RF_CONTROL

File: rf_control.kicad_sch

Relais

File: relais.kicad_sch

PSU_6V

File: psu_6v.kicad_sch

PSU_12V

File: psu_12V.kicad_sch

PSU_28V

File: psu_28V.kicad_sch

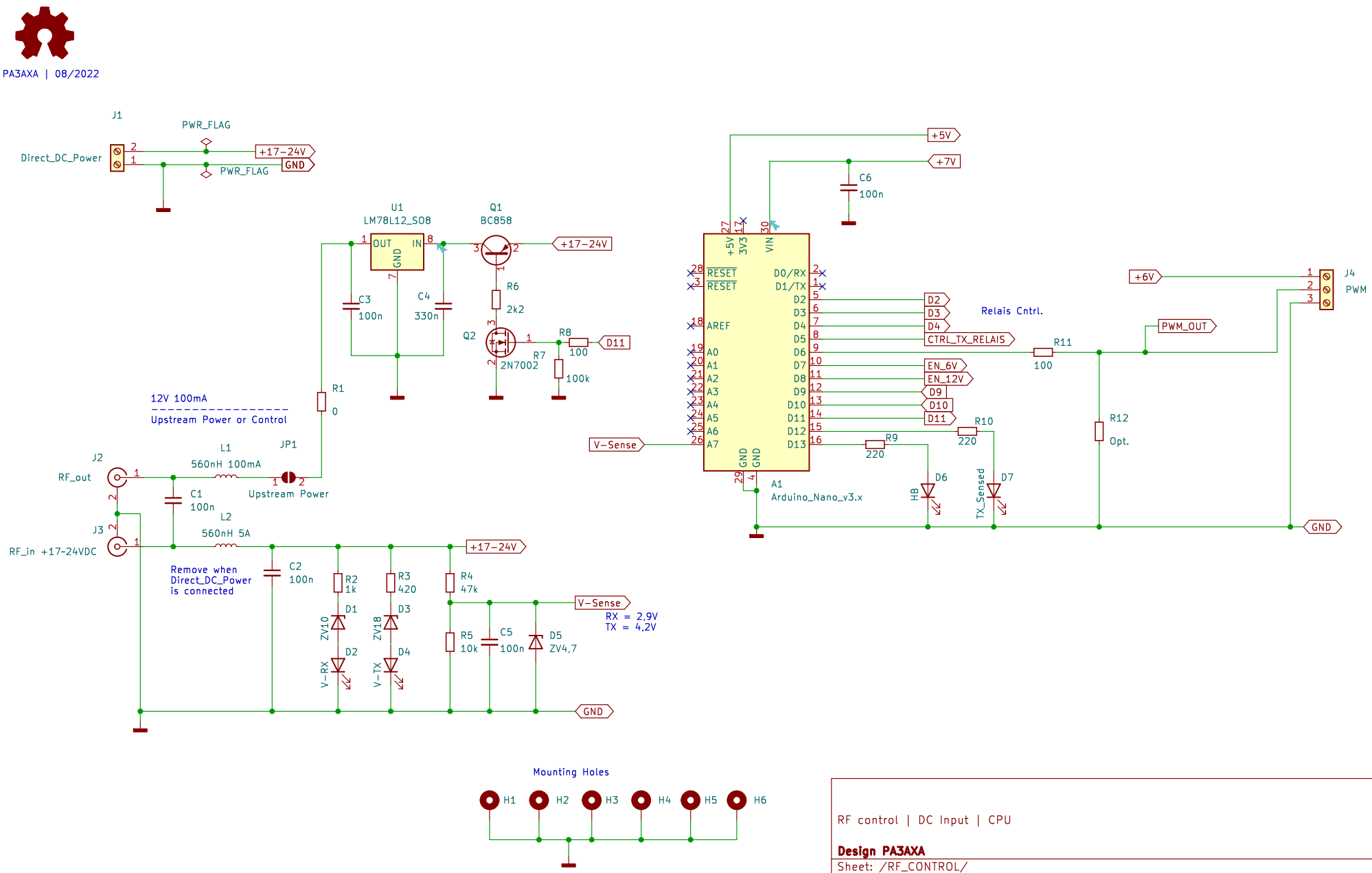
Block Diagram

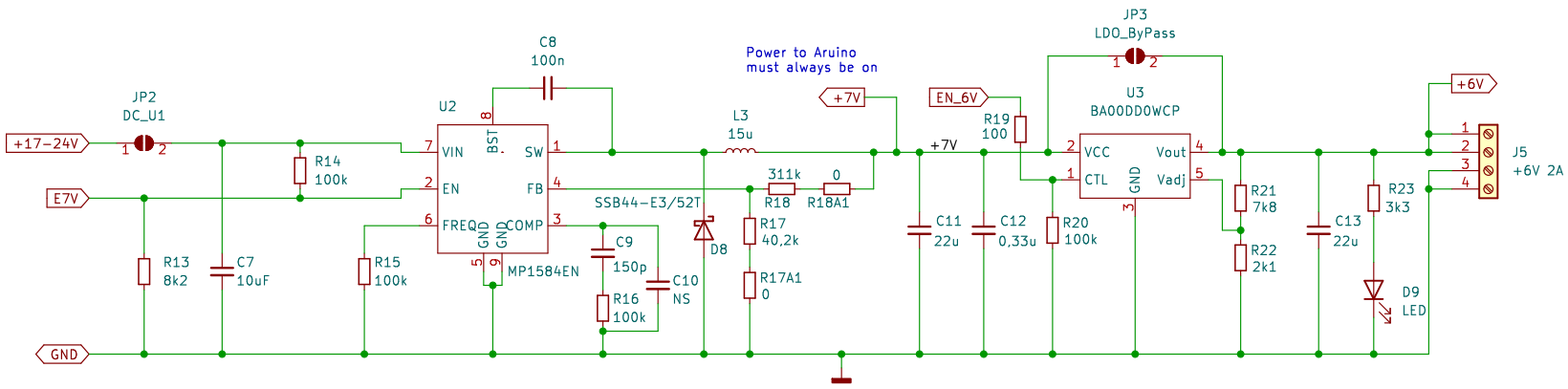
Design PA3AXA

Sheet: /
File: MicroWaveCnrl_V1.0.kicad_sch

Title: System Controller

Size: A4	Date: 2022-07-29	**Rev: V1.0**
KiCad E.D.A. kicad (6.0.7-1)-1		Id: 1/6


PA3AXA | 08/2022
J1
PWR_FLAG
Direct_DC_Power
+17-24V
GND
PWR_FLAG
U1
LM78L12_SO8
OUT
IN
GND
C3
100n
C4
330n
Q1
BC858
R6
2k2
Q2
2N7002
R8
100
D11
R7
100k
R1
0
12V 100mA
Upstream Power or Control
J2
RF_out
L1
560nH 100mA
JP1
Upstream Power
C1
100n
J3
