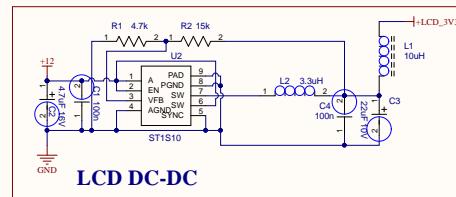


7Inch version

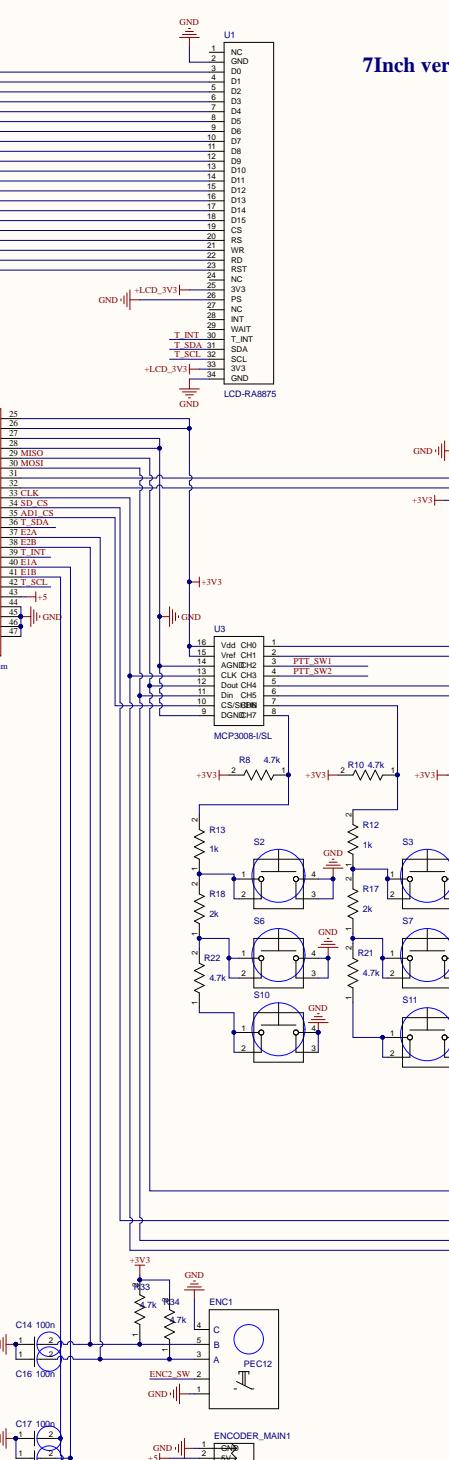


A

B

C

D



3'2 Inch version

ILI9481 480*320 3'2

LCD-MODULE

+5V

+5V

D88

D89

D810

D811

D812

D813

D814

D815

D86

D85

D84

D83

D82

D81

D80

LCD_RS

LCD_WR

LCD_CS

LCD_RST

NC

NC

NC

LCD_RD

NC

NC

NC

RS

WR_GND

RD_GND

RD_MISO

RS_MISO

RD_MOSI

RS_MOSI

RD_CS

RS_CS

RD_CS

RS_RESET

+3V3

+3V3

CPU_PW_HOLD

CPU_PW_ON_Q

PONCAS

PROCAS

+3V3

FPC-4SP-0.5mm

ESP-8266

GND

1 GND

2 GPIO2

3 GPIO0

4 NC

5 SD_CLK

6 CH_PD

7 GND

8 GPIO16

9 VCC

+3V3

+3V3

CPU_PW_ON

CPU_PW_HOLD

+3V3

U1

1 Vdd CH1

2 Vref CH1

3 GNDCH1

4 CLK CH1

5 Dout CH1

6 Dout CH2

7 GNDCH2

8 DGNDEH7

+3V3

MCP3008-VSL

16 Vdd CH0

15 Vref CH0

14 GNDCH0

13 CLK CH0

12 Dout CH0

11 Dout CH1

10 GNDCH1

9 DGNDEH7

+3V3

U2

16 Vdd CH0

15 Vref CH0

14 GNDCH0

13 CLK CH0

12 Dout CH0

11 Dout CH1

10 GNDCH1

9 DGNDEH7

+3V3

U3

16 Vdd CH0

15 Vref CH0

14 GNDCH0

13 CLK CH0

12 Dout CH0

11 Dout CH1

10 GNDCH1

9 DGNDEH7

+3V3

U4

16 Vdd CH0

15 Vref CH0

14 GNDCH0

13 CLK CH0

12 Dout CH0

11 Dout CH1

10 GNDCH1

9 DGNDEH7

+3V3

U5

16 Vdd CH0

15 Vref CH0

14 GNDCH0

13 CLK CH0

12 Dout CH0

11 Dout CH1

10 GNDCH1

9 DGNDEH7

+3V3

U6

16 Vdd CH0

15 Vref CH0

14 GNDCH0

13 CLK CH0

12 Dout CH0

11 Dout CH1

10 GNDCH1

9 DGNDEH7

+3V3

U7

16 Vdd CH0

15 Vref CH0

14 GNDCH0

13 CLK CH0

12 Dout CH0

11 Dout CH1

10 GNDCH1

9 DGNDEH7

+3V3

U8

16 Vdd CH0

15 Vref CH0

14 GNDCH0

13 CLK CH0

12 Dout CH0

11 Dout CH1

10 GNDCH1

9 DGNDEH7

+3V3

U9

16 Vdd CH0

15 Vref CH0

14 GNDCH0

13 CLK CH0

12 Dout CH0

11 Dout CH1

10 GNDCH1

9 DGNDEH7

+3V3

U10

16 Vdd CH0

15 Vref CH0

14 GNDCH0

13 CLK CH0

12 Dout CH0

11 Dout CH1

10 GNDCH1

9 DGNDEH7

+3V3

U11

16 Vdd CH0

15 Vref CH0

14 GNDCH0

13 CLK CH0

12 Dout CH0

11 Dout CH1

10 GNDCH1

9 DGNDEH7

+3V3

U12

