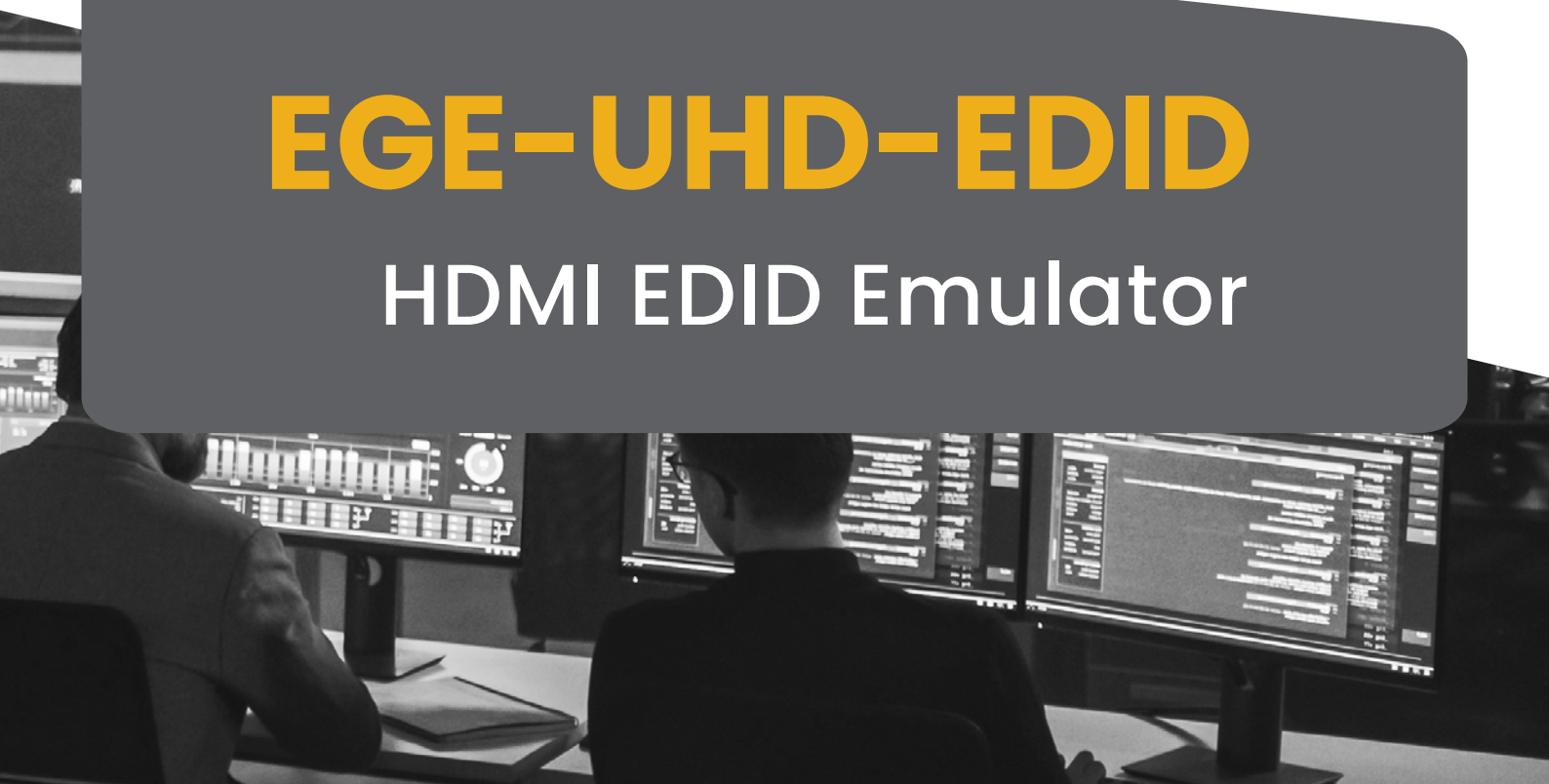
geratech®

EGE-UHD-EDID

HDMI EDID Emulator



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SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, 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 any openings or empty slots in the unit, as you may damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

REVISION HISTORY

VERSION NO.	DATE DD/MM/YY	SUMMARY OF CHANGE
VR0	14/11/13	Preliminary Release
VR1	21/04/14	Default EDID DVI Audio Cancel

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1. INTRODUCTION

The HDMI EDID Emulator is designed to manipulate the HDMI/DVI EDID information to be provided to source device for it to know capabilities of the connected display equipment and output the Video/Audio signal accordingly.

