

SHINYBOW USA MULTIMEDIA AUDIO AND VISUAL



SAFETY INFORMATION



- 1. To ensure the best results from this product, please read this manual and all other documentation before operating your equipment. Retain all documentation for future reference.
- 2. Follow all instructions printed on unit chassis for proper operation.
- 3. To reduce the risk of fire, do not spill water or other liquids into or on the unit, or operate the unit while standing in liquid.
- 4. Make sure power outlets conform to the power requirements listed on the back of the unit. Keep unit protected from rain, water and excessive moisture.
- 5. Do not attempt to clean the unit with chemical solvents or aerosol cleaners, as this may damage the unit. Dust with a clean dry cloth.
- 6. Do not use the unit if the electrical power cord is frayed or broken. The power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
- 7. Do not force switched or external connections in any way. They should all connect easily, without needing to be forced.
- 8. Always operate the unit with the AC ground wire connected to the electrical system ground. Precautions should be taken so that the means of grounding of a piece of equipment is not defeated.
- 9. AC voltage must be correct and the same as that printed on the rear of the unit. Damage caused by connection to improper AC voltage is not covered by any warranty.
- 10. Turn power off and disconnect unit from AC current before making connections.
- 11. Never hold a power switch in the "ON" position.
- 12. This unit should be installed in a cool dry place, away from sources of excessive heat, vibration, dust, moisture and cold. Do not use the unit near stoves, heat registers, radiators, or other heat producing devices.
- 13. Do not block fan intake or exhaust ports. Do not operate equipment on a surface or in an environment which may impede the normal flow of air around the unit, such as a bed, rug, carpet, or completely enclosed rack. If the unit is used in an extremely dusty or smoky environment, the unit should be periodically "blown free" of foreign dust and matter.
- 14. To reduce the risk of electric shock, do not remove the cover. There are no user serviceable parts inside. Refer all servicing to qualified service personnel. There are no user serviceable parts inside.
- 15. When moving the unit, disconnect input ports first, then remove the power cable; finally, disconnect the interconnecting cables to other devices.
- 16. Do not drive the inputs with a signal level greater than that required to drive equipment to full output.
- 17. The equipment power cord should be unplugged from the outlet when left unused for a long period of time.
- 18. Save the carton and packing material even if the equipment has arrived in good condition. Should you ever need to ship the unit, use only the original factory packing.
- 19. Service Information Equipment should be serviced by qualified service personnel when:
 - A. The power supply cord or the plug has been damaged.
 - B. Objects have fallen, or liquid has been spilled into the equipment.
 - C. The equipment has been exposed to rain
 - D. The equipment does not appear to operate normally, or exhibits a marked change in performance
 - E. The equipment has been dropped, or the enclosure damaged.

TABLE OF CONTENTS

HDBaseT[™] with Ethernet 100M EXTENDER Series

Thank you for purchasing the SB-6335T & R HDBaseT[™] with RS-232 Transmitter & Receiver. You will find this unit easy to install and highly reliable but it is essential that you read this manual thoroughly before attempting to use these extenders.

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INTRODUCTION

Congratulations on your purchase of one of the most innovative HDMI 1.4a over a single category cable Transmitter & Receiver with RS-232 on the market today. The SB-6335T HDBaseT™ Transmitter can transmit the HDMI signal, IR Remote input or output signals and RS-232 I/O series interface to the HDBaseT™ Receiver (SB-6335R) via a single category LAN cable for long distances of up to 328 feet (100M) maximum. These Transmitter & Receiver units use a single CAT6, CAT6a or CAT7 (UTP/FTP) category cable via a RJ-45 8P8C female socket. The LAN cable supports the 568a or 568b LAN color specification table. This product provides higher full HD HDMI 1.4a, HDTV resolutions of 480i/p, 720p,1080i/p or high 4K2K guality that are identical to the source high quality full HDMI 1.4 signals. The Transmitter & Receiver are useful for sending HDMI digital video & digital multichannel audio format signals, IR remote in or out, RS-232 series in and out control with a single category cable to the HDBaseT™ Transmitter & Receiver.

