



ITAR FREE



Streamer Recorder HD

SDI / CXP

V3.0-10_21



ADiis is a division of EASii IC



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INTRODUCTION

ADiis designed, developed and manufacture a complete Cameras Product line for the aeronautical domain. Based on strong internal expertise and experience, ADiis manage every step of the development (Sensor selection, architecture design, schematic and layout of complex electronic boards).

ADiis cameras are dedicated to fulfill the needs of aeronautics application and the following functional features:

- CMOS "Global Shutter" image sensor: no image distortion in time (no rolling shutter effect);
- 1920x1080p60 (60 progressive frames per second), non interlaced video: no "comb" effect;
- Especially fast automatic gain control (to adapt to major and/or fast brightness changes);
- Double integration (automatic) to make it possible to "see" more detail in shaded areas (inside the cabin) and light zones (outside), and to limit glare effects;
- CoaXPRESS (1920x1080p60) digital video interface.
- H.264/H.265 video compression and streaming over Ethernet



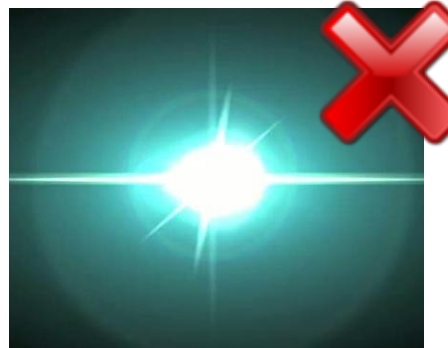
No "comb" effect



No image distortion



No back-lighting



No glare

This Product Brief describes the 2 versions of this product:

- **SDI** "Remote Video Encoder"
- **CXP** "Remote Video Encoder"

The physical dimensions and interfaces of the 2 products are the same.

Only the references of the products will differ.

The Only difference will reside in the video input standards of the 4 video inputs.

STREAMER RECORDER FEATURES

STREAMER RECORDER INPUTS/OUTPUTS

- Up to 4 video inputs with one of the 3 combinations below:
 - 4x CoaXPress up to 6.25Gbits/s with power over CoaXPress
 - 4x 3G-SDI/HD-SDI/SD-SDI
 - 2x 3G-SDI and 2x CoaXPress up to 6.25Gbits/s
- 2 Ethernet 10/100/1000 Mbits/s
- 1 Audio Stereo Input

STREAMER RECORDER FEATURES

- Video Compression up to
 - 8x 1080p30 or
 - 4x 1080p60 or
 - 1x 4Kp60
 Video stream in H.264 or H265. Please refer to §Streaming Use cases for more details.
- Local recording on a non extractible non volatile media (CFAST card)
- Streaming over Ethernet

POWER SUPPLY

- Power supply voltage: 28 VDC (18 – 36 VDC)
- Power consumption: 25-40 Watts including 4 x CoaXPress cameras powering.

VIDEO OUTPUTS

- Compressed video stream over Ethernet in MPEGTS / RTP TS / RTP.
- Low latency < 60ms.

STREAMER RECORDER / CONTROL UNIT INTERFACE

- Control through Ethernet interface with a GUI over a web browser (REST protocol).

VIDEO PROCESSING

- Camera Debayer

VIDEO TIMESTAMPING

- NTP or PTP v1 & v2 time synchronization
- Optional IRIG B and GPS time synchronization
- Time insertion into the SEI Picture Timing fields and compliant to MISB 0604 standard.
- Optional Time insertion in video pictures.
- Video text and Logo insertion (OSD).

