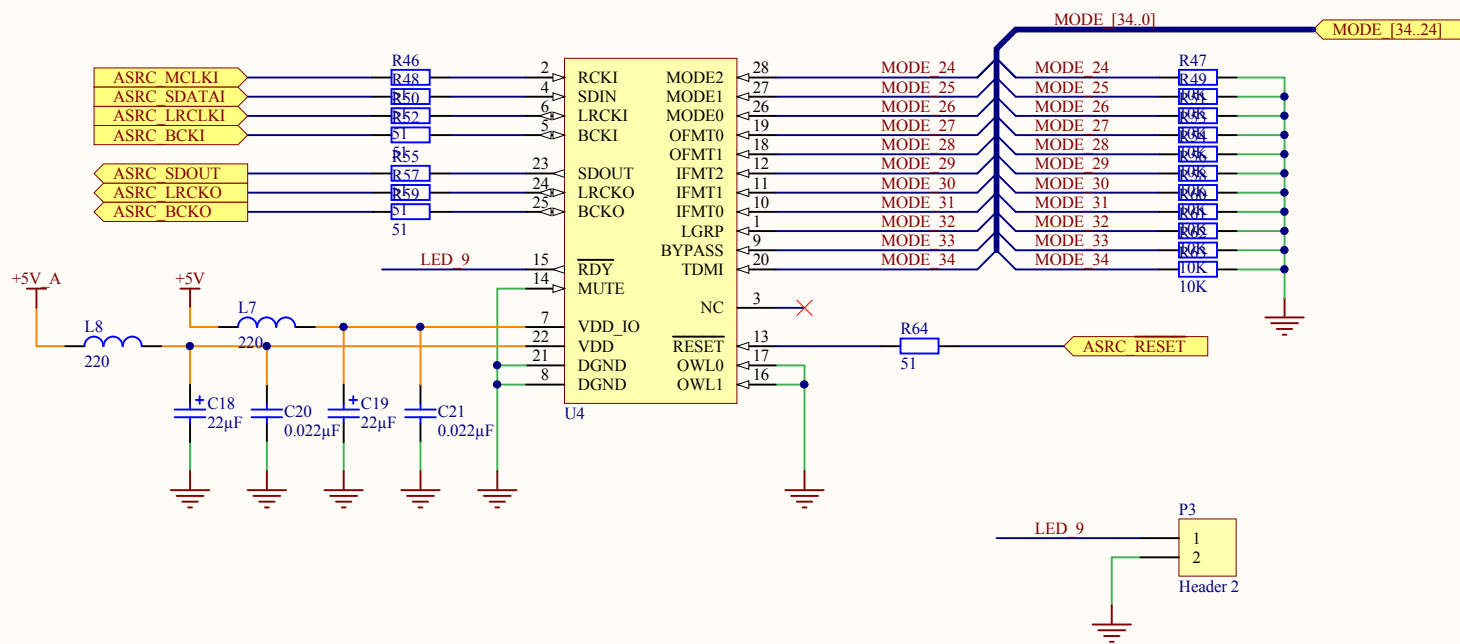
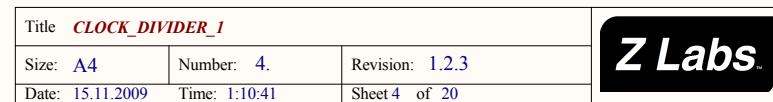
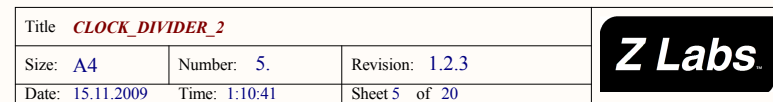
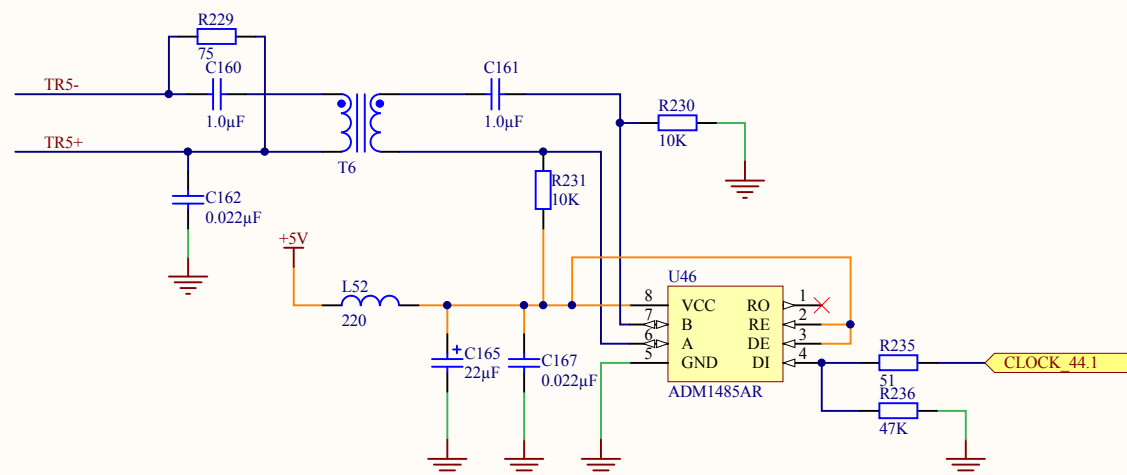
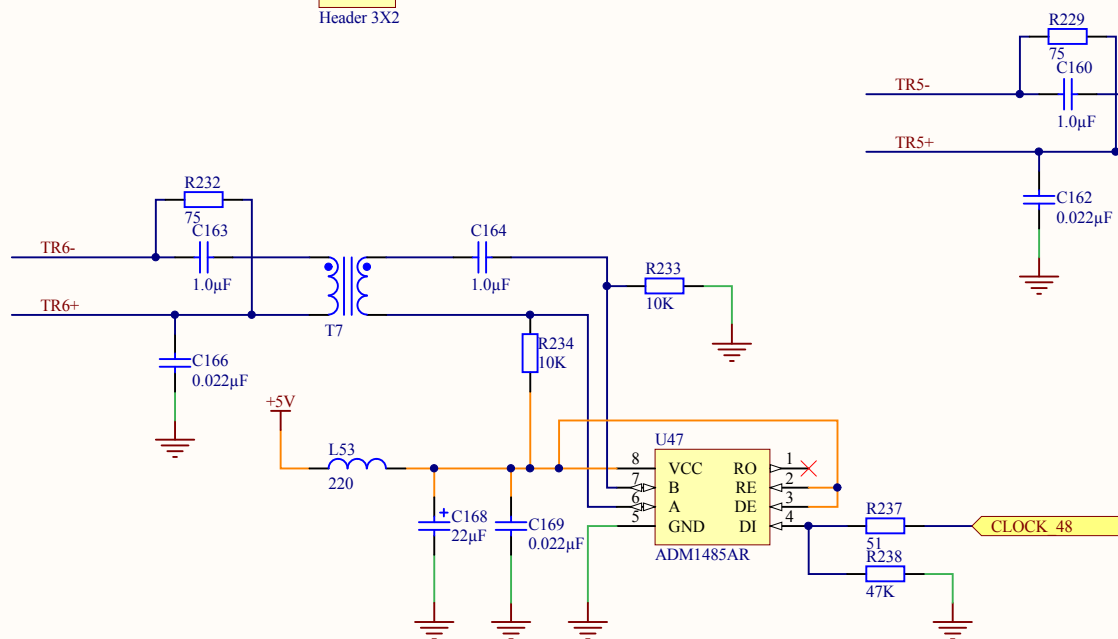
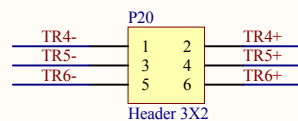
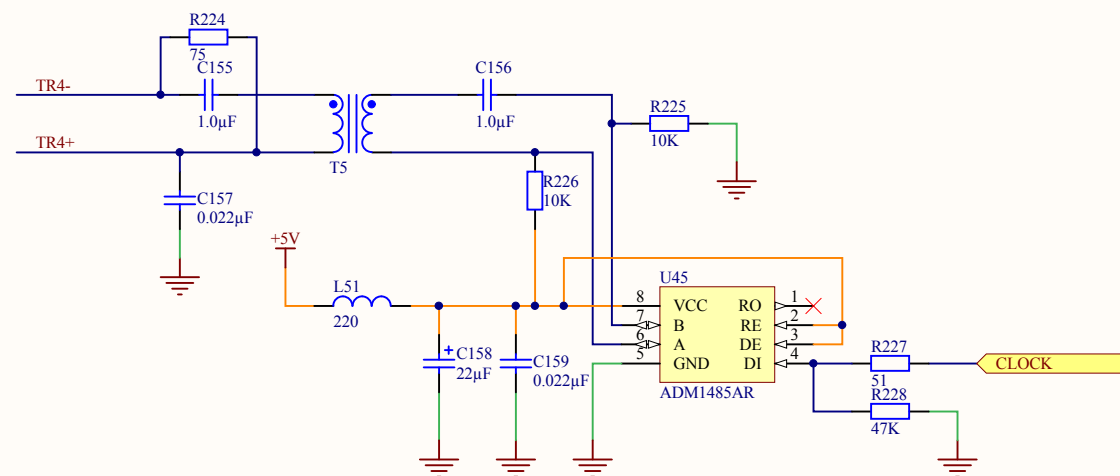










