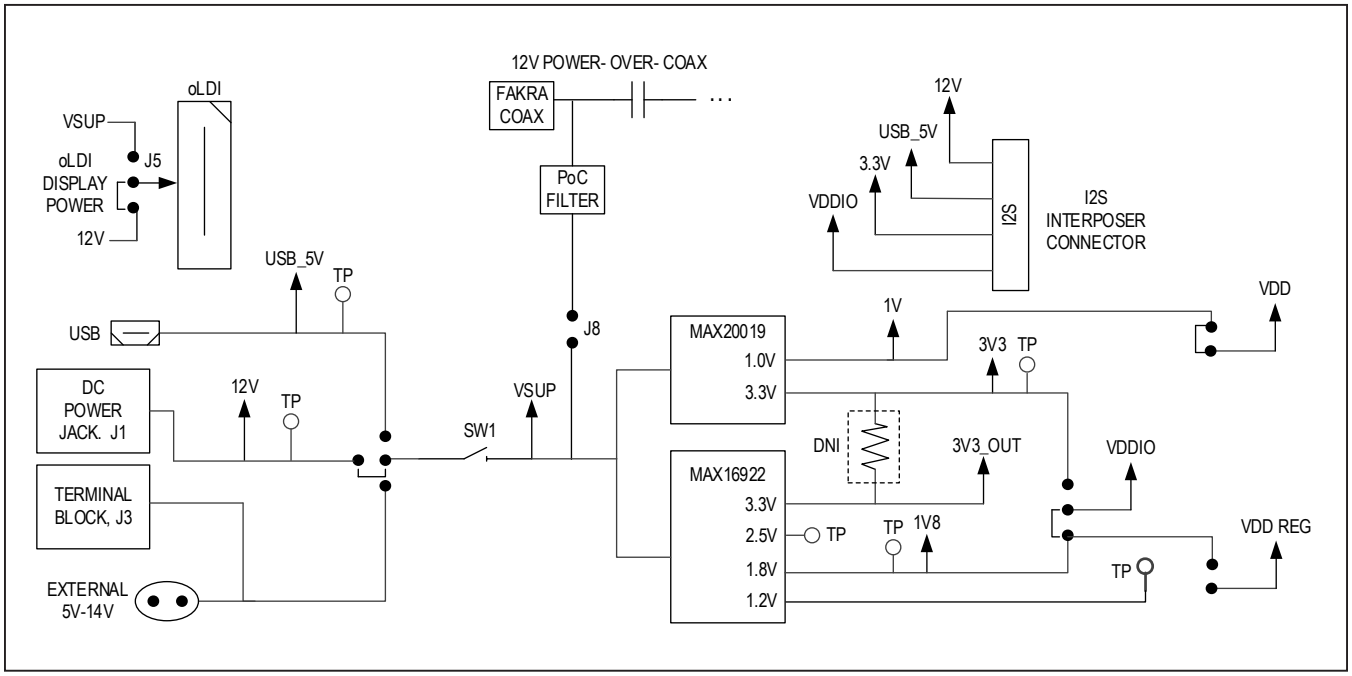


Figure 4. Deserializer Evaluation Board Power Block Diagram

Table 1. Jumper Description

JUMPER	SIGNAL	DEFAULT POSITION	FUNCTION
VSUP	VSUP	12V	Select source of board power
VDDIO	VDDIO	3.3V	Select between 1.8V and 3.3V
VDD_REF	VDD_REF	Installed	Enable µC UART/I2C reference voltage (3.3V)
VDD_1V	VDD_1V	Installed	Select 1V to VDDD. Remove if 1.8V will be used at VREG_1V8
VREG_1V8	VREG_1V8	Not Installed	Allows internal regulator to be used.
J5	12V_CONN	12V	Select display power between 12V and VSUP selection
TX_SCL	TNZ_SCL_TX	SCL	I2C or UART connection to serializer
TX_SDA	TNZ_SDA_RX	SDA	I2C or UART connection to serializer
C61/C54	SIOA+	C54(FAKRA/COAX)	Allows switching between FAKRA and HSD connector
C59/C46	SIOB+	C46(FAKRA/COAX)	Allows switching between FAKRA and HSD connector
C60/C57	SIOA-	C57 (AC Term)	Allows switching between AC termination and HSD connector
C58/C56	SIOB-	C56 (AC Term)	Allows switching between AC termination and HSD connector
TP_12V	+12V	N/A	+12V input power test point
TP_3V3	+3.3V	N/A	+3.3V input power test point
TP_2V5	+2.5V	N/A	+2.5V input power test point
TP_1V8	+1.8V	N/A	+1.8V input power test point
TP_1V2	+1.2V	N/A	+1.2V input power test point
TP_1V	+1 V	N/A	+1V input power test point
TP_USB5V	+5V	N/A	+5V input power test point
LOCK	LOCK	N/A	Lock status test point
ERRB	ERRB	N/A	ERRB status test point
PWDNB	PWDNB	N/A	PWDNB test point
TP_GPIO01	GPIO01	N/A	GPIO1/I2CSEL test point
TP_EXTPWR	EXTPWR	N/A	External power test point
J10	GMSL_ERRB	N/A	ERRB test point
J10	GMSL_LOCK	N/A	GMSL LOCK test point
J10	GMSL_PWDNB	N/A	Power down test point
J10	GMSL_MISO	N/A	SPI Main in subordinate out test point
J10	GMSL_MOSI	N/A	SPI Main out subordinate in test point
J10	GMSL_SDIR	N/A	I2S Serial data in test point
J10	GMSL_SCKIR	N/A	I2S Serial clock in test point
J10	GMSL_WSIR	N/A	I2S Serial word select input test point
J10	GMSL_RO	N/A	SPI RO test point
J10	GMSL_SCLK	N/A	SPI Clock test point

Table 1. Jumper Description (continued)

JUMPER	SIGNAL	DEFAULT POSITION	FUNCTION
J10	GMSL_SD_ADD0	N/A	Address 0 test point
J10	GMSL_SCK_ADD1	N/A	Address 1 test point
J10	GMSL_WS_ADD2	N/A	Address 2 test point
TP_GPIO02	GPIO02	N/A	GPIO2 test point
TP_GPIO09	GPIO09	N/A	GPIO9/CXTP test point
J8	POCA	Not installed	Power over coax enable Phy A
J4	POCB	Not installed	Power over coax enable Phy B

Table 2. Items Included in the Evaluation Kit Package

ITEM DESCRIPTION	QTY
MAX96752 EV kit	1
USB cable	1
+12V wall supply	1
COAX cable for COAX EV kits	1
STQ cable for HSD EV kits	1

Troubleshooting

If the MAX96752 EV kit fails to power-up or does not function properly, try the appropriate remedial actions below:

1) Make sure the boards' red power switches (SW1) are set to the ON position.
2) Verify that the device is powered properly. Check to ensure that the voltages at all device pins are within their operating ranges.
3) Check that all jumpers are correctly set. See the default jumper settings table in the serializer and deserializer EV kit data sheets. Also, ensure that all jumpers are firmly attached. Replace loose or damaged jumpers if necessary.
4) Check that the USB cable is properly seated in the USB port. The USB LED should be lit if connected to a PC, even if the board is powered down.
5) Check that the serializer and deserializer GMSL generations match. Both devices should start in the same mode (GMSL2).
6) Check that the COAX/STQ cable connection between the serializer and deserializer is good–it clicks when plugged in fully.
7) Check to see if the DUT has been inadvertently put into Teensy reset mode. The board's TEENSY_RST button should only be pressed when firmware is being flashed to the DUT. If the button is pressed during normal operation, the device goes into Teensy reset mode. Power-cycle the board to resume normal operation with the current firmware.
8) Check that the I^2C/UART jumpers match the DUT communication mode (SCL/SDA for I2C, TX/RX for UART).

