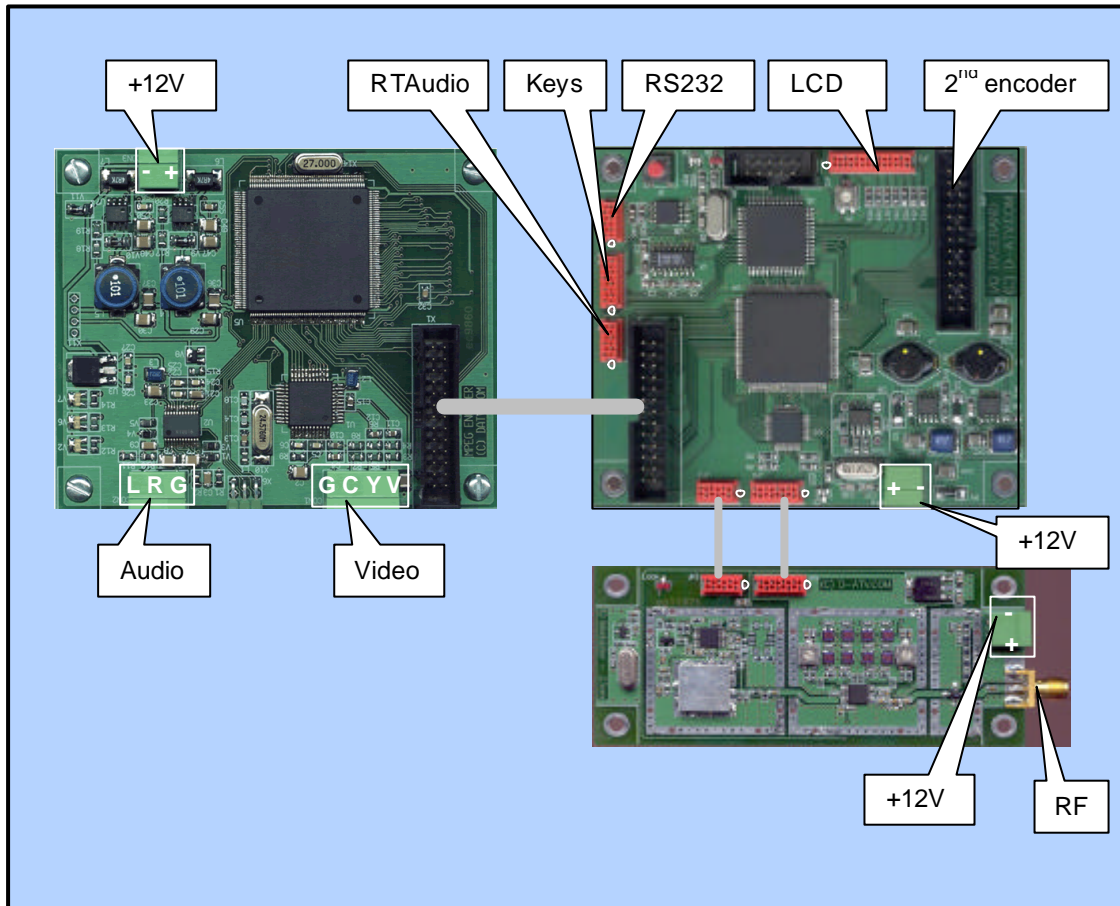# D-ATV board connections – October 25th 2004



_**Note:** on the red connectors pin 1 is located next to the polarization hole._

## Supply connectors (All boards)

Supply voltage is +12V, +/- 10%. Total current for the MPEG encoder, the FPGA board and the modulator together is approx. 500 mA.

## Video connector (MPEG Encoder)

You can connect a composite and/or an Y/C video source to this connector.

Pin G: Common ground for Y/C and composite
Pin Y: Luminance input for Y/C
Pin C: Chrominance input for Y/C
Pin V: Composite video input

## Audio connector (MPEG Encoder)

The audio input is unbalanced.

Pin G:   Ground, common for both channels
Pin L:   Left channel
Pin R:   Right channel

## RS232 connector (Baseband board)

Connect to a female D-connector (1:1 to PC). For a Null-modem connection (male connector), swap pin 2 and 3 of the D-connector.

Pin 1:   **TXD**, to pin 2 of the 9-pole female D-connector
Pin 2:   **CTS**, to pin 7 of the 9-pole female D-connector
Pin 3:   **RXD**, to pin 3 of the 9-pole female D-connector
Pin 4:   **RTS**, to pin 8 of the 9-pole female D-connector
Pin 5:   not connected
Pin 6:   **GND**, to pin 5 of the 9-pole female D-connector

## Keyboard connector (Baseband board)

With the current firmware revision (rev. 3.0) only one keyboard layout is possible: 5 keys (Up/Down/Left/Right/Center). Connect the keys with one side to the common ground. Thus the corresponding key is activated by closing the contact to ground.

Pin 1:   Up key
Pin 2:   Left key
Pin 3:   Down key
Pin 4:   Right key
Pin 5:   Center key
Pin 6:   Band switch output, 0V -> 23cm, 3.3 V -> 13cm  (only for firmware version > 2.0 )
Pin 7:   Ground, common for all keys
Pin 8:   3V3 out – not used

## LCD connector (Baseband board)

A standard alpha-numeric LCD with 2 rows of 16 characters per row can be connected. The LCD backlight can be supplied by the +5V voltage on pin 2 (100 mA max.).

Pin 1:          Ground
Pin 2:          +5V
Pin 3:          Vcontrast, 0..+5V
Pin 4:          RS
Pin 5:          R/Wn
Pin 6:          Enable
Pin 7..10:      Not used
Pin 11:         D4
Pin 12:         D5
Pin 13:         D6
Pin 14:         D7

### Real Time Audio connector (Baseband board)

Optionally a special stereo audio ADC board can be connected. This is intended for non compressed real time audio transmission, which can be very useful for duplex conversations. This option requires a special modification into the DVB-S receiver and is therefore at this moment kept unsupported. In the future we will reveal more information on this feature.

### Transport Stream #1 and #2 connectors (Baseband board)

When using just one MPEG encoder then it is important to connect this encoder always to the main transport stream connector as shown in the connection diagram on the first page.
Optionally a second MPEG encoder can be connected to the secondary transport stream encoder shown at the upper right in the connection diagram on the first page.

### Caution!

We will take no responsibility to failures due to incorrect polarization of the power supply applied to the boards.
Before powering up the D-ATV boards always double check correct polarization of the power supply. The D-ATV boards are not protected against incorrect polarization of the power supply.