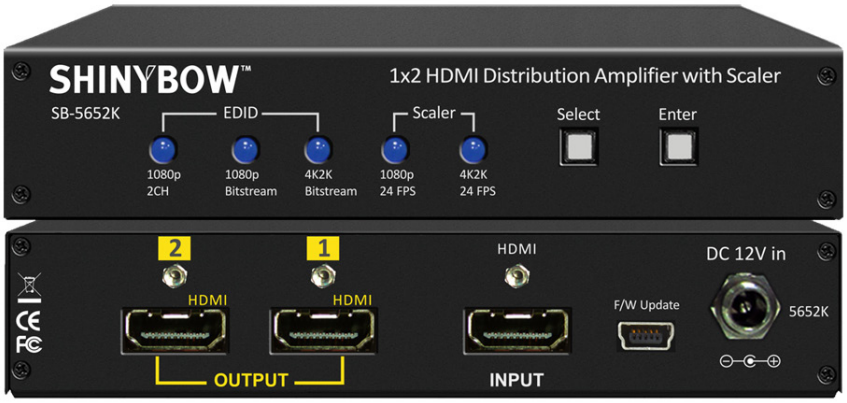
INSTRUCTION MANUAL

SB-5652K

1x2 HDMI - UHD 4K2K Distribution Amplifier w/ Scaler

4K|2K CAPABLE



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 qualifier 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

HDMI-4K2K Distribution Amplifier series

Thank you for purchasing the SB-5652K HDMI Distribution Amplifier with Scaler. 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 1x2 HDMI 4K2K Distribution Amplifier.

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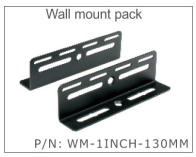
INTRODUCTION

The SB-5652K is professional 1x2 4K2K HDMI Distribution Amplifier with Scaler. Supporting (1) HDMI Input and output supported (2) HDMI 4K2K ports. It is based on the HDMI standard 4K2K and supports full 4K2K HD resolution HDMI Video with embedded (3) EDID modes, Video signal bandwidth of 340Mhz, there is no signal degradation. High Definition Digital signals can be distributed to (1) Input to (2) outputs. The Distributor is certified as being fully CEC and HDCP 2.0 compliant, full HD 4K2K HDMI V1.4a 3D formats, data rates up to 6.75 Gbps. Using the build-in HDMI signal booster function, the HDMI output is capable of driving cable lengths for 1080p up to 98 feet (30M) & 4K2K up to 66 feet (20M). Supports UXGA/WUXGA DVI 1920x1200 resolution to any HD DVI displays. Use 1x HDMI connector for Input, effectively making this an (1) input x (2) output distributor. The EDID management can be selected between (3) different modes 1080p-2ch/1080-bitstream/4K2K-bitstream and the scaler management (2) modes as the scaling up to 4K2K (24Hz) and scaling down to 1080p(24Hz). Control is provided via front panel push buttons.

PACKAGE CONTENTS

Check that you have the following components;

- SB-5652K Distribution Amplifier
- 1 inch high wall mount bracket (P/N: WM-1inch-130mm)
- Users Guide
- Power Supply Input: DC12V, 1A, (Worldwide Universal 100~240 VAC, AC 50/60Hz.)



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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Version 2.1 JULY 2015

