



OZ4KAJ 1 kW HF PA

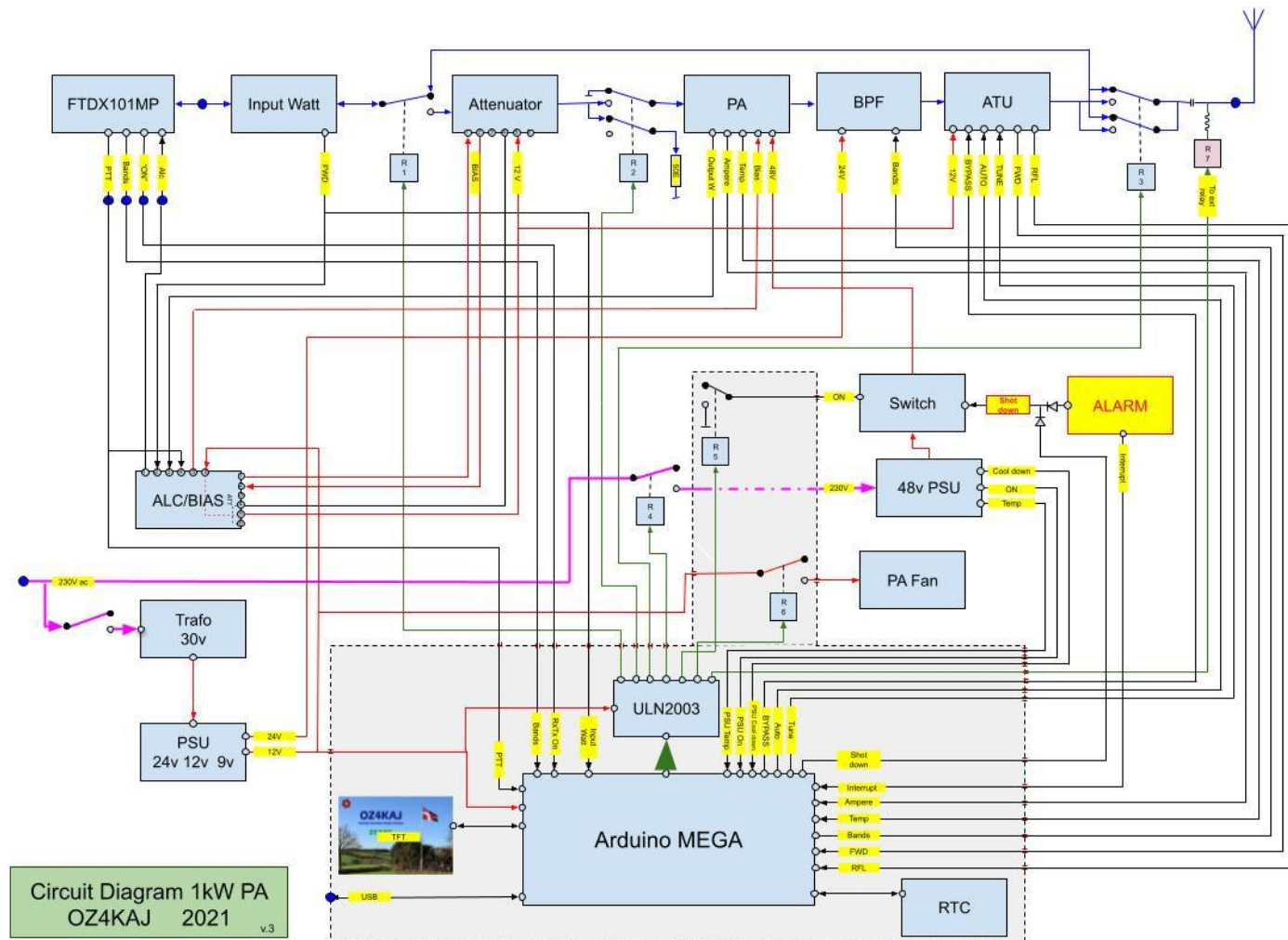
OZ4KAJ

OZ7SKB 10. marts 2022

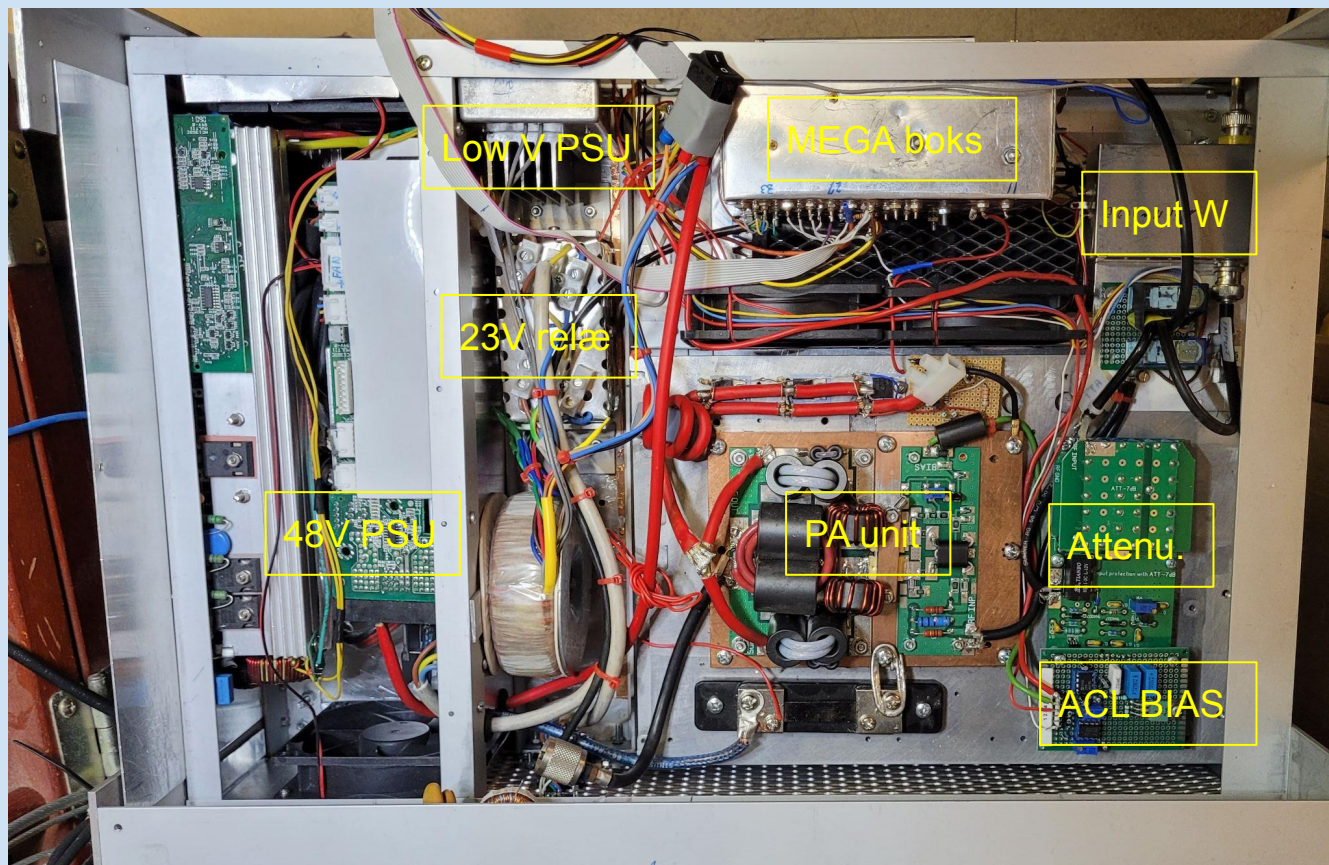
Forudsætninger - ønsker

- Fælles med OZ7JI Jim
- Så få knapper som mulig
- Processorstyret (Arduino MEGA)
 - Sequencer
 - Logning
