AMF ELECTRONICS

DM 303 V2
HD encoder – DVBT/C modulator

USER MANUAL V1.0

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 short circuits 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 solvent.

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/2A)
C2   USB input (programming by PC)
C3   RF input
C4   RF output
C5   HDMI input

A1   OLED screen

T1   Joystick for setting parameters

3 - Settings

The DM 303 V2 has different menus. All parameters that can be changed are grouped into 3 menus.

```
DM 303 V2 V20
MODULATION
IN SETTINGS
ADV. SETTINGS

1080P
```

3.1 The MODULATION menu

The modulation menu has submenus : MODE / ATTENUATION / SETTINGS AND TS SETTINGS

In MODE menu you can select the modulation standard DVB-T or DVB-C

```
➡MODULATION
MODE
ATTENUATION
SETTINGS
TS SETTINGS

1080P
```

```
➡MODULATION➡MODE
DVB-T MODULATOR
DVB-C MODULATOR

1080P
```

In ATTENUATION menu, you can set the value of the ATTENUATOR. The higher the value, the lower the RF output level.

```
➡MODULATION
MODE
ATTENUATION
SETTINGS
TS SETTINGS

1080P
```

```
➡ATTENUATION

     0 dB

1080P
```

In the SETTINGS menu you can set the output CHANNEL, FREQUENCY, BANDWIDTH, CONSTELLATION, FEC or GUARD INTERVAL.

```
➡MODULATION
MODE
ATTENUATION
SETTINGS
TS SETTINGS

1080P
```

```
➡SETTINGS
CHANNEL
FREQUENCY
BANDWIDTH
CONSTELLATION
F.E.C.

1080P
```

In the TS SETTINGS menu, following parameters can be changed. : COUNTRY, NET. ID. (network ID), ORIG.NET ID (ONID) LCN ID. (EACEM, ITC, NORDIG, AUSTRALIA), NETWORK NAME, NIT RELEASE and TS ID.

```
➡MODULATION
MODE
ATTENUATION
SETTINGS
TS SETTINGS

1080P
```

```
➡TS SETTINGS
COUNTRY
NET ID.
ORIG. NET ID.
LCN ID.
NETWORK NAME

---
```

3.2 . The IN SETTINGS menu

The IN SETTINGS MENU has the following submenus :
SERVICE NAME, PROGRAM ID, L.C.N., PMT PID, VIDEO PID, AUDIO PID, VIDEO RATE and AUDIO RATE.

Use the joystick to move between the different options and press the joystick to confirm your selection.

```
➡IN SETTINGS          ➡SERVICE NAME
SERVICE NAME
PROGRAM ID            DM 303 V2
L.C.N.
PMT PID
VIDEO PID             ⏎×←◁▷0123456789.AaBbC
  1080P                 1080P                        Change the SERVICE NAME
```

```
➡IN SETTINGS          ➡PROGRAM ID
SERVICE NAME
PROGRAM ID                   1
L.C.N.
PMT PID
VIDEO PID
  1080P                 1080P                        Change the PROGRAM ID
```

```
➡IN SETTINGS          ➡IN SETTINGS ➡L.C.N.
SERVICE NAME
PROGRAM ID                  801
L.C.N.
PMT PID
VIDEO PID
  1080P                 1080P                        Change LCN number
```

```
➡IN SETTINGS          ➡PMT PID
SERVICE NAME
PROGRAM ID                   32
L.C.N.
PMT PID
VIDEO PID
  1080P                 1080P                        Change the PMT PID
```

```
➡IN SETTINGS          ➡VIDEO PID
SERVICE NAME
PROGRAM ID                   48
L.C.N.
PMT PID
VIDEO PID
  1080P                 1080P                        Change the VIDEO PID
```

```
➡IN SETTINGS          ➡AUDIO PID
PROGRAM ID
L.C.N.                       49
PMT PID
VIDEO PID
AUDIO PID
  1080P                 1080P                        Change the AUDIO PID
```

```
➡IN SETTINGS          ➡AUD. COMPRESSION
VIDEO PID             AAC-LC
AUDIO PID             MPEG1-L2
AUD. COMPRESSION
VIDEO RATE
AUDIO RATE
  1080P                 1080P                        Change the AUDIO COMPRESSION
```

```
➡IN SETTINGS          ➡VIDEO RATE
VIDEO PID
AUDIO PID                   9000
AUD. COMPRESSION
VIDEO RATE
AUDIO RATE
  1080P                 1080P                        Change the VIDEO RATE
```

```
➡IN SETTINGS          ➡AUDIO RATE
VIDEO PID             128 Kb/s
AUDIO PID             192 Kb/s
AUD. COMPRESSION      256 Kb/s
VIDEO RATE            320 Kb/s
AUDIO RATE            384 Kb/s
 1080P                 1080P
```
Change the AUDIO RATE

