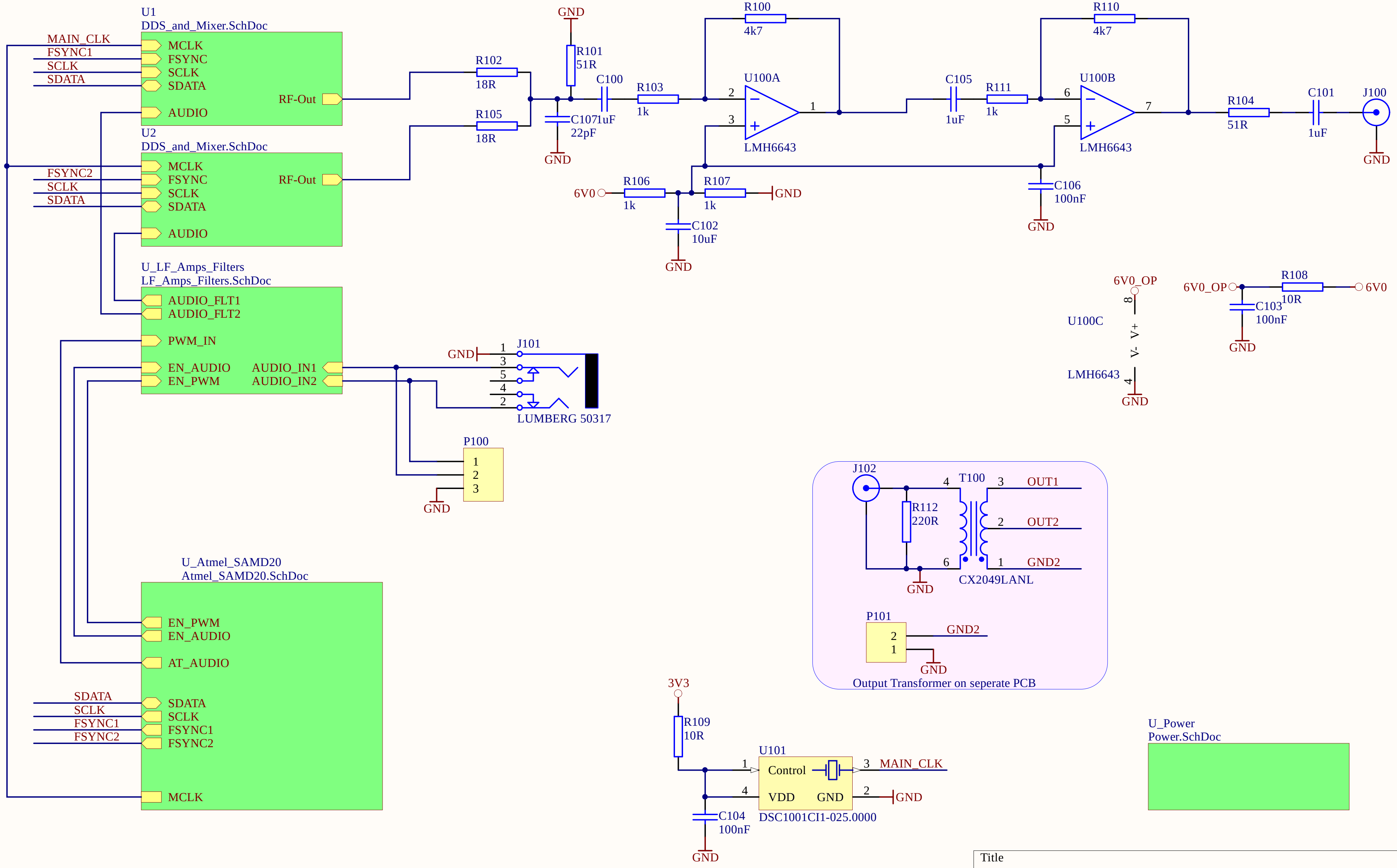
