

NM-iSwitchHD-4x1

4x1 HDMI Switch

Hands-Free Intelligent Auto-Sensing



The NetMedia® iSwitchHD™ 4x1 is an intelligent auto-sensing four-port High Definition Multimedia Interface (HDMI®) switch. It automatically senses and connects whichever component was last powered up to provide spontaneous access to multiple HDMI devices such as Satellites, Blu-rays, video game consoles, or computers. The iSwitchHD-4x1™ also includes a serial port for automated control and advanced cable setup. It is perfect for home theaters, boardrooms, schools, and churches. Cascade additional 4x1 switches to make even larger intelligent arrays (7x1, 10x1, 16x1, etc.).

Product Includes:

1. iSwitchHD-4x1 Switch Assembly (1-HDMI Output, 4-HDMI Inputs, Power Input, Power LED, 4-Input LED's, Select Button, Serial Port).
2. 5V DC 1A Power Transformer (Center Conductor Positive).



FEATURES

HDMI 4-input 1-output switch
Auto-senses and connects when source turns on
DVI/HDMI computer resolution up to 1920x1200
480i, 480p, 720p, 1080i, 1080p, & Deep Color
Manual override source-select button
Cascade multiple units for 7x1, 10x1, 16x1, etc.
Serial port for computer and automated control
Equalization/pre-emphasis for long cable runs
One year limited warranty

SPECIFICATIONS

Output Signal/Connector:	1 - HDMI Connector
Input Signal/Connectors:	4 - HDMI Connectors
Supported Formats:	480i, 480p, 720p, 1080i, 1080p, Deep Color
Serial Port:	RS232c, 9600 baud, N, 8, 1
Power Requirement:	5V DC 1A
Power Connector:	4.0mm OD, 1.7mm ID, center positive
Size:	3.9" long x 5.5" wide x 0.9" high
Weight:	8.0 oz.

(subject to change without notice)

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NM-iSwitchHD-4X1

Setup Procedures:

1. Connect the 5V DC 1A power transformer to the iSwitchHD Power Input connector. Connect the other end of the power transformer to an AC outlet.
2. Use an HDMI cable to connect the output of each source to one of the four iHDMI Inputs. Use another HDMI cable to connect the iSwitchHD Output to the display device (Figure 1).
3. Start the display device. Start one or more source devices (the corresponding Input LED will be ON). The last source started will automatically be connected to the display (the corresponding Input LED will PULSE). If desired, press the Select Button to manually change to a different source. Note: it may take minutes for some devices to start and a few seconds for the iSwitchHD and the display device to properly detect the HDMI signal.
4. For serial port control, connect a straight-wired (not Null modem) cable to the iSwitchHD Serial Port (Female DB9) and to the RS232 port of the controlling device (Computer, Home Automation Controller, etc.) Configure the controlling device for communication with the iSwitchHD (9600 baud, No Parity, 8 Data Bits, 1 Stop Bit, No Flow Control). Establish a connection and issue the proper commands to change sources or cable parameters (Figure 2). If using serial terminal software from a computer (Hyperterminal, ZTerm, etc.), press the "?" key to display a menu of the commands or simply enter the one-character command. Enter the "W" command to save the input/output settings when powered off.

