

VITEC Rugged Encoders

Military-grade video streaming encoding appliances

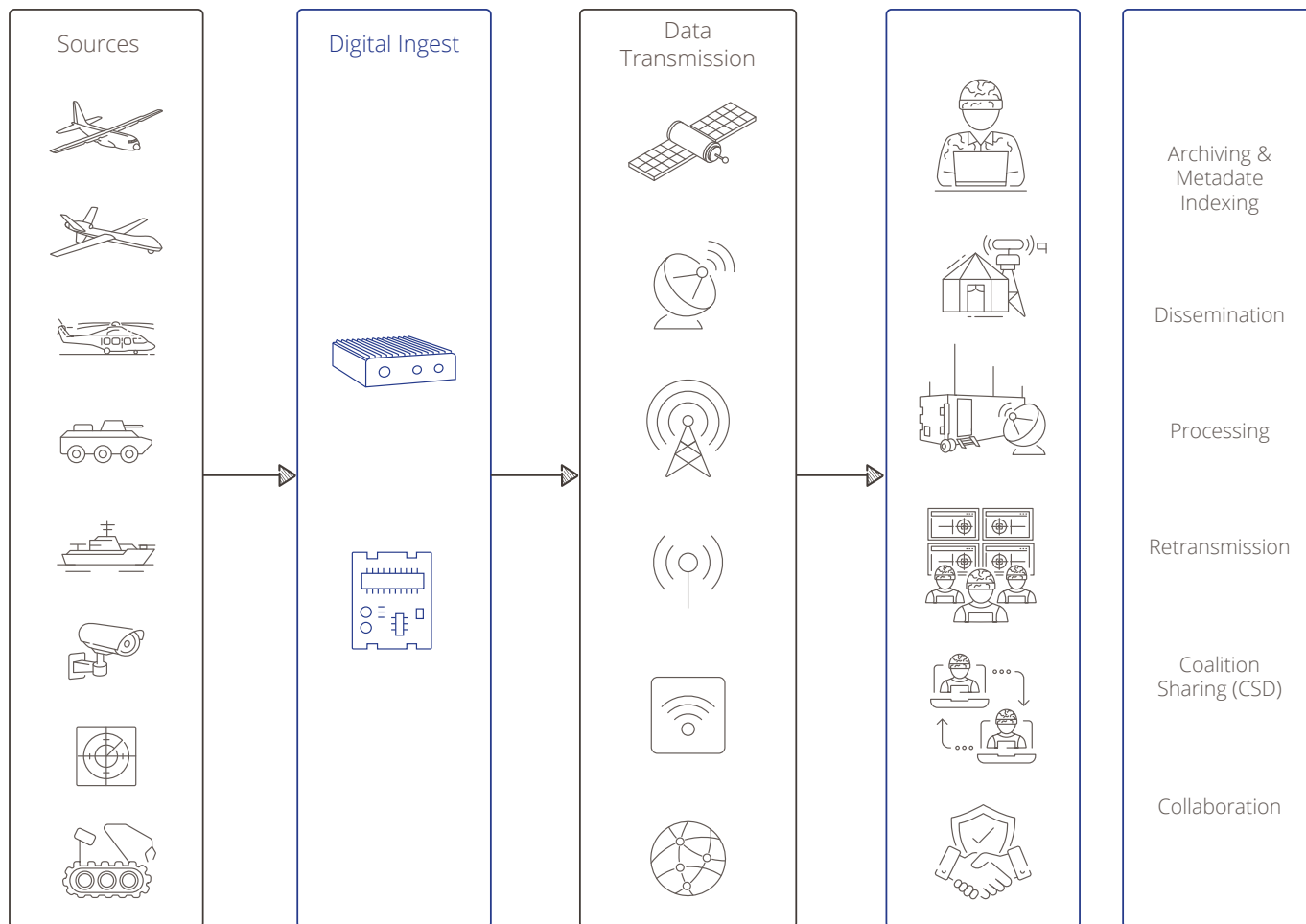
Specifically designed for harsh environments, VITEC's TOUGH portable HEVC & H.264 streaming encoders are military grade and ultra-compact rugged appliances. They deliver Surveillance, Intelligence and Reconnaissance (ISR) video over bandwidth constrained transmission links generated by manned/ unmanned aircraft, ground or marine vehicles in extreme conditions.

From a pocket-sized encoder that can be powered by a battery pack, to a high-efficiency multi-channel HEVC encoder, VITEC's military-grade streaming appliances are used in many different global military situations. Live video can be encrypted and streamed to the Command / Headquarters giving them valuable and current information. All of VITEC's rugged encoders support KLV metadata from Serial, SDI or IP and are compliant against JITC-MISB as well as STANAG 4609 standard. This is ideal for pairing of tactical data with associated video to relay tactical information in the lowest latency possible.