3.3 . The ADV. SETTINGS MENU

The ADV. SETTINGS MENU has the following submenus : LANGUAGE and DEFAULT CONFIG..

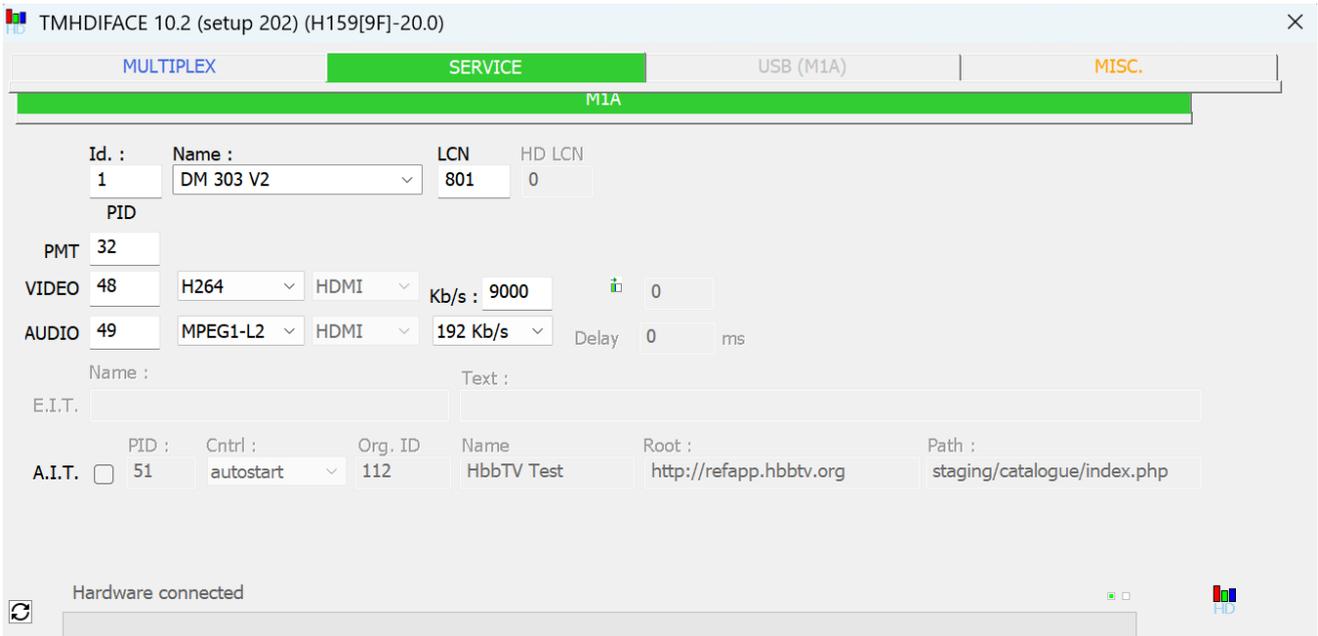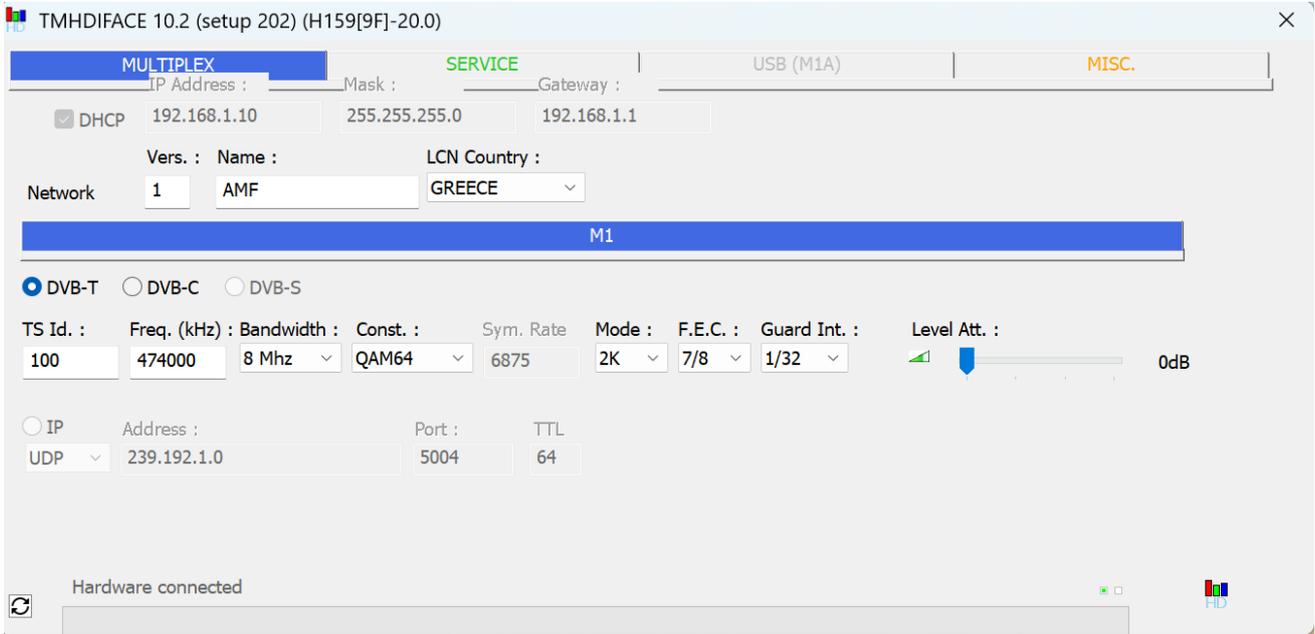Use the joystick to move between the different options and press the joystick to confirm your selection.

```
DM 303 V2 V20
MODULATION
IN SETTINGS
ADV. SETTINGS

 1080P
```

```
➡ADV. SETTINGS        ➡LANGUAGE
LANGUAGE              FRANCAIS
DEFAULT CONFIG.       ENGLISH
                     ITALIANO
                     DEUTSCH
                     ESPANOL
 1080P                 1080P
```
Select your language

```
➡ADV. SETTINGS
LANGUAGE
DEFAULT CONFIG.


 1080P
```
Select this option to return to the factory settings.

