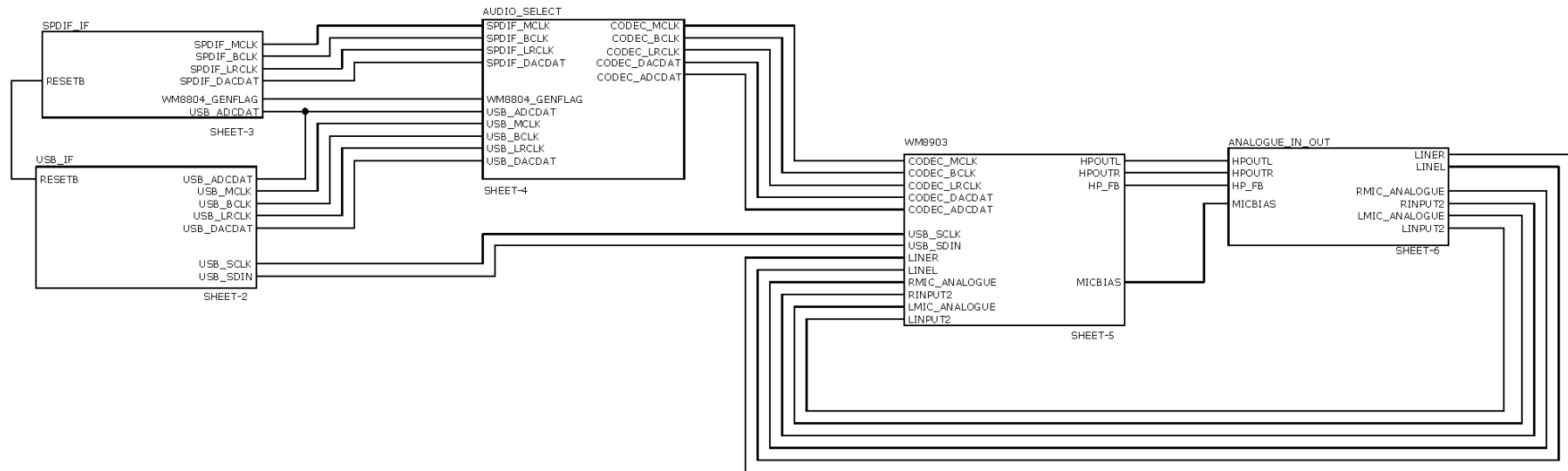


<b>DOC TYPE:</b>	SCHEMATIC AND LAYOUT
<b>BOARD REFERENCE:</b>	1171_EV2_REV2
<b>BOARD TYPE:</b>	Customer Main
<b>WOLFSON DEVICE(S):</b>	WM71x0 and WM72x0
<b>DATE:</b>	August 2010
<b>DOC REVISION:</b>	Rev 1.0

