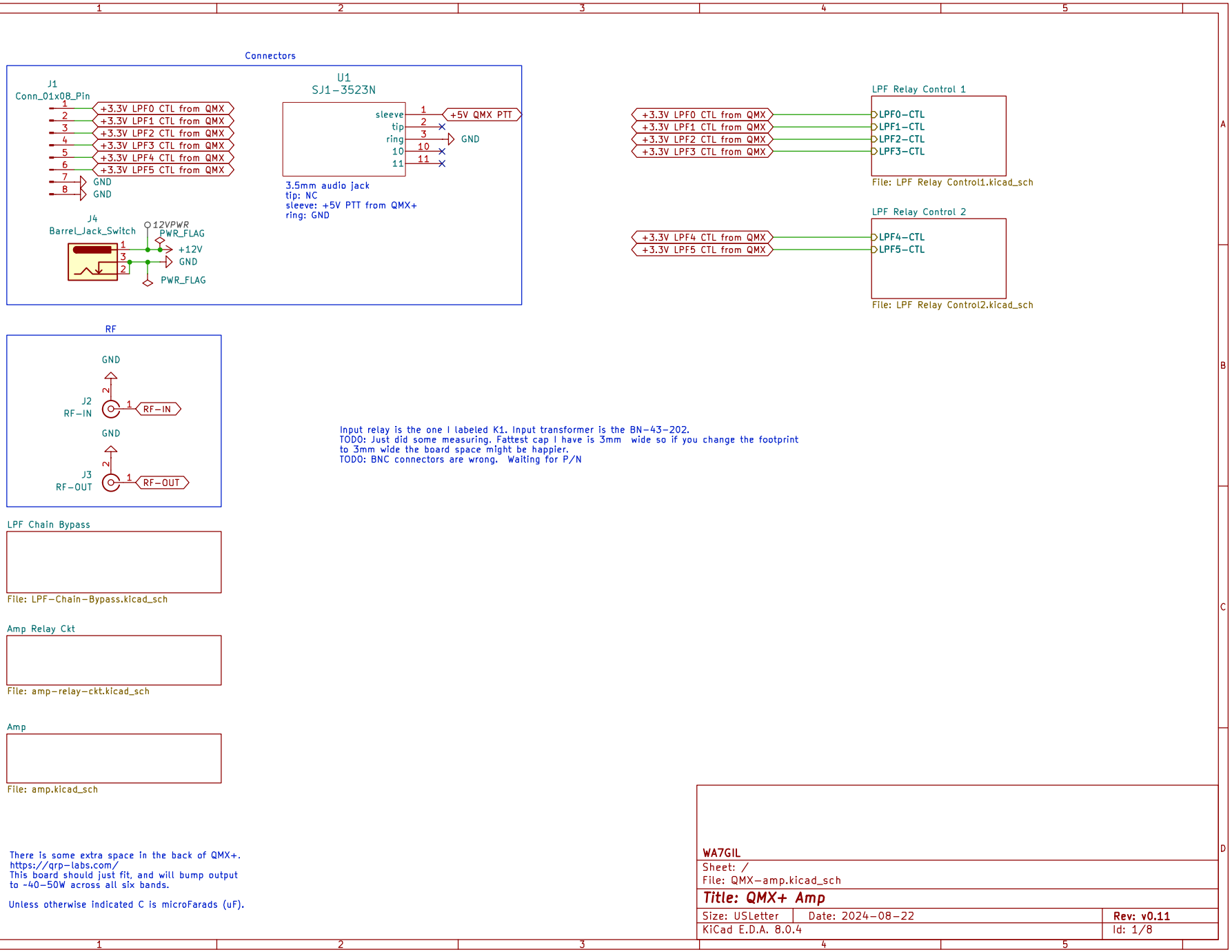
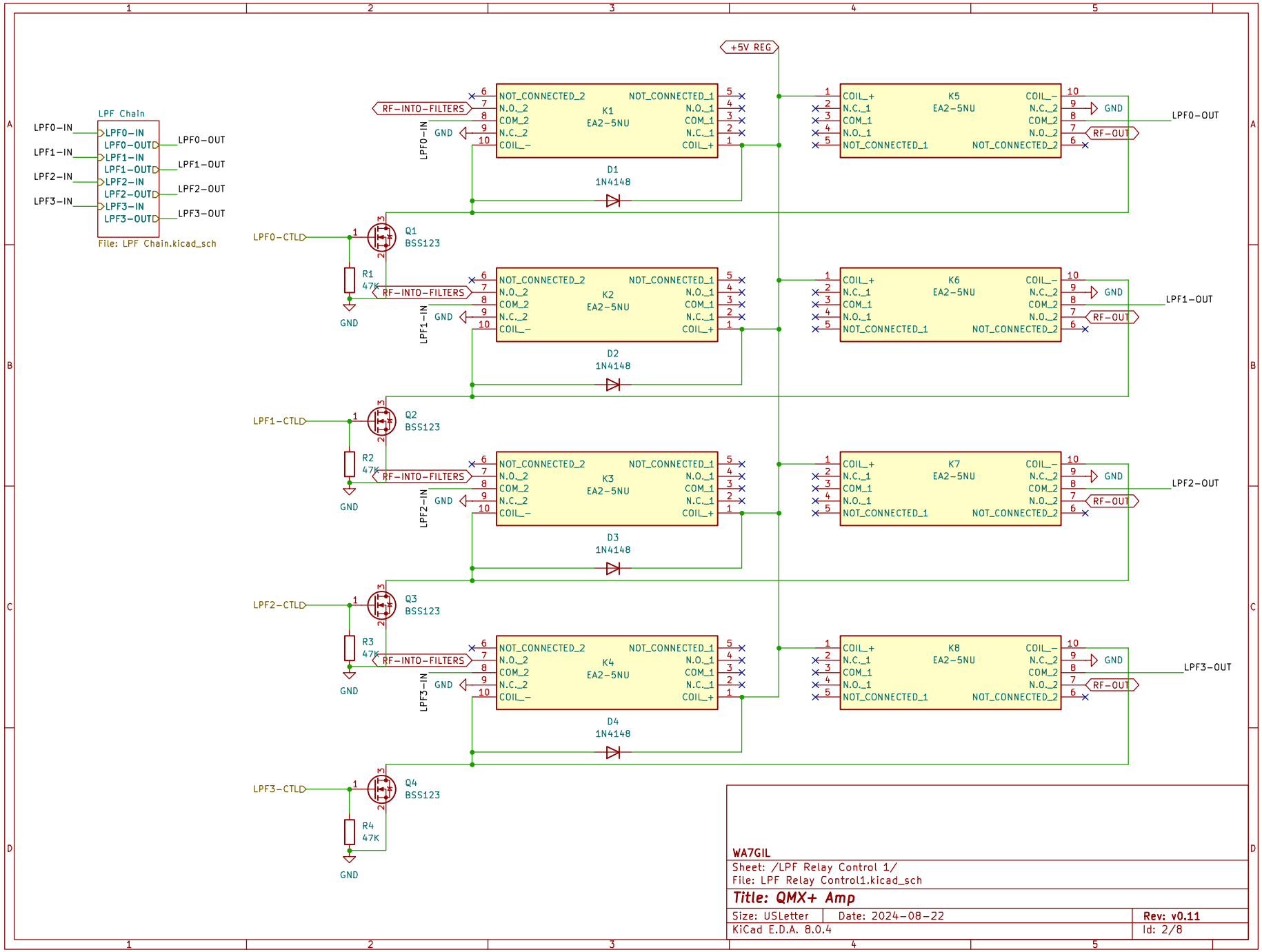
