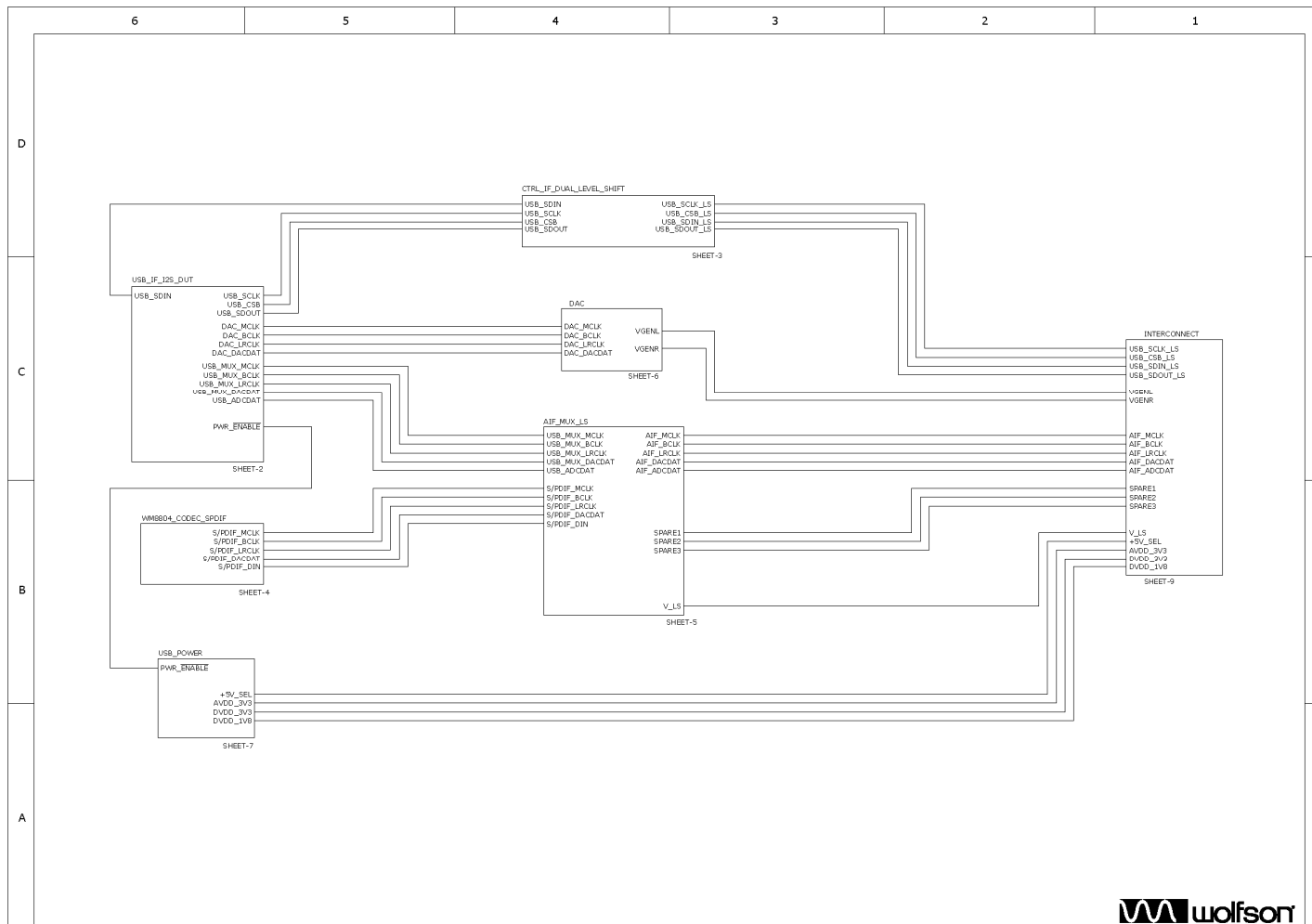


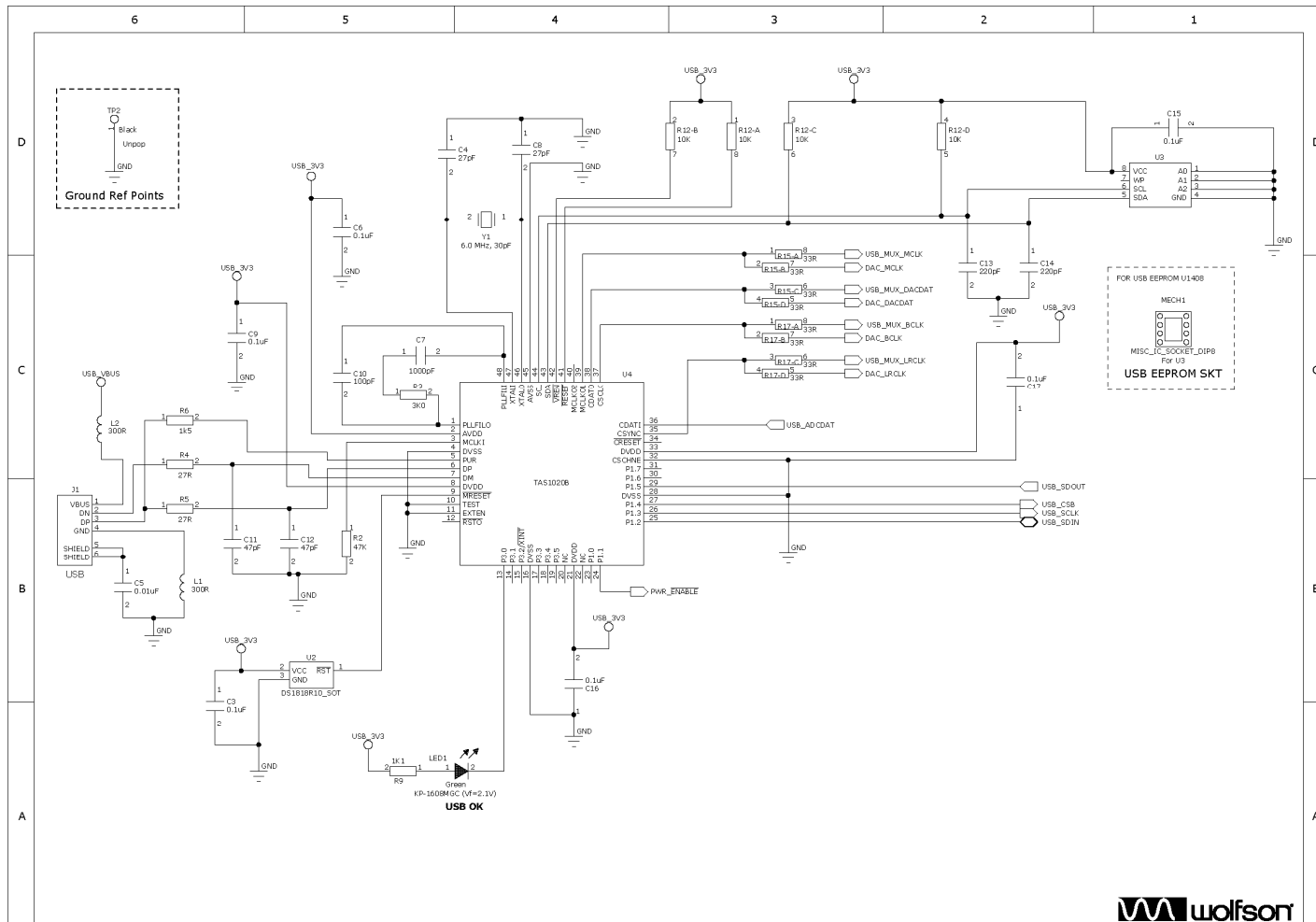
DOC TYPE:	SCHEMATIC AND LAYOUT
BOARD REFERENCE:	2011-EV1-REV1
BOARD TYPE:	Customer Main Board
WOLFSON DEVICE(S):	Multiple
DATE:	October 2011
DOC REVISION:	Rev1.0

