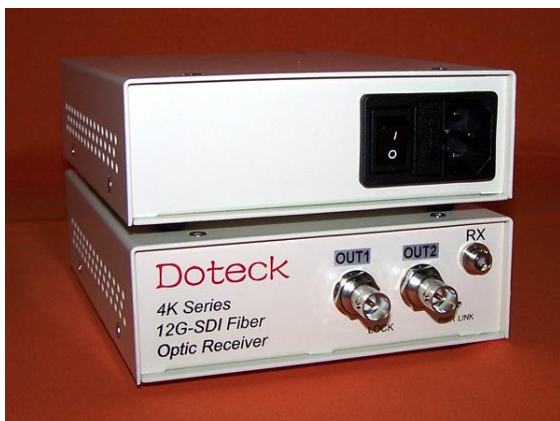
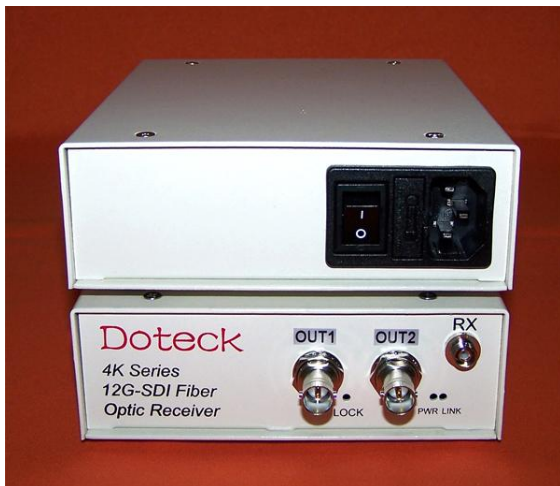
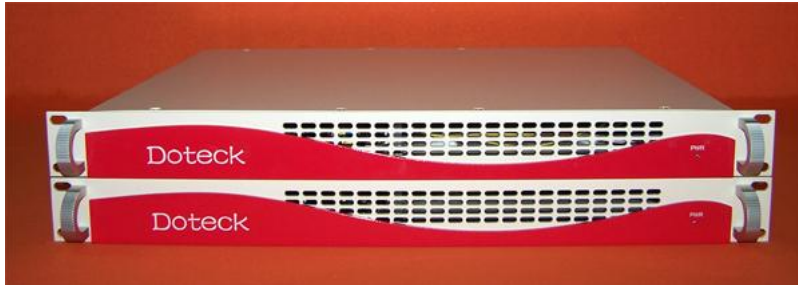


# Doteck

## Doteck 4K Series

### 12G-SDI UHD Video fiber optic Transmission System





## Features

- (1) 12G-SDI/6G-SDI/3G-SDI/HD-SDI/SDI/ASI signal auto recognition, need not select by hand
- (2) Compliant with the standards of SMPTE ST2082-1(12G-SDI), SMPTE ST2081-1 (6G-SDI), SMPTE424M, SMPTE292M, SMPTE259M, SMPTE297M, SMPTE310M, SMPTE305M
- (3) Compliant with the standard of DVB-ASI
- (4) Auto adaption to the speed of 143M, 177M, 270M, 360M, 540M, 1483.5M, 1485M, 2970M, 5970M, 11.88Gbps or DVB-ASI
- (5) When signal input, with automatic cable equalization function, and when signal output, with driver function
- (6) With re-clocking function at transmitter and receiver
- (7) Perfect LED indicators design, very convenient to monitor transmitter and receiver work well or not
- (8) PCB boards made with environment friendly Pb-free
- (9) PCB boards made with multilayer design, to ensure stable and reliable signal transmission
- (10) All components, including connectors, are ordered from public-known manufacturers in the world, high stability and reliability ensurance
- (11) Enclosure box material is made of aluminum, elegant appearance, and

light weight

(12) Dual switching power supply design, wide voltage range, reliable long-term running

(13) A variety of installation options: 18-slot rack(3RU), 8-slot rack(2RU), particularly suitable for large volume optical transmission platform construction, and also available for 4-slot rack(1RU), 2-slot(1RU) rack and single-slot mini rack, fixed 19-inch 1RU box, mini small box

### **Introduction**

Dotek 4K series 12G-SDI UHD video fiber optic transmission system can transmit one 11.88Gbps 12G-SDI UHD video, or one 5940Mbps 6G-SDI UHD video, or one 2970Mbps 3G-SDI high definition digital video, or one 1485Mbps HD-SDI high definition video, or one 270Mbps SDI standard definition digital video or one DVB-ASI stream through one single mode fiber or multimode fiber with the standards of ST2082-1, ST2081-1, SMPTE424M, SMPTE292M, SMPTE259M, SMPTE297M, SMPTE305M, SMPTE310M.