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FEATURES & SPECIFICATIONS

FEATURES

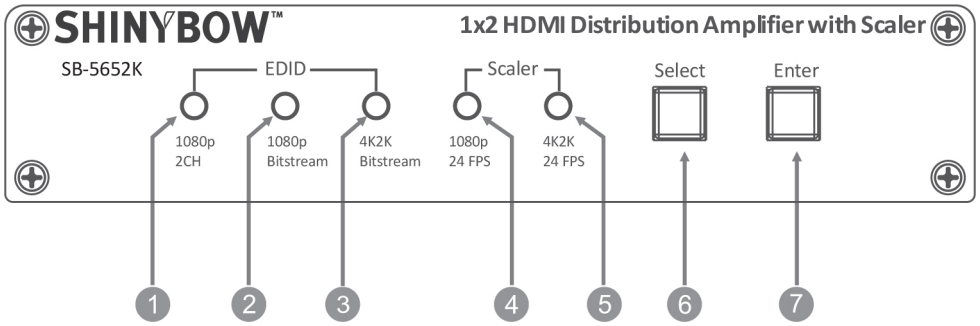
- (1)x HDMI 4K2K Standard input distribution To (2)x HDMI 4K2K Distribution Amplifier
- HDMI digital Video w/embedded HDCP, DVI format and CEC/HDCP 2.0 compliant
- Build in three (3) worldwide Embedded EDID modes control HDMI full 4K2K (24/25/30Hz) resolutions
- Link speeds of up to 6.75 Gbps (link clock rate of 340MbHz), Support HDMI 1.4a, 3D formats
- Wide range of HD DVI resolutions from PC XGA to WUXGA 1920x1200 and HDTV/DTV
- HDMI resolution supports 480i/480p, 576i/576p, 720p, 1080i/p & 4K2K (24/25/30Hz)
- Digital Video TMDS formats Resolution up to 4K2K with Deep color 36-bit
- Digital Multi-channel Audio Support : Dolby TrueHD, Dolby Digital, Dolby Digital Plug/ex, DTS, DTS-HD, DTS-HD Master, DTS-EX, PCM, PCM2, LPCM2
- Various User Interface controls via Front Panel push button
- Support worldwide (2)x control function keys via front panel controls: Select/ Enter
- Support Embedded (3) EDID modes : 1080p-2ch / 1080 bitstream / 4K2K-bitstream
- Support two (2) Scaling up / down modes : Down to 1080p (24Hz) / Up to 4K2K-(24Hz)
- HDMI Signal Booster : for 1080p Distance 98 feet (30M) and 4K2K Distance 60 feet (20M)
- Automatic LED show out via press the select function button
- Support Universal switch power adaptor AC100V~AC240V, 50/60Hz
- The Distributor will remember that last state during a power cycle. When power is removed and resorted, the last configuration will be invoked.

SPECIFICATIONS

- **Type of HDMI Distribution Amplifier:** 1x input To 2x Outputs HDMI Distribution Amplifier with Scaler
- **HDMI Support:** HDMI 4K2K, 1080p-@60Hz, H36-bit Deep color, 3D of HDMI V1.4 formats
- **HDCP / CEC Support:** HDCP 2.0 Compliant, CEC Compliant
- **Video Bandwidth:** Double Data Rates: 340 MHz, Total 6.75Gbps bandwidth
- **Digital Video Support:** HD:480i/ 480p/ 720p/ 1080i/p and 4K2K up to 36bit deep color
- **HDMI Input:** 1x HDMI (HDMI or DVI digital source)
- **HDMI Outputs:** 2x HDMI (To Destination)
- **Audio Outputs:** Multi-channel Audio Formats: 5.1 / 7.1, MAT(MLP), Dolby Digital, Dolby TrueHD, Dolby Digital Plus, DTS, DTS-ES 6CH, DTS-HD, DTS-HD-HRA, DTS-HD Master, (PCM-2CH)
- **Controls:**
  - 1x Select Function button on front panel (Data status via LED panel show out)
  - 1x Enter function button (confirm entries)
- **EDID-Scaling Status:** EDID & Scaling status LEDs indicates presence of a live signal
- **(2) Function Control Keys:**
  - 1. Select press button
  - 2. Enter press button
- **(3) EDID management:** Select Embedded EDID modes : **Mode1:** 1080p-2ch **Mode2:** 1080p-Bitstream **Mode3:** 4K2K-Bitstream
- **HDMI Signal Booster:**
  - Signal for 1080p Distance 98 feet (30M)
  - Signal for 4K2K Distance 60 feet (20M)
- **HDMI Signal Booster:** Select Scaling down / scaling up : **Mode1**: 1080p (24Hz) **Mode2:** 4K2K (24Hz)
- **HDMI I/O Connector:** HDMI Type A - SMD 19-pin female type
- **Temperature:** Operating Temperature 32°F - 100°F (0°C - 32°C)
- **Dimensions (LxWxH):** 5 x 3.14 x 1.00 in (127mm x 80mm x 25mm)
- **Wall Mount:** 1 inch High wall mount pack, P/N:1in-130mm (with wall mount pack)
- **Power Supply:** DC12V, 1A, Power Input AC 100~240 VAC 50/60Hz (universal switch Type Supply)
- **Safety Approvals:** CE, FCC, RoHS, REACH.
- **Product Weight:** 0.75 Kgs / 1.65 lb

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

FRONT PANEL



1. EDID MODE 1 : 1080P-2CH: Digital Video 1080p (1920x1080)@60Hz, Digital Audio Multi-Channel Audio 2CH.

2. EDID MODE 2 : 1080P-BITSTREAM: Digital Video 1080p (1920x1080)@60Hz

Digital Audio Multi-Channel Audio: Multi Audio Formats 5.1 / 7.1, MAT(MLP), Dolby Digital, Dolby TrueHD, Dolby Digital Plus, DTS, DTS-ES 6CH, DTS-HD, DTS-HD-HRA, DTS-HD Master, (PCM-2CH).