Aiming to simplify the technical complications involved in Video/Audio system integration, home theater installation, Video/Audio equipment testing and experiment, the model provides selections of the Learning function to Read/Write the Video/Audio EDID to the system. It also supports EDID Emulator and Bypass modes.

2. APPLICATIONS

- HDMI/DVI EDID manipulation
- Video/Audio system integration and home theater installation
- Video/Audio equipment testing

3. PACKAGE CONTENTS

- HDMI/DVI EDID manipulation
- Mini USB to USB Type A Cable
- Operation Manual

4. SYSTEM REQUIREMENTS

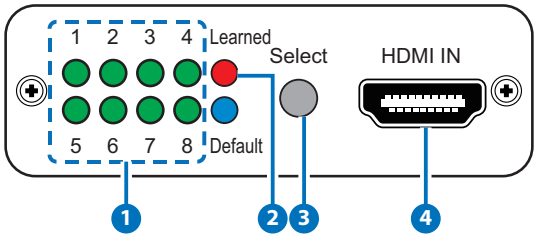
Video/Audio source device, TV/display equipment with HDMI input and output.

5. FEATURES

- Compliant with HDMI and DVI 1.0 standards
- Supports HDMI features:
  - High Video bandwidth up to 300MHz (9Gbps)
  - Resolutions up to 1080p@60Hz & 4Kx2K@24/30
  - 12-bit Deep Color
  - LPCM 7.1CH, Dolby TrueHD, Dolby Digital Plus and DTS-HD Master Audio transmission (32-192kHz sample rate)
- EDID:
  - Read: Read display's EDID
  - Write: Overwrite existing TV/display's EDID (TV/display need to support overwrite function)
  - Emulator: The source device will read EDID from the system
  - Bypass: Source device read EDID directly from TV/display
- Supports 8 sets of Default EDID
- Supports DVI source by using HDMI to DVI adaptor or cable
- CEC and EDID pass-through
- Power supported by USB or HDMI input

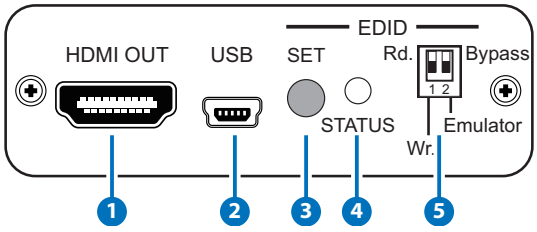
6. OPERATION CONTROLS AND FUNCTIONS

6.1 Front Panel



1. **LED indicators 1~8:** Each LED indicates each EDID selection when in Learned or Default mode. Press [Select] button to switch between 1 to 8 memories, the LED will illuminate accordingly to the selection. Default EDID please refer to 6.3 Factory Default EDID.
2. **Learned/Default:**
   - ➢ Select Learned to save HDMI output's EDIDs up to 8 different sets, to learn EDID please refer to 6.2 EDID Switch: Read.
   - ➢ Select Default to use the built-in EDID, press Select button to choose from 1~8. Detail EDID please refer to 6.3 Factory Default EDID.
3. **Select:**
   - ➢ Press for 3 seconds to switch in between the Learned and Default mode, the LED will illuminated accordingly.
   - ➢ Then press repeatedly to select in between EDID 1~8.
4. **HDMI IN:** Connect with HDMI source equipment such as DVD/Blu-ray or PS3 player. When the source equipment is connected with power supply it can also trigger the device to activate.

