

DTM-8HD

Digital modulator HDMI → COFDM

User Manual



1. Purpose of use

DTM-8HD is a Full-HD encoder to modulate high quality audio and video into COFDM (DVB-T) multiplex.

DTM-8HD support up to 1920*1080p resolution but it is recommendate to use max. 1920*1080i resolution as most of TV sets does not support 1920*1080p resolution.

2. Installation

The connections and indications are shown in Fig 1.



DTM-8HD can be mounted directly on the wall with 4 screws.
Do not cover the air passage holes.

12 VDC power supply s connected to DC IN connector.

HD audio/video signal is connected to HDMI IN connector.

RF OUT is connected to cable network.


ANT IN is for loop-through.


LED DISPLAY is showing the status of power (PW), stransport stream (ST) and video (VI).


3. Programming

The modulator is simple to program with the control buttons UP, DOWN, LEFT, RIGHT and OK.

Below is described how to operate DTM-8HD with the control buttons.

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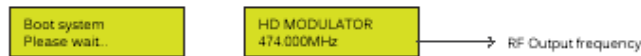
In the menus and submenus, press the up or down button to scroll up or down.
In the settings, press the up or down button to modify values.
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In the menus, press the right or left button to scroll forwards or backwards.
In the settings, move the right or left button to scroll forwards or backwards.
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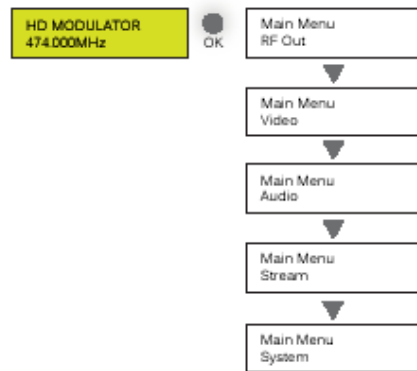
In the menus, press the OK button to select submenu.
In the submenus, press the OK button to select the setting.
In the settings, press the OK button to confirm the setting.

3.1. QUICK MENU GUIDE

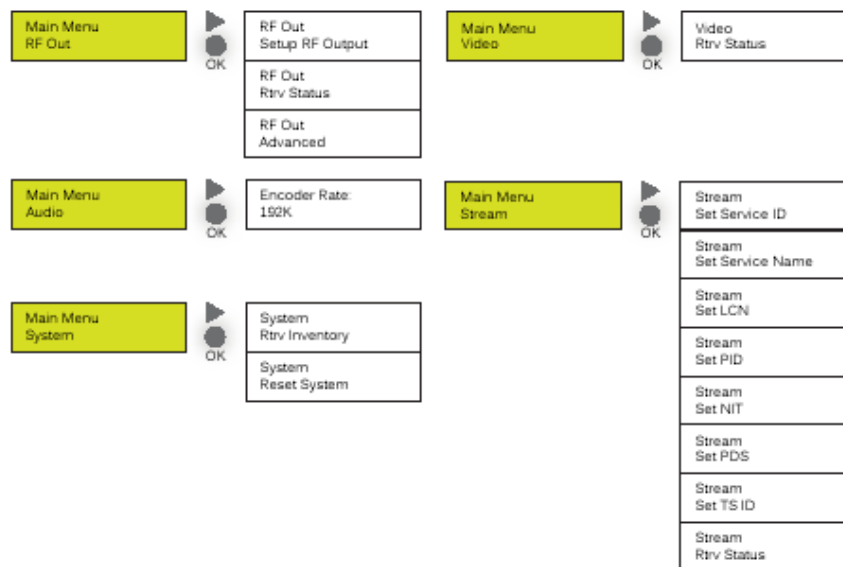
System Booting



Main Menu



Submenu



3.2 OPERATING ADJUSTMENT VIA LCD&BUTTONS

For 'Menu & Submenu' settings, press the OK button to access the adjustment mode. In this mode '*' will be displayed in the upper right corner. Use the UP or DOWN buttons to select parameter values, then press OK button to confirm the setting.

