



Digital  
Barriers

# TACTICAL SURVEILLANCE SOLUTIONS EDGEVIS 4K-R800

## DUAL-STREAMING RUGGEDISED WIRELESS/CELLULAR VIDEO SURVEILLANCE UNIT

The 4K-R800 is a ruggedised surveillance solution combining 4K, HD and SD recording and HD real-time streaming of video, audio and data over a variety of networks (such as cellular, radio and Wi-Fi) with integrated alarm and cueing functionality.

Its compact and resilient form factor and integrated features make the 4K-R800 unit ideal for deployment into harsh and challenging environments

### Not all wireless video solutions are created equal

EdgeVis wireless encoders are a world-class surveillance solution for secure remote viewing of video over very low bandwidth networks. In comparison to other wireless video technologies, such as MPEG compression, EdgeVis provides a higher quality, lower latency and more resilient approach to real-time video and audio transmission.

MPEG and H.264 solutions rely on standard compression techniques that can result in reduced frame rates, frame skipping, difference coding and high latency. In contrast, by combining a proprietary codec with an adaptive and more efficient approach to managing the underlying comms channel, EdgeVis maintains a fixed frame rate and delivers lower latency video over limited bandwidths.

### Practical operational benefits

4K-R800 is an integrated, resilient and ready to deploy remote surveillance solution that combines dual channel video and audio streaming (both HD and SD) with a built-in 4K, HD and SD recorder. Live streaming can be triggered by a range of intelligent or simple alarms, with multiple operators able to access the live output simultaneously on fixed (e.g. PC) and mobile (e.g. smart phone) platforms.

EdgeVis ensures a more efficient representation of detail at lower bandwidths, particularly where motion levels are high, as well as exceptionally low latency in the remote control of cameras. Error resilience is also particularly high, since the EdgeVis video codec is highly tolerant of packet loss.

The 4K-R800 supports retrieval of 4K high-resolution images, both live and DVR stored, providing access to frames of particular interest. With secure AES-256 encryption, a ruggedised IP68 compact form factor, and low power consumption (19W down to 144mW in sleep mode) and the flexibility to operate over 4G/LTE, satellite and Wi-Fi networks, as well as tactical IP radios the 4K-R800 can be rapidly deployed.

### Product codes

4K-R800 Ruggedised form factor wireless video encoder, transmission and DVR unit

### Key features

- Complete remote audio/video/data streaming and storage solution for use in harsh environments
- Supports new 'Dual Stream' capability to transmit two independent video streams from any attached camera
- Secure live video and audio transmission in locations with very low bandwidth (supports 9Kbps to 2Mbps)
- Built-in wireless transmission modules (cellular, Wi-Fi), on board DVR and optional GPS input
- Ruggedised IP68 rated enclosure with no moving parts
- Rapidly deployable (in minutes) for operational situations where installation time is critical
- Rule-based triggering of streaming transmissions to optimise battery life for extended deployments
- Accepts video input from HDMI, 3G-SDI, PAL/NTSC, and up to 4 IP cameras – with appropriate PTZ control
- Allows connection to legacy camera systems and legacy cueing, triggering and alarm systems
- Allows a secondary bearer to be selected for automatic switchover should the primary fail

### Operational domains

4K-R800 is specifically designed for organisations requiring an integrated remote surveillance solution – including deployments into harsh environmental conditions:

- Covert and tactical surveillance (video/audio/data)
- Border/maritime monitoring and force protection



