# 1 channel Video Digital Optical Converter

## Detail:

This series of Digital Optical adopt all-digital communication ,can be simultaneously transmitted on a single fiber 1 forward video, 1 or 2 channel reverse RS485/422 data. Video adopt non-compressed digital video encoding ,and video formats compatible with PAL, NTSC, SECAM formats, provides broadcast-level image quality. High-quality video effects to meet the various needs of users, plug and play design makes installation simple, without the need for on-site commissioning, can work in different environments, prolonged stability. Power and other parameters of the LED status indicator lights that monitor the system operation. Product lightning proof design, to ensure the stability of equipment, no electromagnetic ,no radio frequency interference, no ground current. The product has both high-quality digital transmission, the advantages of long-distance, but also has the advantage of low prices, is ideal for long-distance fiber-optic video transmission equipment.

## Features：

■ fully-digital no compression, broadcast, fiber optic transmission

■ Ultra-optical dynamic range, without adjust when use it.

■ Compatible with PAL, NTSC, SECAM and other formats of video transmission

■ RS232/485/422 data communication

■ three lightning proof protection

■ Industrial design, high reliability,can meet the harsh environmental

■ Automatic power adjustment, automatic temperature compensation circuit, automatically restored overload

protection.

■ Full Surface Mount Technology

■ monitoring can use standard 19 "4U chassis, the remote uses a small desktop chassis

■ monitor side chassis can be inserted eight cards, network cards can be inserted to achieve centralized

management

■ remote optical transceiver can be hung on the wall

## Performance:

Video index

Video channel: 1

Video Bandwidth: 0 ~ 6.5MHz

Sample Rate: 8bit/10bit

Signal to Noise Ratio: ≥ 65dB

Differential Gain: <1% (typical)

Differential Phase: <0.8 ° (typical)

Vertical tilt: <0.5% (max)

Input / output impedance: 75Ω (unbalanced)

Input / Output Level: 1.0Vpp (typical)

Signal System: PAL / NTSC / SECAM

Data indicators

Data channel: 1 or 2-way

Data Interface: RS485/422 (optional)

Physical interface: five industrial terminal

Data Rate: 0 ~ 100Kbps

BER: <10E-12

Optical indicators

Transmission wavelength: 1310nm/1550nm

Optical interface: FC / PC

Transmit optical power:-8dB

Receiver sensitivity:-25dB

Optical Dynamic Range: 17dB

The largest chain of optical loss allowed: 14dB

Transmission distance: more than 20KM (single)

Technical Specifications

Operating temperature: -10 ℃ ~ +55 ℃

Humidity: 0 ~ 95% (no condensation)

Power consumption: 2.5W @ DC5V

Dimensions: 483mm (length) x170mm (W) x55mm (H)

Weight: 6.0kg / for

There was no time between failures (MTBF): more than 100,000 hours

Typical:

■ Security / Safe City building security monitoring;

■ highway and railway transportation of remote monitoring system;

■ urban public transport monitoring system;

■ e-police;

■ operator unattended engine room monitoring;

■ Bank monitoring;

■ Power system remote monitoring;

■ industrial, mining production process monitoring and management system;

■ Water flood control, reservoir site monitoring;

■ Airport monitoring;

■ radio and television image transmission;

■ School campus, the examination room monitoring;

■ high-rise buildings, intelligent buildings, intelligent community, shopping malls and alarm monitoring

■ Customs barrier, warehouse video surveillance;

■ Petrochemical;

■ prison video surveillance;

■ confidential government agencies or departments to monitor and alarm;

■ military areas, military command and control positions visualization;

■ forest fire command systems.

Typical Application:
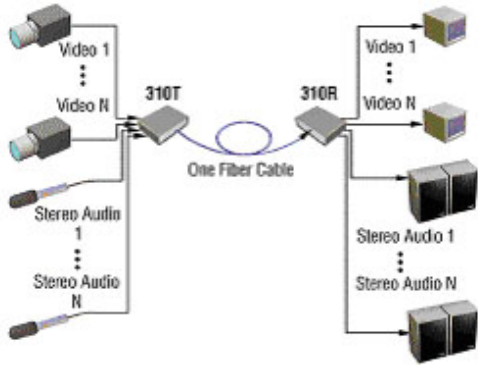
Model：

| Model | Specification |
|---|---|
| VC1010 | 1 channel video,  single mode, single fiber 20km FC |
| VC1010-1D | 1 channel video +1 channel reverse data  single mode, single fiber 20km FC |

①is number for video signal

②is number for data signal，D is forward data，d is Reverse data

③is number for voice signal，A is forward voice,a is reverse voice.

④is number for switching value，K is forward switching value，k is reverse switching value.

⑤E is Ethernet interface.

⑥T is telephone interface.

⑦SM is single mode，MM is multimode.

⑧FC, SC Optical interface for optional.

⑨C is chassis card type, E is independent