 - Overvågning
 - Warnings
- Berøringsskærm i stedet for knapper
- Mest mulig genbrug
- Mest mulig homemade

Blokdiagram



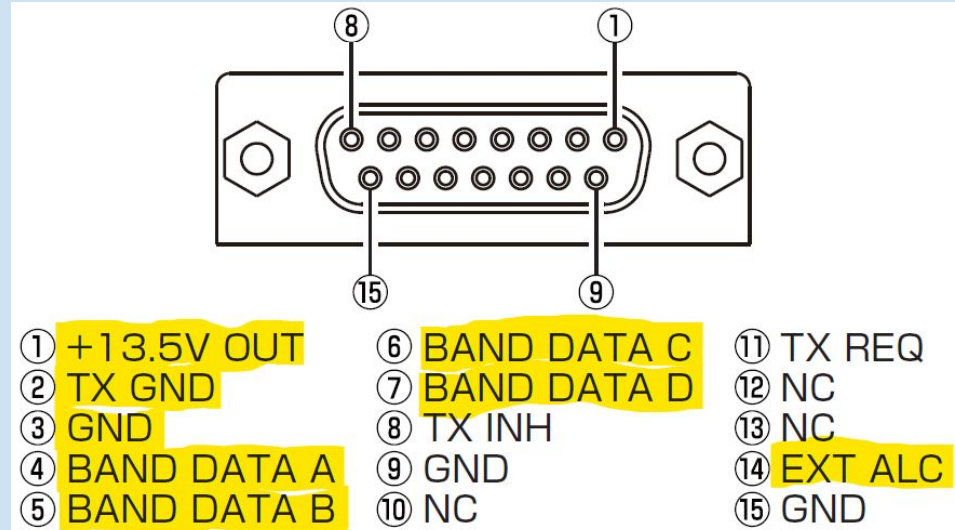
Overblikket



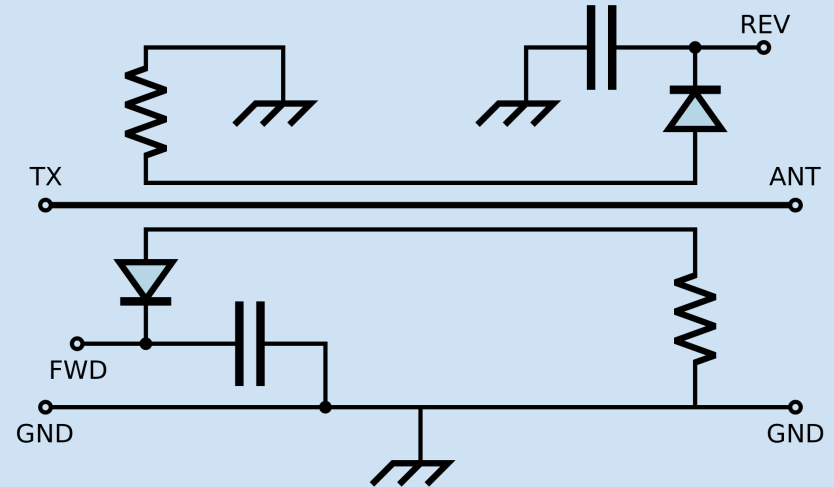
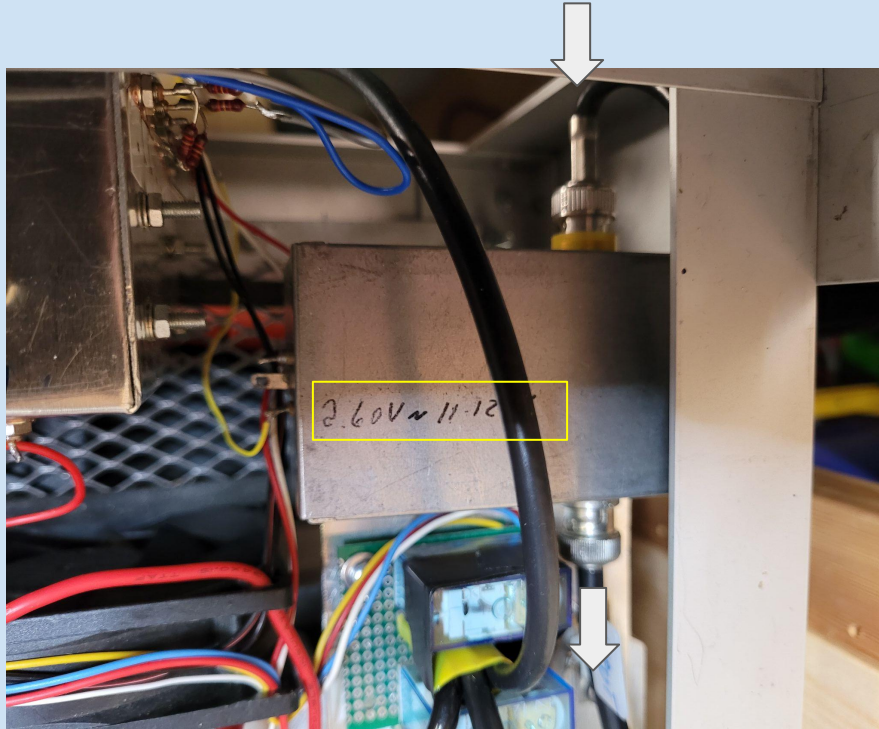
DTDX101MP

