

EDID & Configuration Manager Software for the UHBX-3S

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1. Windows™ Software Installation

1.1. General

The UHBX-3S graphical user interface (GUI) is Windows™ software used to configure advanced settings of the UHBX-3S. Use of the software requires USB connection of the PC to the device. For convenience, a USB cable is provided with each device.

The GUI can be used to monitor and configure several devices simultaneously. So for PC's that have multiple USB ports or with the use of external USB hubs, it is possible to use the same GUI and address each device individually.

1.2. Installation Prerequisites

- A PC with Windows XP™ OS or later
- USB port
- Microsoft™ .NET Framework 2.0 or later (most recent OS including Windows 7 and 8 typically include this and no action is required). If .NET Framework 2.0 or later is not installed on your PC, the Microsoft™ website has free downloads available.

1.3. Software Installation

- If an earlier version of this particular software was previously installed, UNINSTALL the program first from either the Add/Remove Programs section of the control panel or by running the previous installation SETUP.EXE and selecting "remove application".
- Install the software by executing the SETUP.EXE program from the installation source directory
- Accept the default settings, but if you want to specify a particular installation directory other than the default, you may do so.
- Once the UHBX-3S software installation has completed, either click the desktop icon or navigate the Start Menu to



Start ⇒ Programs ⇒ Hall Research ⇒ UHBX-3S Manager

2. Using the Software

2.1. General

The UHBX-3S Manager is a Windows GUI that can be installed to remotely control and monitor the UHBX-3S device via a USB connection. It also provides you an ability to manage the EDID by learning it from a desired LCD monitor connected to any output, importing any custom EDID into the device, exporting the device's EDID to a file, updating any future firmware into the device, and many more.

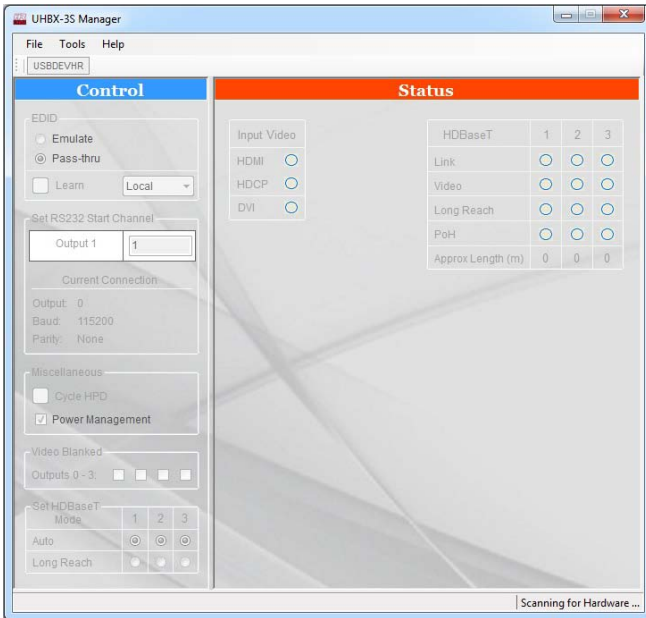
2.2. USB Device Detection

The UHBX-3S Manager automatically configures the USB port after connection to the device (using standard Windows™ USB drivers) and does not require any special USB drivers to be installed.

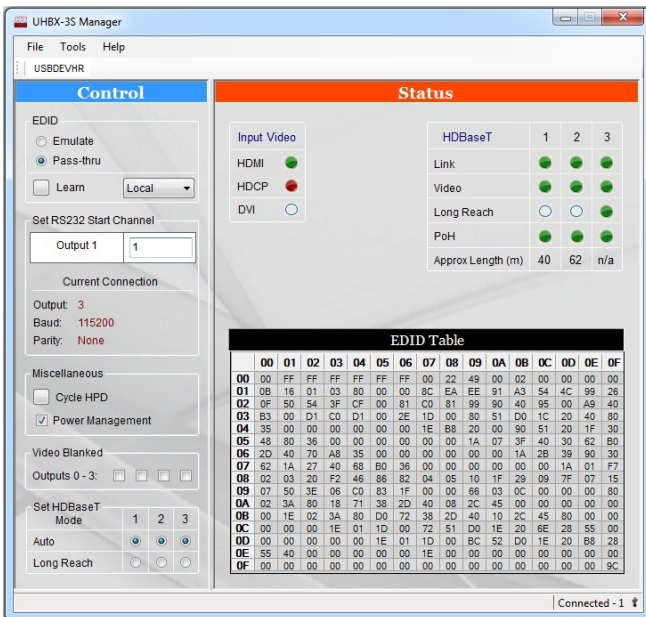
Once connected to a USB port, the Windows™ system will detect and use the appropriate USB driver. The first time you connect the device to the PC, you may experience a short delay and a windows notification pop-up message may be shown.