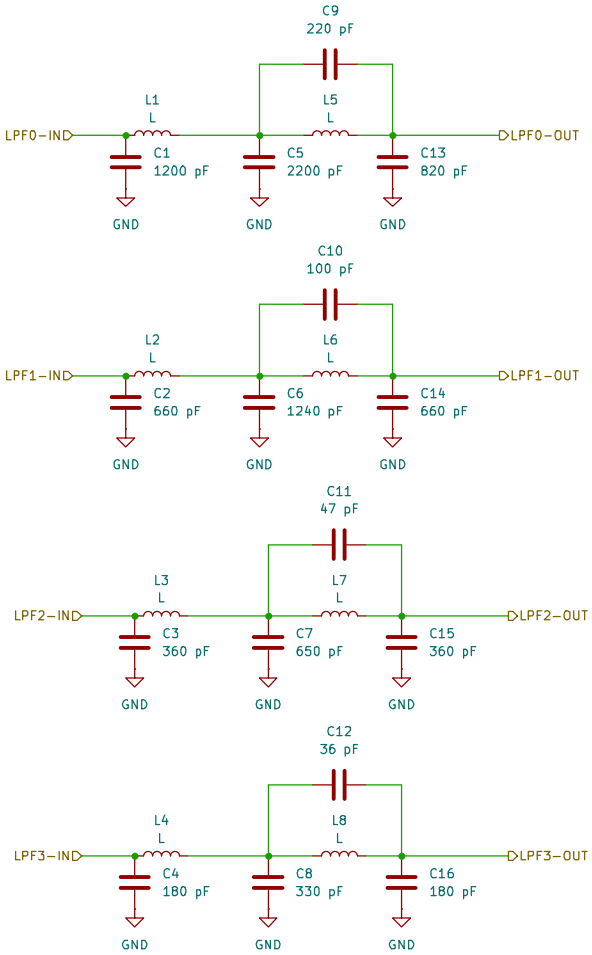

