4 input Full HD encoder/modulator

HD500MOD

USER MANUAL V1.0

Congratulations on your purchase of the HD500MOD !

This 'state of the art' product, is a 4 input HD encoder. The video and audio input or taken from HDMI.

After compressing the video into H264 and audio in AAC or MPEG1-L2, the output is available as DVB-T or as DVB-C signal.

To make the configuration of the HD500MOD ultra simple, a special software DTVIface is available that you can download on our website www.revez.eu

Contents

1 - Safety considerations

1.1 CONNECTING TO THE MAINS SUPPLY

This product has to be connected to the mains supply. If there is the slightest doubt concerning the type of connection available on the installation, please contact your supplier of electricity. Before carrying out maintenance operation or modification of the installation, the modulator has to be disconnected. Remark : only use the supplied power adaptor.

1.2 OVERVOLTAGE

An overvoltage on the mains supply,can cause shortcircuits or fire. Never overload the power lines.

1.3 LIQUIDS

This module should be protected from splashes. Please assure yourself that no containers containing liquids are placed on this module. Also be aware of other persons splashing liquids on the module.

1.4 CLEANING

Disconnect the module before cleaning. Use only a humid cloth without solvant.

1.5 VENTILATION

In order to assure an adequate air circulation and to prevent overheating, the ventilation holes should not be obstructed. The module may not be installed in a hermetically sealed environment. Other electronic products or heat producing items may not be placed upon or near the module.

1.6 ACCESSORIES

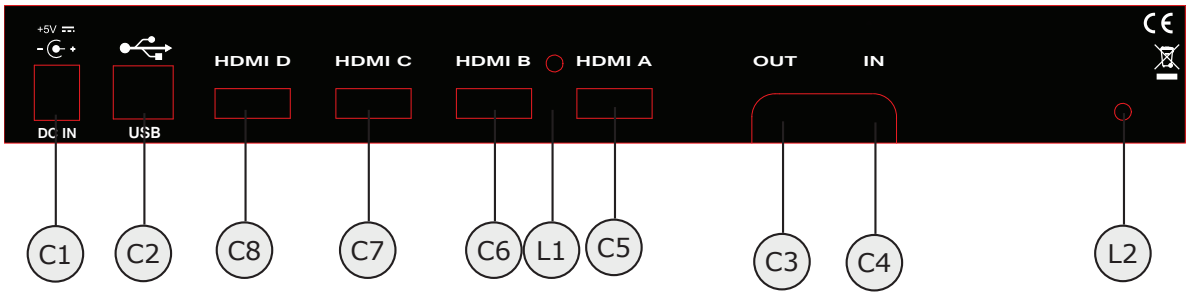
The use of accessories not manufactured by the manufacturer can cause damage to the module.

1.7 INSTALLATION OF THE MODULE

The module must be installed in a place well protected from direct sunlight. All measures have to be taken to avoid installation in humid or sunny place.Do not install near heating elements or other devices producing heat. Assure yourself that the module is placed at least 10 cm from other equipment with is susceptible to electromagnetic radiation. Do not install the module on instable items. A fall can cause physical or material damage.

2 - Description of the different elements

C1 Power supply input (5V/4A)
C2 USB input (for programming the HD500MOD by PC)
C3 RF output
C4 RF input
C5 HDMI A input
C6 HDMI B input
C7 HDMI C input
C8 HDMI D input
L1 Status of 4 input HD encoder
L2 Status of DVBT/DVBC modulator
L3 (LED on the front panel) Power LED



3 - Installation

3.1 - Installation

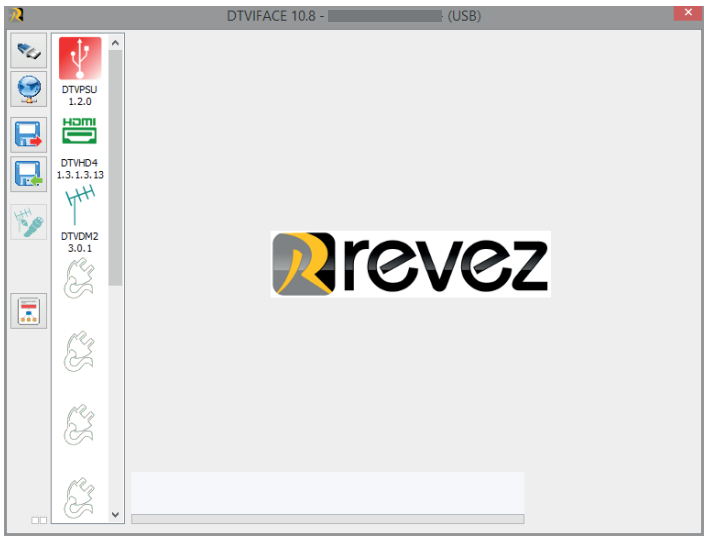
The HD500MOD can be used as a desktop model. The HD500MOD also comes with 19 inch brackets and screws. These can be fitted to the HD500MOD in order to install them in a 19 inch rack. The position of the brackets can be chosen in order to select the back or frontpanel facing forward.

