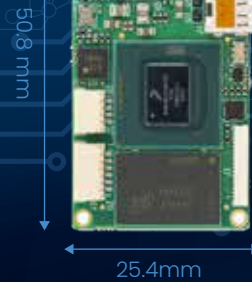


# Jupiter-Nano

## Dual channel SD/HD H.265 codec



An advanced dual channel H.264/H.265 codec, Jupiter-Nano handles multiple streams simultaneously and supports end-to-end 100msec ultra-low-latency streaming over networks using Maris SW player for Windows, Linux and Android.

Jupiter-Nano streams over wired and wireless networks, supporting Unicast, Multicast, Broadcast in UDP, RTP, RTSP with Forward Error Correction (FEC) support. Capabilities include video and audio capture, encoding, decoding, transcoding and display, and video raw-data pre-processing.

### Markets and applications

#### Professional Civilian

Autonomous vehicles,  
agriculture and visual  
inspection

#### Homeland Security

Search and rescue,  
border protection,  
intelligence gathering

#### Defense

Target recognition,  
observation, and  
situational awareness

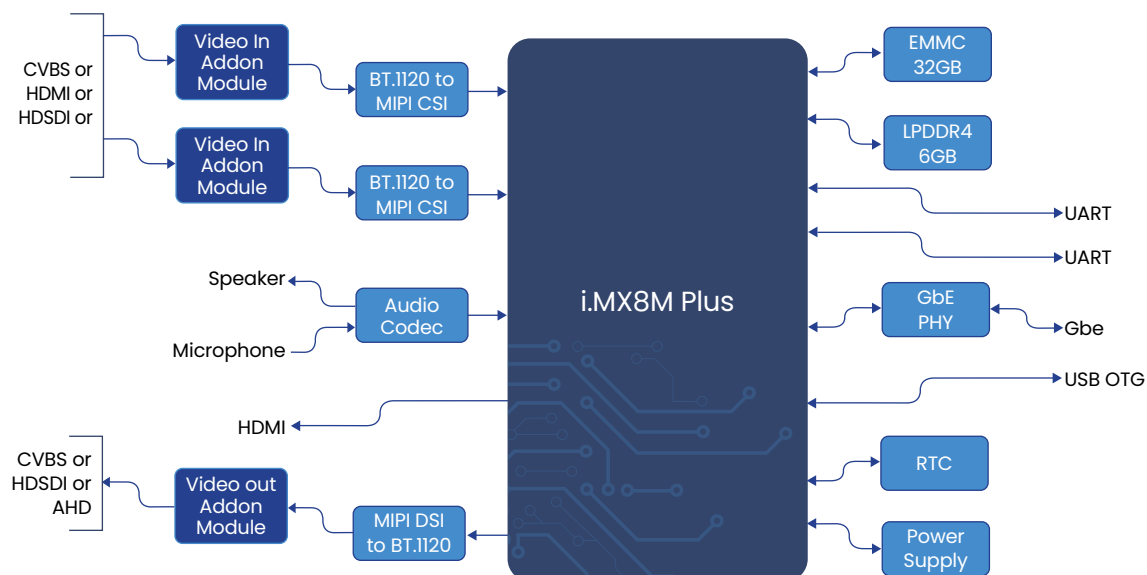
### Key Benefits

- Compact form factor
- Handles multiple streams simultaneously

### Key Features

- Acts as H.264/H.265 Encoder or Decoder and handles multiple video streams simultaneously
- Video and audio capture, encoding, decoding, transcoding and display
- Video raw-data pre-processing, including stabilization, scaling, graphics overlay, picture-in-picture
- Transport Stream (including metadata container generation)
- Video, audio and data simultaneous local recording and playback
- Streaming over wired and wireless networks, supporting Unicast, Multicast, Broadcast in UDP, RTP, RTSP with Forward Error Correction ("FEC") support
- Support end-to-end 100msec ultra-low-latency streaming over networks using Maris SW player for Windows, Linux and Android

## Block Diagram



## Technical Specifications

SoC	NXP i.MX 8M Plus
Memory	6GB LPDDR4 32GB EMMC
Display	HDMI on main board Single display port supporting the following video output transmitter: analog, HDSDI, AHD
Audio in	Microphone
Audio out	Speaker
H.264/5 codec	VBR & CBR Encoding performance: 1- 8 x D1 4 x 1080p60 2 x 1080p60 + 4 x D1 Decoding resolutions: 2 x 1080p60 1 x 1080p60 + 1 x D1
Network	GbE
Storage media	32GB EMMC
Serial interfaces	Dual UART
USB	USB - OTG
Dimensions	25.4 x 50.8 mm
Operating temperature	-40°C to +85°C
Power	5V <4W in 2 x HDSDI @ 1080p30 recording and streaming

Ref: M-P-00146-IV2.0 Date: 01/2025