USER MANUAL

DV-WPHXT-1C-WHT/ DV-WPHXT-1ctx

DIGITAL / ANALOG AUTO SWITCHING CAT-x TRANSMITTER
2-GANG DECORA WALLPLATE

244 Bergen Boulevard, Woodland Park, NJ 07424 • Tel 973-785-4347 • FAX 973-785-3318
•Web: www.fsrinc.com

LIT1421E

Proprietary Information

Unpacking

DV-WPHXT-1C-WHT package includes the following items:

DV-WPHXT-1CTx Switching CAT-x transmitter Dual Decora Wall plate
DV-HXT-1CT Receiver Unit
5V Power Adapter
DVI to HDMI Cable
User manual

DV-WPHXT-1ctx can be ordered separately

Cautions:

1. FSR logo is a trademark of FSR Inc.
2. HDMI is a trademark of HDMI licensing, LLC.
3. Specification may be changed without any notice in order to improve the function of the product.
4. The design and specification of the product may be change without any prior notice.

Table of Contents

Description, General Specifications

- High quality transmission of VGA or DVI / HDMI signals over long distances using a single Cat-x cable
- DV-WPHXT-1ctx is designed with energy saving features.
- Connects with FSR DV-MFSW-94 Presentation Matrix Router inputs to expand VGA or Digital capability or use with our DV-HXT-1 Receiver Unit.
- DV-WPHXT-1ctx uses inexpensive and easily terminated Cat5e /6a cable providing easy installation.
- Sends high quality VGA / DVI / HDMI, STEREO AUDIO signals over long distances using a single Cat cable

ITEM	DESCRIPTION
Model Name	DV-WPHXT-1ctx
Input Signal	VGA / DVI / HDMI, Stereo Audio
Output Signal	TMDS
Resolution	Cat6a: 164ft (50m) at 1920x1080p Cat6a: 164ft (50m) at 1920x1200
Receptacle	DC Power Jack (3.5mm Phoenix 2P) VGA HD-15 Female HDMI Female RS-232C port (3.5mm Phoenix 3P) Stereo Audio Jack RJ45
HDCP / EDID Support	Compliant / EPROM
Power Consumption	DC 5V@ 10 W Max
Power supply *	DC 5V@ 2A
Dimension	4.09” H x 3.51” W x 1.81” D (103.9 H x 90.5 W x 31 D mm)
Weight	0.9 lbs. (0.4Kg)

*** NOTE: The length of cable between the wall plate and the power supply can be extended up to 50' by using 16 AWG wire. Longer distances, from a minimum of 51' to maximum of 150' can be achieved using the FSR 17420 power supply in conjunction with the 16 AWG wire. The installer is cautioned to ensure correct polarity before applying power to the wall plate. Incorrect polarity will damage the unit and void the warranty.**

Environmental and Reliability Specifications

Recommended environmental conditions for the operation are temperature range of 50°– 104°F (10°C– 40°C), non-condensing humidity levels of 10%– 80%, and altitude ceiling of 9,840 feet (3,000 meters).

Environmental limits for transportation are temperature range of -13°– 122°F (-25°C– 60°C), non-condensing humidity levels of 5%– 95%, and altitude ceiling of 49,200 feet (15,000 meters)

Environmental limits for storage are established at temperature range of -13°– 122°F (-20°C– 45°C), non-condensing humidity levels of 5%– 95%, and altitude ceiling of 9,840 feet (3,000 meters)

The DV-WPHXT-1ctx is expected to function for more than 50,000 hours of use at a 90% confidence level. The device is tested according to the identical standards for testing LCD monitors.

Main Features

High Quality Picture - No Signal Loss and Auto-adjusting

DV-WPHXT-1ctx is built to deliver the highest quality picture preserving the native resolutions of the video source

Signal Amplification

Cutting edge design transmits high quality video signals and compensates for signal loss over long distances.