16 Vdd CH0

15 Vref CH0

14 GNDCH0

13 CLK CH0

12 Dout CH0

11 Dout CH1

10 GNDCH1

9 DGNDEH7

+3V3

U13

16 Vdd CH0

15 Vref CH0

14 GNDCH0

13 CLK CH0

12 Dout CH0

11 Dout CH1

10 GNDCH1

9 DGNDEH7

+3V3

U14

16 Vdd CH0

15 Vref CH0

14 GNDCH0

13 CLK CH0

12 Dout CH0

11 Dout CH1

10 GNDCH1

9 DGNDEH7

+3V3

U15

16 Vdd CH0

15 Vref CH0

14 GNDCH0

13 CLK CH0

12 Dout CH0

11 Dout CH1

10 GNDCH1

9 DGNDEH7

+3V3

U16

16 Vdd CH0

15 Vref CH0

14 GNDCH0

13 CLK CH0

12 Dout CH0

11 Dout CH1

10 GNDCH1

9 DGNDEH7

+3V3

U17

16 Vdd CH0

15 Vref CH0

14 GNDCH0

13 CLK CH0

12 Dout CH0

11 Dout CH1

10 GNDCH1

9 DGNDEH7

+3V3

U18

16 Vdd CH0

15 Vref CH0

14 GNDCH0

13 CLK CH0

12 Dout CH0

11 Dout CH1

10 GNDCH1

9 DGNDEH7

+3V3

U19

16 Vdd CH0

15 Vref CH0

14 GNDCH0

13 CLK CH0

12 Dout CH0

11 Dout CH1

10 GNDCH1

9 DGNDEH7

+3V3

U20

16 Vdd CH0

15 Vref CH0

14 GNDCH0

13 CLK CH0

12 Dout CH0

11 Dout CH1

10 GNDCH1

9 DGNDEH7

+3V3

U21

16 Vdd CH0

15 Vref CH0

14 GNDCH0

13 CLK CH0

12 Dout CH0

11 Dout CH1

10 GNDCH1

9 DGNDEH7

+3V3

U22

16 Vdd CH0

15 Vref CH0

14 GNDCH0

13 CLK CH0

12 Dout CH0

11 Dout CH1

10 GNDCH1

9 DGNDEH7

+3V3

U23

16 Vdd CH0

15 Vref CH0

14 GNDCH0

13 CLK CH0

12 Dout CH0

11 Dout CH1

10 GNDCH1

9 DGNDEH7

+3V3

U24

16 Vdd CH0

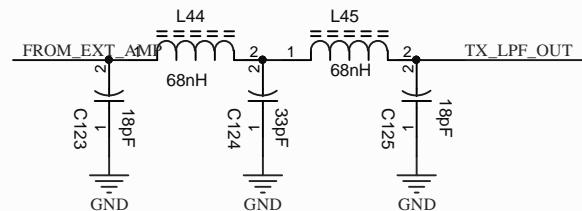
15 Vref CH0

14 GNDCH0

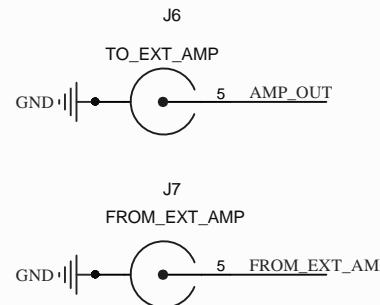
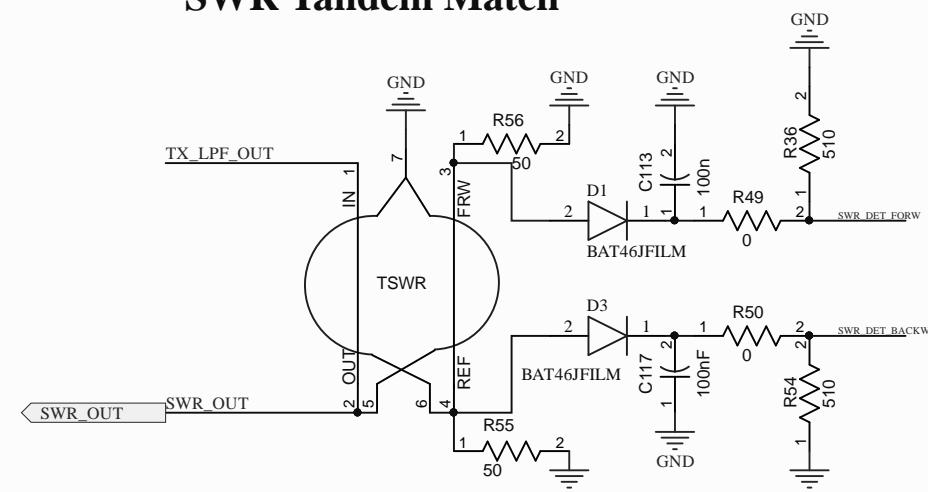
13 CLK CH0

TX_LPF

LPF 170Mhz



Катушки намотаны проводом 0.5мм на оправке диаметром 5мм, 3.5 витка

**SWR Tandem Match**

2 провода 0.9мм пропущено через бинокль

по диагонали пропущено и намотано по 10 витков 0.5мм

Title **SWR Tandem Match**

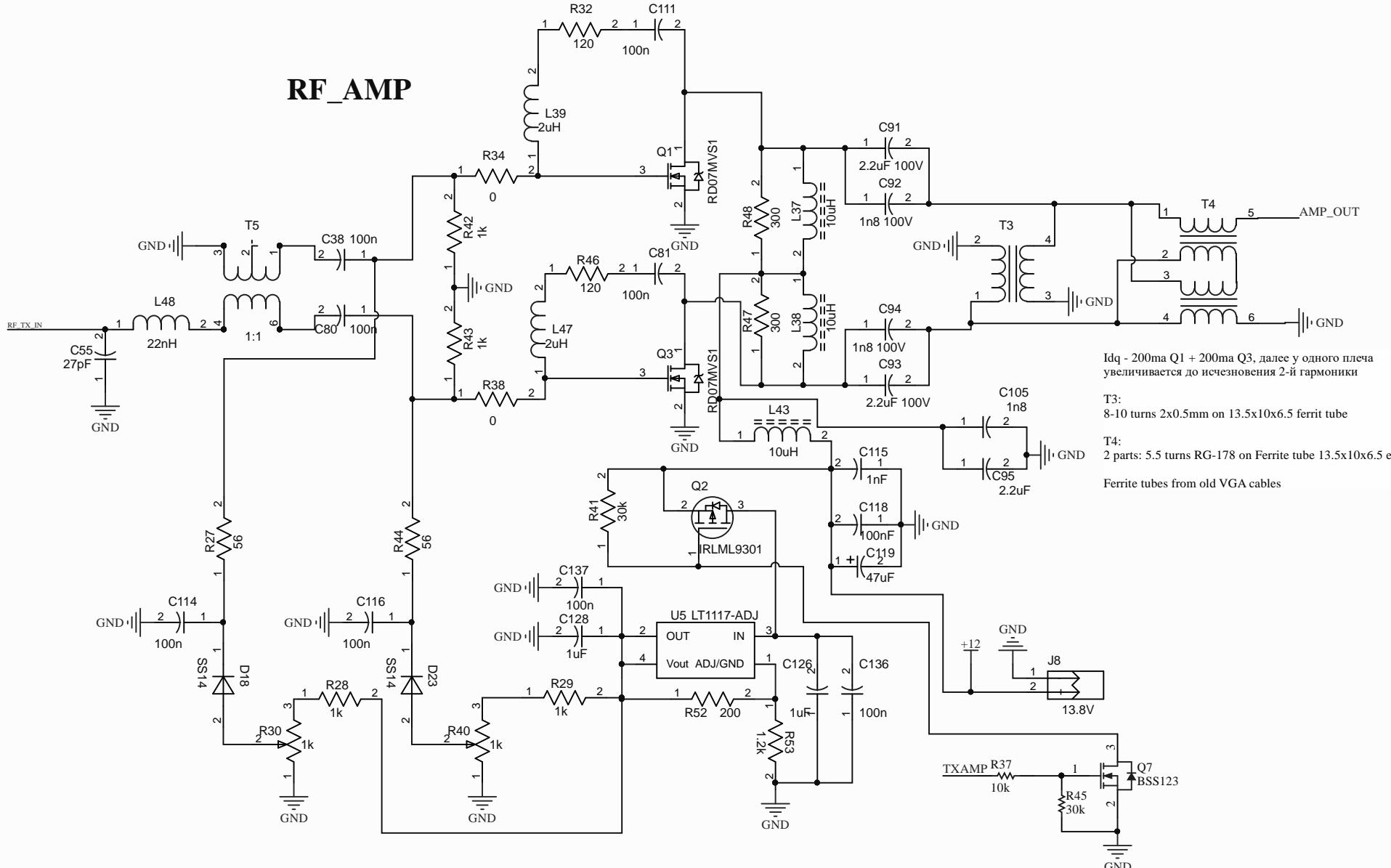
Size: A4 Number:18 Revision:2.0

Date: 18.12.2020 Time: 12:59:06 Sheet:18 of 18

File: D:\Dropbox\Develop\Projects\WOLF\Scheme\ALTIUM_DESIGNER\RF-UNIT\SWR Tandem Match.SchDoc