9) Check that the AC coupling capacitors are populated correctly and routing the serial link to the correct connector for COAX or STQ mode. For coax boards, capacitors C54 and C57 (SIOA) and capacitors C46 and C56 (SIOB) should be populated. For HSD boards, capacitors C60 and C61 (SIOA) and capacitors C58 and C59 (SIOB) should be populated. (MAX96752 COAX/HSD EV kit boards are shipped with the correct capacitors installed.)
10) Check if the LOCK LED is ON in the absence of a connection to the deserializer: If so, then the DUT is either not powered correctly or damaged.
11) Check that the microcontroller firmware is active by observing the blinking red Teensy LED (DS5) at power-up. If the LED is not blinking, refer to the available software documentation to reprogram the microcontroller.
12) Check that the PC is detecting the COM port when the micro-USB cable is connected. Use the Windows Device Manager to check COM port status.
13) Power-cycle the board and reopen the GUI.
14) If the serializer board is faulty, try a new or different serializer board.

Component Suppliers

SUPPLIER	PHONE	WEBSITE
ECS, Inc.	(913) 782-7787	www.ecsxtal.com
KYOCERA	N/A	www.global.kyocera.com
Murata Electronics North America, Inc.	770-436-1300	www.murata-northamerica.com
Rosenberger Hochfrequenztechnik GmbH	011-49-86 84-18-0	www.rosenberger.de
TDK Corp.	847-803-6100	www.component.tdk.com
Diodes Incorporated	972-987-3900	www.diodes.com
ROHM	N/A	www.rohm.com
Sullins Electronics Corp	760-744-0125	www.sullinscorp.com

Note: *Indicate that you are using the MAX96752 when contacting these component suppliers.*

Ordering Information

PART	TYPE
MAX96752COAXEVKIT#	EV Kit
MAX96752HSDEVKIT#	EV Kit
MAX-GMSL-I2S-ADP#	I2S Audio Adapter
MAXGMSLOLDI-ADTER#	OLDI Adapter

#Defines RoHs Compliance.

Note: *The MAX96752 coax EV kits are normally ordered with a companion serializer board:*

- *MAX96751 Coax EV kit (MAX96751COAXEVKIT#)*

MAX96752 EV Kit Bill of Materials

ITEM	REF_DES	DNI/DNP	QTY	MFG PART #	MANUFACTURER	VALUE	DESCRIPTION
1	C1, C27	-	2	EMK316BB7226ML	TAIYO YUDEN	22UF	CAPACITOR; SMT (1206); CERAMIC CHIP; 22UF; 16V; TOL=20%; TG=-55 DEGC TO +125 DEGC; TC=X7R
2	C2, C28, C30, C33, C45, C47, C52, C53	-	8	GRM155R71H103JA88	MURATA	0.01UF	CAPACITOR; SMT (0402); CERAMIC CHIP; 0.01UF; 50V; TOL=5%; TG=-55 DEGC TO +125 DEGC; TC=X7R
3	C3, C5, C7, C10, C17, C18, C26, C29, C31, C38, C39, C42, C43, C46, C48, C54, C56, C57, C66-C69, C71-C76	-	28	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
4	C4, C6	-	2	C3216X5R1E476M160AC	TDK	47UF	CAPACITOR; SMT (1206); CERAMIC CHIP; 47UF; 25V; TOL=20%; MODEL=C SERIES; TG=-55 DEGC TO +85 DEGC; TC=X5R ;
5	C8, C9, C12-C14, C19-C25, C41, C44, C77	-	15	GRT188R61C106KE13	MURATA	10UF	CAPACITOR; SMT (0603); CERAMIC CHIP; 10UF; 16V; TOL=10%; TG=-55 DEGC TO +85 DEGC; TC=X5R; AUTO
6	C11, C15	-	2	C0603C104K5RAC; C1608X7R1H104K; ECJ-1VB1H104K; GRM188R71H104KA93; CGJ3E2X7R1H104K080AA; C1608X7R1H104K080AA; CL10B104KB8NNN; CL10B104KB8NFN; 06035C104KAT2A	KEMET;TDK;PANASONIC; MURATA;TDK;TDK; SAMSUNG;SAMSUNG; AVX	0.1UF	CAPACITOR; SMT (0603); CERAMIC CHIP; 0.1UF; 50V; TOL=10%; TG=-55 DEGC TO +125 DEGC; TC=X7R;
7	C16, C65, C70	-	3	GRM188Z71C225KE43	MURATA	2.2UF	CAPACITOR; SMT (0603); CERAMIC CHIP; 2.2UF; 16V; TOL=10%; TG=-55 DEGC TO +125 DEGC; TC=X7R
8	C32, C37	-	2	GRM1555C1H150FA01; GJM1555C1H150FB01	MURATA;MURATA	15PF	CAPACITOR; SMT (0402); CERAMIC CHIP; 15PF; 50V; TOL=1%; TG=-55 DEGC TO +125 DEGC; TC=C0G
9	C78, C79	-	2	TMK212AB7475K; CGJ4J1X7R1E475K125AC; C2012X7R1E475K125AB; CGA4J1X7R1E475K125AC; GRM21BZ71E475KE15	TAIYO YUDEN;TDK;TDK; TDK;MURATA	4.7UF	CAPACITOR; SMT (0805); CERAMIC CHIP; 4.7UF; 25V; TOL=10%; TG=-55 DEGC TO +125 DEGC; TC=X7R
10	D1, D2	-	2	ES1D	FAIRCHILD SEMICONDUCTOR	ES1D	DIODE; RECT; SMA (DO-214AC); PIV=200V; IF=1A
11	D3	-	1	DFLS140L	DIODES INCORPORATED	DFLS140L	DIODE; SCH; SMT (POWERDI-123); PIV=40V; IF=1A
12	D4	-	1	B360B-13-F	DIODES INCORPORATED	B360B-13-F	DIODE; SCH; SCHOTTKY BARRIER DIODE; SMB; PIV=60V;Io=3A; -55 DEGC TO +125 DEGC
13	D5	-	1	1N4742A	FAIRCHILD SEMICONDUCTOR	12V	DIODE, ZENER, DO-41, Pd=1W, Vz=12V@Iz=21mA
14	DS1	-	1	SMLE13BC8T	ROHM SEMICONDUCTOR	SMLE13BC8T	DIODE; LED; SML-E1 SERIES; BLUE; SMT (0603); VF=2.9V; IF=0.005A;
15	DS3, DS5	-	2	SML-P11UTT86	ROHM	SML-P11UTT86	DIODE; LED; SMT; PIV=1.8V; IF=0.02A
16	DS4	-	1	SML-P11MTT86	ROHM	SML-P11MTT86	DIODE; LED; SMT; PIV=5V; IF=0.02A
17	EXT, GND, GND1	-	3	9020 BUSS	WEICO WIRE	MAXIMPAD	EVK KIT PARTS; MAXIM PAD; WIRE; NATURAL;SOLID; WEICO WIRE; SOFT DRAWN BUS TYPE-S; 20AWG
18	EXT_UC, J5, VDDIO	-	3	PCC03SAAN	SULLINS	PCC03SAAN	CONNECTOR; MALE; THROUGH HOLE; BREAKAWAY; STRAIGHT THROUGH; 3PINS; -65 DEGC TO +125 DEGC
19	J1	-	1	PJ-002AH	CUI INC.	PJ-002AH	CONNECTOR; MALE; THROUGH HOLE; DC POWER JACK; RIGHT ANGLE; 3PINS
20	J2	-	1	ERF8-010-05.0-S-DV-K	SAMTEC	ERF8-010-05.0-S-DV-K	CONNECTOR; FEMALE; SMT; RUGGED HIGH SPEED SOCKET; STRAIGHT; 20PINS;
21	J3	-	1	393570002	MOLEX	393570002	CONNECTOR; FEMALE; THROUGH HOLE; 0.3MM PITCH BEAU EUROSTYLE FIXED MOUNT PCB TERMINAL BLOCK; RIGHT ANGLE; 2PINS
22	J4, J8, VDD_1V, VREG_1V8	-	4	PCC02SAAN	SULLINS	PCC02SAAN	CONNECTOR; MALE; THROUGH HOLE; BREAKAWAY; STRAIGHT THROUGH; 2PINS; -65 DEGC TO +125 DEGC
23	J6	-	1	QSH-030-01-L-D-A	SAMTEC	QSH-030-01-L-D-A	EVKIT PART - CONNECTOR; MALE; SMT; HI-SPEED GROUND PLANE SOCKETS; STRAIGHT THROUGH; 60PINS; -55 DEGC TO +125DEGC;
24	J9	-	1	1981568-1	TE CONNECTIVITY	1981568-1	CONNECTOR; FEMALE; SMT; MICRO USB STANDARD TYPE B ASSY; RIGHT ANGLE; 5PINS
25	J10	-	1	PBC14SAAN	SULLINS ELECTRONICS CORP.	PBC14SAAN	CONNECTOR; MALE; THROUGH HOLE; BREAKAWAY; STRAIGHT; 14PINS; -65 DEGC TO +125 DEGC
26	J11, J13	-	2	59S2AQ-40MT5-Z_1	ROSENBERGER	59S2AQ-40MT5-Z_1	CONNECTOR; MALE; THROUGH HOLE; FAKRA-HF RIGHT ANGLE PLUG PCB WITH HOUSING; RIGHT ANGLE; 5PINS

