CHQV-2H

HDMI to HDMI Scaler Box

Operation Manual

CHQV-2H

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Safety Precautions

Please read all instructions before attempting to unpack or install or operate this equipment, and before connecting the power supply. Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through module openings or empty slots, as you may damage parts.
- Do not attach the power supply cabling to building surfaces.
- Do not allow anything to rest on the power cabling or allow it to be abused by persons walking on it.
- To protect the equipment from overheating, do not block the slots and openings in the module housing that provide ventilation.

Revision History

Version No	*Date*	*Summary of Change*
RDV1	***20110114***	***Preliminary Release***

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1. Introduction

This Scaler Box is designed for the Blu-ray DVD players, Digital TV, Cable and Satellite Set-Top Box (STB), Internet Digital Media Adapters, Audio-Video Receivers and Digital Recorders markets. This Scaler Box is unlike anything you have ever purchased. Giving you the freedom to enjoy the full benefits of high resolution video by recreating a cinema like experience in the comfort of your home, this device is a worthy addition to any home entertainment system. In addition, the HD inputs have been improved, allowing this Scaler Box to deliver crisp, stunning and noise free full HD video.

2. Applications

- Up scales low resolution video quality to HD resolution
- To improve incoming low resolution to noise free full HD video

3. Package Contents

- HDMI to HDMI scaler box
- Operation Manual
- 5V /1.2A USB Power Adaptor

4. System Requirements

HDMI input port connected to the source/HDMI system with HDMI port and output connected to the display/HDMI system with HDMI port.

5. Features

- Full HQV quality de-interlacing
- Improved adaptive motion processing for difficult and poor quality video scenes
- Temporal Noise Reduction (TNR)-Reduces noise caused by on film grain, random noise, sensor noise and light fluctuations
- Block Artifact Reduction (BAR)-Reduces Compression block artifact
- Mosquito Noise Reduction (MNR)-Reduces mosquito noise
- 12-bit color space conversion on input and output
- Supports Deep Color at 36-bit color depth and xvYCC color gamut
- HDMI output resolution 480p@50/60Hz, 720p@50/60Hz, 1080p@50/60Hz
- Powered by its USB connection, or by an AC connection using an adaptor

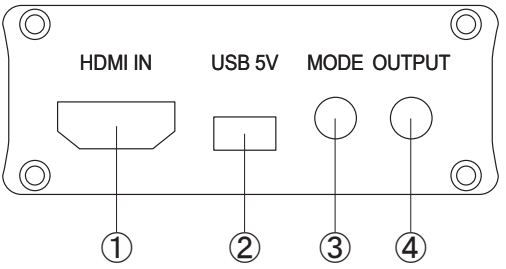
6. Specifications

Frequency bandwidth	2.25Gbps
Input port	1 x HDMI
Output port	1 x HDMI
Output Resolution	480p@50/60Hz, 720p@50/60Hz, 1080p@50/60Hz
Power Supply	5VDC/1.2A (US/EU standards, CE/FCC/UL certified)
ESD Protection	Human body model: ± 8kV (air-gap discharge) ± 4kV (contact discharge)
Dimensions (mm)	110(W) x 65(D) x 26(H)
Weight(g)	200
Chassis Material	Metal
Silkscreen Color	Black
Operating Temperature	0˚C ~ 40˚C / 32˚F ~ 104˚F
Storage Temperature	-20˚C ~ 60˚C / -4˚F ~ 140˚F
Relative Humidity	20~90% RH (no condensation)

7. Operation Controls and Functions

The following sections describe the hardware components of the unit.

7.1 Front Panel



① HDMI IN: Connect this HDMI input connector to the HDMI output connector of your HDMI source equipment using certified HDMI cable or connect this HDMI input connector to the DVI output of your DVI source equipment using DVI cable together with DVI to HDMI adaptor. The HDMI input resolution support 480i~1080p and VGA~WUXGA.

② USB 5V IN: The system can attach the mini-USB power adaptor or powered using from a USB port of a PC or other source.

③ Mode button: Pressing "MODE" will toggle between the following 3 available noise reduction settings:

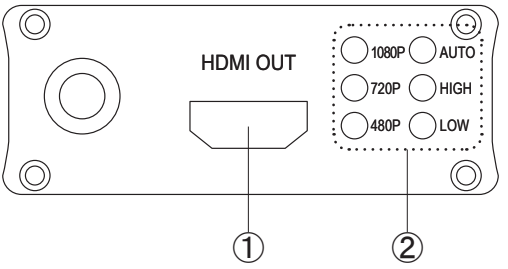
Auto: This is for normal video from sources such as Broadcast, Cable Box, DVD. The Matchbox will automatically apply noise reduction and resolution enhancement as needed.

StreamClean Low: This is for higher quality streamed content – e.g. Netflix Streaming or IP Set top box. A little compression noise reduction and resolution enhancement are applied.

StreamClean High: This is for lower quality streamed content from Internet sources – e.g. YouTube. A lot of compression noise reduction and resolution enhancement are applied.

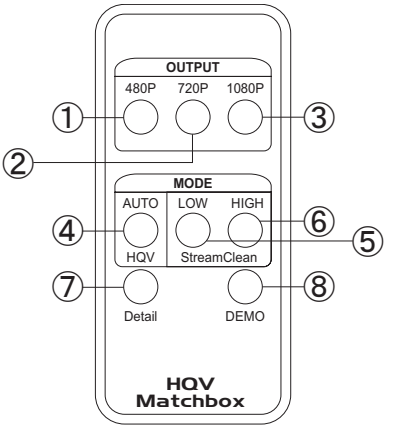
④ Output button: Pressing the "OUTPUT" button will toggle between the 3 output resolutions -1080p, 720p and 480p.

7.2 Rear Panel



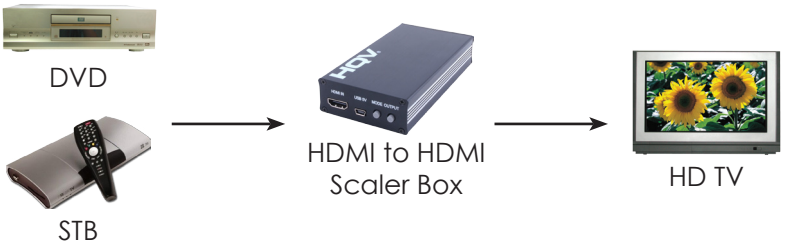
① HDMI out: Scaled digital HDMI output. Connect this output to the HDMI display and the output resolution support -1080p, 720p and 480p.
② Mode and Output LED indicators: Several status LEDs on the output side of the system show the current output format and noise reduction setting.

8. Remote control



① 480P: Force 480p output from the IDT HQV Matchbox.
② 720P: Force 720p output from the IDT HQV Matchbox.
③ 1080P: Force 1080p output from the IDT HQV Matchbox.
④ HQV: Auto: This preset puts the video processing to HQV Auto mode.
Note that the Detail Enhancement will change to high mode by default when this button is pressed.
⑤ StreamClean: Low: This preset puts the video processing on the IDT HQV Matchbox to StreamClean Low mode.
⑥ StreamClean: High: This preset puts the video processing on the IDT HQV Matchbox to StreamClean High mode.
⑦ Detail: Toggles between Resolution Enhancement On and OFF.
⑧ Demo: This button controls the split-screen mode to demo the Matchbox noise reduction capabilities. Toggles between 3 modes : split-screen on 50%, split-screen scrolling and OFF.

9. Connection and Installation



Acronyms

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Acronym	*Complete Term*
HDMI	High-Definition Multimedia Interface
HQV	High Quality Video

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