[Link til datablad](#)

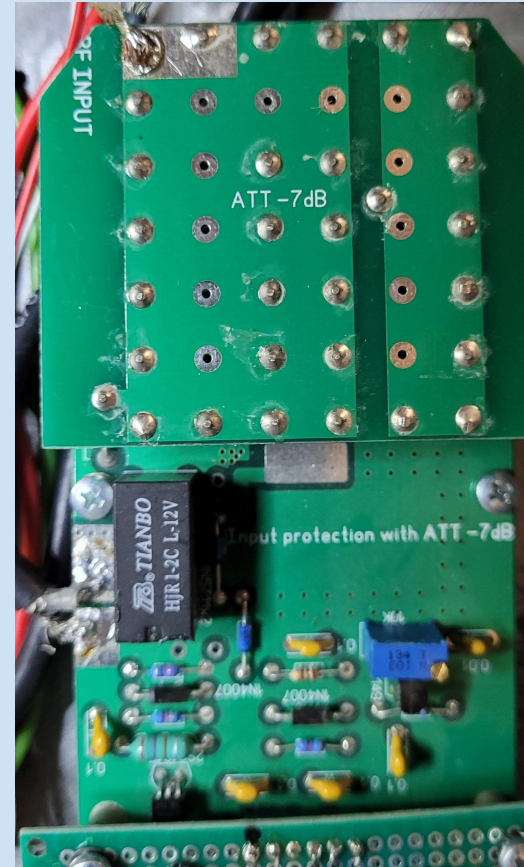
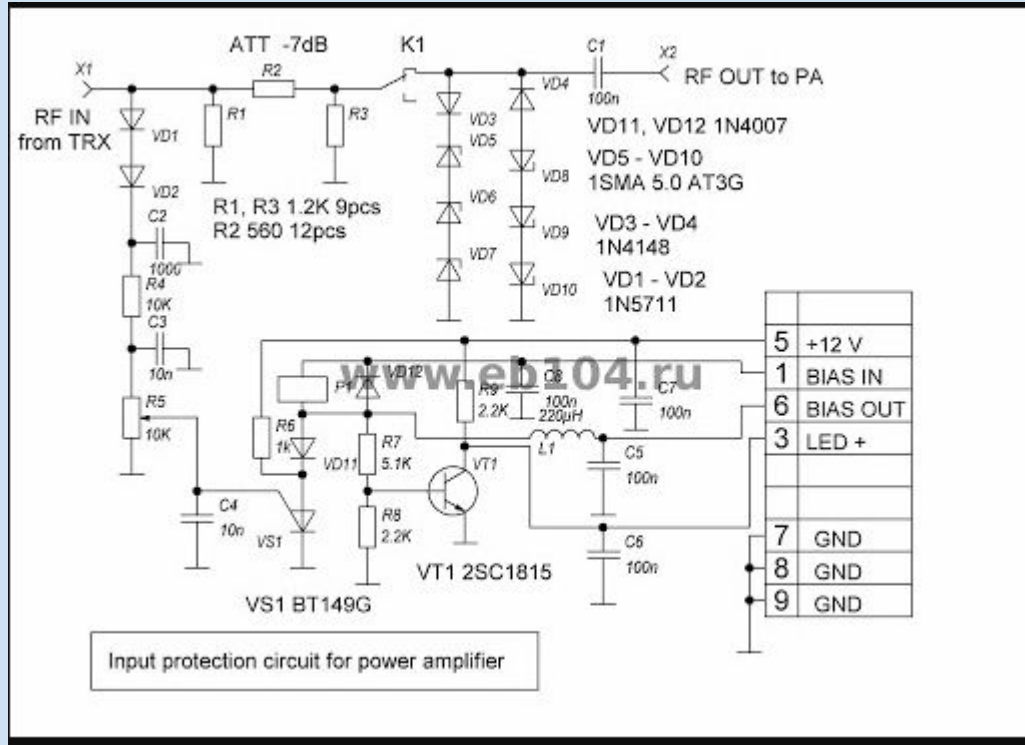
- Andre: FTDX1200, FTDX3000, FTDX5000, FTDX9000 og andre med tilsvarende muligheder
- Anvender BCD-kode til bånd
- ACL 0 - -4 V