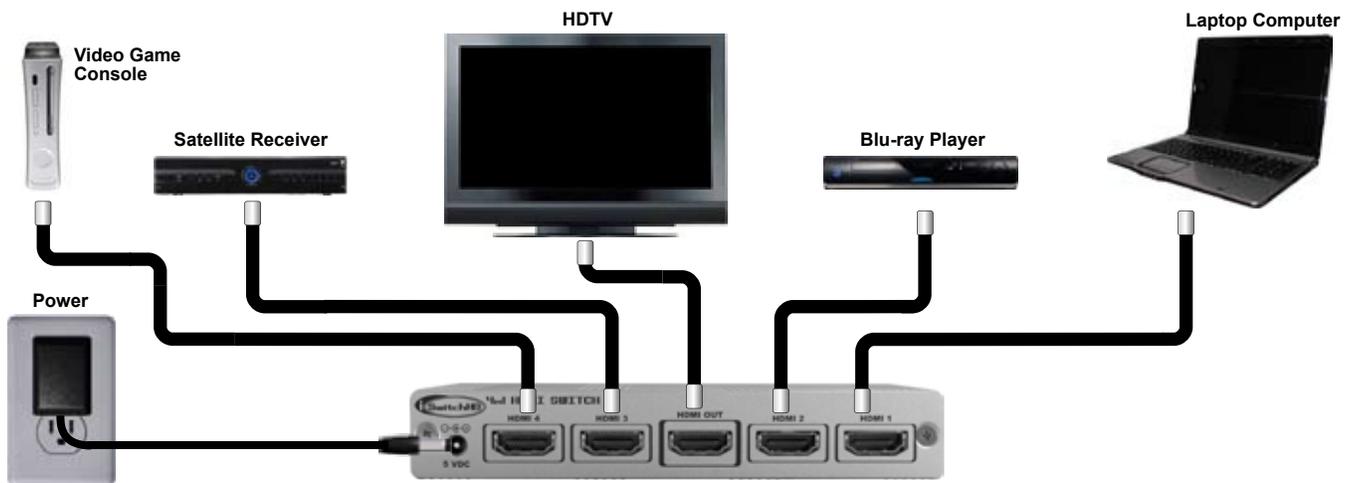


Figure 1 - Connecting the iSwitchHD-4x1 to power, a display, and various sources such as a Satellite Receiver, Blu-ray, video game console, and computer.

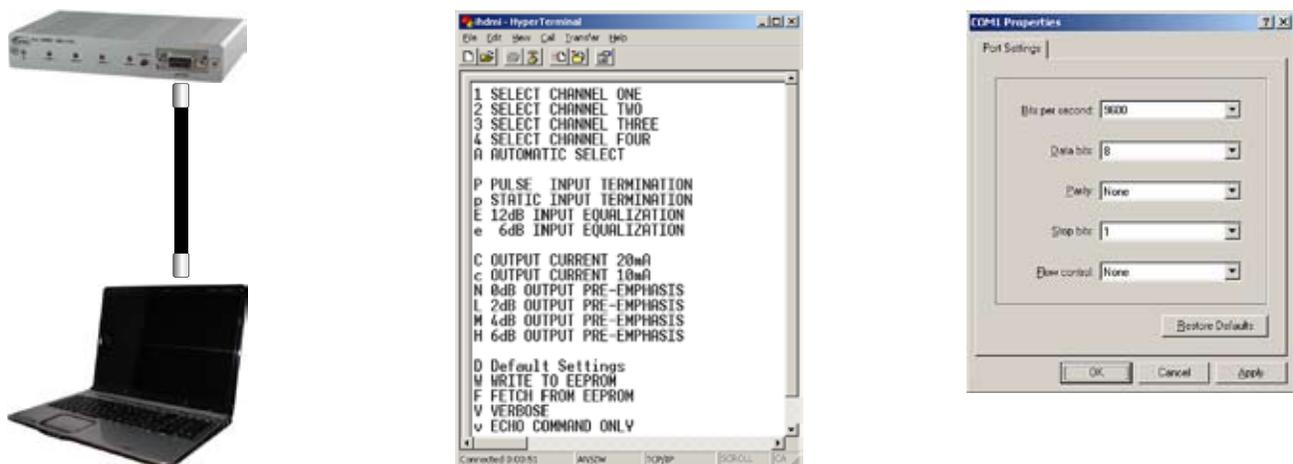


Figure 2 - Connecting the iSwitchHD-4x1 to the RS232 serial port of a computer using Hyperterminal (9600, N, 8, 1). Press "?" key to display the menu.

FCC Information (U.S.A.):

Important: This product, when installed as specified below, meets FCC requirements. Modifications not expressly approved by NetMedia may void your authority, granted by the FCC, to use the product. Failure to follow all installation instructions could void your FCC authorization to use the product in the USA.

Compliance Information Statement
(Declaration of Conformity Procedure)

We,
NetMedia, Inc.
10940 N. Stallard Pl.
Tucson, AZ 85737
(520-544-4567)
declare under our sole responsibility that the following products,

Type of Equipment: HDMI Switch

Model: NM-iSwitchHD-4X1

to which this declaration relates are in conformity with the Title 47
of the US Code of Federal Regulations, Part 15 covering Class B digital devices.

Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television communications. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- * Reorient or relocate the receiving antenna.
- * Increase the separation between the equipment and receiver.
- * Connect the equipment to a different outlet on a circuit other than the one the receiver is connected to.
- * Consult the dealer or an experienced radio/TV technician for help.