Altium

A

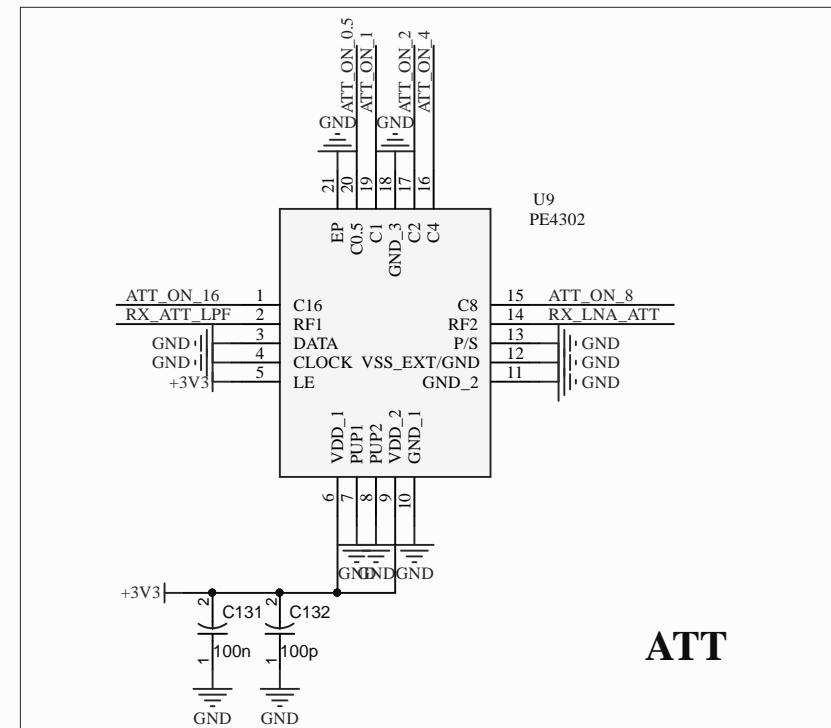
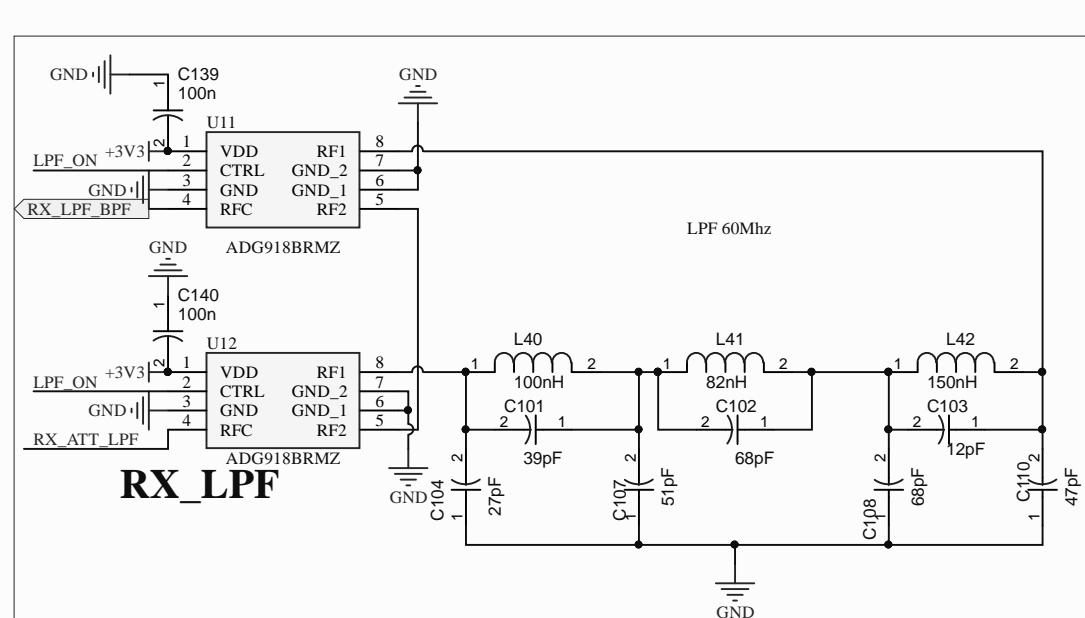
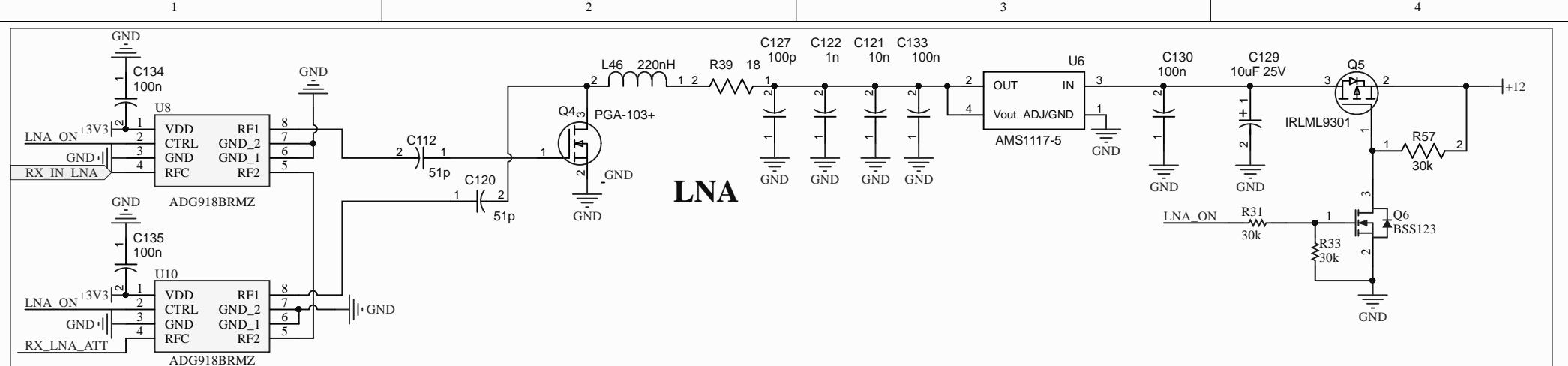
RF_AMPTitle **RF_AMP**

Size: A4 Number:17 Revision:2.0

Date: 18.12.2020 Time: 12:59:07 Sheet:17 of 18

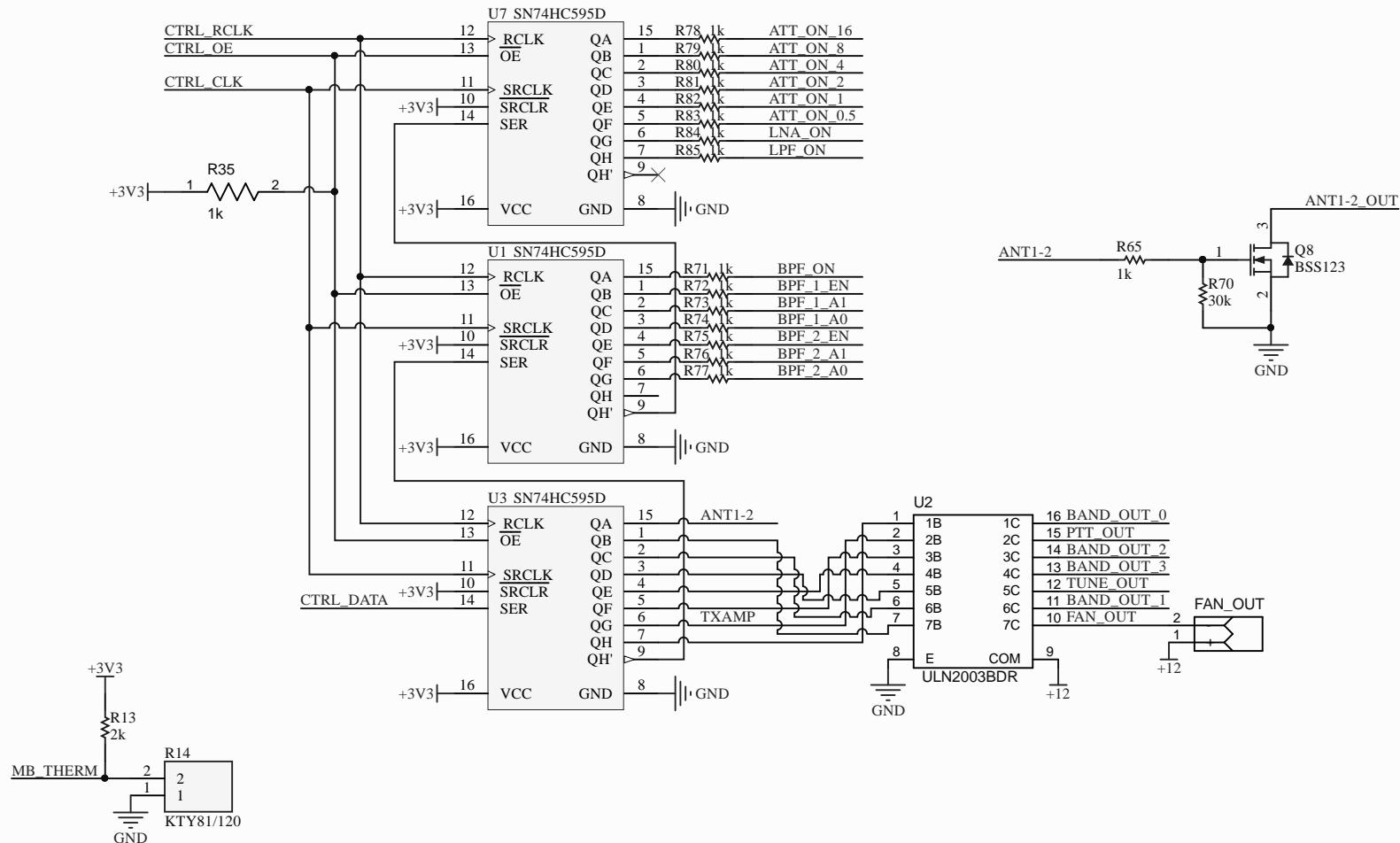
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Altium