Compact and Practical Design

DV-WPHXT-1ctx will make installation quick and simple. The compact unit fits in a standard 2-gang box.

Auto Detect Input Signals

The unit auto detects and switches to live input signals which are VGA or DVI / HDMI. Sources can be manually selected via local push-button or remotely via RS232 commands.

> **NOTE: When there are active signals on both inputs, the unit will switch to the last selected input.**

HDCP (High-bandwidth Digital Content Protection)

The DV-WPHXT-1ctx is fully compliant with HDCP.

> **NOTE: All digital sources must be HDCP compliant. The unit will not display, if the products are not HDCP compliant.**

Compliance to DDWG Ver 1.0

DV-WPHXT-1ctx fully supports the DDWG Ver.1.0

Built in EDID Read and save functions

Built in Extended Display Identification Data (EDID) read function, with Electrically Erase Programmable Read-Only Memory (EEPROM), to save display EDID data while supporting any monitor with common resolutions. The unit also supports user set up of non-Video Electronics Standards Association (VESA) resolutions, including projectors with unique resolutions.

EDID [Extended Display Identification Data]

EDID is defined by a standard published by the Video Electronics Standards Association (VESA). The EDID includes manufacturer name, product type, phosphor or filter type, timings supported by the display, display size, luminance data and (for digital displays only) pixel mapping data.

Video Connection

Step 1: Connect the Sources (VGA / DVI / HDMI / AUDIO) and CAT cable to the DV-WPHXT-1ctx, and connect Cat cable from DV-WPHXT-1ctx to appropriate CAT Receiver or DV-MFSW-94 Presentation Matrix Router.

Step 2: Connect power adapter to the DV-WPHXT-1ctx *

Step 3: Power ON the appropriate Receiver or DV-MFSW-94 Presentation Matrix Router including sources and display. (DV-WPHXT-1ctx will detect sources automatically. If both inputs are live, the unit will auto-select the digital input source. The input can be selected manually using either the Input Select push-button or via RS-232 control.

Step 4: Using the EDID table below, select the correct EDID Data on the EDID Rotary Switch and press EDID Learn button to store the setting. If the EDID data is not found on the table follow the steps under “EDID DATA Saving Setup” on the following page

NOTES: 1920x1080P is the factory default set up.

Whenever you use HDMI embedded audio the EDID Rotary Switch should be set to to “D” which is 1080p@60hz, 2ch audio

For DVI / HDMI audio switching thru RS-232 command see the “RS-232 Control” Section.

* NOTE: The length of cable between the wall plate and the power supply can be extended up to 50' by using 16 AWG wire. Longer distances, from a minimum of 51' to maximum of 150' can be achieved using the 17420 power supply in conjunction with the 16 AWG wire. The installer is cautioned to ensure correct polarity before applying power to the wall plate. Incorrect polarity will damage the unit and void the warranty.

MODE NUMBER	EDID DATA
0	EXTERNAL(EDID data save mode)
1	800x600
2	1024x768
3	1280x768
4	1280x1024
5	1360x768
6	1366x768
7	1400x1050
8	1600x900
9	1600x1200
A	1680x1050
B	1920x1200
C	1280x720P/1920x1080i 2ch audio
D	**1920x1080P 2ch Audio (*Default set*)**
E	1920x1080P 5ch audio
F	RESERVED

EDID data saving setup

Follow this setup procedure to auto acquire the EDID data when the rotary switch setup under Step 4 of the preceding “Video Connection” setup is unsuccessful or the correct EDID data for the display can not be found on the Internal (Pre-saved) EDID table.

Step 1: Connect VGA or DVI / HDMI source input port on DV-WPHXT-1ctx directly to the display.

Step 2: Power up the display and DV-WPHXT-1ctx.

Step 3: Select the appropriate source input port; VGA or DVI / HDMI

Step 4: Set the number to “0” on the rotary switch.

