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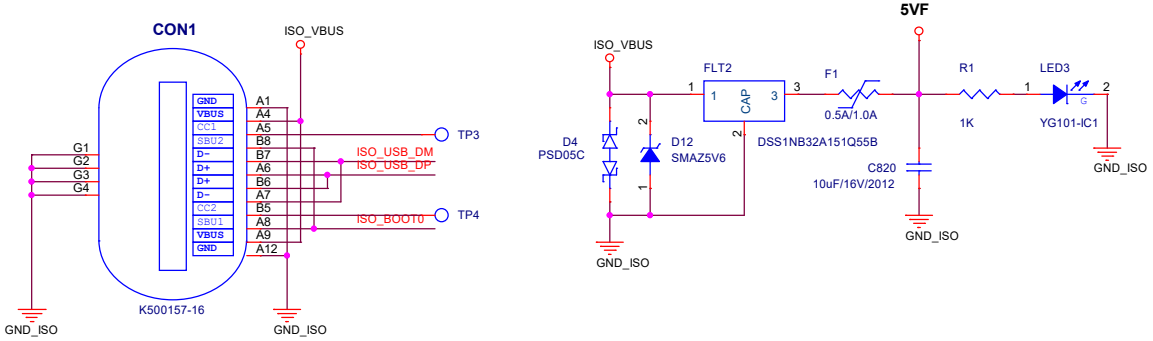
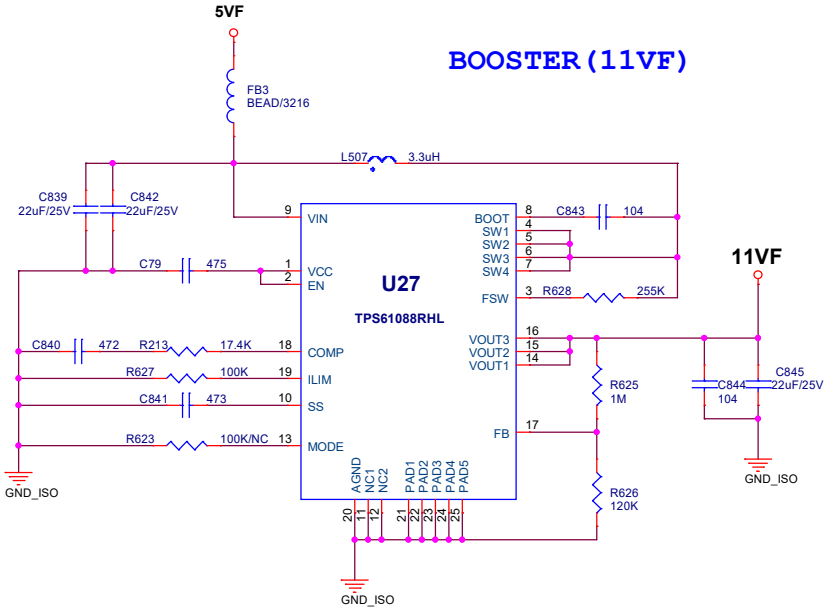
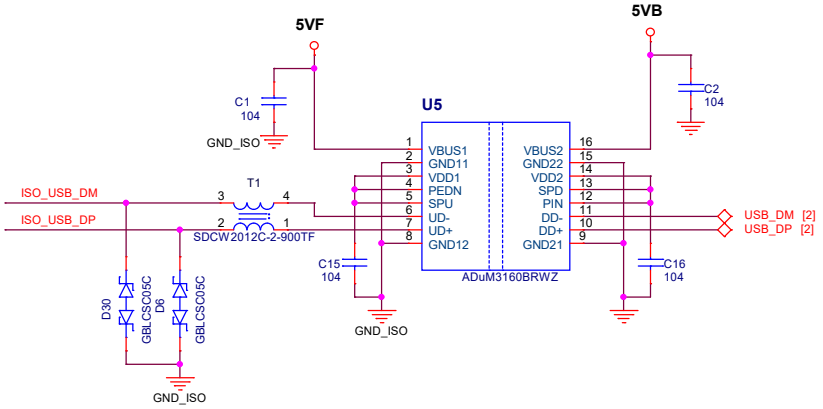
VBUS

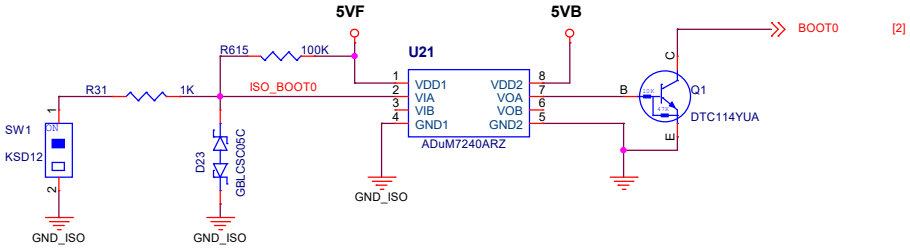


BOOSTER(11VF)

