

# Doteck

## Doteck HD Series

### HD Video RS422/RS485 fiber optic Transmission System



### Features

- (1) HD-SDI/SDI/ASI signal auto recognition, need not select by hand
- (2) Compliant with the standards of SMPTE292M, SMPTE259M, SMPTE297M, SMPTE310M, SMPTE305M (SDTI), SMPTE344M
- (3) Compliant with the standard of DVB-ASI(EN50083-9)
- (4) Auto adaption to the speed of HDSDI/SDI 143M,177M,270M,360M,540M,1483.5M,1485Mbps, or DVB-ASI
- (5) With automatic cable equalization function, compensation for cable transmission loss
- (6) Convenient instructions of LED status, data rate, optical link,

power supply etc.

(7) PCB boards made with environment friendly Pb-free

(8) PCB boards made with multilayer design, to ensure stable and reliable signal transmission

(9) All components, including connectors, are ordered from public-known manufacturers in the world, high stability and reliability ensurance

(10) Enclosure box material is made of aluminum, elegant appearance, light weight

(11) External power supply

(12) Reverse control data RS422/RS485

## **Introduction**

Dotek HD series digital video fiber optic transmission system can transmit one HD-SDI(1483.5M/1485Mbps)high definition digital video, or one SD-SDI(143M/177M/270M/360M/540Mbps)standard definition digital video or one DVB-ASI stream and one reverse control data RS422/RS485 through one single mode fiber or multimode fiber with the standards of SMPTE259M, SMPTE297M, SMPTE310M, SMPTE305M (SDTI).

Due to the advanced digital fiber optic transmission technology, almost you need not make any adjustments, simple to set up, easy to operate.

Dotek HD series transmitter provides one HD-SDI input, and one loop-through for local monitoring. The receiver outputs 2-way parallel HD-SDI digital video.

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

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

Dotek HD series uses 3.3V power supply system, low power consumption.

### Technical Specification

<b>HD-SDI Input</b>	
Signal Standard	SMPTE292M,SMPTE259M,SMPTE297M,SMPTE310,SMPTE305(SDTI), DVB-ASI(EN50083-9)
Number of Input	1 plus 1 loop-through
Resolution	10 Bit
Signal Level	>380mVp-p
Auto-Cable Equalization	>250m(270Mbps)( BELDEN8281 Cable) >100m(1485Mbps)(BELDEN8281 cable)
Input Return Loss	>15dB ( 1485Mbps )
Impedance	75Ω
Connector	BNC
<b>RS422/RS485 Input</b>	
Channel	1
Connector	Terminal Block
Baud Rate	Up to 115200bps
<b>HD-SDI Output</b>	
Channel Capacity	2
Signal Level	800mVp-p±10%
Rise/Fall time	<0.8ns
HD-SDI Jitter	<0.2UI(134ps)@100kHz <1.0UI(673ps)@10Hz
SDI Jitter	<0.2UI(740ps)@10Hz <0.2UI(740ps)@1kHz
Impedance	75Ω
Connector	BNC
<b>RS422/485 Output</b>	
Channel	1
Connector	Terminal Block
Baud Rate	Up to 115200bps
<b>Physical</b>	
Dimension(HxWxD,mm)	26.7x98.4x165 (mm)
Power Supply	2A/5V
Power Consumption	<10W
Temperature	0 to +70 Degree

Humidity	0 to 95% RH Non-condensing
LED Status Indicator	Power, Optical Link, Video Activity
<b>Optical</b>	
Fiber Type	Single mode
Number of fiber	1
Wavelength	1310nm/1550nm
Distance	0-30km, or 0-60km optional
Connector	FC/PC, or SC/PC

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