Step 5: Press the EDID Learn Button for 2~4 seconds.

Step 6: Green Status LED will be illuminated (steady) for about 2-3 second if the EDID was saved correctly.

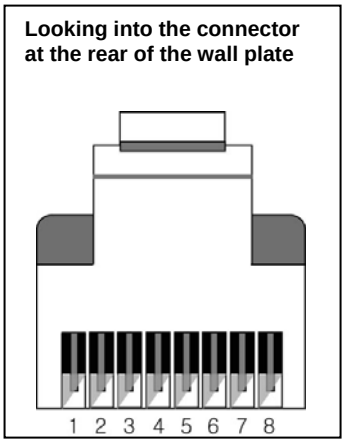
Troubleshooting:

- If the EDID was not saved correctly, the Green Status LED will blink In this case, go back to Step 4
- The EDID learn Button must be pressed after selecting one of EDID data values using the rotary switch
- Confirm that the EDID value was saved to the correct source port such as VGA or DVI / HDMI (see step 3)

When changing EDID mode, unplug the power cable at the Transmitter.

Whenever you use HDMI embedded audio, you should set the EDID to “D” which is 1080p@60hz, 2ch audio

UTP Cat Cable terminations and pinouts



Pin	TIA/EIA-568B	Signal	
	Wire color	Digital RGB	DDC
1	Orange/ White	TMDS Data2+	+5V
2	Orange	TMDS Data2-	HPD
3	Green/ White	TMDS Data1+	Ground
4	Blue	TMDS Data0+	CEC
5	Blue/ White	TMDS Data0-	Ground
6	Green	TMDS Data1-	DDC data
7	Brown/ White	TMDS Clock+	Ground
8	Brown	TMDS Clock-	DDC Clk

- We do not recommend punch down terminations.

- We do not recommend using STP (shielded twisted pair)) cable. For high resolution (above 1080p or WUXGA), using CAT6a 550MHz unshielded solid core by Liberty Wire & Cable is recommended.

RS-232 Command

Baud rate: 19200 bps

Data bits: 8 bit

Stop bits : 1 bit,

Parity: No

Flow control: None .

Commands:

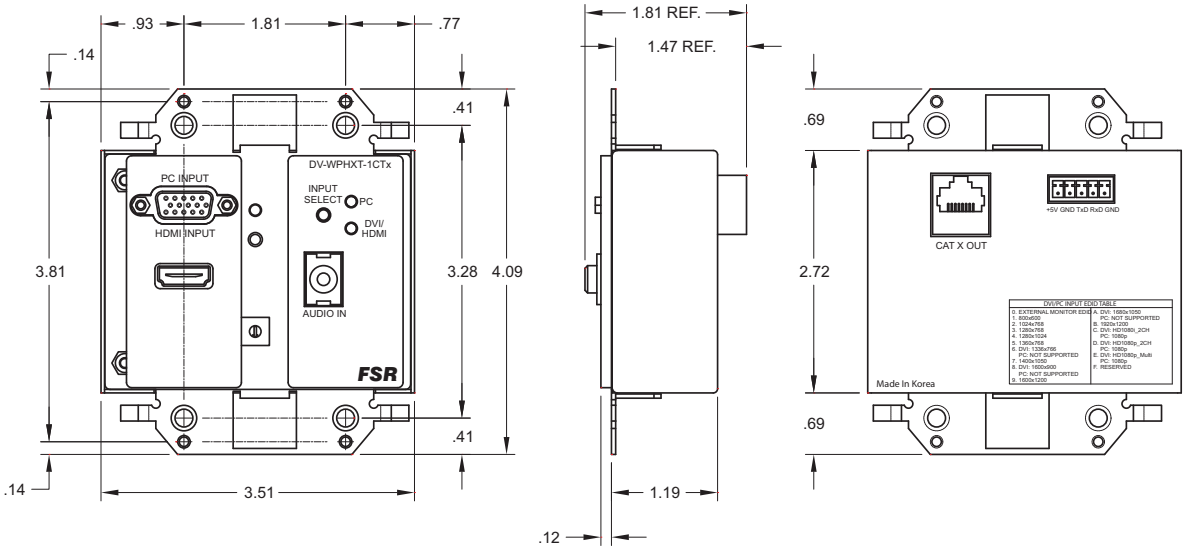
CON DVI <CR>	Switch to DVI /HDMI
CON VGA <CR>	Switch to VGA
CON ATS <CR>	Auto switch mode ON
CON ATE <CR>	Auto switch mode OFF
AUD DIG <CR>	DVI / HDMI source audio select
AUD 3.5 <CR>	3.5 stereo audio select