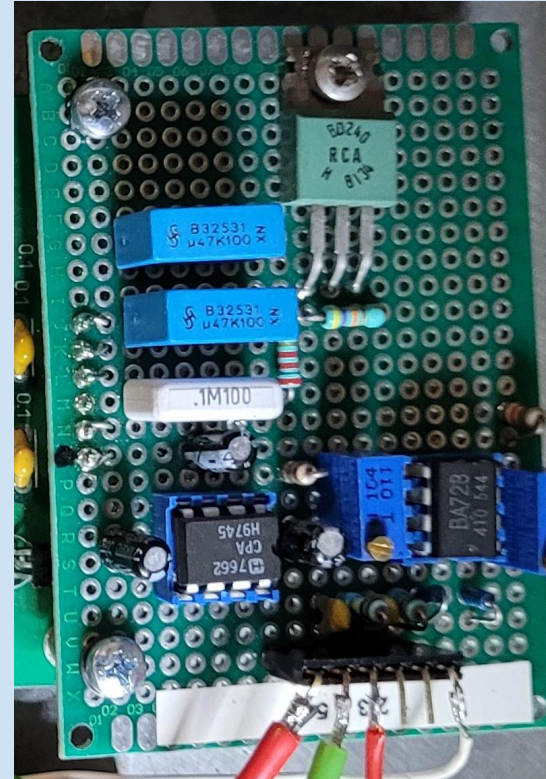
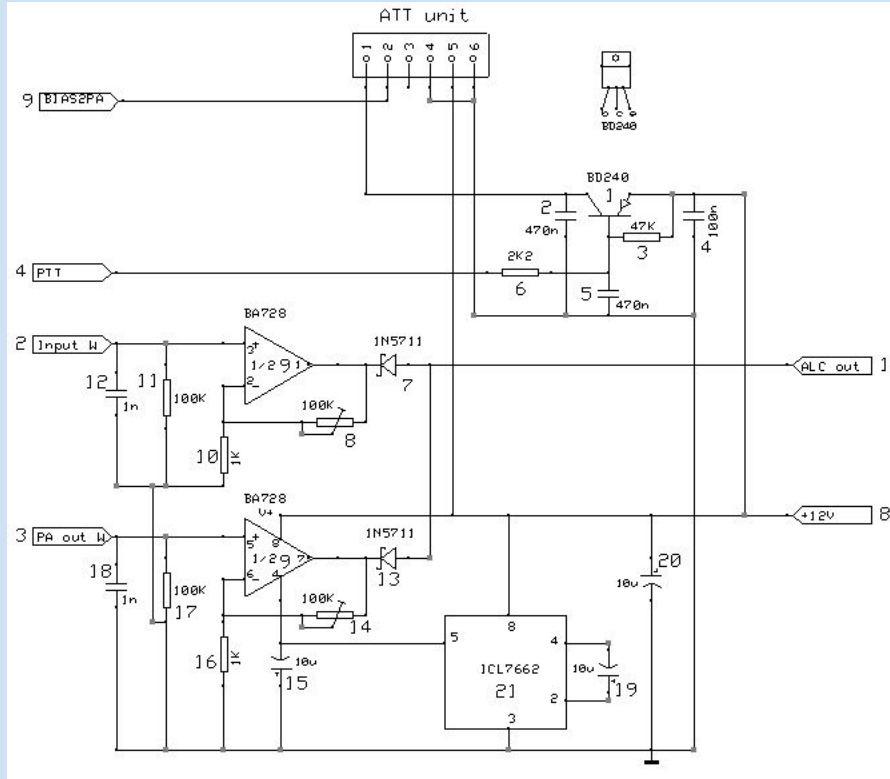
Input styrke



Attenuator

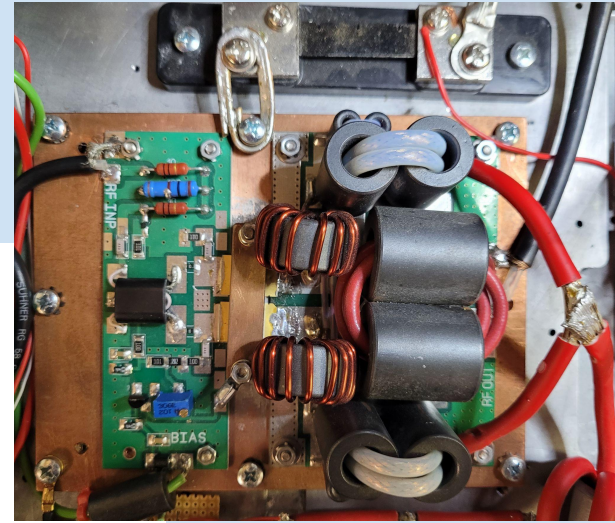
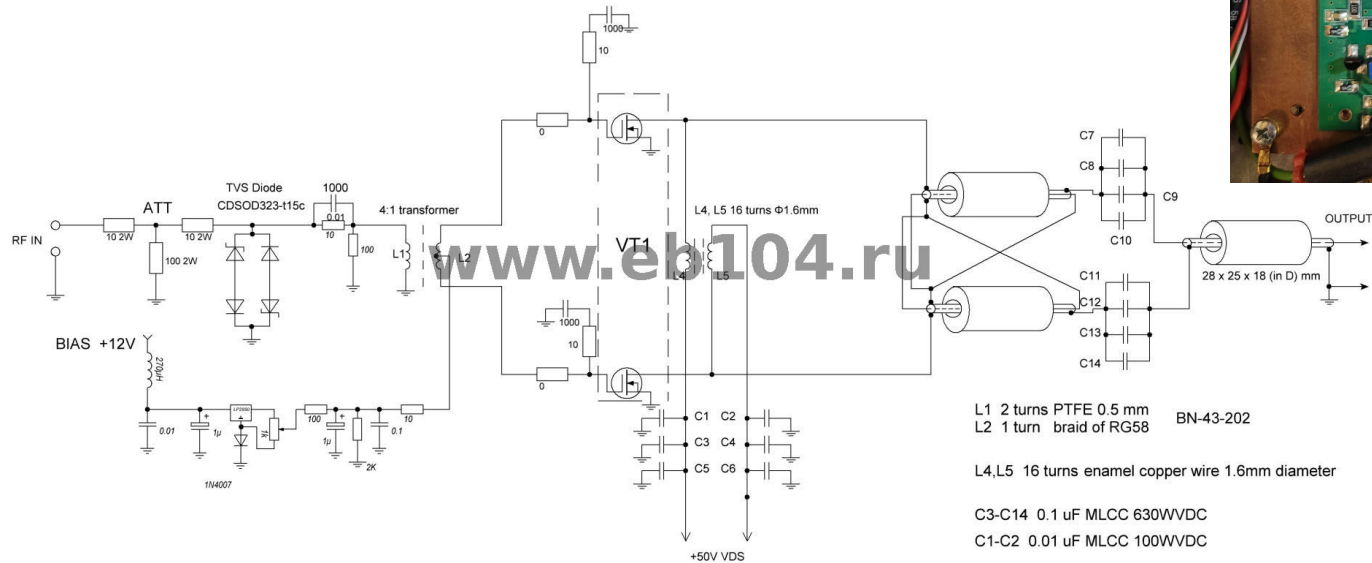


