LiveU

VEHICLE CONTRIBUTION SOLUTIONS

5G 4K rackmount encoders

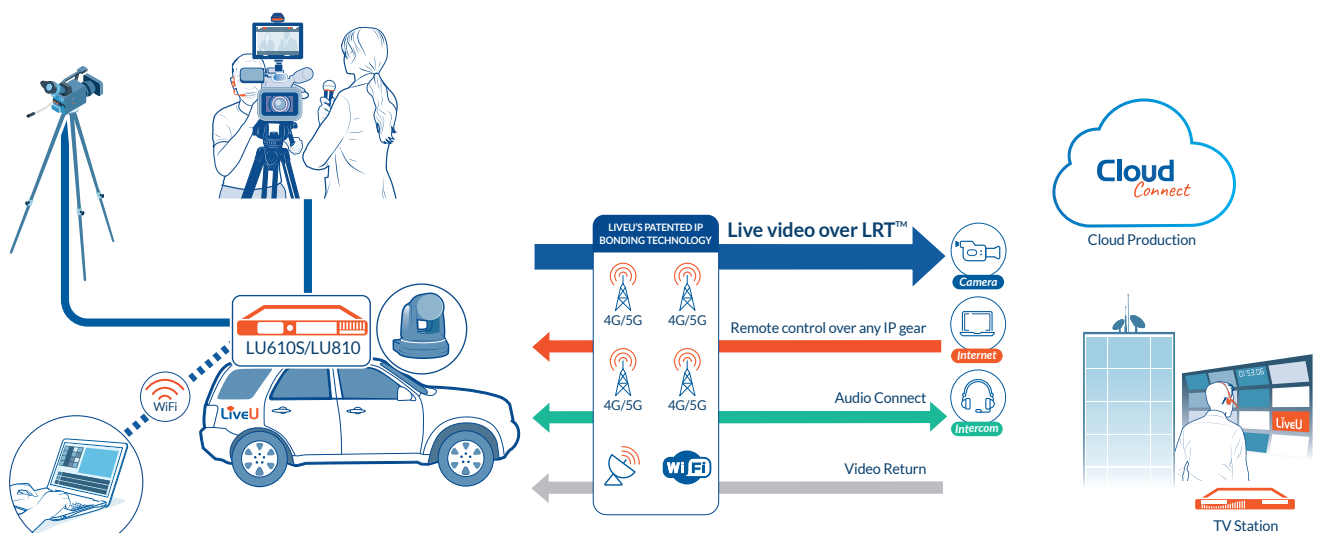### Resilient live transmission from your production vehicle

LiveU's family of vehicle encoders enables resilient broadcast-grade live video transmission from your vehicle to your production studio as part of a REMI (remote production) workflow. Leveraging LiveU's Reliable Transport protocol (LRT™), the solution bonds **multiple internal 5G/4G modems**. Choose between a single-camera (LU610S) or synchronized multi-camera (LU810) configuration, as required.

Flexibly adapting to your location needs, LiveU's vehicle encoders enable you to easily switch between bonded cellular, wired and satellite connectivity to achieve the highest quality, lowest delay transmission in any scenario. Transmission quality and costs can also be optimized using LiveU's least cost bonding feature, with different priorities managed under the changing bandwidth conditions.

Both encoders support LiveU's suite of remote production tools including IP Pipe, Video Return, Tally Light and Audio Connect, providing a complete field production solution directly from your van.

Remotely control your LiveU solutions from anywhere via the **LiveU Central** cloud management platform. Using its intuitive interface, you can easily monitor, view and manage all your video transmissions.

