

# Intellitech HDBT Splitter – IBT45

## IBT45- 4K HDBaseT Splitter 1x4 along with HDMI Output and Ethernet port:

### SAFETY PRECAUTIONS

To insure the best from the product, please read all instructions carefully before using the device. Save this manual for further reference.

- Unpack the equipment carefully and save the original box and packing material for possible future shipment
- Follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- Do not dismantle the housing or modify the module. It may result in electrical shock or burn.



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- Using supplies or parts not meeting the products' specifications may cause damage, deterioration or malfunction.
- Refer all servicing to qualified service personnel.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Do not put any heavy items on the extension cable in case of extrusion.
- Do not remove the housing of the device as opening or removing housing may expose you to dangerous voltage or other hazards.
- Install the device in a place with fine ventilation to avoid damage caused by overheat.
- Keep the module away from liquids.
- Spillage into the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on to the housing, unplug the module immediately.
- Do not twist or pull by force ends of the optical cable. It can cause malfunction.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.
- Unplug the power cord when left unused for a long period of time.
- Information on disposal for scrapped devices: do not burn or mix with general household waste, please treat them as normal electrical wastes.



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## Introduction

### Introduction to IBT45

INTELLITECH – IBT45 is an HDBT Splitter accepting 1 HDMI input and distributing to 4 HDBT outputs, plus 1 HDMI local output along with Ethernet port. Ethernet port provides single LAN connection with all connected devices. The HDMI output socket can be used to monitor local devices or cascade with additional splitter.

IBT45 allows uncompressed 4K (max) HDMI, IR, and RS232 signals to be transmitted over a single CAT5/6/7 cable. It supports transmission of 4k signal up to 70m and 1080p signal up to 100m. If required, use the HDMI local output to cascade the HDMI signal up to 4 times with additional IBT45. IBT45 is also capable of bi-directional IR control, RS232 control, EDID management and PoC.

### Features

- Compliant with HDMI 1.4 & 3D
- Transmit 4k x 2k signal up to 40m and 1080p signal up to 60m
- Support PoC
- Support bi-directional IR control and cascade control
- Support RS232 control and cascade control
- Real-time display of working status via LED indicators



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- Provide LAN connectivity to its compatible receivers
- Support EDID configuration, 5 types in total
- Support cascading via HDMI OUT, IR Loop and RS232 Loop



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## 1. System Connection

### 1.1 Usage Precautions

- 1) System should be installed in a clean environment and has a prop temperature and humidity.
- 2) All of the power switches, plugs, sockets and power cords should be insulated and safe.
- 3) All devices should be connected before power on.

### 1.2 Connection Procedure

**Step1.** Connect a HDMI source device (e.g. Blue-ray DVD) to the **HDMI INPUT** socket of IBT45 with HDMI cable.

**Step2.** Connect a HDMI display to **HDMI OUTPUT** socket of IBT45 with HDMI cable.

**Step3.** Connect HDMI Twisted Pair PoC Receiver(s) (such as HDBT-HD-330R-AE) to HDBT output port(s) of IBT45 with twisted pair.

**Step4.** Connect control device (e.g. PC) to the **RS232 IN** port of IBT45.

If you want to cascade RS232 signal among several IBT45 through RS232 LOOP, connect the **RS232 LOOP** socket of one of them and the **RS232 IN** socket of the next until all IBT45 have been connected.

**Step5.** Connect an IR Receiver to the **IR IN** port, and an IR Emitter to the **IR OUT** port. The IR signal can be transmitted bi-directionally between IBT45 and HDMI Twisted Pair PoC Receiver(s).

If you want to cascade IR signal among several IBT45, connect the **IR LOOP** socket of one of them and the **IR IN** socket of the next until all IBT45 have been connected.

**Step6.** Connect a DC 24V power adapter to the power port of IBT45, HDMI Twisted Pair PoC Receiver is able to be energized by IBT45 with PoC solution.

**Step7.** Connect Ethernet cable to its port and connect it to nearest switch/router.

## 1.3 Cascade Connection

### 1.3.1 Cascade AV Signal

HDMI source signal can be cascaded to several displayers via HDMI OUT/ IN.

Connect the **HDMI OUT** socket of the first ibt45 to **HDMI IN** socket of the next until all IBT45 have been connected.

HDMI signals delivered within the first IBT45 are able to be outputted to other connected IBT45 too.

### 1.3.2 Cascade Control Signal

IBT45 supports control cascading via IR LOOP/ RS232 LOOP to enable signal loop output. Users can choose one or multiple cascade methods according to their specified needs.

➤ **Cascade through IR Loop**

Connect the **IR LOOP** socket of the first IBT45 and the **IR IN** socket of the next until all IBT45 have been connected.  
Sending IR signals to the IR Receiver connected to the first IBT45 will control all cascaded IBT45.

➤ **Cascade through RS232 Loop**

Connect the **RS232 LOOP** socket of the first IBT45 and the **RS232 IN** socket of the next until all IBT45 have been connected.

Sending RS232 commands will control all cascaded IBT45 synchronously.

Note: To identify IBT45 in cascading, please set a unique ID for each unit when the cascade connection is done.

#### **1.4 Twisted Pair Cable Connection**

The twisted pair used in HDMI Twisted Pair PoC Receiver MUST be a straight-through cable. The connectors can be T568A or T568B, but both sides must be the same.

TIA/EIA T568A		TIA/EIA T568B	
Pin	Cable color	Pin	Cable color
1	green white	1	orange white
2	green	2	orange
3	orange white	3	green white
4	blue	4	blue
5	blue white	5	blue white
6	orange	6	green
7	brown white	7	brown white
8	brown	8	brown

**Note:** Every pin in pure color groups with its half white pin.

## 2. Control Modes

IBT45 has a good application in various occasions, such as computer realm, monitoring, conference room, big screen displaying, television education, command & control center and smart home etc.

IBT45 can be controlled via IR, RS232 commands and EDID management.



## 2.1 IR Control

IBT45 provides with an IR IN port, the port support bi-directional transmission. Connect an IR receiver to the IR IN port, users can control IBT45/ far-end device from local or control local devices from remote via corresponding IR remote.

**Note: All specification and image are subject to change without prior notice for the enhancement of the product quality.**



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