SCHEMATIC

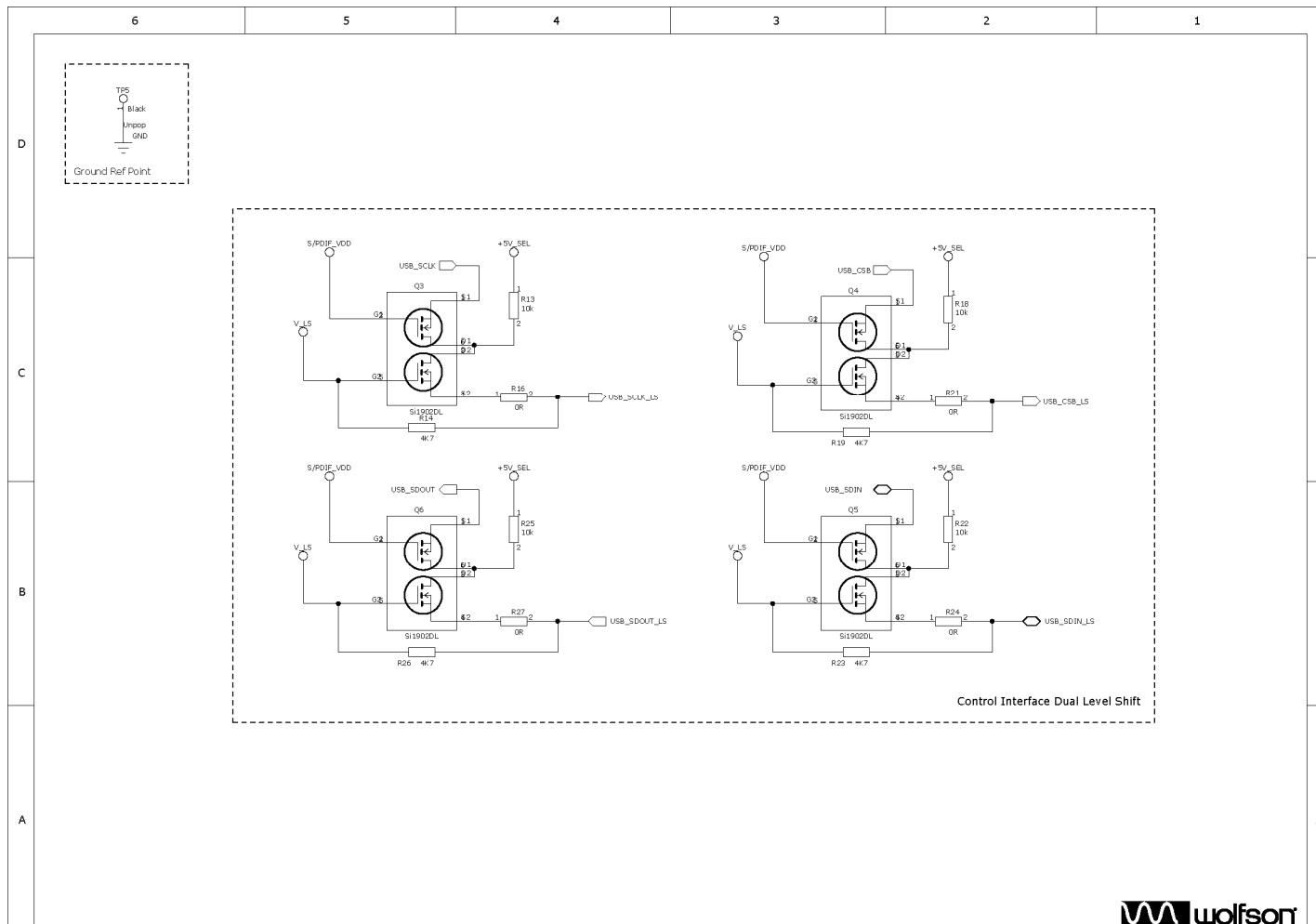
Sheet 1: Main Schematic



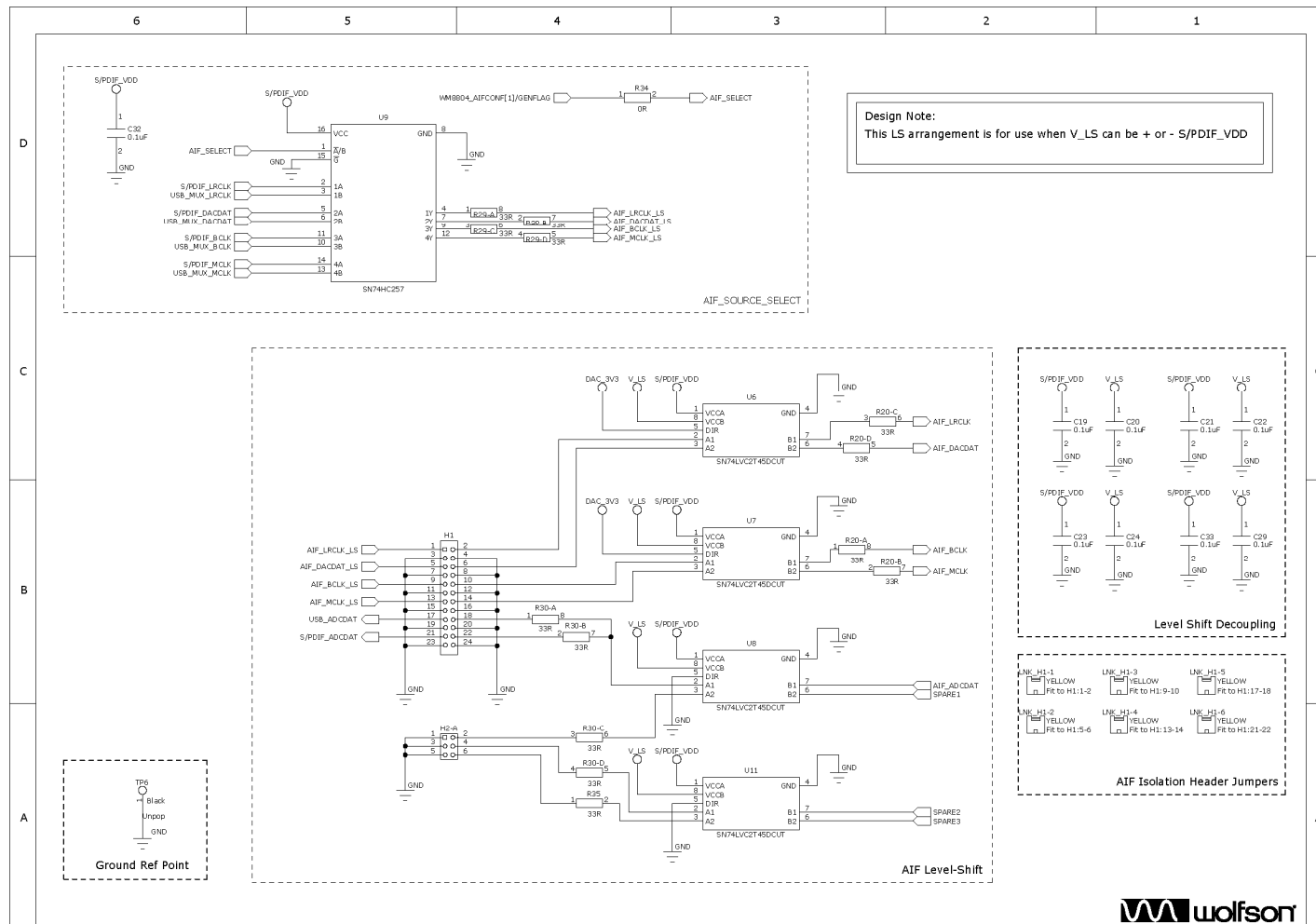
Sheet 2: USB Interface



