HD-1605 Single Input DVB-T HD Digital Modulator with Delayed Audio Output User Guide and Install Manual

TABLE OF CONTENTS

SAFETY PRECAUTIONS

The presence of this symbol is to alert the installer and user to the presence of uninsulated dangerous voltages within the product's enclosure that may be of sufficient magnitude to produce a risk of electric shock.

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS DEVICE TO RAIN OR MOISTURE. DO NOT OPEN THE UNIT. REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

❖ DO NOT apply power to the unit until all connections have been made, all components have been installed and all wiring has been properly terminated.

❖ DO NOT terminate, change or uninstall any wiring without first disconnecting the unit's power adapter from the device.

❖ This device is supplied with the appropriately rated 12VDC power supply with the center pin positive. The use of any other power supply could cause damage and invalidate the manufacturer's warranty.

❖ DO NOT power on the unit until all cables and connections to the device have been properly connected.

❖ The device should be installed in an environment consistent with its operating temperature specifications. Placement next to heating devices and ducts is to be avoided as doing so may cause damage. The device should not be placed in areas of high humidity.

❖ DO NOT cover any of the device's ventilation openings.

❖ If the device has been in a cold environment allow it to warm to room temperature for at least 2 hours before connecting power.

PACKAGE CONTENTS

This package contains:

❖ One HD-1605 HD Digital Modulator
❖ One Power Adaptor
❖ One User Guide and Install Manual

Inspect the package before starting installation to ensure there is no damage and all supplied contents are present. Contact your distributor or dealer should the device be damaged or package contents are incomplete.

PRODUCT DESCRIPTION

digi-MOD HD by ZyCast HD-1605 Modulator converts Digital Video Broadcasting (DVB) high definition video and audio signals to COFDM. The HD Digital Modulator is with Delayed Audio and IR function, and manual Gain adjustment. The unit's front-mounted LCD display allows for easy configuration and adjustments.

The compact and economical HD-1605 Modulator is perfect for multi-video distribution solutions in the commercial and institutional market (hotels, motels, sports bars, restaurants, hospitals, casinos, business and university campuses, digital signage, etc.) as well as home entertainment systems.

Features

☀ H.264 AVC

☀ HDMI Input, HDMI Loop through, RF Output

☀ Built-in IR control

☀ Gain Control (20dB Manual Attenuation)

☀ RJ-45 port for Web Management

☀ Video resolution: Up to 1080p

☀ Perfect, clean and clear HD picture on high motion video, sports, text crawls/rolls, etc.

☀ Front Panel LCD

☀ Cool & silent operation

☀ Delayed Audio Output (RCA)

SPECIFICATIONS

INPUT	HD-1605
Video Input	HDMI
Video Input Level	0.7 – 1.4V(peak-to peak)
Video Mode	PAL / NTSC
Audio input	Stereo
Audio Input Level	0.4 – 4.8V (p-to-p)
OUTPUT	
Frequency Range	Local country available
Output Level	85 dBμV
MER	>36 dB typ.
DELAYED AUDIO	
Analog Audio Output	Audio L/R, Delay adjustable from 0~20000ms
MODULATION	
Video Resolution	480i, 480p, 576i, 576p, 720p, 1080i, 1080p
Video Compression	H.264 AVC (MPEG-4)
Audio Compression	MPEG1 Layer II / AAC
LCN	Yes
Carrier (OFDM Mode)	2K/8K
Guard Intervals	1/32
Code Rate (FEC)	7/8
Constellations	64-QAM
GENERAL	
Power Supply	12 VDC 3 Amp.
Consumption	1200 mA
Operating Temperature	0°C to +45°C
Storage Temperature	-10°C to +60°C
Languages	English
Dimensions	236mm x 155mm x 35mm
Weight	1000g

Specifications subject to change without prior notice

INSTALLATION

⚠️ ***System Installer must adhere to Article 820-40 of the NEC that provides guidelines for proper grounding and specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as possible***.

UNPACKING and INSPECTION

Each unit is shipped factory tested. Ensure all items are removed from the container prior to discarding any packing material.