CONFORMANCE TEST REPORT FOR **EN 61000-6-1 / EN 61000-6-3 (€** <u>REPORT NUMBER: 09-07-MAS-282-18-R</u>

FOR FCC 47 CFR/Part 15 Subpart B FC

REPORT NUMBER: 09-07-MAS-282-19-R

Model Number: SB-6335T / SB-6335R

Comment Number: SB-6215, SB-6215R, SB-6215RE, SB-6220R SB-6220RE, SB-6240R, SB-6240RE, SB-6335, SB-6335R, SB-6320, SB-6320R

RECEIVER: Input: HDBaseT[™] CAT6/6a/7 single cable Output: HDMI & RS-232 series interface Power Input: +DC12V , 2A ⊖-€ ⊕ TRANSMITTER: Input: HDMI ((with DVI -Audio) Output: HDBaseT[™] via CAT6/6a/7 Cable Power Input: +DC12V, 2A ⊖-€ ⊕



SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply. Please keep the following in mind as you unpack and install this equipment:

• Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.

• To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.

· Never spill liquid of any kind on or into this product.

• Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.

• Do not attach the power supply cabling to building surfaces.

• Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.

• Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.

• To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

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PACKAGE CONTENTS

RECEIVER

Check that you have the following components;

- SB-6335R HDBaseT[™] Receiver console
- (2) SB-100C IR Receiver w/ attached cable
- (2) SB-101C IR Emitter w/ attached cable
- (2) SB-100 IR Receiver w/ assembly plug
- (2) SB-101 IR Emitter w/ assembly plug
- (2) 1 inch High Wall mount pack (Part # WM-1INCH-L80MM)
- · Users Guide
- (2) AC/DC Adapter: 12VDC/2A (universal power switch 50/60Hz, 100~240VAC)



TRANSMITTER

Check that you have the following components;

- SB-6335T HDBaseT[™] Transmitter console
- · Users Guide
- AC/DC Adapter: 12VDC/2A (universal power switch 50/60Hz, 100~240VAC)

OPTIONAL ACCESSORIES

- 1x SB-100 set (IR Receiver Extender assy plug)
- 1x SB-100C cable (IR Receiver Cable)
- 1x SB-101 set (IR Transmitter Extender assy plug)
- 1x SB-101C cable (IR Transmitter Cable)
- 1x 1 inch High Wall mount pack (Part # WM-1INCH-L80MM)
- 1x CAT6 Category cable distance 328 feet (100 M), (P/N: UTP6-100)



FEATURES

RECEIVER

- HDBaseT[™] HDMI Receiver over a single CAT6/6a/7 category LAN cable
- Extends HDMI, IR in/out, RS-232 in/out and Ethernet ports, HDCP compliant
- · Uses CAT6, CAT6a and CAT7 UTP/FTP category cable
- · Supports link speeds of up to 3.4 Gbps
- Supports Digital RGB 36bits, V1.4a HDMI TMDS format
- Extends higher quality DVI video 1920x1200 resolution
- Supports HD High Definition full range resolution 480p, 720p 1080i/1080p
- Supports long distances up to 328 feet/100M between HDBaseT[™] Transmitter and HDBaseT[™] Receiver
- · Supports wall mount pack and rack mount installation for 19 inch 4U rack mount
- · Power supports DC input with low power consumption (Full load 850mA)
- Power supply using universal power switch 50/60Hz,100~240VAC

TRANSMITTER

- HDBaseT[™] Transmitter extends the HDMI over single CAT5e/6/6a category 328 feet /100M LAN cable
- Transmits HDMI, IR in/out and RS-232 I/O series interface signals
- Uses a single CAT6, CAT6a and CAT7 (UTP or FTP) category cable
- Supports link speeds of up to 3.4 Gbps, HDMI 1.4, full HD 4K2K signal, HDCP compliant
- · Supports Digital RGB 36bits, HDMI digital video TMDS, digital multi-channel audio format
- Extends higher quality full HD DVI video WUXGA 1920x1200 resolution
- Supports High Definition worldwide range resolution 480p, 720p 1080i/1080p-60Hz and 4K2K
- Extends long distances up to 328 feet (100M) between HDBaseT[™] Transmitter and Receiver
- · Supports wall mount installation- total 10 pcs. into one 19 inch 4U rack mount
- · Power input via DC with low power consumption (Full load 750mA)
- Power supply using universal power switch 50/60Hz,100~240VAC

