

4-Channel Video over Fiber Bundled Kit



Reliable Long Distance Solution for Analog Surveillance System

To deploy AHD/CVI/TVI/CVBS analog camera in a remote place efficiently and provide high video quality and reliable signal, Risk'Expert has developed the video over fiber media converter kit, which is ideal for extending the distance and signal conversion by transmitting the AHD/CVI/TVI/CVBS video and data over the fiber-optic cable. Adopting the intelligent encoding/decoding technology and with the compact box, the KIT video over fiber media converter enables the videos to be delivered in high quality up to 20km long in distance.



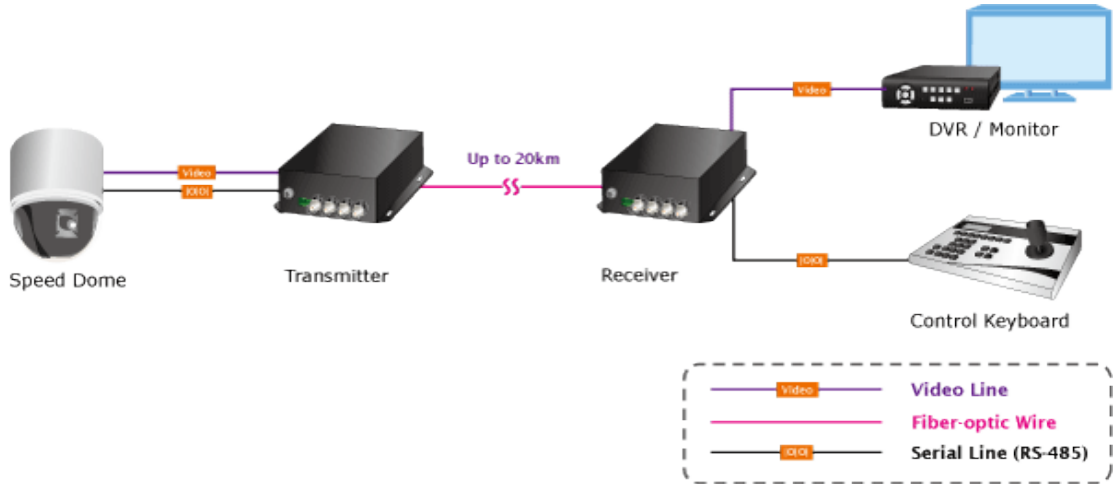
Fiber Optic Communication for Video and Serial Data

The KIT consists of a Video Transmitter and a Video Receiver:

- Transmitter** : 4-channel Video over Fiber
- Receiver** : 4-channel Video over Fiber

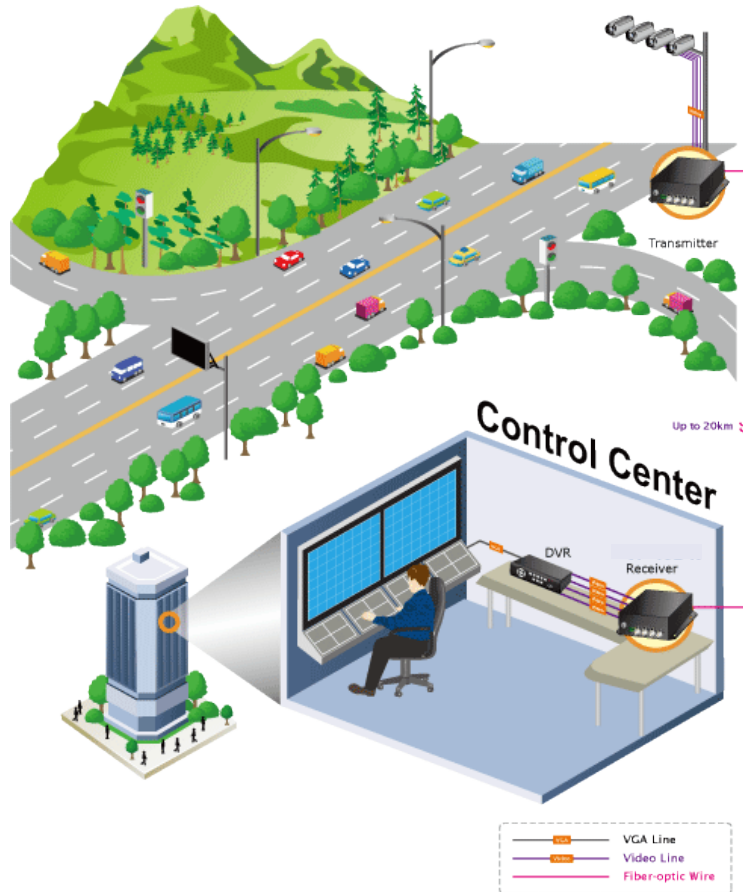
- Compliant with hybrid video (AHD/TVI/CVI/CVBS)
- 20km long-distance data transmission
- Fiber optic transmission of four video signals on one fiber with RS485 data signals which may be one way with the video or optional duplex
- Status indication for power supply, optical signal and video
- High-speed synchronous digital transmission technology
- Effective against electromagnetic interference, radio frequency interference, 6KV high-level lightning protection design
- Guarantees safe transmission under poor electromagnetic environment
- Maximum tolerable link loss for single mode single fiber is 0.35dB/km
- Video bandwidth of 60MHz, SNR>67dB
- Wide temperature range from -20 to 70 degrees C