ACL - BIAS

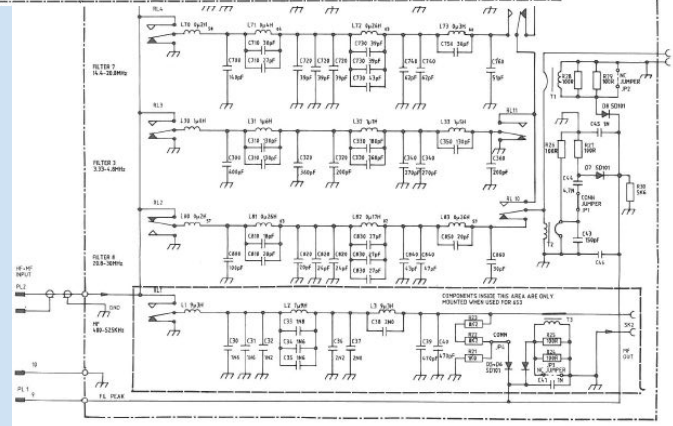
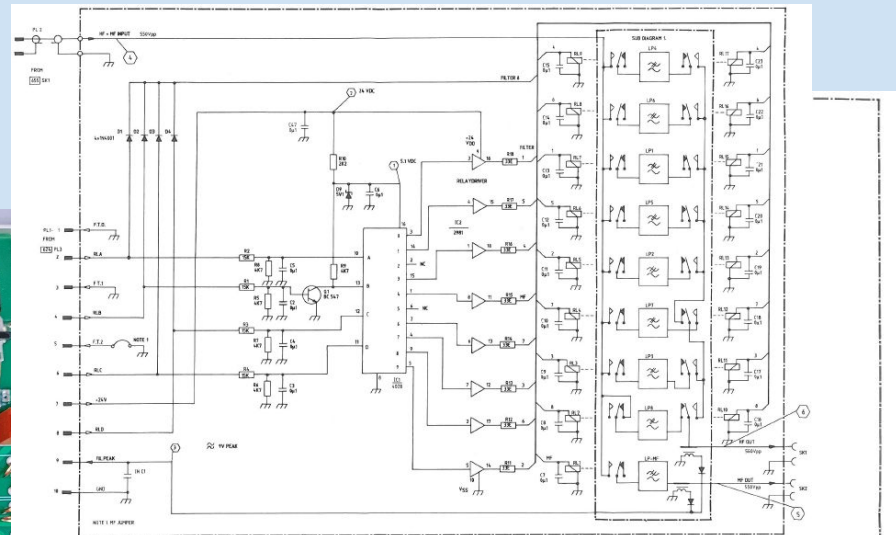
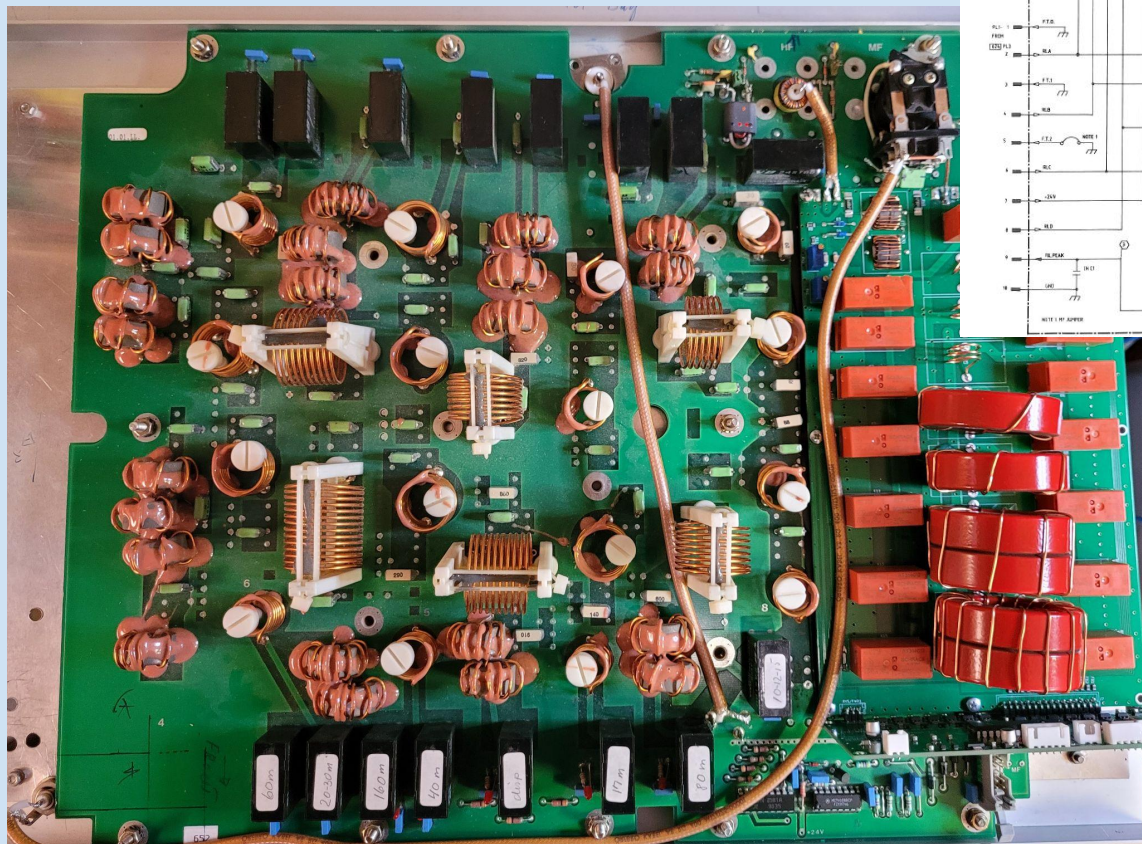


