



The new amplifier from DXpatrol to QO-100 2400Mhz 12W

Base on the new BLP9G0722-20G we present this new simple amplifier  
That will make easy to set a QO-100 satellite station

The amp is in a conservative output power of 12W, but 20W is possible to  
achieve without any modification.

The amplifier gain is about 25dB, so the drive optimum is ~ 50mW to 100mW

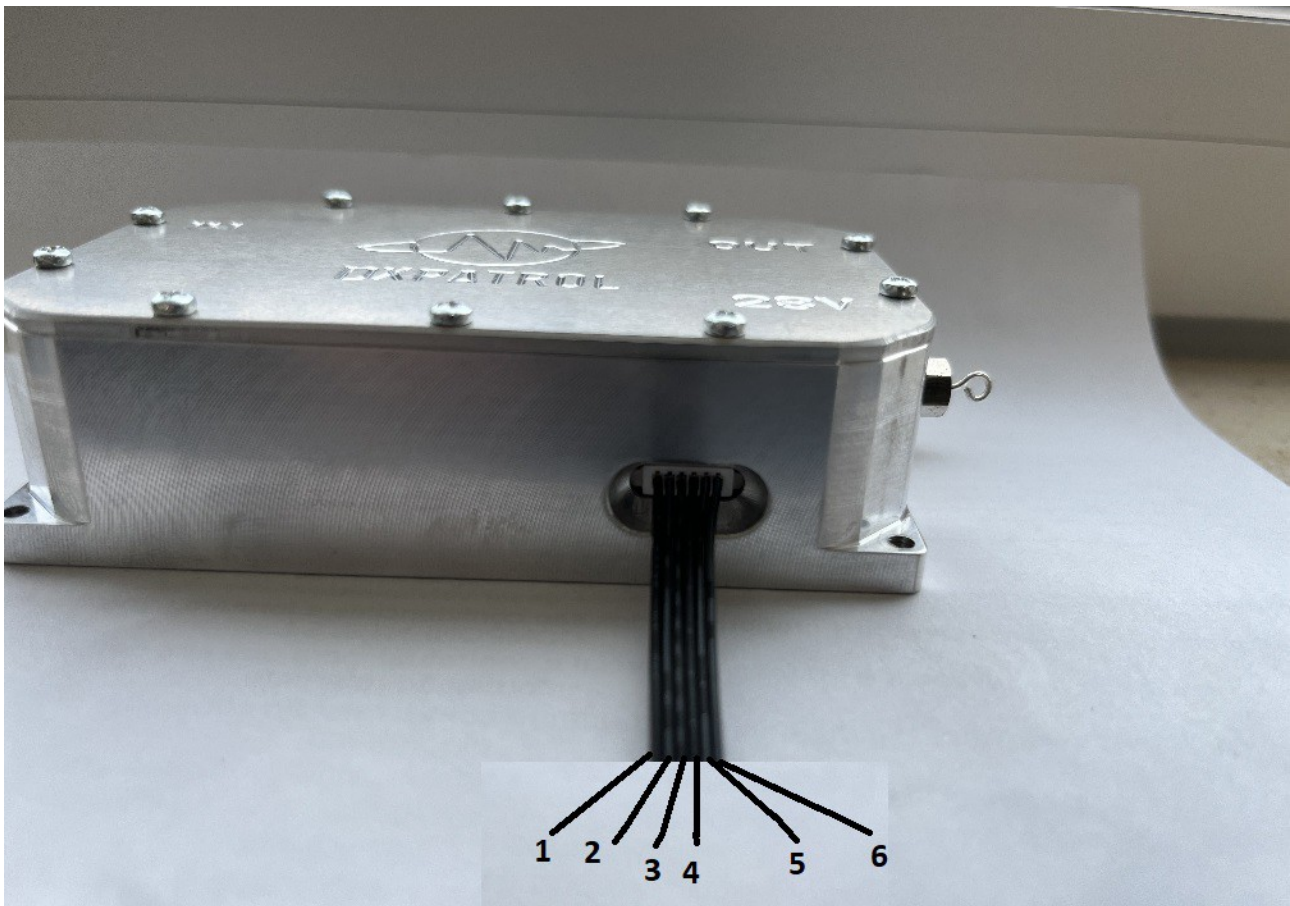
Power output 50mW in for 12W ( 100mW for 20W out)

The Voltage is 28V DC and will drain up to 2A

Amp external dimensions : 97mm X 62mm X 26mm

The 4 holes on sides are M3

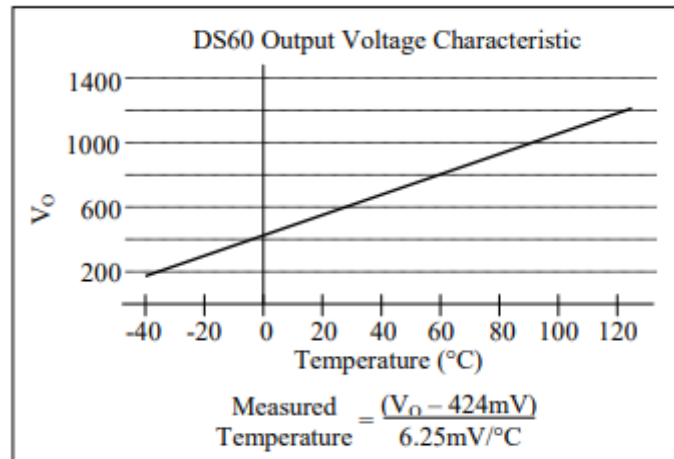
Despite the rugged aluminium box, a heat-sink will be needed to avoid over heating.



