

Oscar 100: 2th generation PE1CMO up and down converter.

End of 2022 PE1CMO launch the 2th generation up and down converters for the QO100. These converters can be combined to a duplex or simplex transverter.

Downconverter.

This downconverter is a combined downconverter and a 25 MHz PLL reference for the LNB. The converter works as a 2nd down converter from 739 to 432 MHz. (The first converting is the pll controlled LNB from 10489.5 to 739.5 MHz).

Other output frequencies such as 144 or 28 MHz on request. The standard basic converter is a 25 MHz reference and down converting to 432, 144 or 28MHz, without a TX pad. For simplex or transceivers with a high power, an extra 20 Watt TX attenuation is possible in the comply model.

Both down converter is produced into an aluminum diecast-box of 115 x 64 x 32mm with SMA connections.

DC power is 10 to 15V 200mA

Converter and 25 MHz LNB reference are controlled by a 10 MHz GPSDO reference

Photo : The down converter in a diecast box.

This model is including a TX/RX switch and attenuator for the TX line



Price basic € 200,00 comply € 250,00 incl VAT (without shipping)

Upconverter

This module is a complete high power up converter from 70cm to 2400MHz for the QO 100 uplink. With a 70cm power from 100 to max 500 mWatts you make about 12 Watts at 2400 MHz for the QO 100 uplink. At the input of the upconverter there is a 500 mWatt attenuator with SMD resistors. After the attenuator a Potentio trimmer adjusted the good input power. (more power can possibly be attenuated in the downconverter to a safe level) GPS reference. The transverter has a 10 MHz reference input. For stable working a GPSDO is necessary. Idea is a BG7TBL design. At Ebay are enough links. Without an external 10MHz reference, the upconverter is not working.



Picture left:

The upconverter including the heatsink.

Connections SMA

Power supply

28 – 30V 1.3A

12 – 15V 0.6A *1

PTT to ground is transmit mode

*1 possible to connect at 28 – 30V but then there is a lot of heat dissipation.

Dimensions : up converter is an aluminum diecast box from 115 x 64 x 32mm, heatsink is 150 x 75 x 27mm totally 150 x 75 x 60mm

Price € 325,00 incl VAT (without shipping)

A 28 to 432 MHz upconverter coming soon.

Rene Stevens, not only a radio amateur with the call PE1CMO, but also a radio engineer in his own company for wireless reporting systems for the broadcaster. In this way he has sufficient experience in the development and production of high-quality HF systems. Whether this is for the professional broadcaster, or Radio amateurs does not matter.

For professional reporter products for broadcasters: www.hfprints.com



Here a demo for RAC1 radio in Barcelona, Renè, PE1CMO on the right.

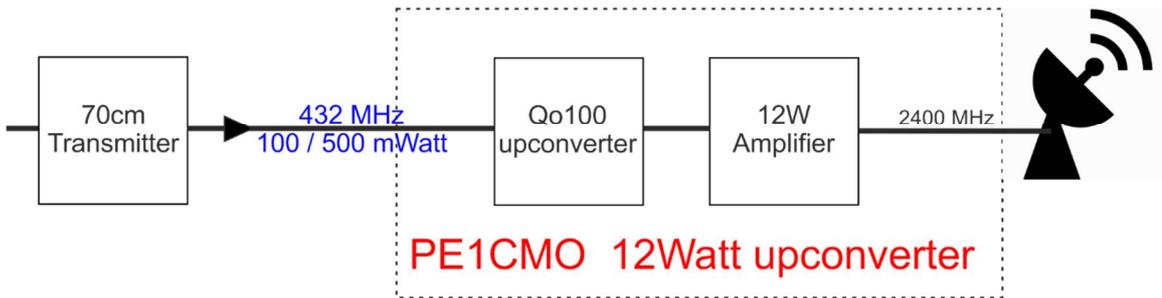
All prices are including VAT

Shipping:

