



HDS-41R Owner's Manual

HDMI 4x1 Switcher

PureLink™

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Package Contents

Please make sure all of the following items are included in the package:

1. HDS-41R Unit
2. 5V Power Supply Adapter
3. Remote Control
4. User Manual

Description

PureLink's HDS-41R HDMI Switch allows number of digital video sources (with audio) to share one video display (with audio).

Our unique switch allows easy switching between different digital video sources (with audio) with remote control unit and/or with a manual toggle button in front and/or via RS232 port.

It is perfect for home theater systems. No more hassles of manually plugging in different HDMI connectors to view different video sources (e.g., DVD, Satellite receiver, computer, TiVo).

| ITEM | DESCRIPTION |
|-------------------------|---|
| Model Name | HDS-41R |
| Input Signal | HDMI Single Link , 4 Port for HDS-41R |
| Output Signal | HDMI (TMDS) Single Link |
| Resolution | VGA / SVGA / XGA / UXGA 480i, 480p , 720i, 720p , 1080i, 1080p |
| Receptacle | DC Power Jack x 1 HDMI output x 1 HDMI input x 4 |
| HDCP Support | HDCP Compliant |
| Power Consumption | DC +5V , 2W Max |
| Dimension (W x D x H) | 9" x 4.1" x 1.2" in. 228.6 x 104.14 x 30.48 mm |

Operation and Reliability Specification

1. Operating Conditions

Temperature: 10 °C ~ 40 °C

Humidity: 10% ~ 80%, non-condensing

2. Transportation Conditions

Temperature: -25 °C ~ 60 °C

Humidity: 5% ~ 95%, non-condensing

Altitude: maximum 15,000m

3. Storage Conditions

Temperature: -20 °C ~ 45 °C

Humidity: 5% ~ 95%, non-condensing

Altitude: maximum 3,000m

4. Reliability Specifications

MTBF: more than 50,000 hours at 90% confidence level

Main Features

1. High Quality Picture - No Signal Loss and Digital Noise Free

HDS-41R is built to deliver the highest quality picture preserving the native resolutions of the video sources (with audio) without any signal loss. At the same time, the digital noises that may affect the picture quality will be eliminated. Due to the nature of the digital signals and passing through multiple stages of connection when using switchers, it is important to eliminate the digital noises and boost the signal strength to preserve/enhance the video & audio signal quality.

2. Compact and Practical Design

Our 5V power adapter supplies adequate power to amplify the video signals from different video sources. This is necessary as the overall length from the video source to the displays is longer when using the switches (distance from the video source to the switch + distance from the switch to the display). In most cases, the overall distance that the DVI signal will need to travel is over 10ft. Due to the nature of DVI signals, amplification is necessary to warrant the video quality and reliability. (Without amplification, there may be occasional blackouts or blinking effects) With this amplification feature, your video display can be extended up to 2300ft using our fiber optical DVI cables.

3. Remote Control Unit with Discreet Channel selections

Remote Control Units with discreet channel selection feature is included in all our switches. The channel buttons on the remote control unit will allow you to change video sources easily and quickly.

4. RS232 Control

Our switches also feature RS232 Control. Our switches are capable of being controlled by a remote computer. This is extremely helpful for many applications where you need to automatically switch the video inputs. Example: If you connect a PC to our switcher, you can program it to automatically switch the sources. If you want to display input 1 for 1 hour and then switch to input 2, you can do this with the PC. The RS232 LED indicators in the front will allow you to check the communication between the PC and the switch. Most other products require additional control box for this function.

HDMI Connection Instruction

1. Connect your video source's HDMI output port to the HDMI switch's HDMI input port using standard HDMI cables (not included).
(Make sure all your HDMI sources and the display is turned off before connecting the cables)
2. Connect your HDMI display's HDMI input port to HDMI switch's HDMI output port.
(Make sure your HDMI display is turned off before connecting the Cables)
3. Plug the 5V power supply into the switch's power input port.
4. Plug the 5V wall mount power supply into the wall outlet.
5. Turn on your display.
6. Turn on your video sources.
7. Use your remote control unit to switch channels. Or use the select button on the front panel of the switch to change channels.

RS232 Control Connection

RS232 connection allows the user to interface the PureLink switch with a serial port on a computer or other control device. The computer or other control device may require additional software for various control functions. (Control software not included)

*** Please refer to RS232 connection diagram before installation.**

Baud Rate: 9600bps

Pin Assignments;

Control computer's RS232 pin# 2 is connected to our DVI switch's pin#3

Control computer's RS232 pin# 3 is connected to our DVI switch's pin#2

Control Protocol;

Channel 1 request is ascii code "@001*" and the response back to the computer is "!"

Channel 2 request is ascii code "@002*" and the response back to the computer is "!"

Channel 3 request is ascii code "@003*" and the response back to the computer is "!"

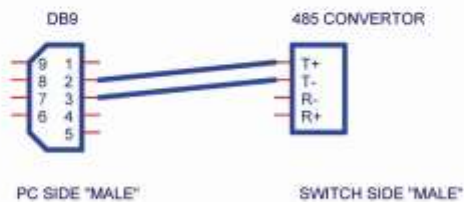
Channel 4 request is ascii code "@004*" and the response back to the computer is "!"