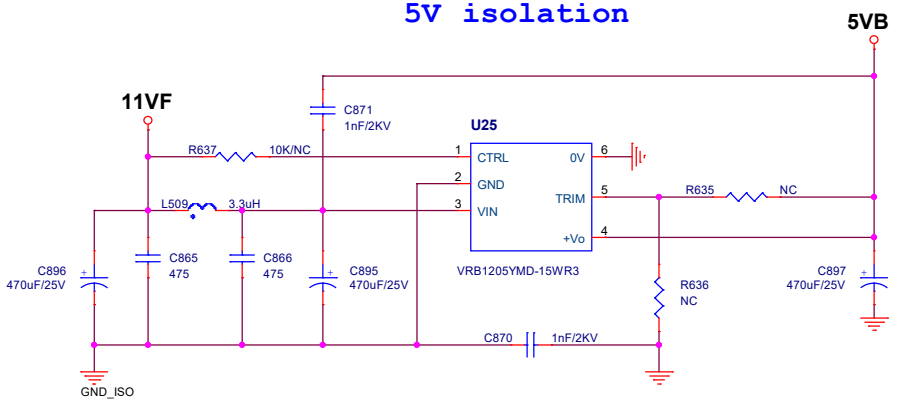


SIGNAL isolation





5V isolation



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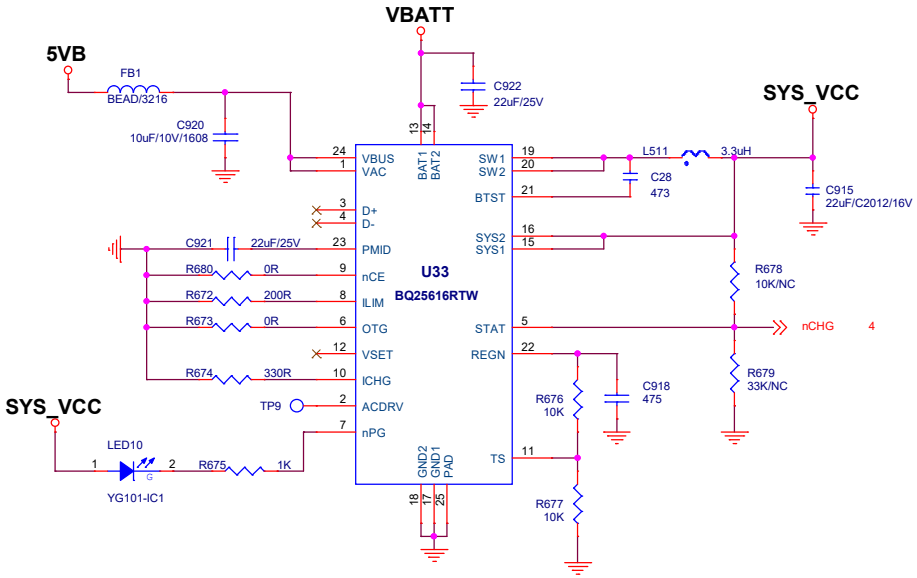
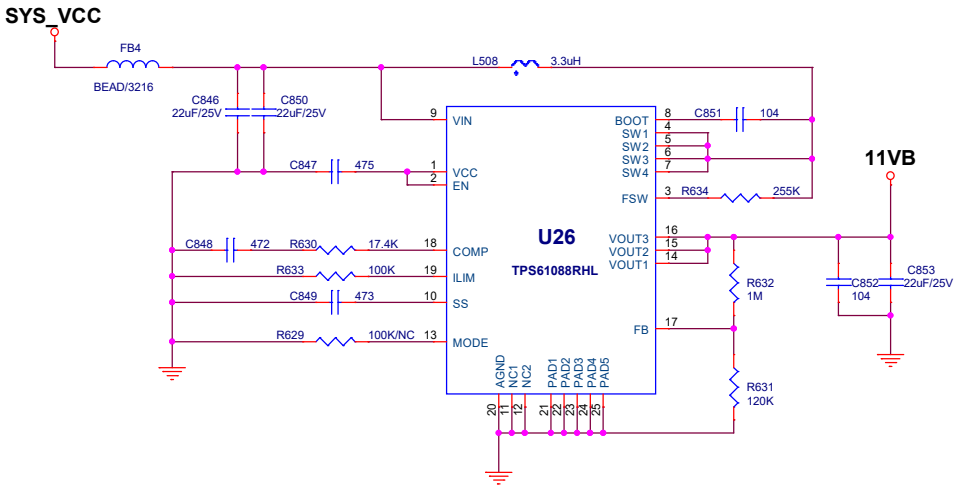
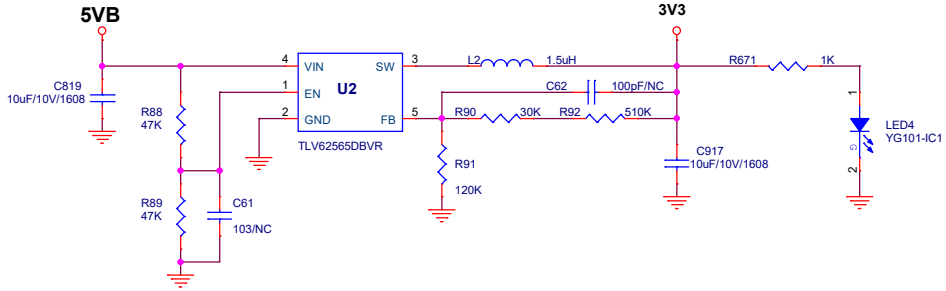
CHARGER (2A)



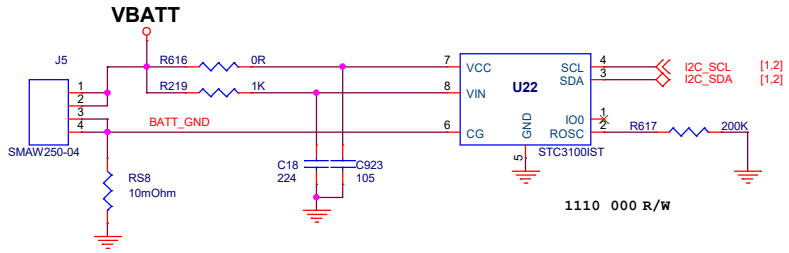
BOOSTER (11VB)



BUCK (3.3V)