CASING / MECHANICS

- Black anodized aluminum.
- Status Leds.
- IP66.
- Passive dissipation (fan less).
- Dimensions: 188 x 160 x 55 mm
- Weight: 1.5kg

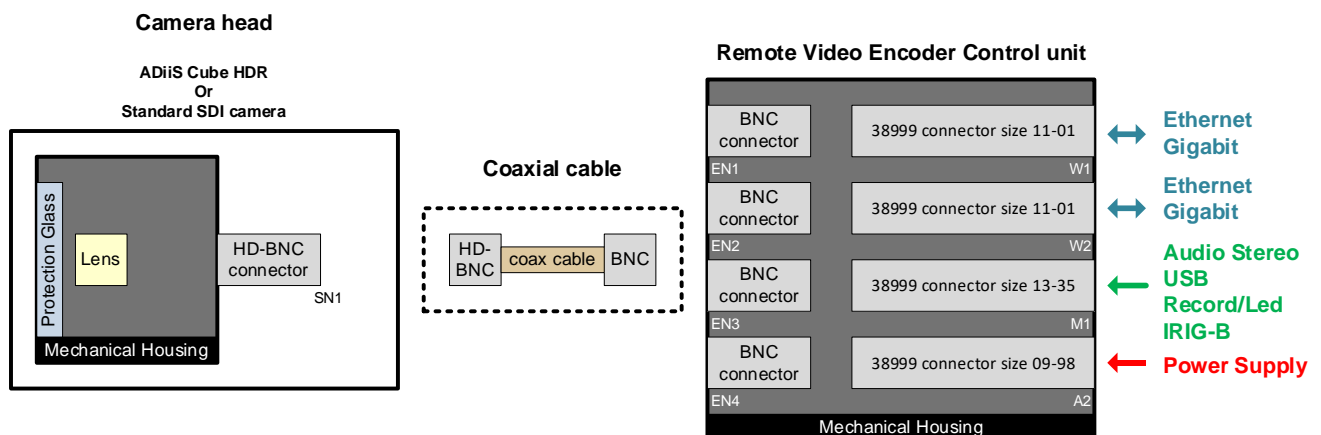
ENVIRONMENTAL SPECIFICATIONS

The Streamer Recorder is DO-160 qualified:

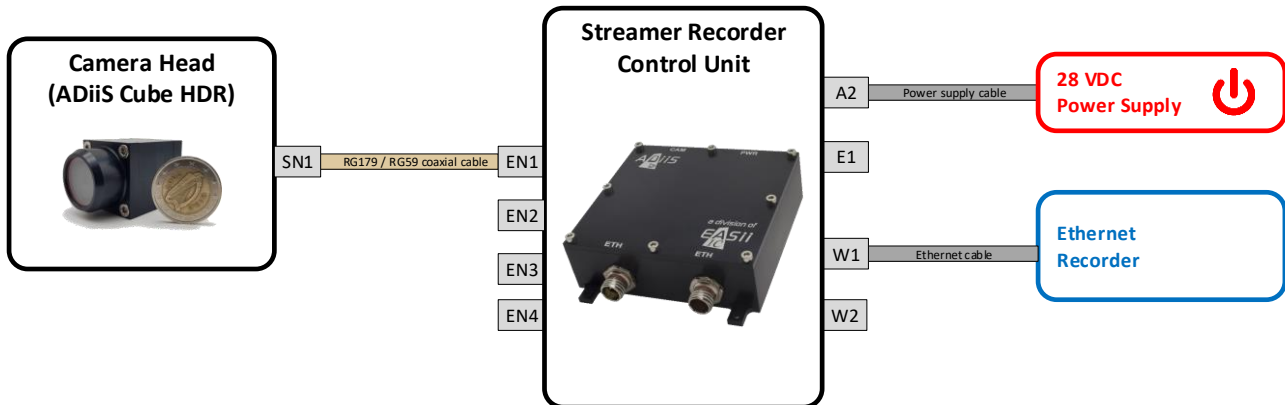
	STREAMER RECORDER Control Unit
Operational temperature	-55°C to +70°C Variation speed 10°C/min (DO-160-G §4.5.2 & §4.5.4 Cat D2)
Altitude	116 mbar (50 000 ft) (DO-160-G §4.6.1 Cat D2)
Shocks	Crash safety shock test 20g / 11ms (DO-160-G §7 Cat B)
Vibration	aircraft zone 1: Fuselage (DO-160-G §8.1 Cat S Curve C)
Acceleration	Crash safety sustained test 18g / 1 minute per axis / 6 axis (DO-160-G §8 Cat S Curve C)
Explosion	The temperature of the housing does not exceed 200°C in normal or failure operation.
EMI Radiated	(DO-160-G §21 Cat H)
EMI Conduced	(DO-160-G §21 Cat LMH)