RS232 Connection Diagram

PC TO 2:1, 4:1 SWITCH CONNECTION

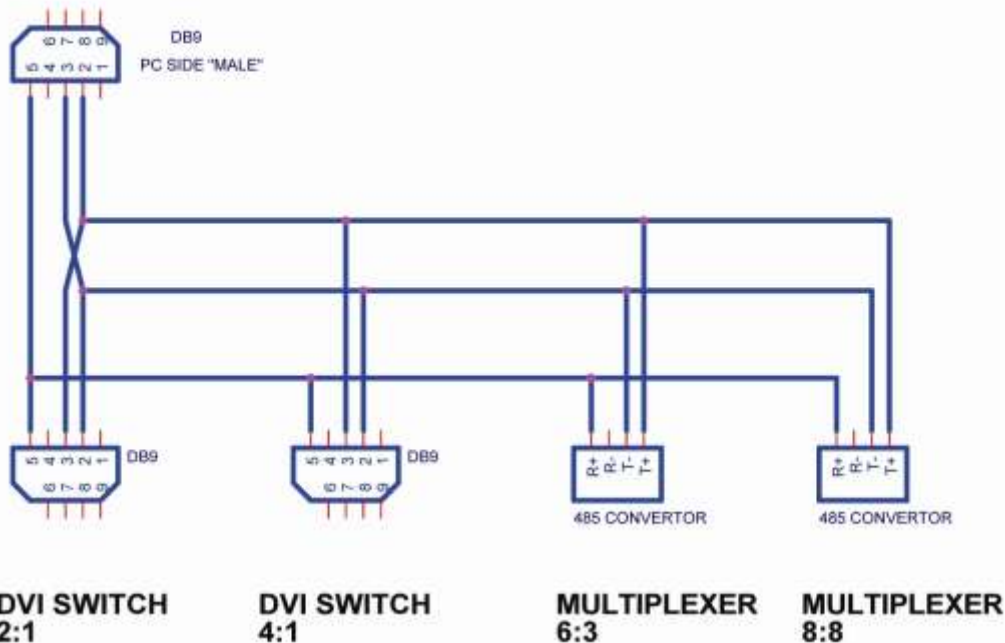


PC TO 6:3, 8:8 MULTIPLEXER CONNECTION



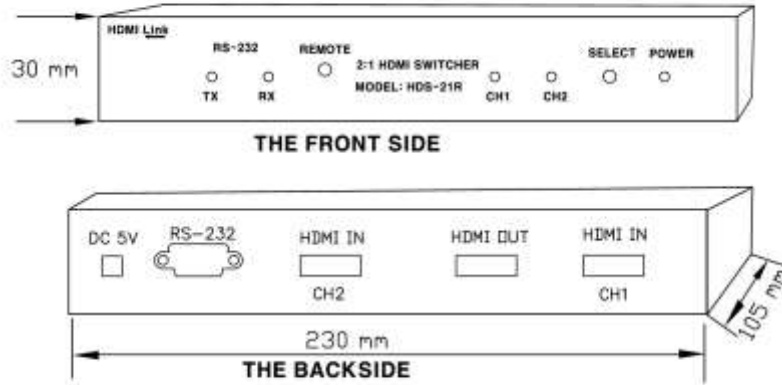
PC TO 2:1, 4:1 SWITCH & 6:3, 8:8 MULTIPLEXER COMPLEX CONNECTION

MAIN COMPUTER



Mechanical Specification

Dimensions: L 9 x W 4.1 x H 1.2 in. |



Connector Pin Assignments

| HDMI port | Pin No. | Description | Remarks |
|------------|-----------------|--------------------|---------|
| HDMI 19pin | 1 | TMDS DATA 2P | |
| | 2 | TMDS DATA 2 Shield | |
| | 3 | TMDS DATA 2M | |
| | 4 | TMDS DATA 1P | |
| | 5 | TMDS DATA 1 Shield | |
| | 6 | TMDS DATA 1M | |
| | 7 | TMDS DATA 0P | |
| | 8 | TMDS DATA 0 Shield | |
| | 9 | TMDS DATA 0M | |
| | 10 | TMDS Clock P | |
| | 11 | TMDS Clock Shield | |
| | 12 | TMDS Clock M | |
| | 13 | CEC | |
| | 14 | RESERVED | |
| | 15 | DDC Clock | |
| | 16 | DDC DATA | |
| | 17 | GND | |
| 18 | +5v | | |
| 19 | Hot Plug Detect | | |

Warranty

One (1) Year Warranty

Dtrovision LLC warrants that each DVI Link DVI Switch is free from defects due to faulty materials or improper workmanship for a period of one (1) year. Dtrovision further warrants that any part which proves defective in materials or workmanship within one(1) year, will be replaced or repaired at no cost to the user. Labor to replace defective parts will be done without charge. Provided the equipment is returned to Dtrovision prepaid, Insured and properly packaged. Prior return authorization must be obtained from your local dealer.

This warranty is void if the warranted part has been altered or subjected to abuse or misuse.

This warranty is in lieu of all other warranties expressed or implied including, without limitation, any implied warranty or any implied warranty of fitness for a particular purpose. Dtrovision shall have the final right to determination as to the existence and cause of any defect and its appropriate adjustment in accordance with the terms of this warranty. In no event shall Dtrovision be liable for any consequential or collateral damages.

Warranty Limitation and Exclusion

Dtrovision shall have no further obligation under the foregoing limited warranty if the product has been damaged due to abuse, misuse, neglect, accident, unusual physical or electrical stress, unauthorized modifications, tampering, alterations, or service other than by Dtrovision or its authorized agents, causes other than from ordinary use or failure to properly use the Product in the application for which said Product is intended.