BZBGEAR®

Amplify Your World™

BG-3GS12

1080P FHD 3G-SDI 1x2 Splitter/Distribution Amplifier

User Manual

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Statement

Please read these instructions carefully before connecting, operating, or configuring this product. Please save this manual for future reference.

Safety Precaution

- To prevent damaging this product, avoid heavy pressure, strong vibration, or immersion during transportation, storage, and installation.
- The housing of this product is made of organic materials. Do not expose to any liquid, gas, or solids which may corrode the shell.
- Do not expose the product to rain or moisture.
- To prevent the risk of electric shock, do not open the case. Installation and maintenance should only be carried out by qualified technicians.
- Do not use the product beyond the specified temperature, humidity, or power supply specifications.
- This product does not contain parts that can be maintained or repaired by users. Damage caused by dismantling the product without authorization from BZBGEAR is not covered under the warranty policy.
- Installation and use of this product must strictly comply with local electrical safety standards.

Introduction

The BG-3GS12 is a 1x2 3G-SDI splitter that splits one SDI input to two SDI outputs simultaneously. With a signal relocking feature, it also extends a video signal for long distances. This reliable and powerful tool provides consistent connections in a variety of different scenarios, such as adding a second output for monitoring video feeds on a separate display, splitting the signal and cascading multiple displays, or extending the SDI signal. The BG-3GS12 supports multiple resolutions up to 1080p@60 as well as multiple color spaces such as RGB or YCbCr 4:4:4.

Features

- This product is designed with an equalizer IC in its input and a drive IC in its outputs. This allows all inputs and outputs to support long coaxial cables while still maintaining quality signal (3G: 80m/263ft, HD: 120m/394ft, SD: 200m/656ft).
- **Multiple video resolutions**:
  - 3G 1080p @50/60
  - HD 1080p @24/25/30
  - HD 1080i @50/60
  - HD 720p @24/25/30/50/60
  - SD 480i, 576i and 625i
- **Multiple color space**:
  - RGB or YCbCr 4:4:4 sampled
  - YCbCr 4:2:2 or 4:2:0 sampled
  - Data rates: 270Mbps～2.97Gbps
  - Deep color: 8bit, 10bit, 12bit.

