

# 1296 / 144 MHz Transverter V2.2

## Specifications

|   | Min.     | Typ.   | Max.         |
|---|----------|--|--------------|
| Frequency range RF  | 1240 MHz | 1296 MHz   | 1300 MHz     |
| Frequency range IF  | 144 MHz  |  | 148 MHz      |
| LO Frequency: Normal Mode<br>Repeater Mode: Shift 6 MHz<br>Shift 28 MHz |          | 1152 or 1150 MHz<br>1146 or 1144 MHz<br>1124 or 1122 MHz |              |
| LO Accuracy at 20 deg. C  |          | +/- 1 ppm  |              |
| LO temp. stability -20 ...+70 deg . C                                   |          | +/- 2.5 ppm  |              |
| Output Power  | 1.8 W    | 2.0 W  | 2.5W         |
| Power Supply  | 12 V     |  | 13.8 V       |
| Current Consumption   |          |  | 0.8 A        |
| Input Power   | 0.2 W    |  | 5 W          |
| Receive Gain , Adjustable   | -5 dB    |  | +10 dB       |
| Noise Figure  |          | 0.9 dB   |              |
| Dimensions  |          |  | 104x114x25mm |
| Spurious response   |          | < -55 dBc  |              |

## Features

**2W output power**

**Low noise figure , GaAs HEMT input stage**

**High performance UP / DOWN converters**

**High stability TCXO**

**Internal Tx/Rx switch**

**Possibility to work with split Tx/Rx (selectable , required soldering)**

**Internal Directional Coupler**

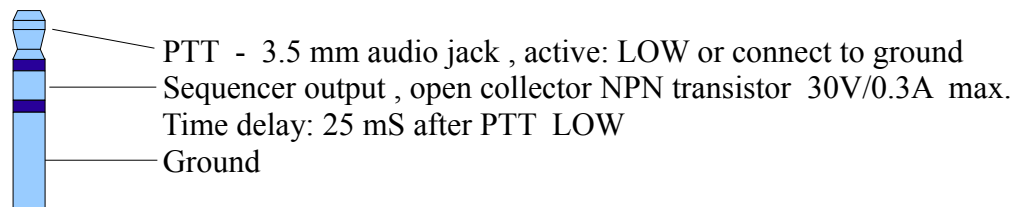
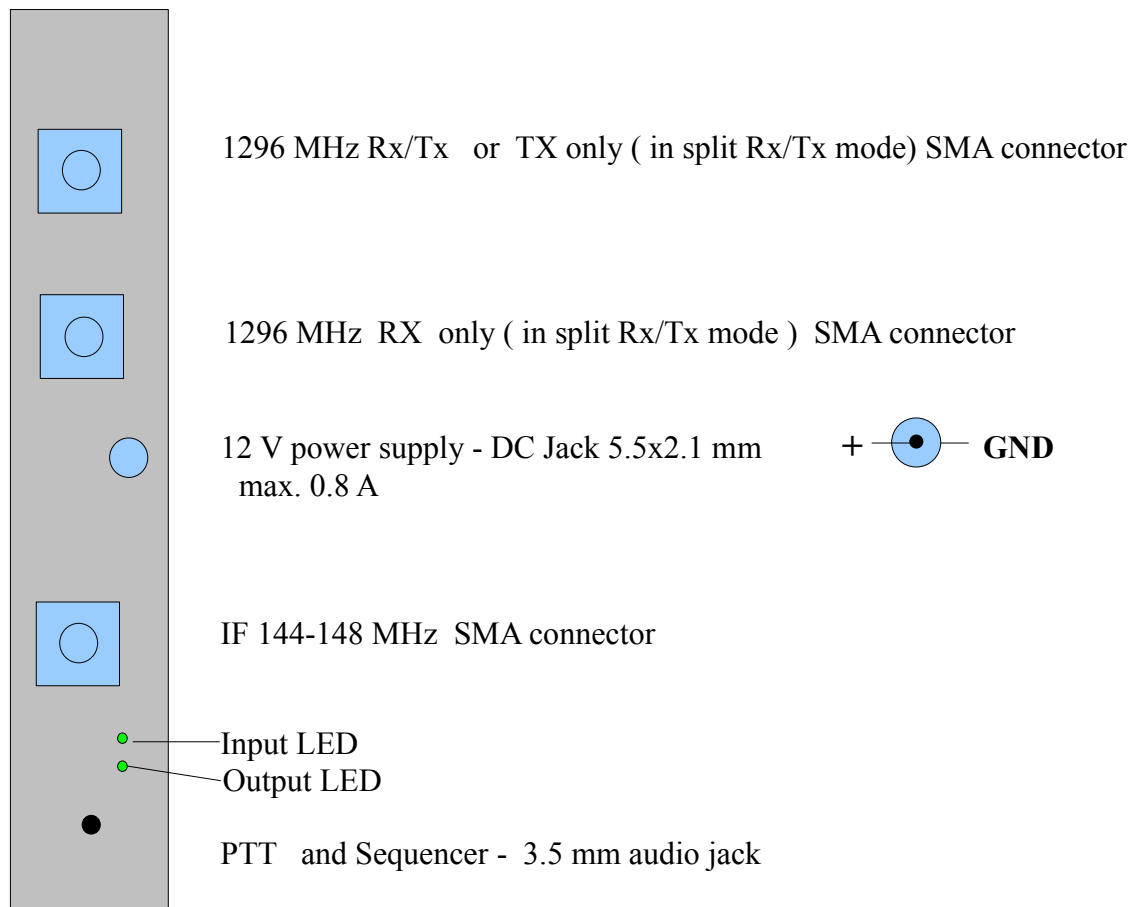
**PTT can be switched by connecting PTT to ground, by RF power (selectable) or by DC voltage**