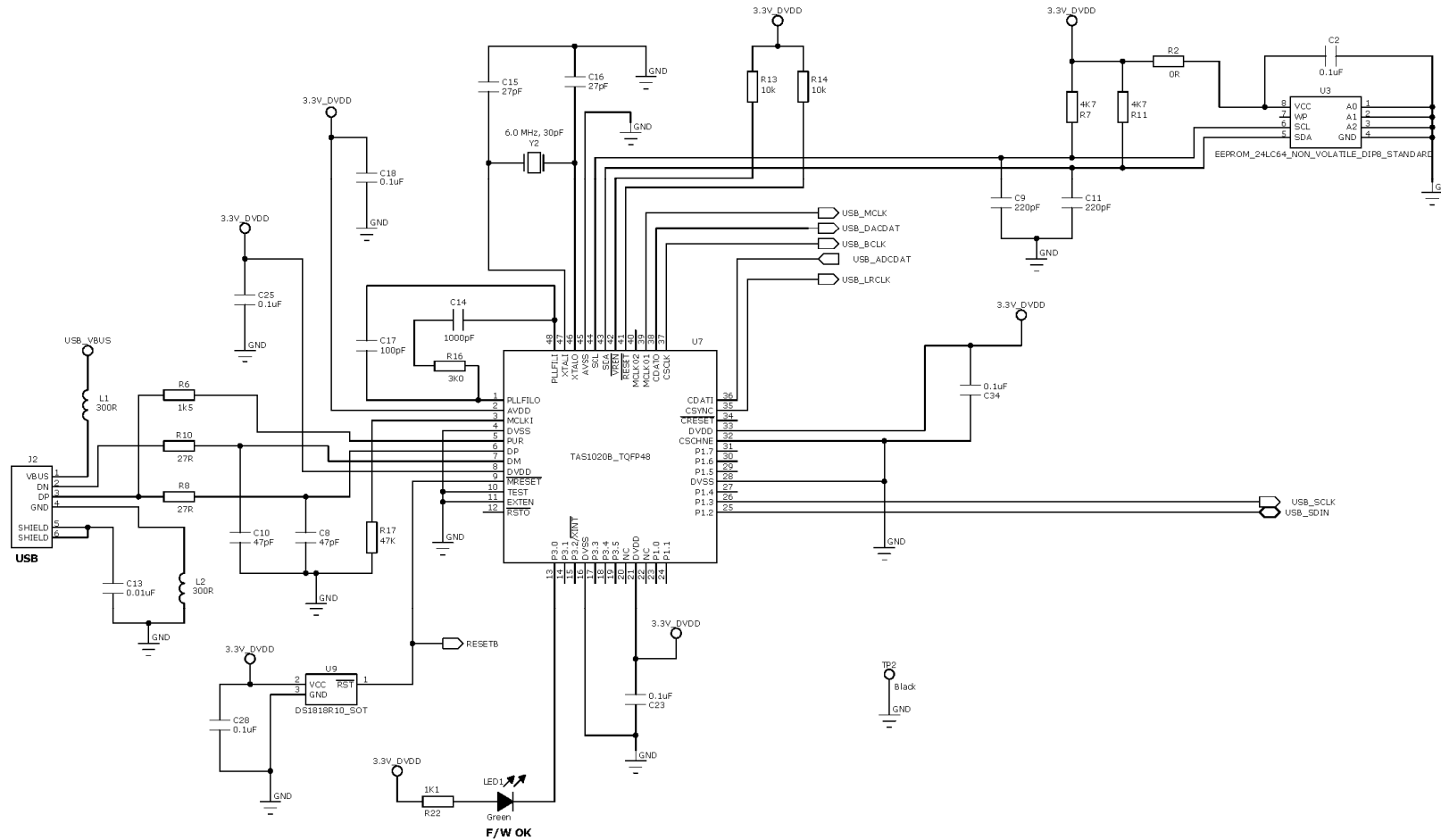
### SCHEMATIC

### Sheet 1: Functional Diagram



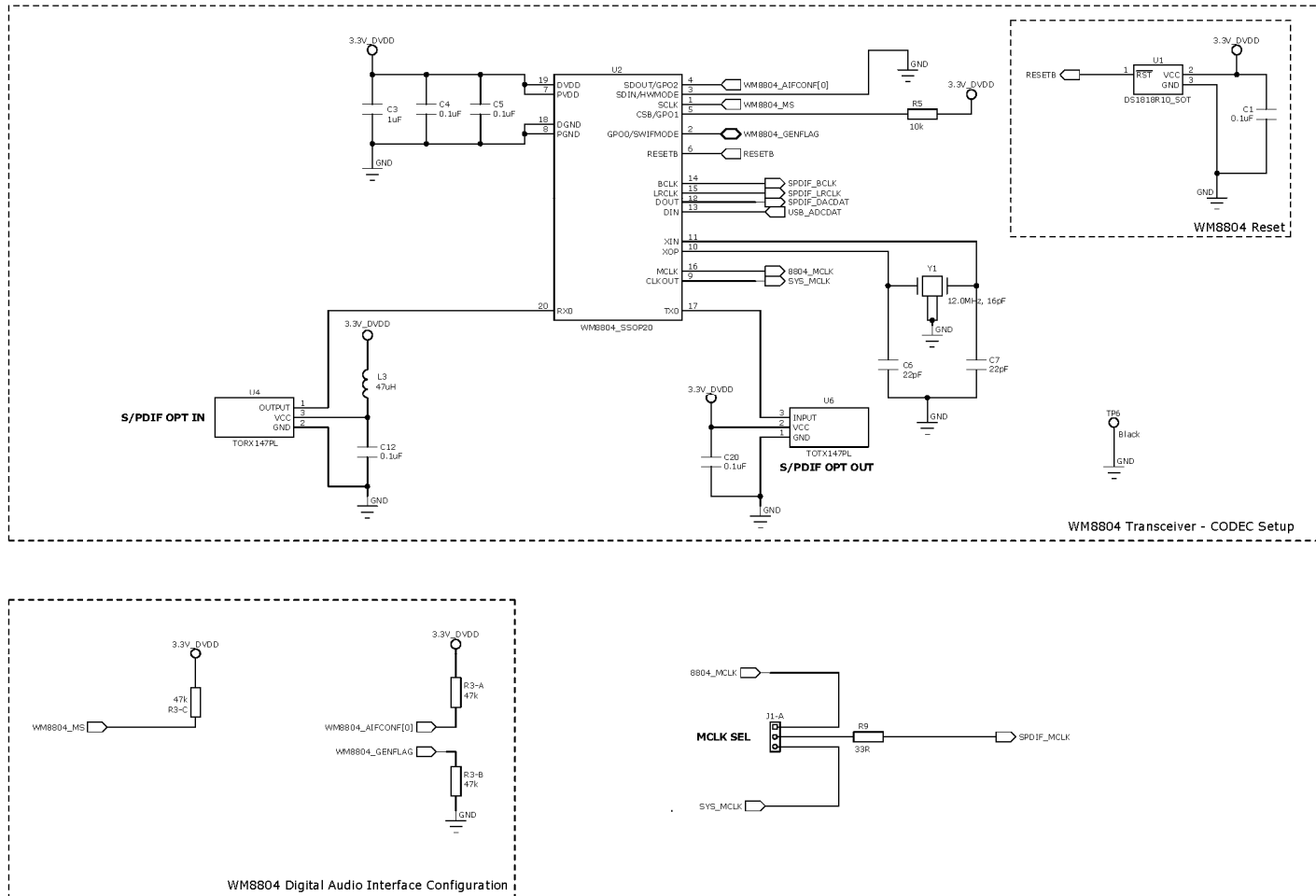
**SCHEMATIC**

Sheet 2: USB Interface



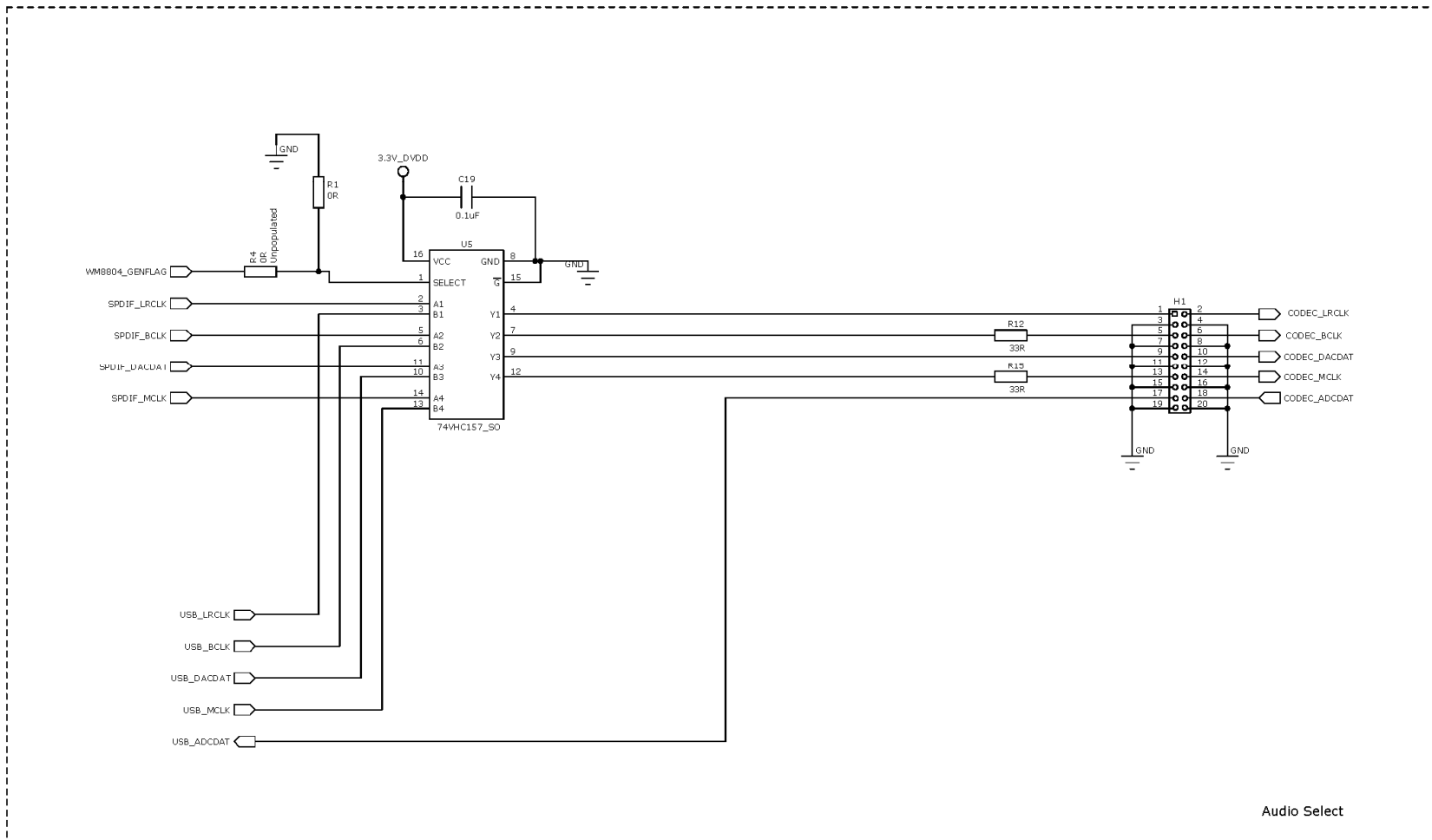