RF OUTPUT

A. Setup RF Output

RF Output Setup RF Output	Following the main Submenu flow charts enter the 'Setup RF Output' mode.
Country: Europe	Press the OK button to enter the next page for country selection.
Country: Europe *	Press the OK button to access the adjustment mode. The LCD display will show an asterisk '*' in the upper right corner. You can now press the UP or Down buttons to select the country you require. Press OK button to save.

Europe, Taiwan, OC NTSC, OC PAL, Australia, New Zealand.



NOTE

Use the same steps above to adjust the following items.

Area: France	France, Italy, Nordic, UK, Belgium, Others
Frequency: E11(219.5MHz)	E05(177.5MHz)–E69(858MHz) *
Output Level: 80dBuV	75–90dBuV
Carrier: 8K	2K, 8K
Constallation: QAM64	QAM64, QAM16, QPSK
FEC: 3/4	1/2, 2/3, 3/4, 5/6, 7/8
Guard Interval: 1/32	1/4, 1/8, 1/16, 1/32
Are you sure? y	When all the item in 'Setup RF Output' are done, there will be a confirmation on the display. Press UP or Down button to select YES or NO. Select 'y' for YES, all the settings above will be stored in memory. Select 'n' for NO to cancel.

B. Retrieve Status

Following the main Submenu flow charts enter the 'Retrieve Status' mode, you can check the parameters of your previous setting in 'Setup RF Output'.

C. Advanced

RF Output Advanced	Following the main Submenu flow charts enter the 'RF Output Advanced' mode.
Freq Offset: No Offset	Frequency Offset : -10K – +10K, No Offset
RF Output: Enable	Enable, Disable
Are you sure? y	When all the item in 'RF Output Advanced' are done, there will be a confirmation on the display. Press UP or Down button to select YES or NO. Select 'y' for YES, all the settings above will be stored in memory. Select 'n' for NO to cancel.



VIDEO

A. Retrieve Status

The DTM-8HD will detect and analyze the input video signal automatically then you can check the parameters or the status in the 'Video Retrieve Status' mode.

Video Rtrv Status	Following the main Submenu flow charts enter the 'Retrieve Status' mode.
Video Source: HDMI	Automatically detect and analyze. HDMI
In Resolution: 1920x1080/50i	Automatically detect and analyze.
Encoder Rate: 11.0Mbps	Automatically detect and analyze.
Out Resolution: 1080i	Automatically detect and analyze.
Encoder Status: Running	Automatically detect and analyze.

AUDIO

Audio Rtrv Status	Following the main Submenu flow charts enter the 'Audio Rtrv Status'. Press the OK button to enter the Submenu.
Encoder Rate: 192K	Fixed value. 192K.
Service ID: 256	Press the OK button to enter service ID mode. Press the OK button to access edit mode. Now press the UP or Down buttons to set ID. Press the Right button to advance to the next character and the Up or Down buttons to set. Press the OK button to save. (1-65535)
Are you sure? y	When all the items in 'Stream Service ID' are done, there will be a confirmation on the display. Press UP or Down button to select YES or NO. Select 'y' for YES, all the settings above will be stored in memory. Select 'n' for NO to cancel.

B. Set Service Name

Stream Set Service Name	Following the main Submenu flow charts enter the 'Set Service Name'. Press the OK button to enter the Submenu.
Service Name: HDMPEG4 MOD	Edit the service name by preference. 0-9 ; A-Z ; "-" ; "" 15 characters.
Are you sure? y	When all the item in 'Stream Service Name' are done, there will be a confirmation on the display. Press UP or Down button to select YES or NO. Select 'y' for YES, all the settings above will be stored in memory. Select 'n' for NO to cancel.

