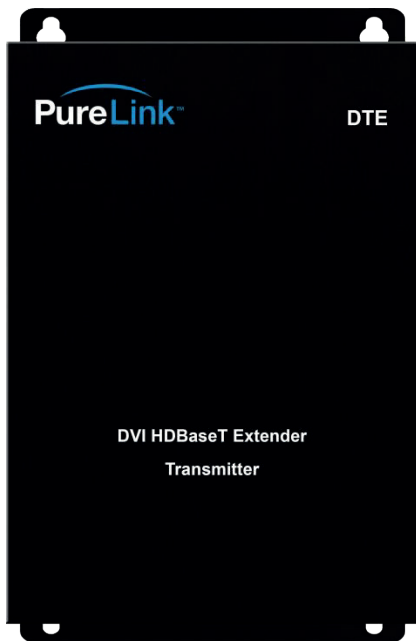# DTE Owner's Manual

DVI, RS-232 and IR Extender over HDBaseT w/POE

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Package Contents

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

- 1 x Transmitter Module
- 1 x DTE Receiver Module
- 1 x Power adapter DC 48V
- 1 x User Manual
- 1 x IR Blaster Cable (Peak wavelength 940nm)
- 1 x IR Receiver cable
- 4 x Screws
- 8 x Foot pads

Description

The PureLink DTE is a transmitter and receiver set for long distance extension of DVI video and embedded audio (if supported) with bi-directional control signals (RS-232 and IR) over single CAT 5/6/7- type cable. It is designed on HDBaseT technology which can extend the signals up to 330ft (100m) at 1080p@60Hz or 1920x1200@60Hz resolution with POE. A compact and low profile enclosure makes the DTE ideal for extending DTE video, embedded audio (if supported), and bi-directional control signal to limited space environment such as behind a flat-panel display.

PureLink DTE is HDCP compliant and it enables the reliable, long distance extension of DVI signals, supporting Deep Color and full 3D and embedded HD lossless audio formats. In addition, EDID and HDCP communication is being maintained between a source and display. Also, the DTE includes an RS-232 and IR insertion port, allowing bi-directional control of an AV device.

Features

- **Zero loss & Zero noise delivery** of digital high definition video and audio signal using UTP connection, DTE delivers HD signals over CAT5/6/7-type cables without loss or digital interference maintaining the clarity and colors. Noise cancellation and error correction logic enhances HD video and audio signals over long distance.

- **Compact and Robust enclosure design** allows for discreet installation behind a flat-panel display.

- **Designed based on HDBaseT Technology**, supporting support Deep Color and full 3D support over a single low cost CATx interface with up to 330ft (100m) at
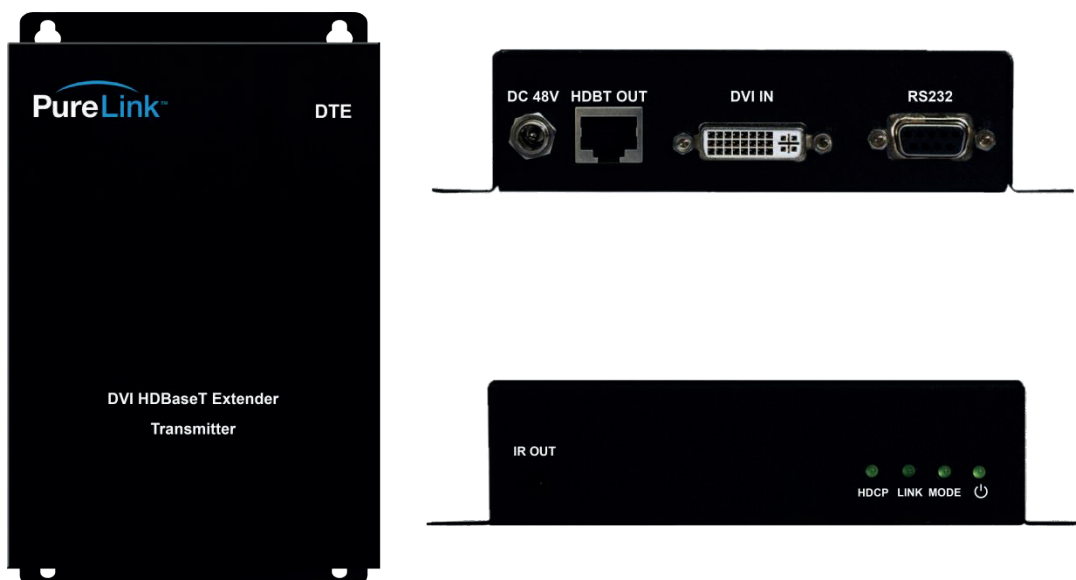
1080p or 1920x1200 resolution.

- Controls signals including bi-directional RS-232 and IR function.

