

SP-3014

1x4 3G|HD|SD-SDI Distribution Amplifier with Reclocking

User Manual



3G HD SD



rev: 120626
Made in Taiwan



Safety and Notice

The **SP-3014 1x4 3G|HD|SD-SDI Distribution Amplifier with Reclocking** has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipments, the **SP-3014** 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.

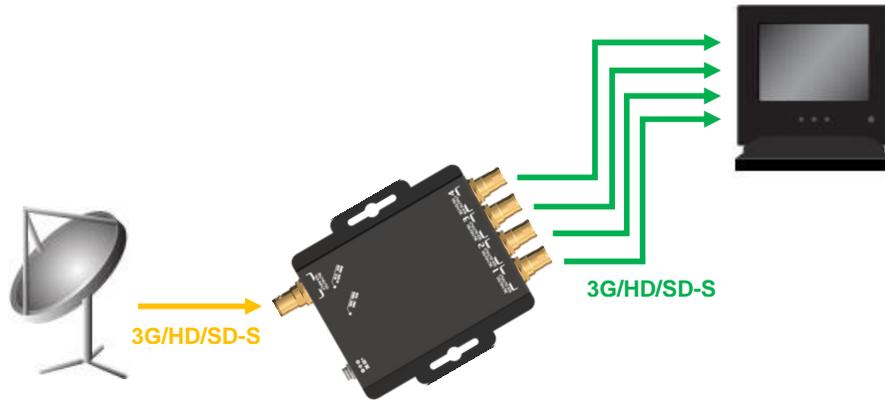


TABLE OF CONTENTS

INTRODUCTION	1
FEATURES	1
PACKAGE CONTENTS.....	1
SPECIFICATIONS.....	2
PANEL DESCRIPTIONS	3
HARDWARE INSTALLATION	4
WARRANTY	5
SIGNAL MEASUREMENT.....	6

INTRODUCTION

The **SP-3014** receives one SDI input, perfectly duplicates it, and re-transmits four SDI outputs for real time multi-viewing. It is a reliable video device splitting a SDI, HD-SDI, or 3G-SDI video source to four SDI compliant displays at the same time.



FEATURES

- 3G/HD/SD triple-rate distribution
- Four separately buffered and reclocked outputs
- Cable equalization (Belden 1694A) and signal retiming
- Dual color LED indication of input lock and rate
- Pass all ancillary data
- Provides automatic input cable equalization up to 300m (1000ft)@SD, 150m (500ft)@HD and 60m(190ft)
- Reclocking SDI signals for cascading and thus longer transmission
- Inter-locked power supply for better fixedness

PACKAGE CONTENTS

- 1x SP-3004 / SP-3004RT / SP-3014
- 1x 5V power adapter
- 1x User Manual

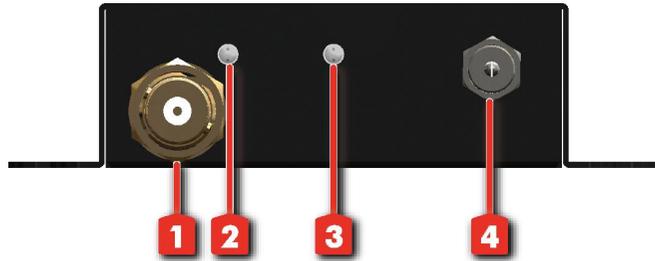
SPECIFICATIONS

Model Name		SP-3014	
Technical			
SDI standards	SD/HD/3G-SDI		
Auto 3G/HD/SD detection	Yes		
Supported protocols	SMPTE 259M, SMPTE 292M, SMPTE 424M, SMPTE425M		
Video bandwidth	[2.97Gpbs & 2.97/1.001Gbps]		
Data rates	270 / 1483 / 1485 / 2970 Mbps		
Output impedance	75Ω		
Reclocking function	Yes		
Cable equalization	[3G] up to 60m (190ft) / [HD] up to 150m (500ft) / [SD] up to 300m (1000ft)		
Audio support	Yes		
RP-198 pathological patterns	Immune		
PCB stack-up	4-layer board [impedance control — differential 100Ω; single 50Ω]		
Input	1x BNC [SDI]		
Output	4x BNC [SDI]		
BNC connector	75Ω inter-locked socket		
Eye pattern characteristics [HD]	Amplitude: Within 800mV ±3% (<10%) Rise overshoot: Less than 2% (<10%) Fall overshoot: Less than 2% (<10%)	Long time jitter: 0.195 UI (<1.0 UI) Timing jitter: 0.195 UI (<1.0 UI) Alignment jitter: 0.127 UI (<0.2 UI)	
Mechanical			
Housing	Metal enclosure		
Dimensions [L x W x H]	Model	105 x 78 x 27mm [4.1" x 3" x 1"]	
	Package	270 x 175 x 80mm [10.6"x6.9"x3.2"]	
	Carton	450 x 370x 300mm [1'5.7"x1'2.6"x11.8"]	
Weight	Model	310g [10.9oz]	
	Package	785g [1.7lbs]	
Fixedness	Inter-locked power supply		
Power supply	5V 4A DC		
Power consumption	10 Watts [max]		
Operation temperature	0~40°C [32~104°F]		
Storage temperature	-20~60°C [-4~140°F]		
Relative humidity	20~90% RH [no condensation]		



The measurement results are from Tektronix WFM-7120 with SDI through 1m (3.3ft) long Belden 1694A.

Front Panel



- 1. 3G/HD/SD-SDI input
- 2. LED — reserved, use.
- 3. LED — power indicator
- 4. 5V DC power jack

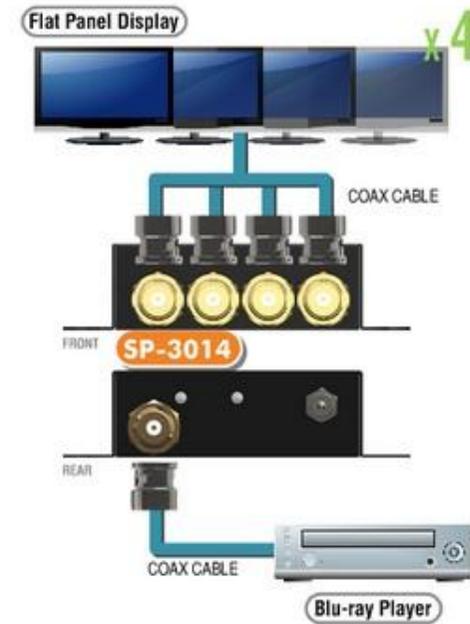
Rear Panel



- 5. 3G/HD/SD-SDI output 1-5

→ COAXIAL

1. Connect a camera or other devices equipped with 3G/HD/SD-SDI outputs to SP-3014 3G/HD/SD-SDI input.
2. Connect devices equipped with 3G/HD/SD-SDI inputs (e.g. monitors or video processors) to SP-3014 3G/HD/SD-SDI outputs.
3. Plug power adapter cable into 5V DC power jack.



The SELLER warrants the **SP-3014 1x4 3G/HD/SD-SDI Distribution Amplifier with Reclocking** 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 surge. 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 are limited to a 30 day warranty and cable 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-3014** features and specifications is subject to change without further notice.