6.2 Rear Panel



1. **HDMI OUT:** Connect to HDMI TV/display.
2. **USB:** Connect Mini-USB cable to an active USB device to power the system. Or the device may also be triggered by an activate HDMI input source.
3. **EDID SET:** Press to execute EDID Read/Write function.
4. **EDID STATUS LED:** Indicate EDID Read/Write status.
5. **EDID Switch:**

√ **Read:**

- ➢ Connect a display to HDMI output for EDID reading.
- ➢ Switch to Emulator first then to Rd. position.
- ➢ Press [Select] button for 3 seconds to select Learned mode.
- ➢ Press [Select] repeated to select an EDID storing number from 1~8.
- ➢ Press [SET] button for 3 seconds to write HDMI output's EDID correspondingly to the LED indicator.
- ➢ When Status LED illuminate in Green that means learning successfully, when in Red that means learning failed.

√ **Write:**

- ➢ Connect a display to HDMI output for EDID writing.
- ➢ Switch to Emulator first then to Wr. position.
- ➢ Press [Select] button to select a memory EDID from Learned/ Default 1~8 EDID.
- ➢ Press [SET] button for 3 seconds to overwrite HDMI TV/display's EDID and the LED will blink during the writing. When the STATUS LED illuminate in Green that means writing successfully, when in Red that means writing failed. If the STATUS LED did not blink and illuminate in Red it means TV's EDID is not writable.

NOTE: Once overwrite is successfully done the original EDID will be erased. Please be caution when using this function.

√ **Emulator:** When DIP switch selected to Emulator position, the source device will read system's current selected 1~8 EDID. Change to other EDID, please follow LED indicators 1~8 steps.

√ **Bypass:** When DIP switch selected to Bypass position, the HDMI input Video/Audio source device will read HDMI output TV/display's EDID directly.

6.3 Factory Default EDID

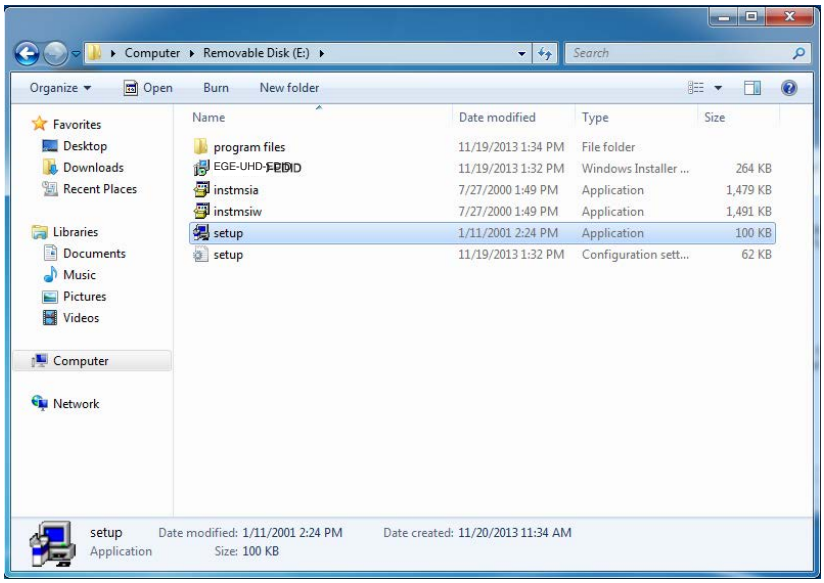
LED NO.	Video	Audio
1	DVI	
2	1080p@60Hz, 8-bit	LPCM 2CH
3	1080p@60Hz, 12-bit Deep Color	LPCM 2CH
4	3D/1080p@60, 12-bit Deep Color	LPCM 2CH
5	4K2K@24, 25, 30	LPCM 2CH
6	1080p@60, 8-bit	LPCM 5.1CH
7	3D/1080p@60, 12-bit Deep Color	Dolby TrueHD/DTS-HD Master Audio
8	4K2K@24, 25, 30/3D	Dolby TrueHD/ DTS-HD Master Audio

6.4 EDID Application Installation

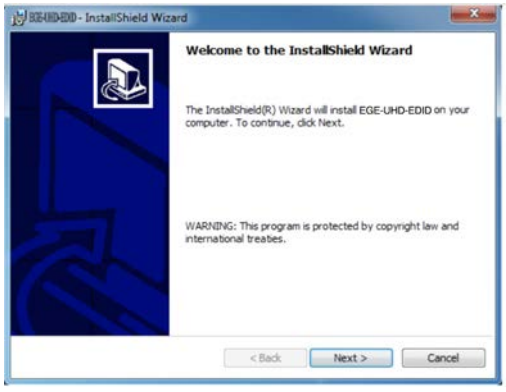
EDID Application Installation

The following section lists the procedures to follow when installing the EDID application to HDMI EDID Emulator. Please follow the step accordingly to launch the installation successfully.

