

HD Modulator mini

Digital single HD Modulator to DVB-T/MPEG4



User's Guide





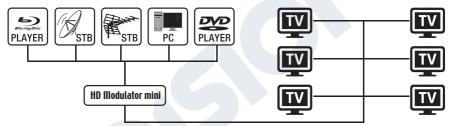
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The CE certificate of the product is available on our webpage, by visiting this link: https://www.edision.gr/en/support



▶ INTRODUCTION

Digital, single channel FULL HIGH DEFINITION modulator in mini size. With input from any HDMI source (Terrestrial & Satellite decoders, cameras, DVD, DVR, etc.), it modulates and produces output up to FULL HIGH DEFINITION 1080p MPEG4, Terrestrial Digital DVB-T signal, in VHF / UHF bands. Easy and fast configuration with the ID Pre-Config function and space saving in the installation with highly compact dimensions for an easy installation, even in minimal space conditions.



▶ FEATURES

- INPUT signal: HD IN
- OUTPUT signal: Digital Terrestrial DVB-T MPEG4
- High Video Resolution up to 1080p
- Frequency Range VHF (CH. 5-12)
 & UHF (CH. 21-69)
- MER more than 35dB
- Adjustable RF Output Level / Default 90dbµV
- Fast Pre-Config Function /

50 ID's Selectable

- . Backup Config File by USB
- Software Upgrade by USB
- Ports: HD IN, RF OUT, USB, DC 5V, GROUND
- 4-digit LED Display
- Mini size: 132 x 84 x 31 mm
- Low Power Consumption



▶TECHNICAL SPECIFICATIONS

Processor	200MHZ 32Bits RISC
Memory	DDRII 16bit 512Mbits (Embedded) & NOR Flash 32Mbit
HD Input	HD v1.4a
USB Type	USB 2.0 HOST, Fat32 support
Power Consumption	10W max, 100-240V AC to DC adapter 5V 2A
Video Encoder	MPEG1, MPEG2 MP@HL, MPEG4 SP@L3 to
	ASP@L5, MPEG4 AVC HP@level4.1, MP@level4.1
Aspect Ratio	16:9 wide screen, 4:3 letter box, 4:3 pan scan
Resolution	up to 1080p@30FPS
Audio encoder	MPEGI L1/2, MPEGII LII, AAC LC, HE-AAC v1/v2 (2-CH)

▶ RF SPECIFICATIONS

Frequency Range	VHF (CH. 5-12) & UHF (CH. 21-69)		
Impendance	50Ω		
FEC	1/2, 2/3, 3/4, 5/6, 7/8		
Guard Interval	1/4, 1/8, 1/16, 1/32		
Constellation	QPSK, 16QAM, 64QAM		
RF Output level	90dBuV Adjustable from 0 to -14dB 0 to +6dB		
Bandwidth	7MHZ, 8MHZ		
FFT	2K, 8K		
Reed Solomon	202, 188, T=8		
Symbol Rate	Up to 31.668 MBPS		
MER	>35dB at Maximum RF output level		



► CONNECTION & OPERATION

- 1. Connect an HDMI Cable from HDMI source device to the HD Modulator HD in
- 2. Connect an RF Cable from RF OUT to the RF Network
- 3. Connect the power supply to the HD Modulator
- 4. Select the desired RF Channel output
- 5. If ther are more than one HD Modulators in the same installation, select ID for each one
- 6. Proceed with DVB-T scanning on your TV/STB



▶ PACKAGE INCLUDES

- 1. HD Modulator
- 2. Power Adapter
- 3. Mounting screws
- 4. User Manual



Connect the HDMI cable to HD IN and when the green led lights up, the signal is active.





► MAIN MENU

To enter the main menu options, press **once** the **Menu/OK** key and use the **Right key** to navigate within the main menu.



CH: Shows the current RF channel output. Use the keys Up & Down to select the desired RF channel output.



FACT: Factory defaults. Press **key UP** to restore factory defaults.



ID: Shows the current ID. Use the **keys Up & Down** to set the desired ID.



CFG: Configuration extract. Press **key UP** to extract the current configuration to the USB storage device.



RF: Shows the RF output level. Use the **keys Up & Down** to adjust to the desired RF level.



SOFT: Shows the SW version. Use the **key UP** to display the current SW version.



LCN: Shows the current LCN type. Use the keys Up & Down to set the desired LCN type.

To save the selected configuration press once the MENU/OK key and confirm with YES or NO by pressing the RIGHT key and press MENU/OK key once again. The configuration is being saved, please do not power off!







► CONFIGURATION EXTRACTION (CFG)

For an advanced configuration of the HD modulator, you must extract the configuration file to a USB drive, modify it and import it again in the HD modulator. To extract the configuration file named **jedi_config.txt***, you must connect a USB drive** to the USB slot, enter the **Main Menu**, **select**CFG and press **key UP** to extract the file to the USB drive.

When the completed

When the message SUCC appears, the process has been successfully completed.

Description: Allowed values

*IMPORTANT: The configuration file jedi_config.txt should not be renamed!
**IMPORTANT: Use only FAT32 partitions! In any other case, the message FAIL will indicate that the process has not been completed.