- Bi-Directional RS232 interface – commands and data can flow in both directions via RS232, allowing status requests and control of the destination unit.

- Max. Data Rate- 10.2 Gbps.

- HDCP (High-bandwidth Digital Content Protection) Support.

- DVI verion 1.0 support
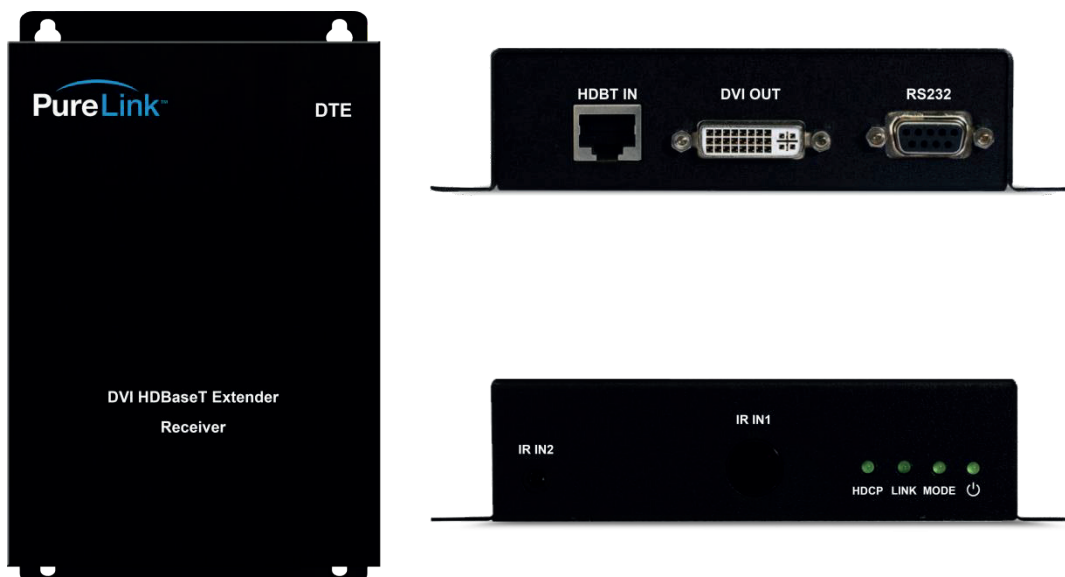
- LED signal indicator

Product application note

Figure 1 – Schematic Connection Diagram of DTE Tx/Rx

Product Specification
Transmitter

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Model	DTE Tx
Input type	DVI, 1 port RS232, 1 port (bi-direction)
Output type	CATx (HDBaseT), 1 port IR, 1 port
Supporting Display Resolutions	VGA ~ WUXGA (up to 1920 x 1200 @ 60Hz), 480i ~ 1080p
Max. Distance	1920x1200 @ 60Hz or 1080p @60Hz: 330ft (100m)
Connector Type	DC Power Jack DVI Female RJ-45 IR Serial
Conformations	DVI version 1.0 With HDCP
Power Rating	DC 48V, 1.05A
Dimension (WxDxH)	5.90'' x 3.15'' x 1.38'' (150 x 80 x 35 mm)
Weight	0.73 lbs (0.33 kg)

Receiver

Available from B2B Online Portal   cneAV.eu

Model	DTE Rx
Input type	CATx (HDBaseT), 1 port IR, 1 port
Output type	DVI, 1 port RS232, 1 port (bi-direction)
Supporting Display Resolutions	VGA ~ WUXGA (up to 1920 x 1200 @ 60Hz), 480i ~ 1080p
Max. Distance	1920x1200 @ 60Hz or 1080p @60Hz: 330ft (100m)
Connector Type	DC Power Jack DVI Female RJ-45 IR Serial
Conformations	DVI version 1.0 With HDCP
Power Rating	DC 5V , 2A
Dimension (WxDxH)	5.90'' x 3.15'' x 1.38'' (150 x 80 x 35 mm)
Weight	0.73 lbs (0.33 kg)

*Please use CAT6a/CAT7 cable for maximum distance transmission.

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Operation and Reliability Specification

1. Operating Environment
   Temperature   : 32F ~ 131F (0℃~ 55℃)
   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 ~ 185F (-20℃~ 85℃)
   Humidity   : 5% ~ 95%
   Altitude   : 3,000m Max.

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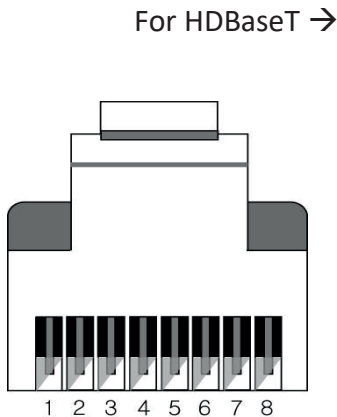   MTBF: 90% at over 50,000 hours aging test
   • In compliance with LCD Monitor reliability test standard

Installation and Connection Instructions

1. Turn off both the video source and the display before connecting any cables.
2. Connect CATx cable between the DTE transmitter and the DTE receiver.
3. Connect DVI cable between the source and the DTE transmitter AND the DTE receiver and the display.
4. Connect the power supply unit to DTE transmitter and DTE receiver module.
5. Turn on Display.
6. Turn on Video Source.