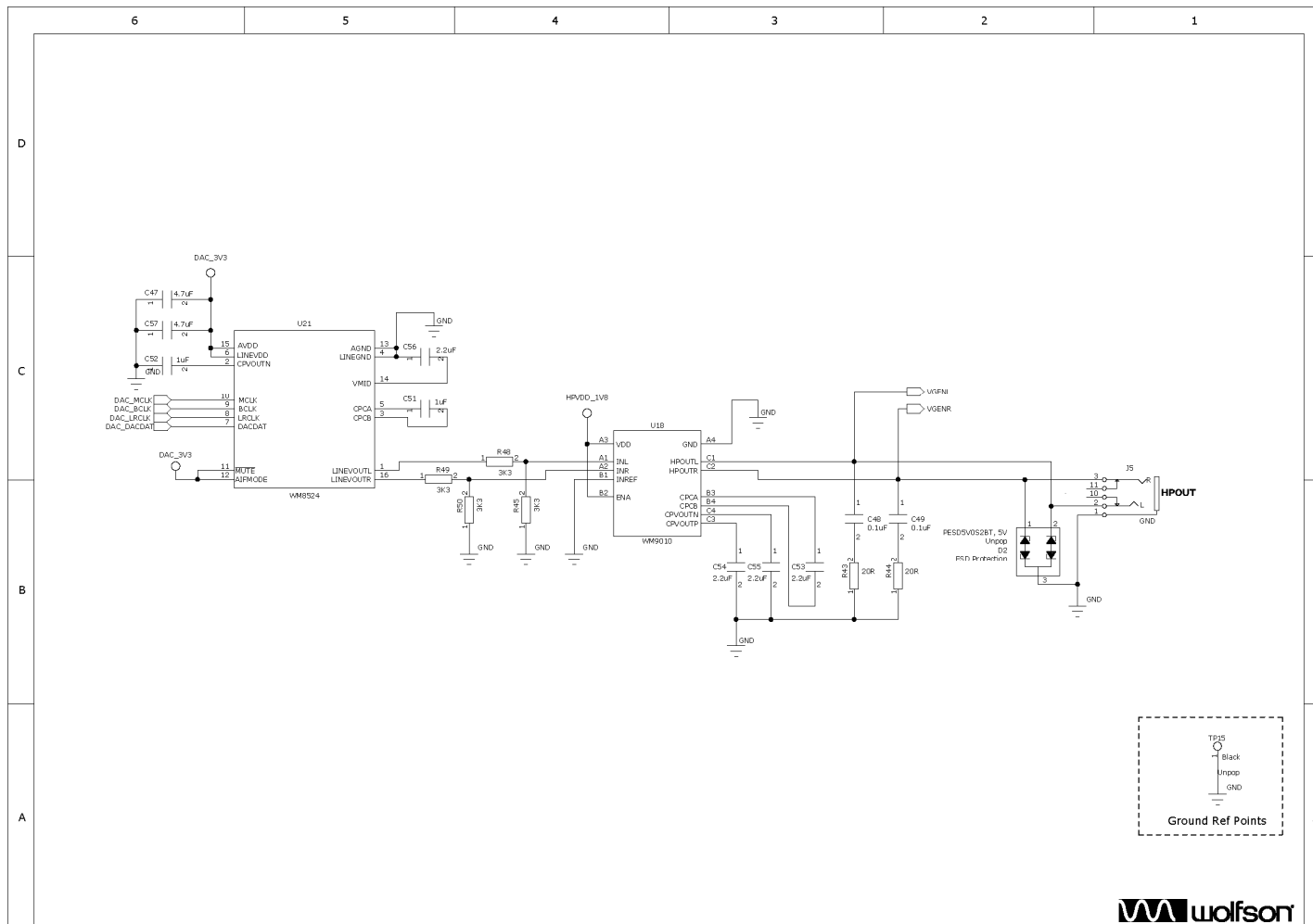
Sheet 3: Control Interface Level Shift



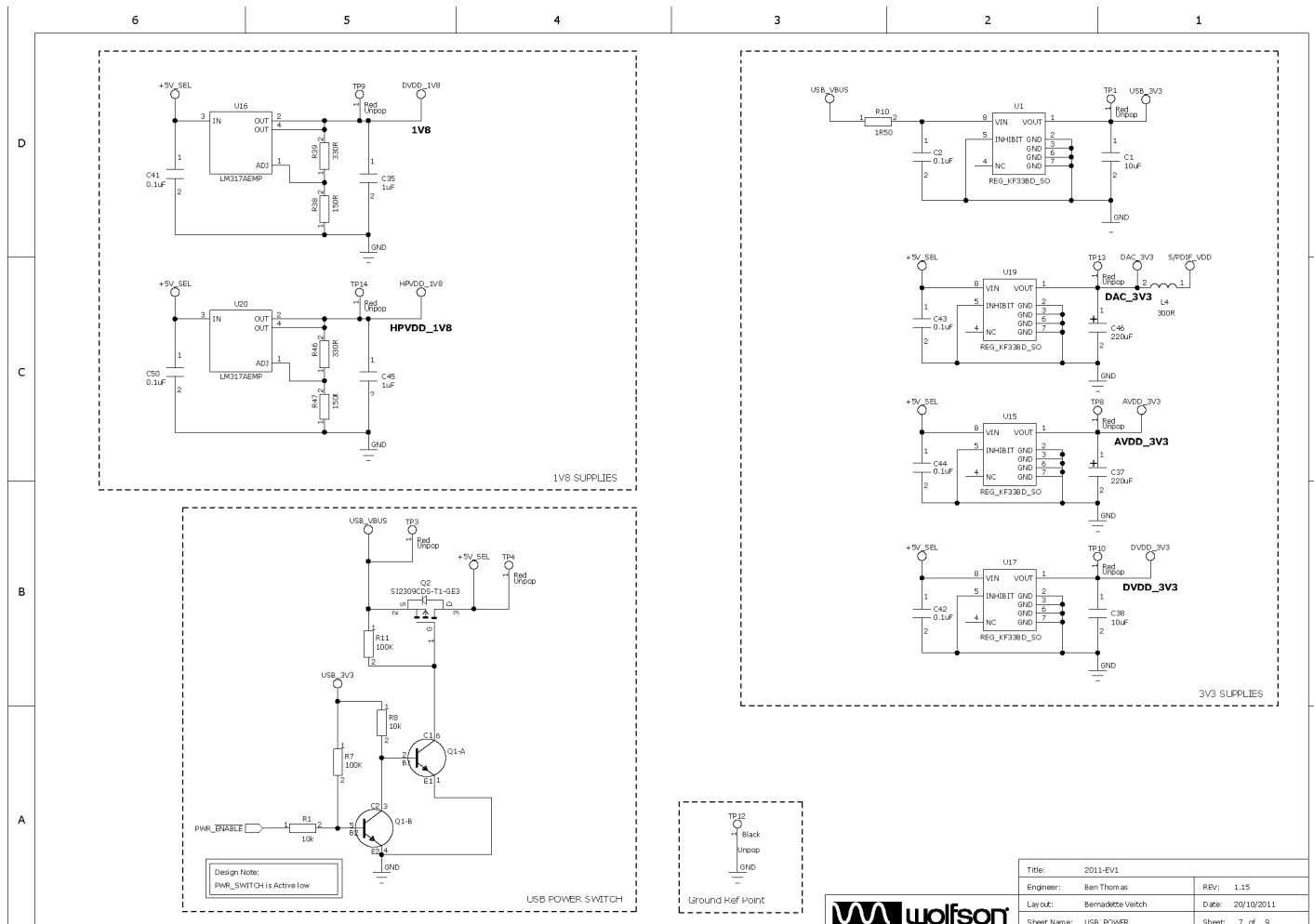
Sheet 5: Audio Interface MUX and Level Shift