### SCHEMATIC

### Sheet 3: WM8804 SPDIF Interface



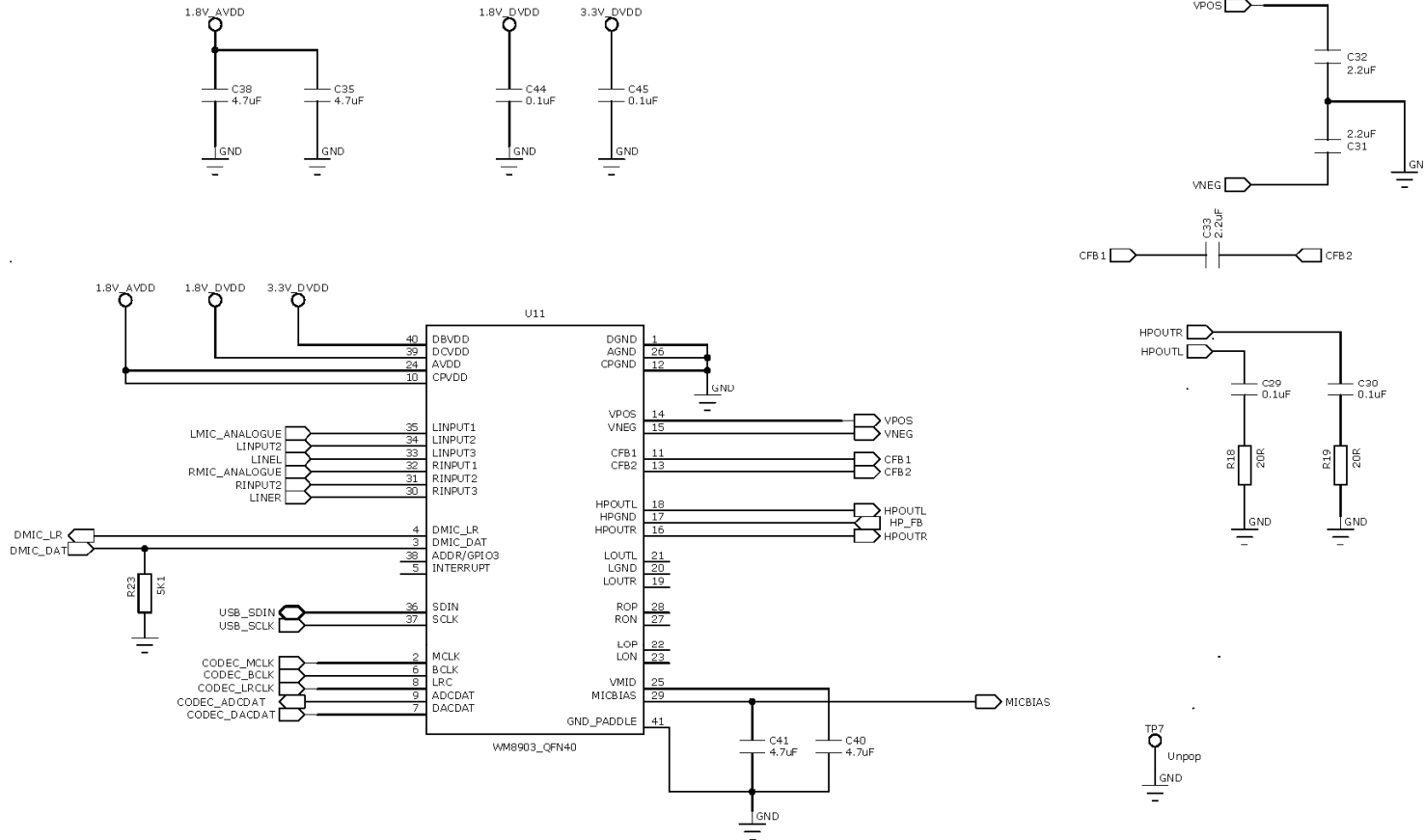
### SCHEMATIC

### Sheet 4: Audio Select



### SCHEMATIC

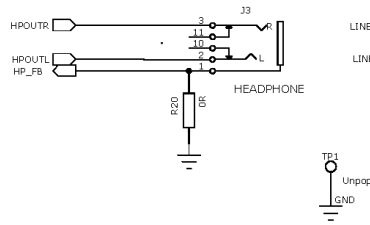