3. EDID MODE 3 : 4K2K-BITSTREAM: Digital Video 4K2K (3860x2160)@24/25/30Hz

Digital Audio Multi-Channel Audio: Multi Audio Formats 5.1 / 7.1, MAT(MLP), Dolby Digital, Dolby TrueHD, Dolby Digital Plus, DTS, DTS-ES 6CH, DTS-HD, DTS-HD-HRA, DTS-HD Master, (PCM-2CH).

4. SCALER MODE 1 : 1080P-24HZ: Digital Video 1080p (1920x1080)@24Hz

Digital Audio Multi-Channel Audio: Multi Audio Formats 5.1 / 7.1, MAT(MLP), Dolby Digital, Dolby TrueHD, Dolby Digital Plus, DTS, DTS-ES 6CH, DTS-HD, DTS-HD-HRA, DTS-HD Master, (PCM-2CH).

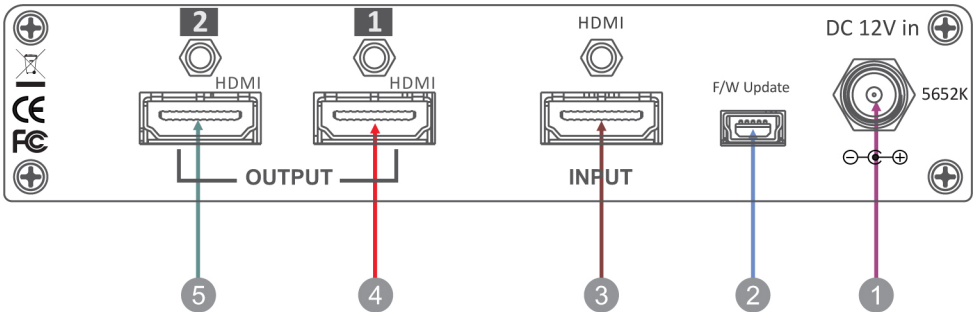
5. SCALER MODE 2 : 4K2K-24HZ: Digital Video 4K2K (3860x2160)@24Hz

Digital Audio Multi-Channel Audio: Multi Audio Formats 5.1 / 7.1, MAT(MLP), Dolby Digital, Dolby TrueHD, Dolby Digital Plus, DTS, DTS-ES 6CH, DTS-HD, DTS-HD-HRA, DTS-HD Master, (PCM-2CH).

6. SELECT BUTTON: Used to select EDID mode using buttons Select button.

7. ENTER BUTTON: Press ENTER to confirm entries.

BACK PANEL



1. POWER INPUT: The Switcher is fitted with a DC power plug input connector. Ensure that the used is of an approved type and is of sufficient current carrying connector capacity with the correct voltage and connector polarity. 12Volt DC power supply 1A Max (Center pin positive).



Power Socket :
DC Jack - inner OD Ø 2.1mm (+)
Outside OD Ø 5.5mm (GND)

Power input - 12VDC, 1A

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2. FIRMWARE UPDATE: Firmware update port to allow for interfacing to a PC mini-USB Such as a computer or touch panel control, to update firmware via this Mini-USB-4pin Female socket jack.



Remote Port: Mini-USB-4pin Female connector

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3. HDMI INPUT - (1) PORT: Connect an HDMI signal source to this Input. This HDMI port supports HDMI with embedded digital multi-channel audio and DVI sources. If you remove the HDMI screw post, you must use the provided ISO screws to keep the internal HDMI jack secure. Removing the HDMI Screws without installing the ISO screws will void your warranty.



HDMI Connector: HDM Type A SMD 19pin Female socket connector.

Note: With the proper adapters, the distributor can be used with DVI digital video signals HDCP compliant.

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4. / 5. HDMI OUTPUTS - (1) ~ (2) PORTS: Connect an HDMI signal source to this Output. This HDMI port supports HDMI with embedded digital multi-channel audio and DVI sources. If you remove the HDMI screw post, you must use the provided ISO screws to keep the internal HDMI jack secure. Removing the HDMI Screws without installing the ISO screws will void your warranty.



HDMI Connector: HDM Type A SMD 19pin Female socket connector.

Note: With the proper adapters, the distributor can be used with DVI digital video signals HDCP compliant.