### Amplifiers Wire Flat Cable connections:

- 1- PTT ( TX ground) The amp will turn into TX mode when grounded this wire.
- 2- DC 5V input for Temperature Meter
- 3- Temperature reading ( see below )
- 4- SWR reading
- 5- Power reading
- 6- Ground

Temperature reading is based on the DS60R+T&R



You will need a well stabilized 5V supply on Wire 2. Temperature will be presented on wire 3 as table.

The Power reading meter is based on the internal directional couplers. Power and SWR can be fairly read by the DC voltages presented on these wires.

Average Power V/W

-12W Power; 3,650V

-6W Power : 3,470V

-4W Power : 2,75V

-2W Power : 2,00V

Reflected Power V/W

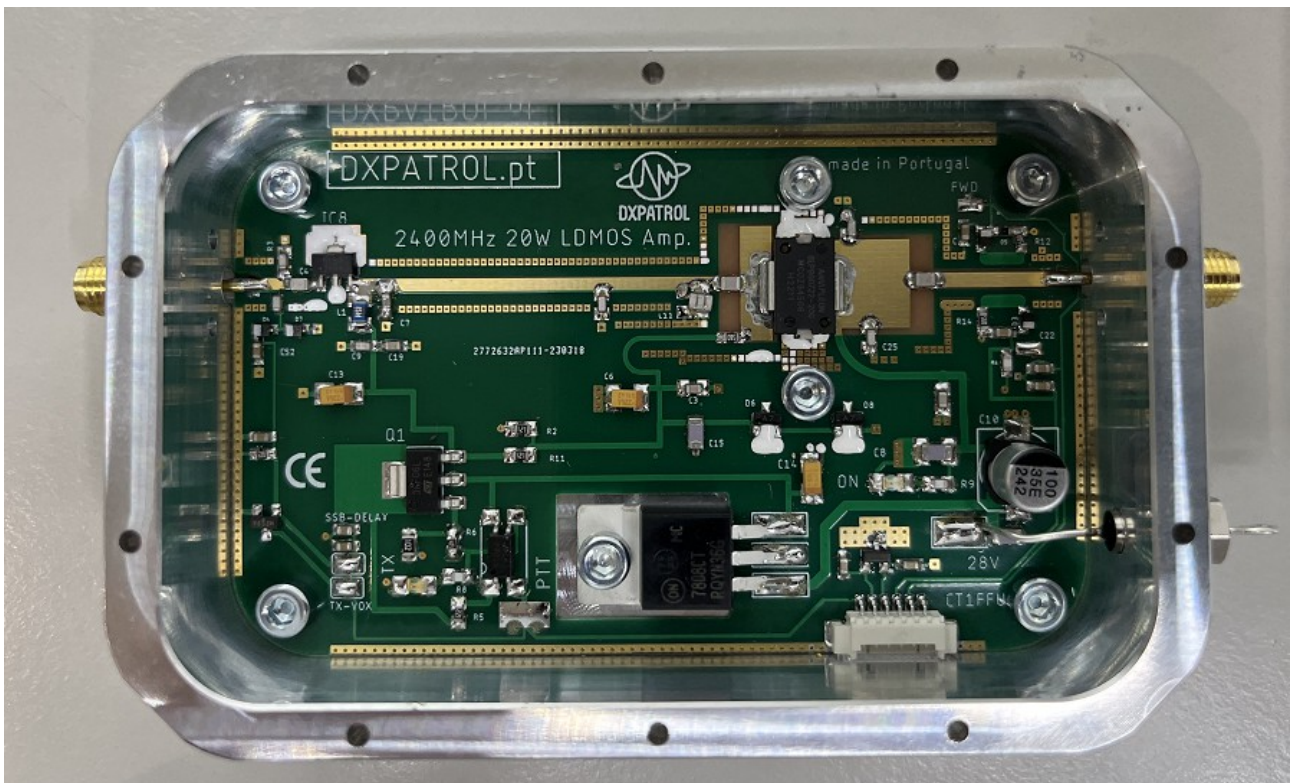
Perfect match 1:1 should present 200mW

Infinite SWR would present 3,60V.

The return power voltage is nearly similar to the values presented on the Forward power but inverted.

The amplifier have an internal Vox and will trigger the amp into TX mode with the driving power of more than 40mW

DC voltage 28V – 2A wire solder into the Feed-through SMA in and out RF connections



Have fun

Best 73

A. Matias

CT1FFU

[www.dxpatrol.pt](http://www.dxpatrol.pt)