Configuration file details (jedi_config.txt)

<attribute>value<attribute></attribute></attribute>
<constellation>2<\constellation></constellation>
<channel>43<\channel></channel>
<bandwidth>8000<\bandwidth></bandwidth>
<fec>2<\FEC></fec>
<fft>1<\FFT></fft>
<gi>0<\GI></gi>
<name>TV-1<\Name></name>
<rf_level>0<\RF_Level></rf_level>
<lcn_type>1<\LCN_Type></lcn_type>
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Description. Allowed values
Constellation: 0 QPSK, 1 16QAM, 2 64QAM
RF channel: 05 to 12 & 21 to 69
Channel Bandwidth: 7000 or 8000 KHz
FEC: 0 , 1 , 2 , 3 , 4
FFT: 0 2K, 1 8K
Guard Interval: 0, 1, 2, 3
Channel Name: Max 12 characters
RF Level: 6,4,2,0,-2,-4,-6,-8,-10,-12,-14
LCN Type: 0 ITC, 1 Italy



<lcn>1<\LCN></lcn>	LCN: 1 to 999
<tsid>1<\TSID></tsid>	Transport Stream ID: 1 to 65534
<onid>1<\ONID></onid>	Original Network ID: 1 to 65534
<networkid>1<\NetworkID></networkid>	Network ID: 1 to 65534
<audio_bitrate>3<\audio_bitrate></audio_bitrate>	Audio Bitrate: 0=64kbps, 1=96kbps, 2=128kbps,
	3 =192kbps, 4 =256kbps, 5 =320kbps
<pre><pcr_gap>0<\pcr_gap></pcr_gap></pre>	PCR Gap: Audio/Video sync max +-5
<audio_format>0<\audio_format></audio_format>	Audio format: 0 MPEG2 L2, 1 AAC MPEG2
<pre><videopid>1002<\videopid></videopid></pre>	Video PID: 1 to 8000
<audiopid>1001<\audiopid></audiopid>	Audio PID: 1 to 8000
<pmtpid>1003<\pmtpid></pmtpid>	PMT PID: 1 to 8000
<serviceid>1000<\serviceID></serviceid>	Service ID: 1 to 9999
<video_bitrate>18000<\video_bitrate></video_bitrate>	Video Bitrate: 0 to 27000
<netname>EDISION<\Netname></netname>	Network Name, Max 10 characters allowed

► CONFIGURATION IMPORT (CFG)

To import the configuration file <code>jedi_config.txt</code>, you must save the file within the root directory* of a USB drive, insert the drive to the USB slot and power cycle your HD Modulator. When you see this message **CFG**, press the **MENU/OK** button to confirm the import process. When the process is completed, the unit will reboot with the new configuration!



*IMPORTANT: Use only FAT32 partitions. In any other case, the configuration file will not be read and the device will reboot normally!



▶ FAST PRE-CONFIG FUNCTION / 50 ID'S SELECTABLE

This feature enables the user to operate the unit hassle free by automatically setting the appropriate broadcasting table information to provide a more convenient installation, easy to adjust anytime with no tools required*!

This feature is important when there are several HD modulators operating within the same TV coaxial distribution network. The user should change each unit's broadcasting table information to be able for the end user devices to receive the channels.

*IMPORTANT: In order to change the Channel Name, you have to use the CFG function to extract, edit and load the modified configuration file.

Example of 7* different ID's:									
	ID01	ID02	ID03	ID04	ID05	ID06	ID07		
Name	TV-1	TV-2	TV-3	TV-4	TV-5	TV-6	TV-7		
LCN	1	2	3	4	5	6	7		
TSID	1	2	3	4	5	6	7		
ONID	1	2	3	4	5	6	7		
NetworkID	1	2	3	4	5	6	7		
Videopid	2101	2102	2103	2104	2105	2106	2107		
audiopid	2201	2202	2203	2204	2205	2206	2207		
pmtpID	2301	2302	2303	2304	2305	2306	2307		
serviceID	2401	2402	2403	2404	2405	2406	2407		

^{*}IMPORTANT: 7 sample ID configurations, out of 50 installed in the HD modulator.



▶TROUBLESHOOTING

The device does not boot

- · Make sure the power supply is connected
- · Check power supply voltage

I cannot export configuration file

- · Make sure your USB drive is working
- Make sure that the file system is FAT32

I get "No signal" message on the screen

- Please check your HDMI cable or the HDMI source device
- Make sure that the HDMI signal complies with the supported standards

The channel number on the list does not appear properly

- · Make sure you have selected correct LCN type
- · Make sure you have no conflicting LCN numbers

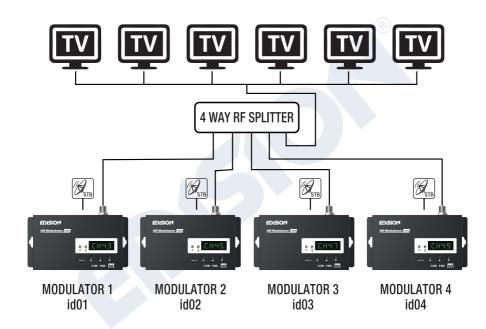
The video of the modulator appears to be from another modulator

· Make sure your Fast Pre-Config ID does not conflict with another unit

The sound is not synchronized with the video

Please adjust the PCR gap each time until you get the perfect A/V sync

For more queries or advanced troubleshooting, please contact our technical support at **support@edision.gr**



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