MAX96752 EV Kit Bill of Materials (continued)

ITEM	REF_DES	DNI/DNP	QTY	MFG PART #	MANUFACTURER	VALUE	DESCRIPTION
27	L1	-	1	DFE252012P-4R7M=P2	MURATA	4.7UH	INDUCTOR; SMT (2520); FERRITE CORE; 4.7UH; TOL=+/-20%; 1.7A
28	L2, L3	-	2	TFM201610ALMA2R2MTAA	TDK	2.2UH	INDUCTOR; SMT (2016); THIN FILM; 2.2UH; TOL=+/-20%; 2.1A
29	L4	-	1	TFM252012ALMA-3R3MTAA	TDK	3.3UH	EVKIT PART-INDUCTOR; SMT; ORIGINAL FINE COPPER; 3.3UH; TOL=+/-20%; 2.2A
30	L5	-	1	BLM18SG121TN1	MURATA	120	INDUCTOR; SMT (0603); FERRITE-BEAD; 120; TOL=+/-25%; 3A
31	L7, L15	-	2	XAL4040-153ME	COILCRAFT	15UH	INDUCTOR; SMT; METAL COMPOSITE CORE; 15UH; TOL=+/-20%; 2.8A
32	L9, L10, L12-L14	-	5	BLM18KG601SN1	MURATA	600	INDUCTOR; SMT (0603); FERRITE-BEAD; 600; TOL=+/-25%; 1.3A
33	L11	-	1	RFCMF1220100M3	WALSIN TECHNOLOGY CORPORATION	RFCMF1220100M3	INDUCTOR; SMT; CERAMIC CHIP; CHOKE; 0.3A
34	L17, L20	-	2	1812PS-222JL	COILCRAFT	2.2UH	INDUCTOR; SMT; FERRITE; 2.2UH; 5%; 2.40A
35	L18, L19	-	2	MSS6132T-682ML	COILCRAFT	6.8UH	INDUCTOR; SMT; FERRITE; 6.8UH; 20%; 2.80A
36	L21-L26	-	6	PFL1609-47NME	COILCRAFT	47NH	EVKIT PART - INDUCTOR; SMT; 47NH; 20%; 3.6A
37	PWDNB	-	1	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;
38	R1, R2	-	2	ERJ-2GEJ203	PANASONIC	20K	RESISTOR; 0402; 20K OHM; 5%; 200PPM; 0.10W; THICK FILM
39	R3-R8, R10, R55, R56, R66, R74	-	11	CRCW06030000ZS; MCR03EZPJ000; ERJ-3GEY0R00	VISHAY DALE;ROHM; PANASONIC	0	RESISTOR; 0603; 0 OHM; 0%; JUMPER; 0.10W; THICK FILM
40	R9	-	1	ERJ-2RKF2000	PANASONIC	200	RESISTOR; 0402; 200 OHM; 1%; 100PPM; 0.10W; THICK FILM
41	R11, R12	-	2	CRCW04022K20JN	VISHAY DALE	2.2K	RESISTOR; 0402; 2.2K OHM; 5%; 200PPM; 0.063W; METAL FILM
42	R13, R14, R29, R33, R54, R57-R61	-	10	ERJ-2RKF1001	PANASONIC	1K	RESISTOR; 0402; 1K OHM; 1%; 100PPM; 0.10W; THICK FILM
43	R15	-	1	CRCW0402402RFK	VISHAY DALE	402	RESISTOR; 0402; 402 OHM; 1%; 100PPM; 0.063W; THICK FILM
44	R17, R67-R69	-	4	ERJ-3EKF5101	PANASONIC	5.1K	RESISTOR; 0603; 5.1K OHM; 1%; 100PPM; 0.10W; THICK FILM
45	R18, R19	-	2	CRCW060349R9FK	VISHAY DALE	49.9	RESISTOR; 0603; 49.9 OHM; 1%; 100PPM; 0.10W; THICK FILM
46	R20-R23	-	4	CRCW040249K9FK; 9C04021A4992FLHF3	VISHAY DALE;YAGEO	49.9K	RESISTOR; 0402; 49.9K; 1%; 100PPM; 0.0625W; THICK FILM
47	R25, R26, R44-R51, R53, R62-R65	-	15	ERJ-2GEJ103	PANASONIC	10K	RESISTOR; 0402; 10K OHM; 5%; 200PPM; 0.10W; THICK FILM
48	R27	-	1	1676429; RN73C2A768RB	TE CONNECTIVITY; TE CONNECTIVITY	768	RESISTOR; 0805; 768 OHM; 0.1%; 10PPM; 0.1W; THIN FILM
49	R30-R32, R36, R71, R72	-	6	ERJ-2GE0R00	PANASONIC	0	RESISTOR; 0402; 0 OHM; 0%; JUMPER; 0.10W; THICK FILM
50	R37, R38	-	2	CRCW040233R0FK	VISHAY DALE	33	RESISTOR, 0402, 33 OHM, 1%, 100PPM, 0.0625W, THICK FILM
51	R39, R41	-	2	ERJ-2RKF4700	PANASONIC	470	RESISTOR; 0402; 470 OHM; 1%; 100PPM; 0.1W; THICK FILM
52	RX_SDA, TX_SCL	-	2	PBC03SABN	SULLINS	PBC03SABN	CONNECTOR; MALE; THROUGH HOLE; BREAKAWAY; STRAIGHT; 3PINS
53	SW1	-	1	1101-M2-S3-A-Q-E-2	C&K COMPONENTS	1101-M2-S3-A-Q-E-2	SWITCH; SPDT; THROUGH HOLE; RIGHT ANGLE; 20V; 6A; 1000 SERIES; RCOIL=0.1 OHM; RINSULATION=100G OHM
54	SW2	-	1	97C08S	GRAYHILL	97C08S	SWITCH;SPST;SMT;RINSULATION=100MOHM; GRAYHILL
55	SW3, SW4	-	2	KMR421G LFS	C&K COMPONENTS	KMR421G LFS	SWITCH; SPST; SMT; STRAIGHT; 32V; 0.05A; MICROMINIATURE SMT TOP ACTUATED; RCOIL=0.1 OHM OHM; RINSULATION=1G OHM OHM
56	SW5	-	1	97C02	GRAYHILL	97C02	SWITCH; SPST; SMT; 24V; 0.025A; UNSEALED HALF-PITCH DIP SWITCH; RCOIL= 0.1 OHM; RINSULATION=100M OHM; GRAYHILL; -40 DEGC TO +85 DEGC
57	U1	-	1	MAX96752GTN/V+	MAXIM	MAX96752GTN/V+	EVKIT PART - IC; GMSL2 DESERIALIZER WITH DUAL LVDS (OLDI) OUTPUT PACKAGE OUTLINE DRAWING: 21-0135; PACKAGE LAND PATTERN: 90-100041; PACKAGE CODE: T5688+6