GAUGE



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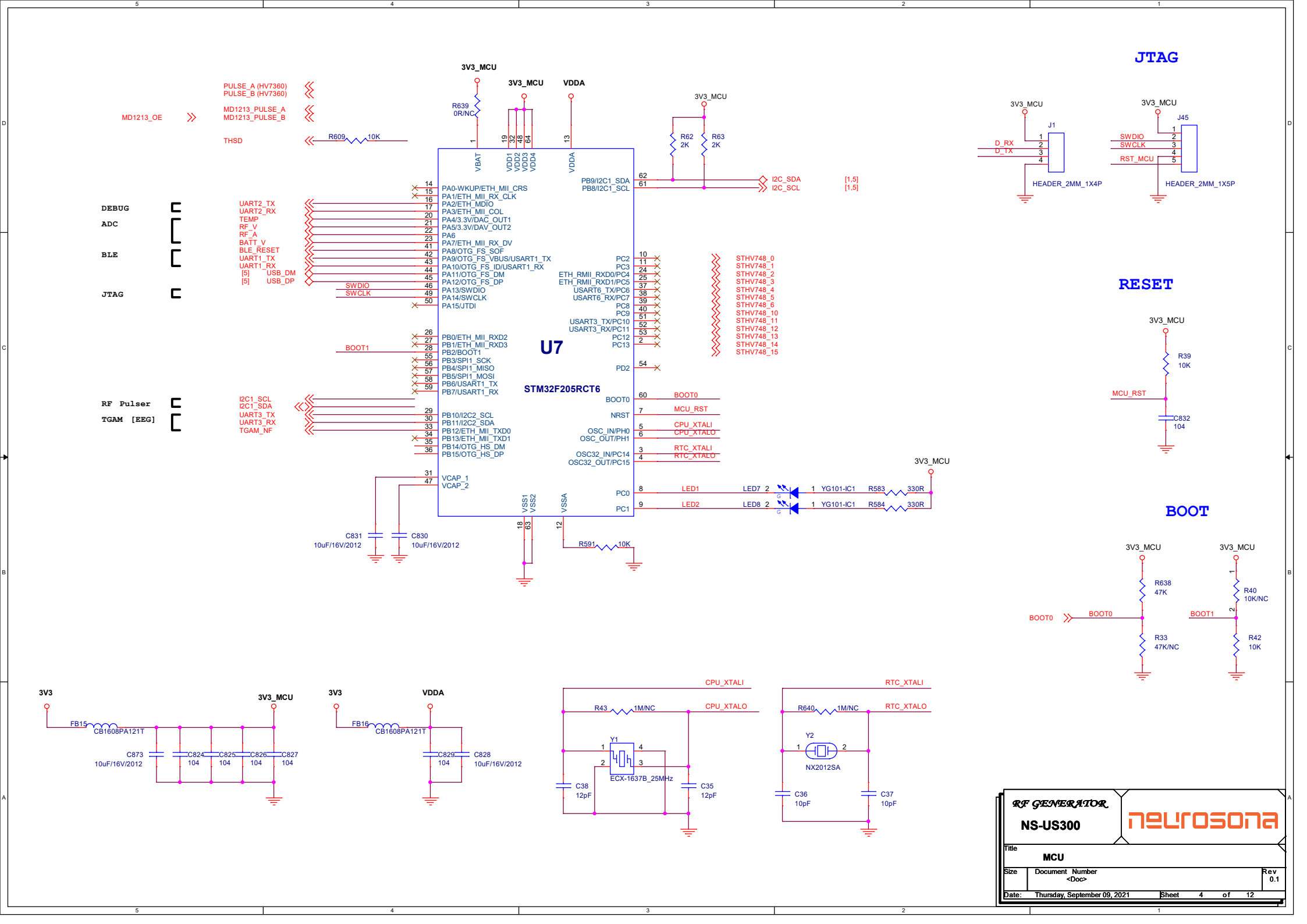
JTAG
RESET
BOOT
U7
STM32F205RCT6
3V3_MCU
VDDA
PULSE_A (HV7360)
PULSE_B (HV7360)
MD1213_OE
MD1213_PULSE_A
MD1213_PULSE_B
THSD
R609
10K
R639
0R/NC
R62
2K
R63
2K
DEBUG
ADC
BLE
JTAG
RF Pulser
TGAM [EEG]
UART2_TX
UART2_RX
TEMP
RF_V
RF_A
BATT_V
BLE_RESET
UART1_TX
UART1_RX
USB_DM
USB_DP
SWDIO
SWCLK
BOOT1
I2C1_SCL
I2C1_SDA
UART3_TX
UART3_RX
TGAM_NF
I2C_SDA
I2C_SCL
STHV748_0
STHV748_1
STHV748_2
STHV748_3
STHV748_4
STHV748_5
STHV748_6
STHV748_10
STHV748_11
STHV748_12
STHV748_13
STHV748_14
STHV748_15
LED1
LED2
LED7
LED8
YG101-IC1
R583
330R
R584
330R
C831
10uF/16V/2012
C830
10uF/16V/2012
R591
10K
J1
D_RX
D_TX
HEADER_2MM_1X4P
J45
SWDIO
SWCLK
RST_MCU
HEADER_2MM_1X5P
R39
10K
MCU_RST
C832
104
R638
47K
R33
47K/NC
R40
10K/NC
R42
10K
3V3
FB15
CB1608PA121T
C873
10uF/16V/2012
C824
104
C825
104
C826
104
C827
104
FB16
CB1608PA121T
C829
104
C828
10uF/16V/2012
CPU_XTALI
CPU_XTALO
R43
1M/NC
Y1
ECX-1637B_25MHz
C38
12pF
C35
12pF
RTC_XTALI
RTC_XTALO
R640
1M/NC
Y2
NX2012SA
C36
10pF
