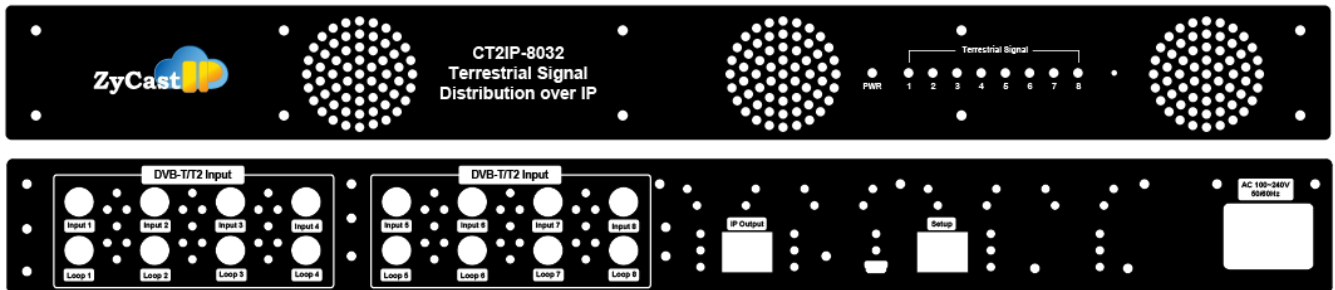


User Manual

Terrestrial DVB-T/T2 to IPTV Converter

CT2IP-8032



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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 CT2IP-8032
- One power cable
- One installation / configuration manual

Unpacking and Inspection

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

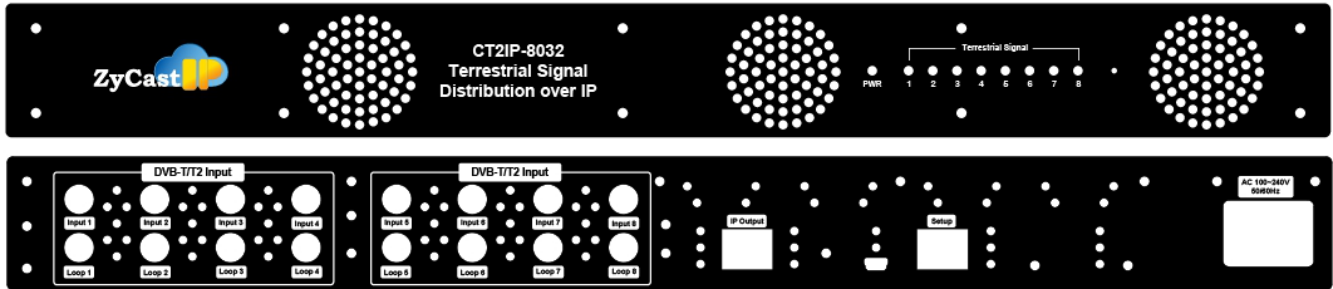
Thoroughly inspect the unit for shipping damage with particular attention to connectors and controls. If there is any sign of damage to the unit or damaged or loose connectors contact your distributor right away.

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.

Section 1 Introduction to CT2IP-8032

DVB-T/T2 to IPTV Converter



The ZyCast CT2IP-8032 is an all-inclusive high quality DVB-T/T2 to IPTV Converter. It was designed to allow system integrators to receive multiple DVB-T/T2 signals and quickly and easily convert these signals to produce a high quality IPTV Distribution system. The CT2IP-8032 is a highly flexible system allowing integrators to quickly receive, convert, and distribute a variety of commercial terrestrial channels to their customers.

System / Site Requirements:

1. It is highly recommended that the hardware be housed /placed in a well-ventilated area with temperatures not to exceed between 0C to 45C.
2. Terrestrial Antennas must be properly installed and verified for proper signal reception and signal levels.
3. IGMP Capable (and enabled) Network switches **ARE REQUIRED** for IP Output systems. It is highly recommended that a professional IT contractor or staff member properly sets up and configures the IGMP Switch.

Section 2 Hardware Installation

1. Properly install terrestrial antennas and verify for proper signal reception and signal levels.
2. Apply Power to the CT2IP-8032.
3. Connect an ethernet cable from Setup Port on the CT2IP-8032 to a PC/MAC.

Section 3 Device Programming and Setup

Connecting to the GUI Interface:

Factory Default IP: **192.168.1.9**

1. Connect an Ethernet cable directly (**no Cross Over cable required**) to the Management Port on the rear panel of the device or connect the Ethernet cable to an Ethernet switch. Connect an Ethernet Cable to your PC/Laptop.
2. Modify your PC/Laptop IP address to 192.168.1.11
3. Enter '192.168.1.9' into your web browser.

System Setup via GUI Interface:

After connecting the device to the "Remote Setup" port located on the rear of the device and connecting to a PC / Laptop/Switch.

Enter Device's IP address in web browser.