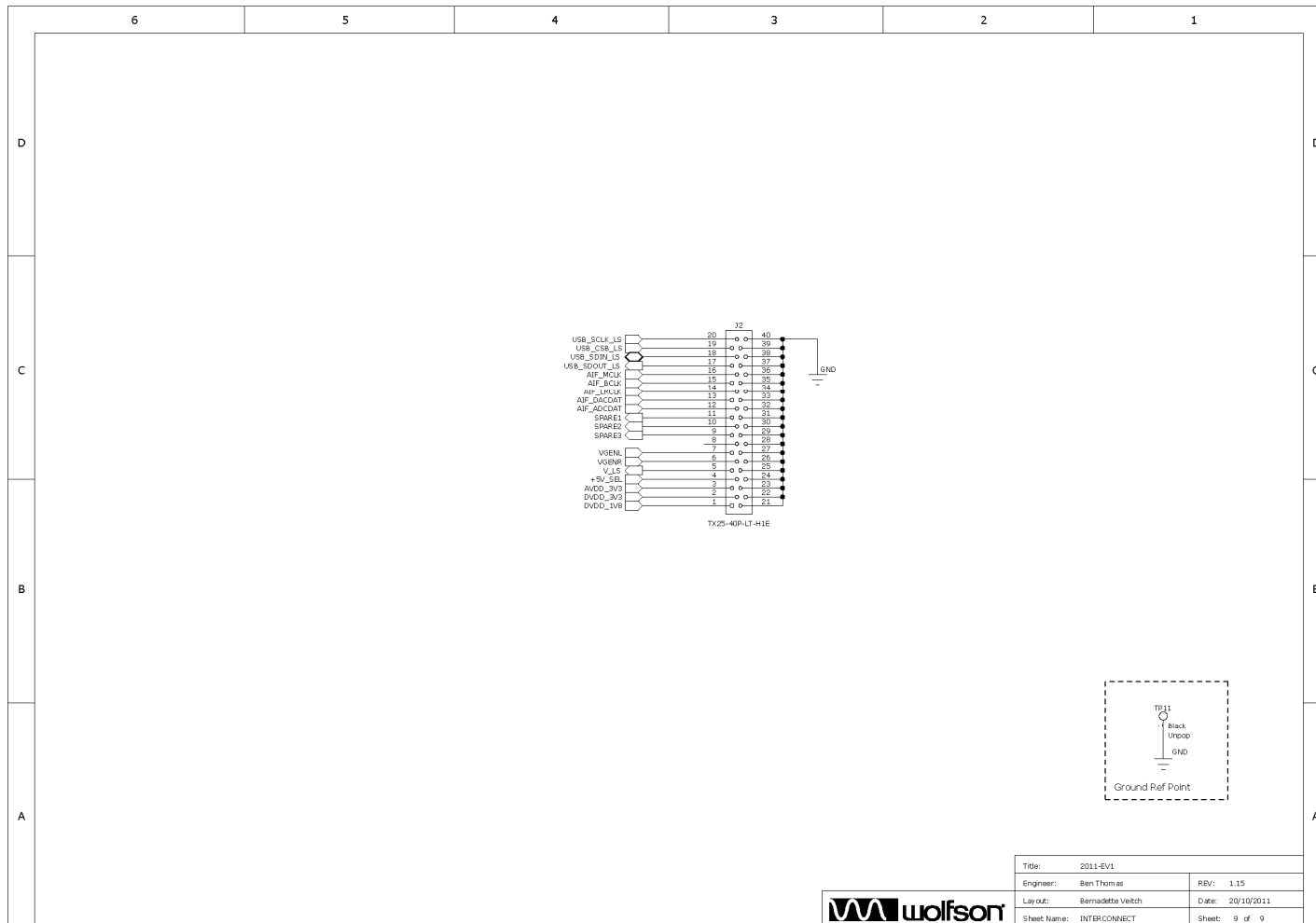
Sheet 6: USB DAC and Headphone Output



Sheet 7: Power



Sheet 8: Mini Board Interconnect Header



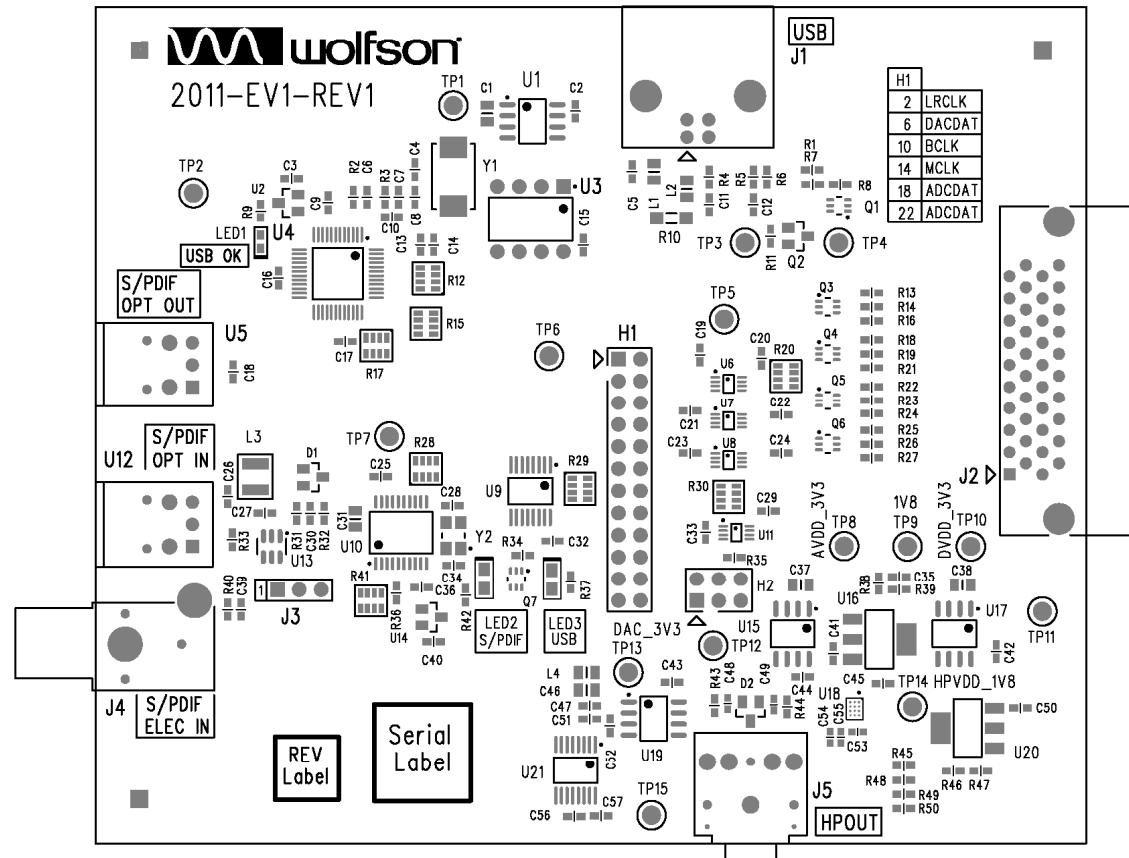
BILL OF MATERIALS (BOM)