C37
10pF
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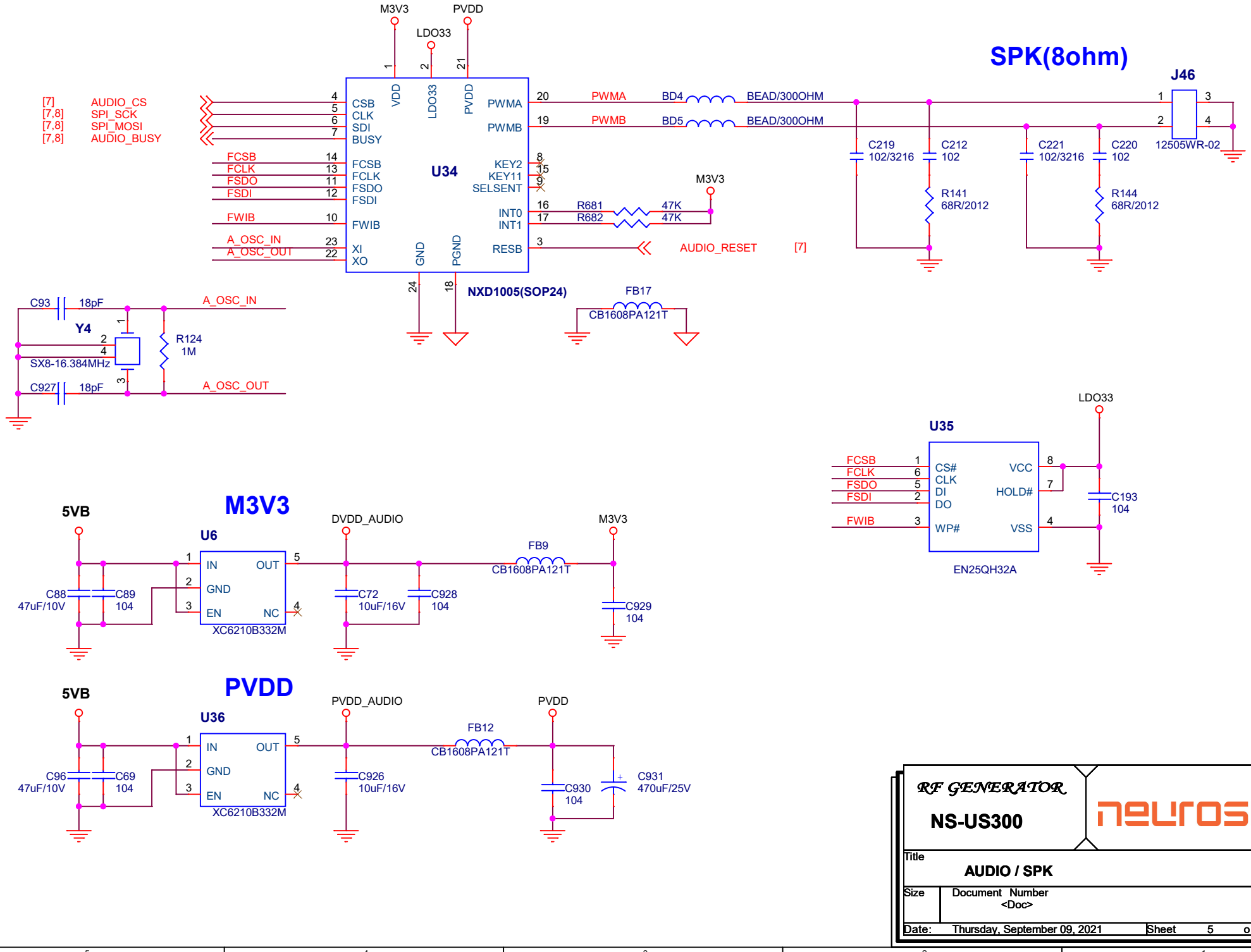
SPK(8ohm)
J46
12505WR-02
U34
NXD1005(SOP24)
M3V3
PVDD
LDO33
[7] AUDIO_CS
[7,8] SPI_SCK
[7,8] SPI_MOSI
[7,8] AUDIO_BUSY
CSB
CLK
SDI
BUSY
FCSB
FCLK
FSDO
FSDI
FWIB
A_OSC_IN
A_OSC_OUT
XI
XO
VDD
LDO33
PVDD
GND
PGND
PWMA
PWMB
KEY2
KEY11
SELSENT
INT0
INT1
RESB
BD4 BEAD/300OHM
BD5 BEAD/300OHM
PWMA
PWMB
R681 47K
R682 47K
AUDIO_RESET [7]
C219 102/3216
C212 102
C221 102/3216
C220 102
R141 68R/2012
R144 68R/2012
C93 18pF
C927 18pF
Y4
SX8-16.384MHz
R124 1M
A_OSC_IN
A_OSC_OUT
FB17
CB1608PA121T
U35
EN25QH32A
FCSB
FCLK
FSDO
FSDI
FWIB
CS#
CLK
DI
DO
WP#
VCC
HOLD#
VSS
C193 104
M3V3
5VB
U6
XC6210B332M
IN
GND
EN
OUT
NC
C88 47uF/10V
C89 104
DVDD_AUDIO
C72 10uF/16V
C928 104
FB9
CB1608PA121T
C929 104
PVDD
U36
PVDD_AUDIO
C96 47uF/10V
C69 104
C926 10uF/16V
FB12
CB1608PA121T
C930 104
C931 470uF/25V
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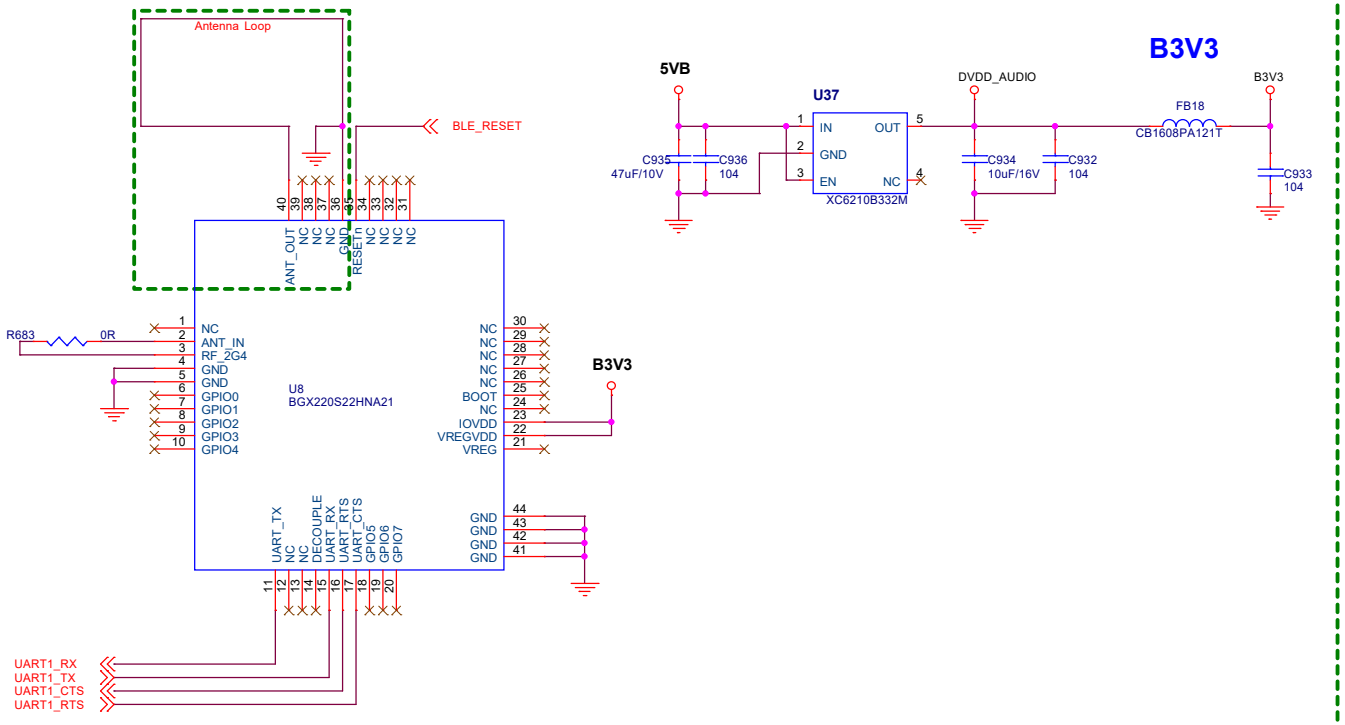
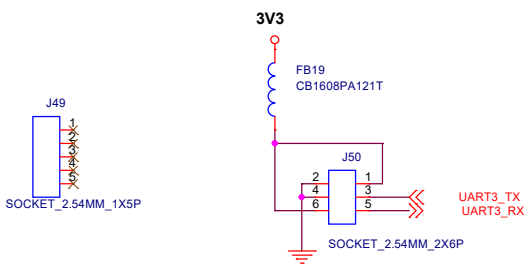
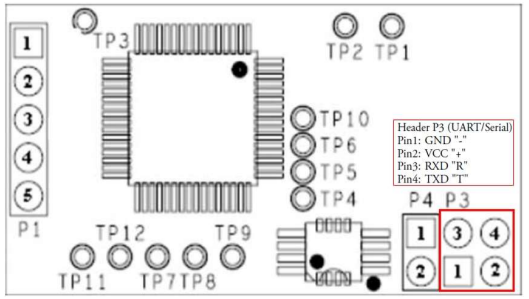
BLE