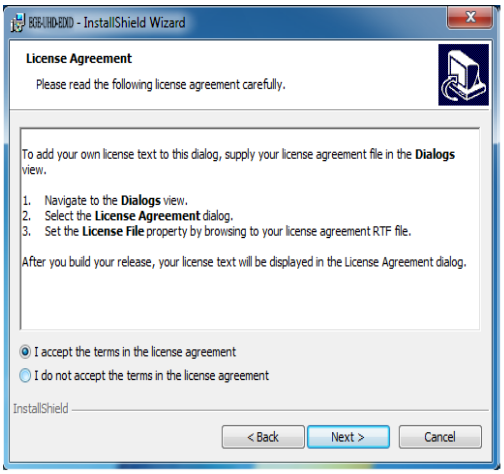
Download/Insert the software application file and double click on the “setup” file.



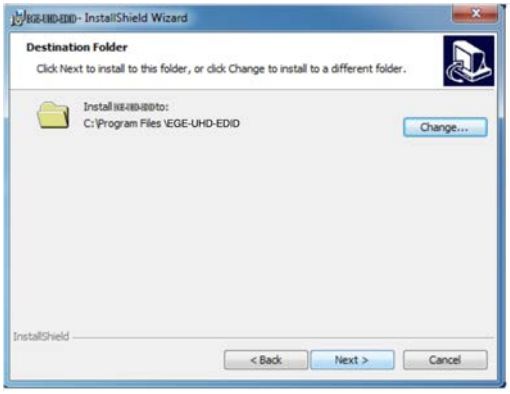
A Wizard dialogue will appear, click “Next” to continue the installation.



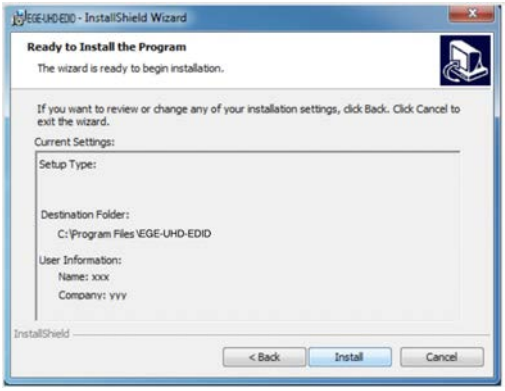
Tick on “I accept …” to continue the installation.



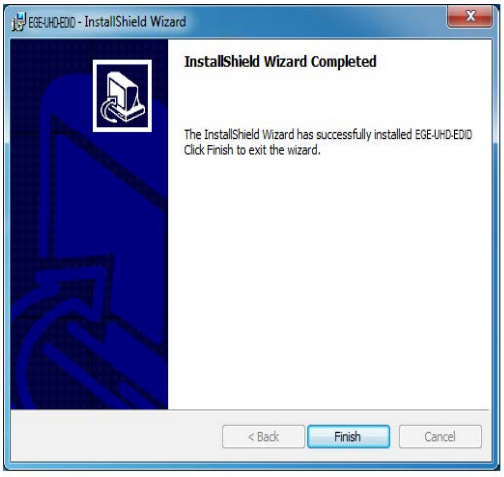
Insert the user or set the usage for this application and save it to a location where it desire. Then click on “Next” to continue.



Click on “Install” to confirm the user name and save location.

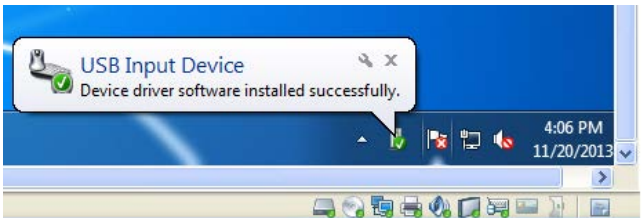


The installation will only be complete after clicking on “Finish”.