Title CLOCK TRANSMITTER		
Size: A4	Number: 6.	Revision: 1.2.3
Date: 15.11.2009	Time: 1:10:42	Sheet 6 of 20

DF DOR	DF DOR
DF DOL	DF DOL
DF BCKO	DF BCKO
DF WCKO	DF WCKO
DF LRCI	DF LRCI
DF BCKI	DF BCKI
DF XTI	DF XTI
DF DG	DF DG

ISO D1B	ISO D1B
ISO D2B	ISO D2B
ISO D3B	ISO D3B
ISO D4B	ISO D4B
ISO D5B	ISO D5B
ISO D6B	ISO D6B

ASRC LRCKO	ASRC LRCKO
ASRC BCKO	ASRC BCKO
ASRC SDOUT	ASRC SDOUT
ASRC SDATAI	ASRC SDATAI
ASRC LRCLKI	ASRC LRCLKI
ASRC BCKI	ASRC BCKI

DIR DOUT	DIR DOUT
DIR LRCKO	DIR LRCKO
DIR BCKO	DIR BCKO

RS485 DATA	RS485 DATA
RS485 LRCLK	RS485 LRCLK
RS485 BCLK	RS485 BCLK
RS485 MCLK	RS485 MCLK
RS485 RESERVE 1	RS485 RESERVE 1
RS485 RESERVE 2	RS485 RESERVE 2
RS485 RESERVE 3	RS485 RESERVE 3

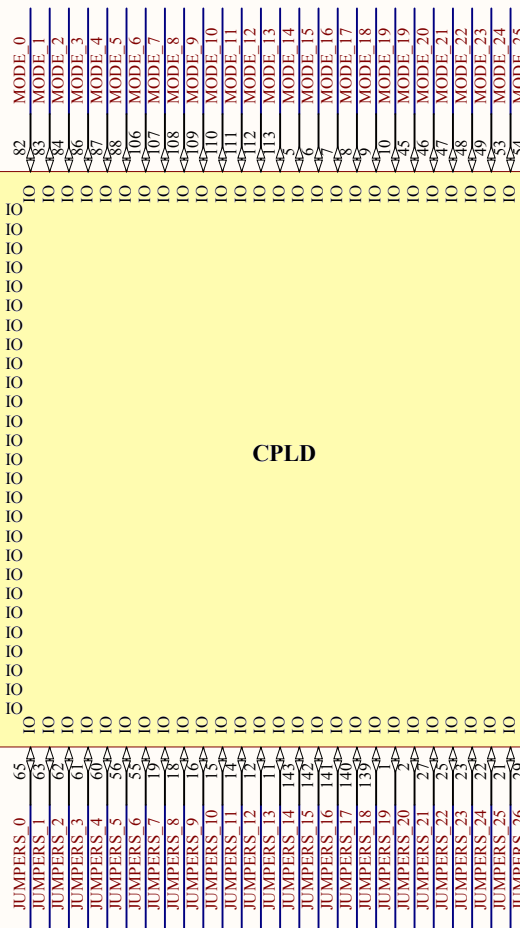
OPTICAL1 CONTR	OPTICAL1 CONTR
OPTICAL2 CONTR	OPTICAL2 CONTR
OPTICAL3 CONTR	OPTICAL3 CONTR
SPDIF1 CONTR	SPDIF1 CONTR
SPDIF2 CONTR	SPDIF2 CONTR
SPDIF3 CONTR	SPDIF3 CONTR