Title LNA			*
Size: A4	Number:16	Revision2.0	*
Date: 18.12.2020	Time: 12:59:09	Sheet16 of 18	*
File: D:\Dropbox\Develop\Projects\WOLF\Schema\ALTIUM_DESIGNER\RF-UNIT\LNA.SchDoc			Altium®

A

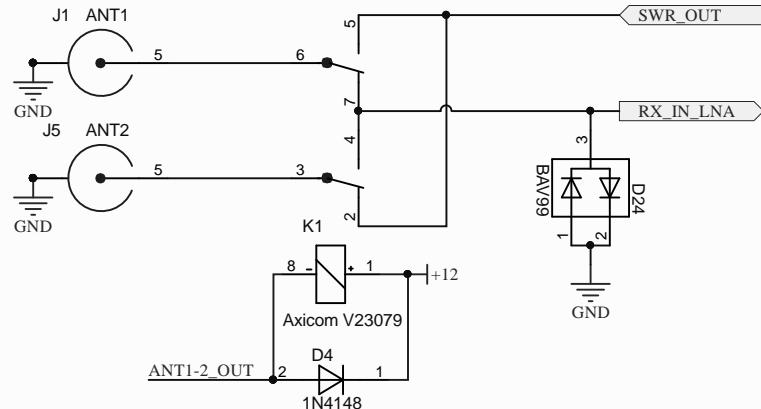
Title **CONTROL**

Size: A4	Number:15	Revision2.0
Date: 18.12.2020	Time: 12:59:10	Sheet15 of 18
File: D:\Dropbox\Develop\Projects\WOLF\Scheme\ALTIUM_DESIGNER\RF-UNIT\CONTROL.SchDoc		*

Altium

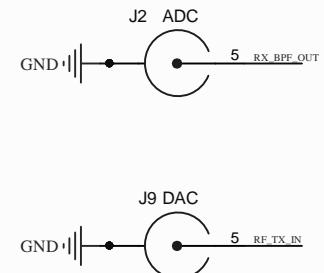
A

TXRX_COMUTATOR



B

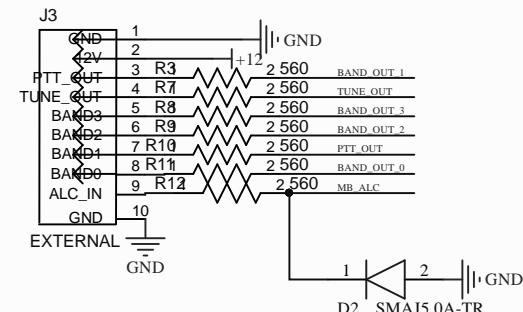
CONN



c

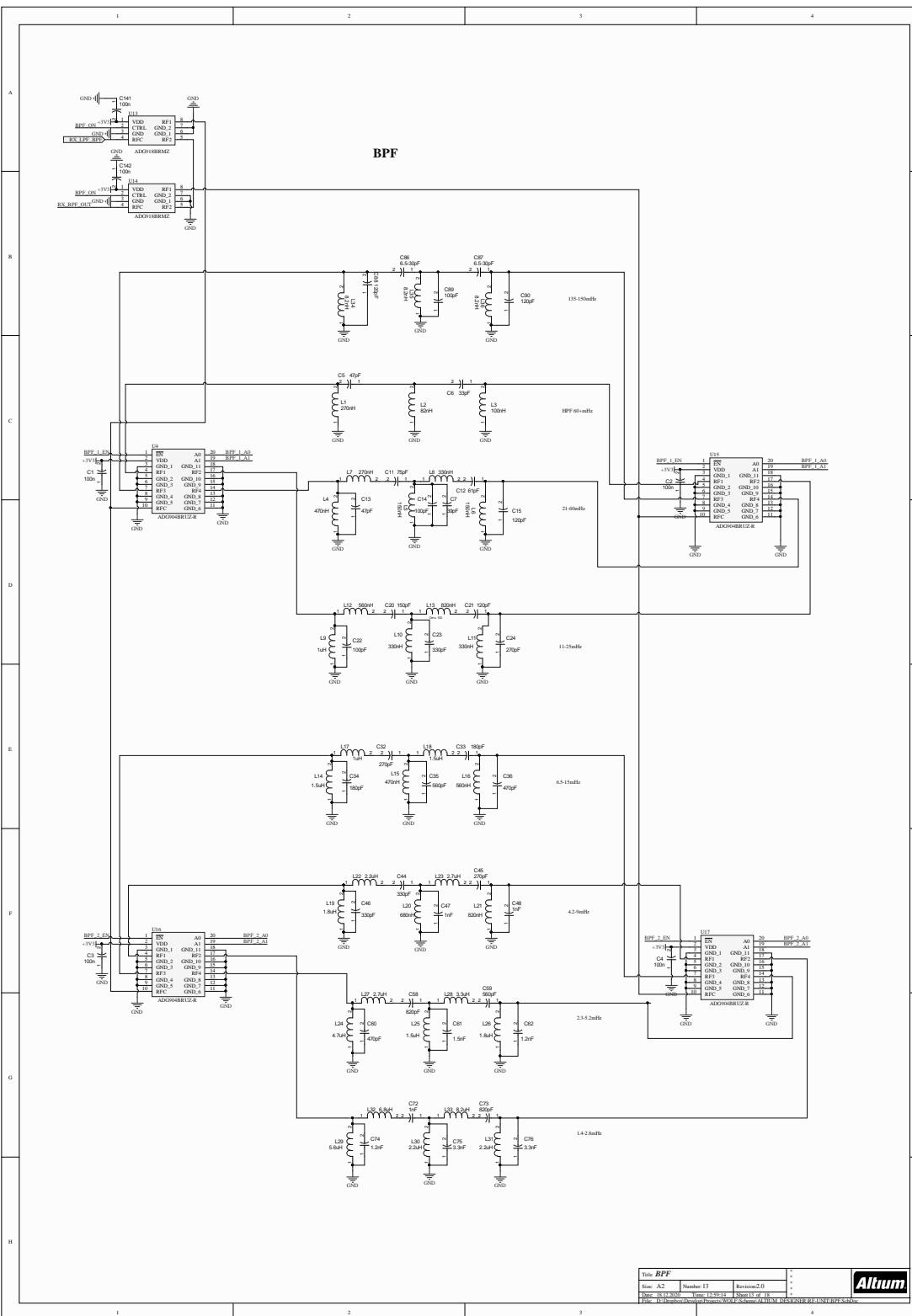
3V	1	+3V ₃
GND	2	
RCLK	3	CTRL_RCLK
CLK	4	CTRL_CLK
OE	5	CTRL_OE
DATA	6	CTRL_DATA
SWR_F	7	SWR_DET_FORW
SWR_B	8	SWR_DET_BACKW
THERM	9	MB_THERM
ALC	10	MB_ALC

