

SP-1004D

1x4 Dual Link DVI Distribution Amplifier

User Manual



Safety and Notice

The **SP-1004D 1x4 Dual Link DVI Distribution Amplifier** has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipments, the SP-1004D should be used with care. Please read and follow the safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

- Follow all instructions and warnings marked on this unit.
- Do not attempt to service this unit yourself, except where explained in this manual.
- Provide proper ventilation and air circulation and do not use near water.
- Keep objects that might damage the device and assure that the placement of this unit is on a stable surface.
- Use only the power adapter and power cords and connection cables designed for this unit.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.



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rev: 140829
Made in Taiwan

INTRODUCTION

The **SP-1004D 1x4 Dual Link DVI Distribution Amplifier** provides the most cost effective and advanced dual link DVI splitter solution on the market, by which the super high definition graphics can be transmitted to 4 different locations without losing quality. SP-1004D is also good to be used as a typical single link 4 port DVI splitter. SP-1004D is suitable for high quality PC broadcasting, digital signage and education applications!

FEATURES

- DVI 1.1 compliant
- Wide Frequency Range: up to 300MHz
- EDID learning using DIP switch
- RS-232 firmware update for expanding compatibility
- RS-232 EDID update
- Wall-mount housing design for easy installation



1. SP-1004D does not support HDCP.
2. In order to correctly display dual link DVI, users must pay attention to the content of EDID! There exist some dual link enable graphics cards which may not be able to send dual link DVI signals due to inappropriate EDID.

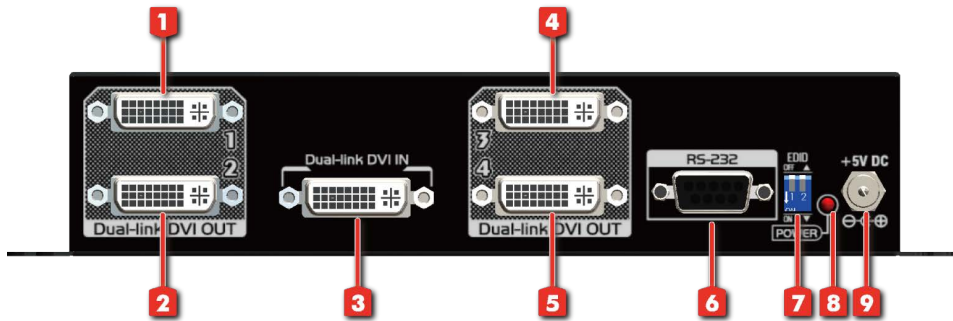
PACKAGE CONTENTS

- 1x SP-1004D
- 1x 5V 4A power supply unit
- 1x User Manual

SPECIFICATIONS

| Model Name | | SP-1004D |
|------------------------|---|--|
| Technical | | |
| Role of usage | 1x4 Dual Link DVI distribution amplifier (Splitter) | |
| DVI compliance | DVI 1.1 | |
| HDCP compliance | No | |
| Video bandwidth | 300 MHz | |
| Video support | Up to 2560x1600 | |
| Audio support | NO | |
| ESD protection | [1] Human body model — ±19kV [air-gap discharge] & ±12kV [contact discharge] [2] Core chipset — ±2kV | |
| PCB stack-up | 4-layer board [impedance control — differential 100Ω; single 50Ω] | |
| Firmware update | Feasible via RS-232 port | |
| CEC Channel | N/A | |
| Input TMDS signal | 1.2 Volts [peak-to-peak] | |
| Input DDC signal | 5 Volts [peak-to-peak, TTL] | |
| Input | 1x DVI + 1x RS-232 | |
| Output | 4x DVI | |
| DVI connector | DVI-I [29-pin female digital only] | |
| RS232 connector | DE-9 | |
| Mechanical | | |
| Housing | Metal enclosure | |
| Dimensions [L x W x H] | Model | 219 x 100 x 43mm [8.6" x 3.9" x 1.7"] |
| | Package | 325 x 196 x 92mm [12.7" x 7.7" x 3.6"] |
| | Carton | 490 x 426 x 352mm [1'6" x 1'4" x 1'2"] |
| Weight | Model | 729g [1.6 lbs] |
| | Package | 230g [8oz] |
| Fixedness | Wall-mounting case with screws | |
| Power supply | 5V 4A DC | |
| Power consumption | 15 Watt [max] | |
| Operation temperature | 0~40°C [32~104°F] | |
| Storage temperature | -20~60°C [-4~140°F] | |
| Relative humidity | 20~90% RH [no condensation] | |