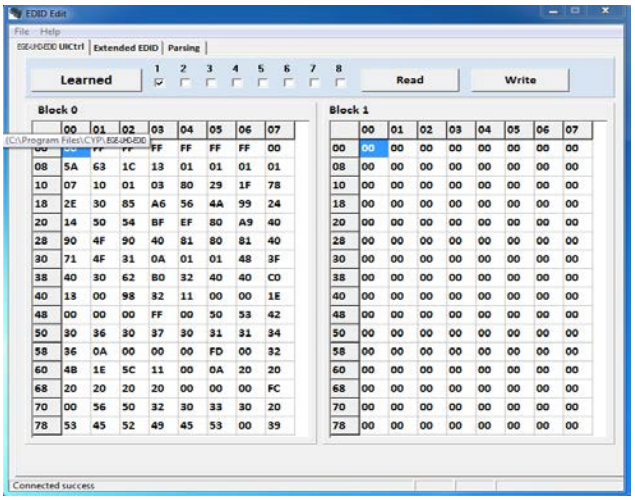


An icon may be appear on the right bottom or on the desk to show a successfully installation of the application.

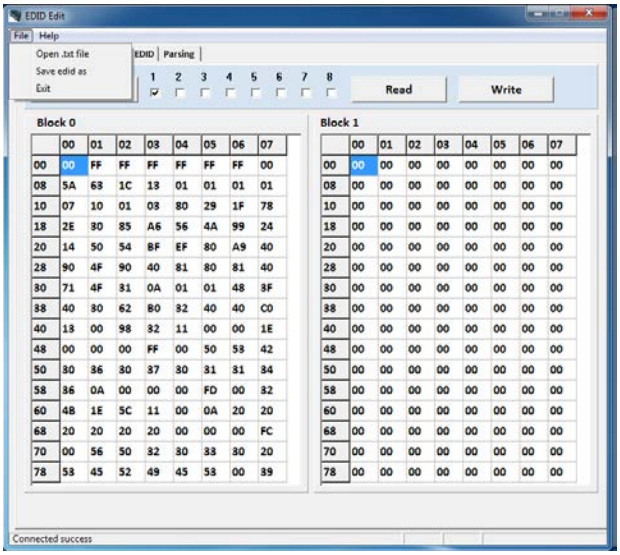
Connect the HDMI EDID Emulator device and click on “Connect” or double click on the icon to start using the application.



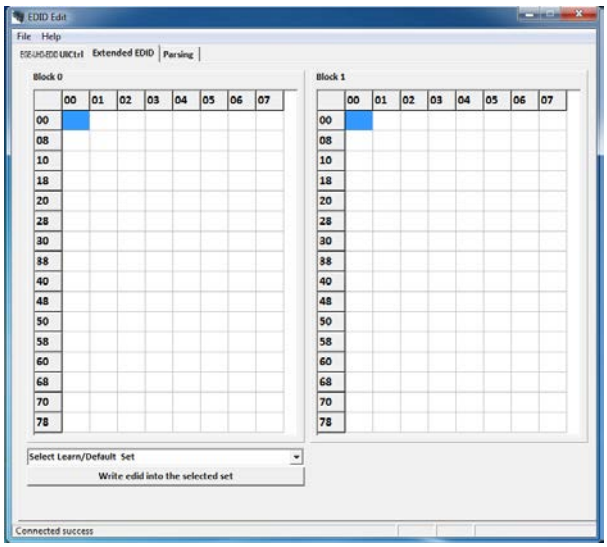
EDID Application includes EDID Learning, Reading, Writing and Default settings.



