



Digital radio for local radio

HFPrints

(member of DAB partners)

**DAB easydab modules
and amplifiers pallet
for experience.**

2025

Introduction:

Since the software defined DAB modulator from Sergey is working, the local radio is experience with this modulator and makes complete transmitters with this Easydab boards.

Also in the Netherlands the local radio testing with this modulator and some stations built a complete transmitter for test.

Rene Stevens from **HFPrints** built also a few transmitters and bandpass mask filters.

In the beginning **HFPrints** bought the boards in Ukraine by Sergey, but he has production problems to buy components and some other quality issues.

End of 2017 **HFPrints** copies the board and after modify some components he produce a series of 50pc (with permission from Sergey). The next series is started.

But not only the modulator, **HFPrints** has more modules for DAB.

For radio stations who will experience with DAB, we has complete modules for you..

Experimenting with DAB is quite fun, but for making self a transmitter, there are international rules Your transmitter must comply with international standards. Not only the broadcast spectrum, but also EMC and safety.

This requirements if for the hole EU and UK the same.

Now you can still build a transmitter, provided that you follow and measured to this standards.

Self-building can therefore only be done by experienced people who regularly work with this type of equipment.

DAB is a multi-carrier system, which makes inter-modulation distortion, the so-called shoulders next to the broadcast carrier. How more power, the higher those shoulders. With a non-critical mask, the signal at a 3 MHz distance must be -80dB, and a separate transmitter does not make it. So you are always used a special filter for this.

HFPrints can help you to make a channel with the current standards. Of course you must have the channel inspected by the inspected body (agency of Telecom, in UK Ofcom)

**We also notice that the components quickly become more expensive, sometimes by 50%.
Unfortunately, we had to adjust prices.**

information: info@hfprints.com

All prices are excl 21% VAT. For export (out of EU) and users with a EU VAT number, this is your price, without EU VAT we must ask 21% extra for the VAT. You can check this at

https://ec.europa.eu/taxation_customs/vies/?locale=nl

(price in brackets includes VAT)

(DAB Partners, are a number of Dutch companies who works together for low budges DAB systems for local radio)

In the Netherlands, some 2th hands equipment's for sale as transmitters and filters.

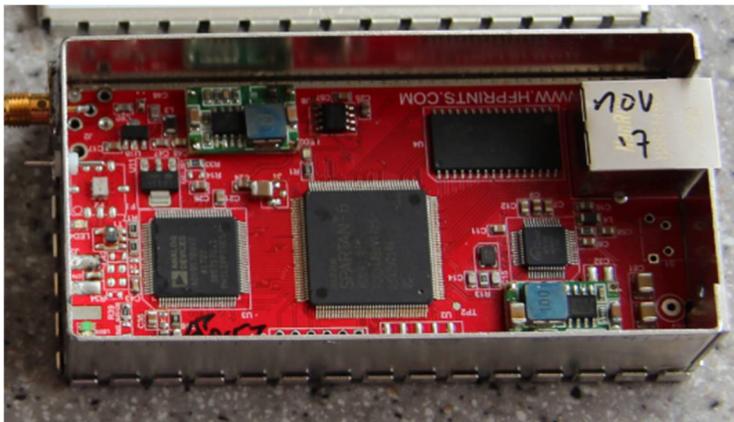
Modulators:

Bare boards, the PCB is assembled and tested without a shielded case. This is the cheapest DAB modulator board.

The PCB is 50 x 100mm and 1mm thick, so use it carefully.



Easydab module, complete assembled, soldered into a RF shielded tinned can. Tested RF level 1 to 4 mWatts out. The tinned can give more mechanical and thermal stability than the bare board.



Price Pcb in shielded case € 300,00

GPS board with connection to the DAB board. The board can be plug in to the modulator. It works with the professional **LEO-M8F** from Ublox, who give a better, much better performance than the cheap NEO-7M gps module. (sometimes the NEO configuration will not locked for SFN)



price GPS board € 150,00

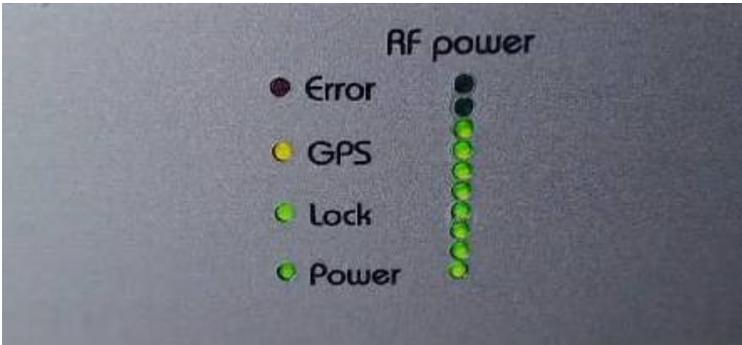
Complete modulator module, including a power detector, frontboard with led, ledbar for RF etc. blower control. Dc in is 12V with internal DCDC converters. Modulator is in a RF shielded can. 150 x 80mm. At the board there is also a temperature controlled supply for a fan.



