

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, PLANET has developed the video over fiber media converter kit, VF-402-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 VF-402-KIT video over fiber media converter enables the videos to be delivered in high quality up to 20km long in distance.

Features

- 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

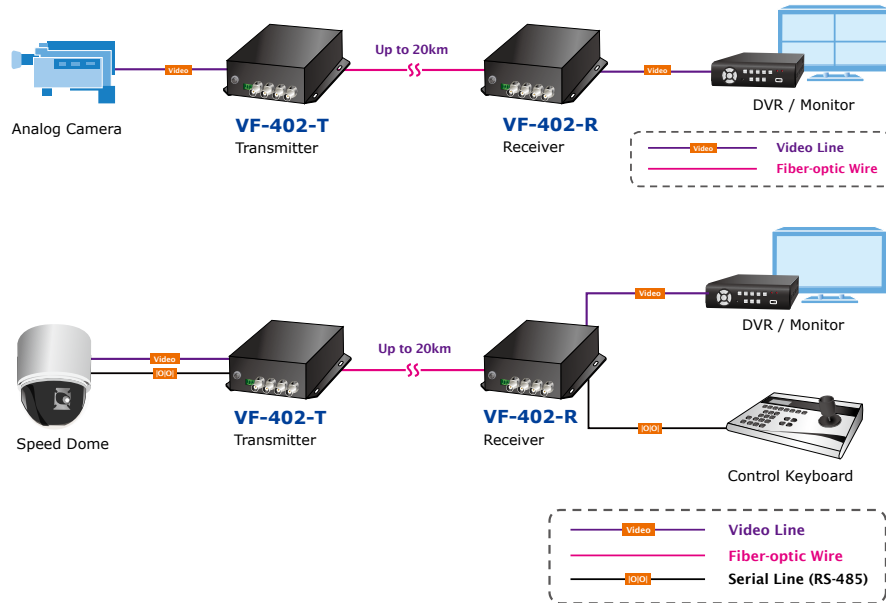


Fiber Optic Communication for Video and Serial Data

The VF-402-KIT consists of a Video Transmitter and a Video Receiver:

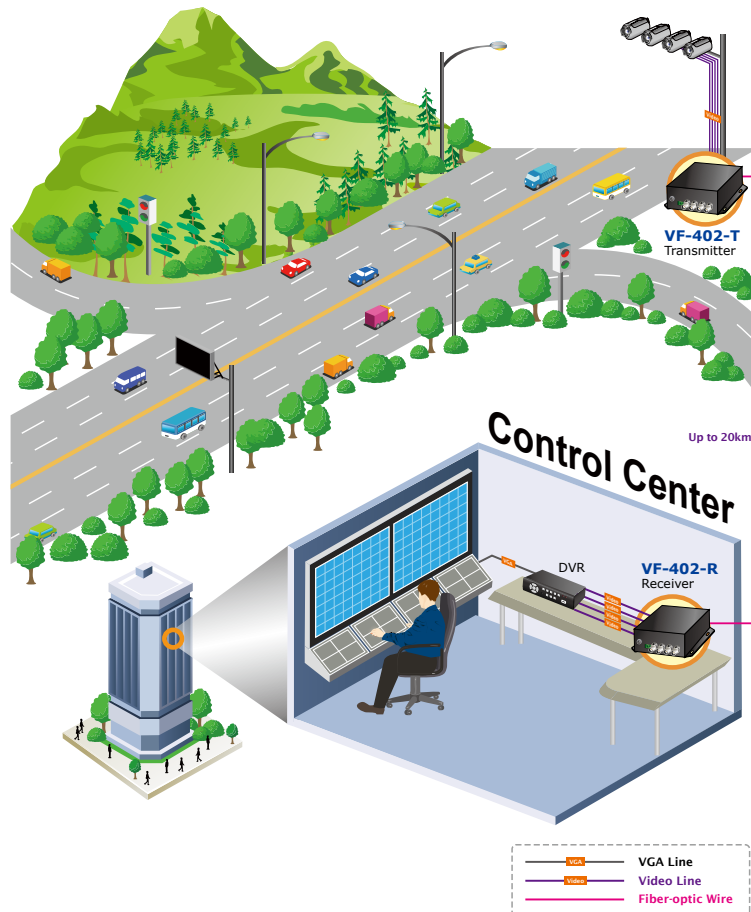
- VF-402-T: 4-channel Video over Fiber Transmitter
- VF-402-R: 4-channel Video over Fiber Receiver

The VF-402-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 VF-402-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.



