

Globalmediapro SM-2C

3G-SDI 4 by 4 Switcher/Splitter

Operation Manual

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1. INTRODUCTION

The 3G-SDI 4 by 4 Switcher/Splitter allows SD-SDI, HD-SDI and 3G-SDI signals to be switched from up to four SDI sources and split to 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 and can be controlled via IR or RS-232.

2. APPLICATIONS

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

3. PACKAGE CONTENTS

- 3G-SDI 4 by 4 Switcher/Splitter
- Remote Control
- 5V/2.6A DC Power Adaptor
- Operation Manual

4. SYSTEM REQUIREMENTS

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

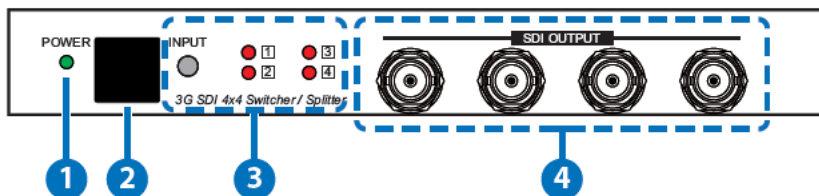
5. FEATURES

- Switch between four 3G-SDI input sources and split the output to four 3G-SDI displays simultaneously
- Operation at 2.970Gb/s, 2.970/1.001 Gb/s, 1.485Gb/s, 1.485/1.001 Gb/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
- Control via RS-232, IR remote control (supplied) and on-panel buttons
- 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 IR receiver

IR receiver window receives IR commands from the supplied remote control.

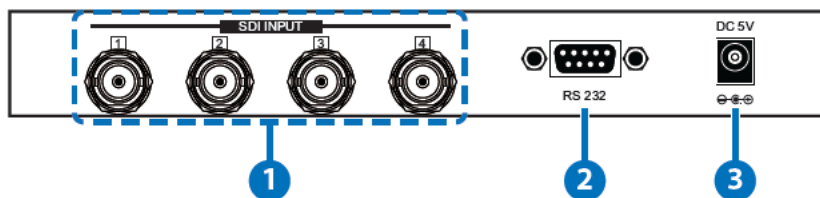
3 SDI Input select/Indicator LEDs 1~4

Press the input button repeatedly to cycle through the SDI input sources, the red LED will illuminate to indicate which input source is currently selected. When the device is in 'Standby' mode, press this button to power on the device.

4 SDI OUTPUT

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

6.2 Rear Panel



1 SDI INPUT

Connect up to four SDI source devices such as a video camcorders or SDI players. Accepts SD,HD or 3G SDI signals.

2 RS-232

Connect to a PC/laptop or RS-232 enabled device with a D-Sub 9-pin cable to control the unit with RS-232 commands (refer to Section 6.3 'RS-232 Protocols').

3 DC 5V


Plug the 5V DC power supply into the unit and connect the adaptor to AC wall outlet.

6.3 RS-232 Protocols

6.3.1 Pin Assignment

Pins definition of modem cable

3G-SDI 4 by 4 Switcher/ Splitter		Remote Controller	
PIN	Definition	PIN	Definition
1	NC	1	NC
2	TxD	2	RxD
3	RxD	3	TxD
4	NC	4	NC
5	GND	5	GND
6	NC	6	NC
7	NC	7	NC
8	NC	8	NC
9	NC	9	NC



Baud Rate: 19200bps

Data bit: 8-bits

Parity: None

Stop bit: 1-bit

Flow Control: None

6.3.2 Commands

Command	Action
poweroff	Power OFF
poweron	Power ON
input01	Input selection 1
input02	Input selection 2
input03	Input selection 3
input04	Input selection 4
?input	Inquire Current Input selection

Note: All the RS-232 command will be not executed unless followed with a carriage return. Commands are Case-Sensitive.