RF_in +17-24VDC
L2
560nH 5A
Remove when
Direct_DC_Power
is connected
C2
100n
R2
1k
R3
420
R4
47k
D1
ZV10
D2
V-RX
D3
ZV18
D4
V-TX
R5
10k
C5
100n
D5
ZV4,7
V-Sense
RX = 2,9V
TX = 4,2V
+17-24V
GND
+5V
+7V
C6
100n
A1
Arduino_Nano_v3.x
RESET
AREF
A0
A1
A2
A3
A4
A5
A6
A7
D0/RX
D1/TX
D2
D3
D4
D5
D6
D7
D8
D9
D10
D11
D12
D13
GND
VIN
V-Sense
Relais Cntrl.
D2
D3
D4
CTRL_TX_RELAIS
EN_6V
EN_12V
D9
D10
D11
R9
220
R10
220
R11
100
R12
Opt.
D6
HB
D7
TX_Sensed
+6V
PWM_OUT
J4
PWM
GND
Mounting Holes
H1
H2
H3
H4
H5
H6
RF control | DC Input | CPU
Design PA3AXA
Sheet: /RF_CONTROL/
File: rf_control.kicad_sch
Title: System Controller
Size: A4
Date: 2022-07-29
Rev: V1.0
KiCad E.D.A. kicad (6.0.7-1)-1
Id: 2/6