Price Excl GPS € 380,00
Incl. ledbar

Price Incl GPS € 530,00

GPS antenna € 50,00



Ledbar indication.

19" systems with the brandname DAB+ partners

The complete modulator, frontprint and powersupply to 230V in a 19"case.



(photo, prototype of the complete exiter and mini computer as multiplexer)

Price Excl GPS € 800,00
Price GPS option € 150,00
GPS antenna € 50,00
(price without multiplexer)

Amplifiers boards:

Pallet amplifiers 15 – 20 Watts

2 stage amplifier, 1 – 2 mW in, about 15 to 20 Watts out. There is an RF detector on board so you can see the output. Detection voltage 0 – 1.5V

The board and transistors soldered on a copper baseplate and must be placed on a flat heatsink.

Power is 48 - 50V and about 2A (12V 0.25A for the driver)

Dimensions: board with components 113 x 70 x 10mm

Prices pallet, board and components on a copper plate (tested) € 250,00

Without heatsink, You must drilling (1.7mm) and tapping the heatsink. A good heatsink is absolute necessary. If you mount this amplifier as a driver on a big amplifier heatsink, it is good. Pallet is including the M2x8mm screws.

Pallet mounted on a heatsink 200 x 200 x 25 mm € 300,00

Pallet including a DCDC converter and 12V fan controller , 50V in € 350,00

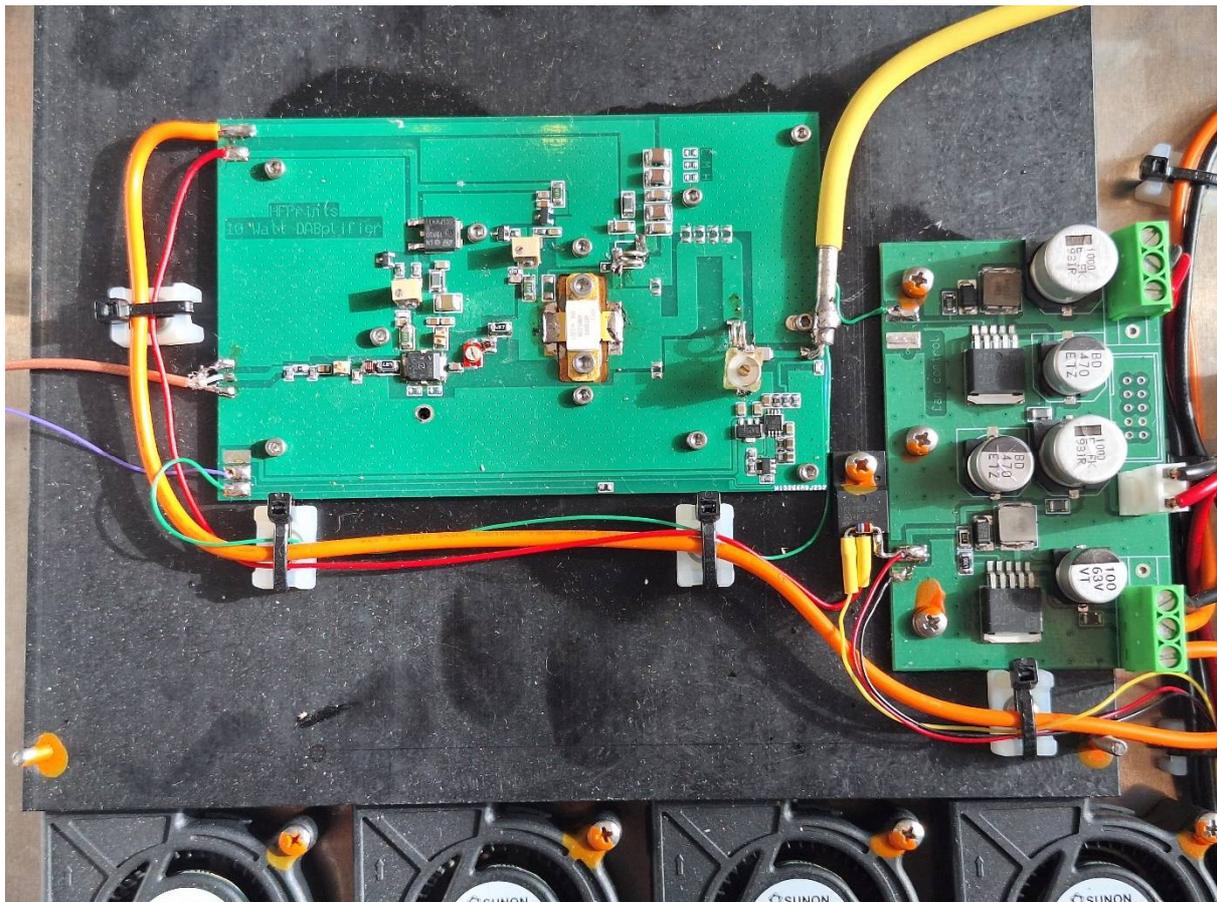
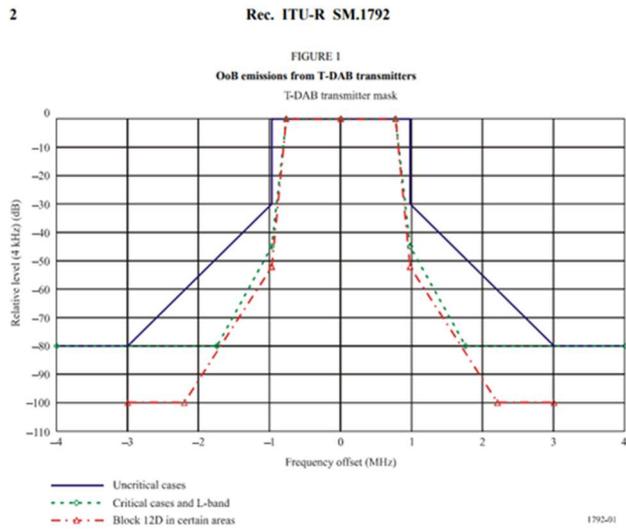