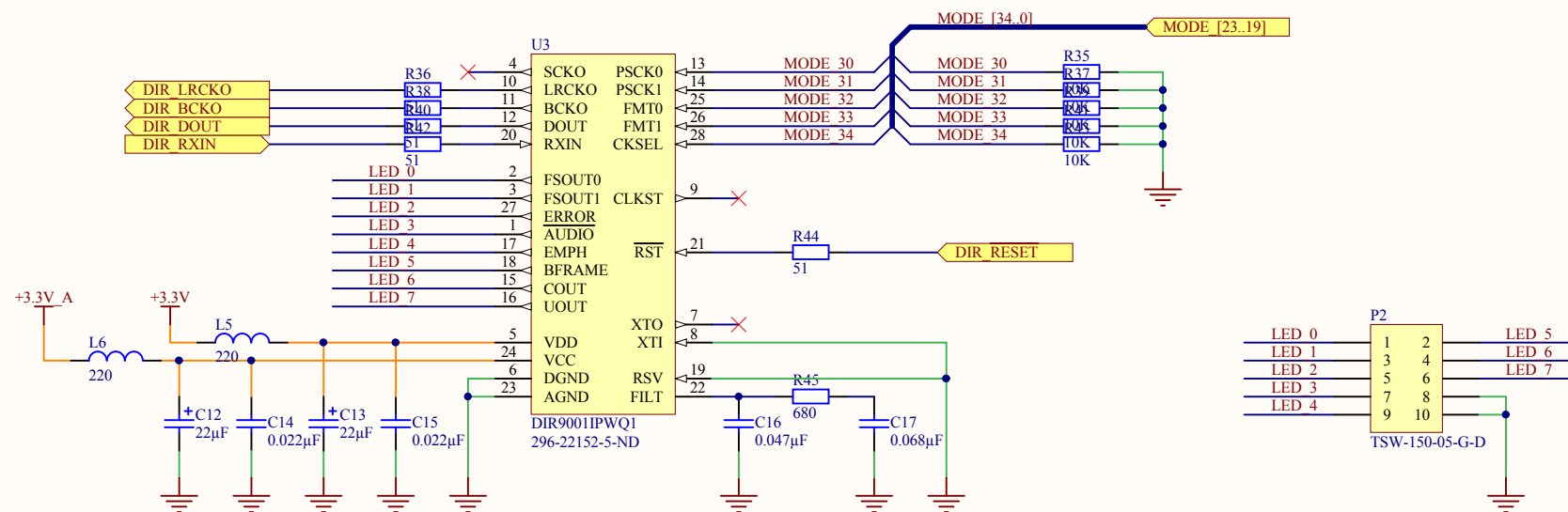
USB CONTR	USB CONTR
CLOCK	CLOCK

MODE [34..0]	MODE [34..0]
--------------	--------------

JUMPERS [26..0]	JUMPERS [26..0]
-----------------	-----------------

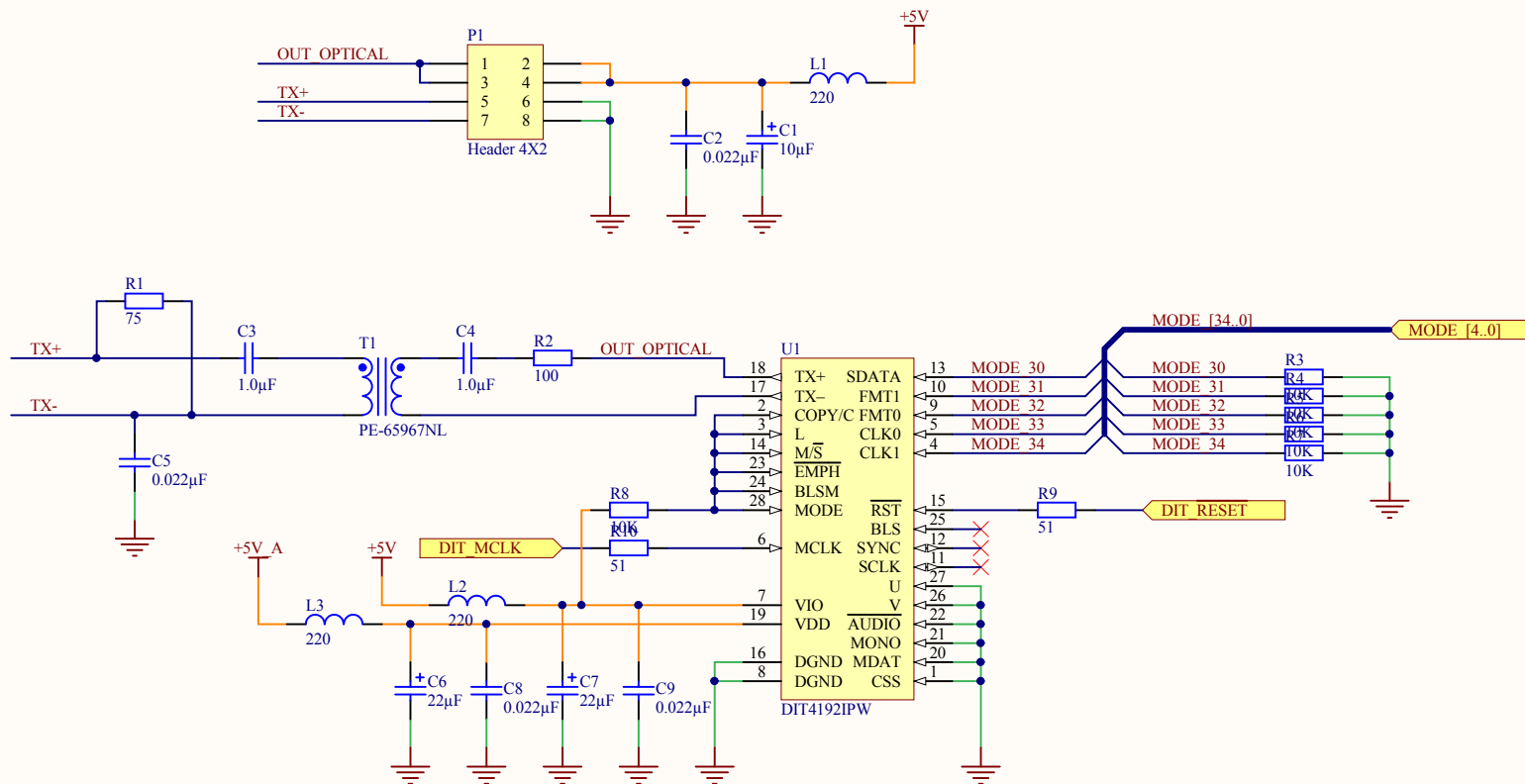
DF DOR	122
DF DOL	121
DF BCKO	120
DF WCKO	119
DF LRCI	118
DF BCKI	117
DF XTI	116
DF DG	97
	96
ASRC LRCKO	93
ASRC BCKO	92
ASRC SDOUT	91
ASRC SDATAI	90
ASRC LRCLKI	44
ASRC BCKI	43
	42
CLOCK	41
ISO D1B	40
ISO D2B	39
ISO D3B	38
ISO D4B	37
ISO D5B	36
ISO D6B	35
	34
DIR DOUT	32
DIR LRCKO	31
DIR BCKO	30

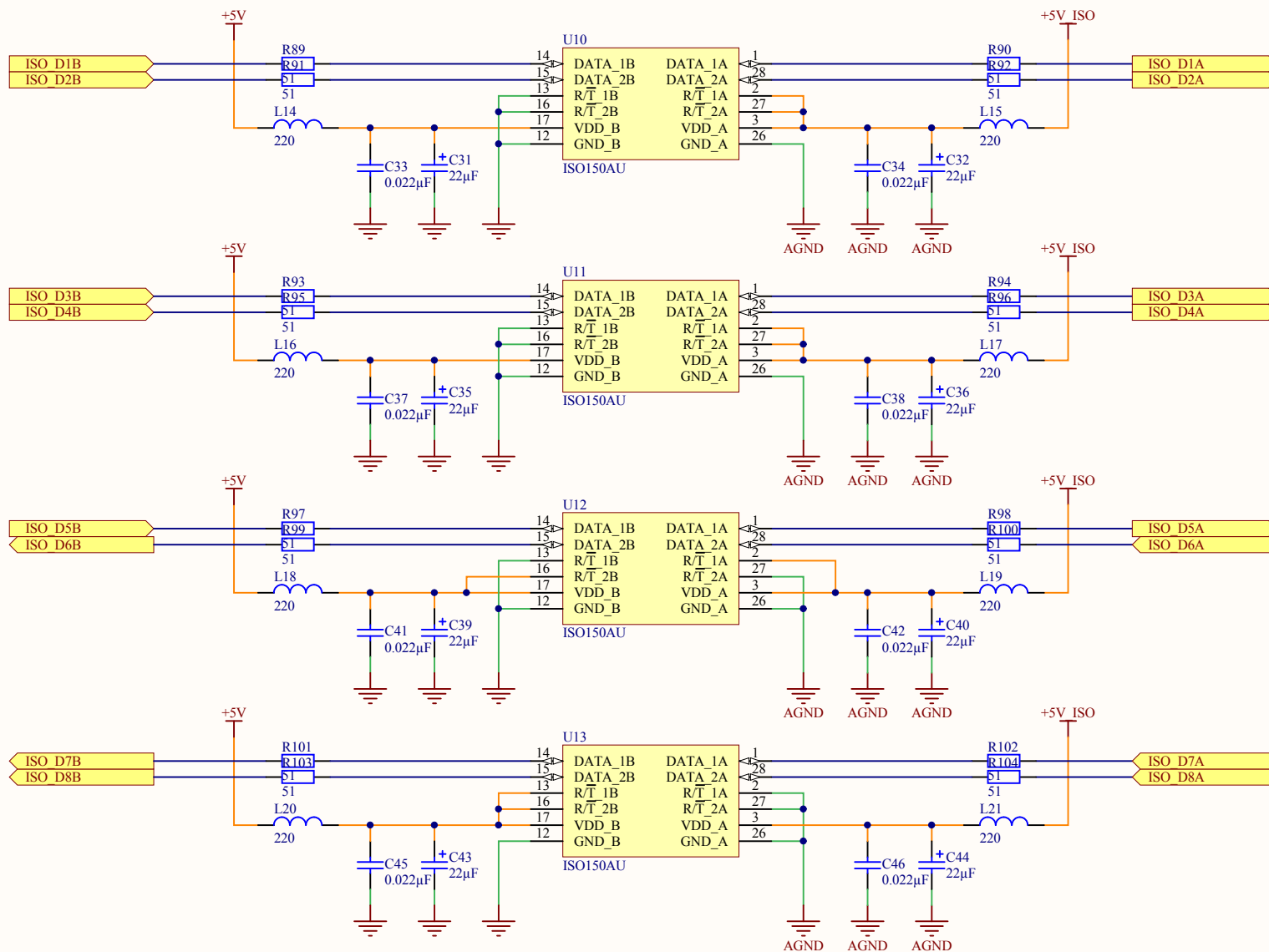
Title **CPLD**Size: **A4**Number: **8.**Revision: **1.2.3**Date: **15.11.2009**Time: **1:10:42**Sheet **8** of **20****Z Labs**



Title DIGITAL AUDIO INTERFACE RECEIVER		
Size: A4	Number: 9.	Revision: 1.2.3
Date: 15.11.2009	Time: 1:10:42	Sheet 9 of 20

