

CSDI-14 3G-SDI 1 by 4 Splitter



Operation Manual



DISCLAIMERS

The information in this manual has been carefully checked and is believed to be accurate. Cypress Technology assumes no responsibility for any infringements of patents or other rights of third parties which may result from its use.

Cypress Technology assumes no responsibility for any inaccuracies that may be contained in this document. Cypress also makes no commitment to update or to keep current the information contained in this document.

Cypress Technology reserves the right to make improvements to this document and/or product at any time and without notice.

COPYRIGHT NOTICE

No part of this document may be reproduced, transmitted, transcribed, stored in a retrieval system, or any of its part translated into any language or computer file, in any form or by any means—electronic, mechanical, magnetic, optical, chemical, manual, or otherwise—without express written permission and consent from Cypress Technology.

© Copyright 2011 by Cypress Technology.

All Rights Reserved.

Version 1.1 August 2011

TRADEMARK ACKNOWLEDGMENTS

All products or service names mentioned in this document may be trademarks of the companies with which they are associated.



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.

REVISION HISTORY

VERSION NO.	DATE DD/MM/YY	SUMMARY OF CHANGE
VR0	08/04/11	Preliminary Release
VS1	11/07/12	Updated format/diagrams/SDI standards
VS2	13/07/12	First release
VR3	09/08/12	Type Error



CONTENTS

1. Introduction	1
2. Applications	1
3. Package Contents	1
4. System Requirements	1
5. Features	1
6. Operation Controls and Functions	2
6.1 Front Panel	2
6.2 Rear Panel	2
7. Connection Diagram	3
8. Specifications	4
9. Acronyms	5



1. INTRODUCTION

The 3G-SDI 1 by 4 Splitter allows SD-SDI, HD-SDI and 3G-SDI signals to be split from a single SDI source to up four simultaneous SDI outputs while ensuring high bit rates of 2.970 Gbit/s to give you high bandwidth signal transmission without signal loss over long distances.

2. APPLICATIONS

- Video broadcasting display
- Professional video program display
- Film studios program monitoring
- Video program switching display

3. PACKAGE CONTENTS

- 3G-SDI 1 by 4 Splitter
- 5V/2.6A DC Power Adaptor
- · Operation Manual

4. SYSTEM REQUIREMENTS

SDI source input (such as broadcast video cameras or recording device) and SDI output displays (such as TVs or monitors)

5. FEATURES

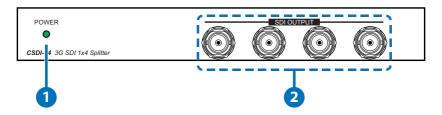
- Split one 3G-SDI input source to four 3G-SDI displays simultaneously
- Operation at 2.970Gb/s, 2.970/1.001Gb/s, 1.485Gb/s, 1.485/1.001Gb/s and 270Mb/s
- Supports SMPTE 425M (Level A and Level B), SMPTE 424M, SMPTE 292M, SMPTE 259M-C
- Provides equalized and re-clocked transmission
- Supports signal input and output distances of up to 300m for SD signals, 200m for HD signals and 100m for 3G signals.

Note: Tested with Belden 1694A Cable. Operating distances may vary if used with cables of different specifications.



6. OPERATION CONTROLS AND FUNCTIONS

6.1 Front Panel



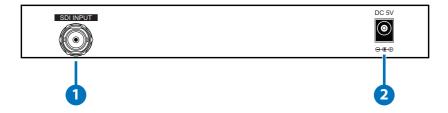
1 Power LED

The LED will illuminate green when the device is connected to a power supply.

2 SDI OUTPUT

Connect to up to four SDI TVs or monitors for simultaneous display or to another splitter to cascade the SDI signal to multiple displays or devices.

6.2 Rear Panel



1 SDI INPUT

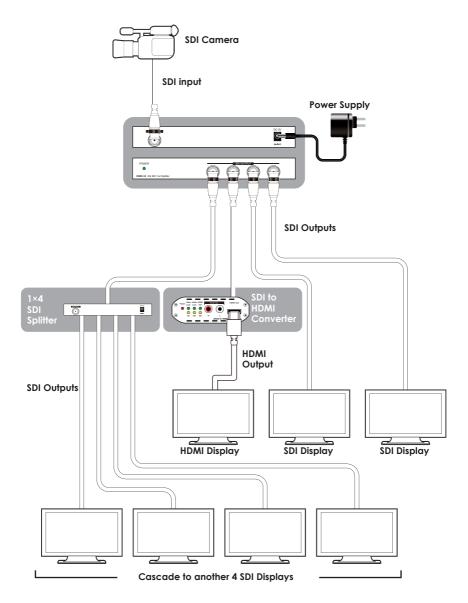
Connect to the SDI output of the SDI source device such as a video camcorder or SDI player. Accepts SD,HD or 3G SDI signals.

2 DC 5V

Plug the 5V DC power supply into the unit and connect the adaptor to an AC outlet. The 'POWER' LED will illuminate green when the power is ON.



7. CONNECTION DIAGRAM





8. SPECIFICATIONS

SMPTE Standard 425M Level A & B, 424M, 292M, 259M-C **SDI Transmission** 2.970 Gbit/s and 2.970/1.001 Gbit/s

Rates

 Input
 1×BNC (SD/HD/3G-SDI)

 Output
 4×BNC (SD/HD/3G-SDI)

SDI Timing Support SD-SDI:

SMPTE 259M-C, 270 Mbit/s

HD-SDI:

SMPTE 292M, 1.485 & 1.485/1.001 Gbit/s

3G-SDI:

SMPTE 424M/425M-AB, 2.970 &

2.970/1.001 Gbit/s

Power Supply 5 V DC/ 2.6 A (US/EU standards, CE/FCC/UL

certified)

ESD Protection Human body model:

±8kV (air-gap discharge)

±4kV (contact discharge)

SDI Cable Distance 3G-SDI up to 100 m (BELDEN 1694A)

HD-SDI up to 200 m (BELDEN 1694A) SD-SDI up to 300 m (BELDEN 1694A)

Dimensions 200 mm (W)×138 mm(D) x 30 mm (H)

Weight 900 g
Chassis Material Metal
Silkscreen Color Black

Operating 0 °C~40 °C/32 °F~104 °F

Temperature

Storage $-20 \,^{\circ}\text{C} \sim 60 \,^{\circ}\text{C} / -4 \,^{\circ}\text{F} \sim 140 \,^{\circ}\text{F}$

Temperature

Relative Humidity 20~90% RH (Non-condensing)

Power Consumption 5W



ACRONYM	COMPLETE TERM	
3G	Bandwidth 2.97Gbps ≈ 3G	
HDMI	High Definition Multimedia Interface	
SDI	Serial Digital Interface	