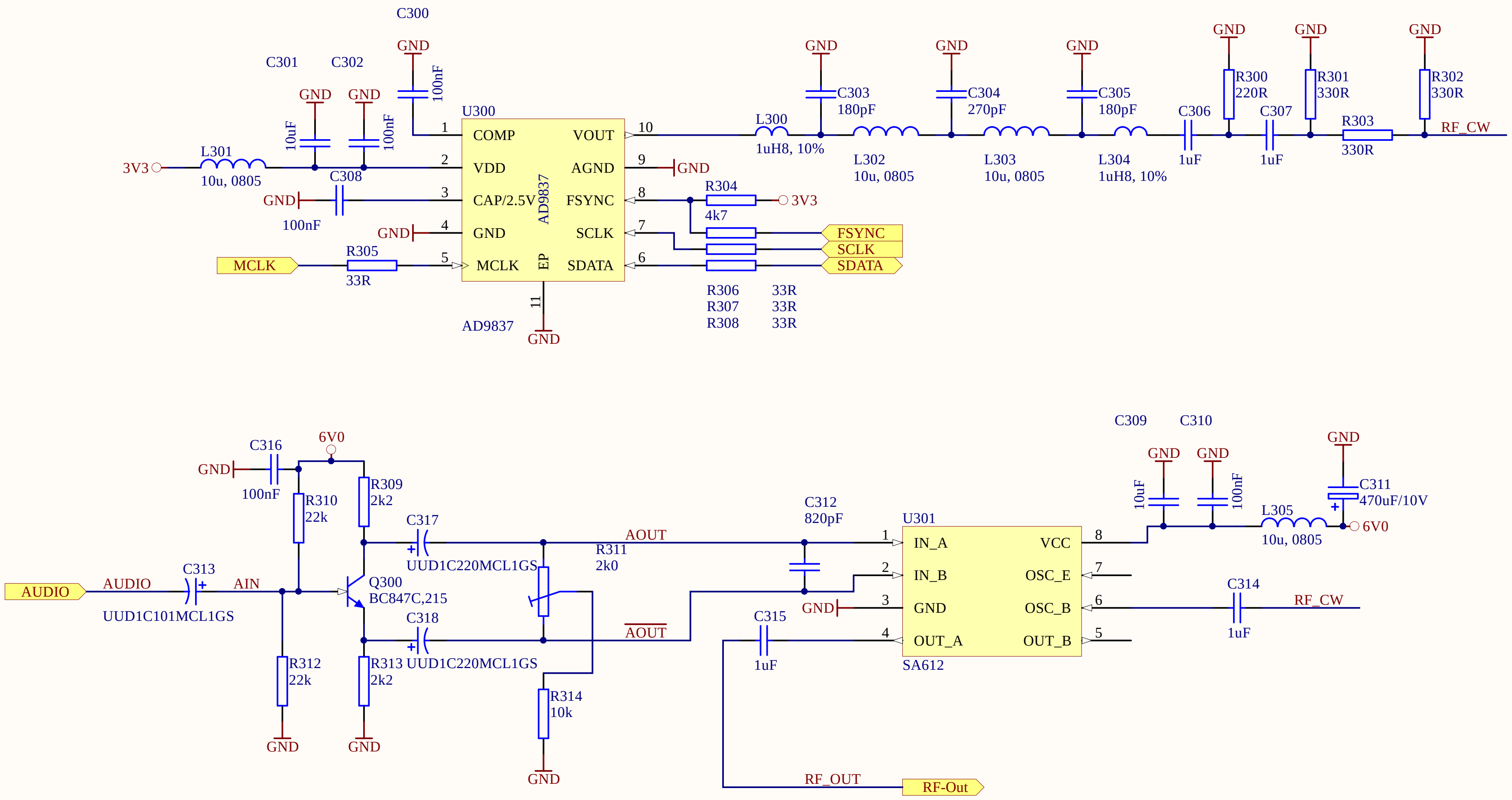