Dotek 4K series transmitter provides one 12D/6G/3G/HD/SD-SDI input, and one loop-through for local monitoring. The receiver output 2-channel parallel 12G/6G/3G/HD/SD-SDI video.

Dotek 4K series transmitter equipped with auto-cable equalization circuit, and cable driver circuit available at receiver.

Dotek 4K series, both at the transmitter and receiver, signal jitter elimination circuit available, to ensure high quality signal transmission over long distance fiber cable.

### **Technical Specifications**

<b>12G-SDI UHD video input</b>	
Signal standard	ST2082-1, ST2081-1, SMPTE424M, SMPTE292M, SMPTE259M, SMPTE297M, SMPTE305M, SMPTE310M, DVB-ASI
Channel	1 plus 1 loop-through

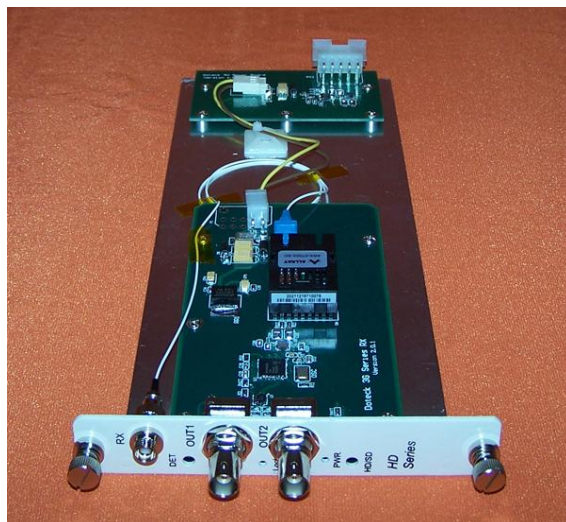
Signal level	>380mVp-p
Auto-cable equalization	>20m@11.88Gbps, (Belden 1694A cable) >50m@5940Mbps, (Belden 1694A cable) >100m@2970Mbps, (Belden 1694A cable) >200m@1485Mbps, (Belden 1694A cable) >350m@270Mbps, (Belden 1694A cable)
Input return loss	>10dB@11.88Gbps
Impedance	75 $\Omega$
Connector	BNC
<b>12G-SDI UHD video output</b>	
Channel	2
Signal level	800mVp-p $\pm$ 10%
12G-SDI Rise/Fall time	<40ps@11.88Gbps
6G-SDI Rise/Fall time	<66ps@5940Mbps
3G-SDI Rise/Fall time	<135ps@2970Mbps
HD-SDI Rise/Fall time	<270ps@1485Mbps
SDI Rise/Fall time	<0.6ns@270Mbps
12G-SDI Jitter	<0.4UI
6G-SDI Jitter	<0.4UI
3G-SDI Jitter	<0.3UI
HD-SDI Jitter	<0.2UI(134ps)@100kHz <1.0UI(673ps)@10Hz
SDI Jitter	<0.2UI(740ps)@10Hz <0.2UI(740ps)@1kHz
Impedance	75 $\Omega$
Connector	BNC
<b>Physical</b>	
Dimension(H $\times$ W $\times$ D, mm)	
19-inch 1RU	44 $\times$ 433 $\times$ 346(mm)
Internal power supply	44 $\times$ 132.3 $\times$ 164(mm)
External power supply	25 $\times$ 82.3 $\times$ 121.7(mm)
Power supply	130-260VAC, 50/60Hz, or 2A/5V
Power consumption	<10W

Operation temperature	0-50°C
Relative humidity	0-95%, non-condensing
LED status indicator	Power, optical link, video activity
<b>Fiber optic link</b>	
Fiber type	Single mode
Number of fiber	1
Wavelength	1310nm/1550nm
Distance	0-20km, or 0-40km optional
Connector	FC/PC, or SC/PC

**More setup options:**



**18-slot,19-inch 3RU,dual power supply**





## Fiber optic module



## 8-slot, 19-inch, dual power supply



## 4-slot, 19-inch, dual power supply



## 2-slot, 19-inch, dual power supply



## One slot, Built-in power supply



**Mini Box, external power supply**



**Fixed 19-inch 1RU standard cabinet with dual power supply**

# Doteck

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