PA trin

✓ PA1200W 1200W LDMOS HF POWER AMPLIFIER BLF188XR, BLF578, MRF1K50, MRF1K8
ver.0619

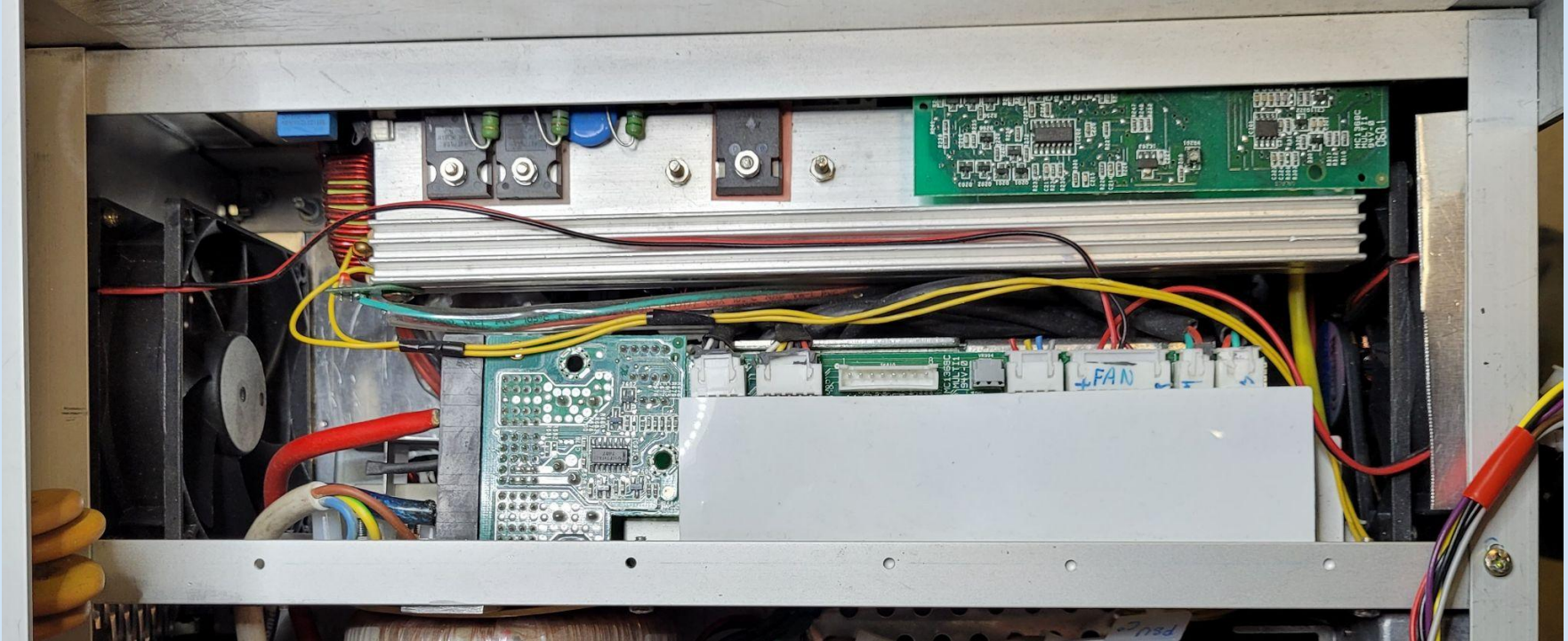


Båndpasfilter



ATU-N7DDC, Version(7x7) of the ATU-0.3-1Kw from eu2av.

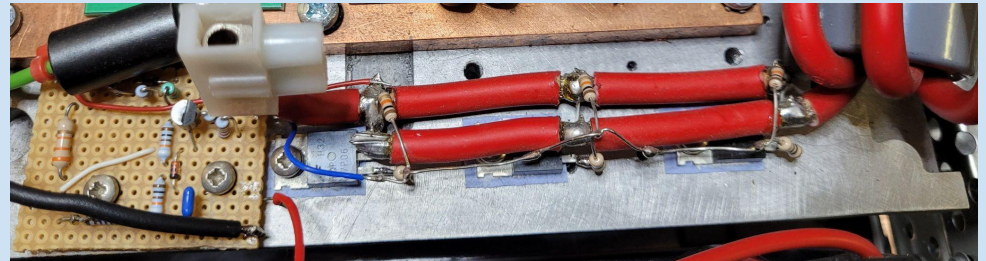
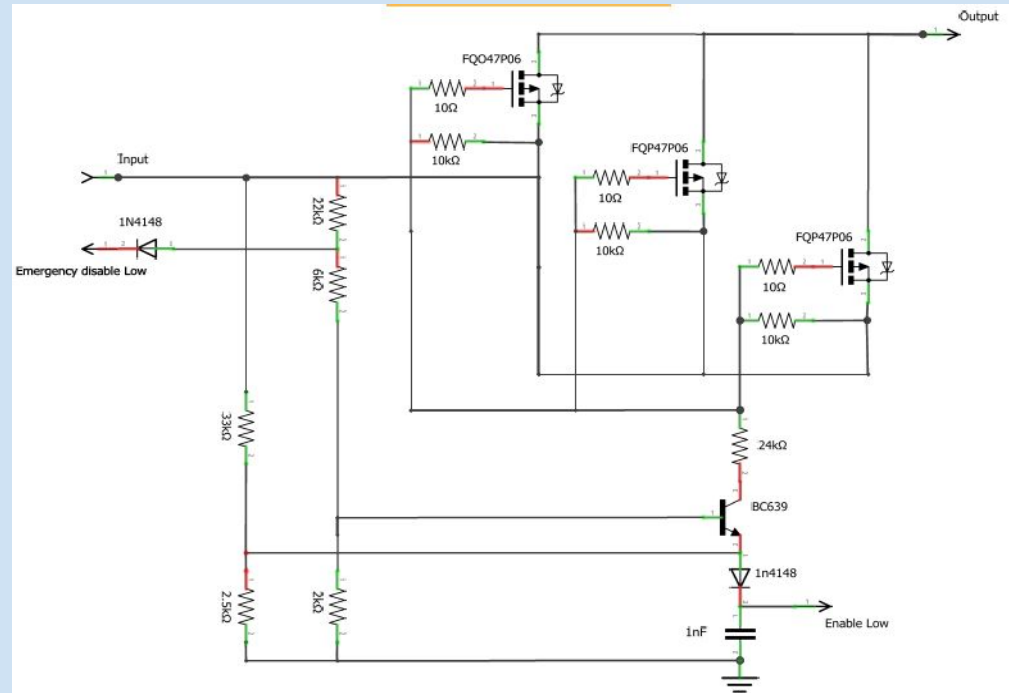
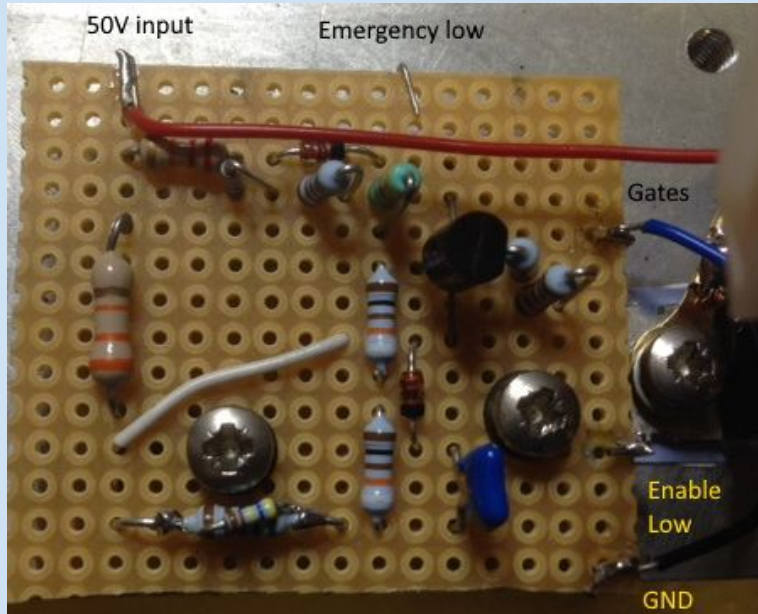
48 Volt - 40 Ampere strømforsyning



