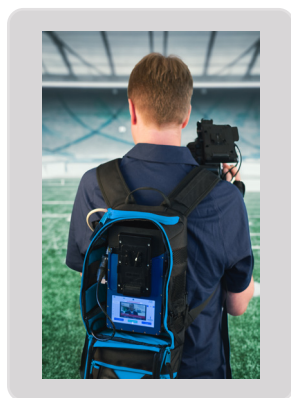**ENCODER**

UltraLink Air

Multicam H264/H.265 Encoders

The UltraLink Air family of mobile encoders represents Vislink's flagship product line, setting a new benchmark for advanced mobile encoding technology. Packed with innovative features, UltraLink Air products are among the most technologically sophisticated mobile encoders available today.

Widely used by global broadcasters for high-quality, low-latency video feeds in outside broadcasts and live remote production, UltraLink Air supports up to four simultaneous camera inputs and features optional internal 5G modems for unparalleled connectivity.

With the ability to deliver up to 40 Mb/s over bonded networks, UltraLink Air transmits seamlessly to studios or the cloud using a combination of up to eight internal 3G/4G/5G modems, Wi-Fi, LAN, and/or satellite connections. These connections can be bonded to create a single high-bandwidth stream. Leveraging adaptive bitrate technology, the encoder dynamically optimizes video quality based on available bandwidth, ensuring reliable performance even in the most challenging environments.

Compact and lightweight, the UltraLink Air is designed for portability, fitting easily into a backpack and powered by battery. It supports a full suite of essential mobile encoding features, including H.265 and H.264 encoding, store and forward for internal storage, two-way audio IFB intercom, and return video.

In addition to its core capabilities, UltraLink Air offers advanced functionality such as remote RCP and tally control, simultaneous IP and video streaming, and the ability to function as a secure Wi-Fi hotspot—even while live. This feature-rich encoder delivers unmatched flexibility and performance for broadcasters aiming to excel in today's demanding production environments.

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Key Features

1/2/4 channel configurationss

Supports up to 40 MB/sec

8 internal modems (3G/4G/5G)
(for best configuration contact sales)

LAN & Wi-Fi connection (bonded with cellular)

Satellite enablement option (CBR encoding)

Adaptive bitrate encoding

Error correction

Store and forwarde (FTP upload)

Multicam option with camera sync

LinkMatrix (free remote feature-rich management secure platform)

Sub-accounts creation under the owner LinkMatrix account with limited permissions

Capability of simple editing for the recorded media on the LinkMatrix account

Touch screen for local management

Decoding options including HD-SDI, NDI, RTMP, RTSP, MPEG-TS, SRT

Capability of streaming via RTMP or RTSP URLs without needing a transcoder or domain server encryption

IFB support

Video return capability between encoders and decoders on external input to the decoder

Debonder and Playout Server capability of routing each live connection to any or all SDI connections

Capability of Debonder and Playout Server to receive 4 live connections simultaneously from unlimited encoders via switching between them through the server ID set

Dome antenna Options

Bronze, Silver and Gold Support Available

1 year warranty

UltraLink Air Datasheet

Available Models

UltraLink Air 1C: 1x HD-SDI inputs, 1 HDMI plus 1 video return, total 2

UltraLink Air 2C: 2x HD-SDI, 2x HDMISDI inputs plus 1 video return, total 3

UltraLink Air 4C: 4x HD-SDI, zero HDMI inputs but has 1 video return, total 1

UltraLink Air 4K: 1 x UHD-SDI, zero HDMI inputs but has 1 video return, total 1

Decoding Options

UltraLink Air provides a point-to-point connection and does not rely on a third party cloud platform for debonding.

A number of decoding options are available at the receiving end.

A cloud decoding option is also available allowing IP live feed streams to CDN's, social media and other IP platforms.

Additional Features

2Waylink for encoder-to-encoder streaming

REMI option including RCP and Tally Control

IP stream that can operate simultaneously as encoded video streaming (up to 150Mb/sec)
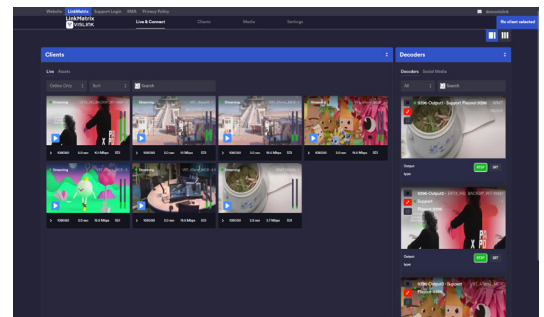
Secure Wi-Fi hotspot while live

LinkMatrix

LinkMatrix is Vislink's cloud-based management control center, designed for comprehensive control of field encoders, management of decoding destinations, and access to a wide range of configuration and diagnostic tools.
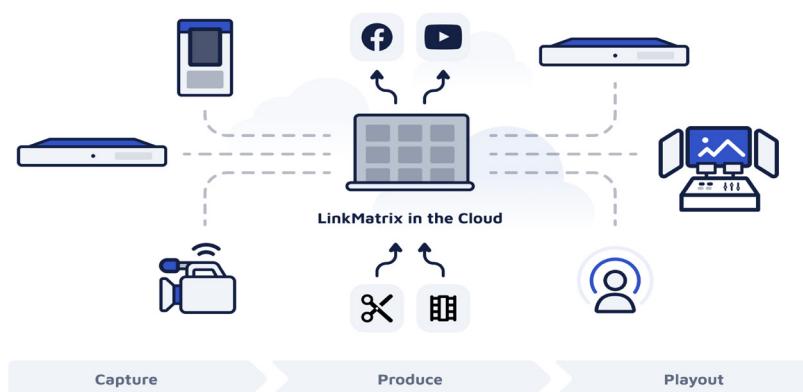
While LinkMatrix is free to use, an optional subscription-based cloud decoding service is available. This feature allows users to set up social media channels or a CDN for instant live streaming, eliminating the need for a physical decoder at the receiving end.