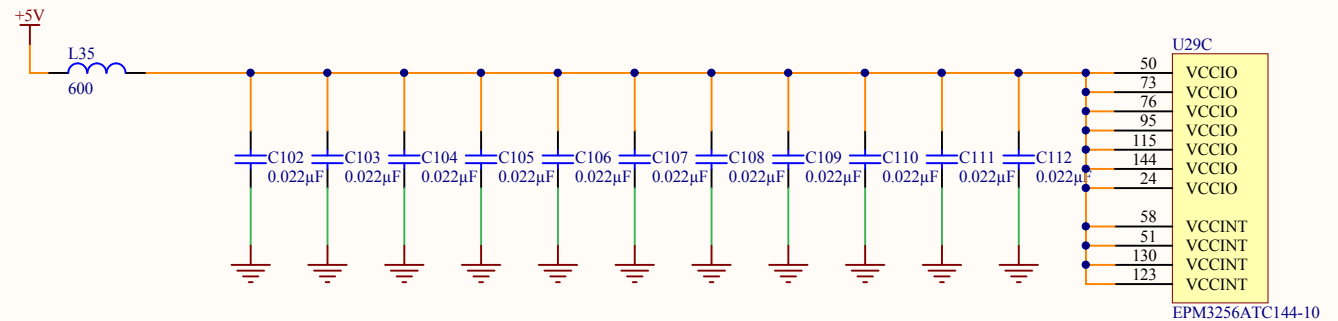
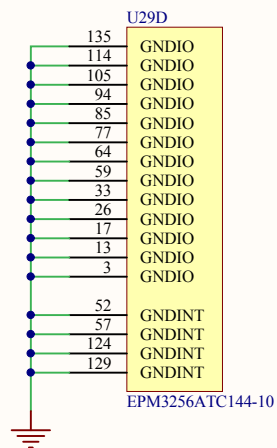
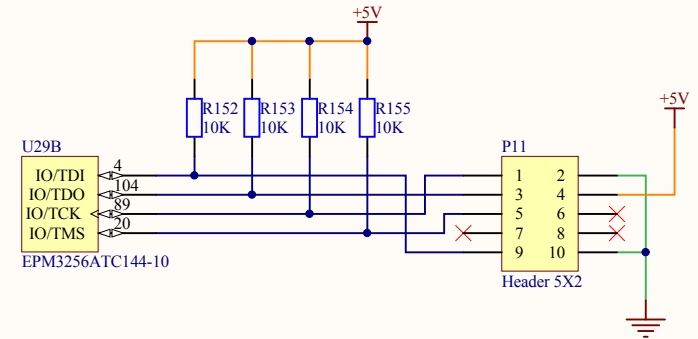
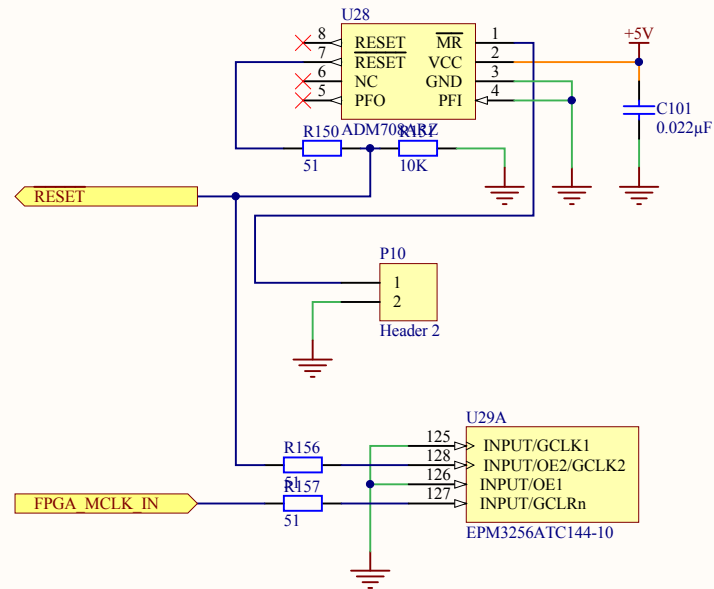


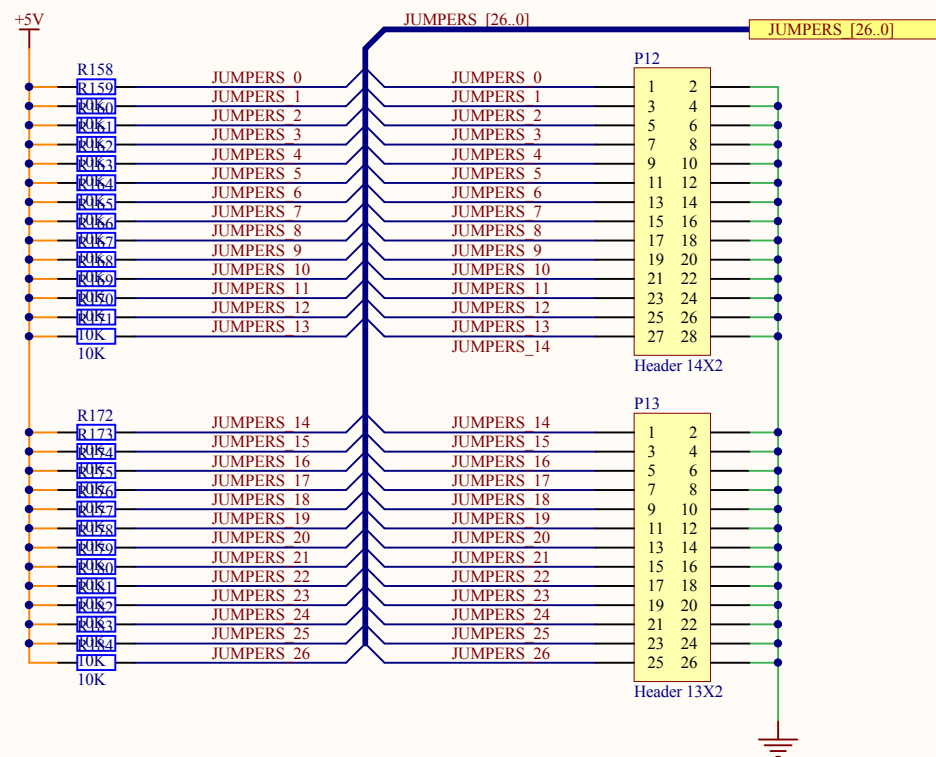
Title **DIGITAL AUDIO INTERFACE TRANSMITTER**Size: **A4**Number: **10.**Revision: **1.2.3**Date: **15.11.2009**Time: **1:10:42**Sheet **10** of **20****Z Labs**



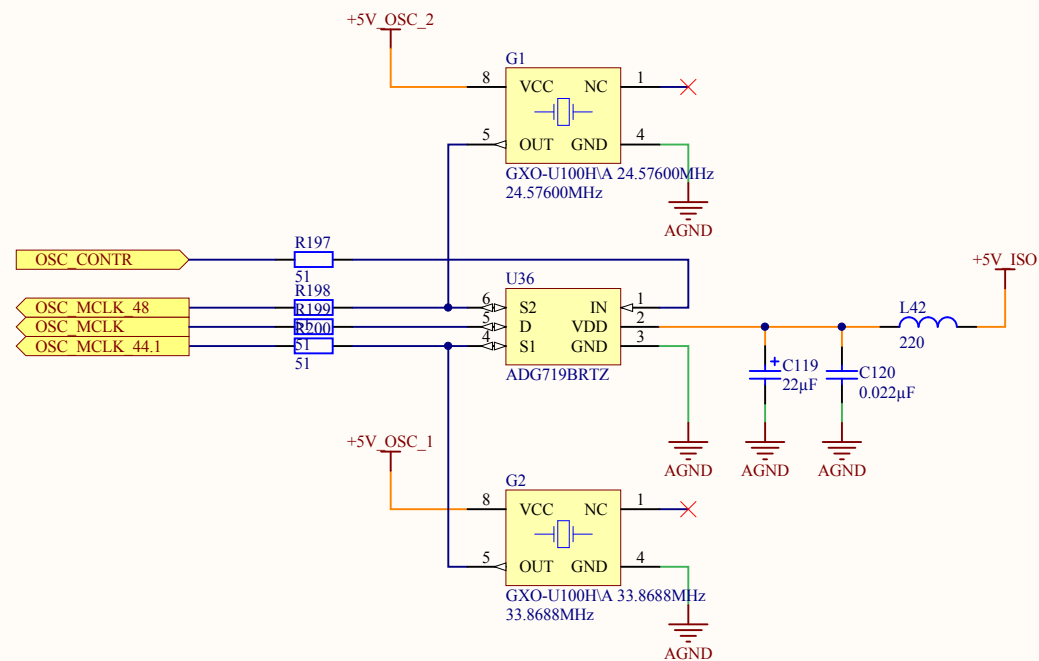
Title DIGITAL COUPLER		
Size: A4	Number: 11.	Revision: 1.2.3
Date: 15.11.2009	Time: 1:10:42	Sheet 11 of 20







Title JUMPERS			Z Labs
Size: A4	Number: 13.	Revision: 1.2.3	
Date: 15.11.2009	Time: 1:10:42	Sheet 13 of 20	



Title OSCILLATOR AND SPDT SWITCH		
Size: A4	Number: 14.	Revision: 1.2.3
Date: 15.11.2009	Time: 1:10:42	Sheet 14 of 20