HPS3KW 48V 57A server strømforsyning

Power switch

- Tænd/sluk PA power
- Quick alarm shut down

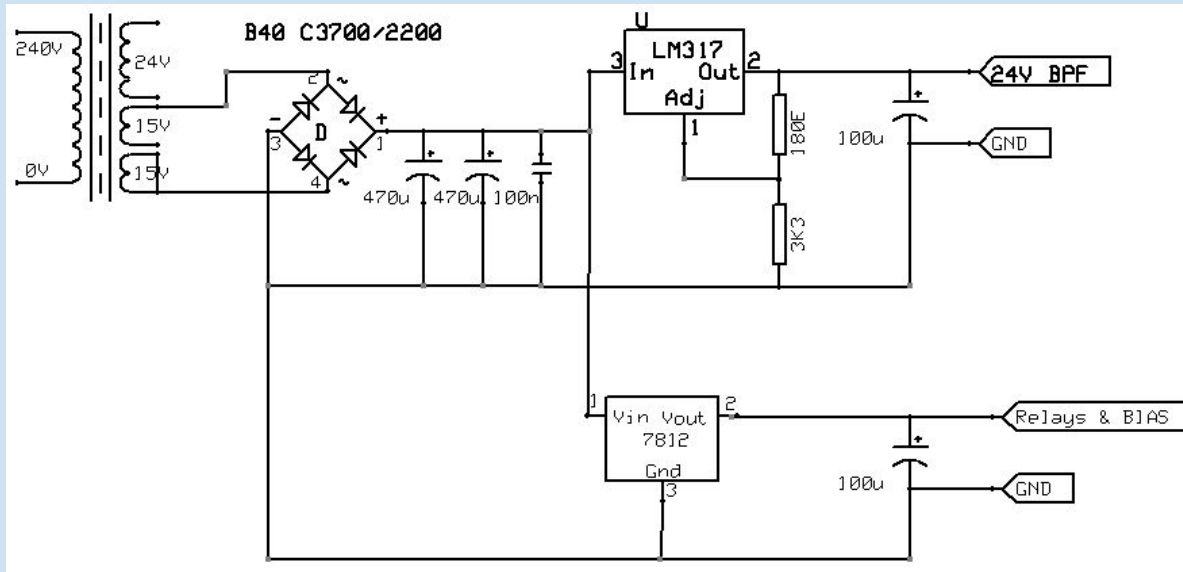


Alarm unit

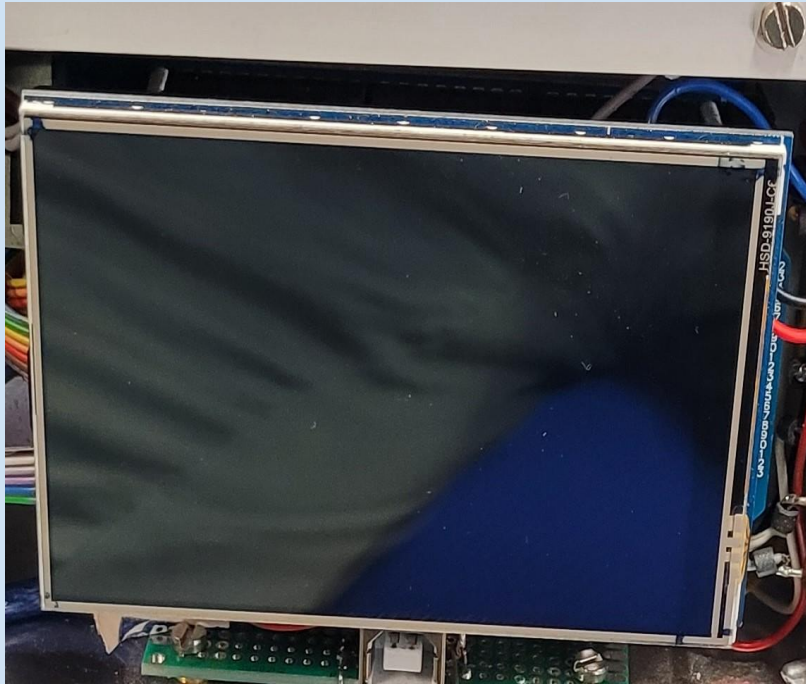
- Overvåge uden om Arduino MEGA
- Hurtig aktion på advarsler og alarmer
- Er endnu på konstruktionsstadiet