Photo: amplifier board at heatsink and DCDC board. DCDC board also incl fan controller and 12V for the modulator.

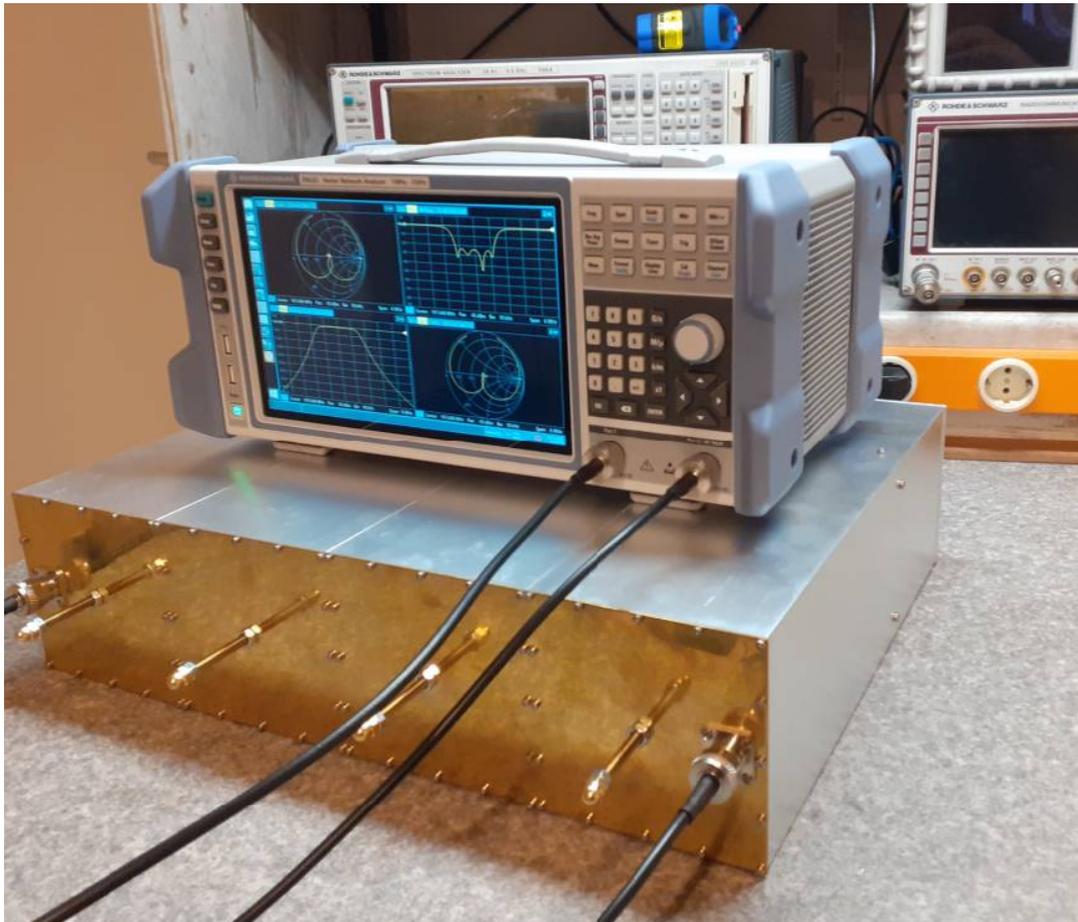
Filters: 500 Watts cavity DAB filter for uncritical mask.

