NEXIS

SP812
4K UHD 1×2 HDMI Splitter

HDMI®
HIGH-DEFINITION MULTIMEDIA INTERFACE

Operation Manual

DISCLAIMERS

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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.
- Please completely disconnect the power when the unit is not in use to avoid wasting electricity.

REVISION HISTORY

VERSION NO.	DATE	SUMMARY OF CHANGE
RDV1	16/08/16	Preliminary release
VS1	09/07/18	Final technical review

CONTENTS

1. INTRODUCTION

This 4K UHD HDMI Splitter provides an advanced solution for splitting and distributing a single HDMI input to 2 HDMI outputs. This distribution amp provides a high level of audio and video performance with support for video resolutions up to 4K@60Hz (4:2:0) and high definition digital audio formats such as LPCM 7.1, with audio sampling rates up to 192kHz, Bitstream, and HD Bitstream. Standard EDID management functionality is included and the System Reset function allows the unit to automatically change the input selection on any connected, CEC enabled, TVs to the input the unit is currently connected to.

2. APPLICATIONS

- Classroom & Lecture Hall Presentations
- Showrooms & Demo Rooms
- Hotel Lobby Information Displays
- Public Commercial Displays

3. PACKAGE CONTENTS

- 1×1 by 2 HDMI Splitter
- 1×5V/1.2A DC Power Adapter
- 1×Rackmount Ears (Set of 2)
- 1×Shockproof Feet (Set of 4)
- 1×Operation Manual

4. SYSTEM REQUIREMENTS

- HDMI source equipment such as a media player, video game console or set-top box.
- HDMI receiving equipment such as HDTVs, monitors or audio amplifiers.
- The use of "Premium High Speed HDMI" cables is highly recommended.

5. FEATURES

- HDMI 2.0 and DVI 1.0 compliant
- HDCP 1.4 compliant
- 1 HDMI input and 2 HDMI outputs
- Supports HD resolutions up to 4096×2160@60Hz (4:2:0, 8-bit)
- Simultaneous display of a single 4K source on up to two 4K displays
- 3D signal support (with 3D source and compatible 3D TV)
- Supports pass-through of audio formats including LPCM 2.0/5.1/7.1, Bitstream, and HD Bitstream
- System Reset function (CEC active source command)
- EDID management control including "Standard" (Internal EDID) mode and "TV" (External Display EDID) modes

# 6. OPERATION CONTROLS AND FUNCTIONS

6.1 Front Panel
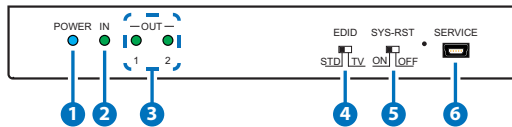
1 POWER LED: This LED will illuminate to indicate the unit is on and receiving power.

2 IN LED: This LED will illuminate to indicate that a live source has been detected on the input port. When no source is detected the LED will remain off.

3 OUT LEDs 1~2: These LEDs will illuminate to indicate when a valid sink has been detected on the associated output port. When no sink is detected the LED will remain off.

4 EDID SWITCH: This switch controls the EDID management behavior of the unit. When set to "TV" mode the unit will read and store the EDID from the sink connected to output 1 and pass it to the connected source. When set to "STD" mode the unit will use a built in EDID defined as 1080p@60Hz, 8-bit, LPCM 2.0.

5 **SYS-RST SWITCH:** Controls the CEC "active source" reset functionality of the unit. When switched to the "ON" position the unit will send a CEC active source reset command to all connected displays every 8~10 minutes. This command requests that any connected CEC compliant TVs switch to the input the unit is connected on.

Note: The connected TV must have CEC support enabled. Not all HDMI TVs support this CEC command.

6 **SERVICE:** This slot is reserved for firmware update use only.

6.2 Rear Panel
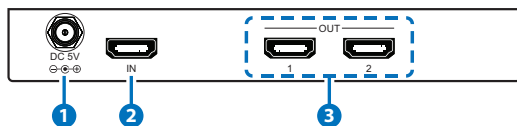
1 **DC 5V:** Plug the 5V DC power adapter into the unit and connect it to an AC wall outlet for power.

2 **IN:** Connect to HDMI source equipment such as a media player, game console or set-top box.

3 **OUT 1~2:** Connect to HDMI TVs, monitors or amplifiers for digital video and audio output.

