◆Pantograph video surveillance system for EMU◆

Product Description

The pantograph video surveillance system is used to monitor the operational status of the pantograph and contact network on the vehicle's roof in real-time during operation. And take into account the working state of high-voltage equipment near the pantograph; single-vehicle storage and centralized monitoring program are adopted between pantograph video monitoring systems of moving trains. The monitoring screen has digital video decoding and playback functions and displays the video monitoring screen of each pantograph and high-voltage component in a single-picture polling mode.

Pantograph camera for data acquisition, integrated camera, head, fill light, and heated glass near the pantograph on the roof. with gimbal control and motorized zoom function, with fill light suppression. For round-the-clock observation needs, working in both day and night conditions. The video surveillance images are collected in real-time and encoded for output and transmitted via Ethernet cable to the server in the carriage where the pantograph is located for recording and storage. Provides supplementary surveillance video and analysis images for the accompanying mechanics to deal with abnormal descending arch network faults.

Product Components

Pantograph camera   Pantograph video surveillance server   Monitoring screens
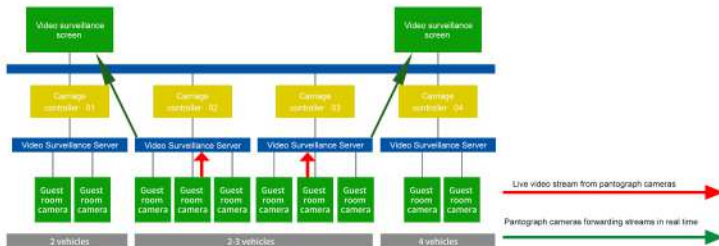
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System Components

Live video stream from pantograph cameras

Pantograph cameras forwarding streams in real time

Features.

1) Stable reliability   2) Availability   3) Modular structure, serviceability   4) Safety principle

Technical specifications

No.	Item	Specification
1	Pixel	300W
2	Frame Rate	25fps
3	Resolution	Max. 2560×1920
4	Video Output	Ethernet M12 interface
5	Signal-to-noise ratio	More than 55dB
6	DEFOG	Support
7	Focus	2.8mm~12mm
8	Optical zoom lens	≥10times
9	AWB	Support
10	Wide dynamic (HLC)	100dB
11	Electronic shutter	1/50sec to 1/100，000sec
12	F-number	F1.6-F5.0 automatic adjustment
13	Number of pre-set points	>10
14	Video Compression	H.264
15	Support Protocol	TCP/IP,HTTP,DHCP,RTP,RTSP,NTP,SNMP,HTTPS,FTP, QoS(SIP,SRTP,ipv6 option)
16	OSD	Support mileage, interval information, train number, carriage number , data, time, position number, speed
17	Interface Protocol	ONVIF 2.0，GB/T28181-2011，Partial Custom protocol
18	Alarm function	Provide alarm functions such as full video blocking and video loss
19	Input Voltage	DC24V±25%
20	Power consumption	Less than 20W

Application

The products are currently used in the 350 km/h China Standard rolling stock project and the 250 km/h China Standard rolling stock project.