24 V 12 V strømforsyning

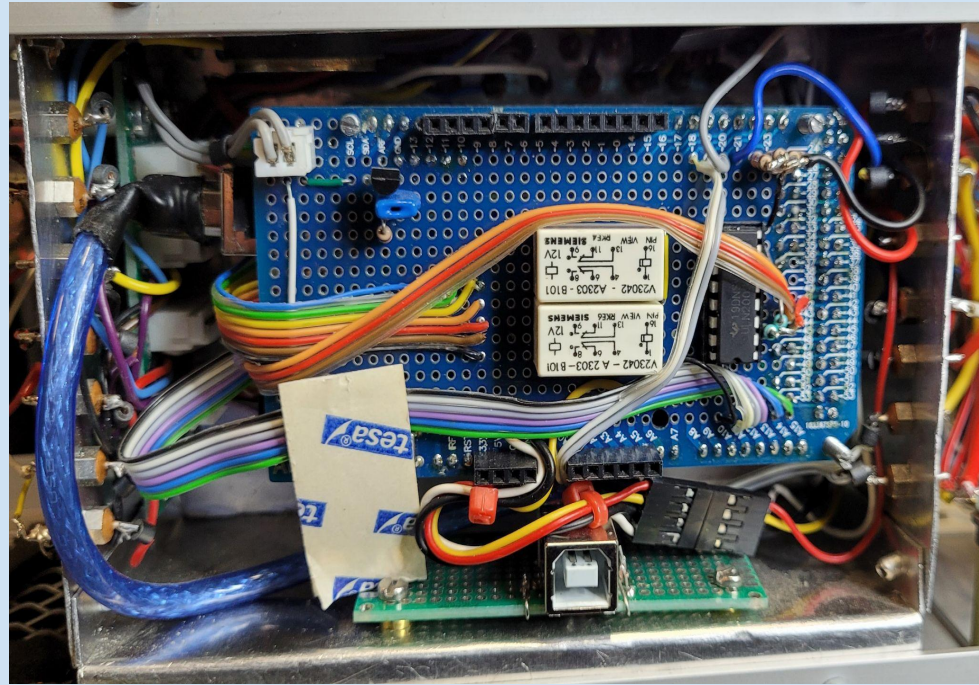
- Arduino MEGA tilsluttes 12V gennem en modstand



Arduino Mega unit

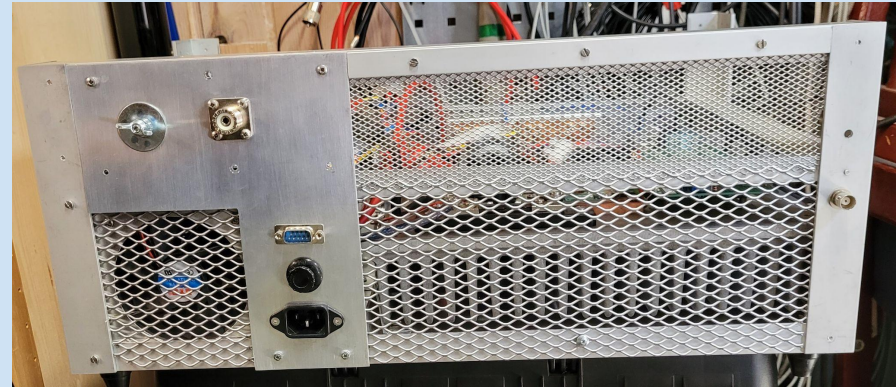
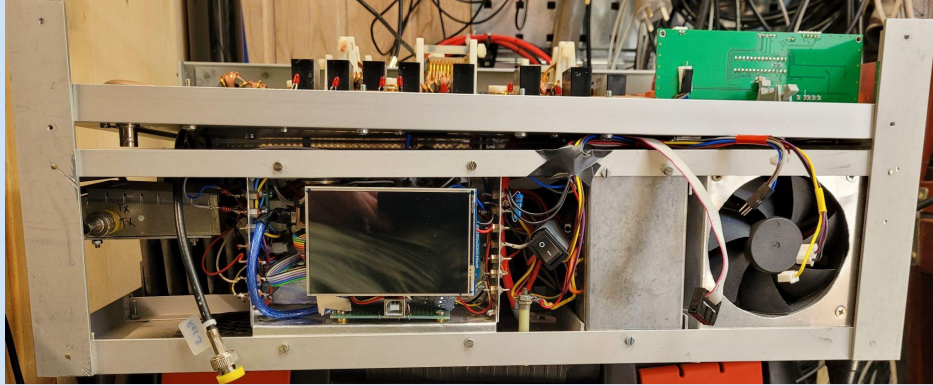


TFT skærm monteret



MEGA boks uden TFT skærm

Front og bagside



FTDX101MP og PA

PA opstart

Status pr. marts 2022

- Alle hardware units er færdige og testede undtagen alarm
- Programmeringen er overordnet på plads
- PSU og PA testet op til ca. 800W AM bærebølge
- Input, attenuator afstemt til 10 - 12W output fra FTDX101MD
- Tilslutning og båndskifte virker
- Konvertering af BCDkoder imellem FTDX101MP og båndpasfilter virker
- Kontakt mellem Arduino MEGA og relæer virker
- Logning til SDkort af udvalgte hændelser virker

Udviklingsmangler og -muligheder

- Sequencing ved PTT on-off
- Styrespænding til eksternt antennerelæ
- Setup forbedres
- Alarmhåndtering
- ATU implementeres fuldt ud
- Kodeoptimering som vil speede afviklingen op
- Trinvis ventilatorstyring