VIDEOGUARD

ADVANCED MONITORING SYSTEMS

Revolutionary camera fully operated over optical fiber

VideoGuard is a unique camera system designed for remote operation with all functions ensured only via single mode optical fiber. This camera system is fully powered over fiber without need of power supply or batteries in place of monitoring. Also the data transmission and camera settings control is done over the same optical fiber. Another benefit is that only one standard-telecom fiber is needed for bidirectional communication and powering to ensure its continuous operation.

Power over fiber

The camera head is powered only via power delivered over the standard single mode optical fiber to ensure continuous operation.

Energy harvesting

The delivered optical power is converted to electrical energy and stored in the internal battery to power all electrical equipment in the optical head.

Remote control

The camera settings are controlled remotely and data transmission is done over the same single mode optical fiber.

KEY PRODUCT
FEATURES & BENEFITS

Real time streaming protocol

The widely spread Real time streaming protocol (RTSP) is used to stream video over TCP/IP network.

Configuration software

The system is supplied with configuration SW for remote camera settings. The additional SW tools for objects detection and classification are available upon request.

Manufactured in-house

The VideoGuard is made by Safibra, which gives us complete control over the product output, quality, logistics, production costs and support.

IP camera

The VideoGuard acts as an IP camera and thus it can be easily integrated into an existing CCTV infrastructure.

Long distances

Camera head at the place of monitoring can be located up to 20 km from the interrogation unit. The interconnection is done using an existing optical network.

Fully autonomous system

Thanks to an embedded PC with Linux, the VideoGuard is independent of external devices and control procedures.

20+ YEARS

PRODUCT VERSIONS

This camera system comes in two product versions depending on the number of communication optical fibers. Either single bidirectional or two unidirectional transmission connection versions are available.

ADDITIONAL
HARDWARE & SOFTWARE

System Control Software

The VideoGuard camera system works independently without the need of any additional hardware or software. The software for controlling the interrogation unit and the camera head is pre-installed directly on the interrogation unit.
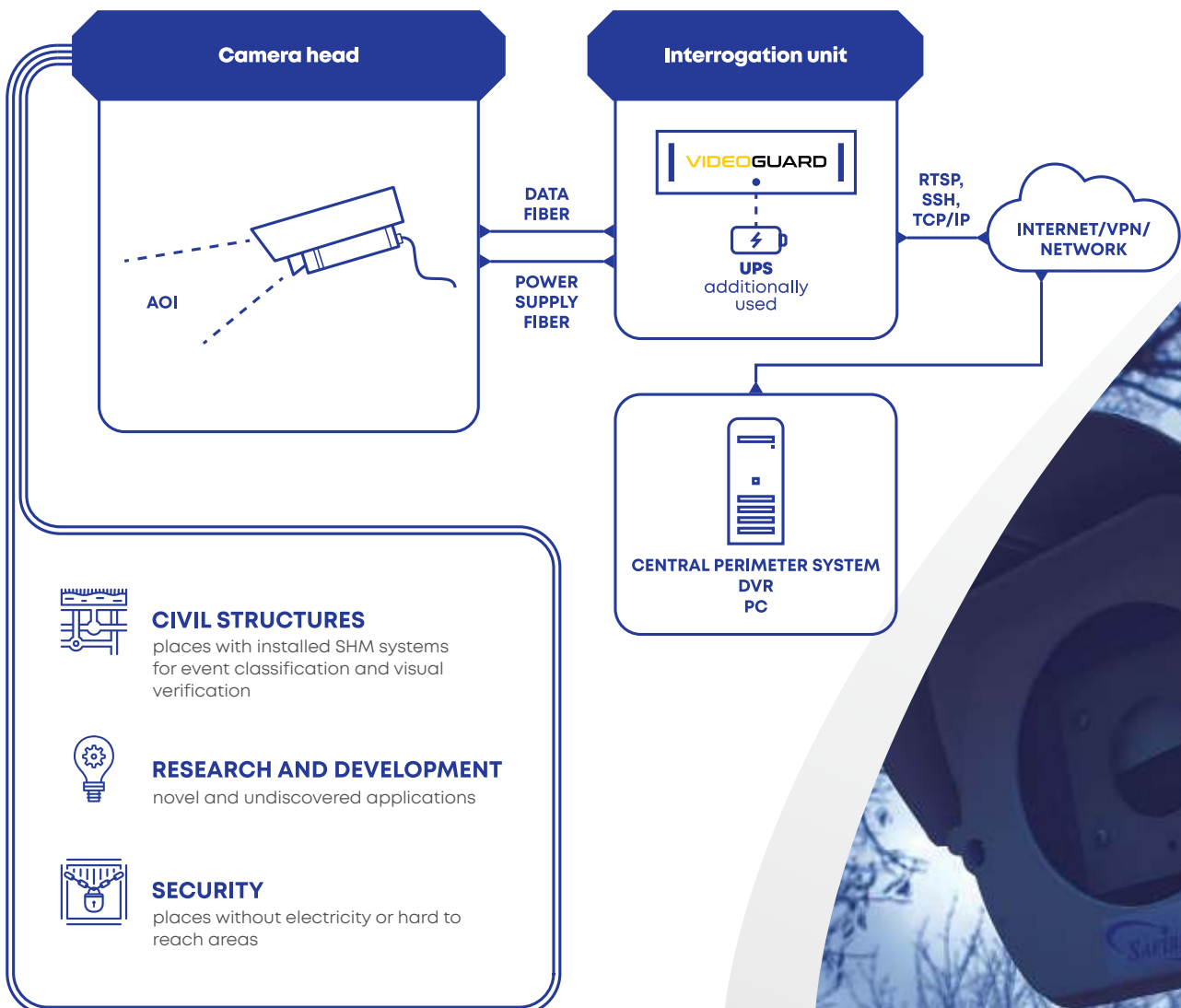
Digital Video Recorder