EDID FUNCTION

EMBEDDED EDID & SCALER MODES FOR HDMI DISTRIBUTION AMPLIFIER

EDID / Scaler setup	To change the EDID & Scaler modes
	The display will show the currently selected EDID mode
Step 1. Press **SELECT** button	The button will flash blue and the display will show the current **Embedded EDID** & **Scaler** Status.
Step 2. Press the **ENTER** button	To set **EDID & Scaler** mode. The switcher will return to operation mode.
Operation will abort if no keys are pressed within 5 seconds.	
Embedded EDID & Scaler modes	**To select Embedded EDID mode or Scaler mode.**
Embedded EDID setup Press **SELECT > ENTER button** Select Embedded EDID : Mode 1 : 1080p-2ch Mode 2 : 1080p-Bitstream Mode 3 : 4K2K-Bitstream Mode 4 : H36-3D Select Scaler modes : Mode 1 : 1080p-24Hz Mode 2 : 4K2K-24Hz	The button will flash blue and the display will show the current **Embedded EDID & Scaler** Status. Press **SELECT** button : The LED will show the current **EDID & Scaler** status. Repeatedly depressing the **SELECT** button will cycle modes thru the options.
RESET	**(EDID Return To Factory default)**
How to RESET EDID mode Press **ENTER button**	Operation will abort if keep pressed the **ENTER** button after 5 seconds. RESET To the FACTORY DEFAULT (passing mode). Passing mode : The EDID will return to Pass mode.

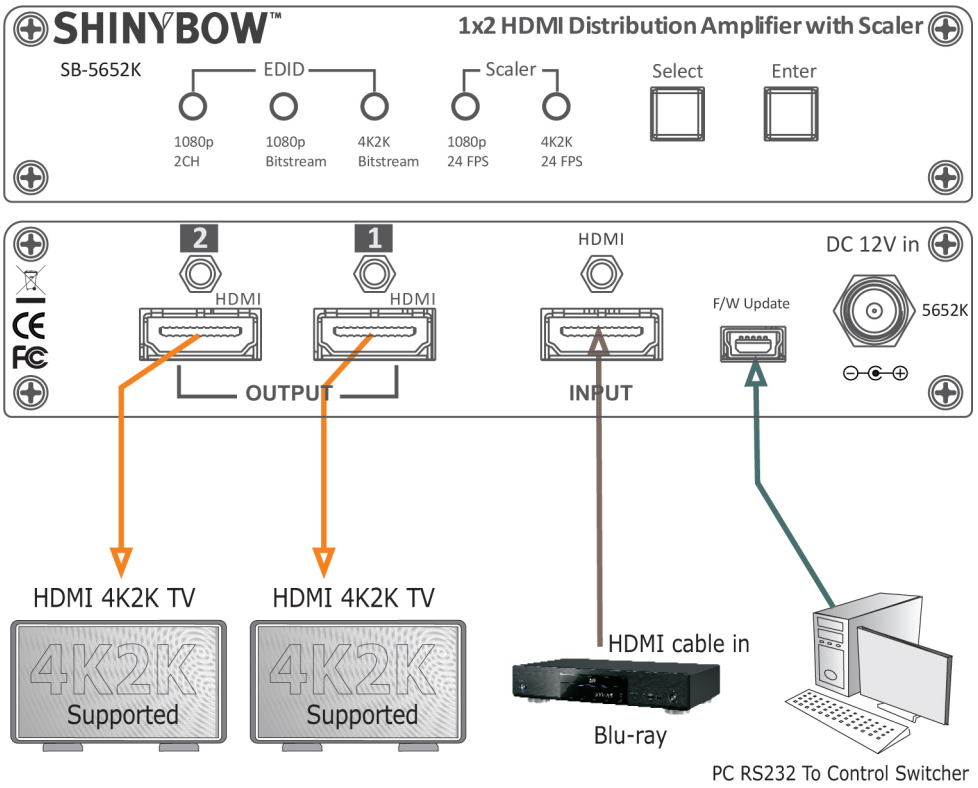
TYPICAL APPLICATION

INSTALLING DIAGRAM

Using the press button to select the Embedded EDID modes or Scaler modes to control HDMI Distribution Amplifier SB-5652K via SELECT and ENTER press buttons.

NOTE:

1. Update TX/RX chip Firmware via a PC USB.
2. Up-Scaling to 4K2K@24Hz mode requires a source Input signal to be 1080p@24Hz only.
3. Down-Scaling to 1080p@24Hz mode requires a source Input of 4K2K@24Hz only.



Application use 1080p and 4K2K HDTV via 1x2 Distribution Amplifier with Scaler.

LIMITED WARRANTY

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