SYSTEM CONFIGURATION

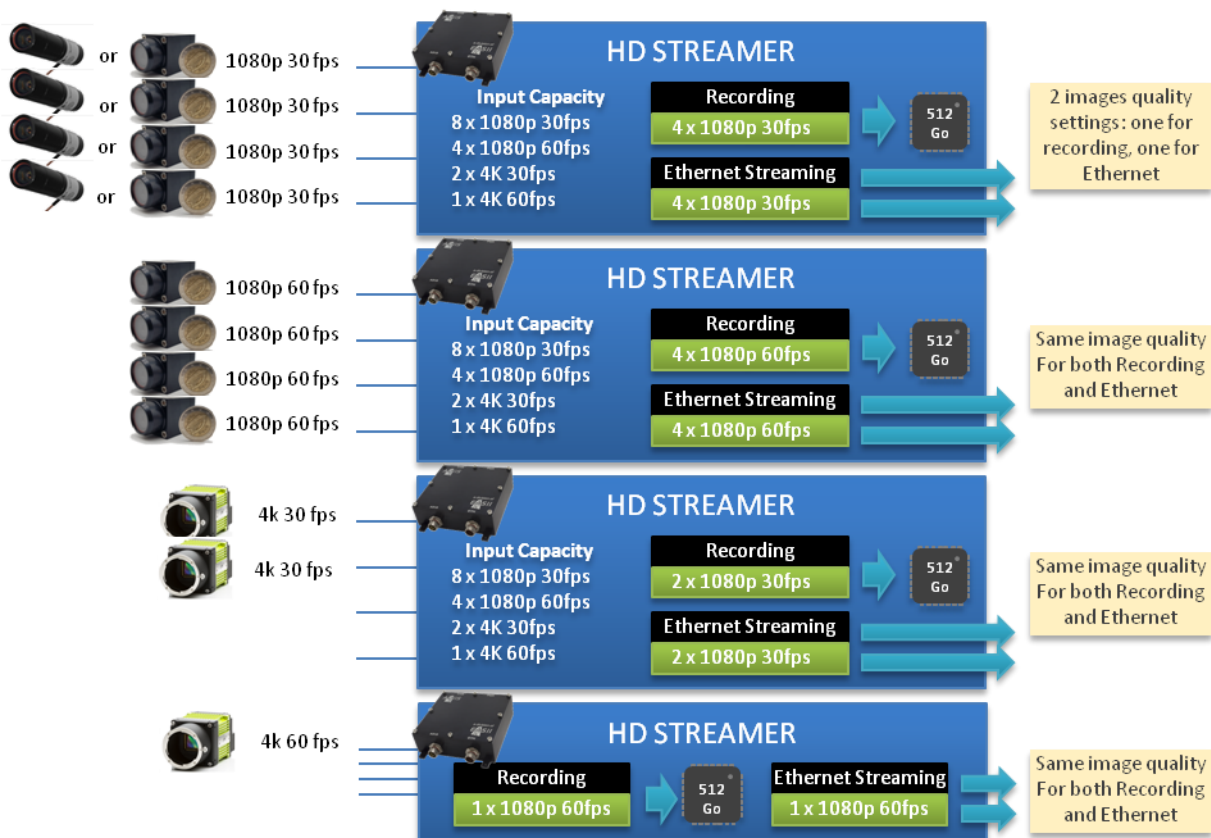
The diagrams below show system configuration examples for the Streamer Recorder HD.



Minimal system configuration



STREAMING USE CASES



CONNECTORS AND WIRING

Connectors



All connectors have the following properties (excluding camera connectors):

- MIL-DTL-38999 series III in reduced flange configuration
- Shell material: Aluminum
- Finish: nickel plating

www.adiis.fr



EASii IC

Headquarters
90, avenue Leon Blum
BP 2612
38036 Grenoble Cedex 2
FRANCE
Tél : +33 4 56 580 580
www.easii-ic.com