

12G-SDI to Fiber Converter

YUK100-UHD



Transmitter



Receiver

Overview

YUK100-UHD series 4K fiber optic extender can transmit 1 to 8 channel unidirectional or 1 to 4 channel bidirectional 12G-SDI signal over 1-core single model or multi-mode fiber, downward compatible with 6G/3G/HD/SD-SDI and DVB-ASI. Transmitter with loop out and receiver with dual output. It provides reliable high quality transmission up to 40KM (single mode fiber). Digital transmission meet the requirement of high quality image transmission and can achieve the broadcast transmission level, full real-time transmission and non time delay.

Product Features

- Compatible with 12G/6G/3G/HD/SD-SDI, DVB-ASI.
- Bitrate 11.88Gbps, downward compatible 5.94Gbps, 2.97Gbps, 1.485Gbps, 270Mbps
- True uncompressed, low latency and transparent transmission
- Comply with standard SMPTE2082-1, SMPTE2081-1, compatible with SMPTE424M, SMPTE292M, SMPTE344M, SMPTE259M, SMPTE297M, SMPTE310, SMPTE305(SDTI)
- SDI input has cable equalization and can compensate the loss of cable transmission
- Support pathological signal

Specification

Video Input

Input: 1 to 8 channel unidirectional or 1 to 4 channel bidirectional 12G-SDI(each channel with loop out)

Input resolution: 2160P(3840x2160)@25Hz,29.97Hz,30Hz,50Hz,59.94Hz,60Hz

1080P(1920x1080)@25Hz,29.97Hz,30Hz,50Hz,59.94Hz,60Hz

1080I(1920x1080)@25Hz, 29.97Hz

720P(1280x720)@50Hz, 59.94Hz

576I(720x576)@25Hz

480I(720x480)@29.97Hz

Input automatic cable equalization: >30m@11.88Gbps(BELDEN8281 cable) >50m@5.94Gbps(BELDEN8281 cable)

>100m@2.97Gbps(BELDEN8281 cable) >200m@1.485Gbps(BELDEN8281 cable)

>300m@270Mbps(BELDEN8281 cable)

Input reflection loss: >10dB@11.88Gbps, >10dB@5.94Gbps, >10dB@2.97Gbps, >15dB@1.485Gbps, >15dB@270MHz

Input level: 800mVP-P $\pm 10\%$

Impedance: 75 Ω

Connector: BNC

Video Output

Output: 1 to 8 channel unidirectional or 1 to 4 channel bidirectional 12G-SDI(each channel with dual output)

Output level: 800mVP-P $\pm 10\%$

Rise/fall time: <45ps@11.88Gbps, <80ps@5.94Gbps, <135ps@2.97Gbps, <270ps@1.485Gbps, <0.65ns@270Mbps

Jitter correction: <0.3UI@11.88Gbps, <0.3UI@5.94Gbps, <0.3UI@2.97Gbps, <0.2UI@1.485Gbps, <0.1UI@270Mbps

Optic and Physical Specification

Wavelength: from 1310nm to 1550nm(depends on SDI channel quantity)

TX power/RX sensitivity: -5dBm~0dBm, -15dBm~-10dBm (Subject to actual measurement)

Transmission distance: 0~40km(Actual distance is determined by customer's requirement)

Optical connector: FC LC ST SC available

Temperature range: -30°C~+70°C(operation), -20°C~+80°C(storage)

Power supply: AC 100-240V, 50/60HZ, <20W

Dimension: 19 inch 1U rack, 485×320×44mm