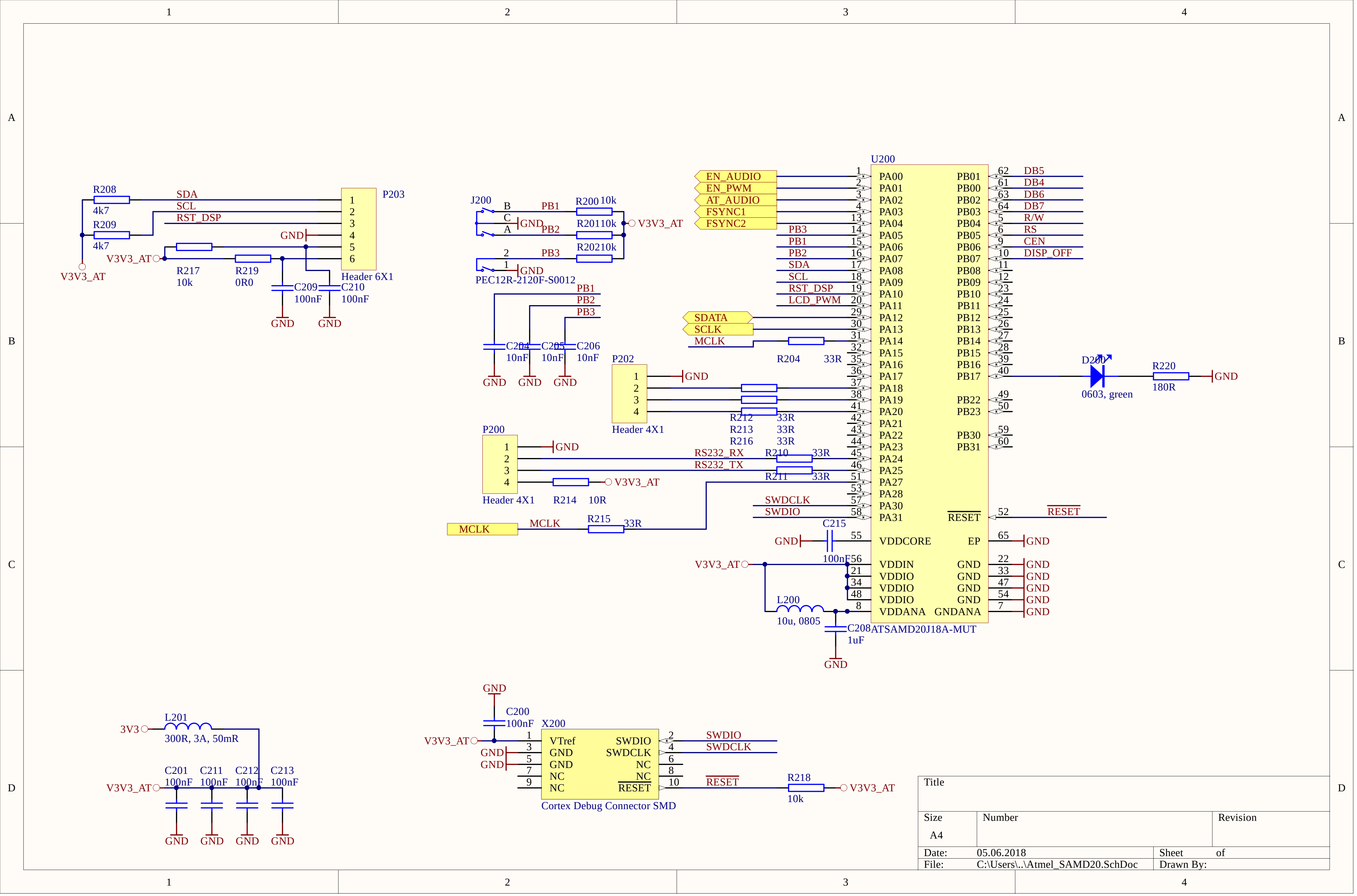
Title

Size A4
Number
Revision

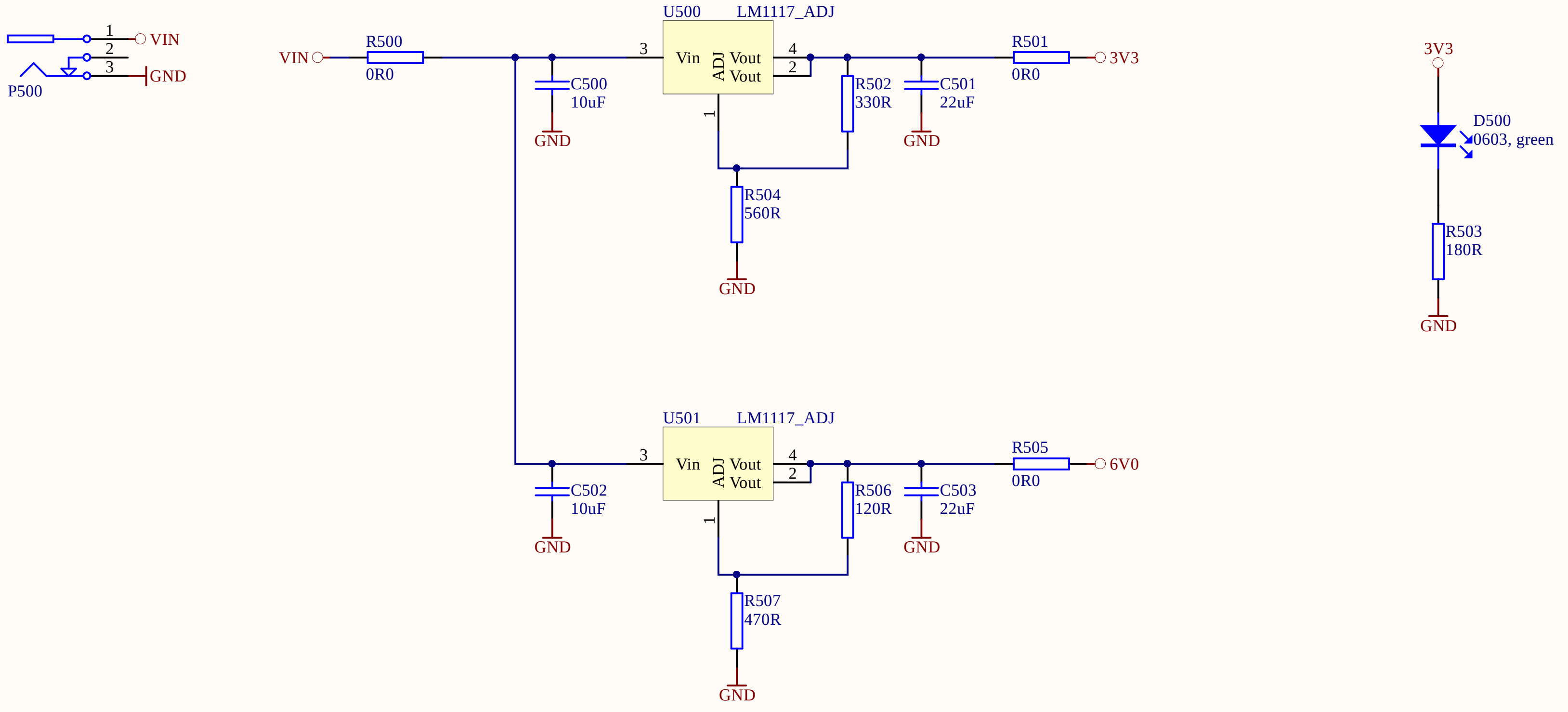
Date: 05.06.2018
Sheet of
File: C:\Users\..\Main_AM-XMIT.SchDoc
Drawn By:



Title		
Size A4	Number	Revision
Date: 05.06.2018	Sheet of	
File: C:\Users\..\DDS_and_Mixer.SchDoc	Drawn By:	

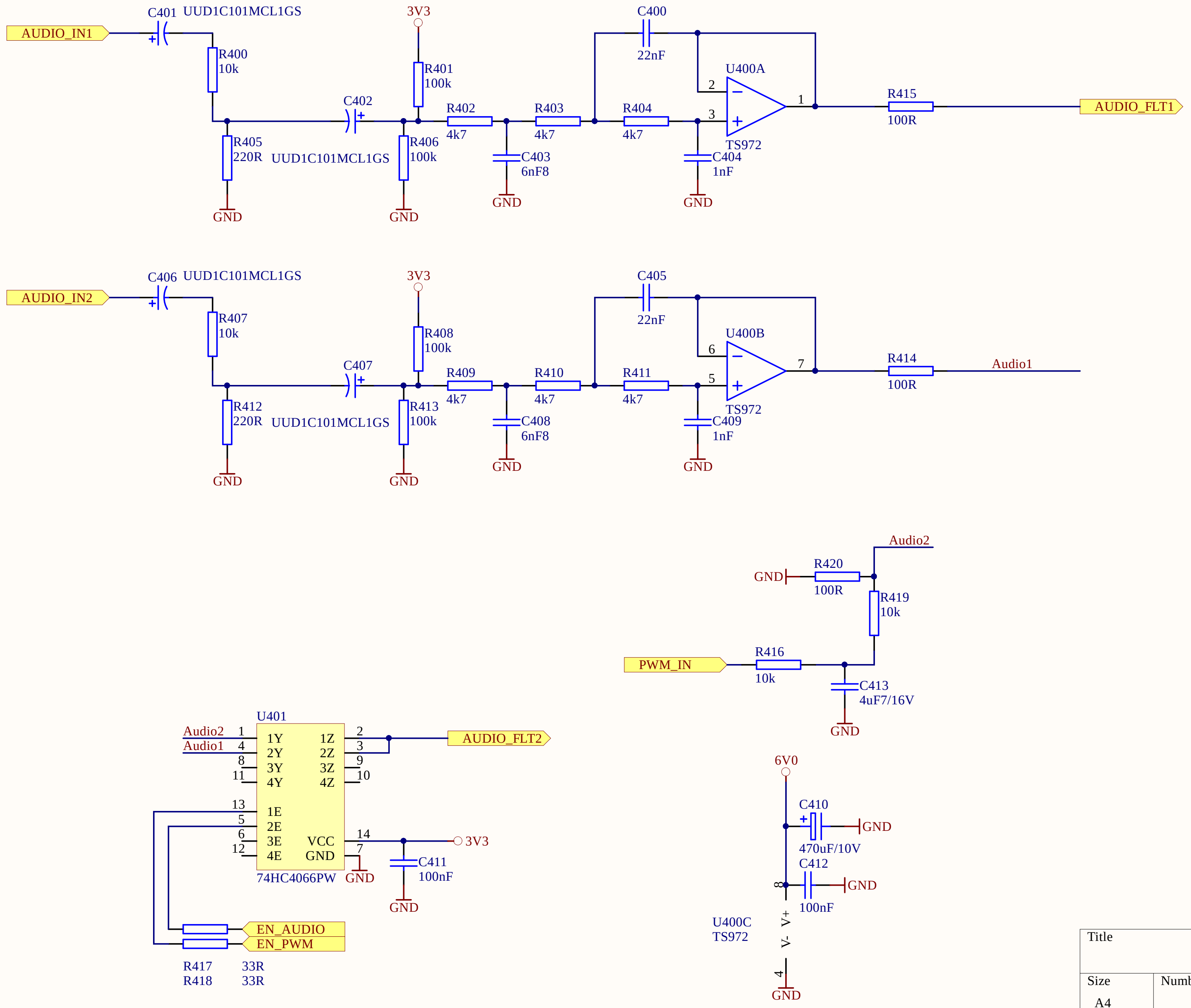


Title		
Size A4	Number	Revision
Date: 05.06.2018	Sheet of	
File: C:\Users\..\Atmel_SAMD20.SchDoc	Drawn By:	



