



# 1x4 DVI Distribution Amplifier with HDCP Support



P/N: AV-GM0543-S1



## Safety and Notice

The AV-GM0543-S1 1x4 DVI Distribution Amplifier with HDCP Support has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipments, the AV-GM0543-S1 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.



### **TABLE OF CONTENTS**

INTRODUCTION.....	1
FEATURES.....	1
PACKAGE CONTENTS .....	1
SPECIFICATIONS .....	2
PANEL DESCRIPTIONS.....	3
HARDWARE INSTALLATION.....	4
CONNECTION DIAGRAM .....	4
NOTICE .....	5
WARRANTY .....	6

# INTRODUCTION

The **AV-GM0543-S1 1x4 DVI Distribution Amplifier with HDCP Support** provides the most cost effective and advanced DVI splitter solution on the market, by which the high definition video can be transmitted to 4 different locations without losing quality. To equip with HDMI compliant splitter chipsets, AV-GM0543-S1 is also good to be used as an advanced HDMI 4 port splitter. AV-GM0543-S1 is suitable for high quality PC broadcasting, digital signage and education applications!

## FEATURES

- DVI 1.1 / Support HDMI Deep Color & 3D
- HDCP 1.2 compliant
- Wide Frequency Range: 25MHz ~ 225MHz
- Video bandwidth: 6.75Gbps
- Resolution up to 1080p or WUXGA [1920x1200@60]
- EDID learning
- HDMI supports x.v.YCC, x.v.Color & Deep Color
- HDMI Supports Dolby Digital, DTS-HD Master Audio and Dolby TrueHD audio formats
- USB firmware update for expanding compatibility
- Wall-mount housing design for easy installation



Automatic EDID learning will detect all the connected DVI / HDMI equipped monitors and analyze all the content of EDID. The EDID with minimal resolution support will be the reference EDID for incoming DVI / HDMI source players.

## PACKAGE CONTENTS

- 1x AV-GM0543-S1
- 1x 5V power supply unit
- 1x User Manual

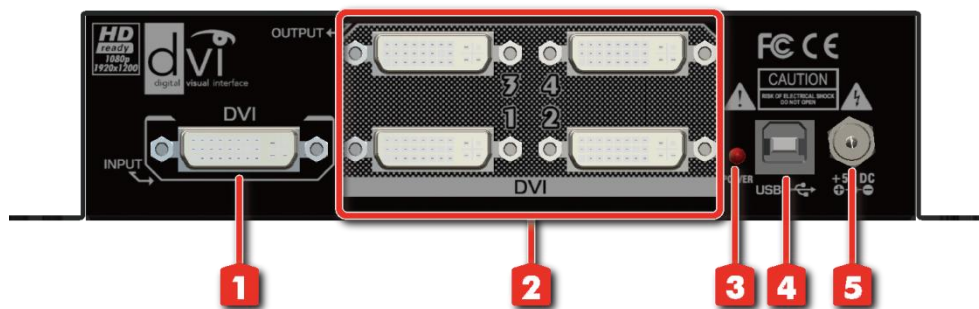
# SPECIFICATIONS

Model Name	AV-GM0543-S1	
<b>Technical</b>		
Role of usage	1x4 Distribution Amplifier (Splitter)	
DVI compliance	DVI 1.1	
HDMI compliance	HDMI Deep Color & 3D	
HDCP compliance	Yes	
Video bandwidth	Single-link 225MHz [6.75Gbps]	
Video support	Up to WUXGA [1920x1200@60Hz] & UXGA [1600x1200@60Hz]	
Audio support	DTS-HD Master Audio, Dolby TrueHDM Dolby Digital, DTS, DVD-Audio, LPCM, SACD, MPCM	
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 USB-port	
Input TMDS signal	1.2 Volts [peak-to-peak]	
Input DDC signal	5 Volts [peak-to-peak, TTL]	
Input	1x DVI / HDMI [7.1ch audio & video]	
Output	4x DVI / HDMI [7.1ch audio & video]	
DVI connector	DVI-I [29-pin female digital only]	
USB connector	Standard type-B [square shape]	
<b>Mechanical</b>		
Housing	Metal enclosure	
Dimension s [L x W x H]	Model	175 x 100 x 43mm [6.8" x 3.9" x 1.7"]
	Package	270 x 175 x 80mm [10.6" x 6.9" x 3.1"]
	Carton	430 x 360 x 290mm [1'5" x 1'2" x 11"]
Weight	Model	517g [1.1 lbs]
	Package	780g [1.7 lbs]
Fixedness	Wall-mounting case with screws	
Power supply	5V 4A DC	