MAX96752 EV Kit Bill of Materials (continued)

ITEM	REF_DES	DNI/DNP	QTY	MFG PART #	MANUFACTURER	VALUE	DESCRIPTION
58	U2	-	1	MAX20019ATBI/V+	MAXIM	MAX20019ATBI/V+	EVKIT PART-IC; VCON; 3.2MHZ; 500MILLIAMPERE DUAL STEP-DOWN CONVERTER FOR AUTOMOTIVE CAMERA; PACKAGE OUTLINE: 21-100125; LAND PATTERN DRAWING NO.: 90-100079; PACKAGE CODE: T1032+2C; TDFN10-EP
59	U3, U4	-	2	74LVC1G86GV	NXP	74LVC1G86GV	IC; XOR; 2-INPUT EXCLUSIVE-OR GATE; SOT753
60	U5	-	1	MAX16922ATPH/V+	MAXIM	MAX16922ATPH/V+	IC; CONV; 2.2MHZ; DUAL; STEP-DOWN DC-DC CONVERTER; DUAL LDOS AND RESET; TQFN20-EP
61	U6	-	1	MK20DX256VLH7	FREESCALE	MK20DX256VLH7	IC; UCON; KINETIS K2X MCU FAMILY; LQFP64
62	U7	-	1	IC_MKL02Z32_QFN16	PJRC	IC_MKL02Z32_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
63	U8, U9, U13	-	3	MAX3373EEKA+	MAXIM	MAX3373EEKA+	IC; TRANS; +/-15KV ESD-PROTECTED; 16MPBS; DUAL LOW-VOLTAGE LEVEL TRANSLATOR; SOT23-8
64	VDD_REF	-	1	PBC02SAAN	SULLINS ELECTRONICS CORP.	PBC02SAAN	CONNECTOR; MALE; THROUGH HOLE; BREAKAWAY; STRAIGHT; 2PINS
65	VSUP	-	1	PEC04SAAN	SULLINS ELECTRONICS CORP.	PEC04SAAN	CONNECTOR; MALE; THROUGH HOLE; BREAKAWAY; STRAIGHT; 4PINS
66	Y1	-	1	ECS-250-18-33Q-DS	ECS INC	25MHZ	CRYSTAL; SMT 3.2X2.5; 18PF; 25MHZ; +/-30PPM; +/-100PPM
67	Y2	-	1	CX2016DB16000D0WZRC1	KYOCERA	16MHZ	CRYSTAL; SMT 2.0 MM X 1.6 MM; 8PF; 16MHZ; +/-25PPM; +/-40PPM
68	PCB	-	1	MAX96752	MAXIM	PCB	PCB:MAX96752
69	EV_KIT_BOX4	-	1	GKFYACRYL-001	GEEKIFY	N/A	EVKIT PART-ACCESSORY; PLASTIC COVER; TOP PLASTIC COVER WITH MAXIM LOGO
70	EV_KIT_BOX4	-	1	GKFYACRYL-002	GEEKIFY	N/A	EVKIT PART-ACCESSORY; PLASTIC COVER; BOTTOM PLASTIC COVER WITHOUT MAXIM LOGO
71	EV_KIT_BOX4	-	4	BS34CL06X25AP	BUMPER SPECIALTIES INC.	N/A	BUMPER; CLEAR-CYLINDRICAL SHAPE; 0.375D/0.125H; POLYURETHANE
72	EV_KIT_BOX4	-	4	4802	KEYSTONE	N/A	STANDOFF; MALE_FEMALE-THREADED; HEX; 4-40IN; 0.50IN; NYLON
73	EV_KIT_BOX4	-	4	1902D	KEYSTONE	N/A	STANDOFF; FEMALE-THREADED; HEX; 4-40IN; 3/4IN; NYLON
74	EV_KIT_BOX4	-	8	NY PMS 440 0025 PH	B&F FASTENER SUPPLY	N/A	MACHINE SCREW; PHILLIPS; PAN; 4-40; 1/4IN; NYLON
75	EV_KIT_BOX5	-	2	24480	KEYSTONE	N/A	STANDOFF; FEMALE-THREADED; HEX; M3; 5MM; STEEL
76	EV_KIT_BOX5	-	4	RM3X4MM 2701	APM HEXSEAL	N/A	MACHINE SCREW; PHILLIPS; PAN; M3; 4MM; STAINLESS STEEL
77	EV_KIT_BOX3	-	7	NPC02SXON-RC	SULLINS ELECTRONICS CORP.	N/A	CONNECTOR; FEMALE; MINI SHUNT; 0.100IN CC; OPEN TOP; JUMPER; STRAIGHT; 2PINS
78	PACKOUT_BOX	DNI	1	AK67421-0.5	ASSMANN	N/A	CONNECTOR; USB CABLE; MALE-MALE; USB_2.0; 5PINS-4PINS; 500MM
79	PACKOUT_BOX	DNI	1	WSU120-2000	TRIAD MAGNETICS	N/A	ACCESSORY; WALL ADAPTER; VI-(90-264VAC); VO-(12VDC); 6FT
80	PACKOUT_BOX	DNI	1	SK-5115	AMPHENOL ADRONICS	N/A	CONNECTOR; COAX CABLE; MALE-FEMALE; WIREMOUNT; 2000MM;
81	C58-C61	DNP	0	GRM155R61C104KA88	MURATA	0.1UF	CAPACITOR; SMT (0402); CERAMIC; 0.1UF; 16V; TOL=10%; MODEL=GRM SERIES; TG=-55 DEGC to +85 DEGC; TC=X5R
82	J14	DNP	0	D4S20L-40MA5-Z	ROSENBERGER	D4S20L-40MA5-Z	EVKIT -CONNECTOR; MALE; THROUGH HOLE; D4S20L-40MA5 SERIES; RIGHT ANGLE; 4PINS;
83	R16, R70	DNP	0	CRCW040249K9FK; 9C04021A4992FLHF3	VISHAY DALE;YAGEO	49.9K	RESISTOR; 0402; 49.9K; 1%; 100PPM; 0.0625W; THICK FILM
84	R24	DNP	0	CRCW060300000ZS; MCR03EZPJ000; ERJ-3GEY0R00	VISHAY DALE;ROHM; PANASONIC	0	RESISTOR; 0603; 0 OHM; 0%; JUMPER; 0.10W; THICK FILM
85	R28, R43	DNP	0	ERJ-2GEJ103	PANASONIC	10K	RESISTOR; 0402; 10K OHM; 5%; 200PPM; 0.10W; THICK FILM
86	R35, R40, R42, R52	DNP	0	RC1608J000CS; CR0603-J/-000ELF; RC0603JR-070RL	SAMSUNG ELECTRONICS; BOURNS;YAGEO PH	0	RESISTOR; 0603; 0 OHM; 5%; JUMPER; 0.10W; THICK FILM
TOTAL			238				

