DTS/DRS-1000RV

Owner's Manual

DTS-1000RV: DVI/HDMI or VGA, Audio, RS-232C
Transmitter Extender

DRS-1000RV: DVI/VGA or VGA, Audio, RS-232C
Receiver Extender

Package Contents

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

1) DTS-1000RV Transmitter Module or DRS-1000RV Receiver Module x 1

    The transmitter module and the receiver module are sold separately

2) DC 12V power supply unit x 1

3) AC cord x 1

4) Owner's Manual x 1

General Specification

DTS1000RV/DRS1000RV is a floor box-type fiber-optic extension system capable of transmitting DVI/HDMI/VGA video, 3.5 stereo audio, and RS232-C composite signals to remote locations (max distance up to 1000m or 0.62 miles).

DTS1000RV/DRS1000RV is equipped with readily available multimode fiber-optic and CAT5 cables, making this system a convenient and affordable solution for transmitting high-quality video and audio signals in various applications.

Item	Description
Model	DTS-1000RV/DRS-1000RV
Input Signal	DVI/HDMI VGA(D-Sub) Stereo Audio (3.5mm mini jack) x 2 RS-232
Output Signal	DVI/HDMI VGA(D-Sub) Stereo Audio (3.5mm mini jack) x 2 RS-232
Supporting video graphic resolution	PC Mode : VGA ~ WUXGA DTV Mode: 480 ~ 1920*1080P
Max. Distance	1920 x 1200 @60Hz or 1080p up to 3,300 ft 1280x1024 @ 60Hz or 1080i up to 5,000ft
Connector Configuration	DC Power Jack DVI 29 Pin Female / D-SUB 15Pin Female LC Fiber Connector 4 CORE / RJ-45 3.5mm STEREO Jack RS-232C : 3 Port Phoenix connector
Conformation	DDWG DVI1.0 HDMI V1.3 HDCP
Power Consumption	DC 12V, 4.1A, 8 Watts(Max 13W)
Dimension	4.3'(W) x 5.1'(D) x 1.6' (H) (Inch)
Weight	TX,RX 1.4 lbs per unit

Operation and Reliability Specification

1. Operating Environment
   Temperature : 50F ~ 104F (10℃ ~ 40℃)
   Humidity   : 10% ~ 80%
   Altitude   : 3,000m Max.

2. Transit Environment
   Temperature : -13F ~ 140F (-25℃ ~ 60℃)
   Humidity   : 5% ~ 95%
   Altitude   : 15,000m Max.

3. Storage Environment
   Temperature : -4F ~ -49F (-20℃ ~ 45℃)
   Humidity   : 5% ~ 95%
   Altitude   : 3,000m Max.

4. Reliability
   MTBF: 90% at over 50,000 hours aging test
   - In compliance with LCD Monitor reliability test standard

Main Features

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

DTS-1000RV/DRS-1000RV is designed to deliver the highest quality picture preserving the native resolutions of the digital/analog video sources, or analog stereo audio, or RS-232 communication 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 fiber optic extender, it is important to eliminate the digital noises and boost the signal strength to preserve/enhance the video signal quality. DTS-1000RV/DRS-1000RV equipped with Noise cancellation and error correction logic that enhances HDMI video and audio signals over long distance.

2. Signal Amplification for signal reliability and long distance signal transmission

12V power adapter supplies adequate power to amplify the video signal from the video source and it also has a built-in signal repeater to support long distance.

3. Compact and durable design

DTS-1000RV/DRS-1000RV is comes in compact and robust 1RU size design.

4. Fiber optic cable for long distance signal transmission

Long Distance (Up to 5000ft at 1080i or lower signal) over cost effective multimode fiber optic cables. (* RS-232 signal will be delivered over CAT5)

5. AUTO EDID management

The definition of AUTO EDID management is a way of saving EDID of a monitor into EEPROM in the transmitter module before connecting to any video source. DTS-1000RV transmitter has 14 different pre-programmed EDID data that can be conveniently selected by end-user, if an external EDID doesn't need to be saved. Saving/Emulating display's EDID in the transmitter module enhances reliability and compatibility with various displays.
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.6. HDCP (High-bandwidth Digital Content Protection) Compliant