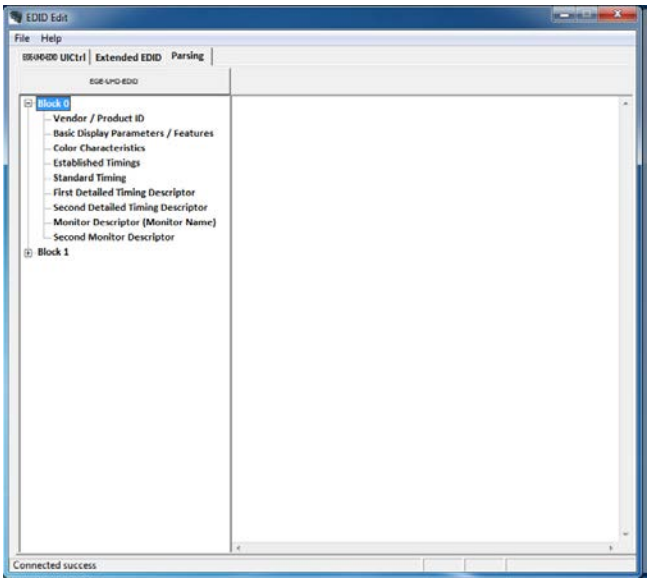
Click on “File” to Save the Learned and Defualt EDID up to 8 sets each. Click on Learned/ Default button to switch in between the mode.



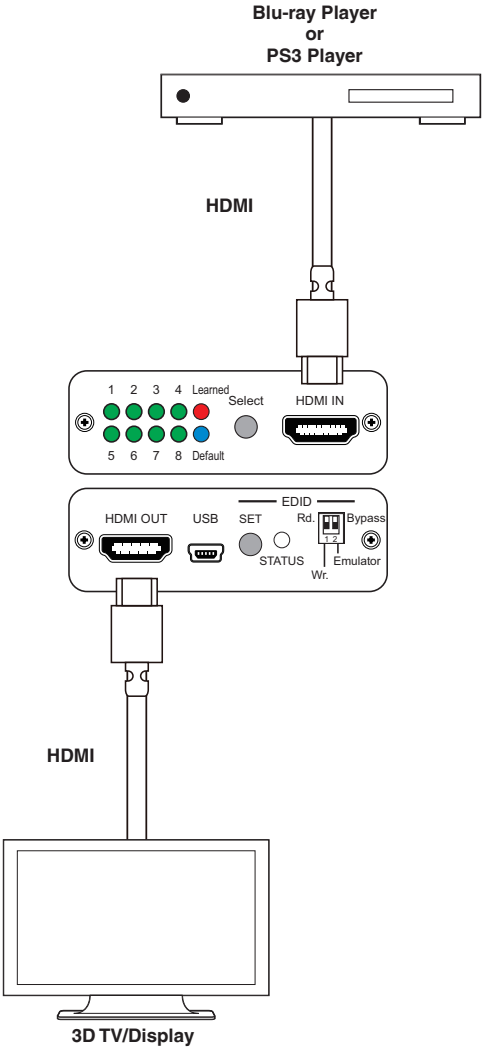
Click on Extended EDID with File's Open.tex tosave the designed Learned EDID's contents.



Click on Parsing to display the EDID Block 0 & 1's contents.



7. CONNECTION DIAGRAM



8. SPECIFICATIONS

Video Bandwidth	300Mbps/9Gbps
Input ports	1 x HDMI, 1 x USB (Power only)
HDMI Input Cable Distance	5M@4K2K or 10M@1080p 12-bit
Output port	1 x HDMI,
HDMI Output Cable Distance	5M@4K2K or 10M@1080p 12-bit
Resolution	Up to 4Kx2K@24/25/30Hz
USB Power	5V / 500mA
Dimensions	71mm(W) x 65mm(D) x 23mm(H)/Jacks Excluded 71mm(W) x 71mm(D) x 23mm(H)/Jacks Included
Weight	108 g
Chassis Material	Metal
Silkscreen Color	Black
ESD Protection	Human body model: ±8kV (air-gap discharge) ±4kV (contact discharge)
Operating Temperature	0°C ~ 40°C
Storage Temperature	-20˚C ~ 60˚C / -4 ˚F ~ 140 ˚F
Relative Humidity	20 ~ 90% RH (non-condensing)
Power Consumption	2.5w(Max)

9. ACRONYMS

ACRONYM	COMPLETE TERM
4Kx2K	3840 x 2160 / 4096 x 2160
CEC	Consumer Electronic Control
EDID	Extended Display Identification Data
HDMI	High-Definition Multimedia Interface
XGA	1024x768

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