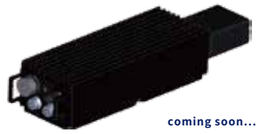
Product Specifications

LLC-4000

Front

Back

Rugged LLC-4000



coming soon...

Product		LLC-4000 (encoder mode)	LLC-4000 (decoder mode)	Rugged LLC-4000 (encoder mode)
Product code		191-OK02-0001		191-OK02-0003
Video	Input Resolution	2160P(3840×2160)@ 25Hz,30Hz,50Hz,60Hz 1080P(1920×1080)@ 25Hz,30Hz,50Hz,60Hz 1080I(1920×1080)@ 50Hz,60Hz ※1	2160P(3840×2160)@25Hz, 30Hz,50Hz,60Hz 1080P(1920×1080)@25Hz, 30Hz,50Hz,60Hz	2160P(3840×2160)@ 25Hz,30Hz 1080P(1920×1080)@ 25Hz,30Hz,50Hz,60Hz 1080I(1920×1080)@ 50Hz,60Hz ※1
	Codec Resolution	128×90~3840×2160		128×90~3840×2160
	Codec	HEVC/AVC		HEVC/AVC
	Framerate	2～60fps	—	2～60fps
	Bitrate	20kbps～25Mbps	—	20kbps～25Mbps
	Mixing	—	Setup of video output as 2160P : 1920×1080 input stream ×4 stream→4 split screen display Setup of video output as 1080P:960x540 input stream ×4 stream→4 split screen display	—
Audio	Sampling	48KHz		48KHz
	Codec	AAC-LC/Opus		AAC-LC/Opus
	Bitrate	AAC-LC : 64kbps～320kbps Opus : 8kbps～160kbps	—	AAC-LC : 64kbps～320kbps Opus : 8kbps～160kbps
Network	Supported Protocols	TCP/IP, UDP/IP, Multicast, SRT(server), RTSP(server)	TCP/IP, UDP/IP, Multicast, SRT(client)	TCP/IP, UDP/IP, Multicast, SRT(server), RTSP(server)
	QoS ※2	FEC(Error Correction) / ARQ(Retransmission)		FEC(Error Correction) / ARQ(Retransmission)
I/O	Video/Audio	HDMI2.0 x1		HDMI1.4 x1
	Network	10/100BASE-TX/1000BASE-T x1		10/100BASE-TX/1000BASE-T x1
	Other	USB3.0(Type-A) x2 (Can be used for audio input/output)		USB2.0(Host) x1
Power		DC +12V(equal or less than 20W)		DC +9V～16V(equal or less than 15W)
Operating Temperature/ Humidity		Operating Temp: -10～+50℃ / Humidity: 10%～80%(non-condensing)		Operating Temp: -20～+60℃ / Humidity: 10%～95%(non-condensing)
Environmental resistant performance		—		IP67
Dimensions/Weight		154(W) x 39(H) x 253(D) mm(excluding protrusions) Under 1.0kg(excluding AC Adapter)		154(W) x 39(H) x 253(D) mm (Excluding battery and protrusions) Under 2.3kg(Excluding battery)

※1: 1080I @ 50,60Hz input is converted to progressive format and encoded

※2: This function is not supported by SRT and RTSP protocols

※This specification and appearance are subject to change without notice for improvement. Please check for the latest information when purchasing and using the product.
※When using our products, be sure to read the specifications and instruction manuals attached to the products, and use them according to the contents described.

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#20240529

4K Low Latency / Narrowband Video Encoder / Decoder

LLC-4000

Ultra Low Latency Codec

- Maximum Bit Rate Control
- Video encoding below 100kbps
- Encoding latency of 50ms or less
- Error Correction / Retransmission