Connectors
J1
Conn_01x08_Pin
1
2
3
4
5
6
7
8
+3.3V LPF0 CTL from QMX
+3.3V LPF1 CTL from QMX
+3.3V LPF2 CTL from QMX
+3.3V LPF3 CTL from QMX
+3.3V LPF4 CTL from QMX
+3.3V LPF5 CTL from QMX
GND
GND
J4
Barrel_Jack_Switch
12VPWR
PWR_FLAG
+12V
GND
PWR_FLAG
U1
SJ1-3523N
sleeve
tip
ring
10
11
+5V QMX PTT
GND
3.5mm audio jack
tip: NC
sleeve: +5V PTT from QMX+
ring: GND
LPF Relay Control 1
LPF0-CTL
LPF1-CTL
LPF2-CTL
LPF3-CTL
File: LPF Relay Control1.kicad_sch
LPF Relay Control 2
LPF4-CTL
LPF5-CTL
File: LPF Relay Control2.kicad_sch
RF
GND
J2
RF-IN
RF-IN
GND
J3
RF-OUT
RF-OUT
Input relay is the one I labeled K1. Input transformer is the BN-43-202.
TODO: Just did some measuring. Fattest cap I have is 3mm wide so if you change the footprint to 3mm wide the board space might be happier.
TODO: BNC connectors are wrong. Waiting for P/N
LPF Chain Bypass
File: LPF-Chain-Bypass.kicad_sch
Amp Relay Ckt
File: amp-relay-ckt.kicad_sch
Amp
File: amp.kicad_sch
There is some extra space in the back of QMX+.
https://qrp-labs.com/
This board should just fit, and will bump output to ~40-50W across all six bands.
Unless otherwise indicated C is microFarads (uF).
WA7GIL
Sheet: /
File: QMX-amp.kicad_sch
Title: QMX+ Amp
Size: USLetter
Date: 2024-08-22
Rev: v0.11
KiCad E.D.A. 8.0.4
Id: 1/8

