ATOMAS-DUO-HDMI

Multi-Purpose 4K IP Camera Video Module

The ATOMAS-DUO-HDMI encoder platform is a feature-rich IP camera video encoder solution for a wide range of single or multi camera designs. The compact form factor of the ATOMAS-DUO-HDMI platform makes it especially well suited for integration to dual camera systems with a primary HDMI zoom block and a secondary video source (digital or analog) such as a thermal camera.

Features

- Direct connect to SONY 4K zoom blocks (HDMI)
- Support for a secondary video input / camera
- H.265 (HEVC), H.264 and MJPEG video compression
- Max 4K@30FPS (3840x2160) + Max 1080p@30FPS
- Full zoom block control (VISCA, etc)
- Onvif Profile T
- 7VDC to 17VDC power input range
- Optional on-board PoE support
- Optional Wi-Fi support

One platform for single and multi camera systems.

The ATOMAS-DUO-HDMI platform is designed for direct connection to the leading 4K zoom blocks from SONY and supports other types of 4K hdmi sources. It is designed for simultaneous support of a secondary input of digital or analog / composite format, such as a thermal camera. Both cameras are processed simultaneously and published via Onvif and other IP API's for streaming / recording.

The latest video technology for optimal performance.

The ATOMAS-DUO-HDMI platform features a powerful video codec engine capable of generating multiple H.265 (HEVC) IP video streams at different quality settings. It can manage a primary video input at 4K UHD resolution at 30fps; in dual input mode it can manage a secondary input at up to Full HD (1080p) at 30fps.

Benefit from a modular approach to camera design.

The ATOMAS-DUO-HDMI platform offers multiple options, add-on modules and accessories designed to allow you to leverage the same powerful video encoder platform in all of your single input and multi input camera systems.

Choose your options	Extend using an add-on module		Select a 4K zoom block	
Secondary video input Wi-Fi connectivity 802.3af power-over-ethernet Thermal dissipation heatsink Cables & connectivity kit Custom chassis	ATOMAS-MINI-BOSON-ADAPT Provides direct connect to FLIR Boson™ 320 / 640 (60Hz) thermal camera on secondary digital video input of the ATOMAS-DUO.	ATOMAS-QUADSD Enables four (4) composite SD video cameras to be used on the secondary digital video input of the ATOMAS-DUO.	SONY FCB-ER8530 / ER8550 Similar in size to the FCB-EV series, SONY's full HD line of zoom blocks, it offers an easy interchangeable solution. 1/2.5-type Exmor R CMOS Sensor Quad Full HD 20x Optical Zoom	SONY FCB-ES8230 Using a 1.0-type sensor with large light receiving area, it produces clear, noiseless, high-definition images and offers mechanical optical stabilization. 1.0-type Exmor R CMOS Sensor Quad Full HD 12x Optical Zoom

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Standard / Integrated Interfaces

Network	1 x 10/100/1000 Base-T Ethernet (GbE) * optional Wi-Fi + Bluetooth
I/O & Audio	2 x I/O Inputs, 1 x I/O Output 3 x PWM GPIO 2 x Serial Ports (UART + RS422/485) 1 x i2c for external board control On-board microSD socket 2-ch Audio Line In + 1-ch Audio Line Out
Primary Video In	30-pin HDMI interface (KEL USL00-30L) * Matches SONY specifications or, micro HDMI interface (MOLEX 46765-2001)
Secondary Video In	30-pin multi-purpose interface (KEL USL00-30L) * Supports multiple digital video formats * Compatible with FUR Boson / QuadSD modules or, Composite video input interface
Other	3.3 VDC power output (max. 100mA) 5 VDC power output (max. 500mA)

Video Performance

Video Resolution	Supports sensor inputs at up to 4K UHD
Video Compression	H.265 (HEVC) / H.264 (MPEG-4 AVC) / MJPEG
Video Latency	Can reach less than 120ms latency
Image Processing	2D/3D noise reduction Edge enhancement Frame difference motion detection Privacy masks And more...

System

Operating System	Embedded Linux
HW Watchdog	Auto-boot, OS supervision, temperature monitoring, software monitoring
Other	Realtime Clock (RTC) & Temperature Sensor

Storage

Internal	1GB NAND Flash
External	External Storage via microSD

Software

Web GUI	System configuration and maintenance Live video and PTZ control Cross-browser support Smartphone and tablet support
Programming Interface	ION API, ONVIF Profile T, Genetec API
System Monitoring	Video signal, storage medium, temperature, memory, CPU, network
Media Recording	Recorded audio/video to SD/MMC
Software Update	Fault-tolerant, remote accessible
Alarm Triggers	I/O input, motion detection, system monitor
PTZ Control	Full PTZ implementation Can interface to any PTZ controller (i2c, UART) Programmable preset tours User-defined custom commands
Other Features	Email notifications (on event or schedule) Text overlay OEM rebranding / customization

Electrical / Mechanical / Environmental

Dimensions	52 mm x 60 mm x 8mm (WxDxH)
Power Input	7VDC to 17VDC (with VBAT for RTC) Optional add-on POE module (802.3af compliant) that can extract up to 12W of power from the Eth line
Operating Temp.	Dependent on customer mechanical design * Most components are -40C to 85C (Tcase)
COO	Designed and manufactured in Canada
Warranty	

DIMENSIONS

60mm

52mm