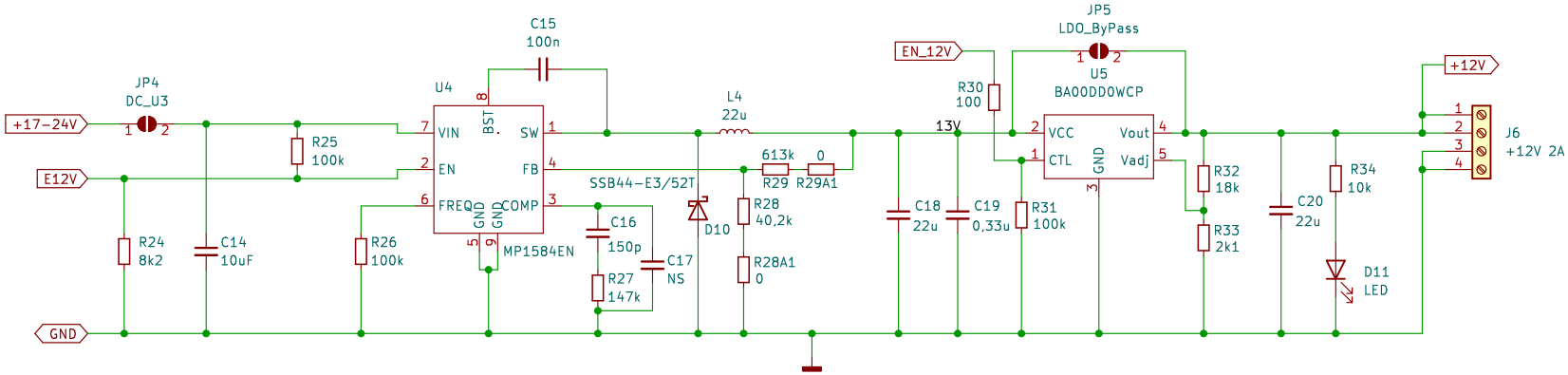
Power Supply 6V

Design PA3AXA

Sheet: /PSU_6V/
File: psu_6v.kicad_sch

Title: System Controller

Size: A4	Date: 2022-07-29	**Rev: V1.0**
KiCad E.D.A. kicad (6.0.7-1)-1		Id: 3/6



Low Voltage Switch Off = 15,8V

VIN = 1,2 x [[R25+R24]/R24]

SW output set for 13V

Vout = 0,8 (R29+R28)/R28

LDO output set to 12V

Vo = 1.270 x [1+R32/R33]