Our DVI DTS-1000RV/DRS-1000RV is fully HDCP compliant. Many video sources such as DVD players and Satellite/Cable Receivers are HDCP encrypted. For these video sources to be displayed correctly, HDCP compliant devices (e.g., TV, DVI Switch, distribution amplifier) are required.
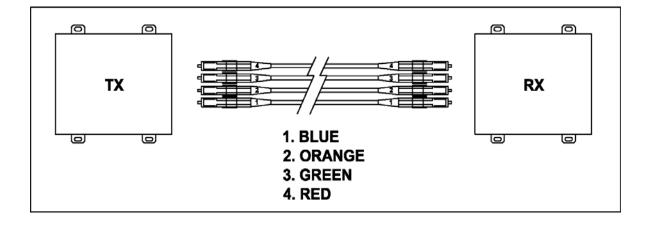
Installation and Connection Instructions

Installation Instruction

1. Turn off the video source and monitor before connecting any cable.
2. Connect DVI-D, VGA, Fiber, CAT5, and RS-232 cable.
3. Connect 12V DC power adapter to both transmitter and receiver module.
4. Turn on the monitor
5. Turn on the video source
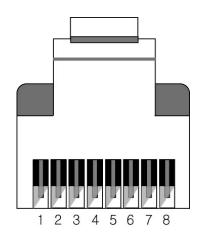
How to connect LC fiber cable between TX and RX

TX : 1 ->   RX : 1 , TX : 2 ->   RX : 2

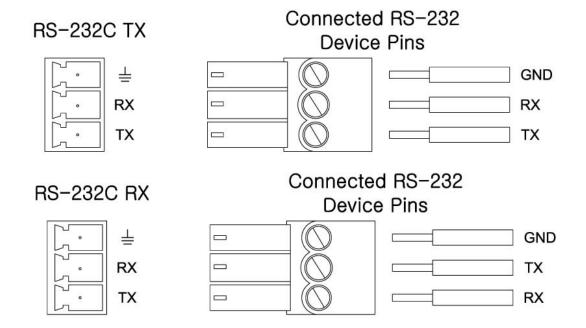TX : 3 ->   RX : 3 , TX : 4 ->   RX : 4

CAT5 cable

DTS-1000RV/DRS-1000RV is designed to conform to TIA/EIA-568-B standards.
Check whether the PIN MAP is properly connected to the TIA/EIA-568-B (as illustrated below) before use. (Note: CAT-5E or CAT-6 cables will deliver signal for longer distances).

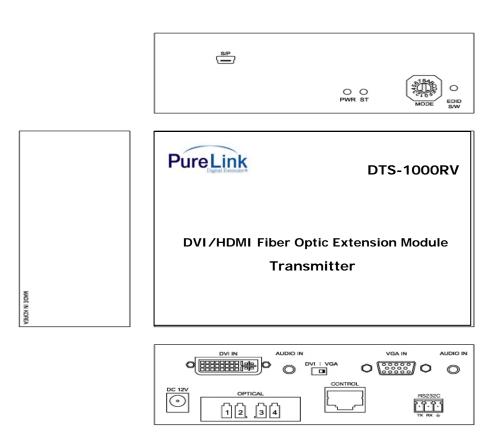| Pin	TIA/EIA-568B	Signal
	Wire color	Signal
1	Orange/ White	RS-422_TXD+
2	Orange	RS-422_TXD-
3	Green/ White	RS-422_RXD+
4	Blue	NC
5	Blue/ White	GND
6	Green	RS-422_RXD-
7	Brown/ White	NC
8	Brown	GND

RS-232 Connection

Set up connection in the order illustrated below before use.
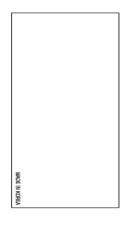
PRODUCT DIMENSION

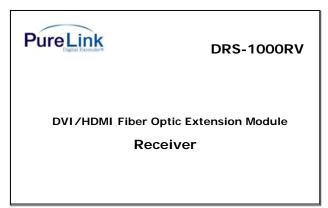Exterior Dimension (W*D*H): 4.3'x5.1'x1.6 mm, 1.4 lbs per unit

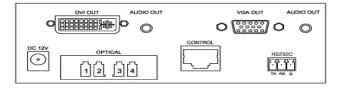DTS-1000RV : DVI/HDMI or VGA, Audio, RS-232C Transmitter Module

