Jupiter Mini
Miniature AI video platform for real-time, multi-stream video intelligence

80 mm

50 mm

Jupiter Mini is a compact, intelligent video surveillance solution for tactical missions on land, in the air, and at sea. It captures, processes, and streams high-quality video and audio with ultra-low latency.

Jupiter Mini delivers reliable performance over Ethernet, integrating H.264/H.265 encoding/decoding, transcoding, display, raw-data pre-processing and AI support.

Markets and Applications

Tactical Platforms
AFV crew awareness, border security, ground ISR

HLS
Search and rescue, border protection, intelligence gathering

Military
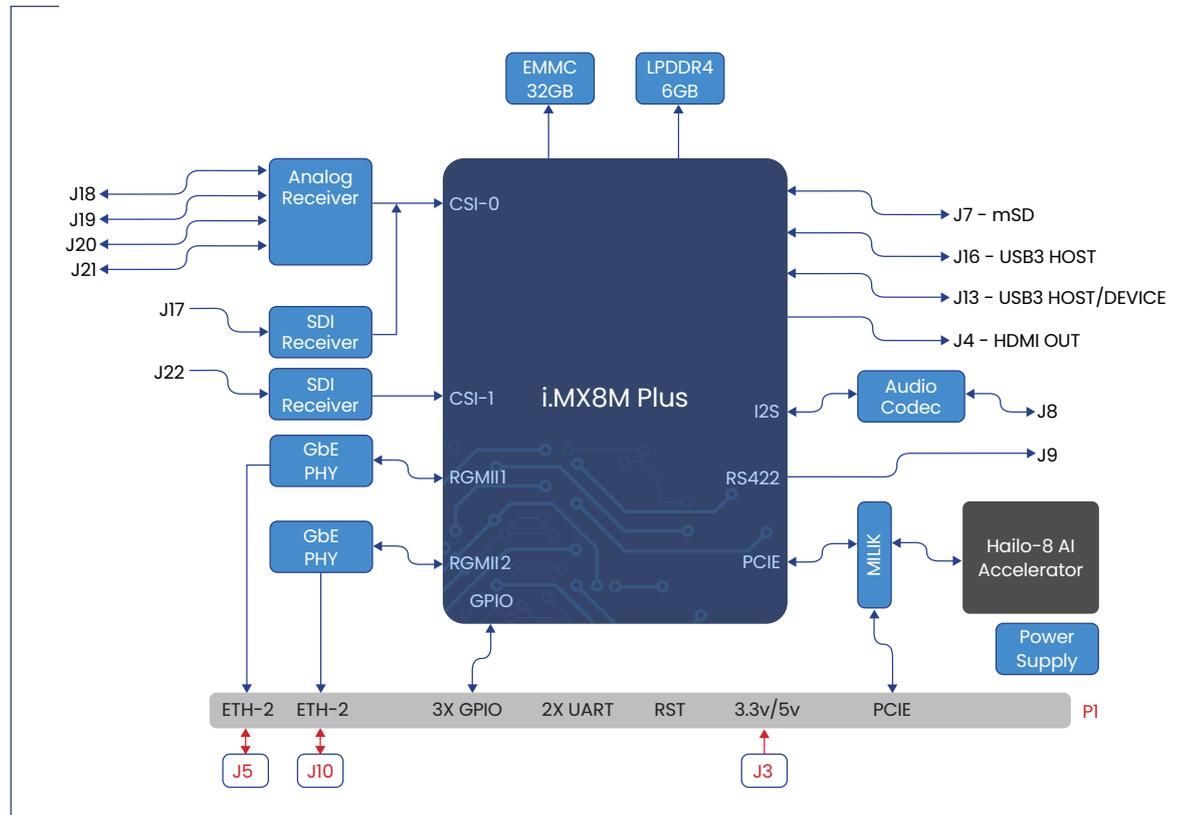Target recognition, observation, and situational awareness

Key Benefits

- Complete video pipeline: capture, encode, transcode, stream, record and display
- Edge-AI accelerator for real-time onboard analytics
- Robust, reliable communication with high-quality video and audio capture

Key Features

- Low latency streaming over Ethernet
- Dual-domain sensor inputs supporting SDI and composite sources
- H.265/H.264 multi-stream, HD video engine

- Quad-Core ARM® Cortex A53 processor up to 1.6GHz per core
- Hailo-8 AI processor
- General purpose input/output (GPIO) for device control

Block Diagram

Technical Specifications

Compute & Memory	Quad-core ARM® Cortex-A53 up to 1.6 GHz 6 GB LPDDR4
AI Acceleration	Hailo-8 neural network processor
Video & Imaging	H.264/5 multi-stream engine 1080p60 encode & 1080p60 decode
Camera Inputs	2 ports: (a) 4× composite and 1× HD-SDI, or (b) 2× HD-SDI
Networking	2× 10/100/1000 Mb Ethernet
USB	2× USB 3.0 Type-C (1× OTG, 1× Host)
Storage	32 GB eMMC onboard microSD (SD 3.0/SDXC) slot
Expansion & Control	PCIe Gen3 x1 2× UART; RS-422; GPIO
Input Voltage	3.3V–5.5V
Power	~7 W typical
Operating Temperature	−40 °C to +85 °C
Dimensions	80 × 50 mm board outline
Max Component Height	2.2 mm (B2B side)

www.maris-tech.com

sales@maris-tech.com   +972-72-2424022

Follow Us