Power Supply 12V

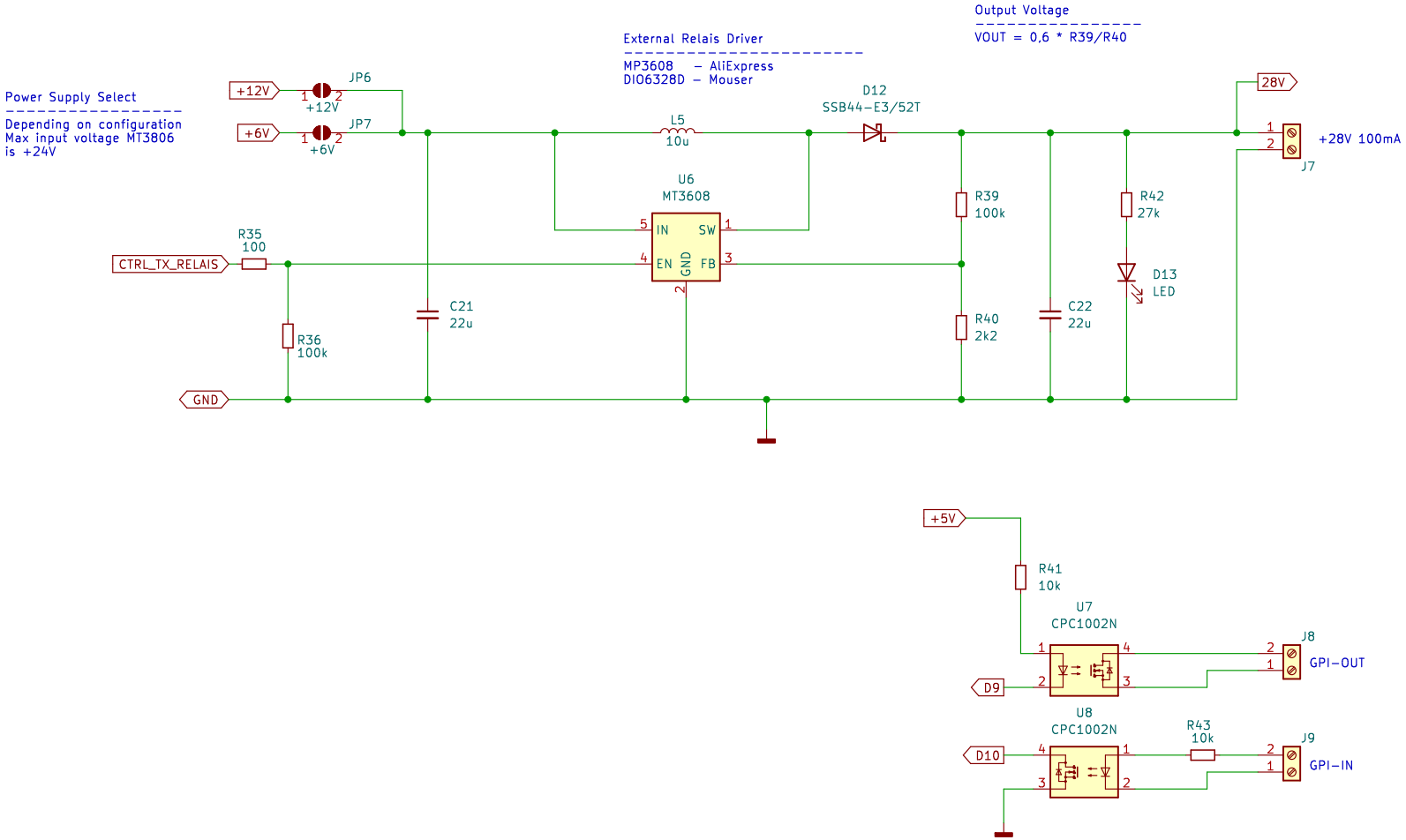
Design PA3AXA

Sheet: /PSU_12V/

File: psu_12V.kicad_sch

Title: System Controller

Size: A4	Date: 2022-07-29	**Rev: V1.0**
KiCad E.D.A. kicad (6.0.7-1)-1		Id: 4/6



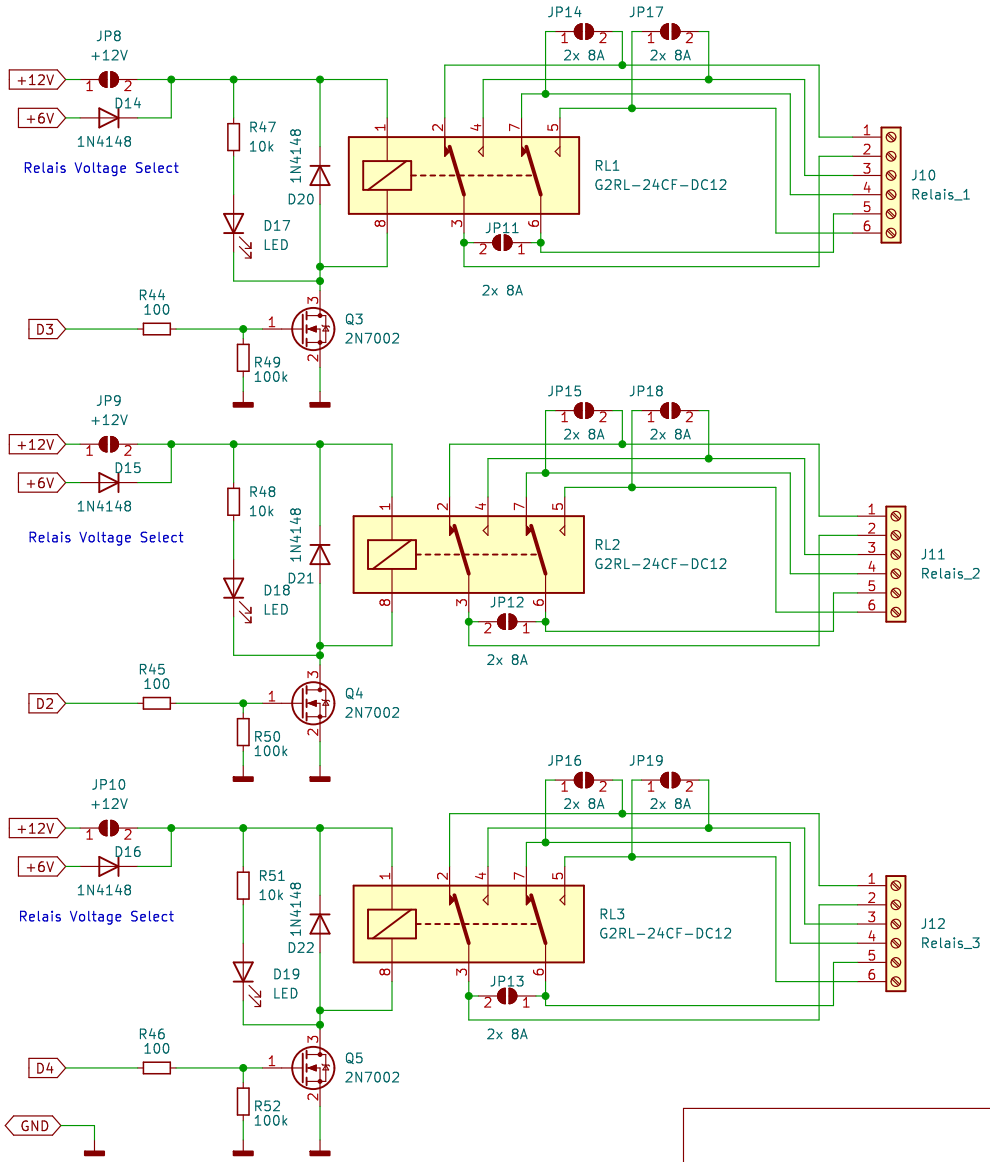
Power Supply 28V

Design PA3AXA

Sheet: /PSU_28V/
File: psu_28V.kicad_sch

Title: System Controller

Size: A4	Date: 2022-07-29	**Rev: V1.0**
KiCad E.D.A. kicad (6.0.7-1)-1		Id: 5/6



Relais

Design PA3AXA

Sheet: /Relais/
File: relais.kicad_sch

Title: System Controller

Size: A4	Date: 2022-07-29	**Rev: V1.0**
KiCad E.D.A. kicad (6.0.7-1)-1		Id: 6/6