



HD-1600 Single Input MPEG4 DVB-T HD Encoder/Modulator

User Guide and Install Manual

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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 power supply. The use of any other power supply could cause damage and invalidate the manufacturer's warranty.
- DO NOT connect the power cord to the device if the power cord is damaged.
- DO NOT cut the power cord.
- DO NOT plug the power cord into an AC outlet 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.
- DO NOT cover or obstruct the device's fan or fan openings.
- If the device has been in a cold environment allow it to warm to room temperature for at least 2 hours before connecting to an AC outlet.



Package Contents

This package contains:

- One HD-1600 Encoder / Modulator*
- One power supply
- One installation / configuration 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

The resi-linx digi-MOD HD-1600 Encoder/Modulator provides an MPEG4 DVB-T output stream - making it ideal for any Commercial RF Network. The high quality HD design allows for watching action packed movies and sports channels on any MPEG4 HDTV. The space saving design delivers a High Quality HD DVB-T channel.

- Front panel LCD Display for basic installation
- High Resolution 1080i/1080p
- LCN Adjustment & Mode
- HDMI (unencrypted) input
- HDMI Loop Through Output
- MPEG4 (AVC) Video Output
- Selectable Constellation
- Closed Captioning Support
- 85dB Output
- Compact housing with Cool & silent operation
- IR Return Path with Power Through option

Specification

VIDEO INPUTS (Video by Priority)	
HDMI	1.4v
Video Encoder	
Mode	MPEG-4(AVC)
Video Resolutions	1080p, 1080i, 720p, 576p, 576i, 480p, 480i
AUDIO Encoder	
Audio Compression	MPEG-1 Layer II, AAC, AC-3 Pass Through
RF DVB-T Support	
Frequency	Channel Plan - Varies by Country
RF Channel Output	Single DVB-T Channel
Constellation	64QAM (16QAM)
Bandwidth	7 MHz
RF Level Output	85dB
MER	36dB Typical
FEC	7/8
Guard Interval	1/32
OFDM	8K (2K)
Attenuation	1-20dB (1dB steps)
RF Output	"F" - Female 75 ohm
Audio Input	L/R (RCA)
Management / Control	
Front Panel LCD Control	RF Output Channel and LCN Adjustment (Up/Down/OK Buttons)
GUI	IE9, Firefox, Chrome, Safari
Password Protected	Front Panel, GUI

***Subject to change without notifications*

Installation

System Installer must adhere to Australian Standards AS1367:2007 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 Installations and Connections



1. Use a HDMI cable to connect the video source to the HD-1600 **HDMI IN**.
2. Use a HDMI cable to connect from the HD-1600 **HDMI OUT** (loop through) port to the local TV.
3. Use a coaxial cable lead to connect from the HD-1600 **RF OUT** to the TV system.
4. Connect the included power supply to the HD-1600 **DC 12V** power jack
5. Connect the power supply the power point
6. If you require **Web Management**, connect an RJ45 cable to your PC
7. IF IR return Path is required, connect an IR Emitter (RL-IR700/800) to the **IR Repeater** Port and attach to your source you wish to control. For IR return path to work, please use with RL-RF380 VDU & RL-RF210 Target and follow instructions

Note: It is highly recommended that you use a high quality HDMI cable for all source connections.

