

# Doteck

## Doteck 3G Series

### 3G-SDI Thumb Type 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, need not select by hand
- (3) Compliant with the standards of SMPTE424, SMPTE292M, SMPTE259M, SMPTE297M, SMPTE310M, SMPTE305M(SDTI)
- (4) Compliant with the standard of DVB-ASI(EN50083-9)
- (5) Auto adaption to the speed of 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 automatic cable equalization function, compensation for cable transmission loss

(8) Convenient instructions of LED status, data rate, optical link, power supply etc

(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, light weight, small size and easy to carry

### **Introduction**

Dotek 3G series digital video fiber optic transmission system can transmit one 3G-SDI(2970Mbps) high definition digital video, or one HD-SDI(1485Mbps) high definition digital video, or one SDI(270M) standard definition digital video or one DVB-ASI stream through one single mode fiber or multimode fiber with the standards of SMPTE424M, 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 3G series transmitter equipped with auto-cable equalization circuit, and cable driver circuit available at receiver.

Dotek 3G 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>3G-SDI input</b>	
Signal standard	SMPTE424M, SMPTE292M, SMPTE259M,

	SMPTE297M, SMPTE305M, SMPTE310M, DVB-ASI
Channel	1
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	>15dB(2970Mbps)
Impedance	75 $\Omega$
Connector	BNC
<b>3G-SDI output</b>	
Channel	1
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)	22×22×100(mm)
Power supply	5V/2A
Power consumption	<5W
Operation temperature	0-50°C
Relative humidity	0-95%, non-condensing
LED status indicator	Power, 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	ST/PC

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