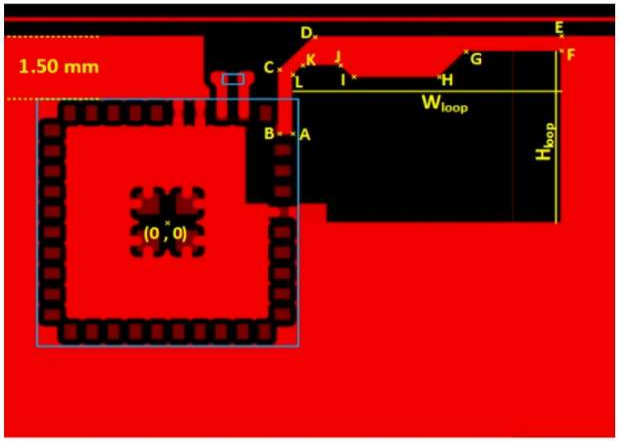


TGAM1 Module (EEG)





Design Guidelines



Point	BGX220S22HNA21
A	(2.87, 2.13)
B	(2.54, 2.13)
C	(2.54, 3.69)
D	(3.36, 4.51)
E	(7.75, 4.51)
F	(7.75, 4.15)
G	(6.84, 4.15)
H	(6.21, 3.52)
I	(4.26, 3.52)
J	(3.97, 3.81)
K	(3.10, 3.81)
L	(2.87, 3.58)
W_{loop}	4.88
H_{loop}	4.15

Note:
1. All coordinates and dimensions listed in mm.