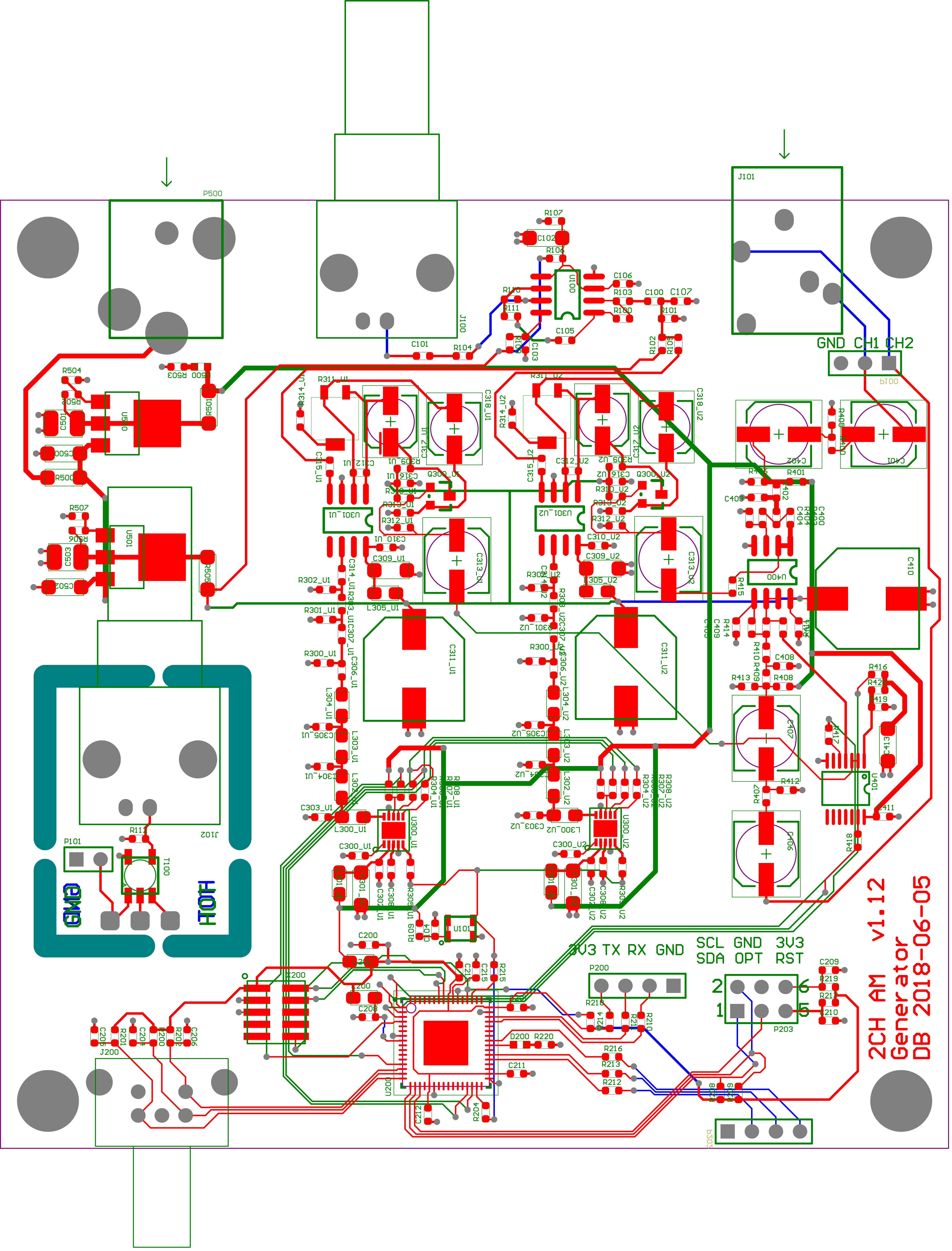
Title

Size A4	Number	Revision
Date:	05.06.2018	Sheet of
File:	C:\Users\..\Power.SchDoc	Drawn By:



Title		
Size A4	Number	Revision

Date: 05.06.2018 Sheet of
File: C:\Users\..\LF_Amps_Filters.SchDoc Drawn By:



TOP-Layer

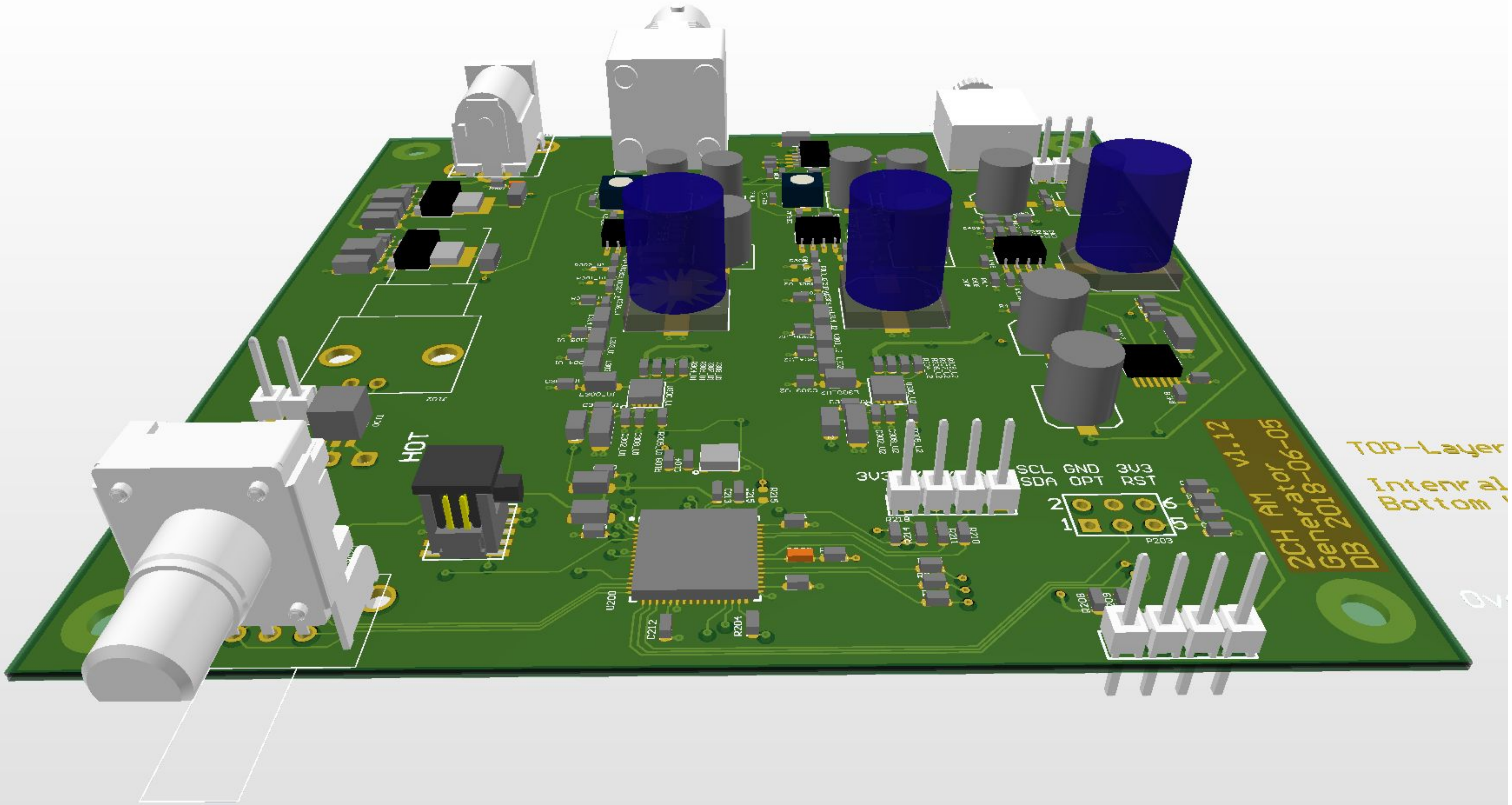
Intenral Layer 1

Bottom Layer

Contour (Mech)

Milling (Mech)

Overlay


HOT
3V3
SCL
SDA
GND
OPT
3V3
RST
2
1
6
5
P203
R218
R214
R211
R210
R208
R209
U200
C212
R204
2CH AM Generator v1.12
DB 2018-06-05
TOP-Layer
Intenral
Bottom

Bill of Materials

<Parameter Title not found>

Source Data From:	**AM-Sender_DDS.PrjPcb**
Project:	**AM-Sender_DDS.PrjPcb**
Variant:	**Standard**
Version:	**<Parameter version not found>**
Revision:	**<Parameter revision not found>**
PLB:	**<Parameter PLB not found>**
Datecode:	**<Parameter date not found>**

