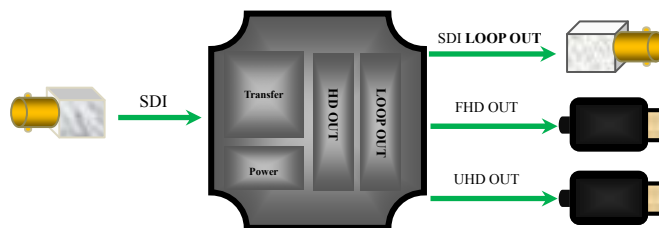


PD2912 (12G SDI to HD)

Version:1.0



Functional Diagram



Product Introduction

The DeviceWell PD2912 4K signal converter is a professional signal conversion device built on a broadcast-grade, single-link 12G-SDI architecture.

It features 1x SDI input, 1x SDI loop-out, 1x FHD output, and 1x UHD output. Supporting up to single-link 12G-SDI signal input, the device has a built-in HDMI encoder that enables down-conversion of 4K signals to Full HD (FHD) output, while also supporting ultra-high-definition (UHD) pass-through output. It supports a maximum resolution of 3840×2160P60, with auto-adaptive input/output resolution and backward compatibility with multiple resolution standards.

Powered via a standard 5V Type-C interface, the device supports direct USB power supply for flexible and hassle-free deployment. Its advanced low-power, fanless architecture ensures silent operation, eliminating noise disturbance in professional environments. It is ideally suited for mobile newsgathering, live broadcasting, medical imaging, broadcast production, video conferencing, and sports event coverage.

Product Features

- ◆ 1x SDI input
- ◆ 1x SDI loop-out, 1x FHD output, and 1x UHD output.
- ◆ The FHD output provides full HD down-converted signals, while the UHD output supports ultra-high-definition pass-through.
- ◆ Supports auto-adaptive input/output resolution, with the pass-through output supporting up to 12G/4K@60Hz.
- ◆ Energy-efficient design, fanless architecture, Silent operation
- ◆ TYPE-C power supply.

Interface Description



No.	Function	No.	Function
1	12G SDI IN	2	12G SDI OUT
3	TYPE-C 5V Power Supply	4	OUT2 FHD
5	OUT1 UHD		

Product Parameters

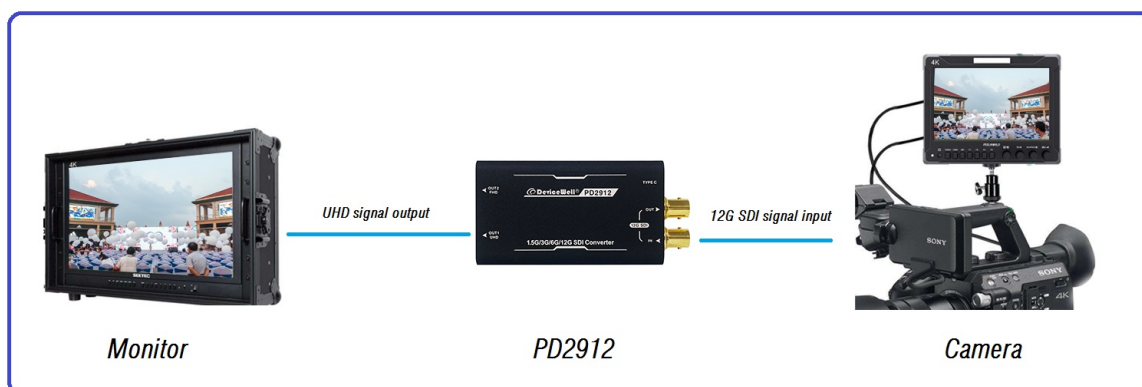
Product Name	12G SDI Converter	
Model NO.	PD2912	
SDI Signal Input	Input signal	1.5G/3G/6G/12G signals
	Bit rate	1.485Gbps~11.88Gbps
	Connector	BNC comply IEC169-8 standard
	Impedance	75Ω
FHD Signal Output	Output signal	FHD
	Connector	Type A, 19-pin
	Impedance	100Ω
UHD signal output	Output signal	UHD
	Connector	Type A, 19-pin
	Impedance	100Ω
SDI Signal Output	Output signal	1.5G/3G/6G/12G signals
	Bit rate	1.485Gbps~11.88Gbps
	Signal amplitude	800mV±10%
	Connector	BNC comply IEC169-8 standard
	Impedance	75Ω
Common Parameters	Power supply	Type-C 5V
	Size	92*50*23mm
	Weight	0.12Kg
	Working temperature	0℃~50℃ No condensation
	Storage temperature	-20℃~75℃
	Working humidity	20%~70%RH
	Storage humidity	0%~90%RH, No condensation

Standards

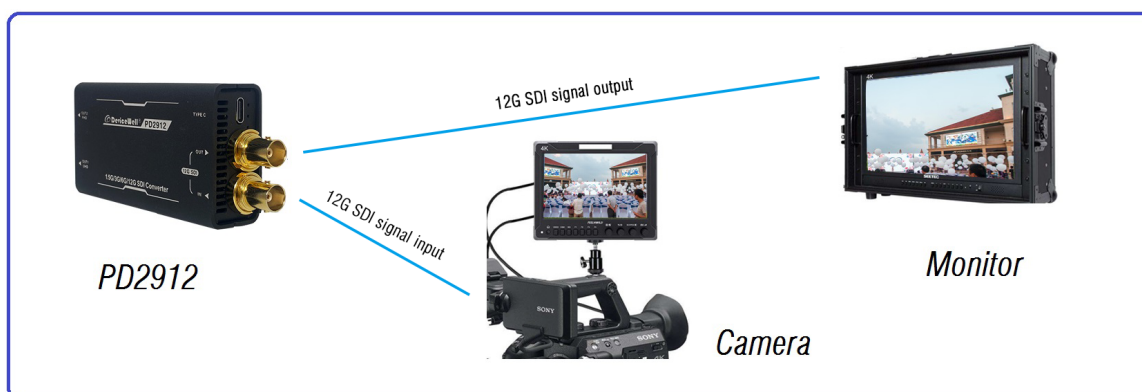
HD Video Standards	720p50、720p59.94、720p60 1080p23.98、1080p24、1080p25、1080p29.97、1080p30、1080p47.95、1080p48、1080p50、1080p59.94、1080p60 1080i50、1080i59.94、1080i60
Ultra HD Video Standards	2160p23.98、2160p24、2160p25、2160p29.97、2160p30、2160p47.95、2160p48、2160p50、2160p59.94、2160p60
SDI Compliance	SMPTE 292M、SMPTE 296M、SMPTE 424M、SMPTE 425M、SMPTE 2081-1、SMPTE 2081-10、SMPTE 2082-1、SMPTE 2082-10
SDI color accuracy	4:2:2
SDI Color Space	YUV
HDMI Video Standards	720p50、720p59.94、720p60 1080p23.98、1080p24、1080p25、1080p29.97、1080p30、1080p47.95、1080p48、1080p50、1080p59.94、1080p60 1080i50、1080i59.94、1080i60 2160p23.98、2160p24、2160p25、2160p29.97、2160p30、2160p47.95、2160p48、2160p50、2160p59.94、2160p60
HDMI Color Precision	4:2:2
HDMI Color Space	YUV

Application

Application 1: 1-channel 12G SDI signal input, 1-channel **UHD** signal output



Application 2: 1-channel 12G SDI signal input, 1-channel **12G SDI signal Loop Out**



Application 3: 1-channel 12G SDI signal input, 1-channel **FHD** signal output