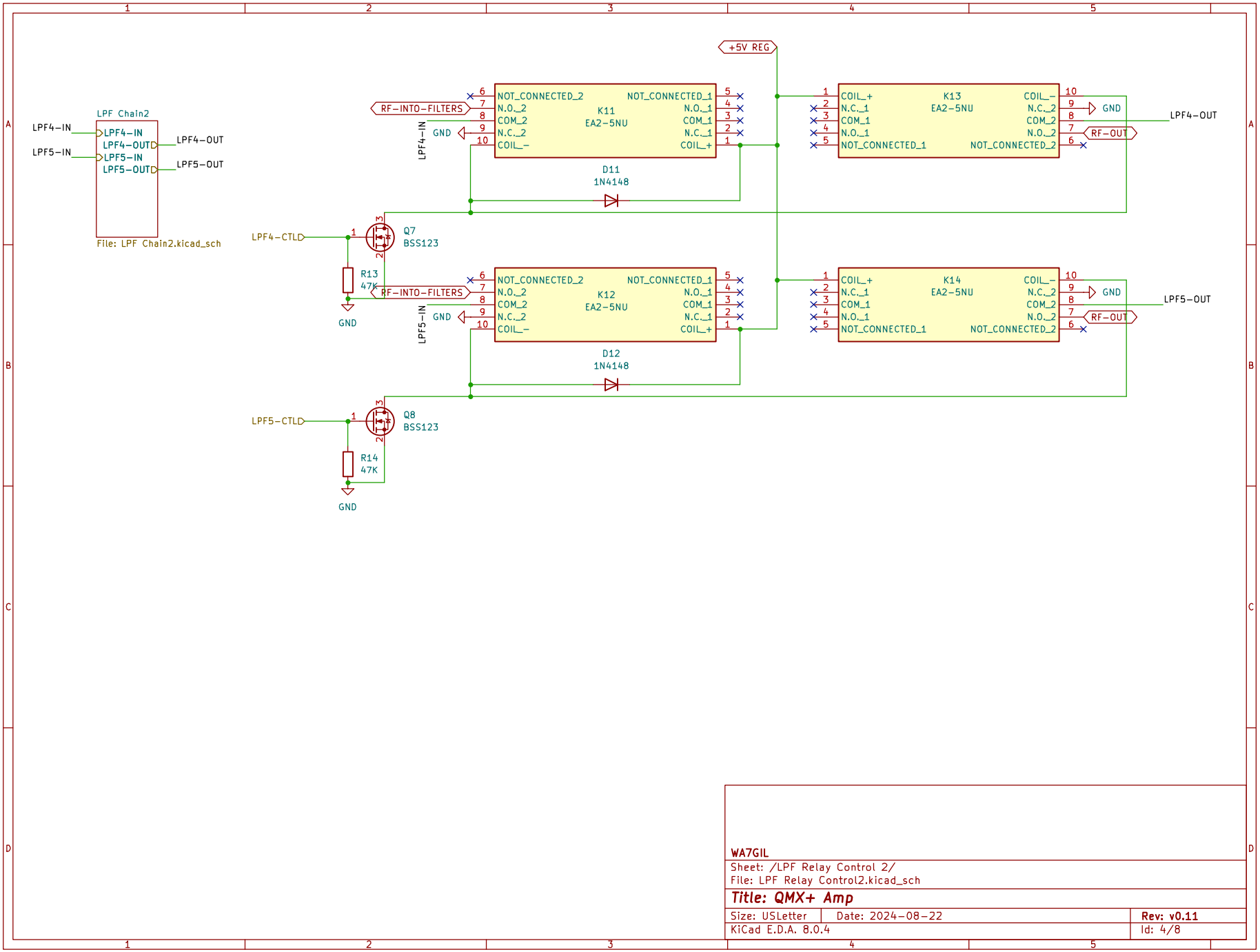

LPF Chain
LPF0-IN
LPF1-IN
LPF2-IN
LPF3-IN
LPF0-OUT
LPF1-OUT
LPF2-OUT
LPF3-OUT
File: LPF Chain.kicad_sch
+5V REG
RF-INTO-FILTERS
GND
LPF0-IN
LPF1-IN
LPF2-IN
LPF3-IN
K1
K2
K3
K4
K5
K6
K7
K8
EA2-5NU
NOT_CONNECTED_1
NOT_CONNECTED_2
N.O._1
N.O._2
N.C._1
N.C._2
COM_1
COM_2
COIL_+
COIL_-
D1
D2
D3
D4
1N4148
LPF0-CTL
LPF1-CTL
LPF2-CTL
LPF3-CTL
Q1
Q2
Q3
Q4
BSS123
R1
R2
R3
R4
47K
RF-OUT
LPF0-OUT
LPF1-OUT
LPF2-OUT
LPF3-OUT
WA7GIL
Sheet: /LPF Relay Control 1/
File: LPF Relay Control1.kicad_sch
Title: QMX+ Amp
Size: USLetter
Date: 2024-08-22
KiCad E.D.A. 8.0.4
Rev: v0.11
Id: 2/8

These are RF paths.



