

User manual

## HDBT-18G70

### Ultra-Slim HDMI 2.0 18G Extender

1080p to 70m

HDMI 2.0 4k2k 60Hz 4:4:4 (18Gbps) to 40m

# HDBT-18G70



The SY-HDBT-18G70 extender set is designed to meet the needs of the growing full UHD 4K market and is capable of transmitting a HDMI 2.0 4K 18G signal up to 40m using cat6a cabling. It can extended 1080p & UHD (4K 30Hz 4:4:4) signals to a maximum distance of 70m using a single cat5e/6/6a cable. With support for RS232, IR and PoC, the SY-HDBT-18G70 extender set is extremely versatile and able to function in a wide variety of applications.

## Features

- Fully supports HDMI 2.0 18Gbps – 4K2K 60Hz 4:4:4
- Supports HDR
- Compliant to HDMI 2.0 with either HDCP 2.2 or HDCP 1.4
- Supports CEC, bi-directional RS232 and IR for long-distance control
- Bi-Directional PoC simplifies installation wiring

## Panel Description

Since the appearance of the transmitter and the receiver are identical, only the relevant differences will be given in the following descriptions.

### Front Panel



Name	Description
<b>Power LED</b>	Indicates that the unit is powered up
<b>Mode Switch (RS232)</b>	CTRL - For normal RS232 operation, set to CTRL position UPDATE A and UPDATE B position are ONLY used in the event of firmware update requirements.

### Rear Panel



Name	Transmitter	Receiver
<b>HDMI</b>	HDMI Input	HDMI Output
<b>HDBaseT</b>	HDBT Output to SY-HDBT-18G70R	HDBT Input from SY-HDBT-18G70T
<b>RS232</b>	RS232 – Tx / Rx	
<b>IR IN</b>	Input from IR detector	
<b>IR OUT</b>	Output to IR Emitter	
<b>DC IN</b>	12V DC Power Input. Only one PSU required.	

## Using the SY-HDBT-18G70 Extender Set

Use good quality cabling throughout to obtain best results, and avoid long HDMI cables when sending 4Kx2K HDMI signals.

To use the extenders:

- Connect an HDMI source to the HDMI input of the SY-HDBT-18G70T transmitter.
- Connect an HDMI sink to the HDMI output of the SY-HDBT-18G70R receiver.
- Connect the cat6 or cat5 cable between the HDBT RJ45 connectors of the transmitter and receiver.
- Connect the 12V DC power supply to either the transmitter or receiver.

The LINK and DATA LEDs will indicate the presence of a good connection between the transmitter and receiver pair.

If required, IR and / or RS232 control or data signals can also be connected to the extender pair to allow control of any device from the remote location.

The diagram on the next page shows an example of a possible system set up.

## Specifications

Video Connectors	Transmitter	Receiver
HDMI	Female HDMI (Type-A)	Female HDMI (Type-A)
HDBaseT	RJ45	RJ45

Video General	
Resolution	HDMI: up to 4Kx2K@60Hz 4:4:4 (18Gbps)
Standard	Compliant with HDMI 2.0, HDCP 1.4 and HDCP 2.2
HDBaseT Cable	cat5e/cat6/cat6a - 40m for 4Kx2K 18Gbps or 70m for 1080p