TECHNICAL SPECIFICATIONS

	LU610S-M Single camera	LU810-M Multi-camera
VIDEO RESOLUTIONS	4Kp50/60/25/30/24, 1080p50/60/25/30/24, 1080i50/60, 720p50/60, PAL, NTSC	
VIDEO INTERFACES	12G/3G/HD/SD-SDI and HDMI 2.0	1x 12G + 3x 3G/HD/SD-SDI
VIDEO ENCODER	H.265/HEVC, H.264	
AUDIO ENCODER	AAC-HE/LC – up to 8 audio channels	AAC-HE/LC – up to 16 audio channels
FORM FACTOR	1U rackmount	
SIMULTANEOUS BONDING	6 internal 4G/5G modems, 2x Ethernet ports for connection to LAN and satellite (BGAN/KU over IP), 2 WiFi	
OPERATIONAL MODES	Live: ultra-low latency mode Live and Store: live streaming with local high-quality recording on unit Store and Forward: three quality-levels Bonded file transfer DataBridge: high-speed mobile broadband connectivity Video Return: sub-second video return over an external HDMI Audio Connect Intercom	Live: ultra-low latency mode Live and Store: live streaming with local high-quality recording on unit Store and Forward: three quality-levels Bonded file transfer DataBridge: high-speed mobile broadband connectivity Video Return: sub-second video return over an external HDMI Multi-Camera: Multi-HQ and Switcher mode
MULTI-DESTINATION OUTPUT	Diverse A/V output destination: simultaneous streams to SDI and CDNs on the server side	
AUTO POWER UP	Power-on feature suitable for automatic vehicle operation (power-on with vehicle)	
UNIT CONTROL	Local: full monitoring and control using unit's local display screen Remote: full control through LiveU Central management platform	
RESILIENCY AND QUALITY	Includes LiveU Reliable Transport (LRT™), featuring proprietary algorithms such as automatic Adaptive Bit Rate (ABR), automatic Forward Error Correction (FEC) and other packet loss recovery mechanisms	
NETWORK INTERFACES	2 RJ-45 Ethernet ports and 2.4/5GHz WiFi (802.11 a/b/g/n/ac)	
OTHER INTERFACES	2x USB 2.0, 3.5mm audio jack, min-XLR audio out, full size SD card slot, full size HDMI out. Antennas ports: 2x RP-SMA Wi-Fi + 12x SMA for cellular	
DIMENSIONS	Industry-standard 1U rackmount server: 44 H x 436 W x 280 D (mm) / 1.73" H x 17.17" W x 11.02" D (in)	
WEIGHT	5Kg (176oz)	
VIBRATION	MIL-STD-810G method 514.6 | Category 4	
TEMPERATURE	Operating: -5C to +45C (23F to 113F)	
POWER	Dual power support: AC: 100VAC to 240VAC ~0.8A 50/60Hz DC: 12V to 19V @4A Power consumption <32W	Dual power support: AC: 100VAC to 240VAC ~0.8A 50/60Hz DC: 12V to 19V @4A Power consumption <40W

IP CONTRIBUTION FROM ANYWHERE

Portable	Vehicle	Fixed locations

FIXED LOCATION CONTRIBUTION SOLUTIONS

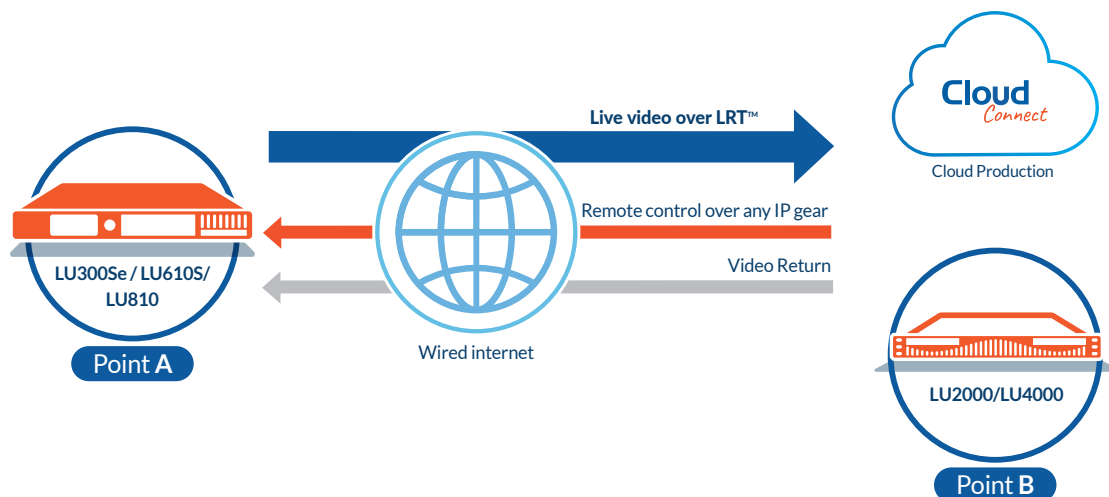## 4K encoders for point-to-point transmission

LiveU's family of fixed location encoders enables resilient broadcast-grade live video transmission point-to-point and point-to-multipoint. Leveraging LiveU's Reliable Transport protocol (LRT™), the solution provides bonding **over wired internet**. Choose between a single-camera LU610S, LU300Se or synchronized multi-camera (LU810) configuration, as required.

