



Overview:

A compact and feature-rich COFDM digital video transmitter, specifically designed for high quality wireless link applications. With proven Domo COFDM and next generation HEVC encoder technology at its core enabling Ultra High Definition images the small size and actively cooled enclosure give maximum operational performance. Designed to offer future proof connectivity, the unit supports native 12G-SDI, dual 6G-SDI, quad 3G-SDI, as well as SFP+ expansion. Two true balanced audio inputs are included with phantom power. The transmitter has an integrated control panel with sunlight-readable OLED display covering all major functions and has 16 user-defined presets, as well as IP based control.

The HEVC codec used in AEON products offers a step change in compression efficiency over H.264 systems, whilst maintaining low end to end latency suitable for live events.



Features and Benefits:

- Ultra-low latency HEVC SD, HD and 4K encoding
- Video formats up to 2160p60, 10-bit and 4:2:2 chroma sampling, future HDR support
- Industry standard DVB-T modulation for interoperability with existing systems
- Domo Broadcast UMLV modulation for enhanced high frequency/high speed performance
- Controlled via IP or integrated sunlight-readable OLED display
- Designed for sports & events coverage, newsgathering and wireless studio camera applications
- Integrated return channels for bi-direction IP connectivity and low bandwidth telemetry
- Scalable return channel for talk-back to camera control to return video
- Low power consumption and active cooling for extended field performance

Product Information:

Product Includes:

CA0002	12V DC power lead Lemo-wire 3m
CA0579	XLR audio input cable
SA4075	AEON HEVC support USB stick

Accessory Options (sold separately):

AEON-TX-HDUP	Additional transmitter HD license
AEON-DEC	AEON HEVC Decoder 1/2 1RU Rack
AEON-ENC	AEON HEVC Encoder 1/2 1RU Rack
CA0340	RS232 data input cable

Related Documents:

100249	AEON HEVC User Guide
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Technical Specification:

IO

SD/HD/3G/6G/12-SDI Inputs	2x HD-BNC
SD/HD/3G-SDI Inputs	2x HD-BNC
ASI Input	HD-BNC
ASI Output	HD-BNC
Dual Receiver SFP	SFP slot (12G-SDI host non-MSA)
Talkback Audio	2x 3.5mm jack **
Camera Interface	10-way circular Hirose **
Camera Tally	5-way 0B Lemo **
Serial Data Input	4-way 0B Lemo (CA0340 9-way D-sub)
Power Input	4-way 0B Lemo (CA0002 2 x banana)
Balanced Audio Inputs	2x 5-way 0B Lemo (CA0579 2 x XLR3)
Battery Pass-through	V-Lock or Anton Bauer plates
RF COFDM Transmitter	N-type (250mW/100mW modes) *
RF COFDM Tranceivers	N-type (2x100mW MIMO capable)
RF Telemetry Transceiver	SMA (20mW typical)
Ethernet	RJ45

DVB-T Modulation

DVB-T Bandwidth	8MHz, 7MHz and 6MHz modes
DVB-T Dual Pedestal	2x8MHz, 2x7MHz and 2x6MHz modes
DVB-T FEC	1/2, 2/3, 3/4, 5/6, 7/8
DVB-T Constellation	QPSK, 16QAM, 64QAM
DVB-T Guard Interval	1/4, 1/8, 1/16, 1/32
DVB-T Bitrates	3.732Mbps to 63.336Mbps

Narrowband/UMVL Modulation

NB Bandwidth	2.5MHz, 1.25MHz and 625kHz modes
UMVL Bandwidth	8MHz, 7MHz and 6MHz modes
NB/UMVL FEC	1/3, 2/3
NB/UMVL Constellation	QPSK, 16QAM, BPSK, 8PSK
NB/UMVL Guard Interval	1/8, 1/16
NB Bitrates	144kbps to 4.879Mbps
UMVL Bitrates	1.317kbps to 14.869Mbps

Telemetry Modulation

Telemetry Bandwidth	4.8kHz mode
Telemetry Sensitivity	-114dBm @ 4.8kHz bandwidth

Video

SD Input Format	SMPTE-259M 720x576i 50Hz 720x480i 59Hz
HD Input Format	SMPTE-292M/424M 1920x1080i 60/59.94/50Hz 1920x1080p 60/59.94/50/30/29.97/25/24/ 23.97Hz 1920x1080psf 30/29.97/25/24/23.97Hz 1280x720p 60/59.94/50Hz
Ultra HD Input Format	SMPTE ST-2081/2082 3840x2160p 60/59.94/50/30/29.94/25/24/ 23.97Hz
HEVC Compression	HEVC/H.265/MPEG-H Part 2 8-bit or 10-bit, 4:2:0 or 4:2:2
H.264 Compression	AVC/H.264/MPEG-4 Part 10
MPEG-2 Compression	H.262/MPEG-2 Part 2
HDR Support	Standards TBC **
Audio	
Analogue Audio Input	Two balanced analogue stereo pairs +24dBu max input level
Analogue Phantom Power	48V
Digital Audio Input	SD/HD/3G/6G/12G-SDI de-embedding
Sample Rate	48kHz
Coding Modes	Up to 16 channels (8 pairs) MPEG Audio Layer 2 AAC-LC HE-AAC

Other

RS232 Data Input	1k2 to 115k2, 7/8 bit, no/odd/even parity
Front Panel	Built in OLED with joystick

Encryption

Type	ABS 32-bit as standard
Licensable	AES 128/256-bit (subject to export control)



Technical Specification (con't):

Physical

Dimensions	L 190mm (170mm excluding connectors), W 115mm, (105mm excluding connectors), D 55mm (without battery plates) or D 89mm (with V-Lock plates) or D 82mm (with Anton Bauer plates)
Weight	TBC

Power

DC Input	9.2V to 17.8V reverse polarity protected
Power Consumption	Typically 25.0W @ 100mW RF power and 4K video

Environment

Temperature Range	-10 to +50 °C
Humidity	Less than 85% non-condensing

Frequency

695234044	6.40-7.50GHz + 1.98-2.70GHz + 410-480MHz
470043	4.40-5.00GHz + 433.05-434.79MHz
575043	5.50-6.00GHz + 433.05-434.79MHz

Software License Code

Silver (included)	DVB-T, Ultra Mobile Video Link (UMVL), Single HD Encoder
Gold	Silver plus DVB-T2 **
Platinum	Gold plus Single 4K and Quad HD Encoder

* Available on tri-band units only

** Future development