



Smart Video & AI at the Edge for Manned and Unmanned Remote Platforms

The ability to capture, stream, process, and interpret high-quality video in real time has emerged as a key technology component for effective decision making, data analytics, and ultimately – mission success. Maris offers compact and modular video and AI architecture designed to integrate with autonomous and semi-autonomous land, sea, air, and space platforms for a wide range of applications.

Maris' sophisticated solutions offer a smart onboard architecture that enables real-time and accurate video and AI processing, such as object detection, classification, and tracking. These sophisticated capabilities make Maris the field-proven solution of choice for intelligence gathering, situational awareness, and decision-making effectiveness.



High-Performance Products at the Edge



Neptune
Nano

Single channel HD and single-channel analog SD or quad analog SD H.264 encoder/decoder
The solution acts as an encoder or decoder, handles multiple video channels and simultaneously supports:

- Video and audio capture, H.264 encoding and decoding, transcoding and display
- Video raw-data pre-processing including scaling, graphics overlay and picture-in-picture
- Transport stream (including metadata) container generation
- Video, audio and data simultaneous local recording and playback
- Streaming over Ethernet, supporting Unicast, Multicast and Broadcast in UDP, RTP and RTSP
- Supports end-to-end 100msec low latency streaming over networks
- Web-browser based control
- API-based control over networks and serial communication
- Windows, Linux and Android low latency player transcoding and display
- Video raw-data pre-processing



Mercury
Nano

Dual channel SD/HD H.264/5 encoder

- Video and audio capture, H.264/5 encoding up to 2 x 1080p6
- Video and audio simultaneous local recording
- Dual RTP in Unicast/Multicast or RTSP streaming
- 2D Forward Error Correction (FEC)
- Control via RS232 and Ethernet using API and Windows control application



Mars

Miniature wearable H.265 DVR and streamer

- Captures MIPI or CVBS cameras as well as microphone - onboard or external if connected
- Streams RTP (Unicast/ Multicast) and/or RTSP channels over Ethernet and records MP4 files on EMMC
- Able to act as USB mass storage device when connected to PC and maintains RTC with battery backup
- Set up using PC app via USB or Ethernet



Jupiter AI

Multiple channel H.264/5 video streaming, recording and powerful AI accelerator. The solution acts as an encoder or decoder, handles multiple video channels and simultaneously supports:

- Video and audio capture, encoding, decoding, transcoding and display
- Video raw-data pre-processing including scaling, graphics overlay, picture-in-picture
- Transport stream (including metadata) container generation
- Video, audio and data simultaneous local recording and playback
- ONVIF support
- Powerful onboard Hailo-8, 26 TOPS AI Accelerator enabling high AI accuracy detection and tracking as well as AI process hosting
- Streaming over wired and wireless networks, supporting Unicast, Multicast, Broadcast in UDP, RTP, RTSP with Forward Error Correction (FEC) support
- Supports end-to-end 100msec ultra-low-latency streaming over wired and wireless networks using Maris SW player for Windows, Linux and Android
- Controlled using web browser or API via Ethernet and serial ports



Jupiter Nano

Multiple channel H.264/5 streaming and recording The solution acts as an encoder or decoder, handles multiple video channels and simultaneously supports:

- Video and audio capture, encoding, decoding, transcoding and display
- Video raw-data pre-processing including scaling, graphics overlay, picture-in-picture
- Transport stream (including metadata) container generation
- Video, audio and data simultaneous local recording and playback
- ONVIF support
- Streaming over wired and wireless networks, supporting Unicast, Multicast, Broadcast in UDP, RTP, RTSP with Forward Error Correction (FEC) support
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Markets & Applications

Aerospace

UAV-mounted systems, helmet-mounted systems, aircraft and spacecraft

Surveillance

Smart city, site and infrastructure inspection, traffic control, precision agriculture, and more

Commercial Industries

Smart retail and manufacturing, high-end professional drone manufacturers, communication companies

Homeland Security

Drones, covert applications, unmanned air, land and sea applications, border and facilities protection, emergency response

Defense

UGV-mounted systems, armored vehicles, drones, weapon sights, telemetry-mounted video, tactical ISTAR, missile and target acquisition

The Maris Edge



The Maris Story: Intelligent Video Surveillance and Analytics

A global leader in high-performance integrated solutions with intelligent video transmission technologies, Maris understands, identifies, and meets the evolving needs and trends of professional industries, government and military sectors, and law enforcement for reliable intelligence and actionable insights. Maris products deliver AI-enabled, high-performance, compact, low power and low latency solutions to companies worldwide, including leading electro-optical payload, RF datalink and unmanned platform manufacturers as well as defense, HLS, and communication companies.