1

2

3

4

A

B

C

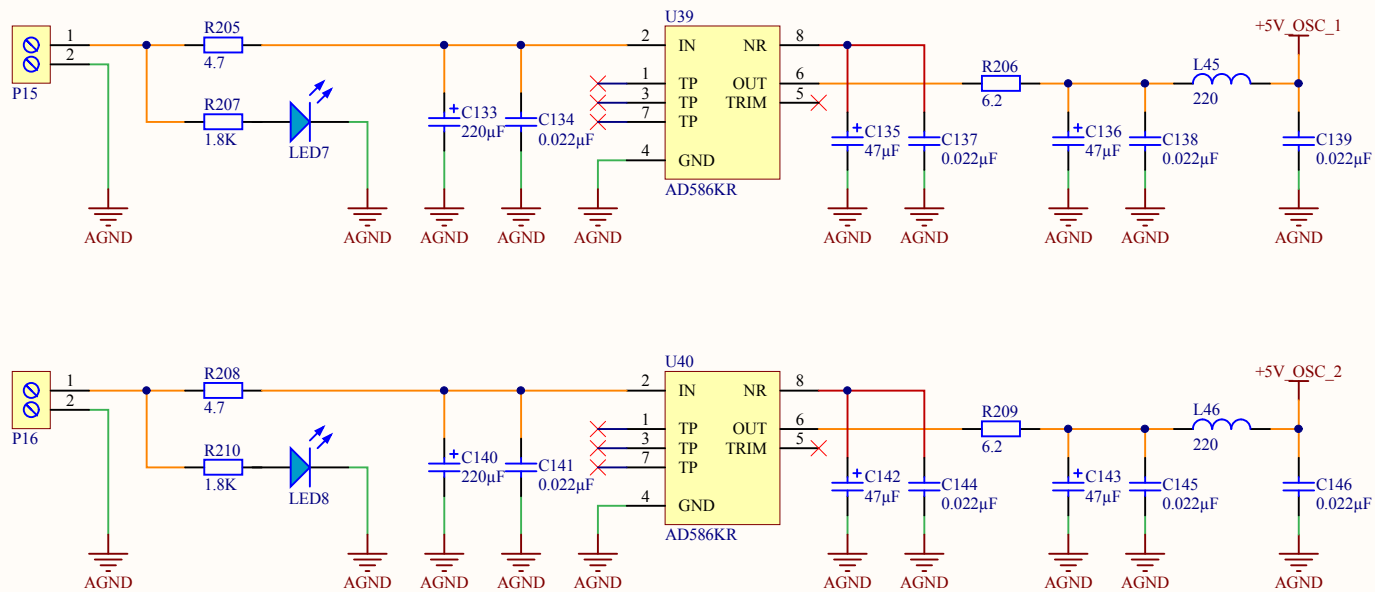
D

A

B

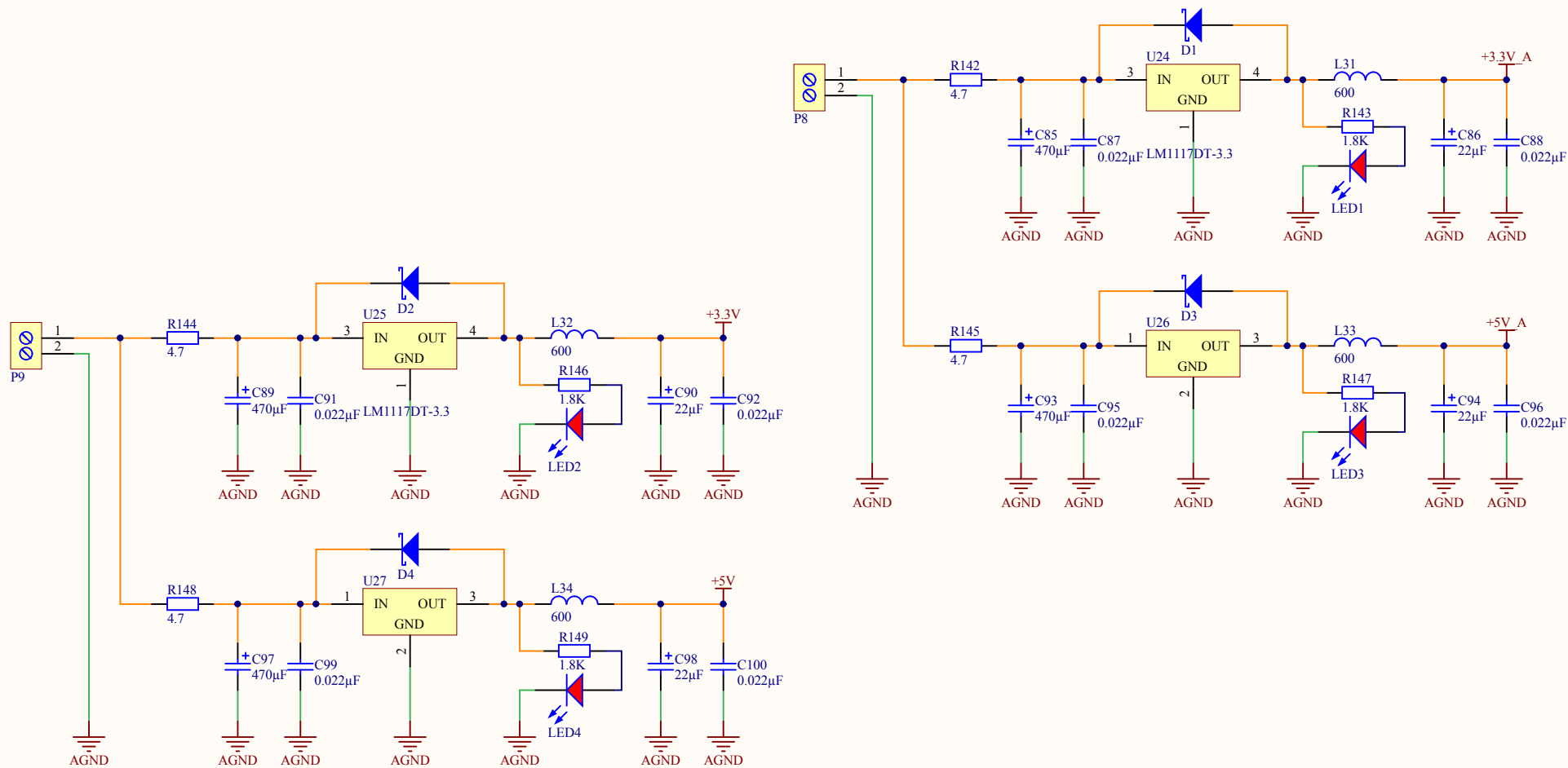
C

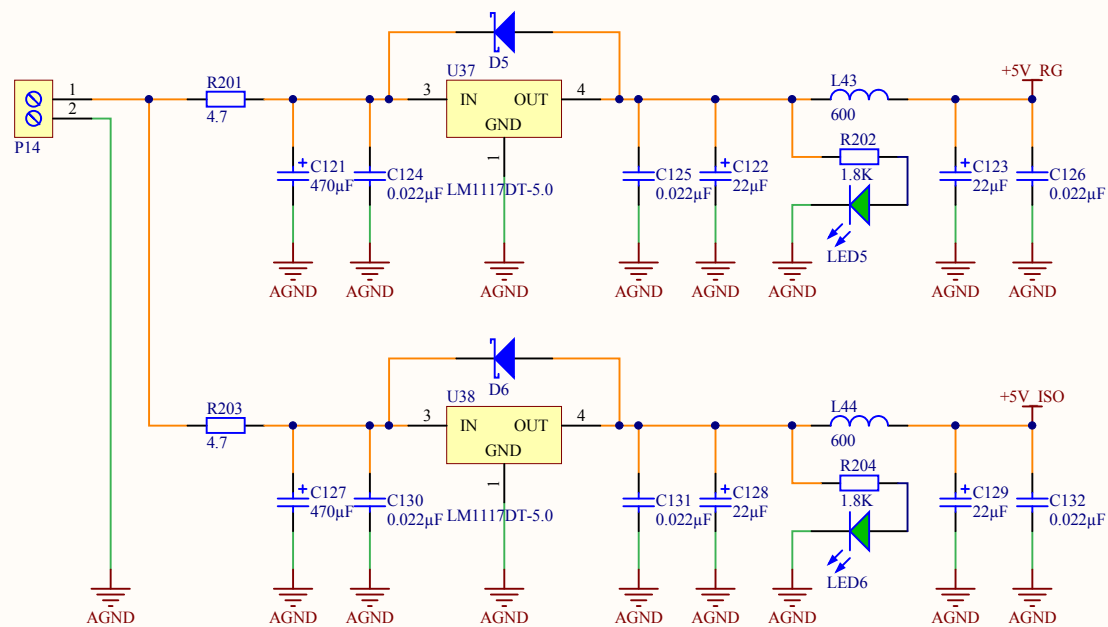
D



Title POWER 2		
Size: A4	Number: 15.	Revision: 1.2.3
Date: 15.11.2009	Time: 1:10:42	Sheet 15 of 20

