FVG-8

8-CHANNEL FIELD VIDEO GATEWAY

Video aggregation and streaming appliance for mobile command operations

Accept direct HDMI sources and HDMI output from external wireless receivers, encode eight channels, arrange operational views and forward live streams to the central server.



PRODUCT DATASHEET

8 × HDMI Inputs	**Dual Gigabit Ethernet**
Integrated Source Composition	**SRT / RTSP / RTMP Output**

Complete video intake, composition and streaming capability in one 2U appliance.

Designed for command vehicles, temporary command posts and field media hubs.

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Field video aggregation appliance

PRODUCT OVERVIEW

FVG-8 consolidates video from drones, IP cameras, portable cameras and other HDMI sources inside a command vehicle or field media point. The appliance accepts and encodes eight HDMI channels and forwards selected streams to a central media or incident-command server.

Direct and external receiver sources

Local sources connect directly through the eight HDMI inputs. An external wireless HDMI receiver connects to any available HDMI input in the same manner as a wired source. The source intake also accepts IP camera feeds.

Source composition before uplink

The appliance provides integrated source composition and stream control. Operators can select inputs, name sources and prepare single-view or multi-view layouts before forwarding the resulting program feed or individual encoded channels to the server.

Protocol-ready contribution

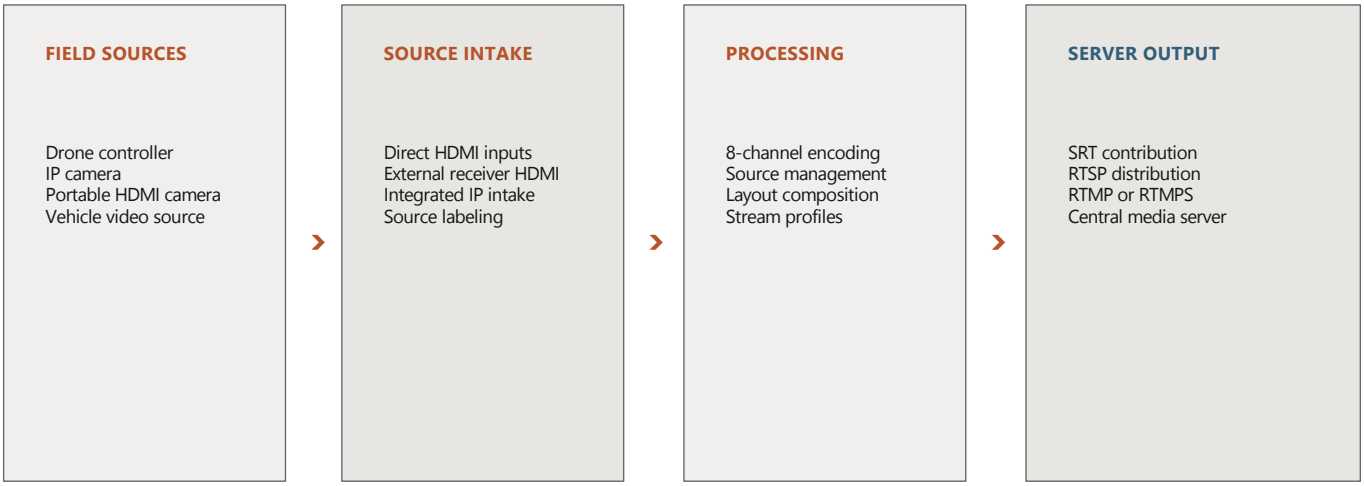
FVG-8 provides H.265, H.264 and MJPEG encoding with SRT, RTSP, RTMP, RTMPS, HLS, HTTP, FLV, ONVIF and UDP/RTP multicast streaming to the central server.

KEY FEATURES

- Eight HDMI 1.4 inputs
- Up to 1080p30 per input
- H.265 and H.264 encoding
- External wireless receiver compatibility
- Integrated layout composition
- Gigabit Ethernet uplink
- SRT, RTSP and RTMP
- Web-based management
- Rackmount command-vehicle design

Signal path and system architecture

Source acquisition, composition, encoding and server contribution



Operating modes

SOURCE HANDLING	
Individual Channel Mode	Forward selected HDMI inputs as independent encoded streams.
Program Layout Mode	Compose multiple sources within the appliance and forward a prepared program view.
Hybrid Mode	Transmit selected direct channels while also publishing a composed operational view.
External Wireless Source	Accept the HDMI output of an external wireless video receiver through any HDMI input.
IP Source Intake	Include IP camera feeds through the integrated source intake.
Server Contribution	Publish directly to the central media or incident-command streaming endpoint.

