

# Doteck

## Doteck 3G4 Series

### 4-channel 3G-SDI Digital Video fiber optic Transmission System



#### Features

- (1) Pathological test passed with UK HD video test and measurement manufacturer PHABRIX
- (2) 3G-SDI/HD-SDI/SDI/ASI signal auto recognition, not need select by hand
- (3) Compliant with the standards of SMPTE424M, SMPTE292M, SMPTE259M, SMPTE297M, SMPTE310M, SMPTE305M
- (4) Compliant with the standard of DVB-ASI
- (5) Auto adaption to the speed of 3G/HD/SD-SDI 143M, 177M, 270M, 360M, 540M, 1483.5M, 1485M, 2970Mbps, or DVB-ASI
- (6) When signal input, with automatic cable equalization function, and when signal output, with driver function
- (7) With re-clocking function at transmitter and receiver
- (8) Perfect LED indicators design, very convenient to monitor transmitter and receiver work well or not
- (9) PCB boards made with environment friendly Pb-free
- (10) PCB boards made with multilayer design, to ensure stable and reliable signal transmission

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

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

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

### **Introduction**

Dotek 3G4 series digital video fiber optic transmission system can transmit four 2970Mbps 3G-SDI high definition digital video, or four 1485Mbps HD-SDI high definition digital video, or four 270Mbps SDI standard definition digital video or four DVB-ASI streams through one single mode fiber or multimode fiber with the standards of SMPTE424M, SMPTE292M, SMPTE259M, SMPTE297M, SMPTE305M, SMPTE310M.

Dotek 3G4 series transmitter provides 4-channel 3G/HD/SD-SDI input, and 4-channel loop-through for local monitoring. The receiver output 8-channel parallel 3G/HD/SD-SDI digital video.

Dotek 3G4 series transmitter and receiver all have re-clocker chips to regenerate the signal.

Dotek 3G4 series transmitter equipped with auto-cable equalization circuit, and cable driver circuit available at receiver.

Dotek 3G4 series, both at the transmitter and receiver, signal jitter elimination circuit available, to ensure high quality signal transmission over long distance fiber cable.

Dotek 3G4 series uses 5V power supply system, low power consumption.

### **Technical Specifications**

<b>3G-SDI input</b>	
Signal standard	SMPTE424M, SMPTE292M, SMPTE259M, SMPTE297M, SMPTE305M, SMPTE310M, DVB-ASI
Channel	4 plus 4 loop-through
Signal level	>380mVp-p
Auto-cable equalization	>100m@2970Mbps, (Belden 1694A cable) >200m@1485Mbps, (Belden 1694A cable) >350m@270Mbps, (Belden 1694A cable)
Input return loss	>10dB@2970Mbps
Impedance	75 $\Omega$
Connector	BNC
<b>3G-SDI output</b>	
Channel	8
Signal level	800mVp-p $\pm$ 10%
3G-SDI Rise/Fall time	<135ps@2970Mbps
HD-SDI Rise/Fall time	<270ps@1485Mbps
SDI Rise/Fall time	<0.6ns@270Mbps
3G-SDI Jitter	<0.3UI(101ps)@100KHz
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×W×D, mm)	44×433×346(mm)
Dual power supply	130-260VAC, 50/60Hz
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 or 4
Wavelength	1310nm/1550nm
Distance	0-40km, or 0-80km optional
Connector	FC/PC, or SC/PC

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