MOTHERBOARD

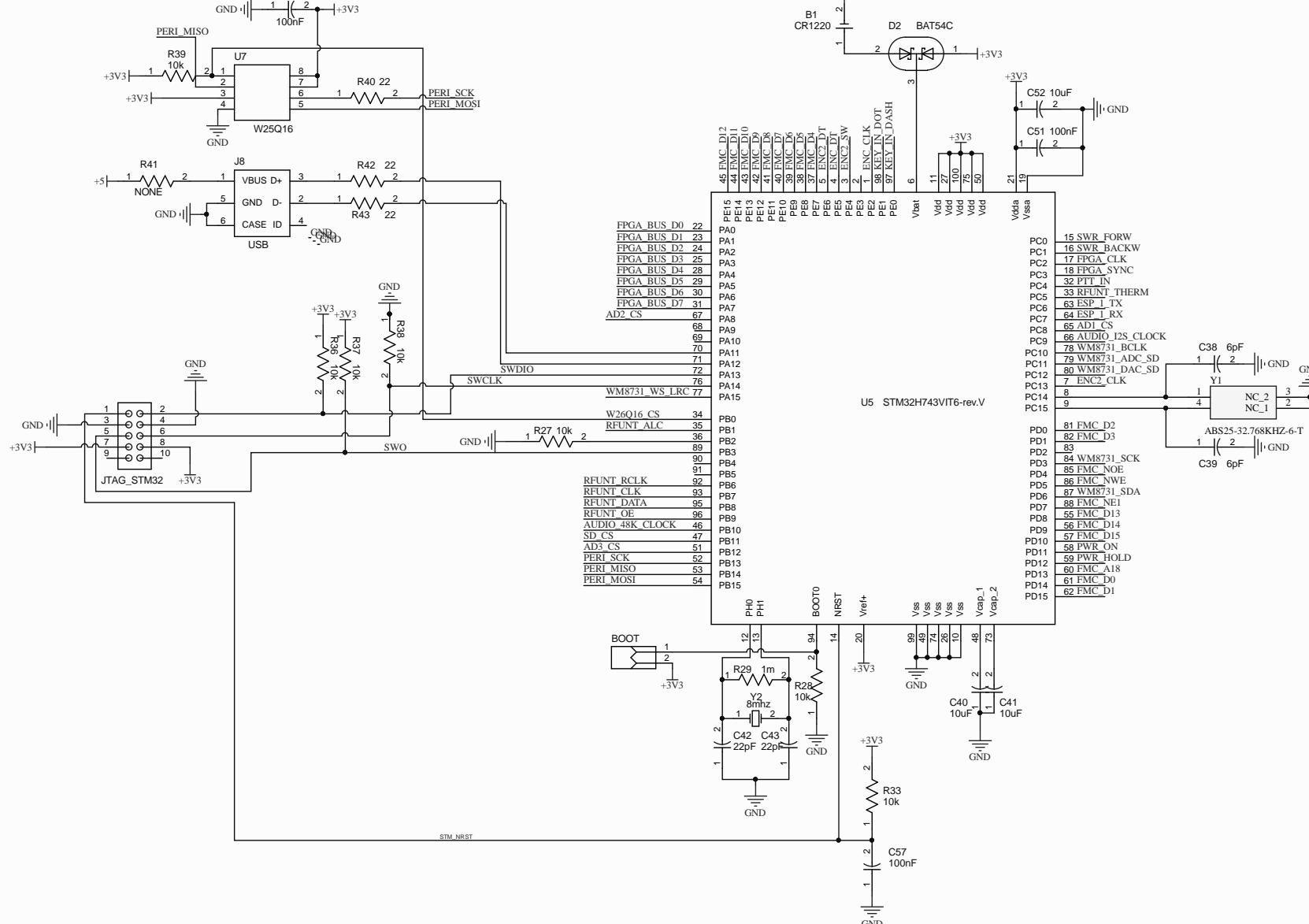


D

Title <i>CONN</i>	*		
Size: A4	Number:14		*
Revision2,0			*
Date: 18.12.2020	Time: 12:59:12		Sheet14 of 18
File: D:\Dropbox\Develop\Projects\WOLF\Scheme\ALTIUM DESIGNER\RF-UNIT\CONN.SchDoc			



STM32

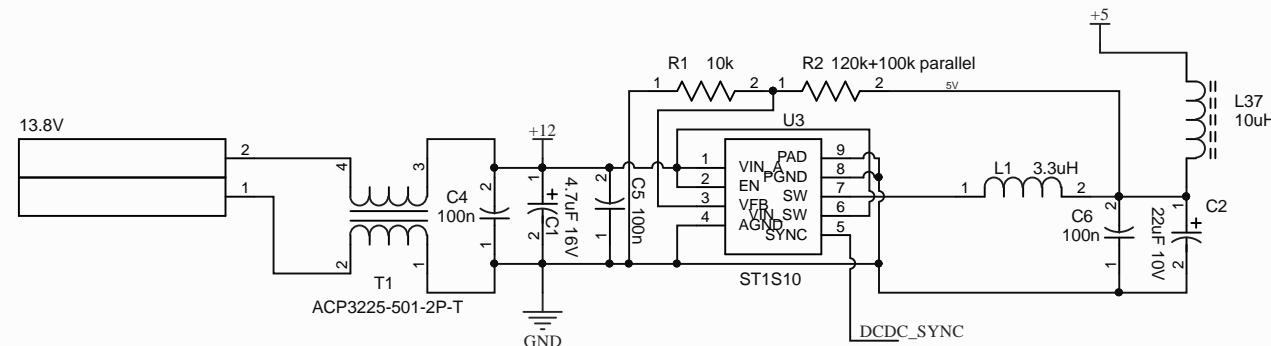


Title STM32

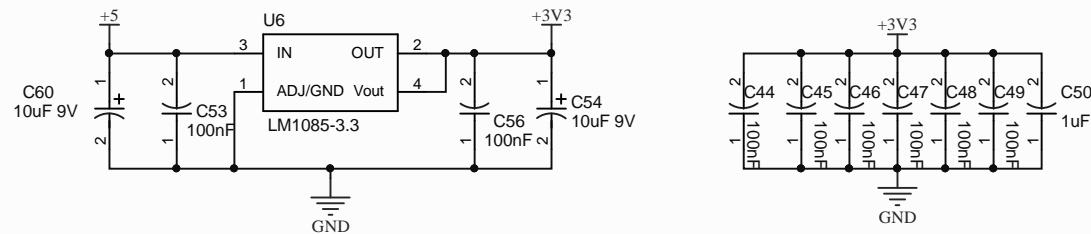
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Date: 18.12.2020 Time: 12:59:16 Sh:
File: D:\Dropbox\Develop\Projects\WOLF'S

Altium.

