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中帝威科技

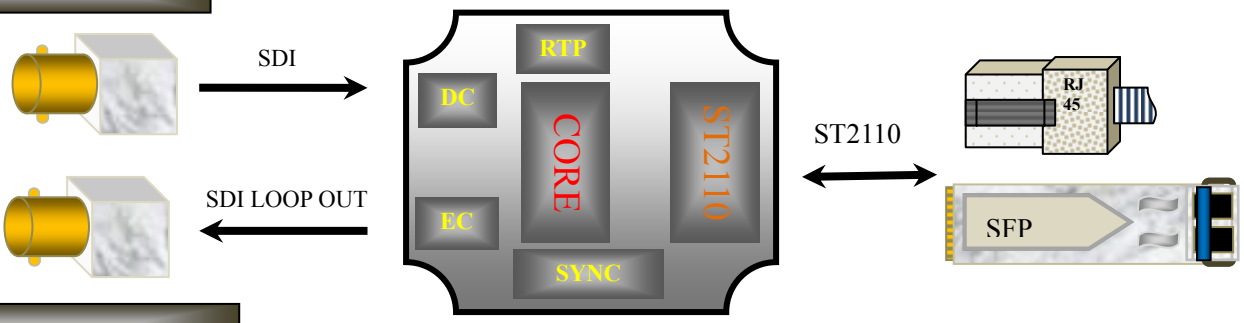
ST2110 Series Converter

PD501 (SDI to ST2110)

Version:0.2



Functional Diagram



Product Introduction

PD501 is a dedicated SDI to ST2110 video converter. Equipped with an ST2110 encoding module, it **converts 3G/HD-SDI signals into uncompressed ST2110 IP streams**. The device supports point-to-point IP streaming, as well as multicast and broadcast streaming for video distribution and switching via network switches.

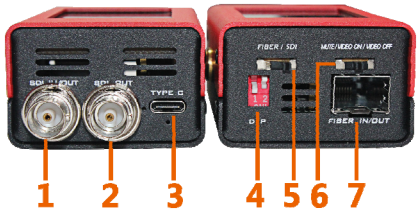
The SDI input supports up to 3G, with backward compatibility to 1.5G. The ST2110 output supports a maximum bit rate of 2.5G, backward compatible with 1G.

This ST2110 video converter processes ST2110 video streams and uses network switches as relays to achieve IP video switching, distribution, and forwarding for high-capacity uncompressed video. With network or wireless relays, it enables long-distance uncompressed video transmission. Thanks to the low latency, uncompressed quality, and 100% color fidelity of ST2110, it is widely used in broadcasting, live conferencing, medical imaging, and industrial machine vision.

Features

- ◆ Supports ST2110 IP stream processing
- ◆ IP stream bandwidth up to 2.5G
- ◆ Uncompressed video encoding with 100% color fidelity
- ◆ Supports multicast and broadcast physical layer settings
- ◆ SDI input supports up to 3G, backward compatible with 1.5G
- ◆ Auto-adaptive SDI input rate
- ◆ Supports 1-channel SDI loop-out
- ◆ Supports USB firmware upgrade
- ◇ Customizable special features available
- ◇ Point-to-point zero-latency
- ◆ IP-based architecture management, supports integration with third-party management platforms

Interface Description



No.	Definition	Description
1	SDI IN	SDI Input
2	SDI OUT	SDI LOOP Out
3	Type C port	Type C Power Supply
4	DIP	Function settings (see table below)
5	Toggle switch	Reserved
6	Toggle switch	Adjust the volume
7	SFP Port	2.5G

Product Parameters

Product Name	ST2110 Converter	
Model	**PD501**	
SDI Input	Input Signal	SDI
	Bitrate	1.5Gbps ~ 2.97Gbps
	Signal Amplitude	800mV ±10%
	Connector	BNC (compliant with IEC169-8)
	Impedance	75Ω
SDI Loop-out	Output Signal	SDI
	Bitrate	1.5Gbps ~ 2.97Gbps
	Signal Amplitude	800mV ±10%
	Connector	BNC (compliant with IEC169-8)
	Impedance	75Ω
ST2110 Output	Output Rate	2.5G
	Port	SFP
	IP Video Standards	• Supports SMPTE ST2110-20 uncompressed video • Supports SMPTE ST2110-21 Video Traffic Shaping and Transmission Timing • Supports SMPTE ST2110-30 audio • Supports SMPTE ST2110-40 ancillary data
General Specifications	Power Supply	DC 5V
	Power Consumption	< 2W
	Dimensions	110 x 46 x 27 mm
	Control Panel	Digital DIP switch
	Weight	0.16 kg
	Operating Temperature	0℃ ~ 50℃ (non-condensing)
	Storage Temperature	-20℃ ~ 75℃

Function settings



Switch	Position	Function
1	ON	Display SDI signal
	OFF	Display ST2110 signal
2	OFF	Enable ST2110 output
	ON	Disable ST2110 output

Note:

Switch up = OFF

Switch down = ON

Application