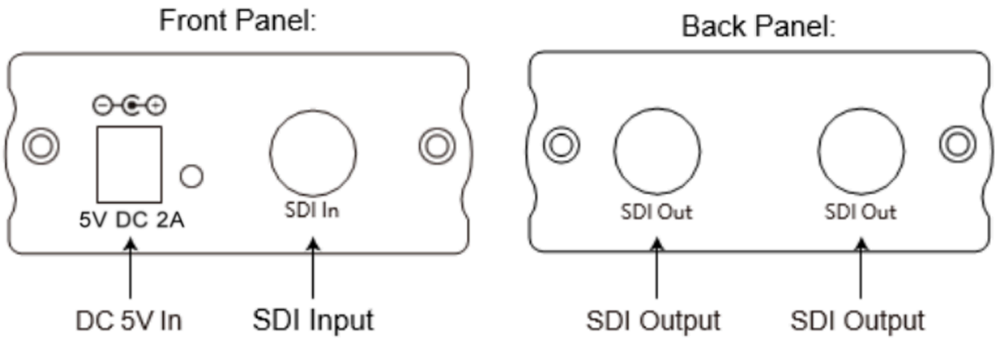
Packing List

- 1 x BG-3GS12 SDI 1x2 Splitter
- 1 x Power adapter 5V@2A
- 1 x User Manual

Specifications

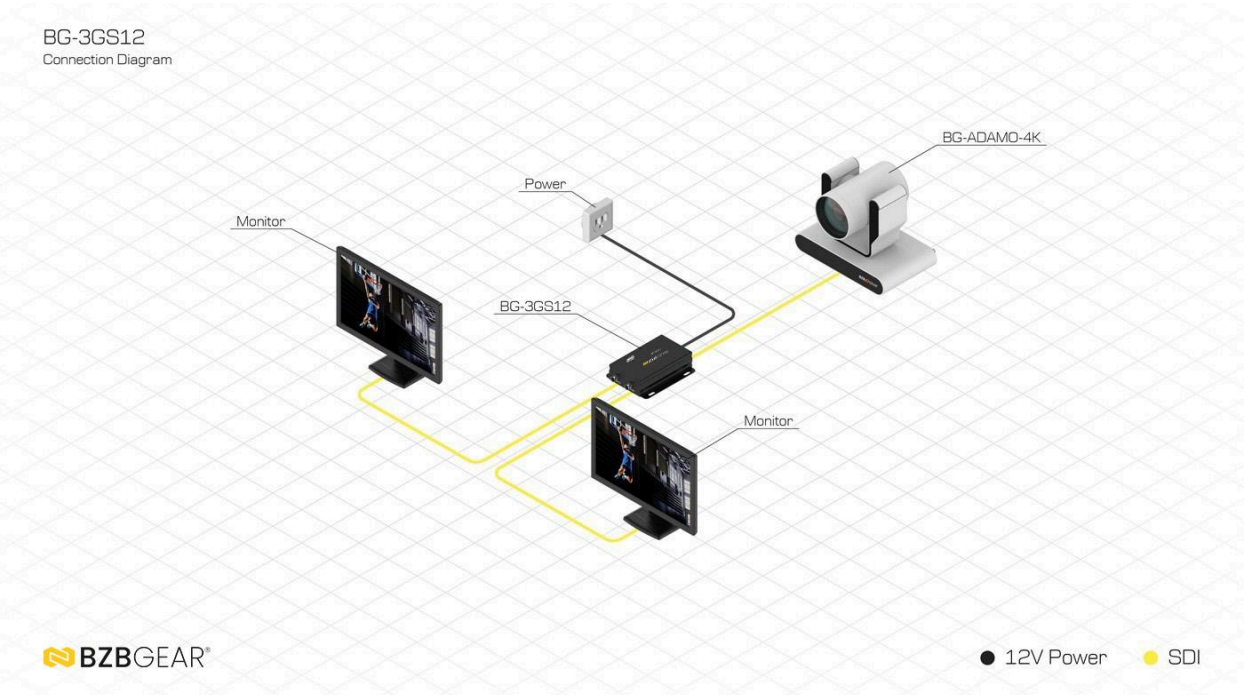
Signal Input/Output	
Input Connector	1x SDI BNC Male
Output Connector	2x SDI BNC Male
SDI Cable Distance (RG59 cable)	
3G Mode	Up to 80m (263ft)
HD Mode	Up to 120m (394ft)
SD Mode	Up to 200m (656ft)
Mechanical	
Size (L-W-H)	112×90×29.3mm (4.4 x 3.5 x 1.2 in)
Weight (Net)	150g (5.3 oz)
Environmental	
Operating Temperature	0 ℃ to +70℃ (32°F to 158°F)
Operating Humidity	10% to 85 % RH (no condensation)
Storage Temperature	-10℃ to +80℃ (14°F to 176°F)
Storage Humidity	5% to 90 % RH (no condensation)
Power Requirement	
External Power Supply	5V DC@ 2A
Power consumption (Max)	1W
Accessories Adapter	
User Manual	English version

Connection and Operation



- **DC 5V IN:** Power; use included DC 5V/2A adapter.
- **SDI Input:** Connects to SDI signal source, such as an SDI camera.
- **SDI Output:** Connects with SDI monitor or another SDI device.

Application Example



1. Connect the BG-3GS12 to power.
2. Connect the SDI cable to signal “SDI IN” from the source device.
3. Connect the SDI cable from “SDI OUT” to a SDI display or another SDI device.

Tech Support

Have technical questions? We may have answered them already!

Please visit BZBGEAR's support page (bzbgear.com/support) for helpful information and tips regarding our products. Here you will find our Knowledge Base (bzbgear.com/knowledge-base) with detailed tutorials, quick start guides, and step-by-step troubleshooting instructions. Or explore our YouTube channel, BZB TV (youtube.com/c/BZBTVchannel), for help setting up, configuring, and other helpful how-to videos about our gear.

Need more in-depth support? Connect with one of our technical specialists directly:

Phone	**Email**	**Live Chat**
1.888.499.9906	support@bzbgear.com	bzbgear.com

Limited Product Warranty Terms

Pro Line: 5-year warranty from the date of purchase for AV/Broadcasting products bought on or after August 1, 2024.

Essential Line: 3-year warranty from the date of purchase for AV/Broadcasting products bought on or after August 1, 2024.

Cables: Lifetime Limited Product Warranty.

For complete warranty information, please visit bzbgear.com/warranty.

For questions, please call 1.888.499.9906 or email support@bzbgear.com.

Mission Statement

BZBGEAR is a breakthrough manufacturer of high-quality, innovative audiovisual equipment ranging from AVoIP, professional broadcasting, conferencing, home theater, to live streaming solutions. We pride ourselves on unparalleled customer support and services. Our team offers system design consultation, and highly reviewed technical support for all the products in our catalog. BZBGEAR delivers quality products designed with users in mind.

Copyright

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