SPECIFICATIONS

RECEIVER

- Type of Extender: HDBaseT[™] Receiver for HDMI signal over one category LAN Cable
- Input Signals: HDMI with Digital Video (TMDS)/Audio 0.5~1.0Vpp, DDC 5Vpp
- HDBaseT[™] Supports: HDMI Standard, DVI and HDCP Compliant
- Video Support: HDMI and DVI TMDS format for 1920x1200 resolution up to 3.4 Gbps Digital RGB 36bits deep color, 3D 1.4a HDMI format
- HDMI Audio Out Supports: Multi-channel Audio Formats 5.1 / 7.1, MAT(MLP), Dolby Digital, Dolby TrueHD, Dolby Digital Plus, DTS, DTS-ES 6.1, DTS-HD, DTS-HD-HRA, DTS-HD Master, (PCM-2CH)
- RS-232 Series Support: 1x RS-232 series interface port (Terminal Block 3pin female socket)
- Category Cable Support: CAT6, CAT6a, CAT7 UTP/FTP cable
- Support HDMI Resolution: 480p, 720p, 1080i/1080p, 4K2K
- Scan Rate Accepted: Supports HDMI full HD resolutions; Frequency 24Hz to 60Hz
- Control: 1x IR in/out, 1x IR in/out, 1x RS-232 and 1x LAN series interface
- IR Infrared Frequency: 38Khz
- Extend Distance: Up to 100M (CAT6)
- Safety Approvals: CE, FCC, VCCI, REACH & WEEE
- Dimensions (LxWxH): 3.15 x 5.12 x 1 in (80x130x26mm)
- Rack Mount: Use total 10 pcs installation into one 19 inch rack mount
- Shipping Weight: 0.325 kgs / 0.715 lb
- Power Consumption: Max 750mA (Full load 1080p-60Hz signal with use DC12V input)
- Power Supply: Power Input +12VDC, 2A, (Universal Type 50/60Hz, 100~240 VAC)

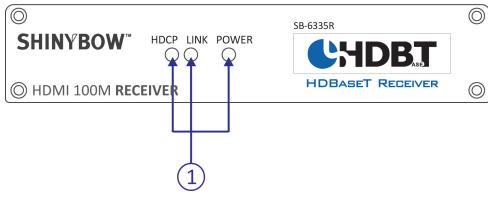
TRANSMITTER

- Type of Extender: HDBaseT[™] Transmitter for HDMI over single category 328 feet /100M Cable
- Input Signals: HDMI with Digital Video(TMDS)/Audio 0.5~1.0vPP, DDC 5Vpp
- HDBaseT[™] Supports: HDMI 1.4 Standard, DVI and HDCP Compliant
- Video Support: HDMI and DVI TMDS format for 1920x1200 resolution up to 3.4 Gbps Digital RGB 36bits deep color, 3D 1.4a HDMI format
- Audio I/O Support: Multi-channel Audio Formats 5.1 / 7.1, MAT(MLP), Dolby Digital, Dolby TrueHD, Dolby Digital Plus, DTS, DTS-ES 6.1, DTS-HD, DTS-HD-HRA, DTS-HD Master, (PCM-2CH)
- Extend Distance: Up to 328 feet (100M) via (UTP or FTP CAT6 100M cable)
- Cable Support: CAT6, CAT6a, CAT7 use UTP or FTP category cable
- Supports HDMI Resolutions: 480p, 720p 1080i/1080p@60Hz or 4K2K@24Hz
- Scan Rate Accepted: Supports HDMI full HD Resolutions; Frequency 24Hz to 60Hz
- Control: 1x IR in, 1x IR out and 1x RS-232 I/O series interface
- IR Infrared Frequency: 38Khz
- Safety Approvals: CE, FCC, VCCI, REACH & WEEE
- Dimensions (LxWxH): 5.12 x 3.14 x 1.14 in (130x80x29mm)
- Wall Mount: Wall mount pack (p/n: VM-1inch-L80MM)
- Rack Mount: Total 10 pcs install into 19 inch 4U rack mount
- Shipping Weight: 0.375 kgs / 0.825 lb
- Power Consumption: Max. 750mA (Full load 1080p-60Hz signal with use DC12V input)
- Power Supply: Power Input +12VDC, 2A, (Universal Type 50/60Hz, 100~240 VAC)

As product improvements are continuous, specifications are subject to change and without notice.