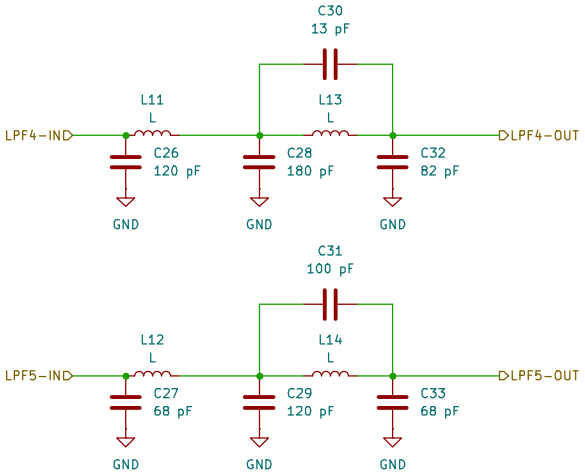
"All LPF capacitors are 250V ceramic NPO/COG or 500V silver mica. Hole spacing at 0.2" (5.04mm)"
Cap footprint "it's a rectangle 11 mm x 4 mm. The cap will fit inside that rectangle."

WA7GIL	
Sheet: /LPF Relay Control 1/LPF Chain/	
File: LPF Chain.kicad_sch	
Title: QMX+ Amp	
Size: USLetter	Date: 2024-08-22
KiCad E.D.A. 8.0.4	Id: 3/8
	Rev: v0.11



WA7GIL		
Sheet: /LPF Relay Control 2/		
File: LPF Relay Control2.kicad_sch		
Title: QMX+ Amp		
Size: USLetter	Date: 2024-08-22	**Rev: v0.11**
KiCad E.D.A. 8.0.4		Id: 4/8

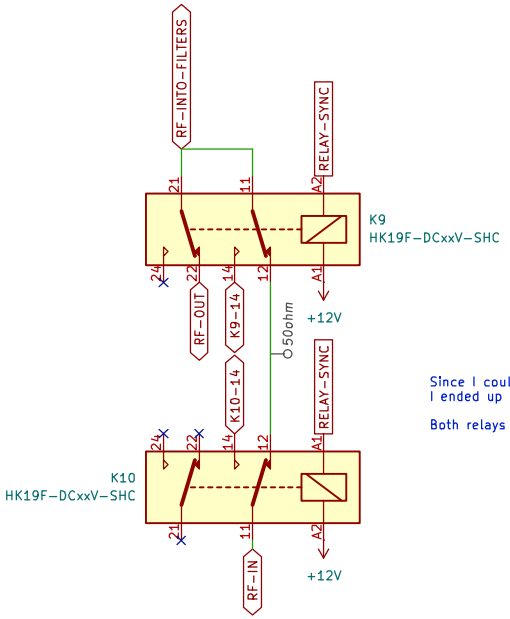
These are RF paths.



"All LPF capacitors are 250V ceramic NPO/COG or 500V silver mica. Hole spacing at 0.2" (5.04mm)"
Cap footprint "it's a rectangle 11 mm x 4 mm. The cap will fit inside that rectangle."

WA7GIL		
Sheet: /LPF Relay Control 2/LPF Chain2/		
File: LPF Chain2.kicad_sch		
Title: QMX+ Amp		
Size: USLetter	Date: 2024-08-22	**Rev: v0.11**
KiCad E.D.A. 8.0.4		Id: 5/8

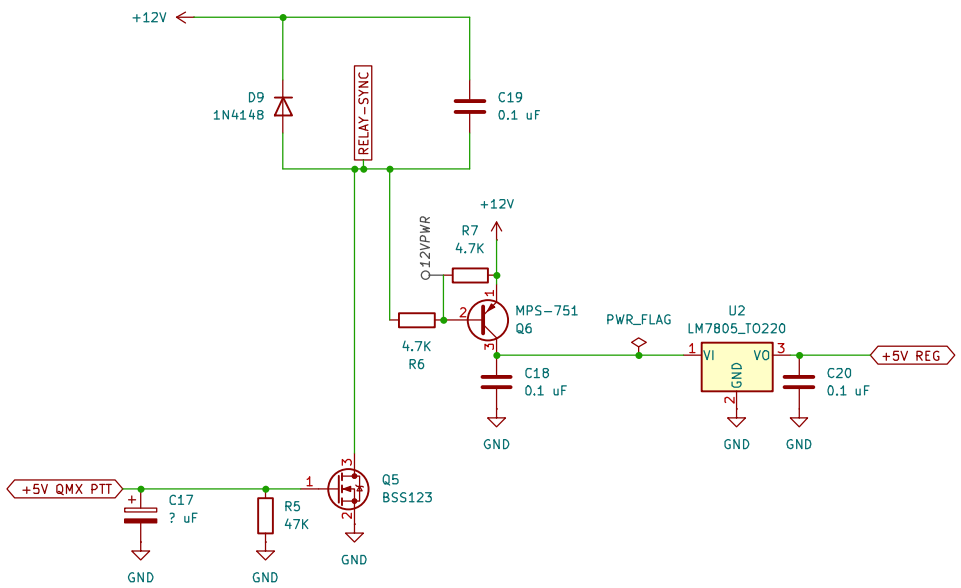
This shows the RF paths.
The coil controls are in the Amp Relay Circuit schematic.