Item	RefDes	Description	Manufacturer	Manufacturer's Part Number
1	J5	3.5mm Jack Socket 6.5mm Centre Height	Technik Industrial	ISH-3565-PBI-IIC-I
2	U4	USB Streaming Controller	Texas Instruments	TAS1020BPFB
3	U9	Quad 3-state Multiplexer, 74HC257 TSSOP	Texas Instruments	SN74HC257PWR
4	C56	2.2uF 0603 SMD Ceramic Capacitor 10V X5R	MuRata	GRM188R61A225KE34D
5	C1 C38	10uF 0805 SMD Ceramic Capacitor 6.3V X5R	MuRata	GRM21BR60J106KE19L
6	C47 C57	4.7uF 0603 SMD Ceramic Capacitor 6.3V X5R	MuRata	GRM188R60J475KE19D
7	C4 C8	27pF 0603 SMD Ceramic Capacitor 50V NPO	Panasonic	ECJ-1VC1H270J
8	J4	Phono Socket PCB mount YELLOW	Dragon City	RS109 - Yellow
9	H2	2X3 2.54mm pitch PCB Pin Header VERTICAL	Harwin	M20-9980345
10	Q1	BC847BS NPN Dual Bipolar Transistor SOT363	Philips	BC847BS
11	J1	USB receptacle Type B	FCI	61729-0010BLF
12	MECH1	IC Socket DIL 8 WAY	Multicomp	2227MC-08-03-F1
13	MECH4 MECH5 MECH6 MECH7	Feet black 12.7sq self-adhesive	3M	SJ5018BLACK
14	L1 L2 L4	300R 0805 BMB2A Ferrite Bead	Meggitt	BMB2A0300AN1
15	L3	47uH 1210 Surface Mount Inductor 'PA series'	Panasonic	ELJPA470KF
16	U12	TORX147PL Digital Audio Fiber Optic Receiver	Toshiba	TORX147PL
17	U5	Fiber Optic Transmitting Module for Digital Audio Interface	Toshiba	TOTX147PL
18	C53 C54 C55	2.2uF 0402 SMD Ceramic Capacitor 6.3V X5R	Kemet	C0402C225M9PAC
19	U13	Low Voltage Single Supply Analog Switch	Analog Devices	ADG719BRTZ-500RL7
20	C51 C52	1uF 0603 SMD Ceramic Capacitor 16V X7R	Phycomp	225524615663
21	Q3 Q4 Q5 Q6 Q7	SI1902DL N-Channel Dual MOSFET SC-70	Vishay	SI1902DL-T1-E3
22	J2	40 Way 1.27mm Pitch TX25 Series JAE Right Angle Plug	JAE	TX25-40P-LT-H1E
23	C37 C46	220uF 4V SMD Tantalum Capacitor case P	Vishay	298D227X0004P2T
24	MISC2	Lead-free label, 15mm round	Pro Power	7827260
25	Q2	P-Channel MOSFET -60V (D-S) SOT23	Vishay	SI2309CDS-T-GE3
26	R10	1R50 1206 SMD chip resistor 5% 0.25W	Vishay	2312 1551 1508
27	C2 C3 C6 C9 C15 C16 C17 C18 C19 C20 C21 C22 C23 C24 C25 C26 C27 C29 C32 C33 C36 C39 C40 C41 C42 C43 C44 C50	0.1uF 0603 SMD Ceramic Capacitor 16V X7R	Phycomp	2238 786 15649