This detection and driver installation only occurs when the UHBX-3S is connected to the PC for the first time. Afterwards, reconnected devices automatically configure themselves with no delay or message.

- If no UHBX-3S device is attached to the PC, the on-screen fields are disabled (grayed out)



- Once, the UHBX-3S Manager detects a valid connected UHBX-3S device, its control and status menu will be enabled as shown in below.



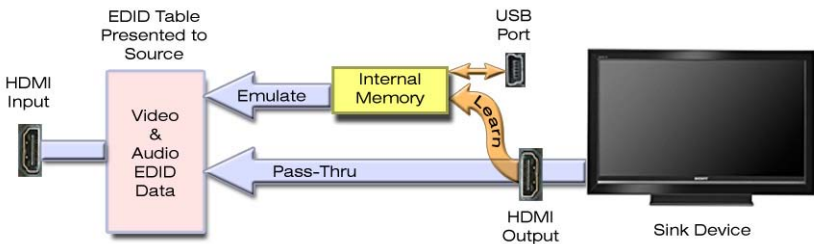
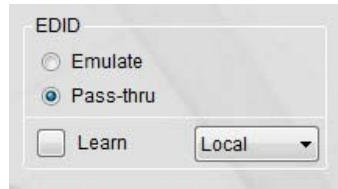
2.3. Controls

The UHBX-3S Manager provides you more control and flexibility of the device than the front panel.

Video EDID

The UHBX-3S creates an EDID table that the source connected to the input can read. EDID mode can be set to either emulate or pass-thru.

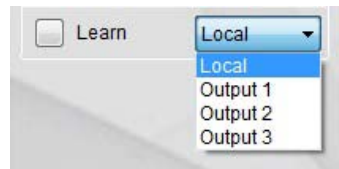
- **Emulate** - The internally stored EDID is passed to the source. This EDID can be a factory default or a learned EDID from one of the sink LCD monitors or other device connected to an output.
- **Pass-thru** - The EDID passed to the source comes from a sink LCD monitor connected to an output.



EDID Routing Modes

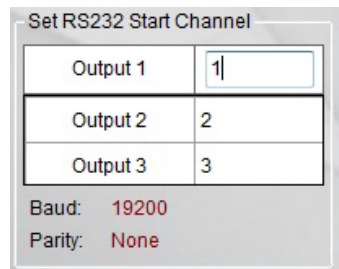
Learn EDID

An EDID can be learned from a sink LCD monitor connected to any outputs. Once, an output is selected, just click the **Learn** button to learn the EDID from the connected monitor or device.



Set RS232 Start Channel

The UHBX-3S's output can be referenced by a number from 1 to 99, which makes communicating to a desired remote serial receiver easier when there are more than one UHBX-3S devices connected in daisy chain.



By default, **Output 1** of each device starts with number 1, and this number will be incremented by one for the next output. If **Output 1** is changed to 12, the **Output 2** and **Output 3** will be 13 and 14 respectively.

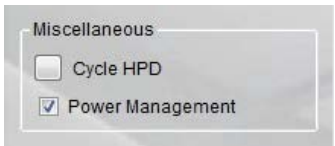
This output channel numbering is used to transmit/receive data to or from the specified serial receiver.

Current Connection – Allow you to view you to view the current output connection that the controller is connected to in addition to the baud rate, and the parity that the controller is communicating at with the remote serial receiver.