The KIT is a digital fiber-optic transmission system that brings users a cost-effective solution for transmission of 4-channel uncompressed digital video and one reverse RS485 async data over one single fiber cable. The KIT is an adjustable free device providing high-quality and real-time video transmission. It can be widely used in intelligent transportation systems (ITS), traffic surveillance, security monitoring, automation control, intelligent residential districts, etc.



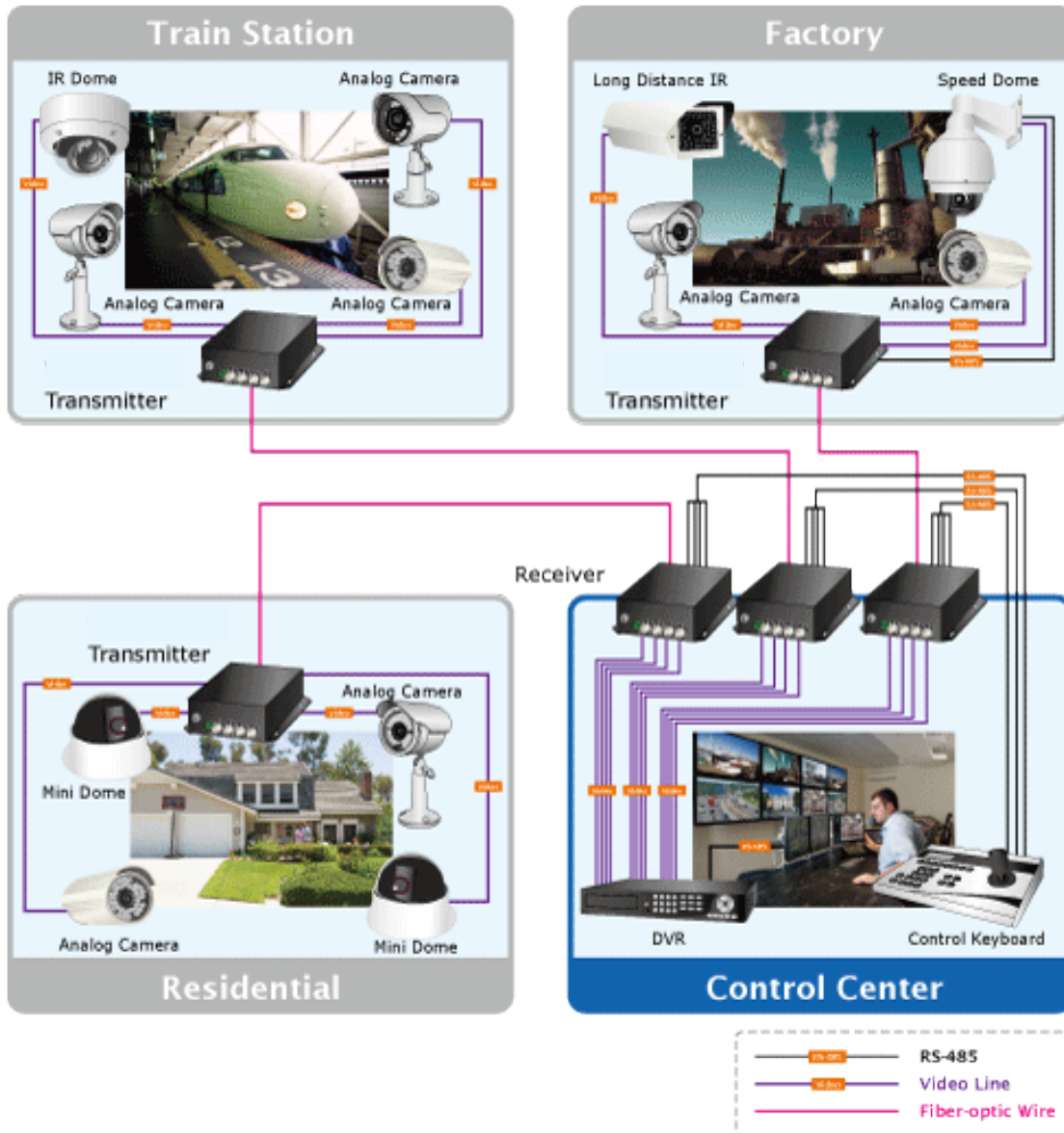
Industrial Monitoring Systems

The industrial-level KIT wide temperature ranges from -20 to 70 degrees C, applicable to all kinds of environments. It supports hot plugging and its 4-channel video adopts the full digital video non-compression and Gigabit fiber optic transmission technology that brings distortion-free videos over a long-distance fiber cable. Thus, it can observe working condition visually with LED. It can be a standalone or rack-mounted structure, and is simple to operate with no field adjustment needed.



Applications

The KIT consists of 4-channel video over fiber optical transceiver and receiver to transmit video and RS485 signal through a reliable single mode or single fiber link. It is an ideal cost-effective solution for surveillance system that requires high display quality and high-performance signal transmission over long distances. The KIT can be installed easily by way of "Plug and Play", meaning the operator does not need to configure the pair of the video over fiber transmission in advance.



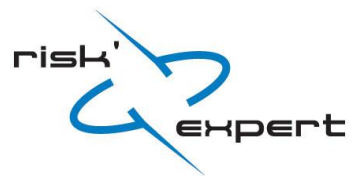
Typical Applications

- Intelligent Transportation Systems (ITS)
- Toll Collection
- Traffic Surveillance
- Air Traffic Management (ATM)
- Rail Signaling
- Perimeter Alarms and Area Monitoring
- Telemedicine and Teleconference