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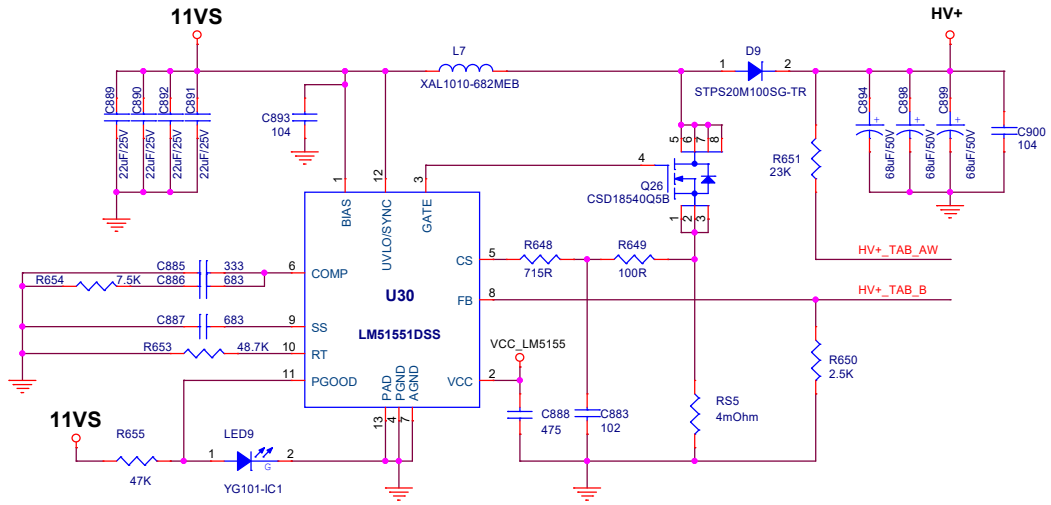
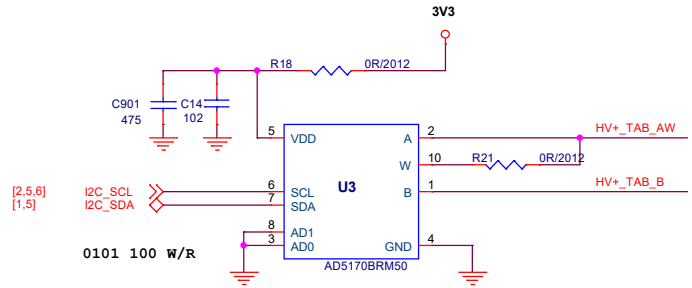
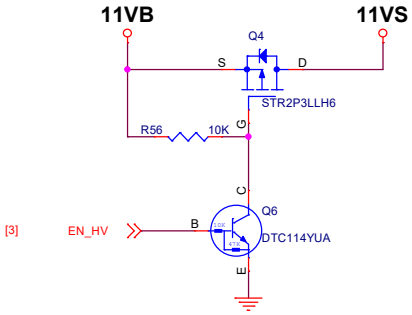
HV+







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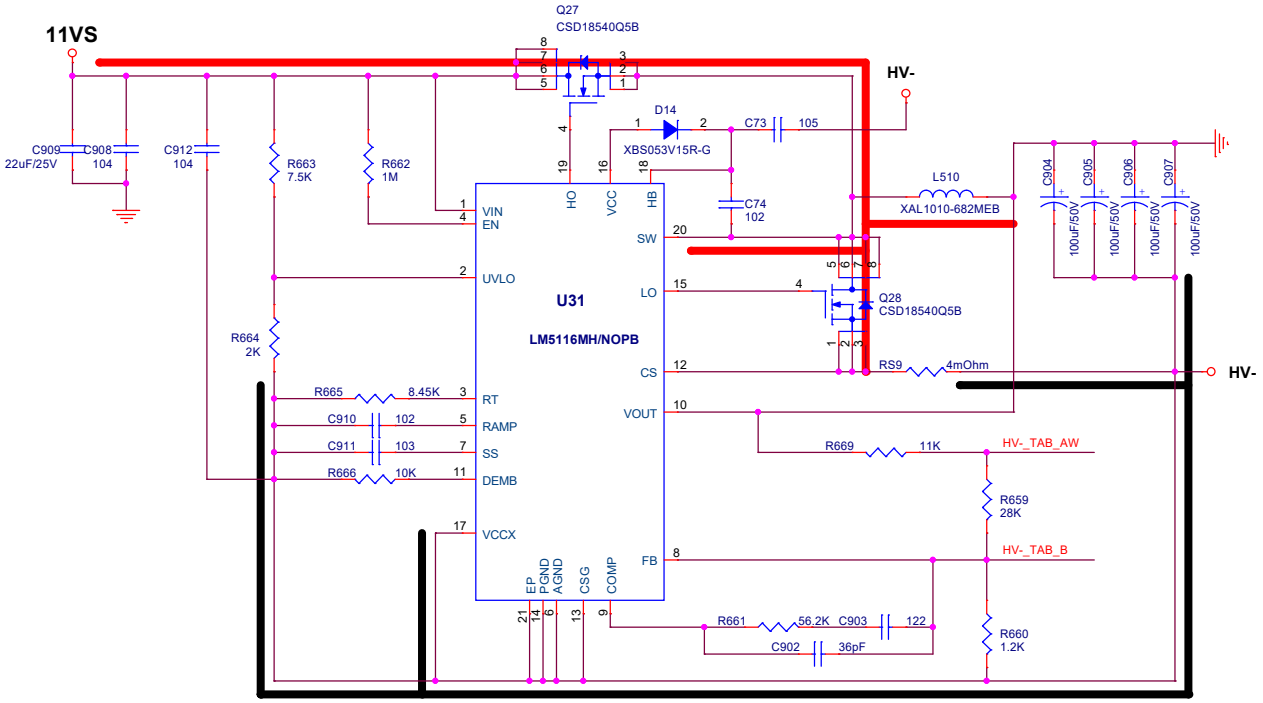