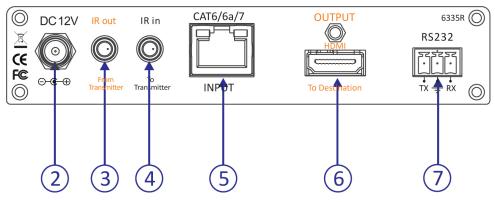
TYPICAL HOOKUP AND OPERATION

SB-6335R RECEIVER



RECEIVER FRONT:

1. STATUS VIA LED SHOW OUT : POWER, LINK & HDCP



RECEIVER BACK:

5. DC INPUT : DC12V, 2A

6. IR IN : Sends IR signal to HDBaseT[™] Transmitter

7. IR OUT : Receives IR signal from HDBaseT[™] Transmitter via IR External Receiver SB-100)

8. RJ-45 IN : HDBaseT[™] input , Signal from the HDBaseT[™] Transmitter

9. HDMI OUT : HDMI output, Signal to HDMI destination display device

10. RS-232 I/O : RS-232 series interface in or out control via a PC

Safeguards and Precautions

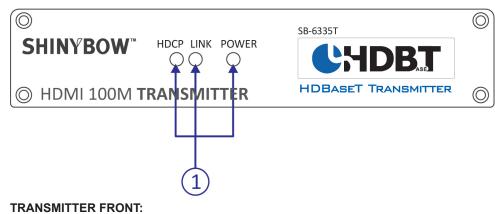
A. Keep this unit away from fire, extremely hot areas, water or moisture of any kind.

B. Do not place this unit on any support that is not firm, level and strong.

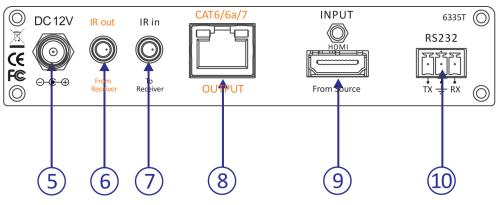
- C. Do not service the unit yourself. Opening the unit's housing will void the warranty.
- D. Servicing must be by Shinybow or by an authorized technician.
- C. Illegal duplication of copyrighted material is strictly prohibited by Federal Laws.

TYPICAL HOOKUP AND OPERATION

SB-6335T TRANSMITTER



1. STATUS VIA LED SHOW OUT : POWER, LINK & HDCP



TRANSMITTER BACK:

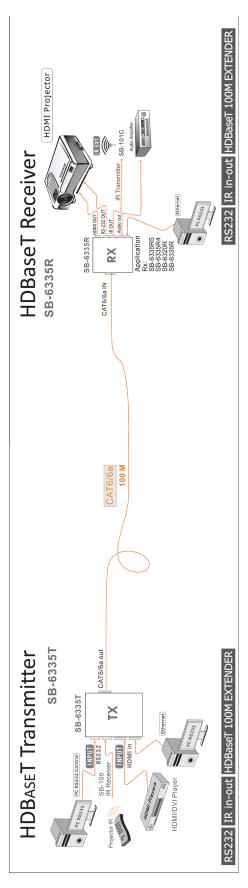
5. DC INPUT : DC12V, 2A

- 6. IR IN : Sends IR Signal to HDBaseT[™] Receiver
- 7. IR OUT : Receives IR signal from HDBaseT[™] Receiver
- 8. RJ-45 OUT : HDBaseT[™] signal output to HDBaseT[™] Receiver
- 9. HDMI IN : HDMI signal input from HDMI source device
- 10. RS-232 I/O : RS-232 I/O series interface via HDBaseT™