Troubleshooting

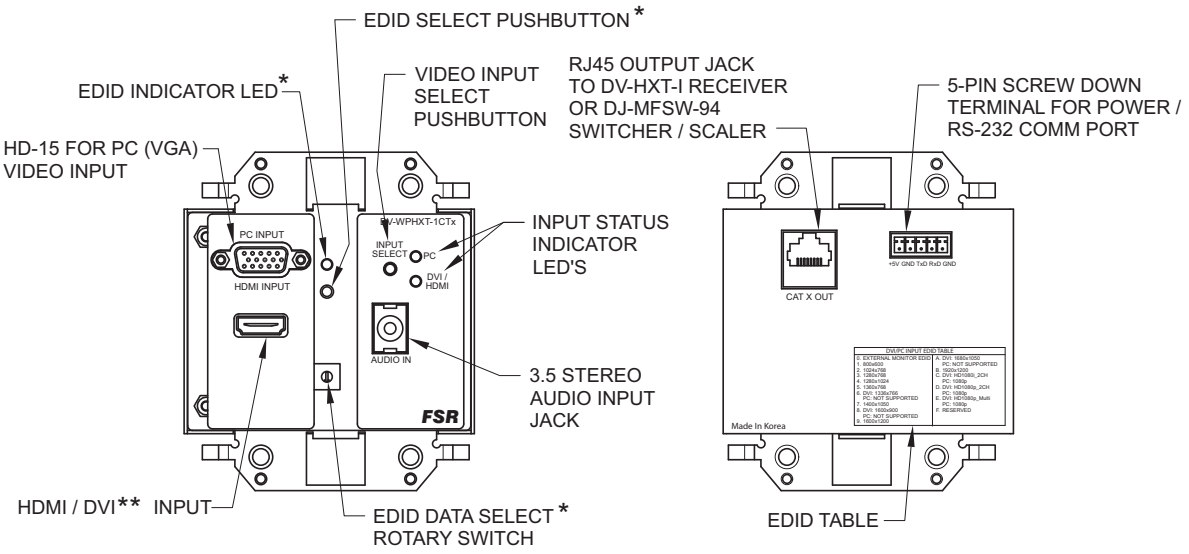
The DV-WPHXT-1ctx Cat Transmitter is designed for years of trouble free service. Please reference the troubleshooting chart below if experiencing issues with the device.

Problem	Solution
No picture (or signal)	1. Ensure the status LED is illuminated. 2. Check DV-WPHXT-1ctx Transmitter is properly connected with sources. 3. Check that Cat cable connecter is properly terminated TIA/EIA-568B (See table). 4. Set EDID correctly for VGA or DVI / HDMI (Refer to “Video Connection”) 5. Power cycle source device after connecting the Cat cable.
Poor picture or noise	1. Restart the source device or DV-MFSW-94 if used. 2. Unplug the DC power adapter, disconnect DVI / HDMI or VGA cable, reconnect the cables and replug the power adapter. 3. Check proper grounding of devices. 4. Confirm that the selected EDID is the same as the displays’ native resolution. (Refer to Video Connection and Operation
No Sound	1. Make sure that the proper source is selected. 2. Set the DVI / HDMI source via RS232 command (Refer to RS-232 Command section)