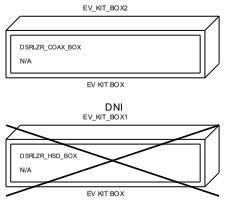
GMSL2 DUAL OLDI DESERIALIZER

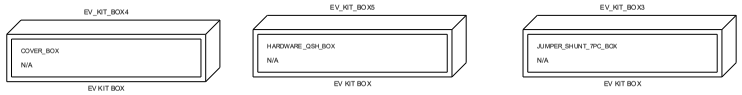
REVISION D EVKIT

COMPATIBLE WITH GMSL-2 DESERIALIZERS

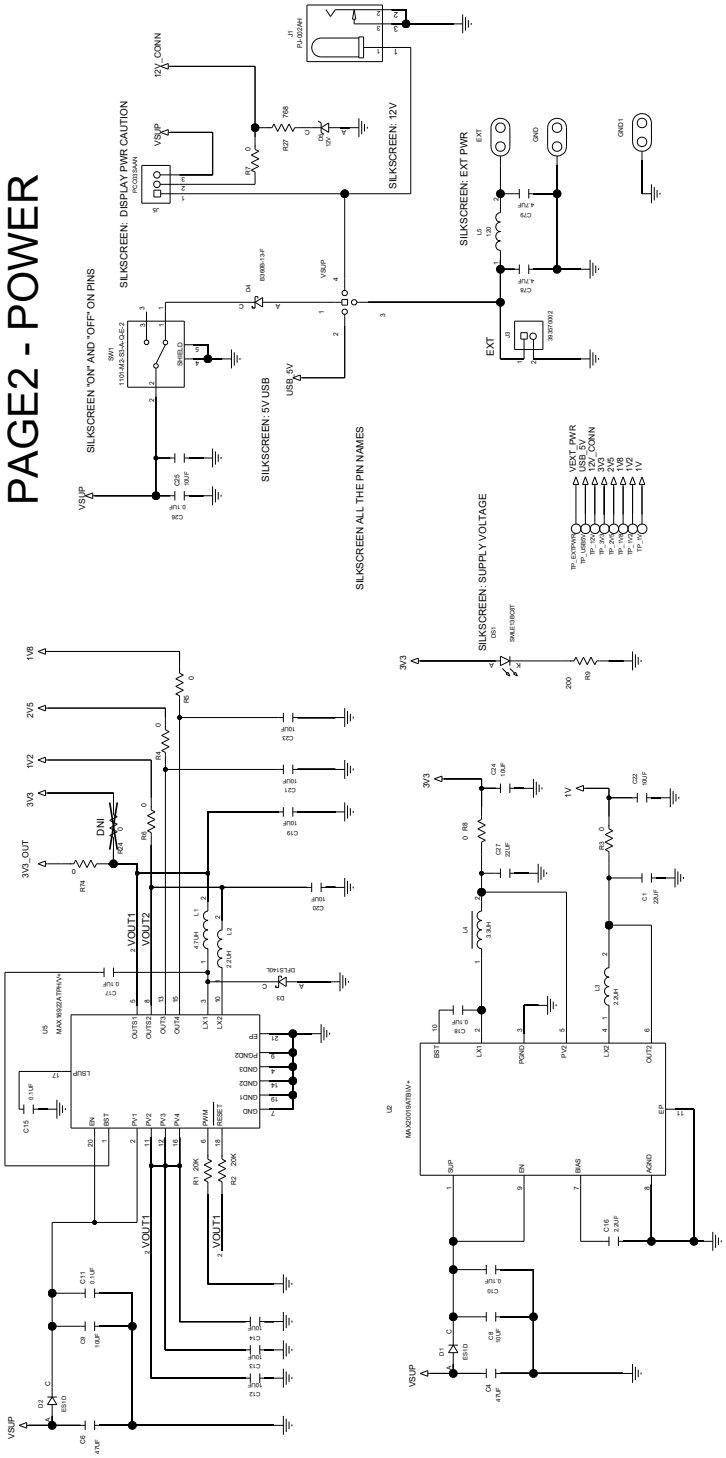
-MAX96752

CONTENTS





MAX96752 EV Kit Schematics (continued)



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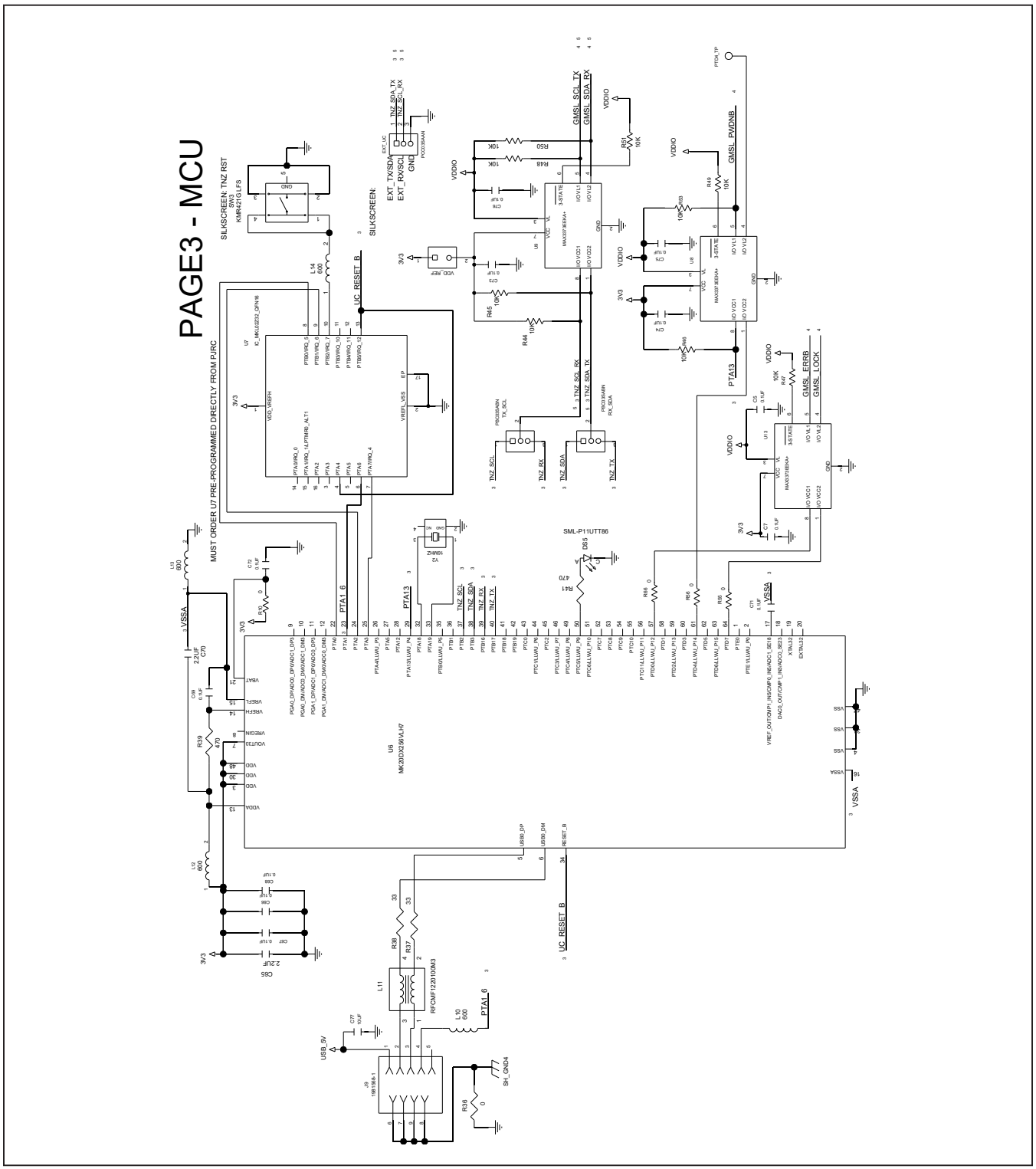