3.2 - Downloading and installing the programming software

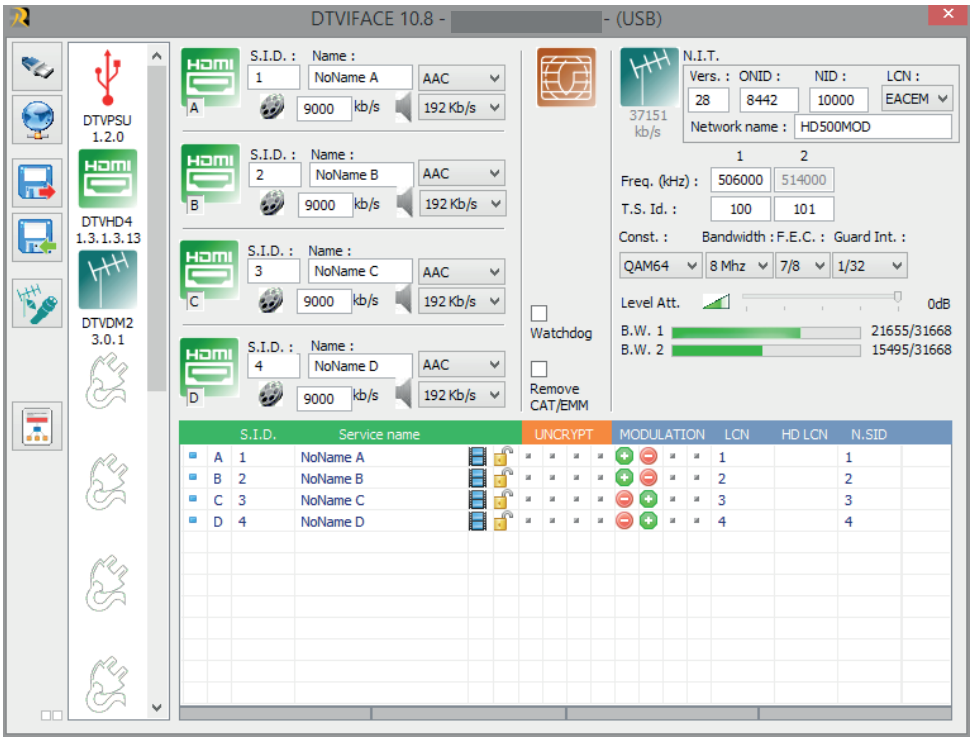
The HD500MOD is programmable via the DTViFace which is a Windows based USB software which can be downloaded from www.revez.com The software files are located in a zip file on the 'downloads' tab on the product page.
DTViFace supports Windows XP, Windows 7 (32bit) and Windows 7 (64bit) and Windows 8.
Follow the instructions in the set up wizard to download the software from the website.
Install the software on your PC, generating a desktop icon if required,and connect the modulator via the USB cable (supplied) to your PC.

3.3 - Powering up

Power the modulator up with the PSU supplied. Once all the LED's on the front panel of the modulator have turned green, launch the DTViFace software. The start up screen will appear:



Select the DTVHD4 HDMI icon to navigate the programming screen. The following window will appear.



3.4 - Setting the input parameters

For each HDMI input you can adjust following parameters :

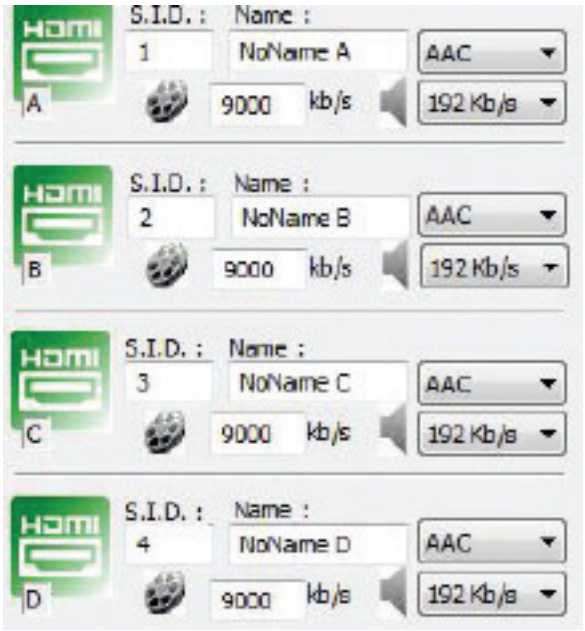
- S.I.D : set the service ID

- Name : set the programe Name

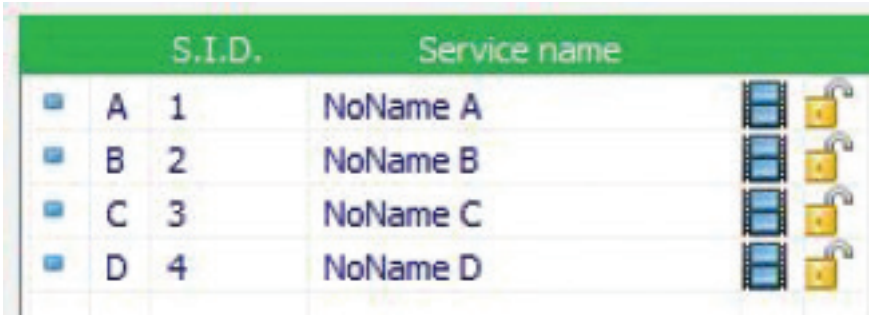
- Bit rate : choose a value between 5000 and 15000 kb/s