### Sheet 5: WM8903



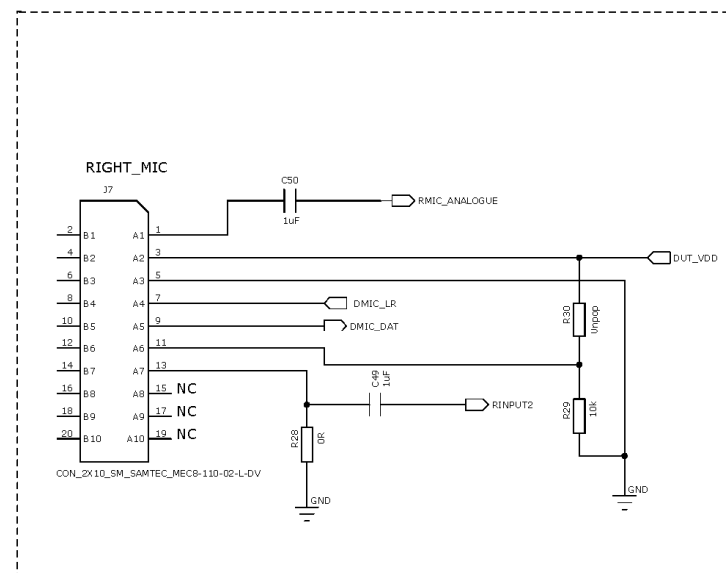
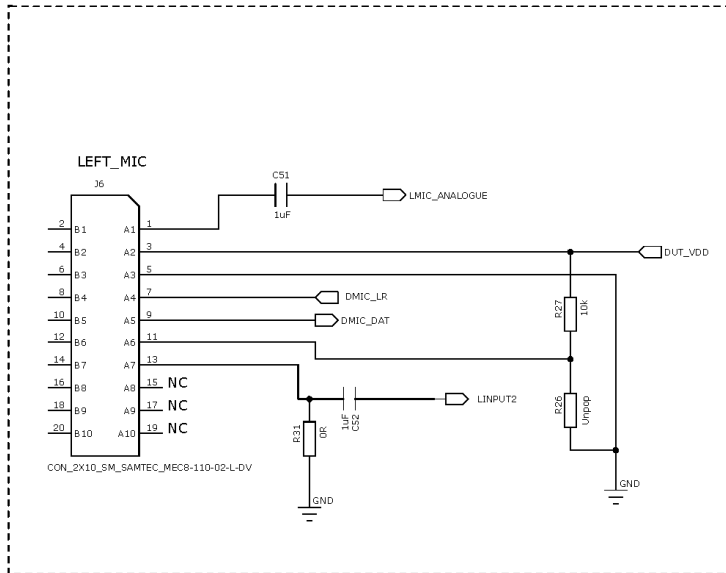
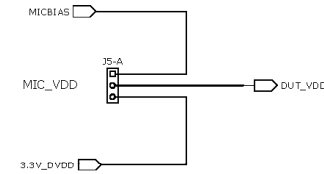
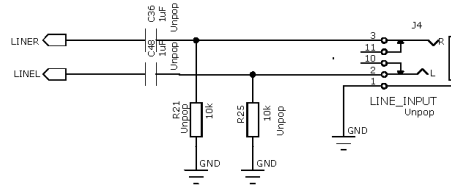
### SCHEMATIC

