

AeroLink

HEVC 4K UHD
Airborne Transmitter



Key Features

[Dual HDR SDI Encoder \(Independent Format\)](#)

[4K Input](#)

[HEVC Dual Encoding](#)

[KLV Meta Data](#)

[AirRinc Frame](#)

[SRT/RTSP/RTP Video Output](#)

[Restful API for Integration](#)

[Asset control and monitor](#)

Typical Applications

[Law Enforcement](#)

[ISR \(Military and LE\)](#)

[First Responders](#)

[National Security](#)

[Unmanned Aerial Vehicles](#)

[Event Coverage/Sports Coverage](#)

[Newsgathering](#)

[Ship-to-Shore](#)

The AeroLink Transmission System is the next-generation component of the Vislink Airborne Video Downlink System (AVDS). It features an agile IP-based workflow that includes centralized management and distribution via the Quantum Receiver.

The AeroLink Transmission System is a full-featured 4K or 2 × 1080p 60 HEVC digital encoding video downlink solution built to address the unique requirements of aircraft downlink operations. The gains from the HEVC technology enable superior quality video with reduced bandwidth — enabling larger geographical coverage and the ability to provide instantaneous data to decision makers. AeroLink supports custom client applications and is scalable via licenses. Its flexible and modular API integrates with 3rd-party software and edge devices.

The AeroLink features IP input, wayside user data and KLV telemetry information. The video-in may be HDR/UHD HD SD SDI, ASI or composite or via Transport Stream (IP). Key data, network and penetration security features such as AES encryption and FIPS 140-2 are included, and are compliant with all aircraft regulations.

Technical Specifications	
RF	
RF Frequency Bands	
Bands Available	1.7 – 2.2 GHz, 2.0 – 2.4 GHz, 4.4 – 5.0 GHz, 6.425 – 6.540 GHz
Power	Up to 10Watt (version dependent)
Modulation 1 (DVB-T)	
Modulation Type	COFDM DVB-T
Constellation	QPSK, 16 QAM, 64QAM
Code Rate	1/2, 2/3, 3/4, 5/6, 7/8
Guard Interval	1/32, 1/16, 1/8, 1/4
Bandwidth	6/7/8 MHz
Bit Rate Max	31.7Mbps
Modulation Type	COFDM
ENCODING – VIDEO	
Video Encoder Profiles & Formats	
HEVC (H.265)	UHD, HDR HD & SD, Main 10 4:2:2 @ L5.1, 8 and 10bit sampling, 4K Native and UHD (1 Service)HD (2 Service), SD (2 Service)
MPEG-4 AVC (H.264)	HD & SD, Level 4.0, High/Main 4:2:0, 8-bit sampling
Formats	480i@29.97*, 576i@25*, 720p@50/59.94/60, 1080i@50/59.94/60*, 1080p@23.98/24/25/29.97/30/50/59.94/60, 2160p@23.98/24/25/29.97/30/50/59.94/60
Video Inputs	
Video SDI	2x SD-SDI SMPTE-259M, 2x HD-SDI SMPTE-292M, 2x 3G-SDI SMPTE-424M, 1x 12G-SDI SMPTE-2082
IP Transport Stream	10/100/1000 Base T
ASI Input/Output	MPEG-TS
ENCODING – AUDIO AND DATA	
Audio	
Audio Coding	MPEG1 Layer II, De-Embedded from SD
Audio Inputs Embedded	2 x Stereo Pairs Embedded Audios over SDI
Data	
KLV	Over UDP, SDI SMPTE 336M, MISB 0601, 603, KLV Meta Data Processing
Wayside Data	RS 232, 256 Baud
Connectors	
Main Video	2 x BNC 75Ω, 1 x 3G SDI input, 1x 12G SDI input
ASI Input/Output	1 x 75Ω BNC Female
Audio Embedded	2 BNC SDI
Power	26 Pin Chassis Receptacle
Ethernet	4 x RJ45 10/100
USB	USB 2.0
RF Output	50Ω N-Type Female

Note:

* i formats are not supported in H.264

AeroLink Datasheet



System	
Decryption	
Legacy AES	128Bit, 256Bit
BCRYPT	AES 128Bit, AES 256Bit
Test Generator	
Video Present	Remote Standby/Test Generator selectable
Test Generator (Dynamic)	SMPTE CB(NTSC)/100% CB(PAL), 1kHz and 2KHz Tone, Moving Color Bar
User Interface	
Local	Web page GUI
Remote Control Protocol	Available
Physical Remote Control	HRCF, DZUS, Serial Connection, Night Vision
Power	
Input Range	+28VDC
Power Consumption	<230
Circuit Breaker	20 AMPS
Physical	
Dimensions	3.56" (W) x 7.62" (H) x 12.56" (7.62), 9.6 (W) x 19.35 (H) x 32.19 (L) cm
Temperature Range	Full Range -20° to +50°C
Weight	< 13 lbs. or 6 kg
Regularity	
Compliance	FCC Parts 15, 90, 74 and 101 (version dependent), CE, RoHS, ETSI EN 300, 744
EMC	RTCA DO160
Optional License	
ALINK-LICE-0001	Decryption

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