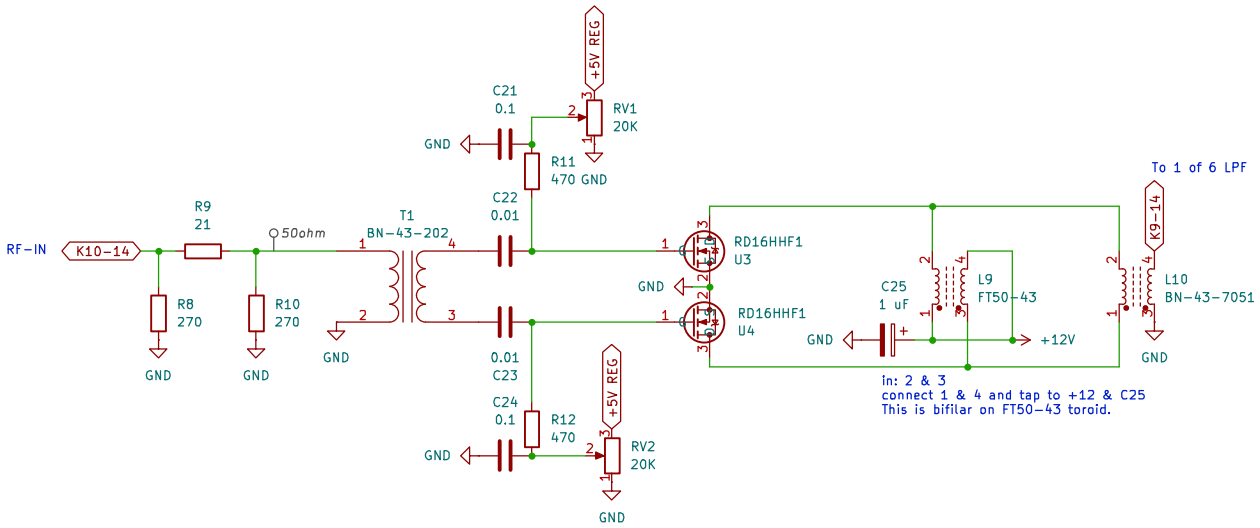
Since I could not figure out how to have two instances of K1/K2,
I ended up using global labels to connect them. STINKY HACK

Both relays are operated in sync. See Amp Relay Ckt schematic.

WA7GIL		
Sheet: /LPF Chain Bypass/		
File: LPF-Chain-Bypass.kicad_sch		
Title: QMX+ Amp		
Size: USLetter	Date: 2024-08-22	**Rev: v0.11**
KiCad E.D.A. 8.0.4		Id: 6/8



WA7GIL		
Sheet: /Amp Relay Ckt/		
File: amp-relay-ckt.kicad_sch		
Title: QMX+ Amp		
Size: USLetter	Date: 2024-08-22	**Rev: v0.11**
KiCad E.D.A. 8.0.4		Id: 7/8



"All LPF capacitors are 250V ceramic NPO/COG or 500V silver mica. Hole spacing at 0.2" (-5.0mm)"
Cap footprint "It's a rectangle 11 mm x 4 mm. The cap will fit inside that rectangle."

WA7GIL		
Sheet: /Amp/		
File: amp.kicad_sch		
Title: QMX+ Amp		
Size: USLetter	Date: 2024-08-22	**Rev: v0.11**
KiCad E.D.A. 8.0.4		Id: 8/8