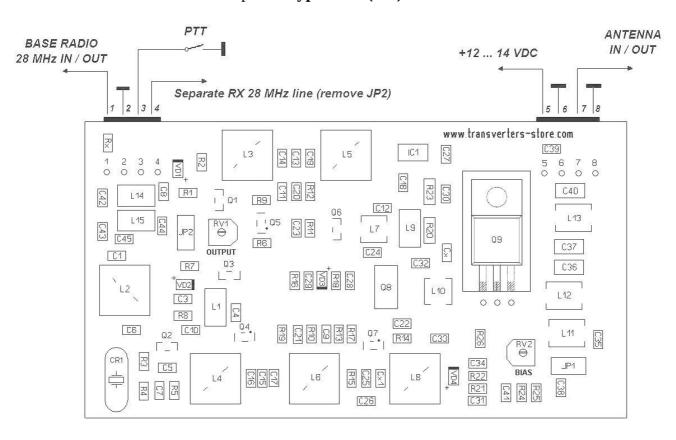
### **70/28 MHz TRANSVERTER BOARD**

With this Transverter board you can work on **4 meter** band using any type of the HF radio that has **10 meter** band. It would work the whole 4 meter band at **70 to 72 MHz** if your base radio has the **28 to 30 MHz** band. It works any modes such SSB, CW or FM if its available in your radio.

# **Technical specifications**

- RF range 70 ... 72 MHz
- > IF range 28 ... 30 MHz
- IF input power 1 ... 50 mW (0.05 W max.) or 0 ... 17 dBm
- LO frequency 42 MHz
- Output power 10 W
- RX gain typ. 20 dB
- > Noise figure typ. 1.0 dB
- Image rejection typ. 70 dB
- > PTT control Contact closure to the ground
- > Supply voltage +13.8 VDC (+12 ... 14 VDC)
- Current consumption typ. 1.3 A (TX)



#### **Pinout of the connectors:**

- 1. IF 28 MHz transverter input/output line
- 2. Ground
- 3. PTT line (ground it to switch the Transverter to the TX mode)
- 4. Separate RX 28 MHz line (remove JP2)
- 5. +12 V
- 6. Ground
- 7. Antenna 70 MHz
- 8. Ground

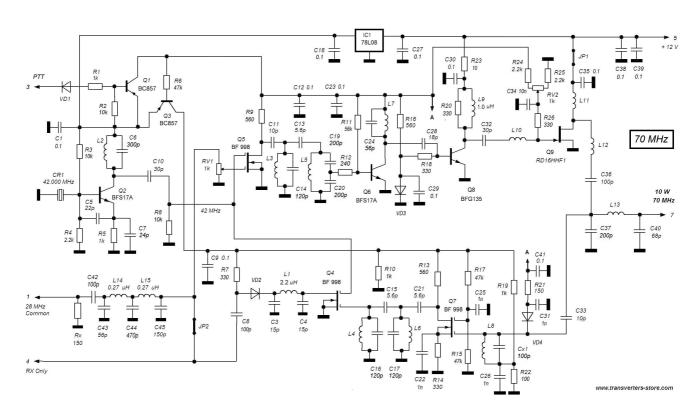
## To read the tips below and mount your transverter EXACTLY as it described.

- 1. **RF input** power to the transverter from your HF radio **should NOT be MORE** than **50 mW** (**0.05 W max**). You can adjust it using **RV1** pot on the board.
- 2. Initially Transverter set on the common IF 28 MHz RX/TX line on the pin 1.
- 3. Removing JP2 jumper allows you to use RX/TX lines separatelly (TX pin 1, RX pin 4).
- 4. DC supply is **+12 ... 14 VDC**
- 5. To get the transverter switched to the **TX** mode close the **PTT line to the ground.**
- 6. **RV1** pot adjusts **OUTPUT POWER** of the Transverter.
- 7. **RV2** pot adjusts **BIAS** of the output transistor.

## The transverter board suppouse to be mounted onto heat sink.

Using the metal bolts screw down the transistor onto the heat sink and then put a few nuts or washers under both mounting holes between the board and the heat sink so to get the board flat mounted above the heat sink about a few millimetres. Or you can use the pieces of plastic between the board and heatsink under mounting holes drilling the holes in and get the bolts through. Both mounting bolts should have a good contact to the transverter board ground. **The stable work of the transverter depends of this!** 

The output transistor is mounted onto the heat sink without insulation. To check mutual GROUND of the output transistor, heat sink and board. All RF RX and TX lines must be done using good quality coax cable!



**BE CAREFUL!** Driving power more than 0.1 W instantly kills the Transverter!

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