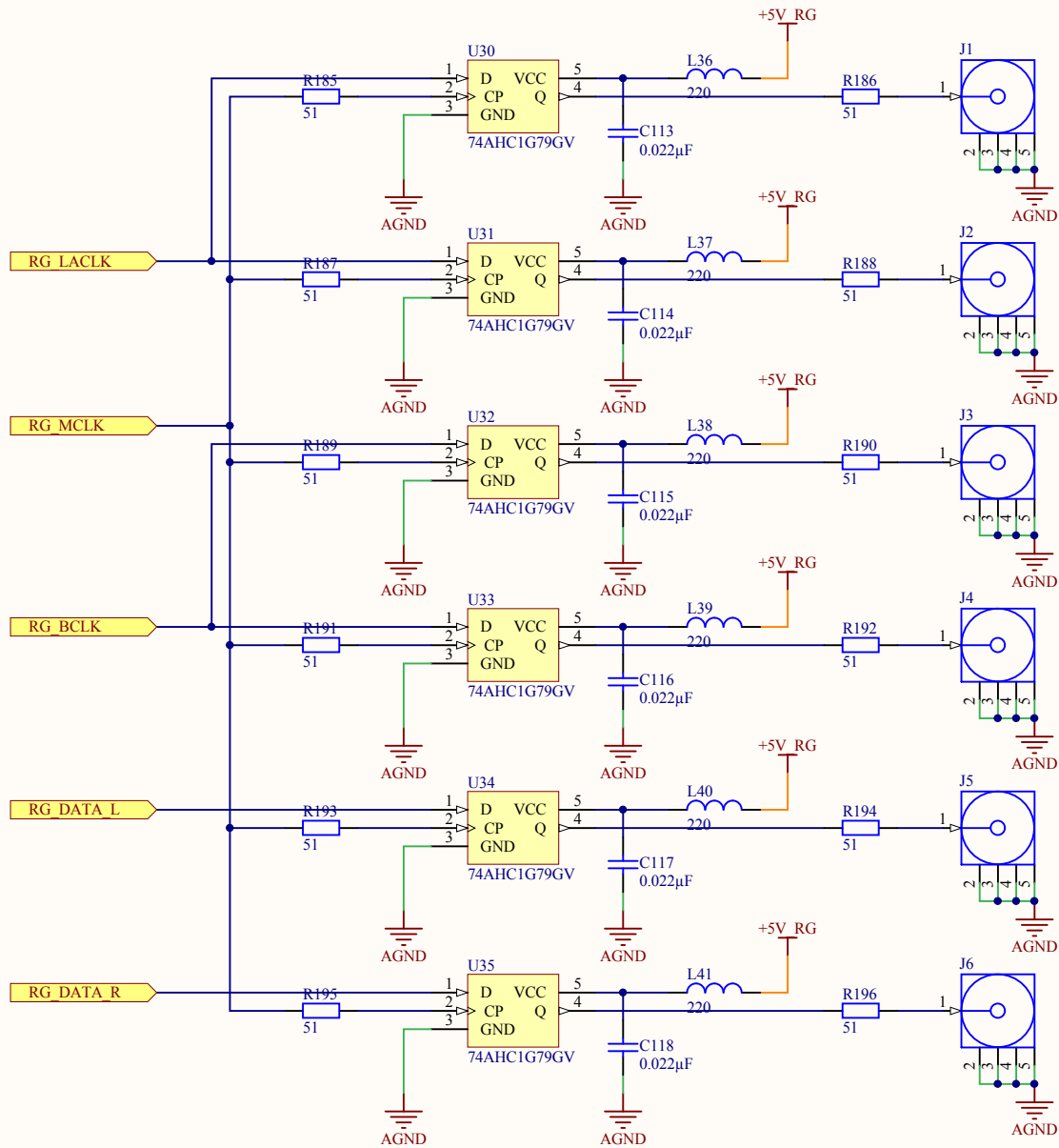
Z Labs





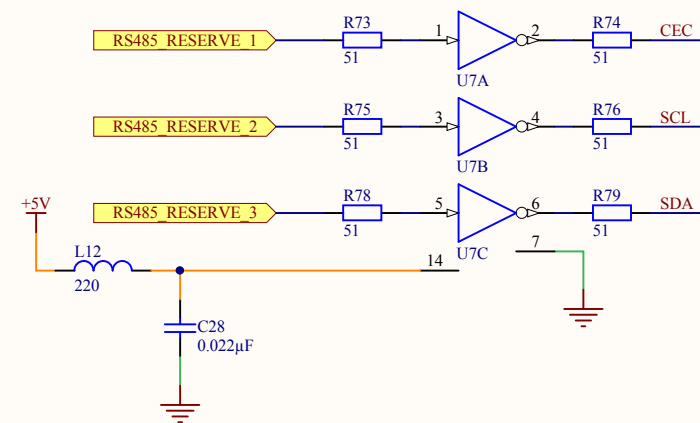
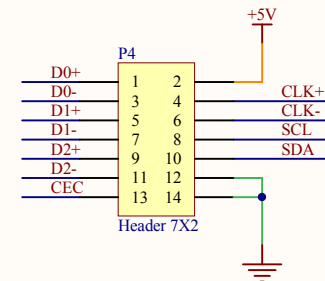
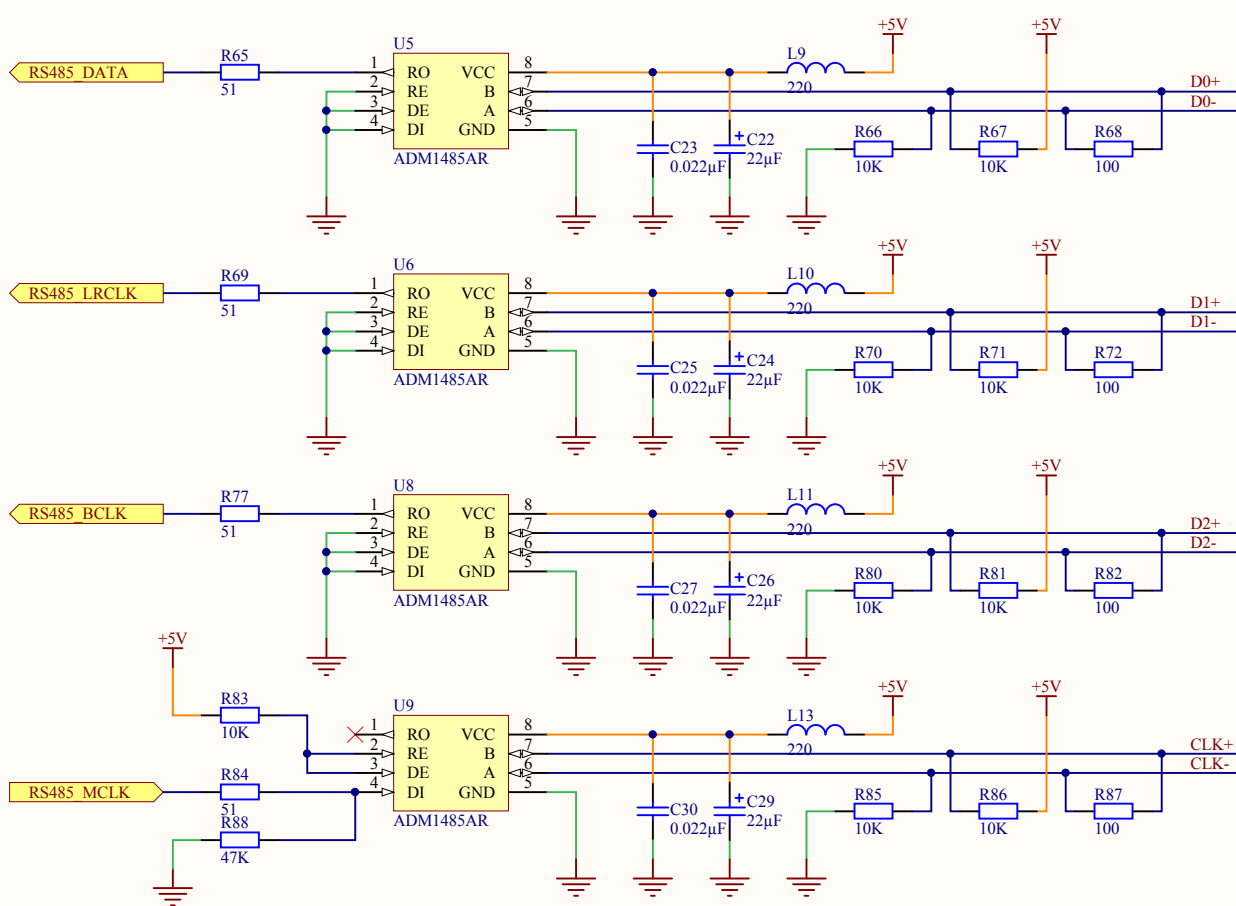
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Size: A4	Number: 17.	Revision: 1.2.3
Date: 15.11.2009	Time: 1:10:43	Sheet 17 of 20