Features & Benefits

- Withstand harsh environments and extreme conditions
- Support KLV / STANAG 4609 metadata
- Multi-channel, low latency streaming from up to 4x SDI and/or Composite sources
- High Dynamic Range (HDR support for exceptional video contrast, brightness and details)
- Low latency HEVC and H.264 video compression
- Stream transport protection (Zixi™, SRT, RIST and Pro-MPEG)
- Ruggedised enclosure





	MGW Diamond TOUGH	MGW Pico+ TOUGH	MGW Pico TOUGH	MGW Nano TOUGH
3G/HD/SD-SDI	4	1	1	1
HDMI				1
Composite / RS-170	4 mixed with SDI	1	1	1
Analog Unbalanced Audio	✓	✓		
KLV Metadata Ingest / Output over SDI / IP / Serial	✓	✓	✓	✓
Dual Ethernet Port (Management / Streaming)	✓			
MIL-STD 3889 Connectors	✓	✓	✓	✓
HEVC / H.265	✓	✓		
AVC / H.264	✓	✓	✓	✓
On-the-fly bitrate change	✓	✓	✓	
No. of Output Channels	8	2	2	1
UDP TS/ RTP TS/ RTP-ES	✓	✓	✓	✓
AES Support (Encryption)	✓	✓	✓	✓
KLV Metadata Streams STANAG4069 / MISB	✓	✓	✓	✓
Stream Transport Protection (Zixi, SRT, RIST & ProMPEG)	✓	✓	✓ (no RIST/SRT)	✓ (no RIST/SRT)
Web GUI and SSH	✓	✓	✓	✓
HTTPS API	✓	✓	✓	
DC Input – 16-40VDC	✓	✓	✓	✓
MIL-STD – 704F	✓	✓	✓	
Operating temperature (°C)	-55 to 70	-40 to 70	-40 to 70	-40 to 70
Ingress Protection Rating (IP)	67	67	67	65
MIL-STD Certified	✓	✓	✓	✓
Not controlled under ITAR	✓	✓	✓	✓

	Encoder	Features and Benefits	Applications
HEVC & H.264	MGW Diamond TOUGH  Rugged Multi-channel HD/SD HEVC & H.264 Encoder 	<ul style="list-style-type: none"> • SWAP optimised and Rugged Multi-Channel HEVC & H.264 Encoder • 4x SDI and Composite inputs • Up to 8 encoding channels • Low latency HD/SD Streaming • Low bandwidth HEVC Streaming • KLV / STANAG metadata processing for ISR • Available as an OEM board for integrators (4K support) 	<ul style="list-style-type: none"> • IP Video dissemination from multiple video sensors (analog/digital) for Situational Awareness (SA) within ground vehicles, navy ships or aircraft • Streaming Situational Awareness and FMV content across LANs and WANs with KLV / STANAG metadata • Intelligence, Surveillance and Reconnaissance (ISR) video from ground and airborne vehicles over RF or satellite link • Streaming over lossy and bandwidth limited transmission links
	MGW Pico+ TOUGH  Rugged HD/SD HEVC & H.264 Encoder 	<ul style="list-style-type: none"> • Ultra-small Rugged HEVC & H.264 Encoder • SDI and Composite inputs • 2 Encoding channels • Low latency HD/SD Streaming • Low bandwidth HEVC Streaming • KLV / STANAG metadata processing for ISR • Available as an OEM board for integrators (4K support) 	<ul style="list-style-type: none"> • Real-time IP streaming of 4K/HD/SD content for Situational Awareness (SA) from two sensors (analog/digital) • Intelligence, Surveillance and Reconnaissance (ISR) video from ground and airborne vehicles over RF or satellite link • Streaming over lossy and bandwidth limited transmission links • Broadcast-quality video contribution in harsh environments
H.264	MGW Pico TOUGH  Rugged HD/SD H.264 Encoder 	<ul style="list-style-type: none"> • Ultra-small Rugged HD/SD H.264 encoder • SDI and Composite inputs • 2 Encoding channels • Low latency HD/SD Streaming • KLV / STANAG metadata processing for ISR • Available as an OEM board for integrators 	<ul style="list-style-type: none"> • Real-time IP streaming of HD/SD content for Situational Awareness (SA) from two sensors (analog/digital). • Situational Awareness (SA) video from ground and aircraft vehicles
	MGW Nano TOUGH  Rugged HD MPEG-4, H.264 Encoding & Streaming appliance	<ul style="list-style-type: none"> • Rugged H.264 Encoder with HDMI input • 3G, HD/SD-SDI, Composite and HDMI video inputs • KLV Metadata processing for ISR • Low latency HD/SD Streaming 	<ul style="list-style-type: none"> • IP streaming of HD/SD Intelligence, surveillance, reconnaissance (ISR) imagery • Real-time Situational Awareness video from radar or LRU • Streaming Full Motion Video to Desktop, TV and Mobile Devices

The VITEC Advantage

Flexibility

Able to ingest any source and disseminate to any playback device, enabling coverage of the Last Tactical Mile.

Scalability

Encoding and transcoding ranging from small form factor, single channel appliances up to multi-source rack-mounted configurations.

Quality

Best in Class, HEVC HD and 4K resolution with HDR support at the lowest bandwidth consumption.

Latency

Prime market leader in sub frame latency solutions.

Interoperability

Certified and compliant to meet demanding challenges across the world stage of defence and security, enabling coalition sharing with ease.

Reliability

From Solid State appliances to 24/7 operation solutions with options for redundancy.