### Sheet 6: Audio I/O

Headphone Output

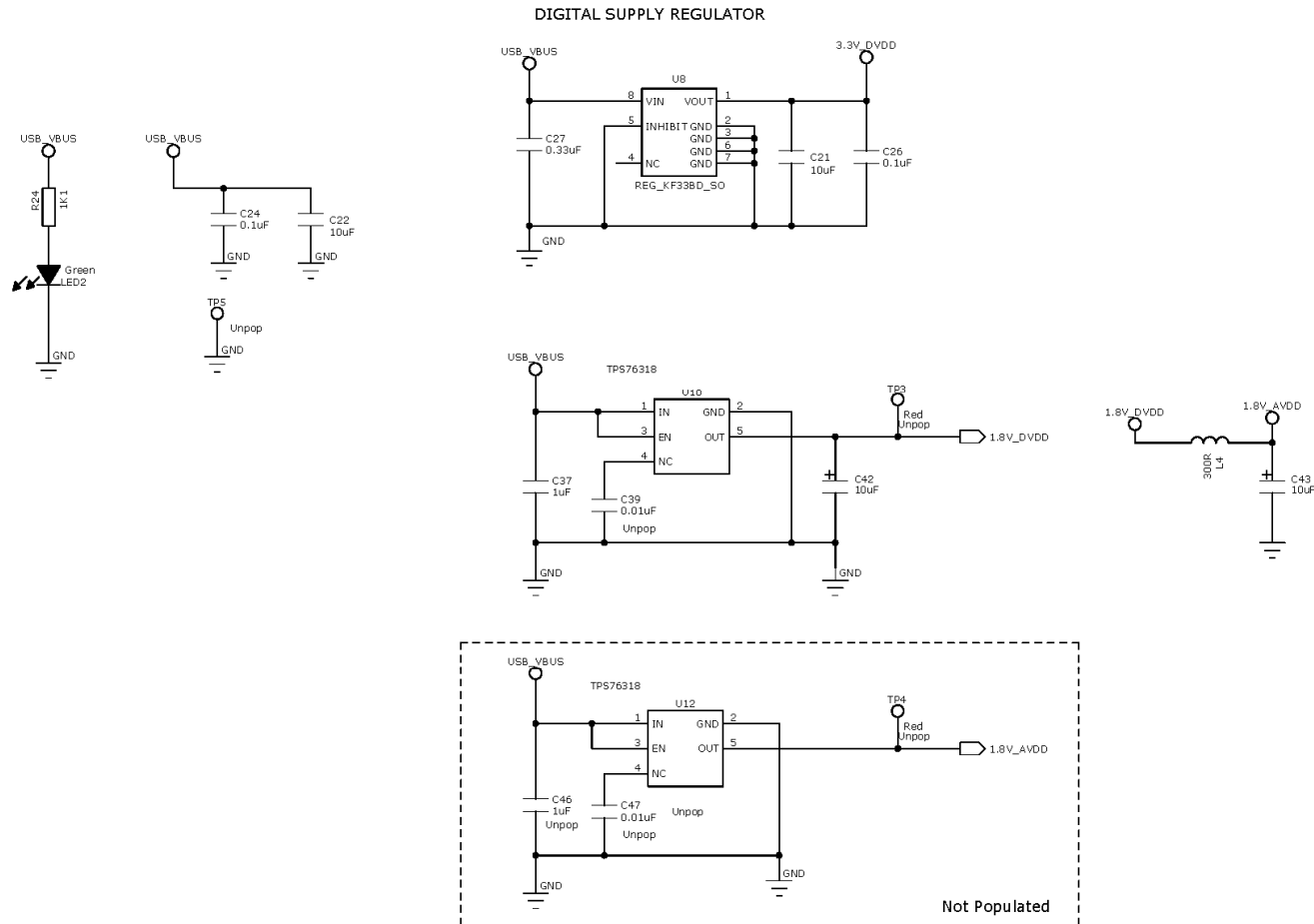


Line Input



### SCHEMATIC

### Sheet 7: Power Supply





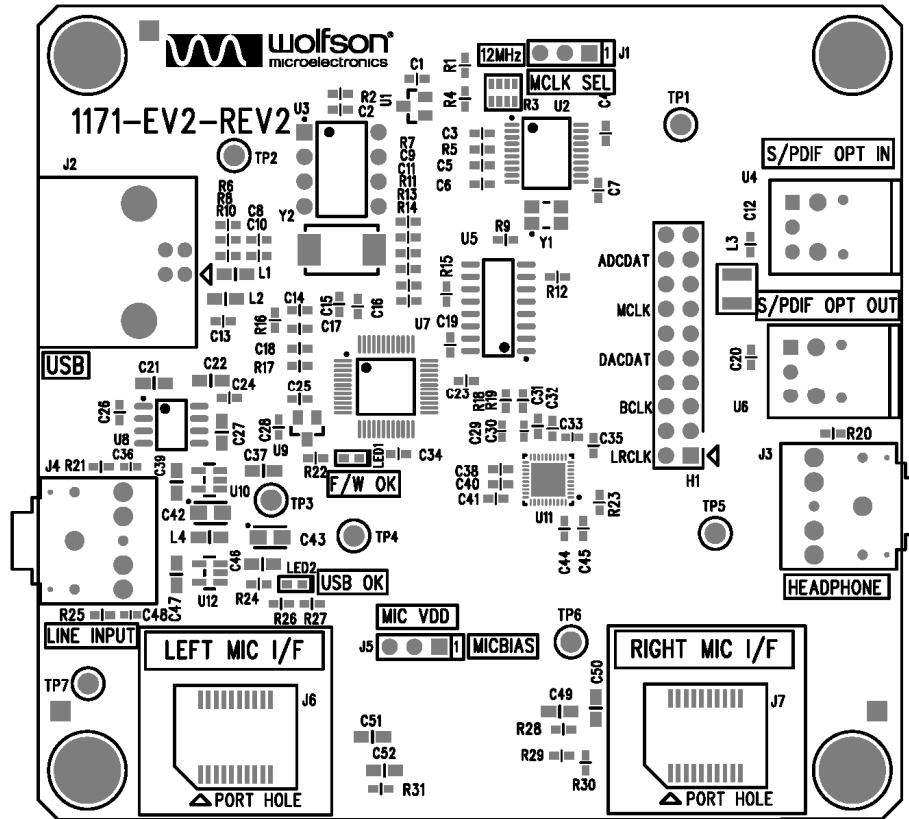
**BILL OF MATERIALS (BOM)**

<i>Items</i>	<i>RefDes</i>	<i>Description</i>	<i>Manufacturer</i>	<i>Manufacturer's Part Number</i>
1	J3	3.5mm Jack Socket 6.5mm Centre Height	Technik Industrial	TSH-3565-PBT-TIC-T
2	U7	USB Streaming Controller	Texas Instruments	TAS1020BPFB
3	C31, C32	2.2uF 0603 SMD Ceramic Capacitor 10V X5R	MuRata	GRM188R61A225KE34D
4	C35, C38, C40, C41	4.7uF 0603 SMD Ceramic Capacitor 6.3V X5R	MuRata	GRM188R60J475KE19D
5	C21, C22	10uF Low Profile 0805 SMD Ceramic Capacitor 6.3V X5R	MuRata	GRM219R60J106KE19D
6	C15, C16	27pF 0603 SMD Ceramic Capacitor 50V NPO	Panasonic	ECJ-1VC1H270J
7	C1, C2, C5, C12, C20, C23, C24, C25, C26, C28, C34, C44, C45	0.1uF 0603 SMD Ceramic Capacitor 16V X7R	Phycomp	2238 786 15649
8	U4	TORX147PL Digital Audio Fiber Optic Receiver	Toshiba	TORX147PL
9	U6	Fiber Optic Transmitting Module for Digital Audio Interface	Toshiba	TOTX147PL
10	C33	2.2uF 0402 SMD Ceramic Capacitor 6.3V X5R	Kemet	C0402C225M9PAC
11	SC1, SC2, SC3, SC4	Slotted Panhead Screw - M3 thread; 6mm long	TR Fasteners	M36 PSSTMCZ100-
12	W100, W101, W102, W103	Plain M3 size washer	TR Fasteners	M3-FABRWAN100-
13	C42, C43	10uF 10V SMD Tantalum Capacitor case A	Kemet	T491A106K010AT
14	C37	1uF 0805 SMD Ceramic Capacitor 16V X7R	Kemet	C0805C105K4RAC
15	R22 R24	1K1 0603 SMD chip resistor 1% 0.1W	Multicomp	MC 0.063W 0603 1% 1K1
16	R18, R19	20R 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 20R
17	R23	5k1 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 5K1
18	H1	2x10 2.54mm pitch PCB Pin Header VERTICAL	Harwin	M20-9981045
19	J1, J5	1x3 2.54mm Header Vertical	Harwin	M20-9990345
20	J2	USB receptacle Type B	FCI	61729-0010BLF
21	MECH2	IC Socket DIL 8 WAY	Multicomp	2227MC-08-03-F1
22	L1, L2, L4	300R 0805 BMB2A Ferrite Bead	Meggitt	BMB2A0300AN1
23	L3	47uH 1210 Surface Mount Inductor 'PA series'	Panasonic	ELJPA470KF
24	MSC2	Lead-free label, 15mm round	Pro Power	7827260
25	C27	0.33uF 0805 SMD Ceramic Capacitor 16V X7R	Phycomp	2222 780 15656
26	C8, C10	47pF 0603 SMD Ceramic Capacitor 50V NPO	AVX	06035A470JAT2A
27	C9, C11	220pF 0603 SMD Ceramic Capacitor 50V NPO	AVX	06035A221JAT2A
28	P100, P101, P102, P103	Hexagonal brass M3 size spacer 12mm length	Harwin	R6375-02
29	C6, C7	22pF 0603 SMD Ceramic Capacitor 50V NPO	Phycomp	2238 867 15229
30	C13	0.01uF 0603 SMD Ceramic Capacitor 50V X7R	Phycomp	2238 586 15636
31	LED1, LED2	KP-1608MGC 0603 SMD Chip LED GREEN	Kingbright	KP-1608MGC
32	TP2, TP6	1.32mm PCB Test Terminal BLACK	Vero	20-2136