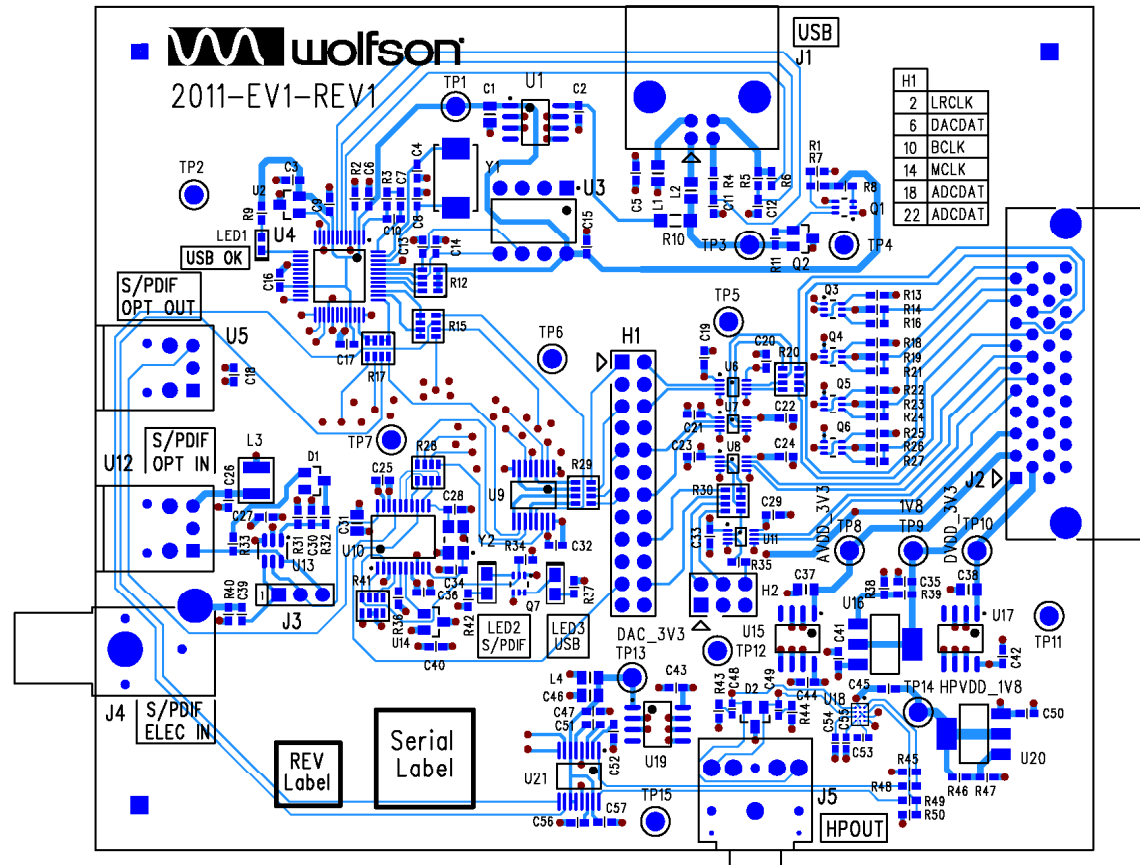
Item	RefDes	Description	Manufacturer	Manufacturer's Part Number
28	C11 C12	47pF 0603 SMD Ceramic Capacitor 50V NPO	AVX	06035A470JAT2A
29	C13 C14	220pF 0603 SMD Ceramic Capacitor 50V NPO	AVX	06035A221JAT2A
30	C28 C34	22pF 0603 SMD Ceramic Capacitor 50V NPO	Phycomp	2238 867 15229
31	C5	0.01uF 0603 SMD Ceramic Capacitor 50V X7R	Phycomp	2238 586 15636
32	LED1	KP-1608MGC 0603 SMD Chip LED GREEN	Kingbright	KP-1608MGC
33	C48 C49	0.1uF 0402 SMD Ceramic Capacitor 16V X7R	MuRata	GRM155R71C104KA88D
34	R15 R17 R20 R28 R29 R30	33R 1206 SMD chip 4 resistor array 5% 0.063W	Phycomp	2350 035 10339
35	R12	10K 1206 SMD chip 4 resistor array 5% 0.063W	Phycomp	2350 03510 103
36	R41	47k 1206 SMD chip 4 resistor array 5% 0.063W	Phycomp	2350 035 10473
37	R1 R8 R13 R18 R22 R25 R36	10k 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 10K
38	R7 R11	100K 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 100K
39	R31	1M 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 1M
40	R9 R37 R42	1K1 0603 SMD chip resistor 1% 0.1W	Multicomp	MC 0.063W 0603 1% 1K1
41	R38 R47	150R 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 150R
42	R6	1k5 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 1K5
43	R43 R44	20R 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 20R
44	R32	2k2 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 2K2
45	R4 R5	27R 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 27R
46	R3	3K0 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 3K
47	R39 R46	330R 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 330R
48	R45 R48 R49 R50	3K3 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 3K3
49	R33 R35	33R 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 33R
50	R14 R19 R23 R26	4K7 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 4K7
51	R2	47K 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 47K
52	R40	75R 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 75R
53	R16 R21 R24 R27 R34	0R 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 0R
54	C10	100pF 0603 SMD Ceramic Capacitor 50V NPO	Multicomp	U0603C101JCT
55	C7	1000pF 0603 SMD Ceramic Capacitor 50V NPO	Multicomp	U0603C102JCT
56	C31	1uF 0805 SMD Ceramic Capacitor 10V X7R	Multicomp	N0805R105KCT
57	U6 U7 U8 U11	DUAL-BIT DUAL-SUPPLY BUS TRANSCEIVER with Configurable Voltage Translation and 3-State outputs	Texas Instruments	SN74LVC2T45DCUT

Item	RefDes	Description	Manufacturer	Manufacturer's Part Number
58	U2 U14	DS1818 3.3V active-low Power-On-Reset chip SOT	Dallas Semiconductor	DS1818R-10+
59	U1 U15 U17 U19	KF33BD Very Low Drop +3.3V Voltage Regulator SO	ST Microelectronics	KF33BD
60	U3	EEPROM 8x8 i2c interface - with Wolfson "Streaming" code	Microchip Technology	24LC64-I/P
61	U16 U20	REG LM317A 1.2 - 25V 1A ADJUSTABLE	National Semiconductor	LM317AEMP
62	Y2	XTAL 12MHz 16pF SM GSX-433 Series	Golledge	GSX-433/111DF 12MHz
63	Y1	XTAL 6.0 MHz 30pF SM GSX-1A	Golledge	GSX-1A/352JF 6.0MHz
64	LNK_H1-6 LNK_H1-5 LNK_H1-4 LNK_H1-3 LNK_H1-2 LNK_H1-1	0.1" OPEN JUMPER LINK YELLOW	Protech	22-3570
65	D1	BAS21 General Purpose Diode	Philips	BAS21
66	LED2 LED3	KP-2012SYC 0805 SMD Chip LED YELLOW	Kingbright	KP-2012SYC
67	C30 C35 C45	1uF 0603 SMD Ceramic Capacitor 6.3V X5R	MuRata	GRM188R60J105KA01D
68	H1	2x12 2.54mm pitch PCB Pin Header VERTICAL	Toby	THD-12-R
69	PCB1	PCB	Zot Engineering	2011-EV1-REV1
70	U21	WM8524 Stereo DAC with integral Charge Pump	Wolfson Microelectronics	WM8524/DT
71	U10	WM8804 1:1 Digital Interface Transceiver with PLL	Wolfson Microelectronics	WM8804GEDS
72	U18	WM9010 Low Power Class G Stereo Headphone Driver	Wolfson Microelectronics	WM9010
Unpop				
73	J3	1x3 2.54mm Header Vertical	Harwin	M20-9990345
74	TP2 TP5 TP6 TP7 TP11 TP12 TP15	1.32mm PCB Test Terminal BLACK	Vero	20-2136
75	TP1 TP3 TP4 TP8 TP9 TP10 TP13 TP14	1.32mm PCB Test Terminal RED	Vero	20-313141
76	D2	TVS Diode PESD5V0S2BT V _{rw} =5V dual ESD Protection SOT23	Philips	PESD5V0S2BT