Thoroughly inspect the unit for shipping damage with particular attention to connectors and controls. If there is any sign of damage to the unit or damaged or loose connectors contact your distributor immediately. Do not put the equipment into service if there is any indication of defect or damage.

HARDWARE INSTALLATION and CONNECTIONS

1. Use a HDMI cable to connect the video source (e.g., CATV, DVD, VCR, Camera) to the unit's HDMI IN port. It is highly recommended that quality HDMI cable be used for all video source connections.

2. Use a HDMI cable to connect the unit's HDMI OUT port to a television. Or Use a quality 75Ω coaxial cable with "F" connectors from the unit's RF OUT jack to the distribution system (combiner or reverse splitter) or directly to a television.

3. Connect the Audio Output L/R to the Speaker.

4. Use a quality RJ45 cable to connect the REMOTE SETUP port to a computer RJ45 port for setup/manage the unit.

5. If applicable, connect an IR repeater jack to the IR port for IR remote control function. If needed, you can turn ON the REMOTE POWER for sending a 12V power through RF OUT to the connected module.

6. Connect the included adaptor to the unit's DC 12V Power plug.

7.Connect the adaptor to an appropriately rated AC power outlet.

Reset to Default

1. **Turn OFF the unit. While pressing UP and DOWN buttons at the same time, turn ON the unit.**

2. **Release the UP and DOWN buttons when the LCD shows Reset To Default.**

3. **Press OK button to select Country : Australia or New Zealand**

4. **Press OK button again when the country selected, then press UP or DOWN button to show SAVE & EXIT.**

5. **Press OK button to Save and Exit.**

⚠️ ion: Once this process is complete the unit will automatically reset to the factory default gs. All settings or changes to the encoder/modulator will be lost.

DEVICE Programming and Setup

To setup and program the Encoder you can use the GUI interface or the LCD Front Panel

Note: The installer can set to enable DHCP via Front Panel LCD at the WEB MANAGEMENT SETUP section.

Connecting to the GUI Interface:

Factory Default IP: 192.168.1.9

- Connect an Ethernet cable directly (**no Cross Over cable required**) to the Web Management Port on the rear panel of the encoder or connect the Ethernet cable to an Ethernet switch. Connect an Ethernet Cable to your PC/Laptop.

- Modify your PC/Laptop IP address to 192.168.1.11.

- Enter '192.168.1.9' into your web browser.

- The Welcome Page will shown.

Welcome page will be displayed as shown

resi-linx ®
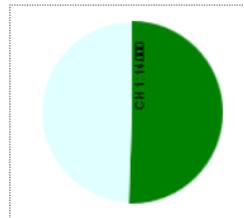
resi-linx HD Encodulator

| Overview |
| Common Setup |
| RF Setup |
| Encoder Setup |
| Network Setup |
| Administration |

Welcome!

Device Name:	RESI-LINX-001
Model Number:	HD-1605
Device Address:	1
System:	DVB-T
Net Version:	20170420

RF Output 1

Channel	39 (606.5 MHz)
Constellation	64QAM
Output Bitrate	27.710
	Input 1
Channel Name	CHANNEL-1
Video Source	HDMI
Video Output	H.264 CBR
Audio Output	MP2
Input Bitrate	14.000

Select the Common Setup tab.

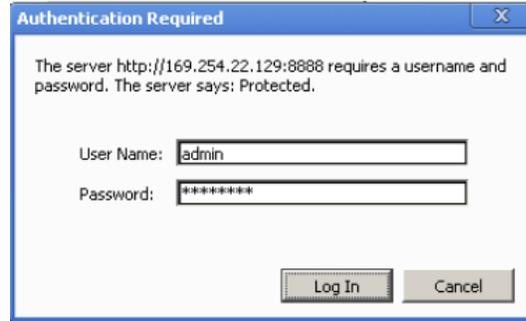User will be presented with encoders *'Authentication Required'* screen.

Enter User Name and Password.

User Name: **admin**

Password: **Admin123**

Common Setup

Remark: The Attenuation in the Common Setup is reserved. Please adjust the attenuation by adjusting the Gain control from the unit.

RF Setup

resi-linx HD Encodulator

| Overview |
| Common Setup |
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RF Setup

This page allows to configure the encodulator's RF output settings. After making any change, click **Save Config** to apply the change.