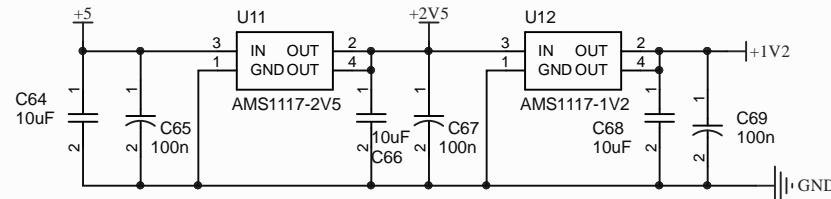
A



B



C

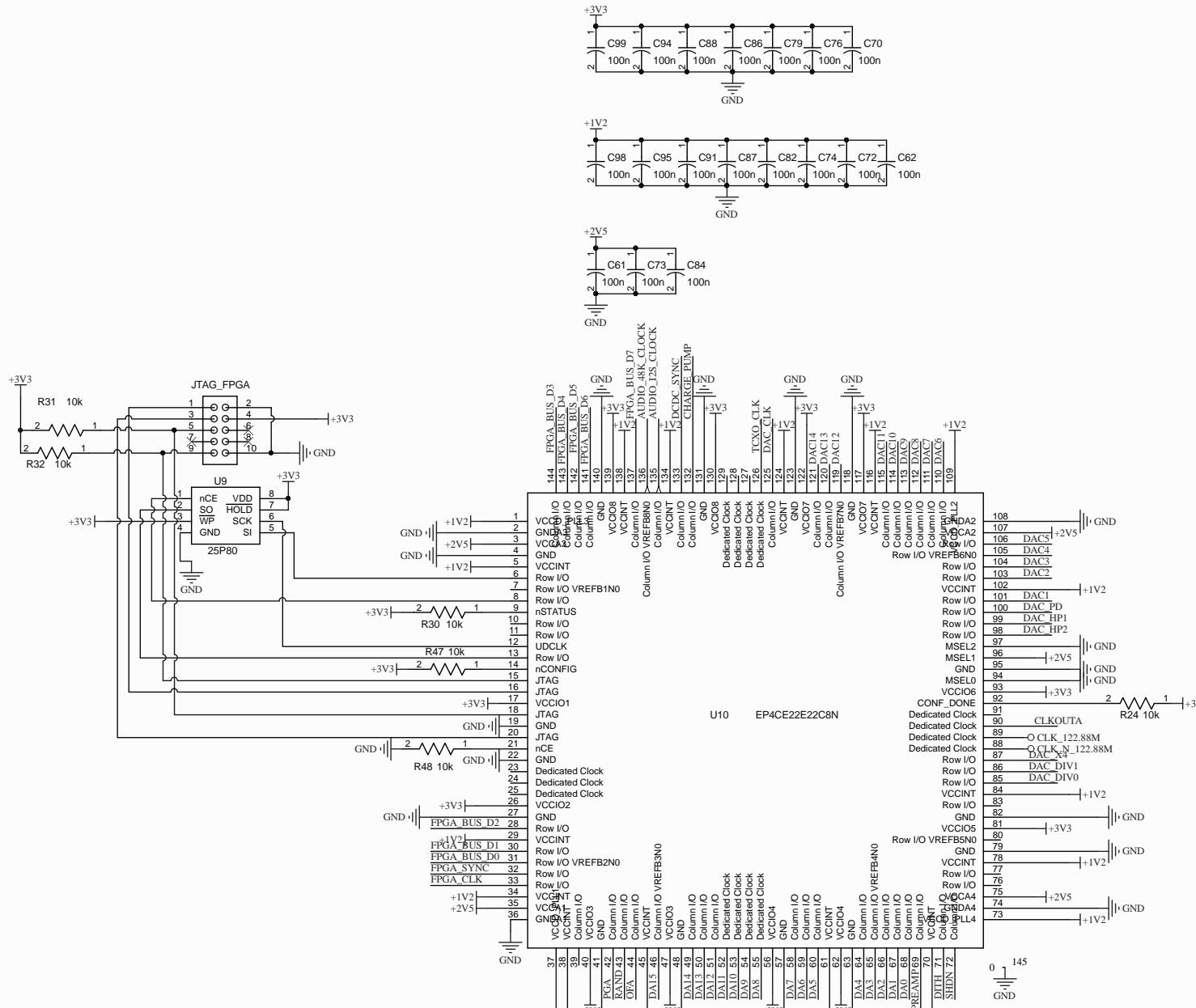
Title **POWER**

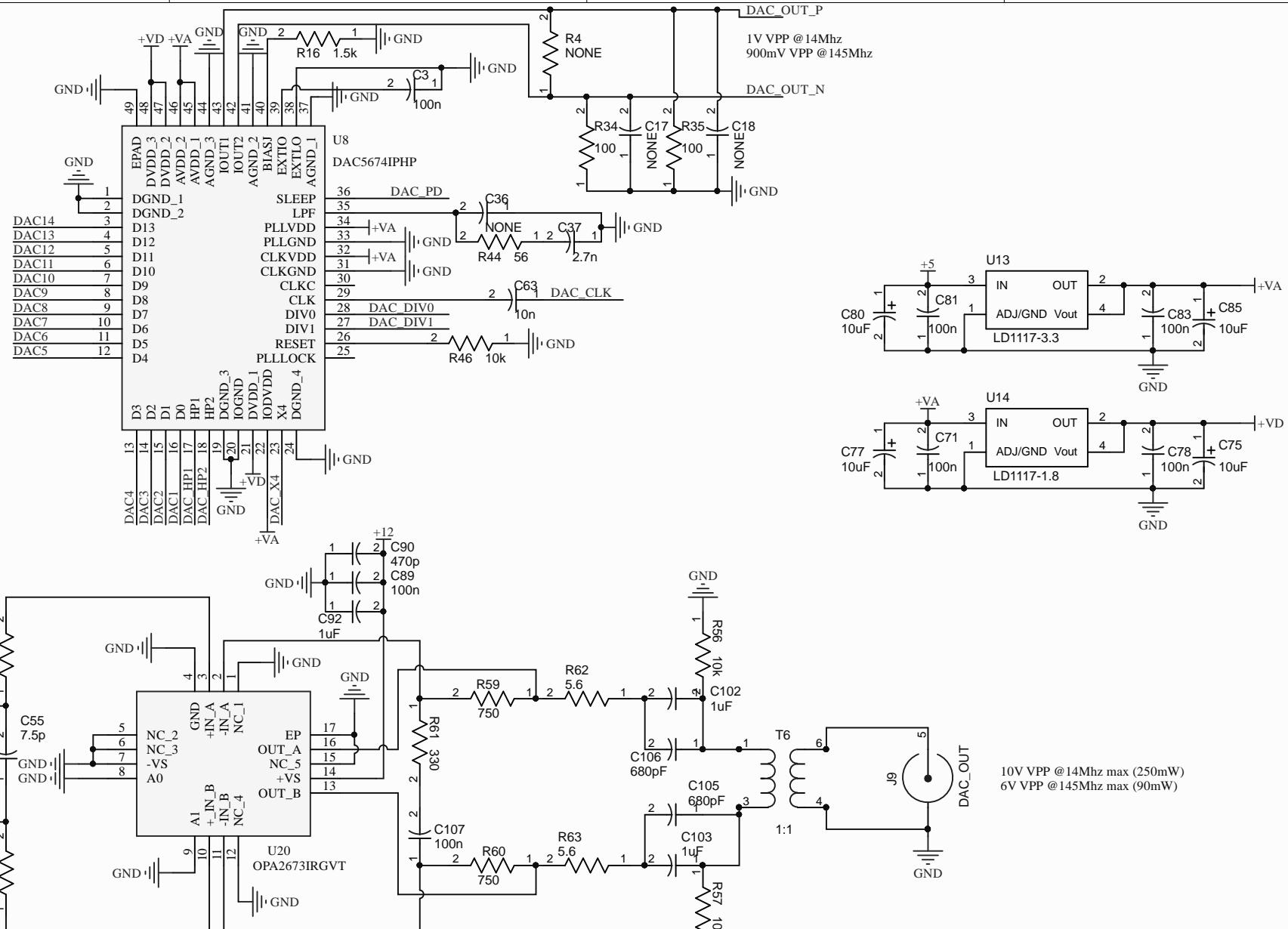
Size: A4 Number:10 Revision:2.0

Date: 18.12.2020 Time: 12:59:18 Sheet:10 of 18

File: D:\Dropbox\Develop\Projects\WOLF\Scheme\ALTIUM_DESIGNER\MOTHERBOARD\POWER.SchDoc