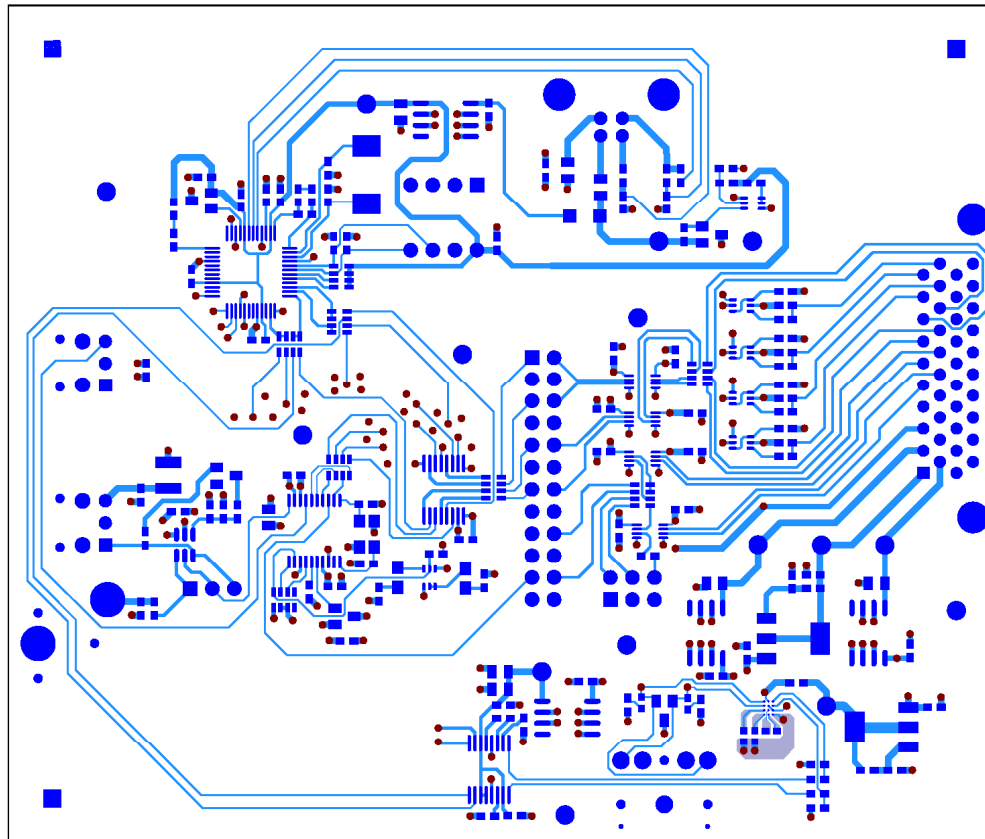
PCB LAYOUT



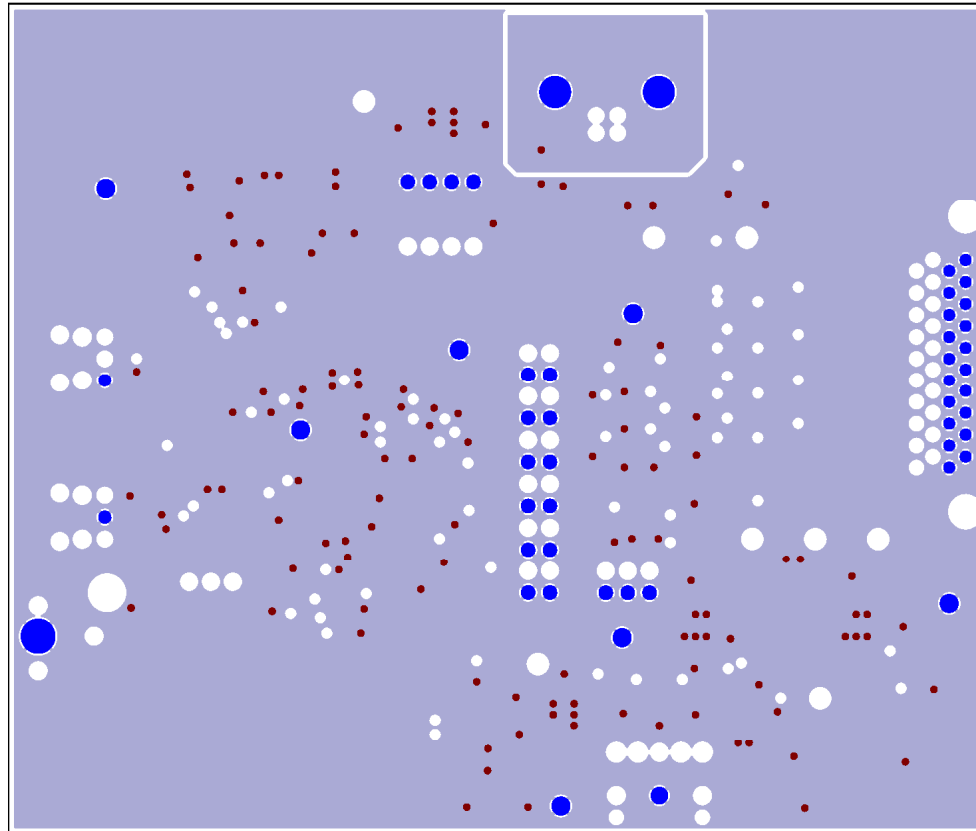
Top Layer: Overview



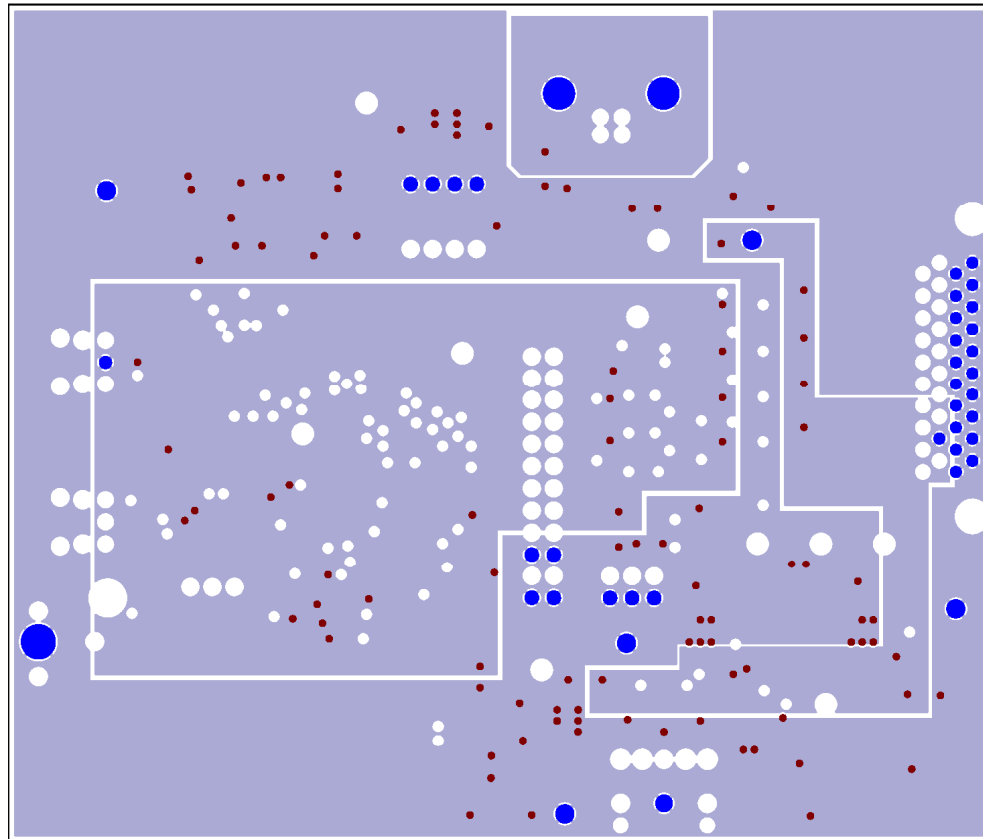
Top Layer: Silkscreen + Copper



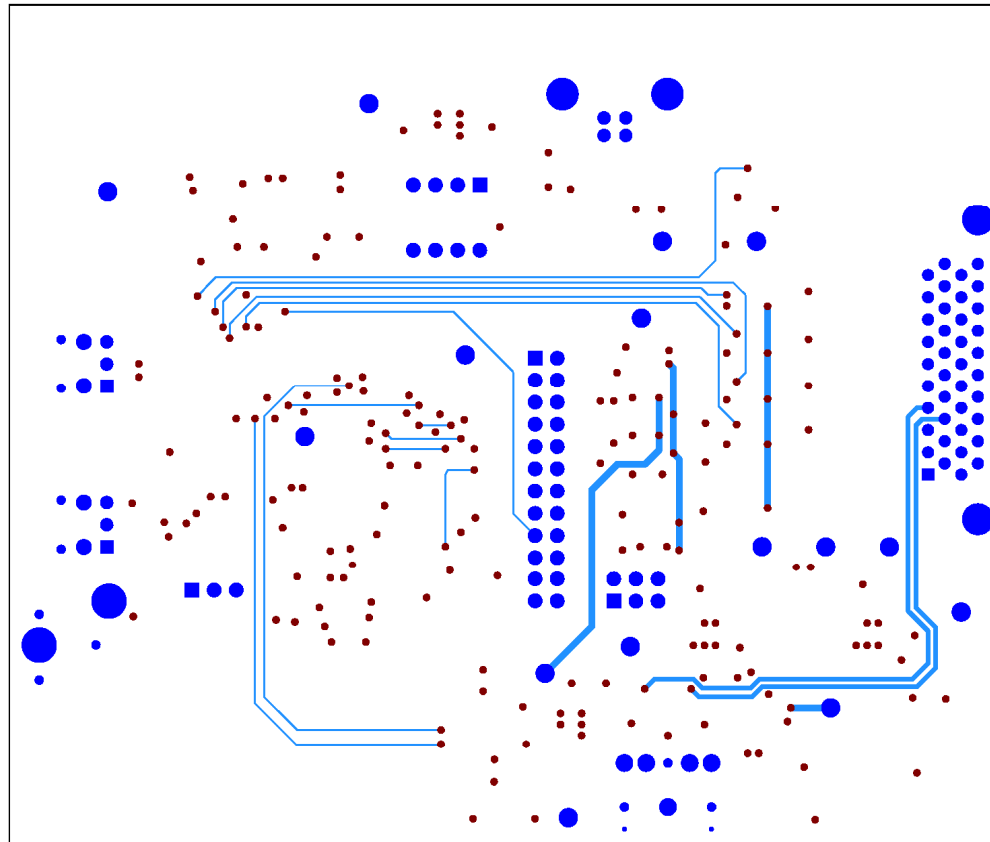
Top Layer: Copper