Highly cost-effective alternatives for fiber and satellite-based productions, they support broadcast-grade, low-delay live video transmission between stations or from venues/stadiums to the remote production center.

Remotely control all your LiveU solutions from anywhere via the **LiveU Central** cloud management platform. Using its intuitive interface, you can easily monitor, view and manage all your video transmissions.

LiveU's fixed location encoders can also serve as a content source for the LiveU Matrix cloud IP management and distribution platform, allowing you to share your live feeds easily to a wider audience.

Cloud Connect
Cloud Production

Live video over LRT™

Remote control over any IP gear

Video Return

Wired internet

LU300Se / LU610S/ LU810
Point A

LU2000/LU4000
Point B

TECHNICAL SPECIFICATIONS

	LU300Se Single camera	LU610S Single camera	LU810 Multi-camera
VIDEO RESOLUTIONS	4Kp50/60/25/30/24, 1080p50/60/25/30/24, 1080i50/60, 720p50/60, PAL, NTSC		
VIDEO INTERFACES	12G/3G/HD/SD-SDI and HDMI 2.0		1x 12G + 3x 3G/HD/SD-SDI
VIDEO ENCODER	H.265/HEVC, H.264		
FORM FACTOR	Compact unit	1U rackmount	
AUDIO ENCODER	AAC-HE/LC – up to 8 audio channels		AAC-HE/LC – up to 16 audio channels
SIMULTANEOUS BONDING	1x Ethernet port for connection to LAN and satellite (BGAN/KU over IP), WiFi	2x Ethernet ports for connection to LAN and satellite (BGAN/KU over IP), 2 WiFi	
OPERATIONAL MODES	Live: low latency or maximum quality modes Live and Store: live streaming with local high-quality recording on unit Store and Forward: three quality-levels (for optimal quality vs speed) FTP: bonded file transfer DataBridge: high-speed mobile broadband connectivity from the unit	Live: low latency or maximum quality modes Live and Store: live streaming with local high-quality recording on unit Store and Forward: three quality-levels (for optimal quality vs speed) FTP: bonded file transfer DataBridge: high-speed mobile broadband connectivity from the unit Video Return: sub-second video return over an external HDMI Audio Connect Intercom	Live: low latency or maximum quality modes Live and Store: live streaming with local high-quality recording on unit Store and Forward: three quality-levels (for optimal quality vs speed) FTP: bonded file transfer DataBridge: high-speed mobile broadband connectivity from the unit Video Return: sub-second video return over an external HDMI Multi-Camera: Multi-HQ and Switcher mode
MULTI-DESTINATION OUTPUT	Diverse A/V output destination: simultaneous streams to SDI and CDNs on the server side		
UNIT CONTROL	Local: full monitoring and control using unit's local interface Remote: full control through LiveU Central management platform		
RESILIENCY AND QUALITY	Includes LiveU Reliable Transport (LRT™), featuring proprietary algorithms such as automatic Adaptive Bit Rate (ABR), automatic Forward Error Correction (FEC) and other packet loss recovery mechanisms		
NETWORK INTERFACES	1 RJ-45 Ethernet ports and 2.4/5GHz WiFi (802.11 a/b/g/n/ac)		
OTHER INTERFACES	2x USB 2.0, 3.5mm audio jack, SD card slot	2x USB 2.0, 3.5mm audio jack, min-XLR audio out, full size SD card slot, 2x RP-SMA WiFi, full size HDMI out	
DIMENSIONS	112.5mm x 203mm x 54.5mm / 4.4" x 8" x 2.1" (W x H x D)	Industry-standard 1U rackmount server: 44 H x 436 W x 280 D (mm) / 1.73" H x 17.17" W x 11.02" D (in)	
WEIGHT	1Kg (35oz)	5Kg (176oz)	
VIBRATION	MIL-STD-810G method 514.6 | Category 4		
TEMPERATURE	Operating: -5C to +45C (23F to 113F)		
POWER	DC: 12V to 19V	Dual power support: AC: 100VAC to 240VAC ~0.8A 50/60Hz DC: 12V to 19V @4A Power consumption <32W	Dual power support: AC: 100VAC to 240VAC ~0.8A 50/60Hz DC: 12V to 19V @4A Power consumption <40W

IP CONTRIBUTION FROM ANYWHERE

Portable	Vehicle	Fixed locations