- Audio encoding : select between AAC and MPEG2-1

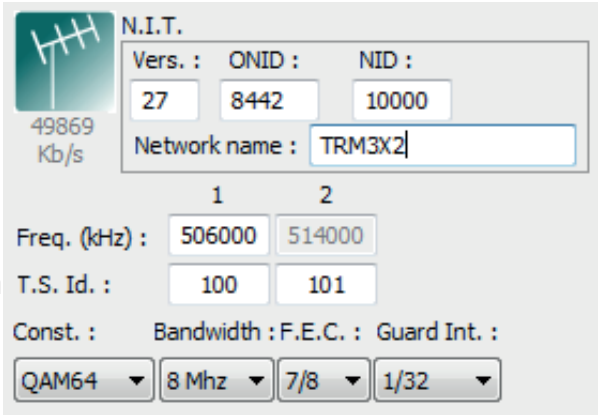
- Select the audio bit rate/



Below in the screen you can see the program list :



3.5 - Setting the output parameters (DVBT mode)



For the modulator following parameters can be set.
N.I.T Version : enter the NIT version
ONID : enter the decimal code for the Original Network ID. The original network ID is the country where you are located.
NID: enter the network ID.
Network Name : enter the network name.

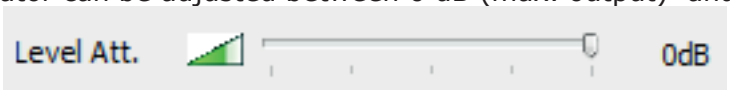
b) a

Under the N.I.T. parameters you will find the output frequency of the modulator. As the HD-500MOD, has adjacent output channels, you can only set the output frequency of the first channel.
The frequency of the other channel is automatically adjusted, so you can not change the output frequency of the second channel.

T.S. Id : for each channel a T.S.Id should be assigned.

Modulation parameters : furthermore, you can set the modulation parameters for the modulator.
Please select the constellation, Bandwidth, F.E.C and Guard Interval.

Output level of the modulator : an internal attenuator allows to lower the output level of the modulator. The attenuator can be adjusted between 0 dB (max. output) and -20 dB.



3.6 - Adding services to the modulator.

In the list of programs, you will find two columns with a GREEN + symbol or RED - symbol.

The columns indicate the output channels of the modulator (column 1 is first channel, column 2 is second channel.

If a green + symbol appears besides a certain program, this means that this program is added to that specific channel in the modulator.

The status can be changed by double-clicking the activation symbol besides the requested program.

In the most right colums you can add a LCN number or HDLCN number for channel numbering.

3.7 - Conversion to DVB-C mode.

The HD500MOD can also act as DVB-C modulator instead of DVB-T. In order to change you have to press the DVBT/C conversion button.

This will convert the DVBT modulator in a DVBC modulator or vice versa. Please note that this operation takes a couple of minutes.

4 - Technical specifications

Video inputs	**Inputs x 4**	HDMI
	Resolutions	720p - 1080i - 1080P
	Compression	H.264 - bitrate 5-15 Mb/s
Audio inputs	**Inputs**	HDMI
	Sampling rate	HDMI (32kHz / 44.1 kHz / 48 kHz)
	Compression	AAC-LC / MPEG1-L2 –symbol rate 128-384 Kb/s
DVB processing	**Table Insertion**	PAT, PMT, SDT, NIT, EIT
	Configuration	Program/network name , SID, LCN, TSID, ONID, NID, EIT, versions, audio, video PIDs…
DVB-T output 2 adjacent channels	Frequency/level	170-230 MHz + 470-862 MHz / > 95dBµV
	Constellation - FEC	QPSK/16QAM/64QAM - 1/2, 2/3, 3/4, 5/6, 7/8
	Guard Interval	1/4, 1/8, 1/16, 1/32
	Mode - MER	2K/8K - 35 dB
DVB-C output* 2 adjacent channels	Frequency level	50-862 MHz / > 95 dBµV
	Constellation - Symbol rate	16, 32, 64, 128, 256 QAM (EN 300 429) - 4,00 - 6,96 Msps
Power	DC - 2.1 mm - connector	+5V
	Consumption	15 Watts
Dimensions	LxWxH	250x200x38mm
	Weight	0.6 kg