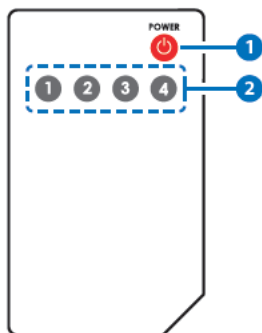
6.4 Remote Control

1 Power

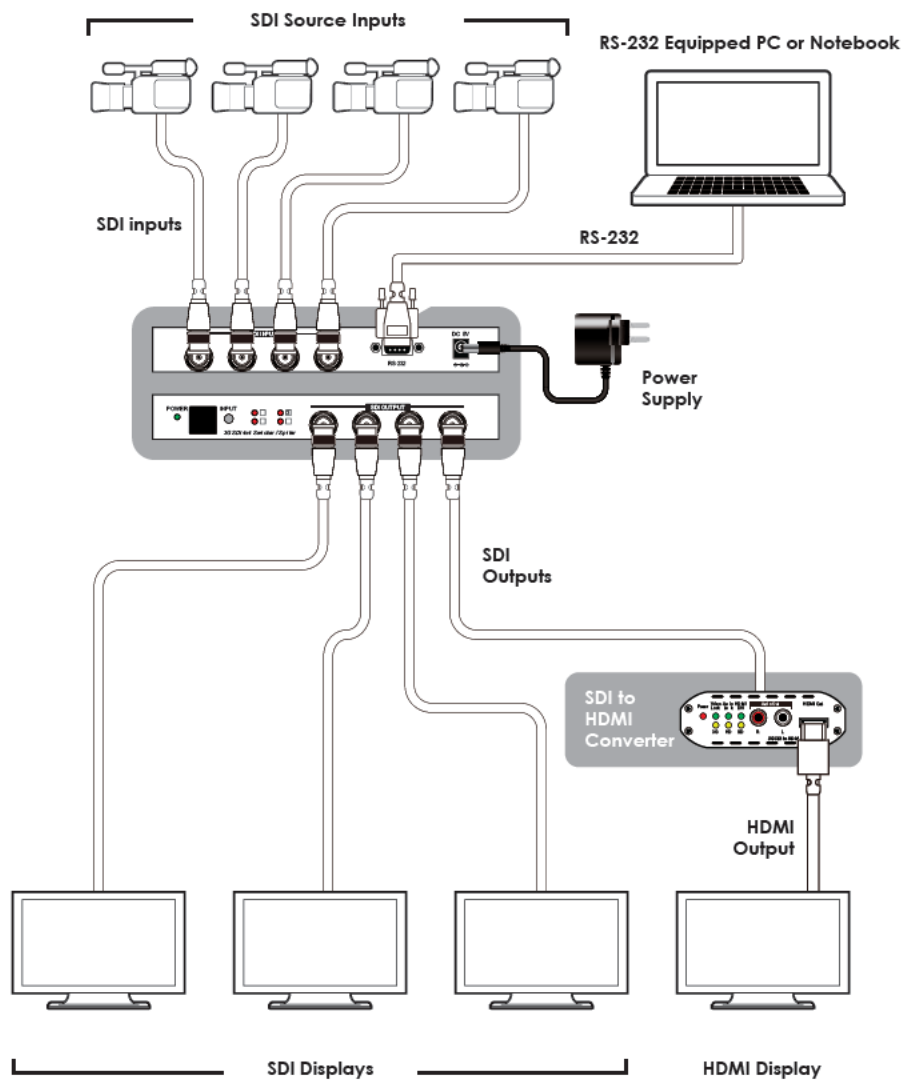
Press the button to turn the unit ON or to standby mode.

2 Direct Input Selector

Press 1, 2, 3 or 4 to select the required input source. When the device is in 'Standby', press any button to turn the device on



7. CONNECTION DIAGRAM



8. SPECIFICATIONS

SMPT E Standard	425M Level A & B, 424M, 292M, 259M-C
SDI Transmission Rates	2.970 Gbit/s and 2.970/1.001 Gbit/s
Input	4×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	5V 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 100m (BELDEN 1694A) HD-SDI up to 200m (BELDEN 1694A) SD-SDI up to 300m (BELDEN 1694A)
Dimensions	200mm (W)×138mm mm(D)×30mm (H)
Weight	900g
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	5W

9. ACRONYMS

ACRONYM	COMPLETE TERM
3G	Bandwidth 2.97Gbit/s \approx 3G
BNC	Bayonet Neill-Concelman
HDMI	High Definition Multimedia Interface
SDI	Serial Digital Interface