RF Output 1

Constellation:	64QAM
FEC:	7/8
Guard Interval:	1/32
OFDM Mode:	8k
RF Output:	Normal
Cell ID:	0
TS ID:	1000
Network ID:	12801
Original Network ID:	8228
Network Name:	Network-1

Save Config

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Encoder Setup

Encoder Setup

This page allows to configure the encodulator's encoder settings. After making any change, click **Save Config** to apply the change.

Navigation
- Overview
- Common Setup
- RF Setup
- Encoder Setup
- Network Setup
- Administration

Encoder 1

Setting	Value
Video Input:	HDMI
Program Number:	1
Channel Name:	CHANNEL-1
Provider Name:	resi-linx
LCN:	101
Aspect Ratio:	16:9
Video Output:	H.264 CBR
HDCP(test mode):	☑
Audio Input:	HDMI
Audio Output:	MPEG1 Layer2 (MP2)
Closed Caption:	☐
Brightness:	128
Contrast:	128
Saturation:	128
Hue:	128

Save Config

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Network Setup

This page allows to configure the encodulator's network settings. After making any change, click **Save Config** to apply the change.

CAUTION: Incorrect settings may cause the encodulator to lose network connectivity. Recovery options will be provided on the next page.

Enter the new settings for the encodulator below:

MAC Address:	F8:0D:EA:73:14:D1
Host Name:	RESI-LINX-###
	RESI-LINX-001
	☐ Enable DHCP
IP Address:	192.168.1.9
Subnet Mask:	255.255.255.0
Gateway:	0.0.0.0
	Save Config

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Administration

Administration

Reboot

Reboot the system.

Reset to Default

Reboot and reset all configuration settings to factory default.

Backup

User can backup and download all configuration settings from the device to a local file.

Config File: [瀏覽...] 未選擇檔案。   [Upload]

User can upload the file with pre-saved configuration settings to device.

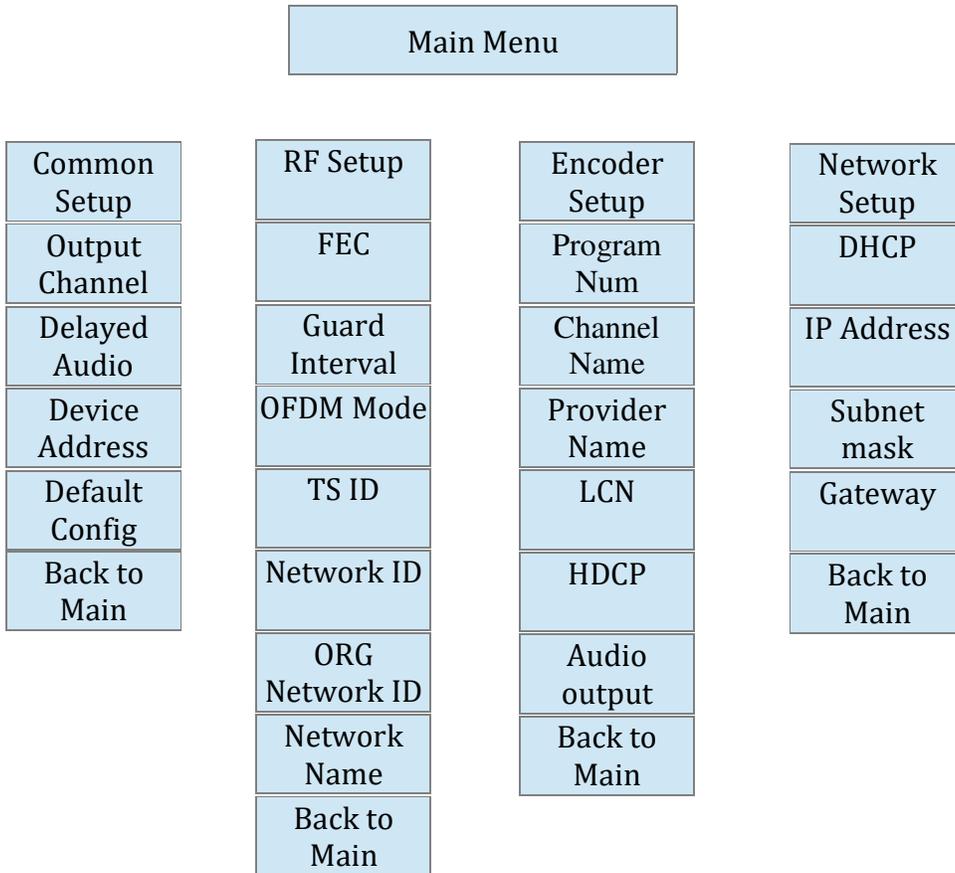**CAUTION:**The new password must:

- matches a string of 6~8 characters;
- that contains at least one digit;
- at least one uppercase character; and
- at least one lowercase character:

After changing the admin's password, it needs to close current web browser, and open a new browser to use new password.

Old Password:	
New Password:	
Retype New Password:	
	Submit

Front Panel LCD Encoder Menu Map

Main Menu

Common Setup
Output Channel
Delayed Audio
Device Address
Default Config
Back to Main

RF Setup
FEC
Guard Interval
OFDM Mode
TS ID
Network ID
ORG Network ID
Network Name
Back to Main

Encoder Setup
Program Num
Channel Name
Provider Name
LCN
HDCP
Audio output
Back to Main

Network Setup
DHCP
IP Address
Subnet mask
Gateway
Back to Main

Modulator Configuration via Front Panel LCD

Once the encoder is powered up it will go through its initial booting process. Once the unit has completed its initial "Booting" up process the LCD will display IN-1..., Bit Rate information, CHANNEL-1...., and other information in the LCD Display Window. When visible the unit is ready for programming or operation.

Main Menu– To access the Main Menu first enter the password by pressing the OK button. Use the Scroll Up/Down buttons to enter the password. The password is - **0000**.Once the password is entered press the OK button again and the LCD Screen will display **" ....HD Series".**

Common Setup Menu

♣ **Output Channel** – Use the Scroll Up/Down button to change the output channel. Use the Scroll Up/Down buttons to select the desired Output Channel. Once the desired output channel is selected press the OK button to set the channel.

The LCD Display will show both the channel number and the frequency number of the output channel (example: 39 (606.5 MHz))

♣ **Delayed Audio** – Use the Scroll Up/Down button to change the Delayed Audio. Use the Scroll Up/Down buttons to select the desired delay from 0~20000ms. Once the desired delay is selected press the OK button to set.

♣ **Device Address** – Use the Scroll Up/Down button to select Device Address. Press the OK button to enter the Device Address menu. Use the Scroll Up/Down to select the Desired Address ranging from 1 to 255 then press OK to set. A unique device address is required if setting up more than 1 encoder per site. This allows the user to distinguish each device.

♣ **Default Configuration** –To reset the Encoder/Modulator back to the factory default select the Default Configuration Menu. Press OK to enter the Default Configuration Menu. There are three options that you can choose. Using the Up/Down button select No, New Zealand and Australia. Press OK to reset all programmed settings back to the factory default setting.

♣ **Back to Main-** Select Back to Main to escape the Common Setup Menu.

RF Setup Menu

♣ **FEC-** The FEC is default 7/8.

♣ **GUARD INTERVAL** – The GUARD INTERVAL is default 1/32.

♣ **OFDM -** Use the Scroll Up/Down button to select the OFDM menu. Press the OK button to enter the OFDM menu. Use the Scroll Up/Down to select the OFDM 2K or 8K. Press OK to set.

♣ **TS ID** – Use the Scroll Up/Down button to select TS ID. Press the OK button to enter the TS ID menu. Use the Scroll Up/Down button to select the desired Stream ID ranging from 1 to 65535 then press the OK button to set.

♣ **Network ID** – Use the Scroll Up/Down button to select Network ID. Press the OK button to enter the Network ID menu. Use the Scroll Up/Down button to select the desired Network ID ranging from 1 to 65535 then press the OK button to set.

♣ **ORG Network ID** – Use the Scroll Up/Down button to select ORG Network ID. Press the OK button to enter the ORG Network ID menu. Use the Scroll Up/Down button to select the desired ID ranging from 1 to 65535 then press the OK button to set.