Power consumption	2 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]

## PANEL DESCRIPTIONS

### Rear Panel



1. **DVI INPUT:** DVI input source
2. **DVI OUTPUT:** distributed DVI outputs
3. **Power:** Red light means power is on
4. **USB:** for firmware update use only
5. **+5V DC:** connect to 5V 4A interlocking power supply unit



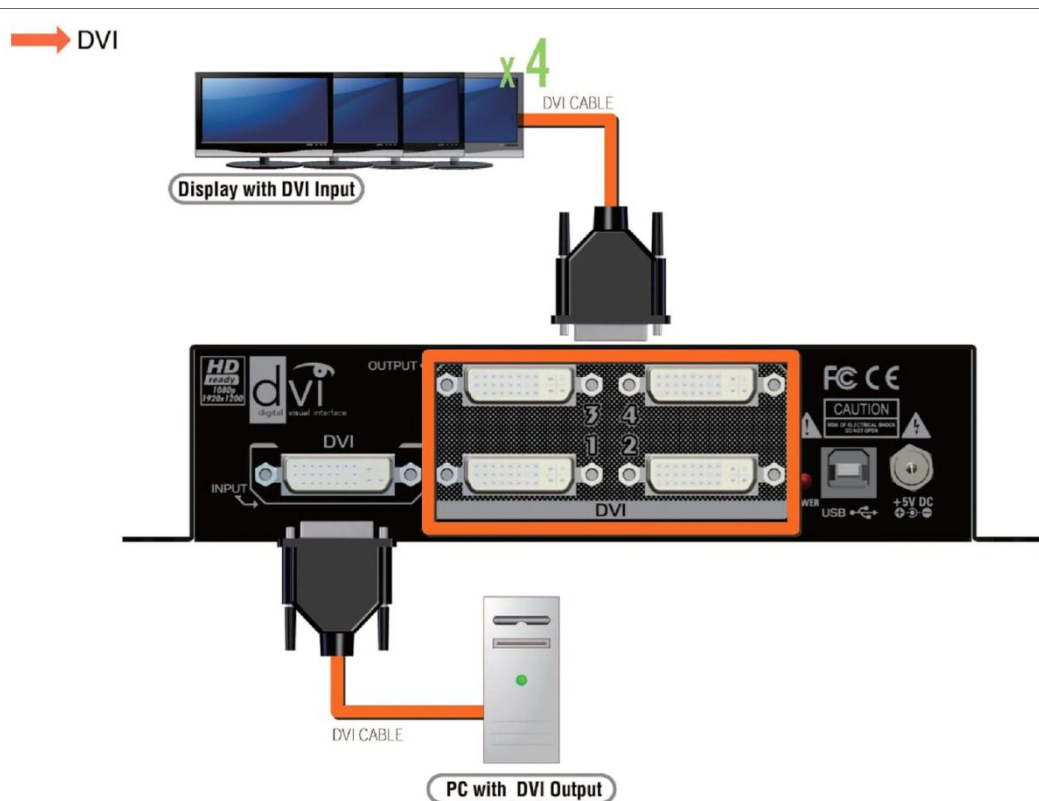
When the connected DVI / HDMI monitor is verified as DVI or HDMI and HDCP compliant, the corresponding green LED will blink.