If the installation requires a video recording, then the video from the VideoGuard can be streamed to an ordinary DVR/NVR (Digital Video Recorder/Network Video Recorder).

Video Processing Software

Additional custom-made software for video processing is available upon request. The software detects and classifies objects in the video and sends the results to SigProc (Signal Processing Software).

PROJECT REQUIREMENTS

Camera head

AOI

DATA FIBER

POWER SUPPLY FIBER

Interrogation unit

VIDEOGUARD

UPS
additionally used

RTSP, SSH, TCP/IP

INTERNET/VPN/ NETWORK

CENTRAL PERIMETER SYSTEM
DVR
PC

CIVIL STRUCTURES
places with installed SHM systems for event classification and visual verification

RESEARCH AND DEVELOPMENT
novel and undiscovered applications

SECURITY
places without electricity or hard to reach areas

20+ YEARS

TECHNICAL PARAMETERS

Optical

Maximal number of camera heads	1
Maximal output power per channel	24 dBm @ two fiber operation
Optical fiber connector	FC/APC

Electrical, Environmental and Mechanical

Power supply	12 V (adaptor to 230 V included)
Operating temperature	0 - 40 °C
Operating humidity	< 80 %, non-condensing
Dimensions	**19" rack 3U** Without front panel: 131 x 383 x 436 mm With front panel: 131 x 383 x 482 mm Space for connectors and air ventilation: 50 mm
Weight	7 kg

Camera head

Camera resolution	320 x 240 pixels @ BW 160 x 120 pixels @ (color)
Maximal frame rate	4 fps
Power consumption	9 mW at 4 fps 5 mW at 1 fps
Special function	Integrated motion detection and automatic gain control
Operating temperature	-20 - +50 °C
Connector	FC/APC, other upon request
Max. distance to VideoGuard Interrogation Unit (cable length)	10 km @ single SMF 20 km @ two SMFs
Spectral range	VIS only
Housing material	Aluminum
Dimensions	134 x 58 x 61 mm (without objective)
Protection class	IP20, external covering expected

Other

Embedded PC/SSD Disk	Yes/Yes
Communication protocol	TCP/IP, SSH, Real Time Streaming Protocol (RTSP) @ video streaming
Interfaces & Ports	12 VDC, HDMI, 2x USB 3.1, Ethernet

* All parameters are preliminary and subject to change.

GET IN TOUCH WITH US
and we will recommend you the most suitable solution for your project.