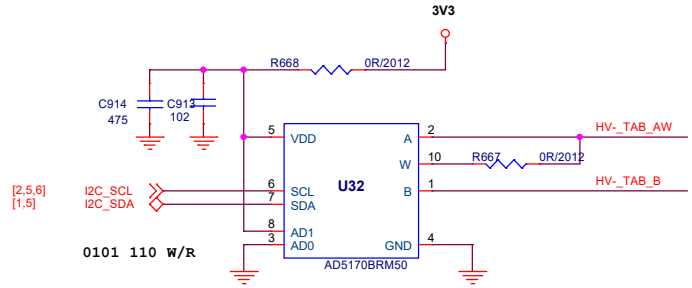

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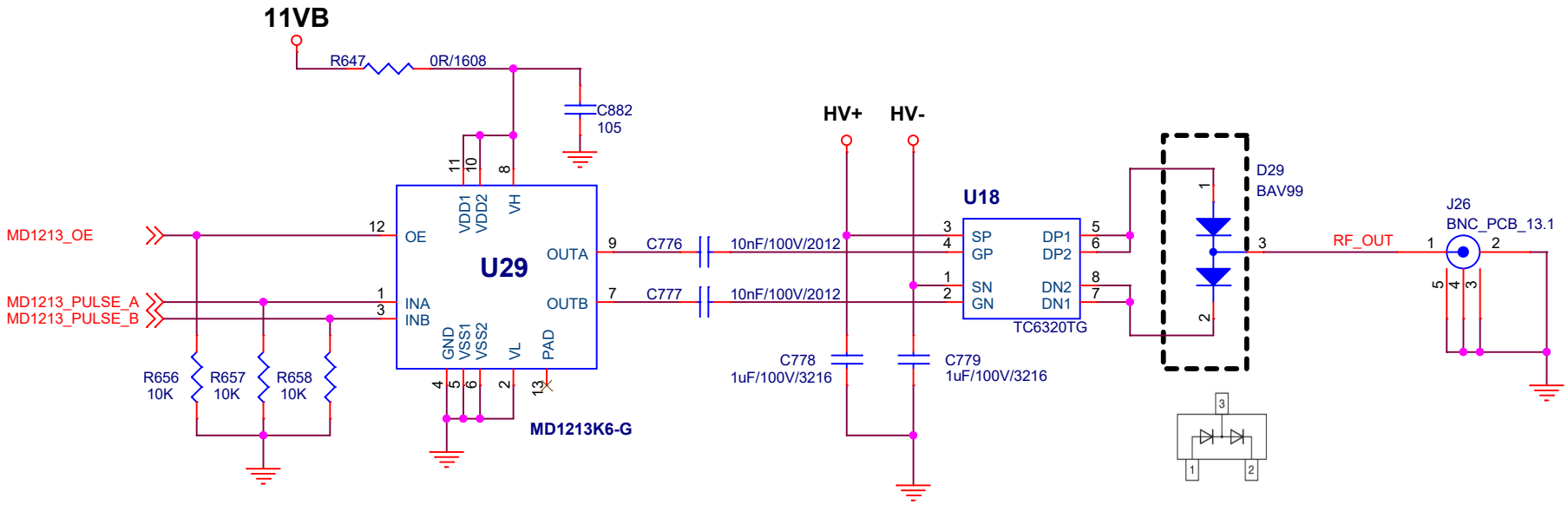
MD1213 + TC6320



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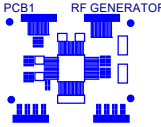
NTH 3.5PI=>

N1 PCB_NTH
N2 PCB_NTH
N3 PCB_NTH
N4 PCB_NTH
N5 PCB_NTH
N6 PCB_NTH
N7 PCB_NTH
N8 PCB_NTH
N9 PCB_NTH
N10 PCB_NTH

PCB1 RF GENERATOR REV 0.1



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CONNECTION

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Title

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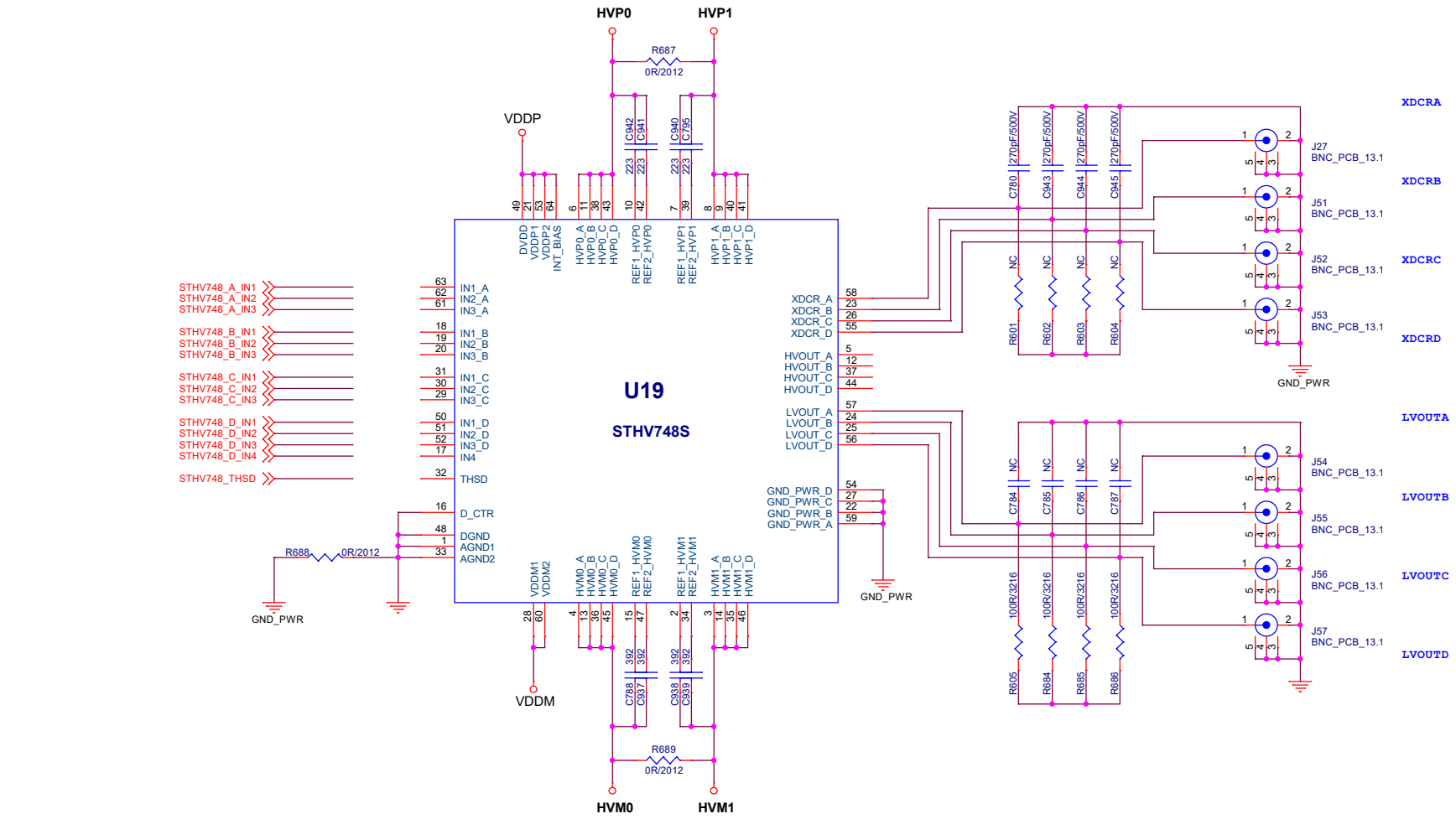