Creation Date: 05.06.2018 23:52:13
Print Date: 5.06.2018 23:52

Comment	Description	Designator	Footprint	#Column Name Error:Remark	Bauteilenummer	Hersteller	Bauteilalternative	Distributor1	Teilenummer Distributor1	Distributor2	Teilenummer Distributor2	Distributor3	Teilenummer Distributor3	quantity Multiplier	Quantity
1uF	MLCC, X7R, 16V, 10%, 0603	C100, C101, C105, C208, C306_U1, C306_U2, C307_U1, C307_U2, C314_U1, C314_U2, C315_U1, C315_U2	0603				with same specifications	Digikey	587-1241-1-ND					1	12
10uF	MLCC, 1206, X7R, 16V, 20%	C102, C301_U1, C301_U2, C309_U1, C309_U2, C500, C502	1206		C3216X7R1C106M	TDK	with same specifications	Digikey	445-1601-1-ND					1	7
100nF	MLCC, X7R, 50V, 10%, 0603, MLCC, X7R, 16V, 10%, 0603	C103, C104, C106, C200, C201, C209, C210, C211, C212, C213, C215, C300_U1, C300_U2, C302_U1, C302_U2, C308_U1, C308_U2, C310_U1, C310_U2, C316_U1, C316_U2, C411, C412	0603				with same specifications	Digikey						1	23
22pF	MLCC, C0G/NP0, 50V, 5%, 0603	C107	0603				with same specifications	Digikey						1	1
10nF	MLCC, X7R, 16V, 10%, 0603	C204, C205, C206	0603				with same specifications	Digikey						1	3
180pF	MLCC, X7R, 16V, 10%, 0603	C303_U1, C303_U2, C305_U1, C305_U2	0603				with same specifications	Digikey						1	4
270pF	MLCC, X7R, 16V, 10%, 0603	C304_U1, C304_U2	0603				with same specifications	Digikey						1	2
470uF/10V	Elko, 10V, 20%, 2000hat105deg	C311_U1, C311_U2, C410	D_Rad 1012		ERSM 470uF, 10V	Frolyt						Bürklin	10D4226	1	3
820pF	MLCC, X7R, 16V, 10%, 0603	C312_U1, C312_U2	0603				with same specifications	Digikey						1	2
UUD1C101MCL1GS	Aluminum Electrolytic Capacitor, UD Series, Low Impedance, 100 uF, 16 V, + / - 20%, -55 to 105 degC, Chip Type, 6.3 x 5.8 mm D x L, Pb-Free, Reel	C313_U1, C313_U2, C401, C402, C406, C407	NIC-CAPA2-6.3X5.8_V												6
UUD1C220MCL1GS	Aluminum Electrolytic Capacitor, UD Series, Low Impedance, 22 uF, 16 V, + / - 20%, -55 to 105 degC, Chip Type, 5 x 5.8 mm D x L, Pb-Free, Reel	C317_U1, C317_U2, C318_U1, C318_U2	NIC-CAPA2-5X5.8_V												4
22nF	MLCC, X7R, 16V, 10%, 0603	C400, C405	0603				with same specifications	Digikey						1	2
6nF8	MLCC, X7R, 16V, 10%, 0603	C403, C408	0603				with same specifications	Digikey						1	2
1nF	MLCC, X7R, 16V, 10%, 0603	C404, C409	0603				with same specifications	Digikey						1	2
4uF7/16V	MLCC, 1206, X7R, 16V, 20%	C413	1206		C3216X7R1C475M/1.60	TDK	with same specifications	Digikey	445-1425-1-ND	mouser	810-C3216X7R1C475M-6	Farnell	1844320	1	1
22uF	MLCC, 1210, X7R, 16V, 20%	C501, C503	1210		EMK325B7226MM-TR	Taiyo Yuden	with same specifications	Digikey	587-2667-1-ND			farnell	1852995	1	2
0603, green	LED, 0603, Uf 2V, If 20mA	D200, D500	0603		SML-512MWT86	ROHM		Digikey	511-1313-1-ND	Mouser	755-SML-512MWT86	Farnell	1685076	1	2
BNC Jack THT, 90° TE-CON	BNC Jack THT, 90° TE-CON	J100, J102	1-1337494-0		1-1337494-0	TE-Connectivity		Farnell	1020958	Digikey	A97556-ND	Mouser	571-1-1337494-0	1	2
LUMBERG 50317	Lumber Connector, 3.5mm Stereo Audio Socket, Black	J101	150317												1
PEC12R-2120F-S0012	Rotary Encoder Qudrature	J200	PEC12R-2		PEC12R-2120F-S0012	Bourns		Digikey	PEC12R-2120F-S0012-ND	Mouser	652-PEC12R-2120F-S12			1	1
10u, 0805	WE-Mi, 0805, 10u, 2MHz, Q=50, I=15mA, RDC=1.0R	L200, L301_U1, L301_U2, L302_U1, L302_U2, L303_U1, L303_U2, L305_U1, L305_U2	0805		7447908	Wuerth		Wuerth	7447908					1	9
300R, 3A, 50mR	742792031, Ferrit bean, 300R@100MHz, 50mR, 3A, 0805	L201	0805		742792031	Wuerth		digikey	732-4638-1-ND	Mouser	710-742792031	farnell	1635734	1	1
1uH8, 10%	RF Inductor; 5,85 Ohms, 10%, LQW21HN _ 00 Series	L300_U1, L300_U2, L304_U1, L304_U2	0805		LQW21HN1R8J00L	Murata		Digikey	490-12085-1-ND	Mouser	81-LQW21HN1R8J00L			1	4
Header 3X1	Header, 3-Pin, single row Stiftleiste; RM:2.54mm, THT	P100	HDR1X3-2.54		TSW-103-07-F-S	samtec		Samtec	TSW-103-07-F-S					1	1