Overview Page

Device Name	Model Number	Serial Number	MAC Address	Firmware Version
	CT2IP-8032	1551 155740	F8:0D:EA:52:60:5C	20160222_1330

Terrestrial	Signal Strength	Signal Quality
Terrestrial 1	80.0%	70.3%
Terrestrial 2	86.0%	71.0%
Terrestrial 3	97.0%	70.6%
Terrestrial 4	96.0%	76.1%
Terrestrial 5	91.0%	64.6%
Terrestrial 6	79.0%	66.5%
Terrestrial 7	100.0%	72.9%
Terrestrial 8	100.0%	75.6%

Overview Page will provide an overall system status of the CT2IP-8032 Converter state: Signal Strength and Signal Quality.

System Parsing / Response Time:

The initial System Parsing time will range from 4-6 minutes on average as the system identifies and populates the required parameters.

As the user navigates the device's menu note that a small delay may occur in populating the data on the screen as the system is constantly performing system parsing and system house keeping functions.

Section 4 Terrestrial Setup

Terrestrial Setup

Use the Terrestrial Setup Tab to configure each Terrestrial Input.

Up to eight (8) Terrestrial signals can be assigned.

Terrestrial Setup

This page allows the user to configure the parameters of each terrestrial. After changes are made, use the **Save and Confirm** button. The demodulators will apply the new settings.

TERRESTRIAL 1 TERR 2 TERR 3 TERR 4 TERR 5 TERR 6 TERR 7 TERR 8

Mode: Manual

Standard: DVB-T

Frequency(MHz): 24 (533 MHz)

Bandwidth: 6

Constellation: 64-QAM

Code Rate: 2/3

Guard Interval: 1/4

Transmission Mode: 8k

Save and Confirm **Cancel**

1. **Select** Terrestrial Setup Tab.
2. **Select** the appropriate Terrestrial tab (Terrestrial 1 thru Terrestrial 8).
3. **Enter** the appropriate Terrestrial parameters for each Terrestrial signal.

Mode: Manual (Default Setting).

Standard: **Select** DVB-T / DVB-T2.

Frequency (MHz): Factory set.

Bandwidth: **Select** the corresponding Bandwidth for the system input.

Constellation: **Select** and Set the appropriate Constellation.

Code Rate: **Select** and set the Code Rate.

Guard Interval: **Select** and set the Guard Interval.

Transmission Mode: **Select** and set the Transmission Mode.

4. **Save and Confirm** all parameters set.
5. **Select** Terrestrial 2 thru Terrestrial 8 tab.
6. **Set** all required Terrestrial parameters as required.
7. **Save and Confirm** all parameters for each Terrestrial Setup tab.

Section 5 Streaming Setup

TERR 1 **TERRESTRIAL 2** TERR 3 TERR 4 TERR 5 TERR 6 TERR 7 TERR 8

Enable	Input								Output						
	ONID	NID	TS ID	SID	Program Name	Provider Name	Bit Rate	CA	SID	PMT PID	Video PID	Audio PID	TS ID	Streaming Destination	TTL
<input checked="" type="checkbox"/>	8350	13094	26	201	公共電視 PTS	PTS	4.318	N	201	2010	2011	2013	4	<input type="text" value="rtp://226.1.1.24:10000"/>	<input type="text" value="4"/>
<input checked="" type="checkbox"/>	8350	13094	26	202	公視2台 PTS2	PTS	2.856	N	202	2020	2021	2023	5	<input type="text" value="rtp://226.1.1.25:10000"/>	<input type="text" value="4"/>
<input checked="" type="checkbox"/>	8350	13094	26	203	客家電視 HTV	HTV	3.063	N	203	2030	2031	2033	6	<input type="text" value="rtp://226.1.1.26:10000"/>	<input type="text" value="4"/>

Once the Terrestrial setup is completed in Section 4 the system will parse and populate the Streaming Setup page.

1. **Enable** each stream by checking the check box.
- To Disable the stream- uncheck the check box.
2. **Enter** output Streaming Destination address into Streaming Destination field.
3. **Enter** TTL value as required.
4. **Save and Confirm** all changes.
5. **Select** Terrestrial Tab 2 thru Terrestrial Tab 8 and enter stream Destination and TTL on each Terrestrial tab.
6. **Save and Confirm** all changes on each tab.

Section 6 Network Setup

Management / GUI IP Address Setup

Network Setup

This page allows the user to configure the device's network settings.

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

Management IP Streaming IP

Management IP

Hostname: CT2IP-8032

MAC Address: FB:0D:EA:52:60:5C

IP Address Mode: DHCP Static IP

IP Address: 192.168.8.243

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.8.254

Save and Confirm Reset

1. **Select** Network Setup tab to manage the IP Address of the device.
2. **Modify** Hostname as required.
3. **Select** DHCP or Static IP.
4. **For Static IP: Select Static IP** and enter Static IP address for device. (record New IP address).
5. **Enter** Subnet Mask.
6. **Enter** Default Gateway.
7. **Save and Confirm** all changes.