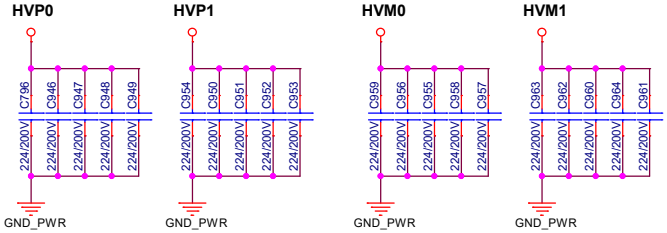

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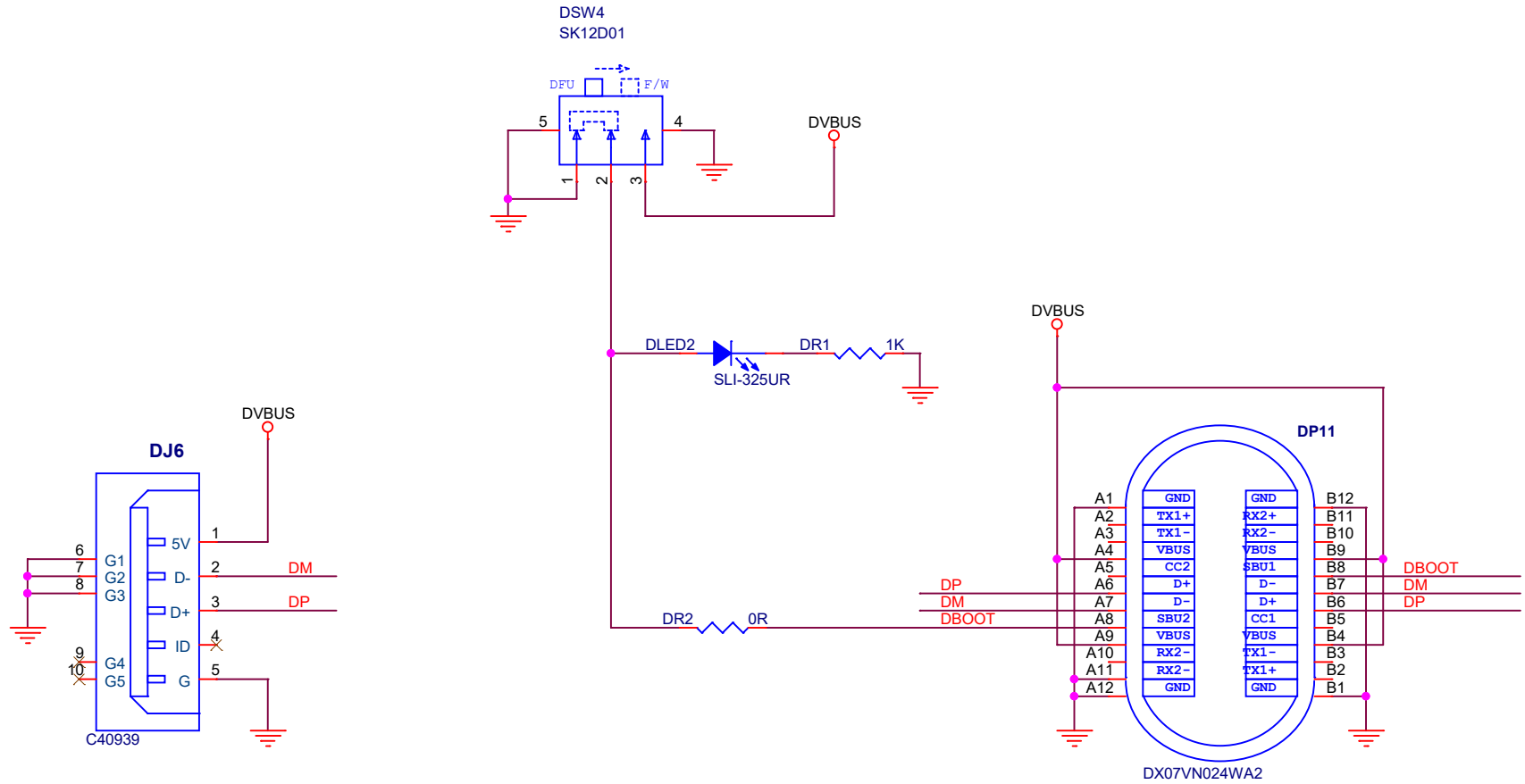

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