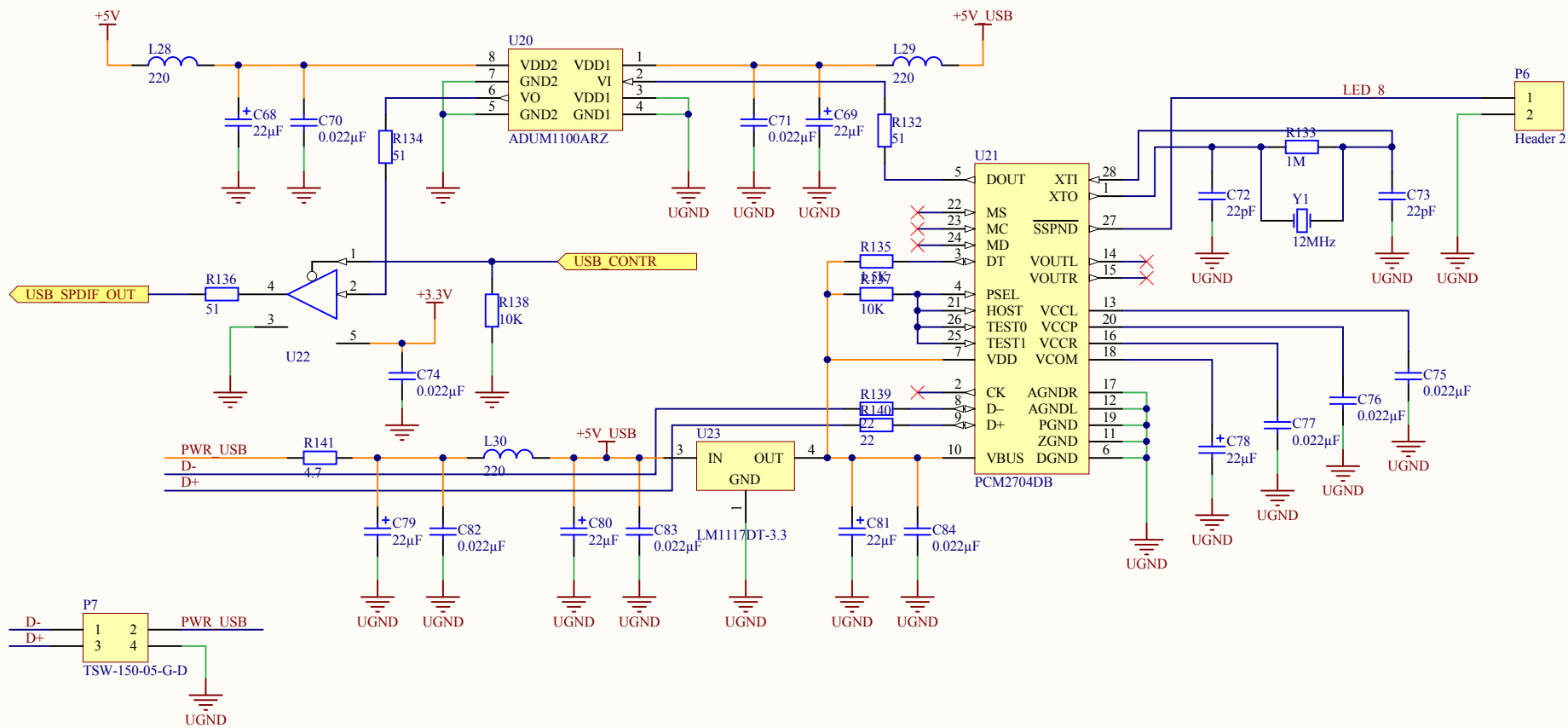




Title RECLOCK SIGNAL		
Size: A4	Number: 18.	Revision: 1.2.3
Date: 15.11.2009	Time: 1:10:43	Sheet 18 of 20







Title USB INTERFACE OUTPUT SPDIF		
Size: A4	Number: 20	Revision: 1.2.3
Date: 15.11.2009	Time: 1:10:43	Sheet 20 of 20

Z Labs

Component list

Bill of Materials For Project [DIGITAL_BOARD_INTERFACE.PrjPcb] (No PCB Document Selected)

Source Data From:

DIGITAL_BOARD_INTERFACE.PrjPcb

Project:

DIGITAL_BOARD_INTERFACE.PrjPcb

Variant:

None



Report Date:

15.11.2009

1:11:43

Print Date:

15-Nov-09

1:11:46 AM

#	Designator	#Column Name Error:LibRef	Manufacturer	Description	#Column Name Error:FootPrint	#Column Name Error:Library Name	Comment	Quantity
1	C1, C49, C54, C61		SANYO	CAP ELECT OS-CON SC 10uF / 10v			10SC10M	4
2	C2, C5, C8, C9, C11, C14, C15, C20, C21, C23, C25, C27, C28, C30, C33, C34, C37, C38, C41, C42, C45, C46, C47, C50, C51, C53, C55, C56, C57, C60, C62, C63, C64, C67, C70, C71, C74, C75, C76, C77, C82, C83, C84, C87, C88, C91, C92, C95, C96, C99, C100, C101, C102, C103, C104, C106, C107, C108, C109, C110, C111, C113, C114, C115, C116, C117, C118, C124, C125, C126, C130, C131, C132, C137, C138, C139, C141, C144, C145, C148, C150, C152, C154, C157, C159, C166, C167, C169		Murata Electronics North America	CAP CER 22000PF 50V COG 5% 0805			GCM21B5C1H223JA16L	94
3	C3, C4, C48, C58, C65, C155, C156, C161, C163, C164		Murata Electronics North America	CAP CER 1UF 50V X7R 0805			GRM21BR71H105KA12L	11
4	C6, C7, C10, C12, C13, C18, C19, C22, C26, C29, C31, C32, C35, C36, C39, C40, C43, C44, C52, C59, C66, C68, C69, C78, C79, C80, C81, C86, C90, C94, C98, C111, C122, C123, C128, C129, C147, C149, C153, C158, C165, C168		SANYO	CAP ELECT OS-CON SC 22uF / 10v			10SC22M	44
5	C16		Murata Electronics North America	CAP CER 47000PF 50V 10% X7R 0805			GRM21BR71H473KA01L	1
6	C17		Murata Electronics North America	CAP CER 68000PF 50V 10% X7R 0805			GRM21BR71H683KA01L	1
7	C72, C73		Murata Electronics North America	CAP CER 22PF 100V COG 0603			GCM18B5C2A220JA16D	2
8	C85, C89, C93, C97, C121, C127		SANYO	CAP ELECT OS-CON SA 470uF / 16v			16SA470M	6
9	C133, C140			CAP ELECT 220UF 25V AUDIO SNAP			UKZ1E221MHM	2
10	C135, C136, C142, C143			CAP ELECT 47UF 25V AUDIO SNAP			UKZ1E470MPM	4
11	D1, D2, D3, D4, D5, D6		STMicroelectronics	DIODE SCHTKY 100MA 100V MINIMELF			TMMBAT41FILM	6
12	G1			GXO-U100H/A 24.57600MHz			GXO-U100H/A 24.57600MHz	1
13	G2			GXO-U100H/A 33.8688MHz			GXO-U100H/A 33.8688MHz	1
14	J1, J2, J3, J4, J5, J6			CONN JACK SMB R/A 50 OHM PCB AU			73100-0103	6
15	L1, L2, L3, L4, L5, L6, L7, L8, L9, L10, L11, L12, L13, L14, L15, L16, L17, L18, L19, L21, L22, L23, L24, L25, L26, L27, L28, L30, L36, L37, L38, L39, L40, L41, L42, L44, L46, L47, L48, L49, L50, L51, L52, L53		Murata Electronics North America	FERRITE CHIP 220 OHM 2000MA 0805			BLM21PG221SN1D	46
16	L31, L32, L33, L34, L35, L43, L44		Murata Electronics North America	FERRITE CHIP 600 OHM 1500MA 1208			BLM31PG601SN1L	7
17	LED1, LED2, LED3, LED4			LED 2X1.2MM 625NM RD WTR CLR SMD			APT2012EC	4
18	LED5, LED6			LED 2X1.2MM 570NM GN WTR CLR SMD			APT2012CGCK	2
19	LED7, LED8			LED 2X1.2MM 470NM BL WTR CLR SMD			APT2012PBC	2
20	P1			Header, 4-Pin, Dual row			Header 4X2	1
21	P2	Samtec Inc		CONN HEADER 100POS .100" DL GOLD			TSW-150-05-G-D	1
22	P3, P6, P10			Header, 2-Pin			Header 2	3
23	P4			Header, 7-Pin, Dual row			Header 7X2	1
24	P5			Header, 8-Pin, Dual row			Header 8X2	1
25	P7	Samtec Inc		CONN HEADER 100POS .100" DL GOLD			TSW-150-05-G-D	1
26	P8, P9, P14, P15, P16			TERMINAL BLOCK 3.5MM 2POS PCB			ED555/2DS	5
27	P11			Header, 5-Pin, Dual row			Header 5X2	1
28	P12			Header, 14-Pin, Dual row			Header 14X2	1
29	P13			Header, 13-Pin, Dual row			Header 13X2	1
30	P17, P18, P19			Header, 2-Pin, Dual row			Header 2X2	3
31	P20			Header, 3-Pin, Dual row			Header 3X2	1
32	R1, R105, R116, R126, R224, R229, R232			VISHAY MELF MMA 0204 75			MMA02040C75FB300	7
33	R2, R68, R72, R82, R87, R107, R118, R127		Yageo	RES 100 OHM 1/10W 1% 0603 SMD			RC0603FR-07100RL	8