Eight-channel operating profile

Eight HDMI input channels are provided for simultaneous source intake and hardware encoding. Individual channels or a composed operational view can be forwarded to the central server.

Video encoding specifications

Integrated eight-channel field video processing

VIDEO	
Input Interface	8 × HDMI 1.4.
Maximum Input Profile	1920 × 1080 at 30 Hz per input channel.
Video Codecs	H.265, H.264 Baseline, Main and High profiles, plus MJPEG.
Video Bit Rate	Configurable from 16 Kbps to 20 Mbps.
Rate Control	CBR and VBR.
HDCP	HDCP 1.4 support.

AUDIO AND NETWORK	
Audio Codecs	MP2, AAC, G.711 and AC-3.
Audio Data Rate	64 Kbps to 384 Kbps.
Network Interface	1 × 1000M Ethernet RJ45.
Streaming Protocols	SRT, HTTP, RTSP, RTMP, RTMPS, HLS, FLV, ONVIF and UDP/RTP multicast.
Management	English web control panel with remote firmware upload.

External source intake and composition

Direct HDMI, external receiver and IP-source operations

SUBSYSTEM	FUNCTION
External Wireless Receiver	**Remote HDMI contribution** Connects an external wireless receiver HDMI output to any available appliance input without an internal RF subsystem.
Source Composition	**Integrated processing** Provides source naming, layout composition and stream control directly within the appliance.
Source Registration	**Input naming and status** Associates operational names with connected inputs and presents source availability to the operator.
Layout Composition	**Single-view and multi-view output** Arranges selected sources into an operator-defined layout before contribution to the central server.
Output Profiles	**Destination-specific streaming** Maps the selected source or composed view to SRT, RTSP, RTMP, RTMPS, HLS, HTTP, FLV, ONVIF or UDP/RTP.
Recovery Workflow	**Source and network reconnection** Supports operational procedures for restoring a disconnected HDMI source, external receiver, encoder channel or server destination.

External I/O and connection profile

Complete rear-panel interface map for installation and commissioning



VIDEO, NETWORK AND SERVICE INTERFACES	
HDMI Inputs	8 × full-size HDMI Type-A female inputs, HDMI 1.4, labeled HDMI IN 1–8.
Media Network	1 × RJ45 1000BASE-T port for encoded media contribution and streaming traffic.
Management Network	1 × RJ45 1000BASE-T port for appliance administration and isolated service access.
Local Display	1 × full-size HDMI Type-A output for local monitoring and service display.
USB Service	2 × USB 3.0 Type-A ports for authorized maintenance peripherals and controlled data transfer.
Reset	1 × recessed reset control for supervised recovery procedures.
AC Power	1 × IEC C14 inlet, 100–240 V AC, 50/60 Hz, with rear-panel I/O power switch.
Protective Ground	1 × chassis grounding stud for rack and vehicle installation bonding.
Front Panel	Power button plus power, system and network activity indicators.

Hardware, physical and environmental specifications

APPLIANCE HARDWARE	
Video Processing	Eight-channel hardware encoding supporting H.265, H.264 and MJPEG.
Video Inputs	8 × full-size HDMI 1.4 Type-A inputs supporting 1080p30 per channel.
Network Interfaces	1 × Media LAN and 1 × Management LAN, RJ45 1000BASE-T.
Local Service I/O	1 × HDMI output and 2 × USB 3.0 Type-A service ports.
Form Factor	2U rackmount appliance for a standard 19-inch equipment rack.
Dimensions	Approximately 440 mm W × 400 mm D × 88 mm H, excluding rack ears and cable allowance.
Rack Space	2U of rack space plus rear cable allowance for HDMI, network and AC connections.
Maximum Power	250 W maximum rated appliance power.

ENVIRONMENTAL AND INTEGRATION	
Input Power	100–240 V AC, 50/60 Hz, single internal power supply and IEC C14 connection.
Operating Temperature	0°C to 40°C in a controlled equipment rack with unobstructed airflow.
Operating Humidity	10% to 85% relative humidity, non-condensing.
Installation	19-inch rack or secured command-vehicle equipment bay with protective grounding.
External Wireless Source	An external wireless receiver connects to any available HDMI input; the FVG-8 appliance contains no RF transmitter or receiver.
Commissioning	Validate port mapping, source labels, codec, bit rate, stream destination, latency, grounding and recovery behavior.