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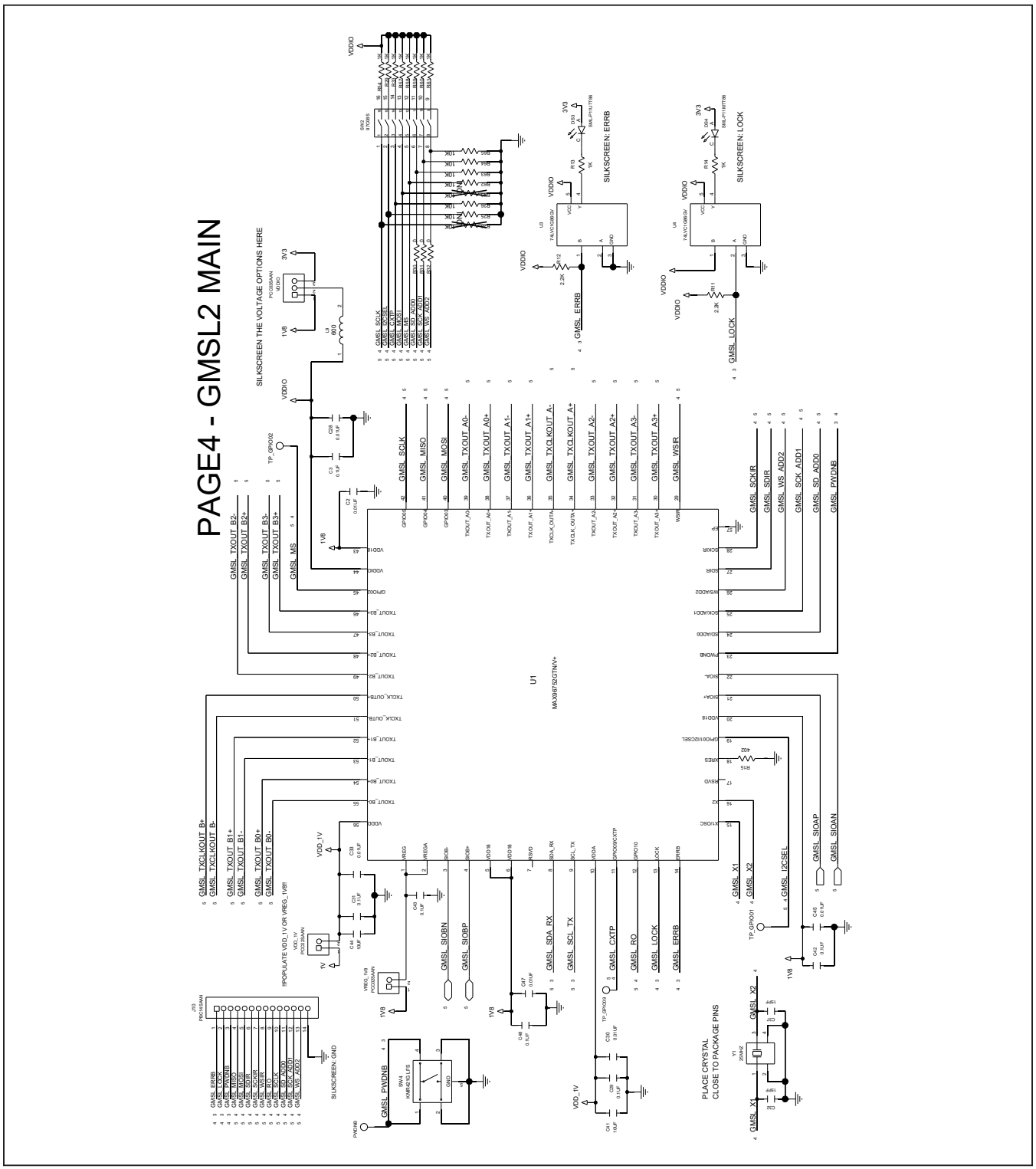

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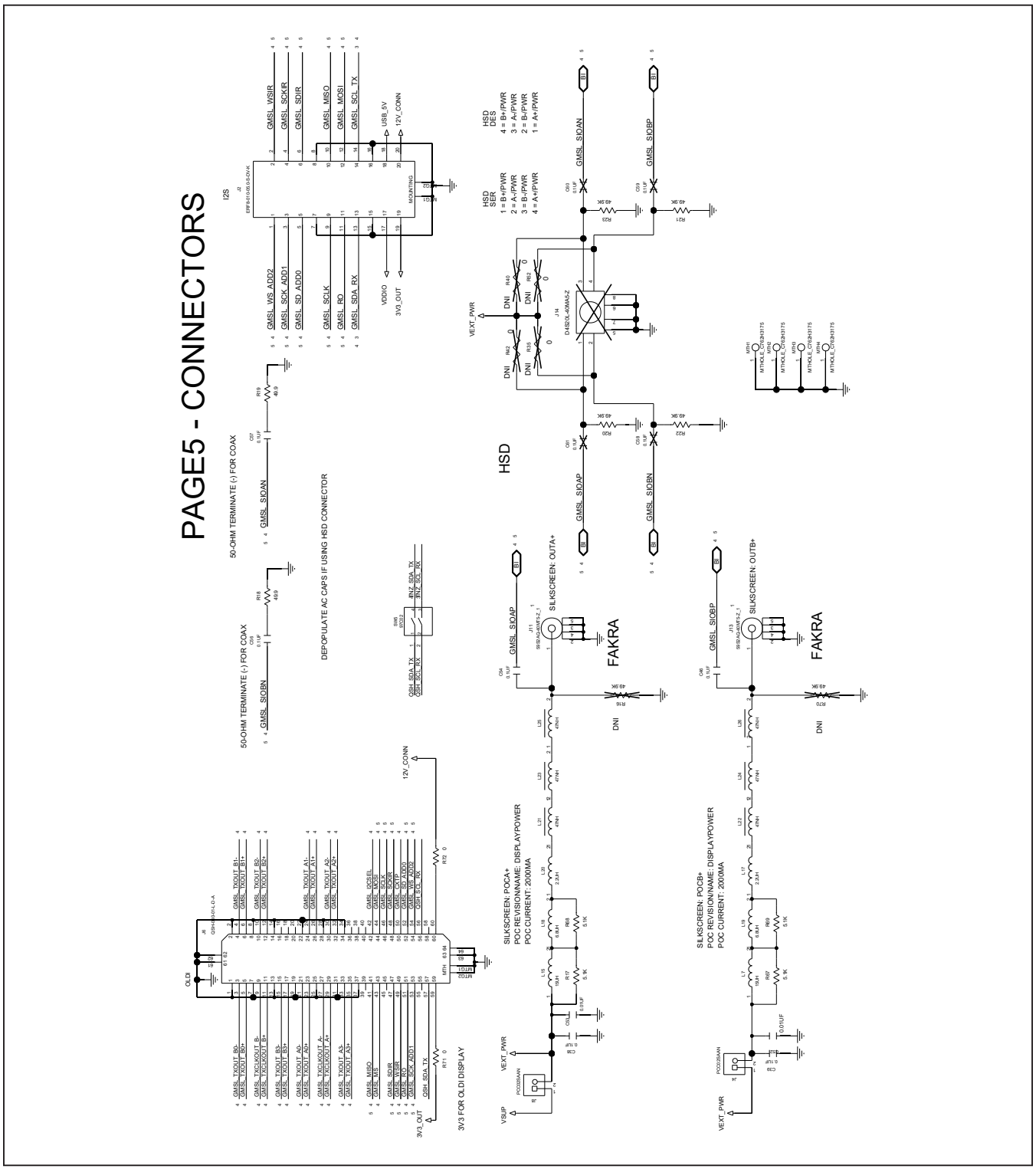
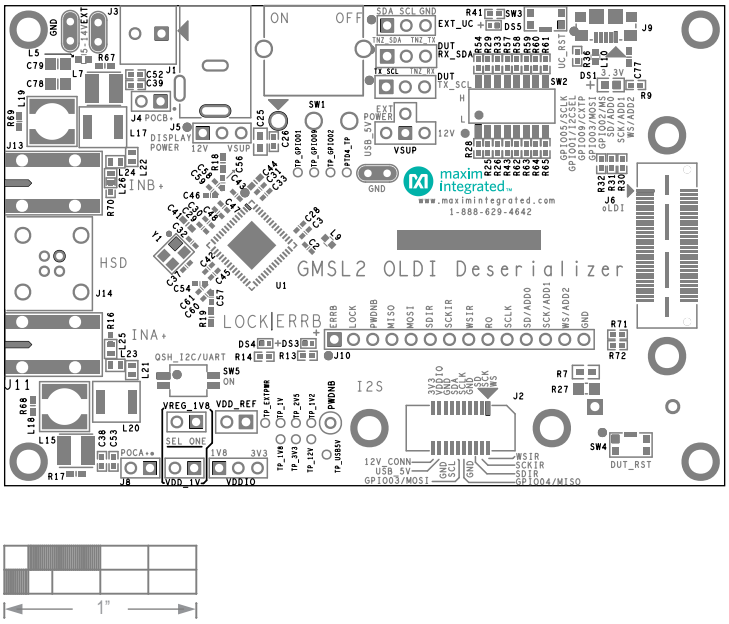
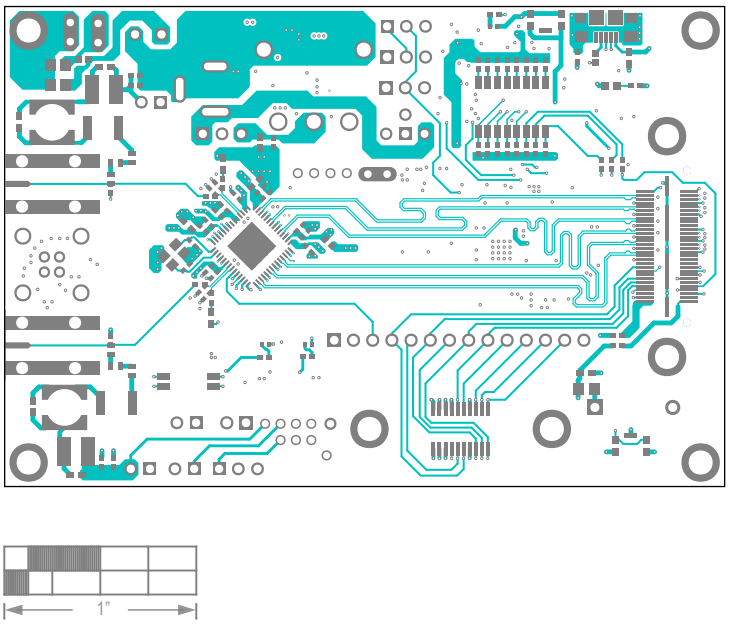