Streaming Port IP Address:

Management IP Streaming IP

Streaming IP

IP Address Mode: DHCP Static IP

IP Address: 192.168.1.10

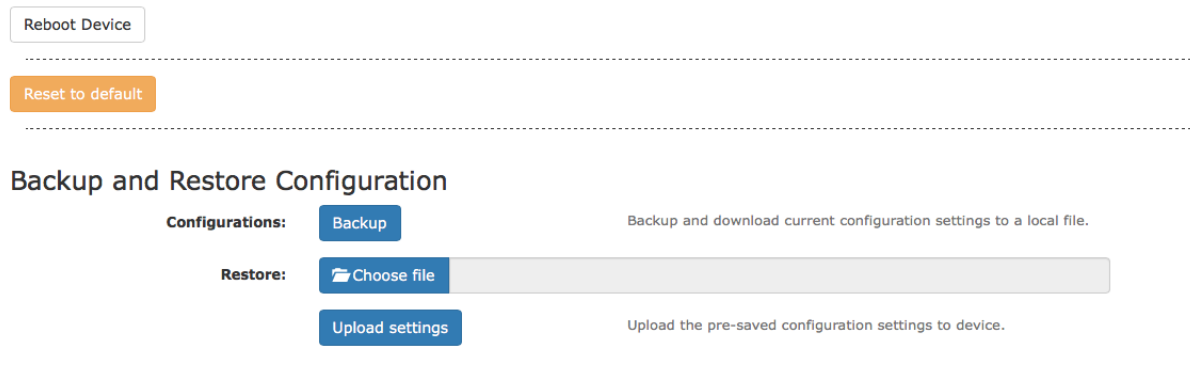
Subnet Mask: 255.255.255.0

Default Gateway: 0.0.0.0

Save and Confirm Reset

1. **Select** Network Setup.
2. **Select** Streaming IP Tab.
3. **Select** DHCP or Static IP.
4. **For Static IP: Select Static IP** and enter Static IP address for device. (record New IP address).
5. **Enter** Subnet Mask.
6. **Enter** Default Gateway.
7. **Save and Confirm** all changes.

Administration



Reboot:

Use the Reboot command button to reboot the device.

Reset to Default:

Use the Reset to Default button to reset all parameters to original factory settings.

Backup:

We highly recommend saving your device's setting.

1. Select Administration tab.
2. Select backup from the menu.
3. Locate and name file for future use.

Restore:

1. Select Administration tab.
2. Select "Choose file" menu.
3. Locate the required file to be imported.
4. Select "Upload settings" to import the selected file into the device.

Note: backup can be imported to assist in setting up new or multiple devices onsite.
Remember to save and backup any and all changes.

Firmware Upgrade

Model Number: CS2T-8808

Serial No.: 1551 155748

Firmware Ver.: 20160222_1643

Firmware Image:

To upgrade the device's firmware, select the required firmware image file then upload it to the device.

Firmware Update:

Use the Firmware upgrade section to import new FW versions.

1. Select Administration tab.
2. Select "Choose file" menu.
3. Locate the required image file to be imported.
4. Select "Upload image" to import the selected file into the device.

Note: backup can be imported to assist in setting up new or multiple devices onsite.
Remember to save and backup any and all changes.

Change Password:

Use the Change Password section to change or modify the device's password as desired.

Change Password

CAUTION: The new password must contain:

- 6~8 characters
- At least one digit
- At least one uppercase character
- At least one lowercase character

Old Password:

New Password:

Retype New Password:

After changing the password use the Save and Confirm button. The browser will redirect to the Overview page allowing the user to use the new password.

Section 8 Accessories

RB-601

ZyCast manufactures an IPTV Set top box for receiving IPTV streams.

Contact your ZyCast Sales Representative for details on this device.

Satellite Setup Table

Terrestrial 1		Terrestrial 2	
Mode		Mode	
Standard		Standard	
Frequency (MHz)		Frequency (MHz)	
Constellation		Constellation	
Code Rate		Code Rate	
Guard Interval		Guard Interval	
Transmission Mode		Transmission Mode	
Terrestrial 3		Terrestrial 4	
Mode		Mode	
Standard		Standard	
Frequency (MHz)		Frequency (MHz)	
Constellation		Constellation	
Code Rate		Code Rate	
Guard Interval		Guard Interval	
Transmission Mode		Transmission Mode	
Terrestrial 5		Terrestrial 6	
Mode		Mode	
Standard		Standard	
Frequency (MHz)		Frequency (MHz)	
Constellation		Constellation	
Code Rate		Code Rate	
Guard Interval		Guard Interval	
Transmission Mode		Transmission Mode	
Terrestrial 7		Terrestrial 8	
Mode		Mode	
Standard		Standard	
Frequency (MHz)		Frequency (MHz)	
Constellation		Constellation	
Code Rate		Code Rate	
Guard Interval		Guard Interval	
Transmission Mode		Transmission Mode	

System Questionnaire / Recommendations:

1. A complete and accurate site survey must be completed by a Satellite System Integrator prior to the purchase or installation of any satellite reception hardware.
2. A complete and accurate list of desired satellite orbit spots and transponders must be obtained.

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