**Output SWR indicator - bi color LED**

**Optimal input power indicator - bi color LED**

**Integrated Sequencer**

**Possibility to work with repeater : -28 /-6 MHz LO shift TX (selectable)**



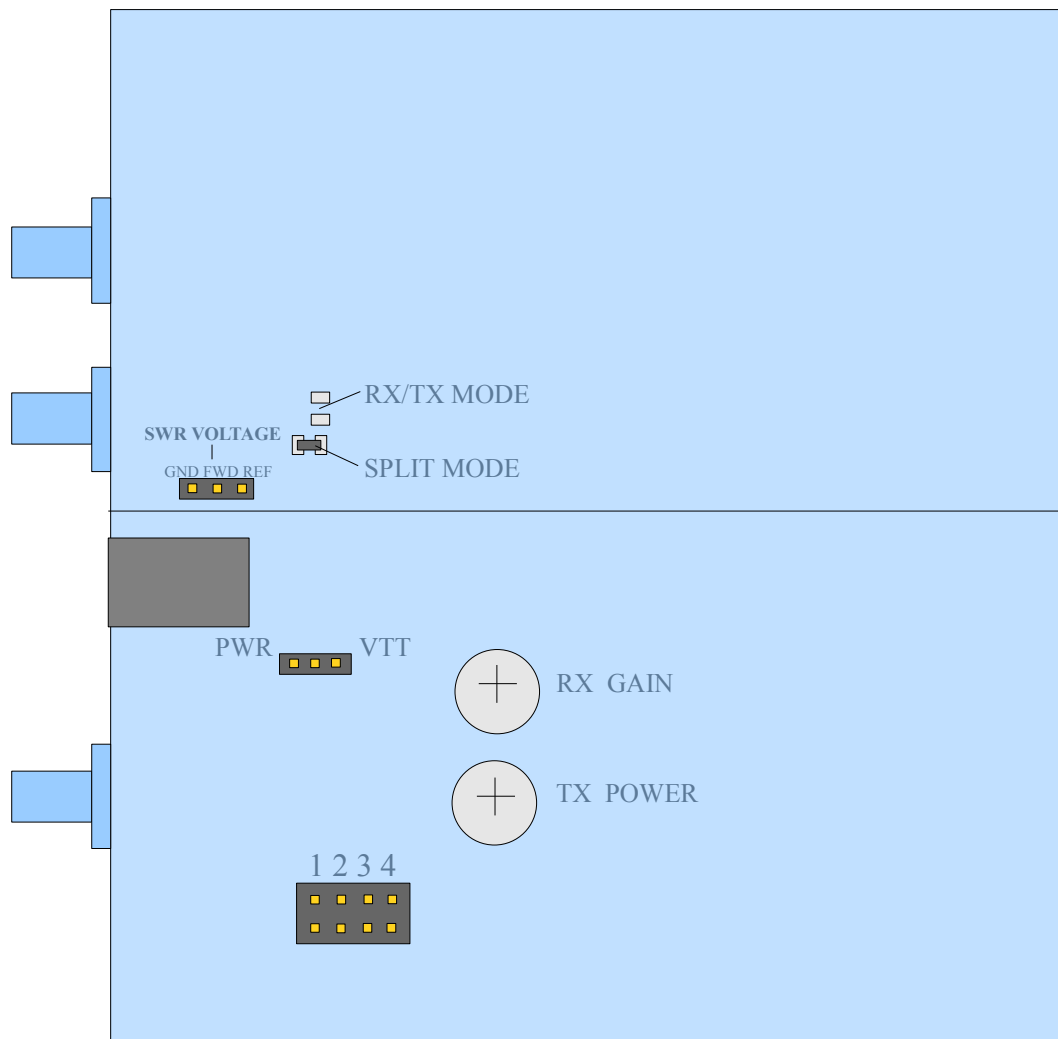
### Input power adjustment:

Input LED color:

- dark - Input power is too low
- orange - Input power is low
- green - Input power is normal
- red - Input power is too high

Output LED color :

- green - Excellent output SWR
- orange - Moderate output SWR
- red - High output SWR



## Trimmers

- RX GAIN - You can adjust the overall gain from -5 to +10dB
- TX POWER - When PTT is LOW and power supplied to the IF input, rotate until the LED lights up green

## Jumpers

- 1 - OFF : Normal operation ; ON : Repeater mode
- 2 - OFF : LO 1152 MHz ; ON: LO1150 MHz
- 3 - Repeater shift: OFF: 28 MHz ; ON: 6 MHz
- 4 - OFF : PTT ON by connecting PTT input to GND  
ON : PTT is also RF activated with IF input power >0.2W

## SWR Voltage

Can be measured by high impedance voltmeter

FWD - voltage of forward wave

REF - voltage of reflected wave

GND - ground

**PWR / VTT**

PWR ON: The Transverter can be DC powered by coaxial cable.

VTT ON: PTT can be switched on by applying DC voltage 5-15 V in coaxial cable  
A bias tee is needed to insert DC power into coaxial cable.

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