When transmitting a DAB + signal, non-critical standards must be met as described in the ITU-R SM1792. If you look at those conditions, you will see that a filter is required behind every channel. The better the signal from the transmitter, the easier the filter can be. Because the 75 and 150 Watt transmitter already has a good spectrum, then the filter may be a lot easier.

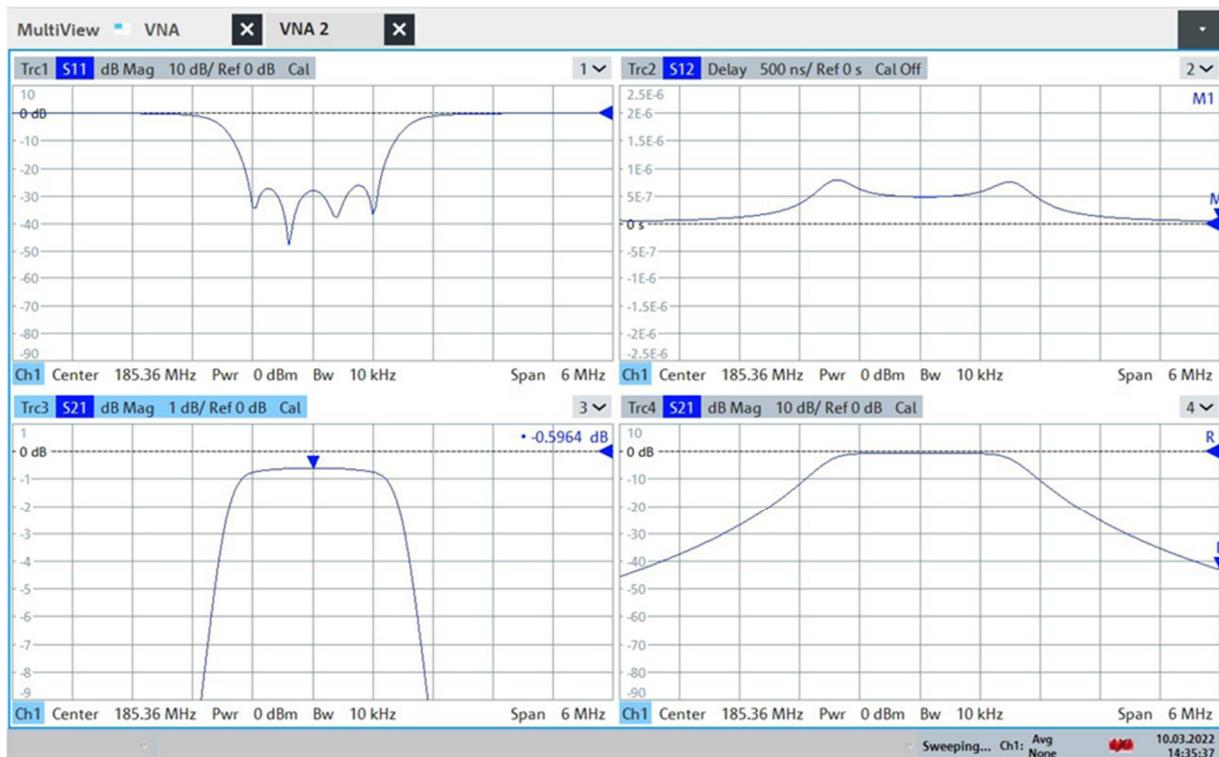


Here a picture of the ITU requirements (spectrum) Blue is the non critical mask

Photo, the DAB uncritical mask filter, 4 cavity filter under test.



Measuring results:



Upstairs left	reflection loss	better than 25dB
Upstairs right	Group delay	typical 400ns
Downstairs left	attenuation	typical 0.6 – 0.7 dB
Downstairs right	characteristics in 6 MHz bandwidth	3 MHz spacing > 40dB attenuation.

The filters are no longer in production, but in the Netherlands several filters are redundant, because after a frequency change the conditions have also changed from uncritical to critical.

**Contact HFPrints, and give us your channel. Then we can find out if a filter is available.
Price indication 350 to 400 euro**