# HARDWARE INSTALLATION

## Broadcasts DVI signal to 4 DVI displays!

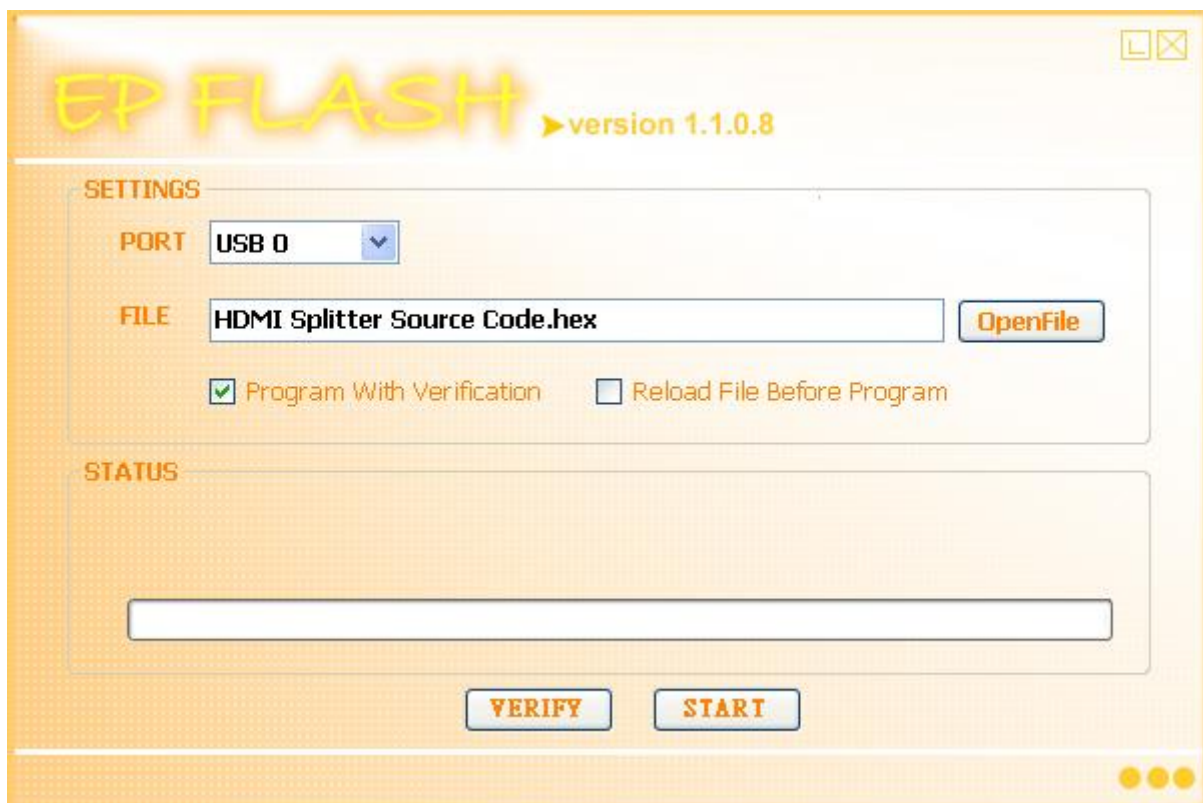
1. Switch off all devices, including monitors.
2. Connect to the receivers.
3. Connect a DVI source (such as a Blu-ray Disc player or PC) to the DVI In.
4. Plug in 5V DC power supply unit.
5. Power on the DVI monitors.
6. Power on the DVI source.

## CONNECTION DIAGRAM



# NOTICE

1. While connecting a new monitor to the splitter, experiencing a short period of time no display may be expected. Automatic EDID learning will analyze the newly connected monitor to see if the EDID for the DVI input is necessary to update!
2. For long range high definition DVI transmission applications, please adopt CAT5/6 cable based DVI extenders.
3. For firmware update through USB, users MUST first turn off the power, plug USB cable connected to your PC, and then power up the module! In this setup, the power LED indicator will NOT blink, and this is normal! Execute the attached or download EPFlash.exe, and the following window will pop up. Click on "OpenFile" button to direct to the new firmware HEX file, and keep PORT at USB 0! Meantime, keep "Program With Verification" selected, and then click on "START" button on the bottom of the window! Wait for seconds until the update process is completed! After firmware update is successfully accomplished, please unplug USB cable and power off the splitter!



# WARRANTY

The SELLER warrants the **AV-GM0543-S1 1x4 DVI Distribution Amplifier with HDCP Support** to be free from defects in the material and workmanship for 3 years from the date of purchase from the SELLER or an authorized dealer. Should this product fail to be in good working order within 3 years 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 AV-GM0543-S1 features and specifications is subject to change without further notice.

## Support

For more info or tech support  
<http://www.siig.com/support>