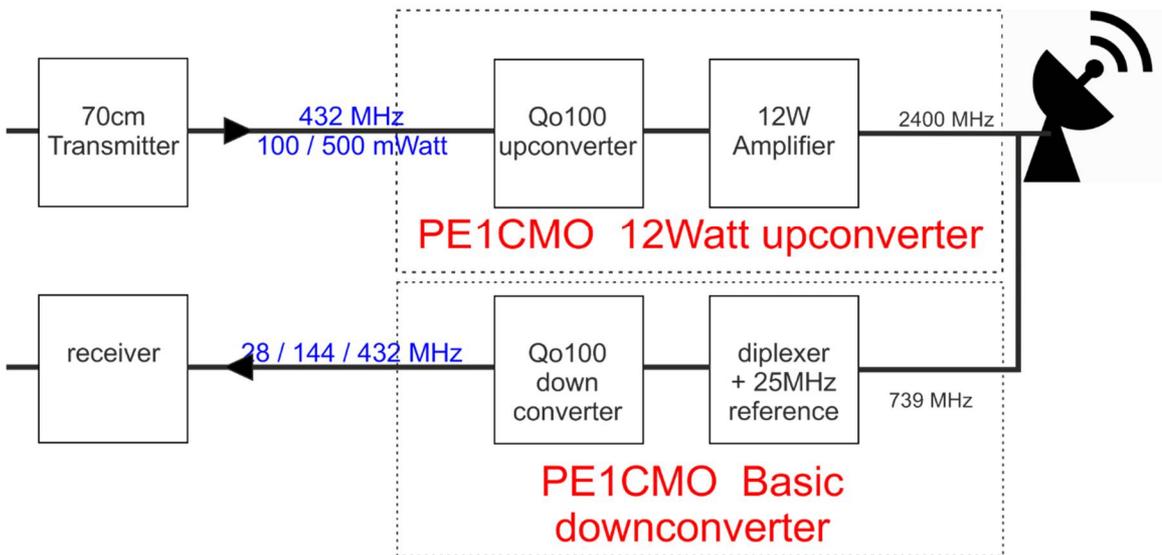
NL	7,50
EU	24,00
World	40,00

2th generation Qo100 products of PE1CMO

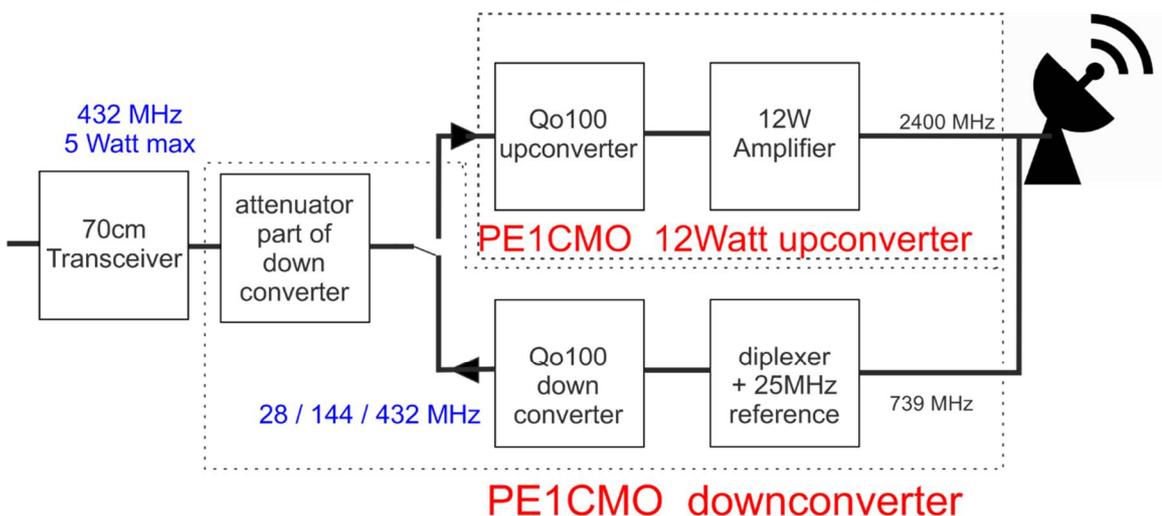
TX only setup.



Duplex setup.



Simplex setup.



Simplex setup:
the RX/TX switch and attenuator
is implement in the downconverter