MAX96752 EV Kit Layouts

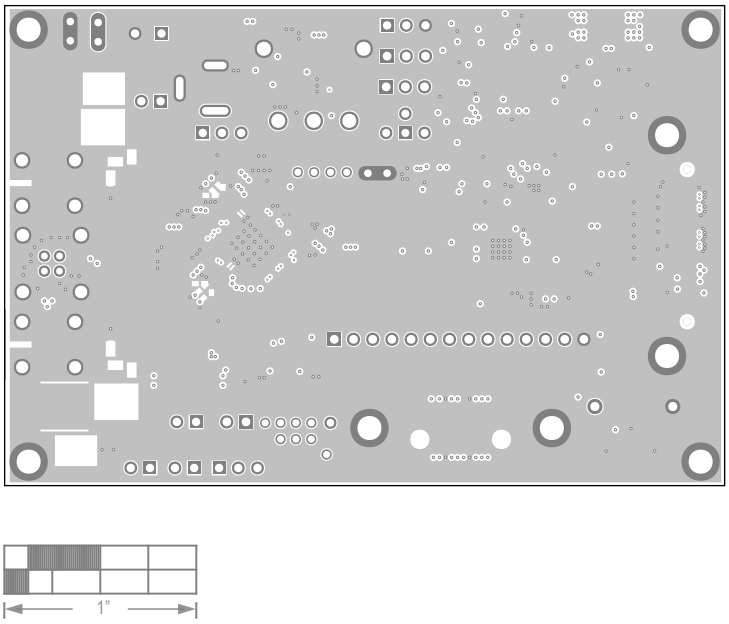


MAX96752 EV Kit Component Placement Guide—Top Silkscreen



MAX96752 EV Kit PCB Layout—Top

MAX96752 EV Kit Layouts (continued)



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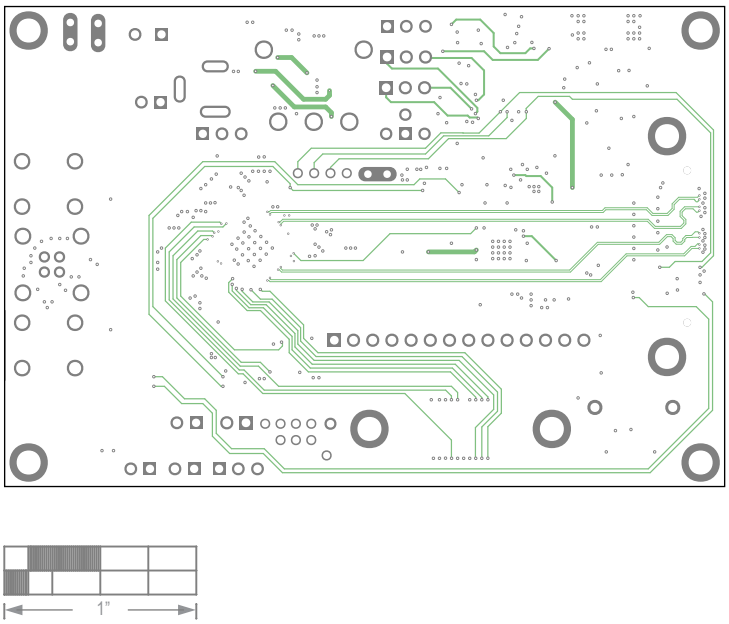
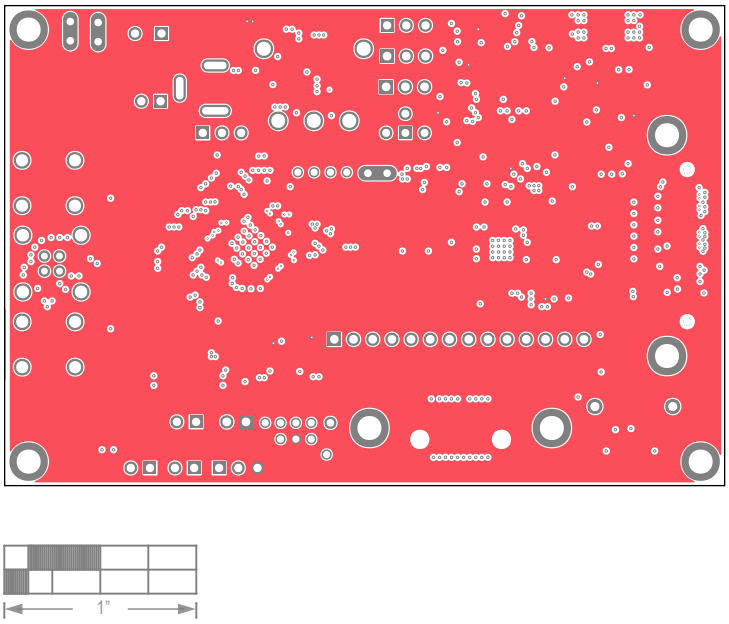


MAX96752 EV Kit PCB Layout—Internal3

MAX96752 EV Kit Layouts (continued)