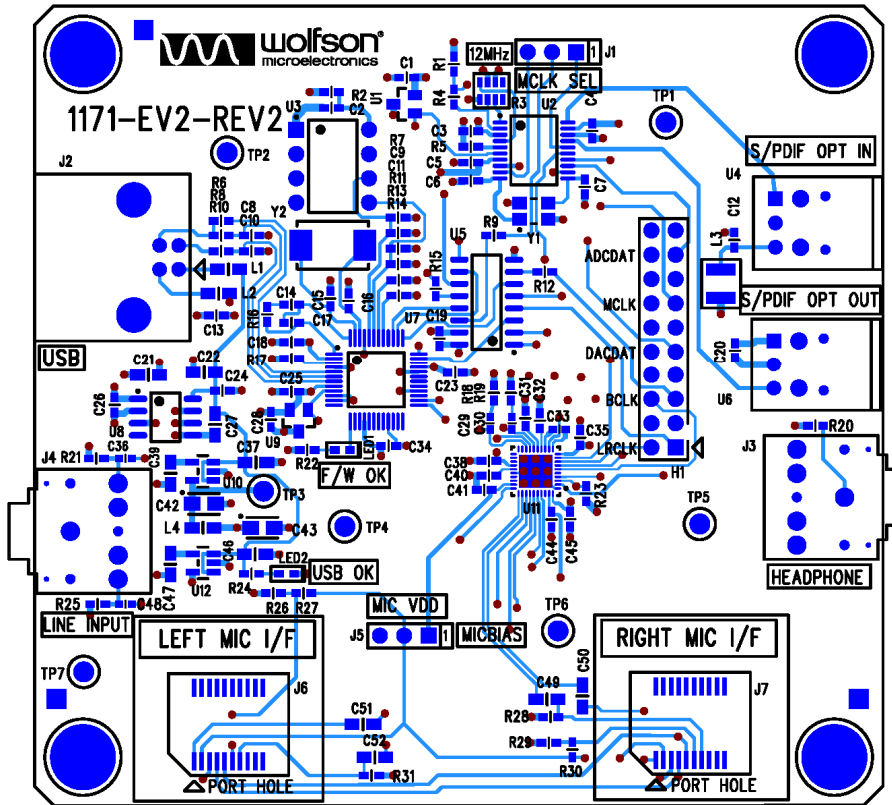
<i>Items</i>	<i>RefDes</i>	<i>Description</i>	<i>Manufacturer</i>	<i>Manufacturer's Part Number</i>
33	C29 , C30	0.1uF 0402 SMD Ceramic Capacitor 16V X7R	MuRata	GRM155R71C104KA88D
34	R3	47k 1206 SMD chip resistor array 5% 0.063W	Phycomp	2350 035 10473
35	R5, R13, R14, R27, R29	10k 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 10K
36	R6	1k5 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 1K5
37	R8, R10	27R 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 27R
38	R16	3K0 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 3K
39	R9, R12, R15	33R 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 33R
40	R7, R11	4K7 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 4K7
41	R17	47K 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 47K
42	R1, R2, R20, R28, R31	0R 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 0R
43	C17	100pF 0603 SMD Ceramic Capacitor 50V NPO	Multicomp	U0603C101JCT
44	C14	1000pF 0603 SMD Ceramic Capacitor 50V NPO	Multicomp	U0603C102JCT
45	C49, C50, C51, C52	1uF 0805 SMD Ceramic Capacitor 10V X7R	Multicomp	N0805R105KCT
46	U1, U9	DS1818 3.3V active-low Power-On-Reset chip SOT	Dallas Semiconductor	DS1818R-10+
47	U8	KF33BD Very Low Drop +3.3V Voltage Regulator SO	ST Microelectronics	KF33BD
48	U3	EEPROM 8x8 i2c interface - with Wolfson "Standard" code	Microchip Technology	24LC64-I/P
49	Y1	XTAL 12MHz 16pF SM GSX-433 Series	Golledge	GSX-433/111DF 12MHz
50	Y2	XTAL 6.0 MHz 30pF SM GSX-1A	Golledge	GSX-1A/352JF 6.0MHz
51	U5	74VHC157 Quad 2-Input Mux SO	Fairchild Semiconductor	74VHC157MX
52	LNK_H1-A, LNK_H1-B, LNK_H1-C, LNK_H1-D, LNK_H1-E	0.1" OPEN JUMPER LINK YELLOW	Protech	22-3570
53	LNK_J1, LNK_J5	0.1" OPEN JUMPER LINK YELLOW	Protech	22-3570
54	U10	TPS76318 1.8V Low Power 150-mA Low-Dropout Linear Regulator	Texas Instruments	TPS76318DBVT
55	C3	1uF 0603 SMD Ceramic Capacitor 6.3V X5R	MuRata	GRM188R60J105KA01D
56	J6, J7	2x10 way socket, mates with edge connector on 0.062" thick PCB	Samtec	MEC8-110-02-L-DV
57	PCB1	PCB	Kelan Circuits Ltd	1171-EV2-REV2
58	U2	WM8804 1:1 Digital Interface Transceiver with PLL	Wolfson Microelectronics	WM8804GEDS
59	U11	Ultra Low Power Codec for Portable Audio Applications	Wolfson Microelectronics	WM8903GEFK