30	P17, P18, P19			Header, 2-Pin, Dual row			Header 2X2	3
31	P20			Header, 3-Pin, Dual row			Header 3X2	1
32	R1, R105, R116, R126, R224, R229, R232			VISHAY MELF MMA 0204 75			MMA02040C75FB300	7
33	R2, R68, R72, R82, R87, R107, R118, R127		Yageo	RES 100 OHM 1/10W 1% 0603 SMD			RC0603FR-07100RL	8
34	R3, R4, R5, R6, R7, R8, R12, R14, R16, R20, R22, R24, R26, R27, R29, R30, R31, R32, R33, R34, R35, R37, R39, R41, R43, R47, R49, R51, R53, R54, R56, R58, R60, R61, R62, R63, R66, R67, R70, R71, R80, R81, R83, R85, R86, R108, R110, R111, R113, R117, R119, R120, R124, R125, R129, R131, R137, R138, R151, R152, R154, R155, R158, R159, R160, R161, R163, R164, R165, R166, R167, R168, R170, R171, R172, R173, R174, R175, R177, R178, R179, R180, R181, R182, R184, R212, R217, R221, R225, R226, R231, R233, R234		Yageo	RES 10.0K OHM 1/10W 1% 0603 SMD			RC0603FR-0710KL	101
35	R9, R10, R11, R13, R15, R17, R19, R21, R25, R28, R36, R38, R40, R42, R44, R46, R48, R50, R52, R55, R57, R59, R64, R65, R69, R73, R74, R75, R76, R77, R78, R79, R84, R89, R90, R91, R92, R93, R94, R95, R96, R97, R98, R99, R100, R101, R102, R103, R104, R109, R112, R115, R121, R130, R132, R134, R136, R150, R156, R185, R186, R187, R188, R189, R190, R192, R193, R194, R195, R196, R197, R199, R200, R211, R213, R214, R218, R220, R227, R235, R237		Yageo	RES 51.0 OHM 1/10W 1% 0603 SMD			RC0603FR-0751RL	87
36	R45		Yageo	RES 680 OHM 1/10W 1% 0603 SMD			RC0603FR-07680RL	1
37	R88, R215, R216, R222, R223, R228, R233		Yageo	RES 47.0K OHM 1/10W 1% 0603 SMD			RC0603FR-0747KL	8
38	R106, R114, R122		Yageo	RES 6.20K OHM 1/10W 1% 0603 SMD			RC0603FR-076K2L	3
39	R133		Yageo	RES 1.00M OHM 1/10W 1% 0603 SMD			RC0603FR-071ML	1
40	R135		Yageo	RES 1.50K OHM 1/10W 1% 0603 SMD			RC0603FR-071K5L	1
41	R139, R140			VISHAY MELF MMA 0204 22			MMA02040C22FB300	2
42	R141, R142, R144, R145, R148, R201, R205, R208			VISHAY MELF MMB 0207 4.7			MMB04070C4.7FB300	9
43	R143, R146, R147, R149, R202, R204, R210			VISHAY MELF MMA 0204 1.8K			MMA02040C1.8KFB300	8
44	R206, R209			VISHAY MELF MMA 0204 6.2			MMA02040C6.2FB300	2
45	T1, T2, T3, T4, T5, T6, T7			TRANSFORMER TELECOM SINGLE T3/E4			PE-65967NL	7
46	U1		Texas Instruments	IC DIG AUDIO TRANSMTR 5V 28TSSOP			DT14192IPW	1
47	U2			High-Class Audio Multi-function Digital Filter			SM5842AP	1
48	U3		Texas Instruments	IC DGTL AUDIO INTFC RCVR 28TSSOP			DIR9001IPWQ1	1
49	U4			IC 192KHZ SAMPL RATE CONV 28SSOP			SRC4192IDB	1
50	U5, U6, U8, U9, U15, U17, U19, U45, U46, U47		Analog Devices Inc	IC TX/RX RS-485 HS 5V 8SOIC			ADM1485AR	10
51	U7		NXP Semiconductors	IC INVERTER HEX 14SOIC			74ABT04D	1
52	U10, U11, U12, U13		Texas Instruments	IC BI-DIR DIGTL CUPLR 28-SOIC			ISO150AU	4
53	U14, U16, U18, U22			IC BUS BUFF TRI-ST N-INV SOT235			SN74AHC1G125DBVR	4
54	U20			IC DIGITAL ISOL/COUPLER 8-SOIC			ADUM1100ARZ	1
55	U21			IC STEREO AUD DAC W/USB 28-SSOP			PCM2704DB	1
56	U23, U24, U25		National Semiconductor	800mA Low-Dropout Linear Regulator			LM1117DT-3.3	3
57	U26, U27			IC REG 1A POS 5V TO-220			LM78M05CT	2
58	U28		Analog Devices Inc	IC SUPERVISOR MPU 4.4 WD 8SOIC			ADM708ARZ	1
59	U29		Altera	IC MAX 3000A CPLD 256 144-TQFP			EPM3256ATC144-10	1
60	U30, U31, U32, U33, U34, U35		NXP Semiconductors	IC D F-F POS-EDGE TRIG SC74A-5			74AHC1G79GV	6
61	U36		Analog Devices Inc	IC SWITCH SPDT SOT23-6			ADG719BRTZ	1
62	U37, U38		National Semiconductor	800mA Low-Dropout Linear Regulator			LM1117DT-5.0	2
63	U39, U40		Analog Devices Inc	IC PREC VOLT REF 5V 8-SOIC			AD586KR	2
64	U41, U43, U44		NXP Semiconductors	IC FLIP FLOP DUAL D OCTAL 14SOIC			74ABT74D	3
65	U42		NXP Semiconductors	IC QUAD 2-IN NOR GATE 14-SOIC			74ABT02D	1
66	Y1			CRYSTAL 12.000 MHZ 20PF CSM-7			ECS-120-20-SPDN-TR	1
Approved			Notes					557