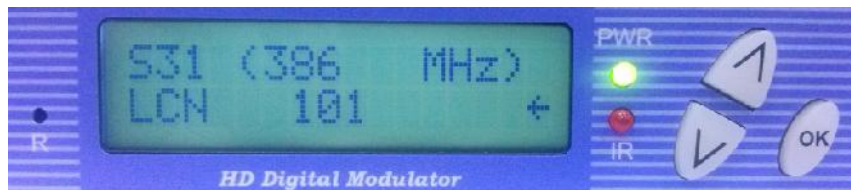
MODULATOR SETUP AND CONFIGURATION

INITIAL SETUP TO FACTORY DEFAULT

The HD-1600 front panel is used to configure the modulator as desired

MODULATOR CONFIGURATION

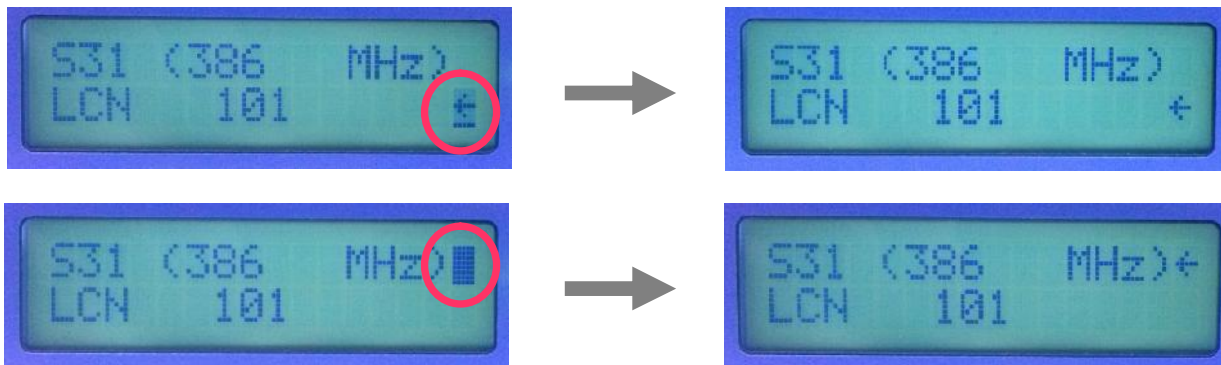
Once the HD-1600 is powered up it will go through an initial booting process. When booting process is finished, the LCD display will show default channel number and LCN



There are two parameters to setup

1. Channel number
2. LCN

For switching between the two settings, press the OK Button until the arrow flashes. Press the UP/DOWN buttons to select the desired setup parameters. Once completed – press the OK Button again to confirm



Output Channel – Use the Scroll Up/Down button to change the output channel. Available channels are depending on your local system. Once a desired output channel is selected, press the OK Button to set the channel

LCN – Use the Up/Down button to change the LCN (Logic Channel Number) The LCN default value is 101. Once the desired LCN is selected, press the OK Button to set the LCN

Reset to Default – Turn OFF the HD-1600 for button on rear of unit. While holding down the UP and DOWN buttons, turn ON the unit. Release the UP and DOWN buttons when the LCD shows “Reset to Default”. The unit will reset to factory default.

Caution – Reset to Default will reset the HD-1600 – all settings in the encoder will be lost.

Procedure to connect to the HD-1600 via the Web Management Port

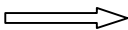
The following procedure will allow the installer to set up the encoder via the GUI

Intranet setup – closed LAN setup

1. Power the HD-1600 Encoder/Modulator

Connect each HD-1600 Modulator using a standard CAT5e cable from the Web Management port to the switch. Connect CAT5e cable from the switch to a PC

2. Set the PC via the Control /Panel to “Obtain an IP address automatically”

Start  Control Panel

View Network Status and Tasks

Adjust your computer's settings

View by: Category ▾



System and Security

Review your computer's status
Back up your computer
Find and fix problems



Network and Internet

View network status and tasks
Choose homegroup and sharing options



Hardware and Sound

View devices and printers
Add a device
Connect to a projector
Adjust commonly used mobility settings



Programs

Uninstall a program



User Accounts and Family Safety

Add or remove user accounts
Set up parental controls for any user



Appearance and Personalization

Change the theme
Change desktop background
Adjust screen resolution



Clock, Language, and Region

Change keyboards or other input methods
Change display language



Ease of Access

Let Windows suggest settings
Optimize visual display

3. Select “Change Adaptor Settings”

Control Panel Home

Manage wireless networks

Change adapter settings

Change advanced sharing settings

View your basic network information .



NB5741G
(This computer)