Miscellaneous

- **Cycle HPD** - This button is used to send 500ms Hot Plug Detect pulse signal to the video source. It has the same effect of unplugging the HDMI input cable and plugging it back in. This forces the source to re-initialize its HDMI video output connection (read EDID, and implement HDCP if required).
- **Power Management** – When it is selected, the UHBX-3S device will check for the presence of source +5V and sink HPD. If neither +5V nor HPD is detected, the HDBaseT extender module at the output will be in low power mode. When it is not selected, the HDBaseT extender module at the output will always be either in Auto or Long Reach mode.



Video Blanked

The output video can be blanked or un-blanked by selecting the corresponding check box.



Set HDBaseT Mode

The HDBaseT output can be individually set to either Auto or Long Reach mode.

- **Auto** - When set to Auto, the HDBaseT output will follow the current mode on the



receiver. By default, it is the HDBaseT mode.

- **Long Reach** - When set to Long Reach, the HDBaseT output will have the strongest signal from the sender to the receiver. However, this mode does not support deep color or 4K video.

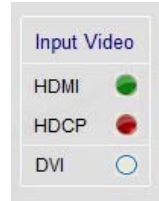
2.4. Status

The UHBX-3S Manager provides you an instant status update on input video, the HDBaseT connection, and the current EDID passed to the video source.

Input Video

The input video status is indicated by an LED on/off. When the LED is on, it means the indicated video type is detected. If the LED is off, no video input is received.

The HDCP LED is on/off when input video has HDCP Encryption enabled/disabled.



HDBaseT

The HDBaseT status is also indicated by an LED on/off. When the LED is on, it means the indicated HDBaseT connection is detected; otherwise, its LED is off.

The cable length is measured in meters, and it is not applicable when the connection is in Long Reach mode. The calculation may vary according to cable quality.

HDBaseT	1	2	3
Link			
Video			
Long Reach			
PoH			
Approx Length (m)	108	n/a	80

When the Link LED is flashing, it is indicating the HDBaseT extender module at the specified output is in Low Power mode due to either +5V video source or HPD sink LCD being not detected.

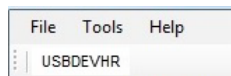
EDID Table

The data shown in the EDID table is periodically scanned to ensure the checksums for each block is valid. When an invalid checksum is detected, the last byte (location 256) will be highlighted. This invalid checksum can cause connectivity problems.

EDID Table																
	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
00	00	FF	FF	FF	FF	FF	FF	00	22	49	00	02	00	00	00	00
01	0B	16	01	03	80	00	00	8C	EA	EE	91	A3	54	4C	99	26
02	0F	50	54	3F	CF	00	81	C0	81	99	90	40	95	00	A9	40
03	B3	00	D1	C0	D1	00	2E	1D	00	80	51	D0	1C	20	40	80
04	35	00	00	00	00	00	00	1E	B8	20	00	90	51	20	1F	30
05	48	80	36	00	00	00	00	00	00	1A	07	3F	40	30	62	B0
06	2D	40	70	A8	35	00	00	00	00	00	00	1A	2B	39	90	30
07	62	1A	27	40	68	B0	36	00	00	00	00	00	00	1A	01	F7
08	02	03	20	F2	46	86	82	04	05	10	1F	29	09	7F	07	15
09	07	50	3E	06	C0	83	1F	00	00	66	03	0C	00	00	00	80
0A	02	3A	80	18	71	38	2D	40	08	2C	45	00	00	00	00	00
0B	00	1E	02	3A	80	D0	72	38	2D	40	10	2C	45	80	00	00
0C	00	00	00	1E	01	1D	00	72	51	D0	1E	20	6E	28	55	00
0D	00	00	00	00	00	1E	01	1D	00	BC	52	D0	1E	20	B8	28
0E	55	40	00	00	00	00	00	1E	00	00	00	00	00	00	00	00
0F	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	9C

2.5. Device Name

Assigns a descriptive name to the UHBX-3S device that is a maximum 8 characters long. This information is stored in the device. Assigning unique Device Names to each device can be useful to positively identify each device. This can prove handy if you are going to upload different configurations for each device, or if you intend to connect multiple devices simultaneously to a PC and use the software to control several at once.

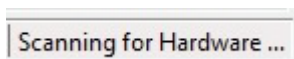


The FACTORY DEFAULT name is USBDEVHR.