7. CONNECTION DIAGRAM

Media Player

HDMI Input

Power Supply

HDMI Outputs

UHDTV

UHDTV
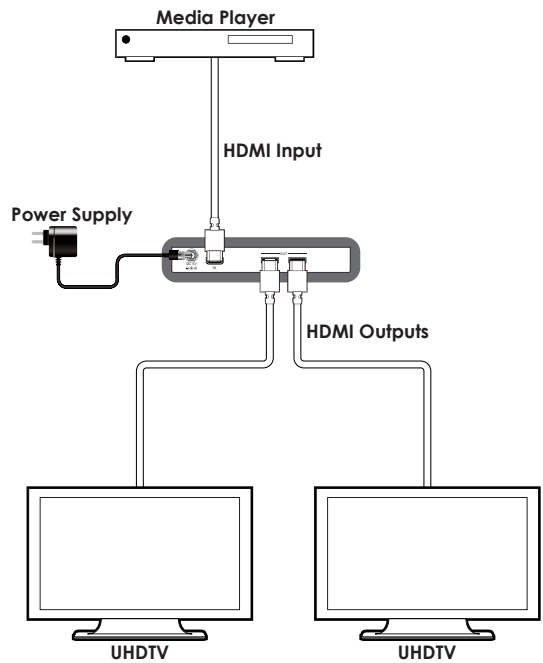
8. SPECIFICATIONS

8.1 Technical Specifications

HDMI Bandwidth	340MHz/10.2Gbps
Input Port	1×HDMI
Output Ports	2×HDMI
Power Supply	5V/1.2A DC (US/EU standards, CE/FCC/UL certified)
ESD Protection	Human Body Model: ±8kV (Air Discharge) ±4kV (Contact Discharge)
Dimensions	161mm×22mm×68mm (W×H×D) [Case Only] 161mm×26mm×76.5mm (W×H×D) [All Inclusive]
Weight	306g
Chassis Material	Metal
Silkscreen Color	Black
Operating Temperature	0 ˚C–40 ˚C/32 ˚F–104 ˚F
Storage Temperature	-20 ˚C–60 ˚C/-4 ˚F–140 ˚F
Relative Humidity	20–90% RH (Non-condensing)
Power Consumption	1.21W

8.2 Video Specifications

Resolution/Timing (Hz)	HDMI Input	HDMI Output
640×480p@60/72/75/85	✓	✓
720×400p@70/85	✓	✓
720×480i@59/60	✓	✓
720×480p@59/60	✓	✓
720×576i@50	✓	✓
720×576p@50	✓	✓
800×600p@56/60/72/75/85	✓	✓
848×480p@60	✓	✓
1024×768p@60/70/75/85	✓	✓
1152×864p@70/75/85	✓	✓
1280×720p@23/24/25/29/30/50/59/60	✓	✓
1280×768p@60/60 (RB)/75/85	✓	✓
1280×800p@60/60 (RB)/75/85	✓	✓
1280×960p@60/85	✓	✓
1280×1024p@60/75/85	✓	✓
1360×768p@60	✓	✓
1366×768p@60/60 (RB)	✓	✓
1400×1050p@60/60 (RB)	✓	✓
1440×900p@60/60 (RB)/75	✓	✓
1600×900p@60 (RB)	✓	✓
1600×1200p@50/60/65/70/75/85	✓	✓
1680×1050p@60/60 (RB)	✓	✓
1920×1080p@23/24/25/29/30/50/59/60	✓	✓
1920×1080i@50/59/60	✓	✓
1920×1200p@60 (RB)	✓	✓

Resolution/Timing (Hz)	HDMI Input	HDMI Output
2048×1080p@23/24/25/29/30/50/59/60	✓	✓
3840×2160p@50/59/60 (4:2:0)	✓	✓
3840×2160p@23/24/25/29/30 (4:4:4)	✓	✓
4096×2160p@50/59/60 (4:2:0)	✓	✓
4096×2160p@23/24/25/29/30 (4:4:4)	✓	✓

8.3 Cable Specifications

| HDMI Cable Length | 1080p | | 4K |
	8-bit	12-bit	8-bit
Input	15m	10m	5m
Output	15m	10m	5m

9. ACRONYMS

ACRONYM	COMPLETE TERM
CEC	Consumer Electronics Control
DVI	Digital Visual Interface
EDID	Extended Display Identification Data
HD	High-Definition
HDCP	High-bandwidth Digital Content Protection
HDMI	High-Definition Multimedia Interface
HDTV	High-Definition Television
LPCM	Linear Pulse-Code Modulation
UHD	Ultra-High-Definition
UHDTV	Ultra-High-Definition Television