- Industrial Surveillance
- Intelligent Building
- CCTV Network



Specifications

Video Characteristics	
Video Channel	4-channel bi-direction
Video Connector	BNC
Supported Video Type	1080p: AHD/TVI/CVI 480p: CVBS
Video Input/Output Impedance	75ohm/unbalanced interface
Video Input/Output Voltage	1.0 Vpp / typical peak-to-peak value
Video Bandwidth	25 to 60MHz
Video Digital Bit Width	8/10 bit
Differential Gain (DG)	< 2% (typical value)
Differential Phase (DP)	< 2° (typical value)
SNR-weighted Scheme	> 67dB (typical value)
Data Interface	
Data Channel	4 channels
Physical Protocol	RS485
Operation Mode	Simplex
Data Connector	4 Pin terminal block with screw clamps
Data Rate	DC-150Kbps
Data Distance	RS485: 0-20km
BPS	0-115.2Kbps
Bit Error Rate (BER)	< 10 ⁻⁹
Optical Interface	
Optical Connector	FC
Fiber Type	Single-mode, single fiber
Distance	20km for single mode
Optical Wavelength	Transmitter TX: 1310nm RX: 1550nm Receiver TX: 1550nm RX: 1310nm
Transmitter Coupled Power	Max.: 0dBm Min.: -8dBm
Receive Sensitivity	-22dBm
Link Budget	From 15dB to 20dB at 1310nm or 1550nm
Cable	9/125µm single-mode cable
Hardware Specifications	
LED Indicators	<input type="checkbox"/> Power <input type="checkbox"/> Each channel <input type="checkbox"/> Link (fiber optic)
Dimensions (W x D x H)	157 x 116.5 x 48 mm
Weight	580g
Power Requirement	5V DC, 2A
Chassis Current Consumption	1.10 amp for 4-channel video and 1-channel data
Mechanical	Metal
Standards Conformance	
Regulatory Compliance	FCC, CE
Environment	
Operating	Temperature: -20 ~ 70 degrees C Relative Humidity: 0 ~ 95% (non-condensing)
Storage	Temperature: -40 ~ 85 degrees C Relative Humidity: 0 ~ 95% (non-condensing)
Standard Accessories	
Packet Contents	Transmitter x 1 Receiver x 1 User's manual x 1 5V/2A power adapter x 2



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