**SAFER.  
STRONGER.  
MORE SECURE.**

# TECHNICAL SPECIFICATIONS

<b>VIDEO STREAMING</b>	Streaming performance	Stream two cameras, each up to 1080p at 10fps, 720p at 15fps or 4CIF at 25/30fps
	Streaming connection	Reliable, secure (AES-256) video transmission from 9Kbps to 2Mbps
	High-resolution image retrieval	Enhanced definition (up to 4k) over user-definable areas via high quality JPEG
<b>ALARM</b>	Video analytics	4-channel, sterile-zone video analytics provided by SafeZone-2D (optional extra)
	Ground sensors	Supports Digital Barriers RDC sensors, and selected third-party sensors
	Triggers	5 alarm trigger inputs
<b>RECORDING</b>	Recording performance	Up to six channels (one HDMI, one 3G-SDI or CVBS, four IP cameras) in H.264 format (30fps max)
	Security	Recordings are secured with AES-256 encryption and Fragile Digital Watermarking
	Storage medium	Removable SD Card (1TB max), up to 2 external drives (max 2TB) in IP68 caddy (optional)
	Typical recording duration	Approx. 12 days on 512GB recording at 1080p, 10fps at 4Mbps (single camera) Approx. 6 days on 2TB recording at 4K, 24fps at 32Mbps (single camera)
<b>CONNECTIVITY</b>	Cellular	Built-in LTE/4G cellular module
	WIFI	Built-in 2.4/5GHz 802.11ac WiFi module
	LAN	Supports transmission over LAN, ADSL, SatCom, IP Radio or Mesh Network
	GPS	Support for USB/Serial GPS module (optional)
<b>CAMERA INPUTS</b>	Video Input Format	HDMI input (support HDMI 1.4b up to 4K 24fps / UHD 30fps), combined 3G-SDI input (up to 1080p 60fps or PAL/NTSC input), and four H.264 IP Cameras (up to 1080p at 30 fps). All inputs can be used simultaneously.
	Audio Input Format	Stereo line-level audio input, mono mic-level input or from IP Camera stream
	PTZ Connectivity	Supports common protocols (Profile S, Pelco P, Pelco D and Sony Visca), and other specialist PTZ protocols
<b>PHYSICAL CONNECTORS</b>	LAN port	1 x 4pin Fischer 10/100Mbit, 1 x 10/100 Mbit through expansion port
	Cellular antenna	2 x 50Ω SMA antenna (3G/4G and MiMo)
	Wi-Fi antenna	2 x 50Ω SMA (RP) antenna (remote transmission, local review)
	Cellular SIM	1 x standard SIM carrier, network agnostic (accessed via magnetic hatch)
	SD card	1 x SD Card slot (accessed via magnetic hatch)
	Power (DC input)	1 x Fischer DC socket (9VDC to 36VDC)
	Status	1 x Fischer connector for combined LED status / USB configuration
	Camera	1 x Fischer combined 2 PTZ channels and 2 switchable power outputs (voltage pass through)
	Alarms	1 x Fischer combined 2 relay output, 5 alarm inputs, audio, low power alarm serial interface with switchable power (voltage pass through)
	HDMI video input	1 x Fischer connector supporting HDMI 1.4b
	3G-SDI/PAL/NTSC video input	1 x TNC connector supporting 3G-SDI (up to 1080p/60), PAL or NTSC inputs
	USB Port	2 x ODU USB 3.0 connectors for external recording drives
	Expansion port	1 x Rapid Mate connector offering additional LAN/USB/Serial ports
	<b>PHYSICAL CHARACTERISTICS</b>	Physical size
Operating temperature		-40°C to +65°C (-40°F to 150°F)
Weight		2.6kg (5.7 pounds)
Input voltage range		9-36VDC
Power consumption		24W max (at 12V, excluding camera draw), 15.5W recording only, 144mW in sleep
Enclosure		IP68 (1m depth for 24hrs) / designed to meet Mil Std 810F
<b>SOFTWARE ARCHITECTURE</b>	Video distribution	EdgeVis Server provides multi-viewer video distribution, using a granular user-permission system
	EdgeVis viewers supported	EdgeVis Client (iOS, Android, Windows) and EdgeVis Local Viewer (Windows)
	Third-party VMS integration	Integration into VMS provided via ONVIF Gateway or native integration (e.g. Milestone, Airship)
<b>REGULATORY APPROVALS</b>	EMC conformity	EN55032-2:2015, EN55035:2017/CISPR35:2016, EN301 489-1 V2.1.1, EN301 489-17 v3.2.0 (Draft), EN301 489-52 V1.1.0 (draft)
	FCC compliance	CFR47:2011 Part 15 Sub Part B

Contact Digital Barriers or your local reseller for further details on our solutions.

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