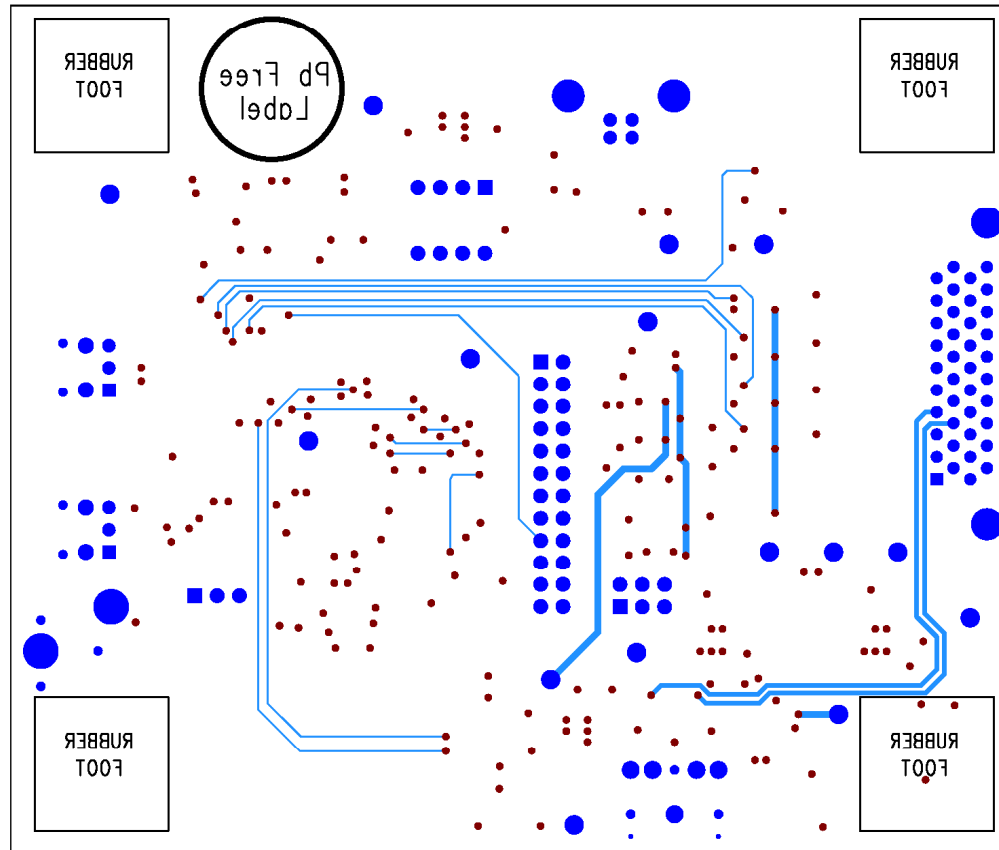
Layer 2: Copper



Layer 3: Copper

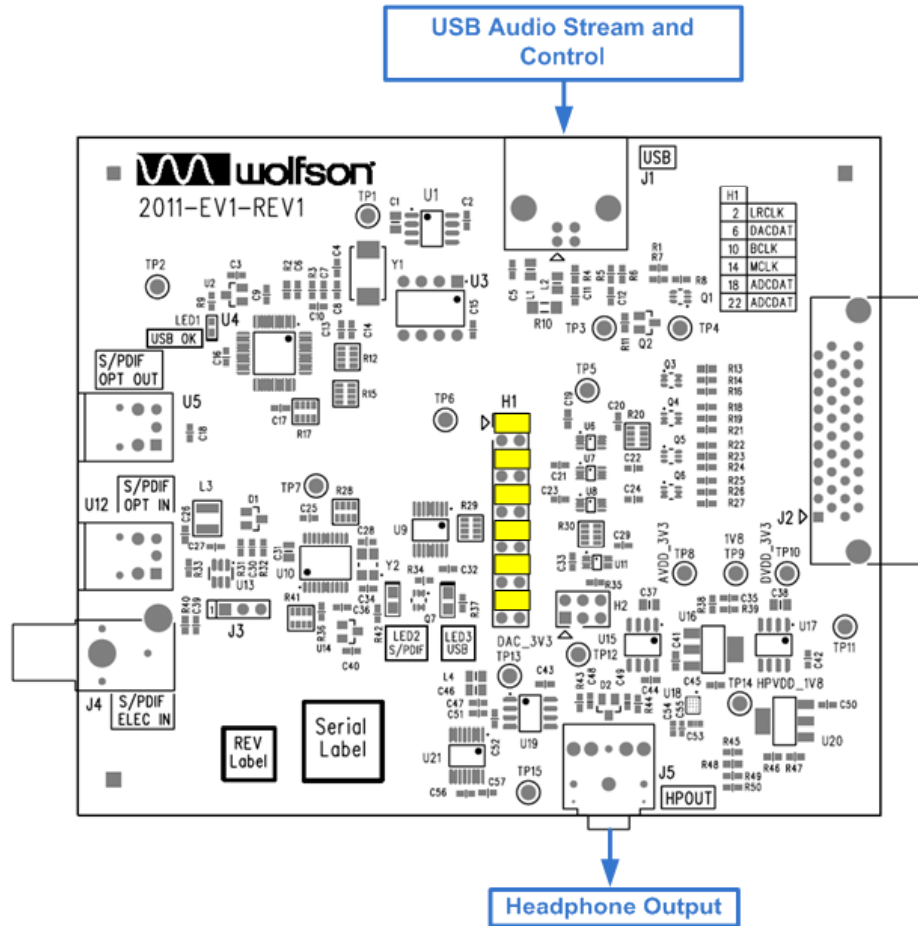


Bottom Layer: Copper



Bottom Layer: Silkscreen + Copper

DEFAULT BOARD CONFIGURATION



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