Safeguards and Precautions

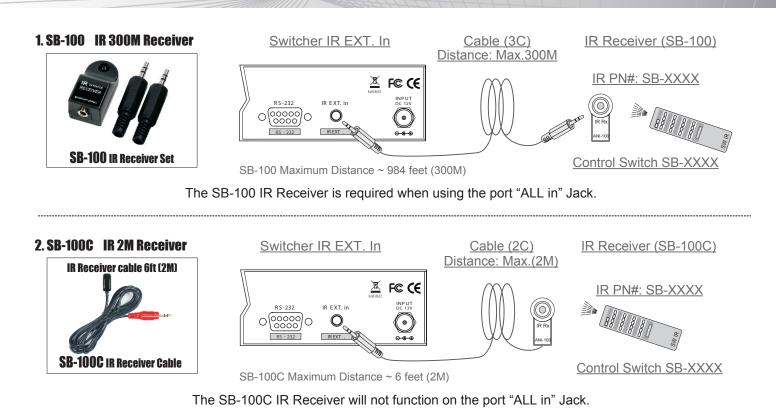
- A. Keep this unit away from fire, extremely hot areas, water or moisture of any kind.
- B. Do not place this unit on any support that is not firm, level and strong.
- C. Do not service the unit yourself. Opening the unit's housing will void the warranty.
- D. Servicing must be by Shinybow or by an authorized technician.
- C. Illegal duplication of copyrighted material is strictly prohibited by Federal Laws.

INSTALLING DIAGRAM



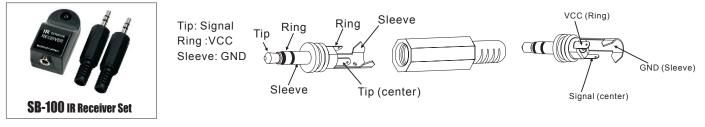
TYPICAL HOOKUP AND OPERATION

IR EXTENDER



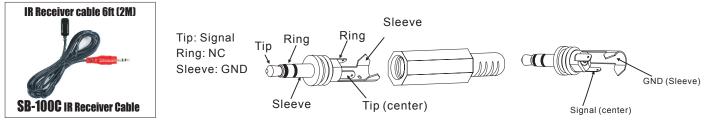
*** When you plug the External IR extender into the switcher, the front panel IR receiver remains active. ***

Pin configuration for IR 984 feet (300M) Extender Receiver such as SB-100 compatible



SB-100 Receiver and SB-101 Transmitter The DISTANCE maximum ~ 984 feet (300M)

Pin configuration for IR Receiver 6 feet (2M) cable such as SB-100C compatible

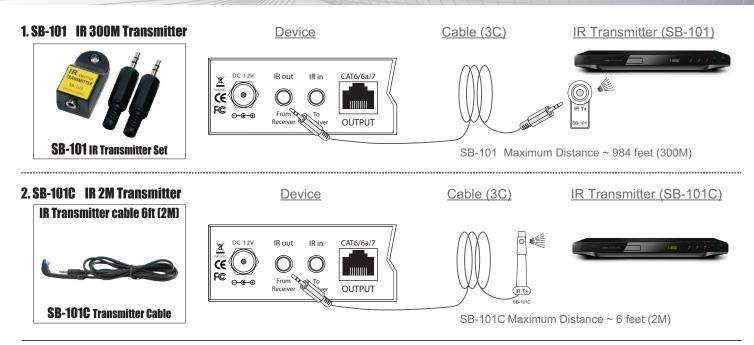


SB-100 Receiver and SB-101C Transmitter The DISTANCE maximum ~ 984 feet (300M)

Note: The External IR jack has voltage on the "Ring" portion of a 3-conductor plug. You must use a 3-conductor plug (aka: stereo plug). Using a 2-conductor plug will short out the power supply. Always make connections with the switcher power off.

The frequency range of the IR emitter and receivers is 38khz.