4 - TMHDIface

All parameters discussed in chapter 3 can also be changed using TMHDIface which can be downloaded from the **AMF ELECTRONICS** website www.amfelectronics.gr

5 - Technical specifications

Video input	**Input**	HDMI
	Resolutions	480p -576p -720p - 1080i - 1080P
	Compression	H.264 – bitrate 1-15 Mb/s
Audio input	**Input**	HDMI
	Sampling rate	HDMI (32kHz / 44.1 kHz / 48 kHz)
	Compression	AAC-LC / MPEG1-L2– bitrate 128-384 Kb/s
DVB treatment	**Table insertion**	PAT, PMT, SDT, NIT
	Configuration	Channel/network name, SID, LCN, TSID, ONID, NID, versions, audio, video PIDs…
DVBT output	**Output frequency level**	170-230 MHz + 470-862 MHz / > 84 dBµV
	Constellation - FEC	QPSK/16QAM/64QAM - 1/2, 2/3, 3/4, 5/6, 7/8
	BW - Guard interval	BW : 6/7/8 MHZ GI 1/4, 1/8, 1/16, 1/32
	MER	2K/8K - 35dB
DVBC output	**Frequency**	47-862 MHz / > 82 dBµV
	Constellation - MER	QAM16,32,64,128,256 / MER > 40 dB
	Symbol rate	2000 - 7000
Power	**DC connector - 2.1mm**	+5V
	Power consumption	4 Watts
Dimensions	**LxWxH**	160x90x45mm
	Weight	0.9 kg