2.6. Status Bar

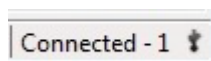
The bottom bar of the screen shows the USB connection status as follows:

This indicates the software has not detected any UHBX-3S devices and is searching the USB ports for devices.



All controls and status are disabled until a valid UHBX-3S device is attached and properly identified by the software.

The number of UHBX-3S devices will be shown; once, they are connected to the PC.



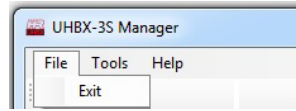
2.7. Tool Bar Menu

The UHBX-3S Manager consists of three main menus, which allow you to easily perform more specific desired tasks.

File

The **File** menu consists of the Exit selection as shown.

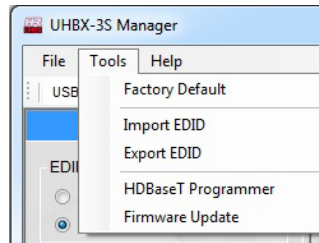
- **Exit** – Exit the UHBX-3S Manager.



Tools

The **Tools** menu consists of the following menu items as shown.

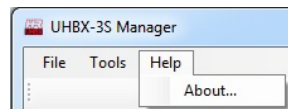
- **Factory Defaults** – Restore the device to factory default settings.
- **Import EDID** – Import an EDID (256-byte binary into the unit).
- **Export EDID** – Save the current EDID as a 256-byte binary file. This file can be edited as reloaded using **Import EDID** tool selection.
- **HDBaseT Programmer** – Can be used to update any HDBaseT extender module.
- **Firmware Update** – Allow you to update any future device firmware.



Help

The **Help** menu has the About selection as shown.

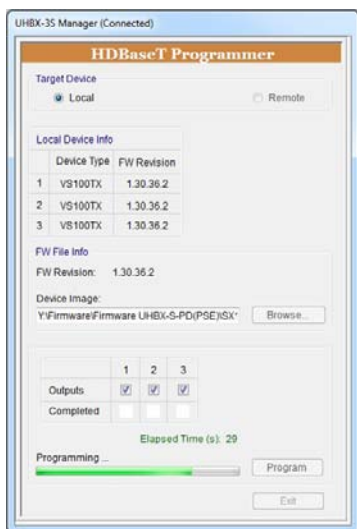
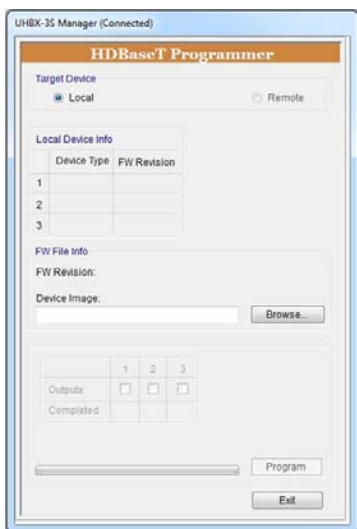
- **About...** - Display the current version of UHBX-3S Manager, device firmware, and USB serial number.



2.8. HDBaseT Programmer

The HDBaseT Programmer is only supported by the UHBX-3S firmware version 1.2 or later. This HDBaseT programmer can be used to program the local HDBaseT extender modules inside the UHBX-3S device. There are a total of 3 modules, and one module is used at each HDBaseT output.

The HDBaseT Programmer can be found under the **Tools** menu. When the **HDBaseT Programmer** is selected, the UHBX-3S Manager will open an HDBaseT Programmer window as shown below.



Next, select a firmware to program it into a desired HDBaseT output module. A desired output module is selected by having its box checked. If all three modules are needed to be programmed, all three boxes next to Outputs 1-3 must be checked.

Once, it is ready for program, just click the **Program** button.

NOTE: A remote programming will be in the future firmware update.

The HDBaseT Programmer will verify the firmware in the module after it has been programmed. A completed or failed status will be shown.



2.9. Firmware Update

The firmware update can be found under the **Tools** menu. When the **Firmware Update** is selected, the UHBX-3S Manager will open a Firmware Update window as shown.

After the firmware update is completed successfully, the UHBX-3S will be running as normal.





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