Altium

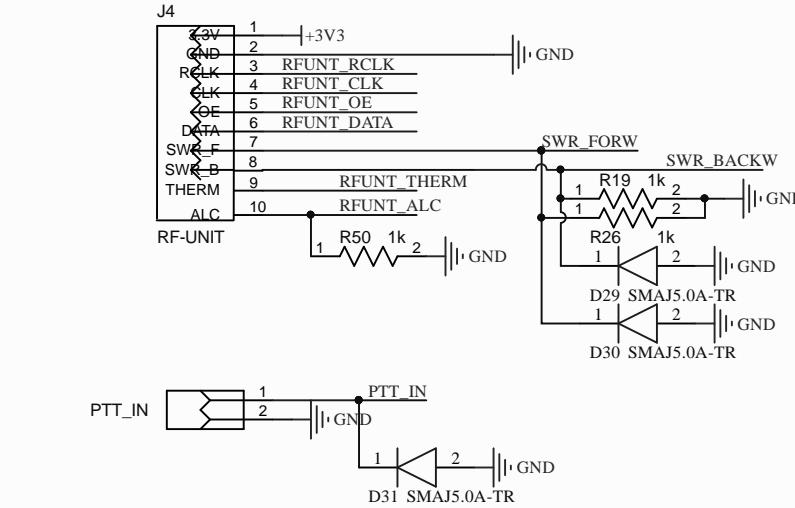




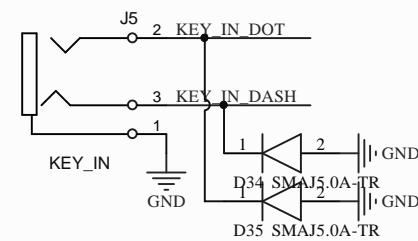
10V VPP @ 14Mhz max (250mW)
6V VPP @ 145Mhz max (90mW)

Title DAC	*		
Size: A4	Number:8	Revision:2.0	*
Date: 18.12.2020	Time: 12:59:22	Sheet 8 of 18	*
File: D:\Dropbox\Developer\Projects\WOLF\Scheme\ALTIUM DESIGNER\MOTHERBOARD\DAC.SchDoc			

A



B



C

J6

FMC_NE1	1	CS 3v3
FMC_A18	2	RS 3v3
FMC_NWE	3	WR GND
FMC_NOE	4	RD GND
STM_NRST	5	RSTMISO
FMC_D0	6	DB0MOSI
FMC_D1	7	DB1WRX
FMC_D2	8	DB2WTX
FMC_D3	9	DB3CLK
FMC_D4	10	DB\$DCS
FMC_D5	11	DB\$AD1C
FMC_D6	12	DB\$AD2C
FMC_D7	13	DB7E2A
FMC_D8	14	DB8E2B
FMC_D9	15	DB9E2S
FMC_D10	16	DB1E1A
FMC_D11	17	DB1IE1B
FMC_D12	18	DBAD3C
FMC_D13	19	DB135v
FMC_D14	20	DB1GND
FMC_D15	21	DB1GND
PWR_ON	22	PONCAS
PWR_HOLD	23	PHOCAS
	24	3v3
	25	+3V3
	26	GND
	27	
	28	
	29	PERI_MISO
	30	PERI_MOSI
	31	ESP_1_TX
	32	ESP_1_RX
	33	PERI_SCK
	34	SD_CS
	35	AD1_CS
	36	AD2_CS
	37	ENC2_DT
	38	ENC2_CLK
	39	ENC2_SW
	40	ENC_DT
	41	ENC_CLK
	42	AD3_CS
	43	
	44	+5
	45	GND
	46	
	47	

FPC-45P-0.5mm

D

Title CONNECTIONS

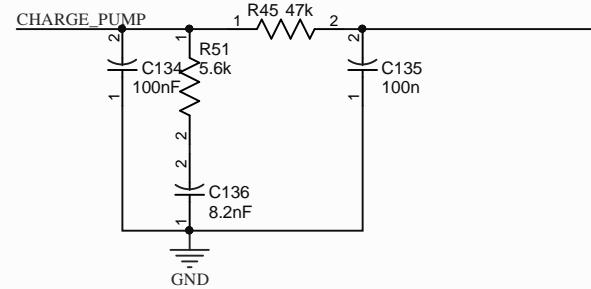
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Date: 18.12.2020 | Time: 12:59:24 | Sheet 7 of 18

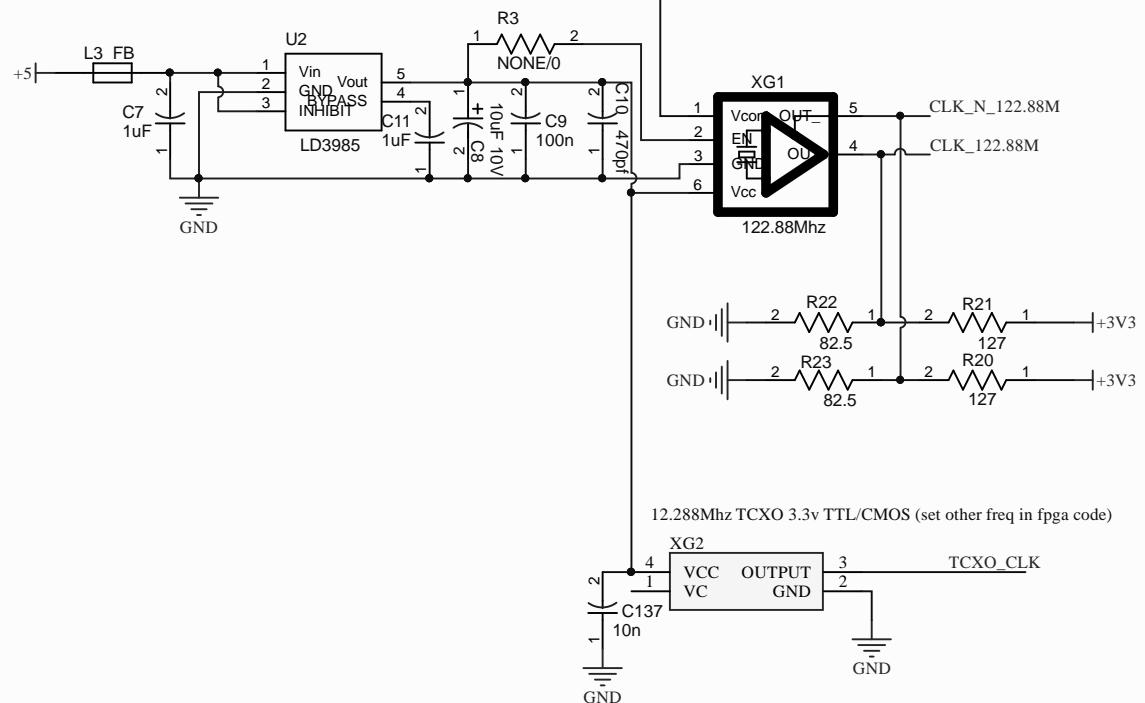
File: D:\Dropbox\Develop\Projects\WOLF\Scheme\ALTIUM_DESIGNER\MOTHERBOARD\CONNECTIONS.SchDoc

Altium

A



B



C

D

Title **CLOCK_GENERATOR**

Size: A4 Number:6 Revision 2.0

Date: 18.12.2020 Time: 12:59:25 Sheet 6 of 18

File: D:\Dropbox\Develop\Projects\WOLF\Schema\ALTIUM_DESIGNER\MOTHERBOARD\CLOCK_GENERATOR.SchDoc