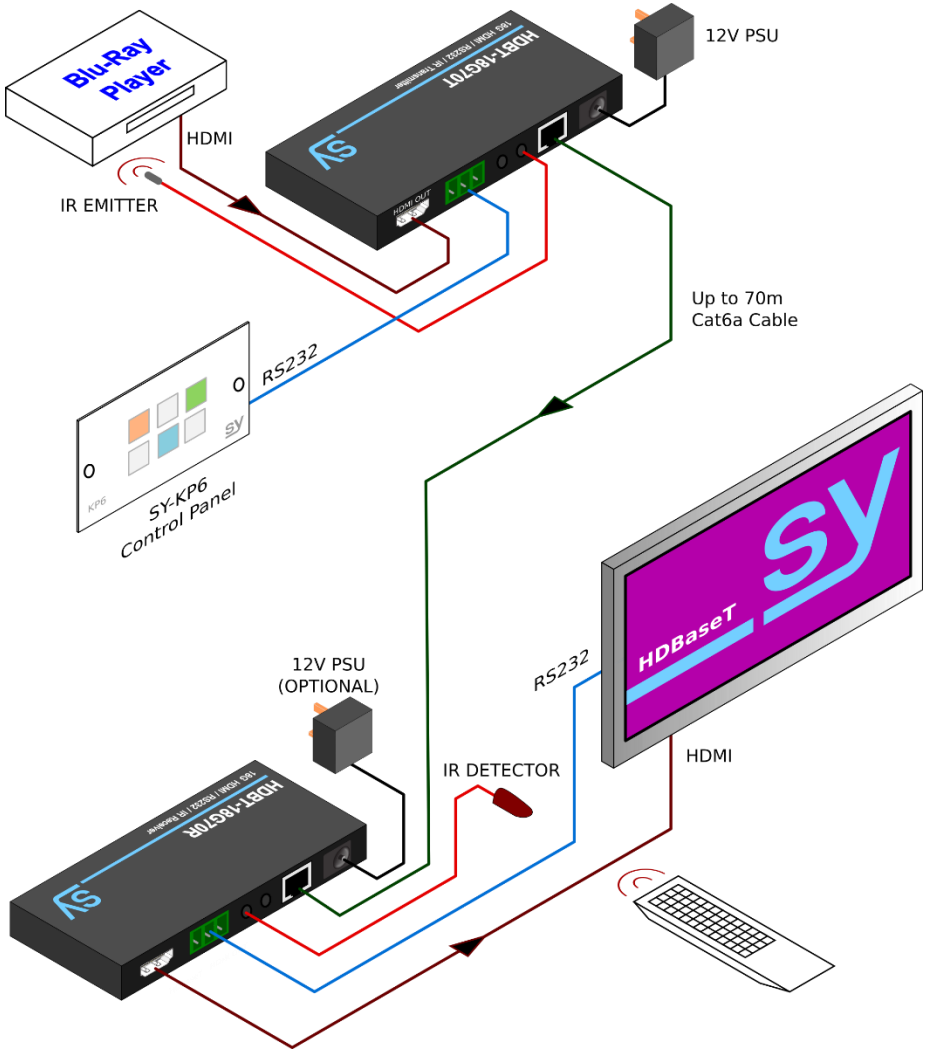
Control Ports	
IR In and Out	2 x 3.5 mm stereo jack sockets
RS232	3 way Phoenix – Tx / Rx pass through to a Max. of 115.2Kb

General	
Temperature	0~ 40°C
Humidity	10% ~ 90%
PSU	12V DC @ 2A
Power Consumption	14W (max)
Dimension (W*H*D)	115 x 12 x 84 mm
Weight	240 g

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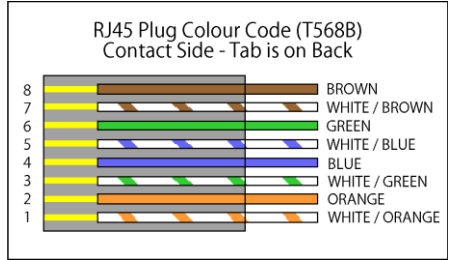
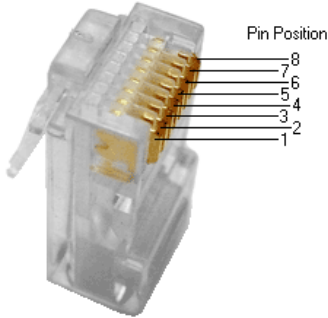


## System Connection



## RJ45 Wiring

Both connectors must be wired identically, to T568B standard.



### Note:

You may use cat5e, cat6 UTP (cat6 preferred) in conjunction with the HDBaseT output; however for best performance use cat6a or cat7 (particularly in electrically noisy environments). The maximum distances & transmission performance for HDMI and HDBT may be compromised by cable quality, patch panels, poor termination, wall plates, cable kinks and electrical interferences. Generally ensure the cat cable is solid copper core of 23AWG (avoid CCA type), in one straight run (avoid/minimise patches) and avoid close proximity to any noisy electrical sources.

Only one 12V DC power supply is required and may be connected to either the transmitter to the receiver.

**Do NOT** connect to any other network or any other HDBaseT extender type. To do so may damage the device beyond repair.

## Safety Instructions

To ensure reliable operation of this product as well as protecting the safety of any person using or handling these devices while powered, please observe the following instructions.

1. Use the power supplies provided. If an alternate supply is required, check Voltage, polarity and that it has sufficient power to supply the device it is connected to.
2. Do not operate either of these products outside the specified temperature and humidity range given in the above specifications.
3. Ensure there is adequate ventilation to allow this product to operate efficiently.
4. Repair of this equipment should only be carried out by qualified professionals as this product contains sensitive devices that may be damaged by any mistreatment.
5. Only use this product in a dry environment. Do not allow any liquids or harmful chemicals to come into contact with this product.

## After Sales Service

1. Should you experience any problems while using this product, firstly refer to the Troubleshooting section in this manual before contacting SY Technical Support.
2. When calling SY Technical Support, the following information should be provided:
  - Product name and model number
  - Product serial number
  - Details of the fault and any conditions under which the fault occurs.
3. This product has a two year standard warranty, beginning from the date of purchase as stated on the sales invoice. For full details please refer to our Terms and Conditions.
4. SY Product warranty is automatically void under any of the following conditions:
  - The product is already outside of its warranty period
  - Damage to the product due to incorrect usage or storage
  - Damage caused by unauthorised repairs
  - Damage caused by mistreatment of the product
5. Please direct any questions or problems you may have to your local dealer before contacting SY Electronics.