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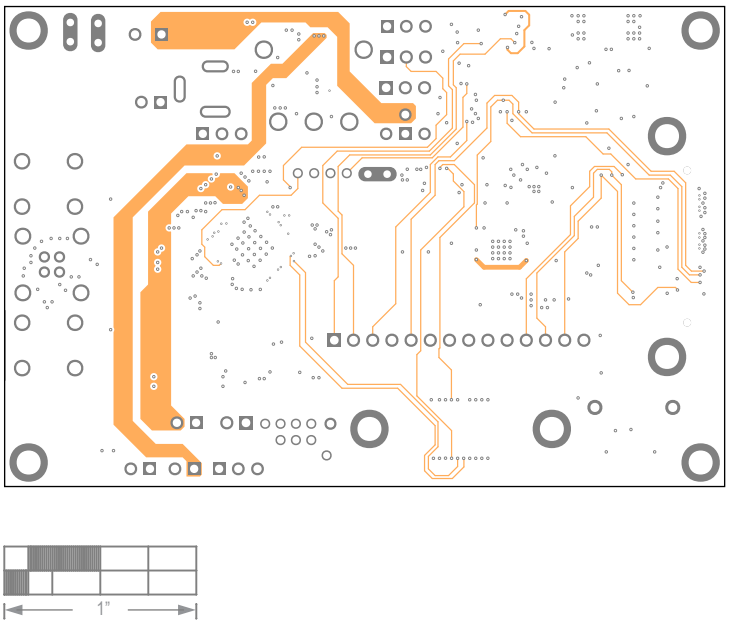
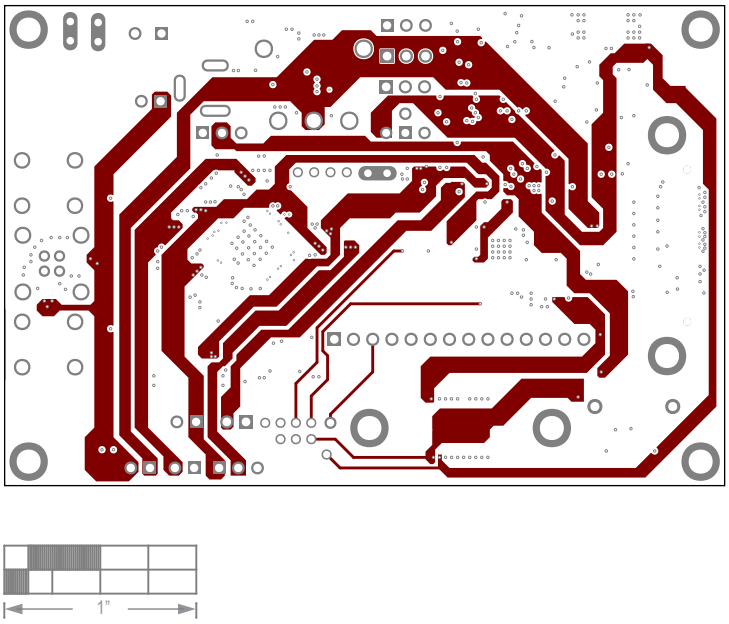


MAX96752 EV Kit PCB Layout—Internal5

MAX96752 EV Kit Layouts (continued)



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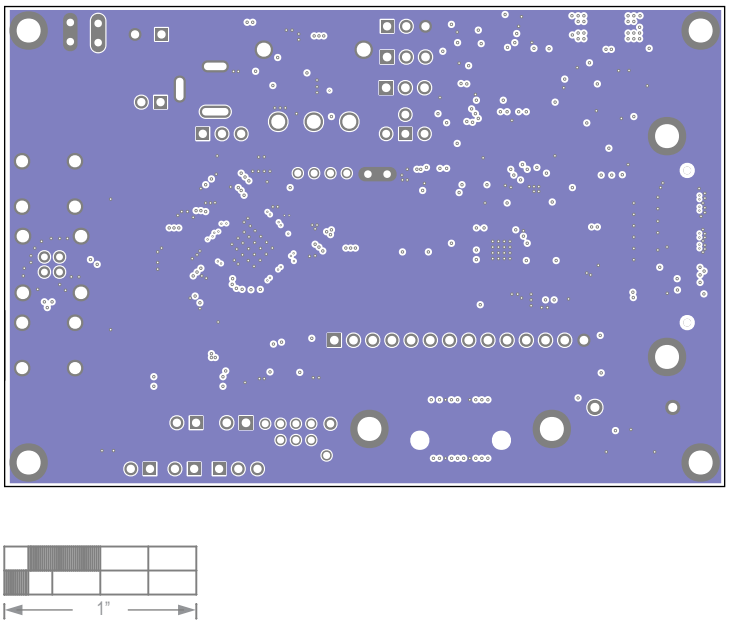
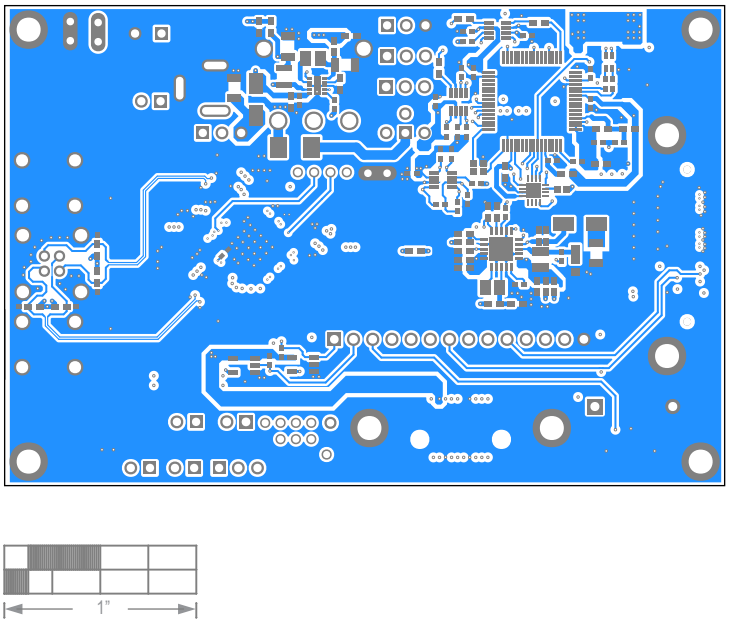
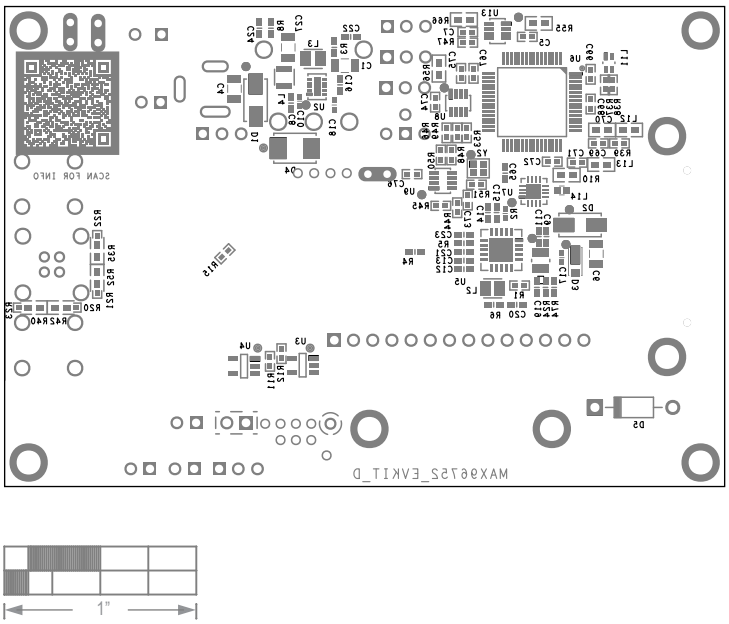


MAX96752 EV Kit PCB Layout—Internal7

MAX96752 EV Kit Layouts (continued)



MAX96752 EV Kit PCB Layout—Bottom



MAX96752 EV Kit Component Placement Guide—Bottom Silkscreen

Revision History

REVISION NUMBER	REVISION DATE	DESCRIPTION	PAGES CHANGED
0	1/24	Initial release	—

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