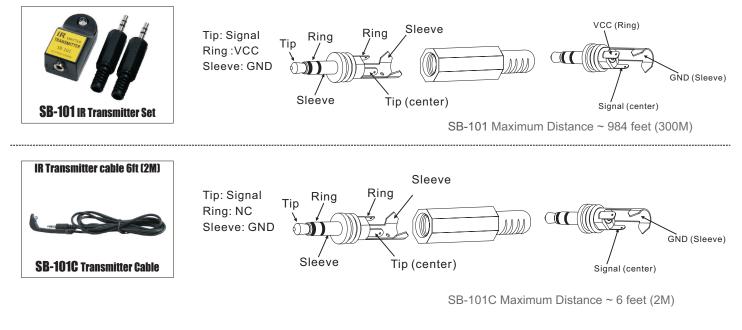
IR EXTENDER



*** When you plug the External IR extender into the switcher, the front panel IR transmitter remains active. ***

PIN CONFIGURATION:

SB-101 and SB-101C Transmitter Pin configuration



Note: The External IR jack has voltage on the "Ring" portion of a 3-conductor plug. You must use a 3-conductor plug (aka: stereo plug). Using a 2-conductor plug will short out the power supply. Always make connections with the switcher power off.

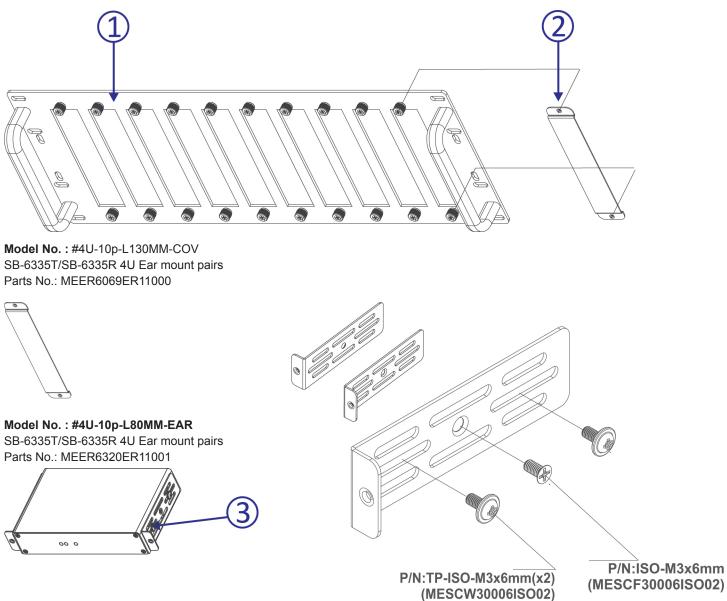
The frequency range of the IR emitter and receivers is 38khz.

RACK MOUNT

SB-6069

SB-6335T/SB-6335R 19 INCH 4U-10P RACK MOUNT

Model No. : #4U-10p-L130MM SB-6335T/SB-6335R 4U Ear mount pairs Parts No.: MEER6069ER13000



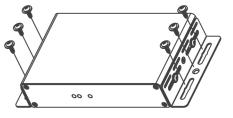
RACK MOUNT

SB-6069

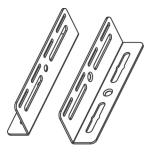
Complete 19 inch 4U rack mount

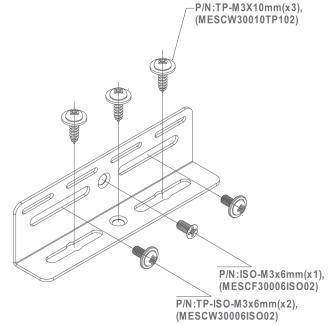
Install Application : SB-6335T/SB-6335R

SB-6335T/SB-6335R : Wall mount accessories



Model No. : #WM-1INCH-L80MM SB-6335T/SB-6335R Wall mount pairs Parts No.: MEER6320ER11000





LIMITED WARRANTY

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122 Rose Ln. Suite 303 | Frisco, Texas 75034

1-877-SHINY-USA 1-877-744-6987 1-972-377-2508

sales@shinybowusa.com

www.shinybowusa.com

SHINYBOW USA MULTIMEDIA AUDIO AND VISUAL