Rear Panel



1. **Dual link DVI IN:** DVI input source
2. **Dual link DVI OUT:** distributed DVI output 3
3. **Dual link DVI OUT:** distributed DVI output 4
4. **DIP Switch:** For EDID learning
5. **RS232 IN:** for firmware update and control use
6. **Power Signal LED**
7. **+5V DC** interlocking power jack: connect to 5V 4A interlocking power supply unit

DIP Switch

| Pin #1 | Pin #2 | EDID feature |
|---------|---------|----------------------------|
| OFF (↑) | OFF (↑) | Default - Dual Link Mode |
| OFF (↑) | ON (↓) | Default - Single Link Mode |
| ON (↓) | ON (↓) | EDID Learning Mode |
| ON (↓) | OFF (↑) | Reserved Mode |

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1. Only DVI output 3 can be used to learn EDID

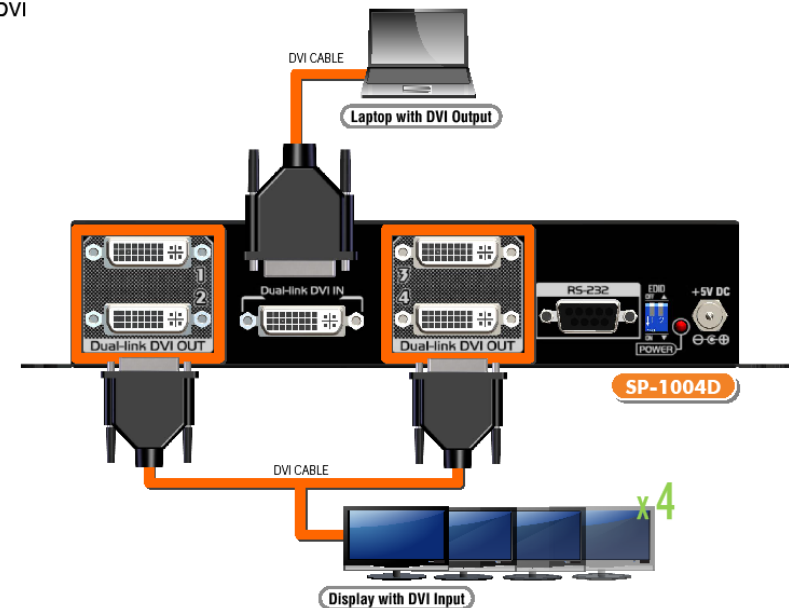
1. Connect the output display to DVI output3
2. Adjust the DIP switch to EDID Learning Mode [ON,ON] (↓,↓)
3. Plug out and then plug in the power adapter
4. The power indication LED will start flicking
5. After the EDID Learning is done, LED will stop flicking

CONNECTION DIAGRAM

Broadcasts DVI signal to 4DVI displays!

1. Switch off all devices, including monitors.
2. Connect to the receivers.
3. Connect a DVI source to the DVI In.
4. Plug in 5V DC power supply unit.
5. Power on the DVI monitors.
6. Power on the DVI source.

→ DVI



WARRANTY

The SELLER warrants the **SP-1004D 1x4 Dual Link DVI Distribution Amplifier** to be free from defects in the material and workmanship for 1 year from the date of purchase from the SELLER or an authorized dealer. Should this product fail to be in good working order within 1 year warranty period, The SELLER, at its option, repair or replace the unit, provided that the unit has not been subjected to accident, disaster, abuse or any unauthorized modifications including static discharge and power surges. This warranty is offered by the SELLER for its BUYER with direct transaction only. This warranty is void if the warranty seal on the metal housing is broken.

Unit that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for 90 days from the day of reshipment to the BUYER. If the unit is delivered by mail, customers agree to insure the unit or assume the risk of loss or damage in transit. Under no circumstances will a unit be accepted without a return authorization number.

The warranty is in lieu of all other warranties expressed or implied, including without limitations, any other implied warranty or fitness or merchantability for any particular purpose, all of which are expressly disclaimed.

Proof of sale may be required in order to claim warranty. Customers outside Taiwan are responsible for shipping charges to and from the SELLER. Cables and power adapters are limited to a 30 day warranty and must be free from any markings, scratches, and neatly coiled.

The content of this manual has been carefully checked and is believed to be accurate. However, The SELLER assumes no responsibility for any inaccuracies that may be contained in this manual. The SELLER will NOT be liable for direct, indirect, incidental, special, or consequential damages resulting from any defect or omission in this manual, even if advised of the possibility of such damages. **Also, the technical information contained herein regarding the SP-1004D features and specifications is subject to change without further notice.**