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S/P

PWR ST

PureLink
Digital Extender®

DRS-1000RV

DVI/HDMI Fiber Optic Extension Module
Receiver

MADE IN KOREA

DVI OUT   AUDIO OUT   VGA OUT   AUDIO OUT

DC 12V   OPTICAL   CONTROL   RS232C
        1 2 3 4   TX RX

Front Panel:

PWR: Power LED

ST: Signal LED

MODE: EDID Setting

EDID S/W: EDID Save button

Rear Panel:

DVI Input (Tx), DVI Output (Rx)

VGA Input (Tx), VGA Output (Rx)

DVI or VGA Dip switch (Only on Tx side)

Optical In /Out ports: Fiber optic connection

Audio In (Tx), Audio Out(Rx) :3.5mm Stereo Audio Jack

CONTROL (For RS-232): CAT5

RS232C: Phoenix Connector

DC 12V: Power Input

USER GUIDE

Built-in Selector Switch:

It will allows user to select between DVI + Stereo Audio or VGA + Stereo Audio

signal

Internal EDID DATA

Select EDID data of your choice from the list below by adjusting MODE switch.

* MODE List

0- External EDID

1-800x600 60Hz , 2-1024x768 60Hz , 3-1280x768 60Hz ,4-1280x1024 60Hz

5-1360x768 60Hz ,6-1366x768 60Hz , 7-1400x1050 60Hz , 8-1600x900 60Hz

9-1600x1200 60Hz , A-1680x1050 60Hz ,B-1920x1200 60Hz , C-HD1080i 60Hz

D-HD1080p (2CH) , E-HD1080p(Multi)

Saving external EDID DATA:

Connect display (monitor or display) to the DTS-1000RV transmitter. Set your rotatory switch to " 0 ", then press the EDID S/W button. Transmitter will read and save the EDID data on the internal EEPRom.

Technical Specification

Data Transfer Speed: Up to 2.25 Gbps (Single Link)
Frequency Range: 25 ~ 165 MHz
Supporting Display Resolutions: Up to WUXGA (1920X1200)@60Hz / 1080p

I/O Signal Standard: Digital RGB, VGA, Stereo Audio (3.5mm), RS-232
Max Distance: 1,000m (3,300ft) at 1920x1200@60Hz / 1080p
                            1,500m (5,000ft) at 1600x1200@60Hz / 1080i

Optical Source: 850 nm Vcsel
Optical Cable Specification: Multimode 50/125 or, 62.5/125

Input Ports: DVI-D Female 29P / D-Sub Female 15Pins /
                            LC Receptacles x 4 cores / 3.5mm mini jack /
                            RS-232
Output Ports: DVI-D Female 29P / D-Sub Female 15Pins /
                            LC Receptacles x 4 cores / 3.5mm mini jack /
                            RS-232

Power Consumption: 8 Watts(Max 13W)
Power Rating: 12V DC / 3A

Warranty

2 (two) Year Warranty

Dtrovision warrants this DTS-1000RV/DRS-1000RV fiber optic extender to be free from defects in workmanship and materials, under normal use and service, for a period of two (2) year from the date of purchase from Dtrovision or its authorized resellers.

If a product does not work as warranted during the applicable warranty period, Dtrovision shall, at its option and expense, repair the defective product or part, deliver to customer an equivalent product or part to replace the defective item, or refund to customer the purchase price paid for the defective product.

All products that are replaced will become the property of Dtrovision.

Replacement products may be new or reconditioned.

Any replaced or repaired product or part has a ninety (90) day warranty or the reminder of the initial warranty period, whichever is longer.

Dtrovision shall not be responsible for any software, firmware, information, or memory data of customer contained in, stored on, or integrated with any products returned to Dtrovision for repair under warranty or not.

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.

FCC/CE Statement

This device complies with part 15 of FCC Rules and EN 55022/55024/61000-3 for CE certification. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must not accept any interference received, including interference that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 and 2 of FCC Rules and EN 55022/55024/61000-3 for CE certification. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and. if not installed and used in accordance with the instruction guide, may cause harmful interference to radio communications. However, there is no guarantee that 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:

- Re-orient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult a service representative for help.

Properly shielded and grounded cables and connectors must be used in order to comply with FCC/CE emission limits. Changes or modifications not expressly approved by the party responsible for compliance could void the user s authority to operate the equipment.

UL Statement

This device has completed a UL Commercial Inspection and Testing Services for the multimode HDMI cable complied with VW-1 under UL 758. It is validated by the UL file number SV2038 and project number 04CA05353.