C. Set LCN

Stream Set LCN	Following the main Submenu flow charts enter the 'Set LCN'. Press the OK button to enter the Submenu.
LCN: 1	Edit the logical channel number by preference. 1-1023
Are you sure? y	When all the item in 'Stream set LCN' are done, there will be a confirmation on the display. Press UP or Down button to select YES or NO. Select 'y' for YES, all the settings above will be stored in memory. Select 'n' for NO to cancel.



D. Set PID

PMT: 129	32-8190, excluding 71
PCR: 308	32-8190, excluding 71
Video: 2064	32-8190, excluding 71
Audio: 2068	32-8190, excluding 71
Are you sure? y	When all the item in 'Stream set PID' are done, there will be a confirmation on the display. Press UP or Down button to select YES or NO. Select 'y' for YES, all the settings above will be stored in memory. Select 'n' for NO to cancel.

E. Set NIT

OrgNetwork ID: 1	According to different area to setup the parameter values. 1-65535
Network ID: 1	1-65535
Network Name: NETWORK	A-Z, 0-9, 7 Characters
Are you sure? y	When all the item in 'Stream set NIT' are done, there will be a confirmation on the display. Press UP or Down button to select YES or NO. Select 'y' for YES, all the settings above will be stored in memory. Select 'n' for NO to cancel.

F. Set PDS

Private Data: 00000028	8 Hex
Are you sure? y	When all the item in 'Stream set PDS' are done, there will be a confirmation on the display. Press UP or Down button to select YES or NO. Select 'y' for YES, all the settings above will be stored in memory. Select 'n' for NO to cancel.

I. Set TS ID

TS ID: 201	1-65535
Are you sure? y	When all the item in 'Stream set TS ID' are done, there will be a confirmation on the display. Press UP or Down button to select YES or NO. Select 'y' for YES, all the settings above will be stored in memory. Select 'n' for NO to cancel.

J. Retrieve Status

Following the main Submenu flow charts enter the 'Stream' mode. In 'Retrieve Status' mode, press the OK button to check the parameters of your previous settings in 'Stream'.



SYSTEM

A. Retrieve Inventory

System
Rtrv Inventory

Following the main Submenu flow charts enter the ' System Retrieve Inventory'. Press the OK button to enter the Submenu.

System Info
HW:2.00 SW: 2.00

Press the OK button to enter the next page, you can check both hardware and software version.

System Info
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Press the RIGHT button to access the next page for more information. Press the OK button to exit.

B. Reset System

System
Reset System

Following the main Submenu flow charts enter the ' System Reset System'. Press the OK button to enter the Submenu.

Reset Mode:
Hard Reset

Hard Reset, Soft Reset, Reset to default

Are you sure?
y

When the system reset is selected, there will be a confirmation on the display. Press UP or Down button to select YES or NO. Select 'y' for YES, all the settings above will be stored in memory. Select 'n' for NO to cancel.

4. Technical specifications

VIDEO ENCODER

Video resolution

MPEG-4 H.264 AVC

Up to 1080@30Hz

PC resolution

576p, 720p, 1080i/25Hz, 1080p/50Hz, 1080i/30Hz, 1080p/60Hz

Max. bitrate

110 Mbit/s

AUDIO ENCODER

MPEG-2 audio layer 1/2

Compliant to ISO/IEC11172-3

Fixed bitrate

192 kbps

COFDM OUTPUT

Modulation

IFFT 2k mode, QPSK, QAM16, QAM64

Output frequency range

100 MHz - 858 MHz

Guard Interval

1/4, 1/8, 1/16, 1/32

FEC

1/2, 2/3, 3/4, 5/6, 7/8

Output level

Max. 90 dBuV

Input connectors

HDMI typeA

Output connector

F-male 75 ohm

Power consumption

12VDC/0,7A

Dimensions

W*H*D

175mm*165mm*37mm



This symbol on the product or on its packing means that within the European Union the product must be taken to separate collection at the product-end-of life.

Do not dispose of these products as unsorted municipal waste.

For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your house disposal service or the shop where you purchased the product.