One Year Limited Warranty

NetMedia, Inc. warrants this product to be free from defects in materials and workmanship under normal use and service for One Year from the date of purchase or NetMedia will repair or, at its option, replace the defective product. Please keep your purchase receipt. In the unlikely event that you need warranty service, call NetMedia at 1-520-544-4567 for a Return Material Authorization (RMA) number. Then, return the product, with the RMA number clearly marked on the package, by a traceable method with freight pre-paid and accompanied by a copy of the purchase receipt to:

Attn: Customer Service, NetMedia, Inc. 10940 N. Stallard Place, Tucson, AZ 85737-9527

No expressed or implied warranty is made for any defects in this product which result from accident, abuse, failure to operate the product in accordance with relevant instructions, neglect, immersion in or exposure to chemicals or liquid, extreme climate, excessive wear and tear and defect resulting from other extraneous causes such as unauthorized disassembly, repair and or modification. Any implied warranty arising from the sale of this product, including implied warranties of merchantability and fitness for a particular purpose, are limited to the warranty stated above. NetMedia shall not be responsible for any loss, damages or expenses, whether direct, consequential or incidental that arise from the use or inability to use this product. Some states do not allow limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you. This warranty gives you specific legal rights, and you may have other rights, which vary from state to state.

Frequently Asked Questions

Q- How do I save or restore my settings through the Serial Port?

A- None of the Serial Port settings are saved until you use the Write To EEPROM ("W") command. The settings are restored from EEPROM when you power on the unit or use the Fetch From EEPROM ("F") command. You can also restore factory Default Settings ("D") if necessary.

Q- Automatic switching is great but how can I manually change the input?

A- Press the Select Button to manually change inputs; the unit will still automatically switch to new inputs when detected. You can also use the Serial Port to select inputs 1 through 4 ("1","2","3","4") but once you do, the unit will not switch automatically again until you use the Automatic Select ("A") command.

Q- What can I do when one of my HDMI Input cables is long and the switch isn't properly detecting or displaying the signal?

A- You can set 12dB Input Equalization ("E") for long input cables. Select input 1-4, then set the equalization. When satisfied, save the setting ("W") and place the unit back in auto mode ("A"). 6dB Input Equalization ("e") is for normal length cables.

Q- What can I do when my HDMI Output cable is long and my TV is not properly detecting or displaying the switch?

A- You can adjust the Output Pre-emphasis to 2dB ("L"), 4dB ("M"), or 6dB ("H") depending on the length and quality of the cable. You can also adjust the Output Current to 20mA ("C"). When satisfied, save the setting ("W"). 0dB Output Pre-emphasis ("N") and Output Current 10mA ("c") are for normal length output cables.

Q- What do the Pulse and Static Input Termination settings do?

A- They affect how the switch communicates with the input device when the input is selected. Pulse Termination ("P") causes a 100ms break in the signal so that the input device will reinitiate the connection sequence. Static Termination ("p") does not have the break. You should not need to adjust them but they are available through the Serial Port if you do. Select input 1-4, then set the termination. When satisfied, save the setting ("W") and place the unit back in auto mode ("A").

Q- I don't like the settings I saved through the Serial Port, what can I do to reset the switch?

A- You can reset the factory defaults by holding the Select Button while applying power. You can also reload factory defaults through the Serial Port with the Default Settings ("D") command and then save them with Write To EEPROM ("W").

Q- What do the different Input LED conditions indicate?

A- OFF means there is no powered up input connected. ON solid means there is a powered up input connected but it is not selected. SLOW PULSING means there is a powered up input connected and it is selected. FAST PULSING means there is no powered up input connected but it has been manually selected; select a different input. ALL FLASHING rapidly means that the output cable is not properly connected to the display device; reconnect it or change cables.

Q- How can I control the switch if my computer does not have a serial port?

A- You can use a USB to Serial adapter (<http://www.basicx.com/Products/usb1/usb1.htm>) or a Serial to Ethernet device such as the SitePlayer Telnet System (<http://www.siteplayer.com/telnet>).

Q- What if I have more than 4 HDMI devices?

A- You can connect multiple iSwitchHD-4x1's together to make a 7x1 (two units), a 10x1 (three units), a 13x1 (four units), a 16x1 (five units), or even larger intelligent arrays.