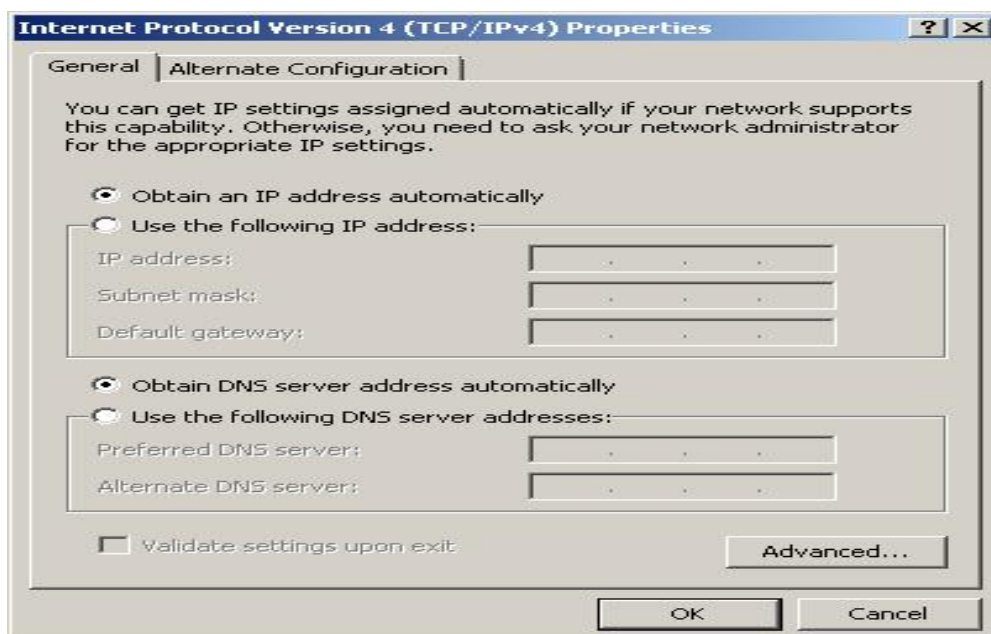
View your active networks

4. Select Local Area Connection Icon

Then right click – Select properties
Internet Protocol Version 4 (TCP/IPv4) Properties

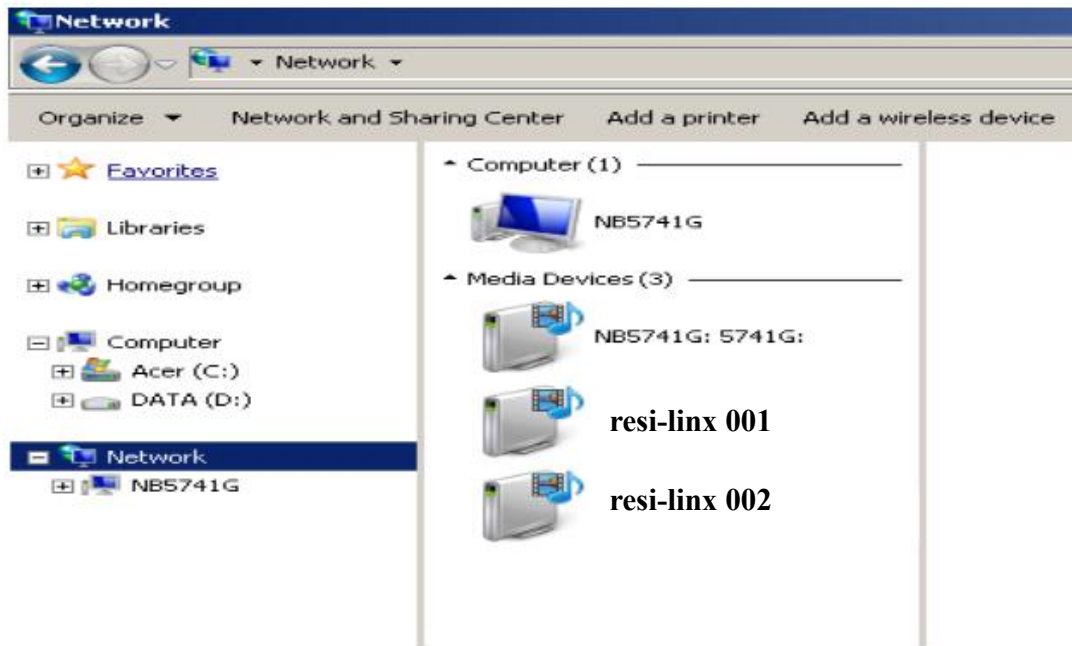


5. Select “Obtain an IP address automatically” & “Obtain DNS server address automatically”



6. After setting the PC to obtain IP address & Obtain DNS server automatically

Select Start – Computer – Network



7. After selecting Network the HD-1600 will show up on the right hand side under Media Devices. Each device will show up by Device Address. (resi-linx 001, 002, 003 etc)

Right click on the icon for the HD-1600 you want to setup. Select “View device webpage”



8. Welcome page will be displayed as shown

Overview
Common Setup
RF Setup
Encoder Setup
Network Setup
Administration

Welcome!