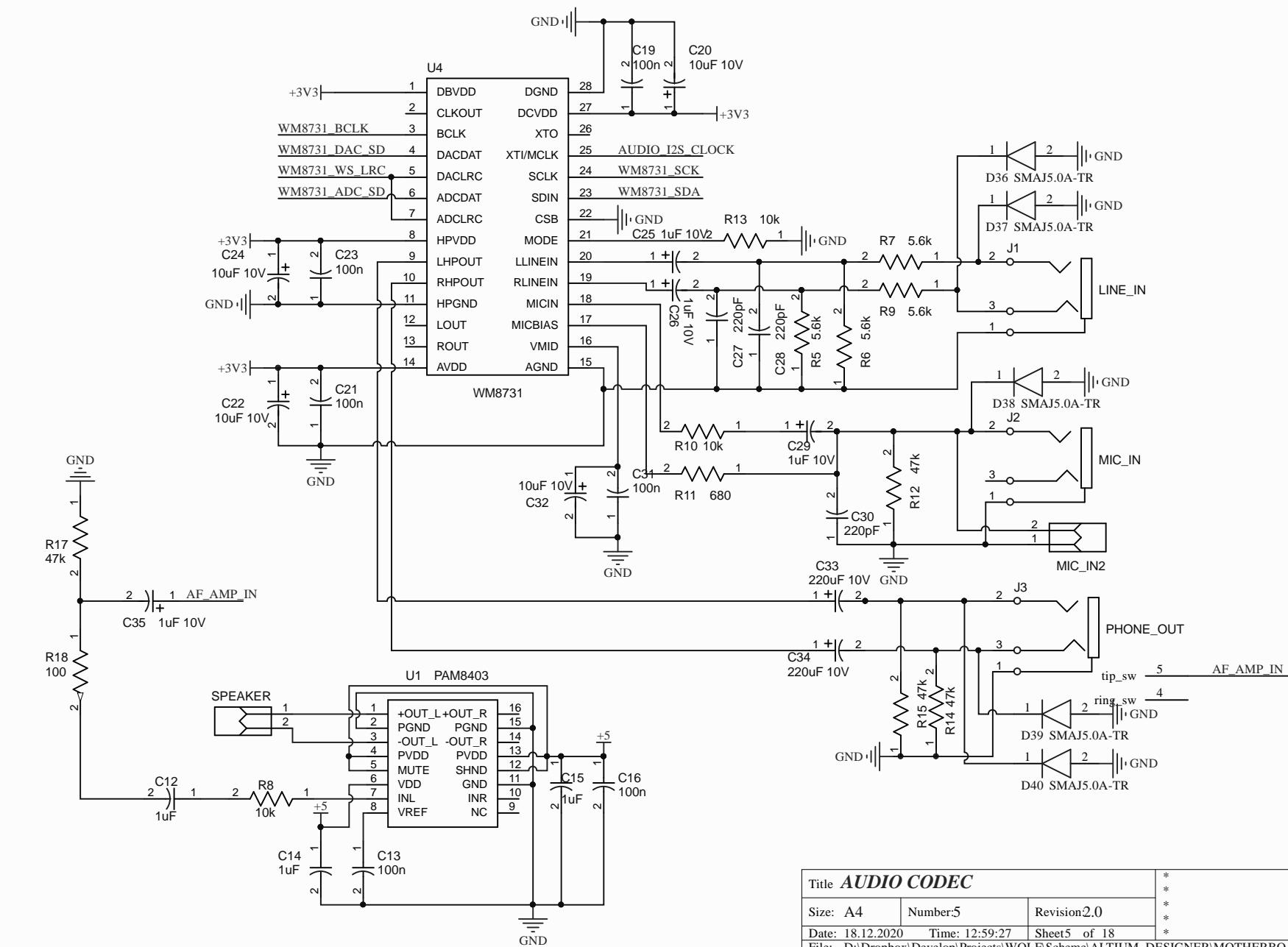
Altium

A

B

C

D

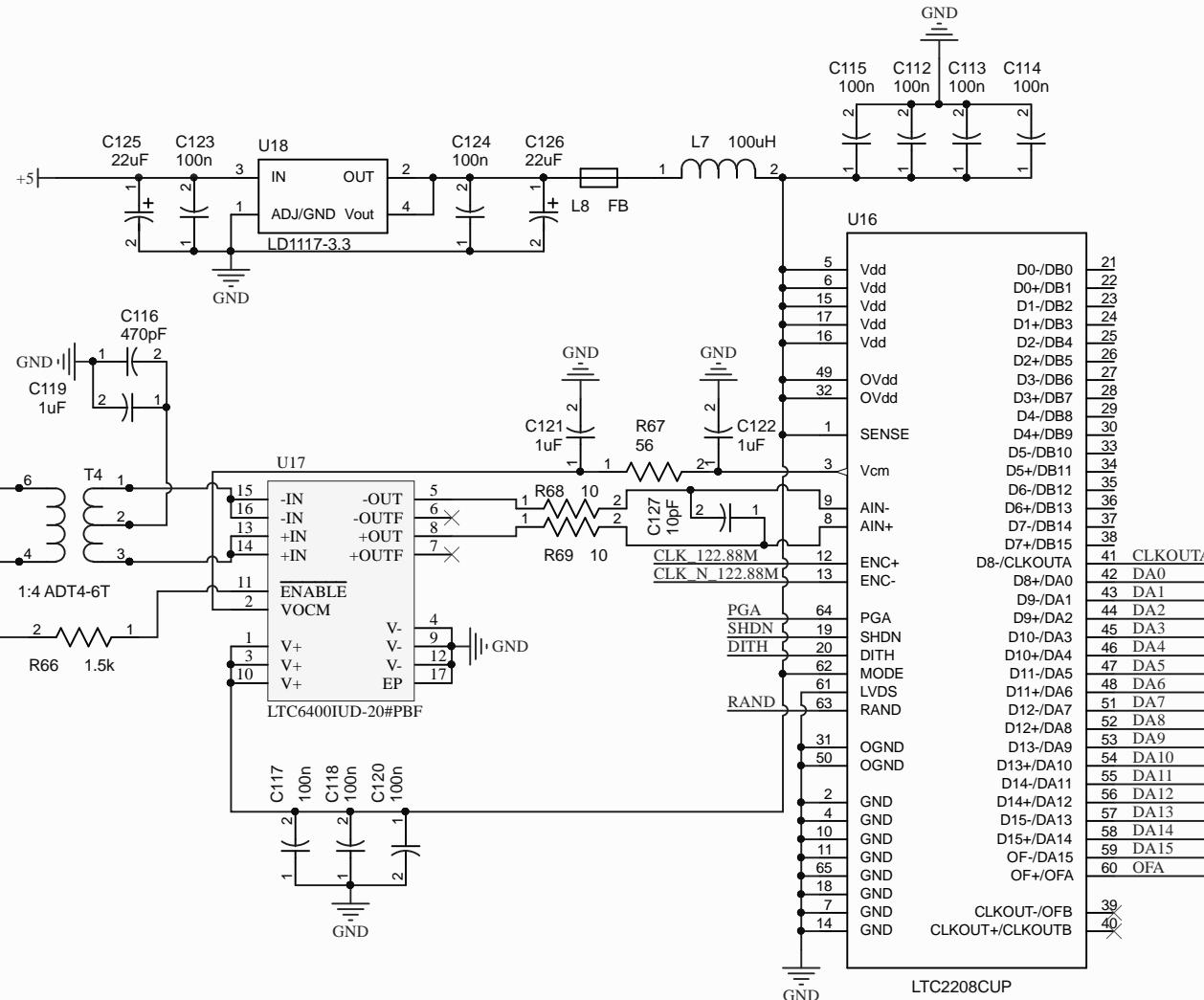
Title **AUDIO CODEC**

Size: A4 Number:5 Revision2.0

Date: 18.12.2020 Time: 12:59:27 Sheet5 of 18

File: D:\Dropbox\Develop\Projects\WOLF\Schema\ALTIUM_DESIGNER\MOTHERBOARD\AUDIO_CODEC.SchDoc

Altium

Title **ADC**

Size: A4 Number:3 Revision 2.0

Date: 18.12.2020 Time: 12:59:29 Sheet 3 of 18

File: D:\Dropbox\Develop\Projects\WOLF\Scheme\ALTIUM_DESIGNER\MOTHERBOARD\ADC.SchDoc

Altium