Header 2X1	Header, 2-Pin, single row Stiftleiste; RM:2.54mm	P101	HDR1X2-2.54		TSW-102-07-F-S	samtec		Samtec	TSW-102-07-F-S					1	1
Header 4X1	Header, 4-Pin, single row Stiftleiste; RM:2.54mm	P200, P202	HDR1X4-2.54		TSW-104-07-F-S	Samtec	oder ähnliche mechanische Bauform	samtec	TSW-104-07-F-S					1	2
Header 6X1	Header, 3-Pin, Dual row Stiftleiste; RM:2.54mm	P203	HDR2X3-2.54											1	1
DC-Barrel	Lumberg DC-Buchse 6,3-2,0mm	P500	161318		16 1318	Lumberg		Farnell	1308873	Reichelt	LUM 1613-18			1	1
BC847C,215	BC847C; Ic 100mA; Uce 45V; NPN Transistor	Q300_U1, Q300_U2	SOT23		BC847C,215	NXP	Diodes Inc: BC847C-7-F	Digikey	568-1636-1-ND	Mouser	771-BC847C-T/R	Farnell	1081235	1	2
4k7	1%, 0.125W/0.063W, 50V, 0603	R100, R110, R208, R209, R304_U1, R304_U2, R402, R403, R404, R409, R410, R411	0603					Digikey						1	12
18R	1%, 0.125W/0.063W, 50V, 0603	R102, R105	0603					Digikey						1	2
1k	1%, 0.125W/0.063W, 50V, 0603	R103, R106, R107, R111	0603					Digikey						1	4
51R	1%, 0.125W/0.063W, 50V, 0603	R104	0603					Digikey						1	1
10R	1%, 0.125W/0.063W, 50V, 0603	R108, R109, R214	0603					Digikey						1	3
220R	1%, 0.125W/0.063W, 50V, 0603	R112, R300_U1, R300_U2, R405, R412	0603					Digikey						1	5
10k	1%, 0.125W/0.063W, 50V, 0603	R200, R201, R202, R217, R218, R314_U1, R314_U2, R400, R407, R416, R419	0603					Digikey						1	11
33R	1%, 0.125W/0.063W, 50V, 0603	R204, R210, R211, R212, R213, R216, R305_U1, R305_U2, R306_U1, R306_U2, R307_U1, R307_U2, R308_U1, R308_U2, R417, R418	0603					Digikey						1	16
0R0	1%, 0.125W/0.063W, 50V, 0603	R219	0603					Digikey						1	1
180R	1%, 0.125W/0.063W, 50V, 0603	R220, R503	0603					Digikey						1	2
330R	1%, 0.125W/0.063W, 50V, 0603	R303_U1, R303_U2, R502	0603					Digikey						1	3
2k2	1%, 0.125W/0.063W, 50V, 0603	R309_U1, R309_U2, R313_U1, R313_U2	0603					Digikey						1	4
22k	1%, 0.125W/0.063W, 50V, 0603	R310_U1, R310_U2, R312_U1, R312_U2	0603					Digikey						1	4
2k0	2k0 Potentiometer SMD; Cemet Model 23B	R311_U1, R311_U2	Model 23B		23BR2KLFTR	Cemet		Digikey	987-1592-1-ND	Reichelt	23B-2,0K			1	2
100k	1%, 0.125W/0.063W, 50V, 0603	R401, R406, R408, R413	0603					Digikey						1	4
100R	1%, 0.125W/0.063W, 50V, 0603	R414, R415, R420	0603					Digikey						1	3
0R0	1%, 0.250W, 50V, 1206	R500, R501, R505	1206					Digikey						1	3
560R	1%, 0.125W/0.063W, 50V, 0603	R504	0603					Digikey						1	1
120R	1%, 0.125W/0.063W, 50V, 0603	R506	0603					Digikey						1	1
470R	1%, 0.125W/0.063W, 50V, 0603	R507	0603					Digikey						1	1
CX2049LANL	Transformer 1:8	T100	CX2049LANL		CX2049LANL	Pulse		Digkey	553-2771-1-ND					1	1
LMH6643	Dual Opamp; 130 MHz; 2,7V..12,8 V	U100	SO-8		LMH6643MAX	Texas Instruments		Digikey	LMH6643MAX/NOPBCT-ND	Mouser	926-LMH6643MAX/NOPB	Farnell	2764710	1	1
DSC1001CI1-025.0000	Mems-XO, 25MHz, 1.7..3.6V, industriell, 4pin, 3.2 x 2.5 mm²	U101	3.2mm x 2.5mm		DSC1001CI1-025.0000	Microchip		Digikey	576-4953-5-N	Mouser	998-1001CI1-025.0000			1	1
ATSAMD20J18A-MUT	SMART ARM-Based Microcontroller, 1.62 to 3.63 V, 256 KB Flash, 32 KB SRAM, -40 to 85 degC, 64-Pin QFN, RoHS, Tape and Reel	U200	QFN64-EP47_M												1
AD9837	AD9837 DDS 10Bit ADC	U300_U1, U300_U2	CP-10-9												2
SA612	Gilbert Cell Mixer -500 MHz	U301_U1, U301_U2	SO-8												2
TS972	Dual Opamp; 12MHz; 2,7V..10V	U400	SO-8		TS972IDT	ST		Digikey	497-2317-1-ND	Mouser	511-TS972ID-TR			1	1
74HC4066PW	Quad analog switch; CMOS	U401	TSSOP-14		74HC4066PW	NXP	TI: CD74HC4066PWR	Digikey	568-1552-5-ND					1	1
LM1117_ADJ	Festspannungsregler	U500, U501	SOT223												2
Cortex Debug Connector SMD	Header, 5x2 pin, dual row stiftleiste, RM:1.27mm, SMD, Keying shroud, alignment	X200	FTSH-105-01-L-DV-K-A-P		FTSH-105-01-L-DV-K-A-P	samtec	oder ähnliche mechanische Bauform	digikey	FTSH-105-01-L-DV-K-A-P-TR-ND	samtec	FTSH-105-01-L-DV-K-A-P			1	1
															200

Approved

Notes