♣ **Network Name** – Use the Scroll Up/Down button to select Network Name. Press the OK button to enter the Network Name menu. Use the Scroll Up/Down button to select the first character for the desired Network Name then press the OK button to set. Repeat the process for each character in the desired Network Name. A Network Name can consist up to 16 characters.

♣ **Back to Main**- Select Back to Main to escape the RF Setup Menu.

Encoder Setup Menu

♣ **Program Num - U**se the Scroll Up/Down button to set 1 Program Num(Number). Press the OK button to enter the Program Num menu. Use the Scroll Up/Down to select Program Num ranging from 1 to 65534 then press OK to set.

♣ **Channel Name** – Use the Scroll Up/Down button to select Channel Name. Press the OK button to enter the Channel Name menu. Use the Scroll Up/Down menu to select the first character of the desired Channel Name then press the OK button to set. Repeat the process until the Channel Name is completed.

The Channel Name can be 7 characters long. Factory Default: CHANNEL-1.

♣ **PROVIDER NAME** – Use the Scroll Up/Down button to select Provider Name. Press the OK button to enter the Provider Name menu. Use the Scroll Up/Down menu to select the first character of the desired Provider Name then press the OK button to set. Repeat the process until the Provider Name is completed. The Provider Name can be 16 characters long.

♣ **LCN**-Use the Scroll Up/Down button to set LCN. Press the OK button to enter The Source ID menu. Use the Scroll Up/Down to set the Source ID. Range: 1 to 999. Press OK to set. Factory default : 101.

♣ **HDCP**- Use the Scroll Up/Down button to select the HDCP menu- Use the Scroll Up/Down button to select the HDCP menu. Press the OK button to enter the HDCP menu. Select Enable / Disable, and press OK to set.

NOTE: It is the installers / property owner / integrator's responsibility to contract with the service provider regarding content authorization and the use of HDCP.

♣ **Audio Output** – Use the Scroll Up/Down button to select Audio Output. Press the OK button to enter the Audio Output menu. Use the Scroll Up/Down button to select the Audio Output option: MP2 (MPEG1 Layer2 Audio), AAC. Factory default: MP2. Press the OK button to set.

♣ **DHCP** – Use the Scroll Up/Down button to select DHCP. Press the OK button to enter the DHCP menu. Use the Scroll Up/Down button to Enable/Disable. Press the OK button to set.

♣ **IP Address** – Use the Scroll Up/Down button to select IP Address. Press the OK button to enter the IP Address menu. Use the Scroll Up/Down button to enter the IP Address. Use the Scroll Up/Down menu to select the desired IP Address then press the OK button to set. Repeat the process until the IP Address is completed. Press the OK button to set. Note: If DHCP is enabled you will not be able to set an IP address. Select DHCP disabled if Static IP Address required.

♣ **Subnet Mask** – Use the Scroll Up/Down button to select Subnet Mask. Press the OK button to enter the Subnet Mask menu. Use the Scroll Up/Down button to enter the Subnet Mask. Use the Scroll Up/Down menu to select the first number of the desired Subnet Mask then press the OK button to set. Repeat the process until the Subnet Mask is completed. Press the OK button to set.

♣ **Gateway** – Use the Scroll Up/Down button to select Gateway Address. Press the OK button to enter the Gateway Address menu. Use the Scroll Up/Down button to enter the Gateway Address. Use the Scroll Up/Down menu to select the first number of the desired Gateway Address then press the OK button to set. Repeat the process until the Gateway Address is completed. Press the OK button to set.

♣ **Back to Main-** Select Back to Main to escape the Web Management Network Setup Menu.

HD-1605 HD Encoder/Modulator Notes

PRODUCT NOTES:

ITEM	VALUE
DEVICE NAME	
PURCHASE DATE	
INSTALLATION DATE	
SERIAL NUMBER	
FIRMWARE VERSION	

www.digi-modbyzycast.com.tw

WARRANTY

digi-MOD states that the warrant that the customer can rely on is that provided by the manufacturer. In the event of any warranty claim please contact your place of purchase and it will be forwarded it to the manufacturer. The manufacturer will then determine the extent of their liability.