How to terminate CATx cable

DTE was designed to conform to TIA/EIA-568-B standard. Please ensure that each PIN layout of DTE transmitter and DTE receiver are corresponding with the picture below before connecting the cable. Please note that CAT5e or above level cable enables to deliver better video quality and longer distance.

For HDBaseT →

Pin	TIA/EIA-568B Wire color	Digital RGB
1	Orange/ White	DATA0 +
2	Orange	DATA0 -
3	Green/ White	DATA1
4	Blue	DATA2 +
5	Blue/ White	DATA2
6	Green	DATA1 -
7	Brown/ White	DATA3
8	Brown	DATA3 -

1 2 3 4 5 6 7 8

For 10/100Mbps Ethernet →

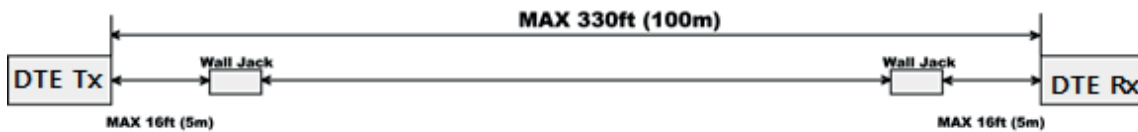| Pin	TIA/EIA-568B Wire color	Digital RGB
1	Orange/ White	RX +
2	Orange	RX -
3	Green/ White	TX +
4	Blue	N/C
5	Blue/ White	N/C
6	Green	TX -
7	Brown/ White	N/C
8	Brown	N/C

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CATx cable

Link cable recommend use high quality CAT5, CAT5e, CAT6, CAT6a, CAT7 UTP / STP or FTP cable.

Transmission Distance

The maximum transmission distance up to 100meters, use lower resolution won't extend longer distance

If connection through the wall socket, the cable length must less 5 meters between DVI extender and wall jack, as below drawing:

IR Receiver Cable Directions:
Put it into the DTE Rx IR IN port and place the IR receiver cable, so that you can point to it easily with your IR remote controller
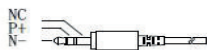
IR Blaster Cable Directions:
Plug IR blaster cable plug into DTE Tx IR OUT port, it sits in front of the device receiver's IR sensor, which is located on the front panel.
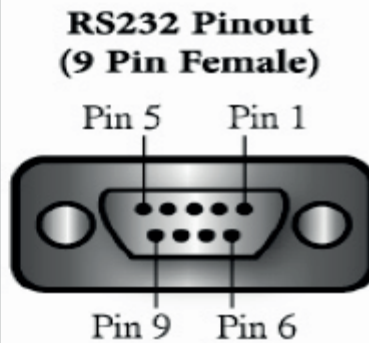
IR cable pin out

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RS-232/Serial pin out

Pin 1	N/C
Pin 2	TxD (Data Out)
Pin 3	RxD (Data In)
Pin 4	N/C
Pin 5	GND
Pin 6	N/C
Pin 7	N/C
Pin 8	N/C
Pin 9	N/C

Caution:
- The CATx wiring must be away from any elecromagnetic wave equipment, i.e : mobile phone, microwave, radio, fluorescent lamp, high voltage power lines.

- Do not place IR transmitter near from IR receiver to avoid mutual interference

Distribution:
PureLink GmbH   Available from B2B Online Portal   cneAV.eu

Chapter 3. Additional Information

3.1 Manufacturer's Warranty (3 Years)

PureLink warrants this DTE HDBaseT extender to be free from defects in workmanship and materials, under normal use and service, for a period of three (3) year from the date of purchase from PureLink or its authorized resellers.

If the product does not operate as warranted during the applicable warranty period, PureLink shall, at its option and expense, execute one of the following as necessary:

1. Repair the defective product or part
2. Deliver to customer and equivalent product or part to replace the defective item
3. Refund to customer the purchase price paid for the defective product

All products that are replaced become the property of PureLink. Replacement products may be new or reconditioned. Repaired or replacement products or parts come with a 90-day warranty or the remainder of the warranty period. PureLink shall not be responsible for any software, firmware, information, or memory data loss of contained in, stored on, or integrated with any products returned to PureLink for repair under warranty.

3.2 Customer Service

Any customer service inquiries can be submitted electronically through the Q&A form on our website (www.purelinkav.com).
For immediate assistance please contact us at (201) 488-3232 to reach our customer care or tech support team.