Mechanical Specifications



Control and Connector Locations



* LOCATED UNDER COVER PLATE
** WITH HDMI TO DVI CABLE (INCLUDED)

PC INPUT:	PC (VGA) Input HD-15 connector
DVI INPUT:	HDMI Female (with included DVI / HDMI cable)
HDMI INPUT:	HDMI Female
AUDIO IN:	3.5mm Stereo Audio Input connector
RJ-45 CAT:	TMDS signal output
DC-5V:	Power input (5-pin screw down terminal)
TxD RxD GND:	Sources select through RS232 command/ Firmware updates (5-pin screw down terminal)
INPUT SELECT SWITCH :	VGA or DVI / HDMI input selection push button
EDID LED:	Display the status of EDID (Saving and Changing)
EDID LEARN BUTTON:	EDID data save push button (Internal and External)
EDID ROTARY SWITCH:	Internal (Pre-saved) EDID select switch
PC LED:	Displays the status of VGA signal
DVI / HDMI LED:	Displays the status of DVI / HDMI signal

Technical Specification

Data transmission speed:	2.25 Gbps (Single Link)
Digital Video Bandwidth:	25~225 MHz
Resolution:	Up to WUXGA (1920x1200) @ 60Hz 1080p)
DVI Version 1.1 Compliance with Stereo Audio	
Input/Output signal standard:	VGA, DVI / HDMI (with included DVI / HDMI cable), Stereo Audio
Maximum length:	1920x1200@60Hz,1080p with Cat 6a UTP 550MHz: 50m (164ft)
Transmitter connectors:	VGA, HDMI, RJ-45, 3.5mm Stereo Audio jack, 5 pin pluggable screw connector (Power/RS232/TX RX/Ground)
Power consumption:	3 Watts (Max)
Power supply:	DC 5V@2A

We do not recommend punch down terminations or STP (Shielded Twisted Pair) cable.

Caution: Do not connect with Internet or network devices

Limited Warranty

The DV-WPHXT-1ctx is warranted against failures due to defective parts or faulty workmanship for a period of three years after delivery to the original owner. During this period, FSR will make any necessary repairs or replace the unit without charge for parts or labor. Shipping charges to the factory or repair station must be prepaid by the owner, return-shipping charges (via UPS Ground) will be paid by FSR.

This warranty applies only to the original owner and is not transferable. In addition, it does not apply to repairs done by other than the FSR factory or Authorized Repair Stations.

This warranty shall be cancelable by FSR at its sole discretion if the unit has been subjected to physical abuse or has been modified in any way without written authorization from FSR. FSR's liability under this warranty is limited to repair or replacement of the defective unit.

FSR will not be responsible for incidental or consequential damages resulting from the use or misuse of its products. Some states do not allow the exclusion of incidental or consequential damages, so the above limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Warranty claims should be accompanied by a copy of the original purchase invoice showing the purchase date (if a Warranty Registration Card was mailed in at the time of purchase, this is not necessary). Before returning any equipment for repair, please read the important information on service below.

SERVICE

Before returning any equipment for repair, please be sure that it is adequately packed and cushioned against damage in shipment, and that it is insured. We suggest that you save the original packaging and use it to ship the product for servicing. Also, please enclose a note giving your name, address, phone number and a description of the problem.

NOTE: all equipment being returned for repair must have a Return authorization (RMA) Number. To get a RMA Number, please call the FSR Service Department (1-800-332-FSR1). Please display your RMA Number prominently on the front of all packages.

CONTACT INFORMATION

244 Bergen Blvd.
Woodland Park, NJ 07424

Phone: (973) 785-4347

****Order Desk Fax***: (973) 785-4207

E-mail: ***sales@fsrinc.com***

Web Site: *http://www.fsrinc.com*