<i>Items</i>	<i>RefDes</i>	<i>Description</i>	<i>Manufacturer</i>	<i>Manufacturer's Part Number</i>
<b>Unpop</b>				
60	J4	3.5mm Jack Socket 6.5mm Centre Height	Technik Industrial	TSH-3565-PBT-TIC-T
61	C36, C48	1uF 0402 SMD Ceramic Capacitor 6.3V X5R	MuRata	GRM155R60J105KE19D
62	C46	1uF 0805 SMD Ceramic Capacitor 16V X7R	Kemet	C0805C105K4RAC
63	C39, C47	0.01uF 0805 SMD Ceramic Capacitor 50V X7R	Phycomp	08052R103K9B2
64	TP3, TP4	1.32mm PCB Test Terminal RED	Vero	20-313141
65	R21, R25, R26, R30	10k 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 10K
66	TP1, TP5, TP7	1.32mm off-board connection point	N/A	N/A
67	U12	TPS76318 1.8V Low Power 150-mA Low-Dropout Linear Regulator	Texas Instruments	TPS76318DBVT
68	R4	0R 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 0R

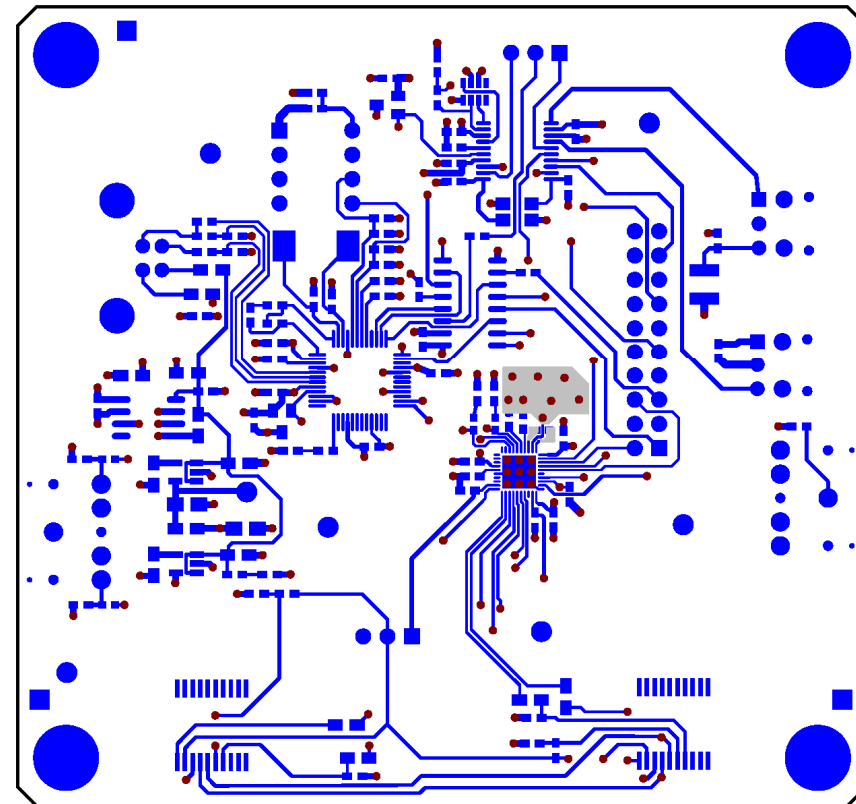
PCB LAYOUT



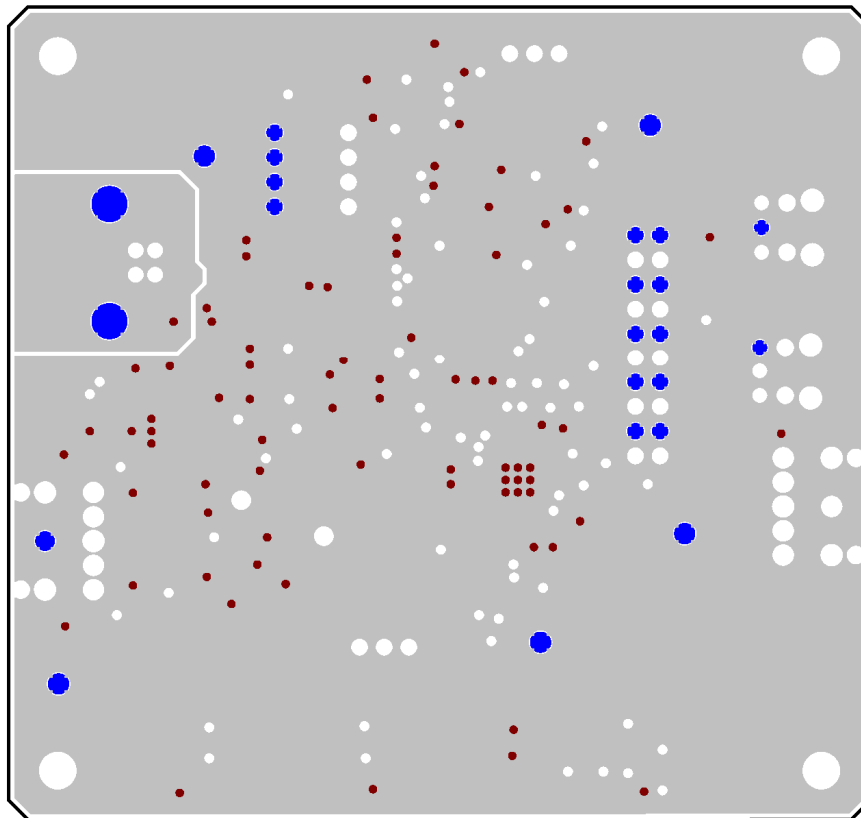
Top Layer: Overview



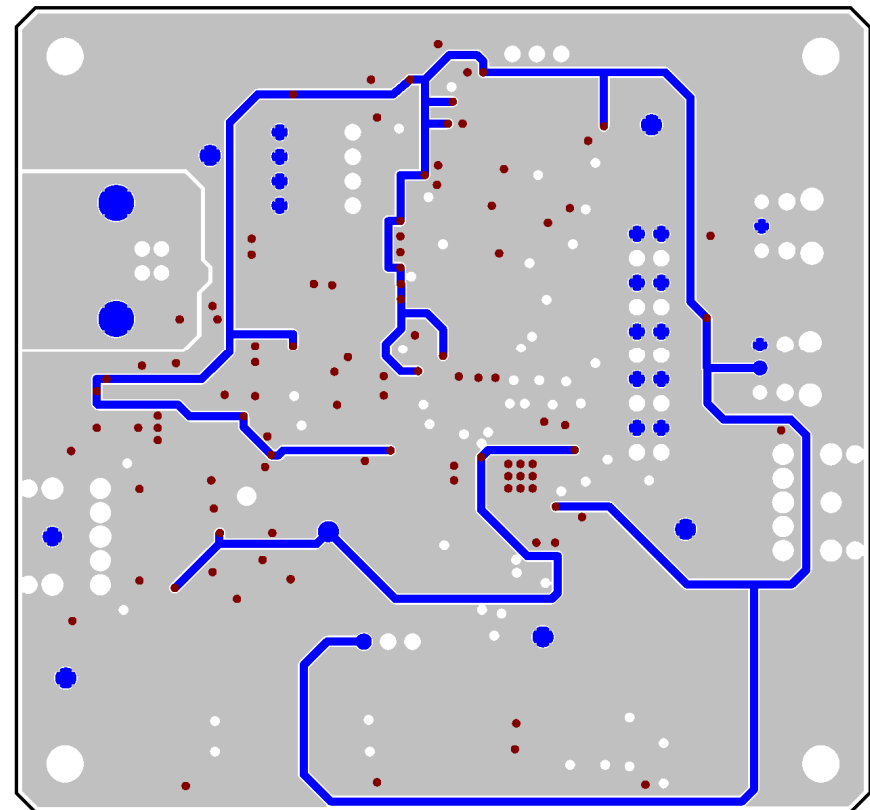
Top Layer: Silkscreen + Copper



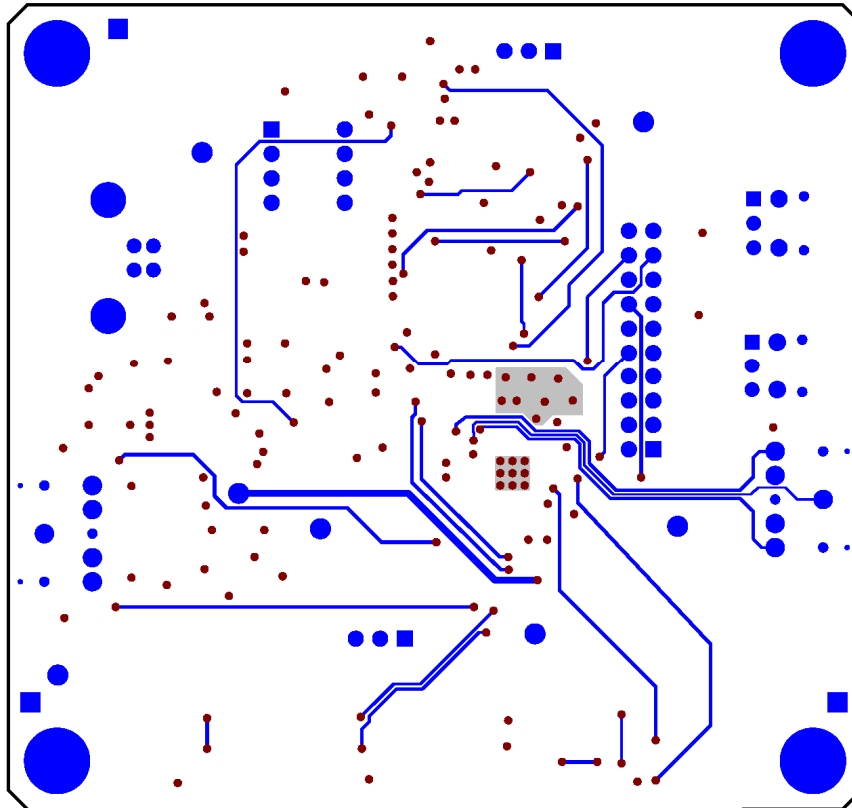
Top Layer: Copper



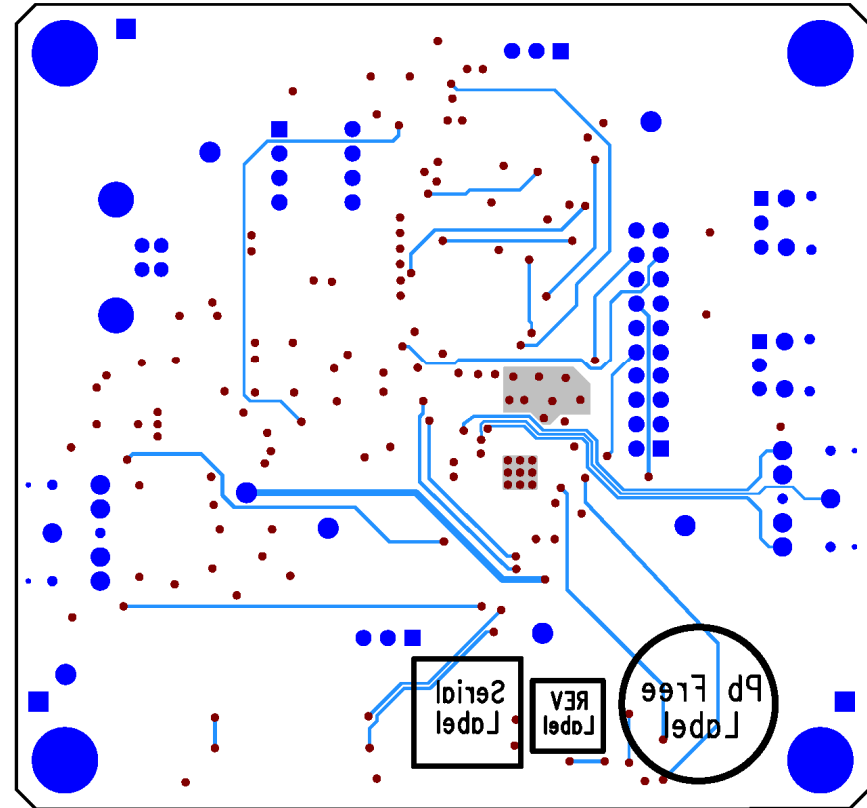
Layer 2: Copper



Layer 3: Copper



Bottom Layer: Copper



Bottom Layer: Silkscreen + Copper

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