Operated through a standard browser with appropriate security credentials, LinkMatrix enables remote users to manage all Vislink devices under their control, without requiring technical expertise from on-air talent. The platform offers robust capabilities, including remote control, live streaming activation, social media publishing, and network diagnostics, such as SIM card management. Additionally, it provides editing and production tools like Clipper, which allows users to clip live streams and create media files for immediate publishing to platforms such as social media.

With its extensive feature set, LinkMatrix is an essential tool for streamlining live broadcasting workflows and enhancing production efficiency.

Vislink Broadcast Workflow

LinkMatrix in the Cloud

Capture   Produce   Playout

UltraLink Air Datasheet

 VISLINK

Encoder	UltraLink Air xC	UltraLink 4K
H264 and H265	H264 and H265	H264 and H265 (4c)
Maximum Bandwidth	20 Mb/s per channel	40 Mb/s
Store & Forward	✔	✔
Total number of modems	8	8
Total no of SDI connections	1C (1), 2C (2), 4C (4)	4 (+ loopthrough)
Total no of HDMI connections	1C (1), 2C (2), 4c (4) - 1 for video return	1 video return channel
Total no of IP connections	10 including Wi-fi/LAN	10 including Wi-fi/LAN
Delay / latency	0,8 - 60 seconds	0,8 - 60 seconds
Encryption	AES-256	AES-256
Error correction		
AARQ - Adaptive Automatic Retransmission Request		
WMT - Wireless Multiplex Technology		
Network connectivity		
No. of Sim Cards (3G/4G)	8 modems	4 modems
5G Compatible (can be used for 3G/4G)	(4× 5G & 4× 4G) OR (2× 5G & 6× 4G) OR (7× 4G & 1× 5G) Maximum of 8 modem connections	(4× 5G & 4× 4G) OR (2× 5G & 6× 4G) OR (7× 4G & 1× 5G) Maximum of 8 modem connections
Wifi	✔	✔
Ethernet ports	2	2
Satellite support	BGAN/Starlink (extra s/w license)	BGAN/Starlink (extra s/w license)
Hosted Management		
Linkmatrix Compatible	✔	✔
Social Media for cloud decoding	✔	✔
Accessories		
Dome Antennas	✔	✔
Backpacks	✔	✔
Camera Mount Kits	✔	✔
Camera inputs		
Multicamera support	✔	✔
SDI inputs	1C (1), 2C (2), 4C (4) option: 1× 3G/12G (HD/4K) video input	4 × 3G SDI / 1 × 12G SDI
HDMI inputs	1C (1), 2C (2)	n/a
Ethernet inputs	✔ (simultaneously send IP stream)	✔ (simultaneously send IP stream)
(Wifi camera support)	✔	✔
Video support		
HD and SD video format	✔	can use single input for HD/SD
NTSC/PAL	✔ (frame rate 25/30/50/59,94/60)	✔ (frame rate 25/30/50/59,94/60)
Sync on multichannel encoders	✔	✔

UltraLink Air Datasheet

VISLINK

Video Resolutions Supported	UltraLink Air xC	UltraLink 4K
	SD Format Support 525i/59.94 NTSC, 625i/50 PAL	Support for input video resolutions up to 4096×2160 pixels including SD/HD/3G/6G/12G SDI
	HD Format Support 1080i/25/30/50/60, 1080p/25/30, (1080p/50/60 available on request – please contact us)	Option for HDMI v2 input supporting 4K available on request. Please contact us
Other Outputs		
USB Options	2	2
HDMI output (for video return)	✔	✔
RCP & Tally & Intercom	Optional	Optional
Store & Forward		
Local Storage	128GB (on request more GB available)	128GB (on request more GB available)
Rec & Live Stream simultanously	✔	✔
File trickle Upload via USB	✔	✔
Audio		
No of channels	2 by default (4 or 8 by s/w license)	8
Audio Format (embedded)	Embedded audio (12 - 128Kbit per channel)	Embedded audio (12 - 128Kbit per channel)
IFB Audio	1 3,5 mm Jack (mini XLR on request)	1 3,5 mm Jack (mini XLR on request)
Intercom (multi-channel audio)	1 3,5 mm Jack (mini XLR on request)	1 3,5 mm Jack (mini XLR on request)
Power		
Power requirements	14 - 20V	14 - 20V
Internal battery	On request	On request
Vlock plate	✔	✔
Anton Bauer plate	On request	On request
Main power supply (included)	4-pin XLR	4-pin XLR
Internet hotspot		
Wifi	✔	✔
Ethernet	✔	✔
Hardware		
Screen for admin/playback	✔	✔
Size	20,5 cm x 12,5 cm x 5 cm (W x B x H)	26 cm x 19 cm x 10 cm (W x B x H)
Weight	1.7 kg	3.5 kg
Ruggedized Casing	✔	✔
Operational Temperature	-5C to +45C	-5C to +45C
Decoders supported	ALL	ALL
Support		
1 year warranty	Bronze (pay-as-you-go), Silver (business hours), Gold (24/7)	Bronze (pay-as-you-go), Silver (business hours), Gold (24/7)

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