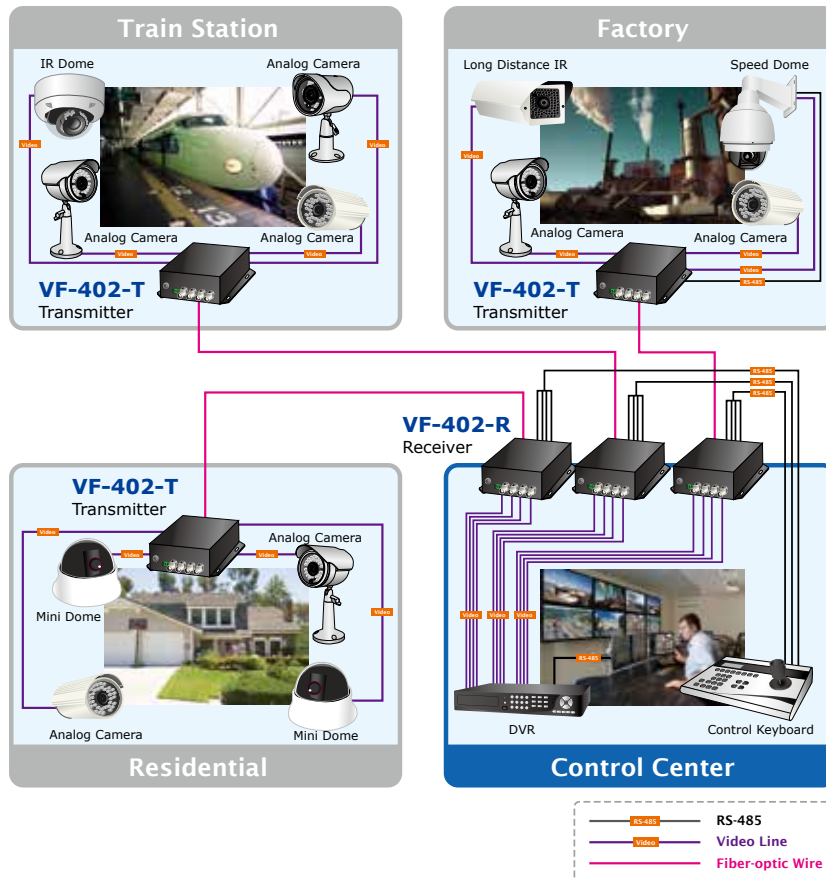
Industrial Monitoring Systems

The industrial-level VF-402-KIT's 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 VF-402-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 VF-402-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

Model	VF-402-T	VF-402-R
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	TX: 1310nm RX: 1550nm	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	– Power – Each channel – Link (fiber optic)	
Dimensions (W x D x H)	157 × 116.5 × 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	VF-402-T x 1 VF-402-R x 1 User's manual x 1 5V/2A power adapter x 2	

Ordering Information

VF-402-KIT	4-Channel Video over Fiber Bundled Kit (VF-402-T + VF-402-R)
------------	--------------------------------------------------------------

Related Products

CAM-AHD325	AHD 1080p IR Bullet Camera
CAM-AHD425	AHD 1080p IR Dome Camera
HDVR-430	4-Ch Hybrid Digital Video Recorder
HDVR-830	8-Ch Hybrid Digital Video Recorder
HDVR-1630	16-Ch Hybrid Digital Video Recorder
VF-10x-KIT	Video over Fiber Media Converter Kit