Supports 4K low latency encoding and stable narrowband video transmission

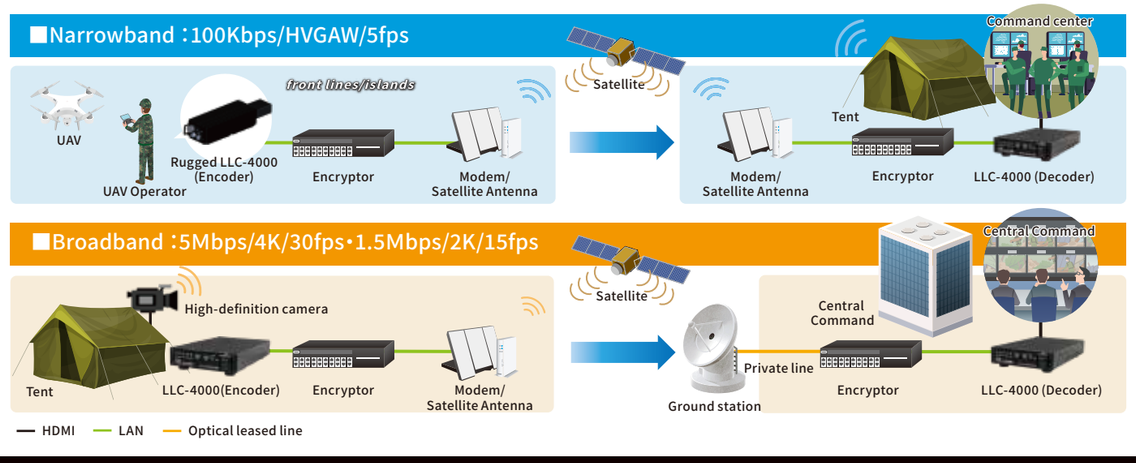
Enabling video at the Tactical Edge

HYTEC INTER Co.,Ltd.

Video transmission from the Tactical Edge

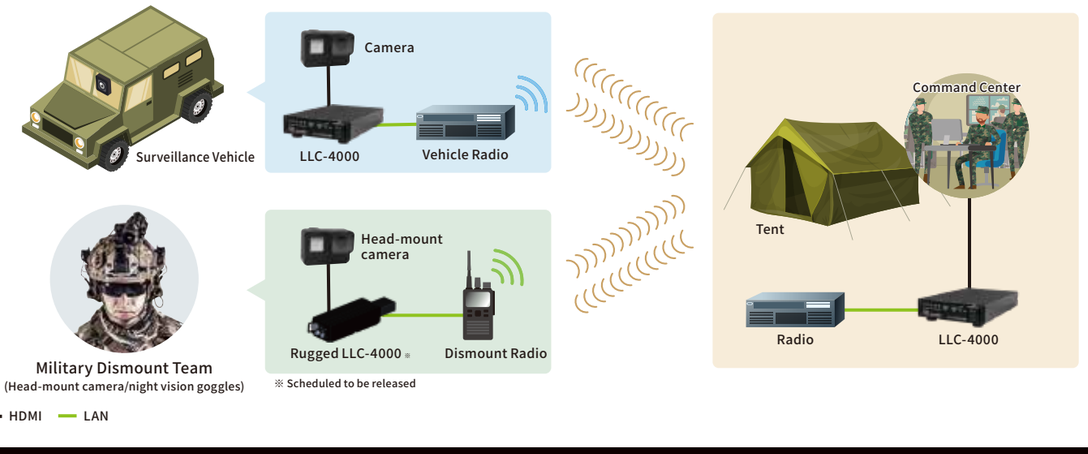
Satellite lines

Sharing the situation in the field with each level of commanders via satellite links
Wide bandwidth (4K) to narrow bandwidth



Tactical Radios

Video transmission using existing infrastructure



Low latency

With a compression processing time of less than 50ms, real-time 4K resolution video streamed from the tactical edge can be received enabling remote operation and control of strategic assets

Original Video

LLC-4000

Check with video

Narrowband (Peak Rate Control)

The Peak Rate Control function enables stable video transmission over networks of less than 100 kbps, such as high orbit satellites and infrastructure designed for voice transmission only.

General Encoder

LLC-4000

QoS control (Error Correction: FEC, Retransmission Control: ARQ/SRT)

To cope with the data loss that occurs in unstable wireless environments at the tactical edge LLC-4000 supports both error correction using redundant data (FEC) and lost data transmission (ARQ/SRT) protocols. These mitigate data loss issues and enable high-quality video regardless of network quality.

Original Video

General Encoder

LLC-4000

Multi-stream Decoding/Quad Screen Display

Up to 4 video streams can be received and displayed simultaneously in quad screen mode. Each stream can be switched to full-screen display on demand. Remote information sharing is also possible.