Device Name: **resi-linux 001**
Model Number: **HD-1600**
Device Address: **1**
System: **DVB-T**
Net Version: **20131223**

RF Output 1

Channel S31 (386 MHz)
Constellation 64QAM
Output Bitrate 31.668

Input 1

Channel Name CHANNEL-1
Video Source HDMI
Video Output AVC
Audio Output MP2
Input Bitrate 18.000

9. Select the Common Setup tab.

User will be presented with encoders “Authentication Required” screen




10. Enter User Name and Password.

User Name: admin



11. Common Setup



The screenshot shows the 'Common Setup' page of a web interface. On the left is a navigation menu with red buttons for 'Overview', 'Common Setup', 'RF Setup', 'Encoder Setup', 'Network Setup', and 'Administration'. The main content area is titled 'Common Setup' and contains a descriptive paragraph: 'This page allows to configure the encodulator's common settings. After making any change, click **Save Config** to apply the change.' Below this are two configuration boxes. The first box contains three dropdown menus: 'Output Channel' set to 'S31 (386 MHz)', 'Attenuation' set to '0 dB', and 'LCN Mode' set to 'UK'. The second box contains a 'Device Address' dropdown menu set to '1'. A 'Save Config' button is located below the configuration boxes.

12. Attenuation

Adjust the attenuator on the rear of the HD-1600 to desired level.



13. RF Setup

Overview

Common Setup

RF Setup

Encoder Setup

Network Setup

Administration

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:	12289
Original Network ID:	9018
Network Name:	resi-linx

Save Config

14. Encoder Setup

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

Encoder Setup

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

Encoder 1

Video Input:	HDMI
Program Number:	1
Channel Name:	CHANNEL-1
Provider Name:	resi-linx
LCN:	101
Aspect Ratio:	16:9
Video Output:	AVC CBR
HDCP Enable:	<input checked="" type="checkbox"/>
Audio Input:	HDMI
Audio Output:	MPEG1 Layer2 (MP2)
Closed Caption:	<input type="checkbox"/>
Brightness:	<input type="range"/> 128
Contrast:	<input type="range"/> 128
Saturation:	<input type="range"/> 128
Hue:	<input type="range"/> 128

15. Network Setup

Overview	<h1>Network Setup</h1> <p>This page allows to configure the encodulator's network settings. After making any change, click Save Config to apply the change.</p> <p>CAUTION: Incorrect settings may cause the encodulator to lose network connectivity. Recovery options will be provided on the next page.</p> <p>Enter the new settings for the encodulator below:</p> <table border="1"><tr><td>MAC Address:</td><td><input type="text" value="F8:0D:EA:30:33:24"/></td></tr><tr><td>Host Name:</td><td><input type="text" value="resi-linx"/></td></tr><tr><td><input checked="" type="checkbox"/> Enable DHCP</td><td></td></tr><tr><td>IP Address:</td><td><input type="text" value="169.254.6.179"/></td></tr><tr><td>Subnet Mask:</td><td><input type="text" value="255.255.0.0"/></td></tr><tr><td>Gateway:</td><td><input type="text" value="169.254.1.1"/></td></tr><tr><td colspan="2"><input type="button" value="Save Config"/></td></tr></table>	MAC Address:	<input type="text" value="F8:0D:EA:30:33:24"/>	Host Name:	<input type="text" value="resi-linx"/>	<input checked="" type="checkbox"/> Enable DHCP		IP Address:	<input type="text" value="169.254.6.179"/>	Subnet Mask:	<input type="text" value="255.255.0.0"/>	Gateway:	<input type="text" value="169.254.1.1"/>	<input type="button" value="Save Config"/>	
MAC Address:		<input type="text" value="F8:0D:EA:30:33:24"/>													
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Gateway:	<input type="text" value="169.254.1.1"/>														
<input type="button" value="Save Config"/>															
Common Setup															
RF Setup															
Encoder Setup															
Network Setup															
Administration															

16. Administration

Product Notes:

Overview
Common Setup
RF Setup
Encoder Setup
Network Setup
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: **Choose File** No file chosen

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:	<input type="text"/>
New Password:	<input type="text"/>
Retype New Password:	<input type="text"/>
	Submit

Item	Value
DEVICE NAME	
PURCHASE DATE	
INSTALLATION DATE	
SERIAL NUMBER	
FIRMWARE VERSION	

digi-MOD[®] HD by resi-linx[®]

www.resi-linx.com

WARRANTY

Vcomm Pty Ltd 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 us and we will forward it to the manufacturer. The manufacturer will then determine the extent of their liability. This expressly negates, to the extent possible by Australian law, any warranty reliance on Vcomm Pty Ltd.

resi-linx | VCOMM

