

Red Mamba

IP video streaming platform



- *Red Mamba* IP video encoding board has been specifically designed for compact embedded vision systems.

Used in conjunction with a iMX6 Quad core Cortex A9 processor, this tiny and powerful module offers a h.264 hardware encoder and enables low latency video stream over Ethernet or WIFI.

FEATURES

- i.MX6 Quad Core ARM Cortex™-A9
- Low latency h.264 encoding / decoding
- Video streaming over IP & Wi-Fi
- Video inputs : LVDS, MIPI, add-on connector
- Video output : HDMI 1.4 - up to 1080p60
- ONVIF Profile S compliant
- TTL, RS485
- Local storage: Micro SD Card
- Compact, low power consumption
- Embedded Linux
- Setup/update via custom Website

- **Main functionalities**

Red Mamba is a powerful embedded vision module that integrates h.264 hardware encoder and enables video stream over Ethernet & Wi-Fi.

This pocket size streaming platform is ideal for a wide range of applications.

- **Customizable Platform**

Red Mamba offers a ready-to-use embedded solution that can be easily integrated to your new or existing system.

Red Mamba is a scalable module that features a board to board connector dedicated to host an additional PCBA to fit custom specifications (video inputs/outputs, sensors, RTC, audio, POE...)

- **Flexible & cost effective solution**

Based on an embedded Linux OS, *Red Mamba* offers flexibility to developers by using a solution which comes with a complete set of tools & libraries (SDK).

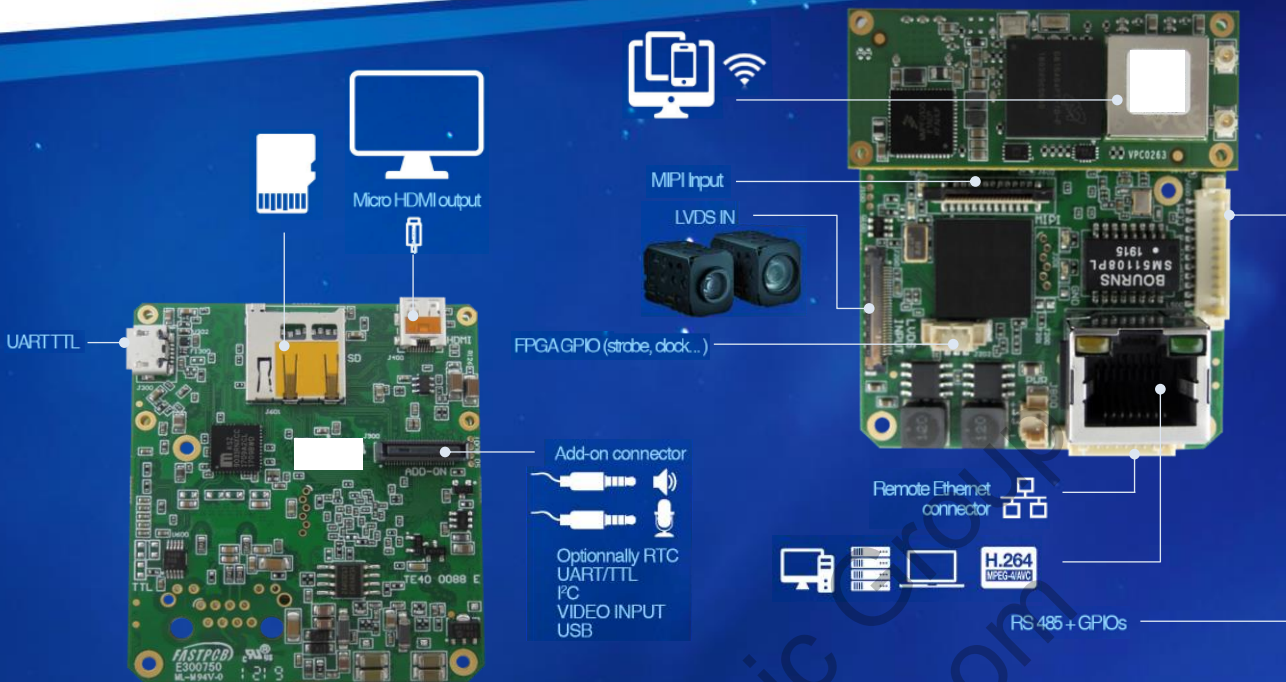
This smart video platform is ideal for customer to easily implement their video processing algorithms and develop their customized software application.

TARGET APPLICATIONS



Medical / Video conferencing / Transport & surveillance / Automatic Number Plate recognition (ANPR)
Unmanned Aerial Vehicles (UAVs) / Remotely Operated Underwater Vehicles (ROVs)
Inspection / Industrial automation / Robotics / Low vision

Onboard Connectors



Red Mamba – IP Video streaming platform

Multimedia

Video encoding	h.264 Baseline Profile, MJPEG, MPEG4 – up to 1080p30
Video decoding	h.264 Baseline, Main, High Profile – Up to 1080p60
Streaming	RTSP stream (128 to 20000 Kbit/s) – RTSP Low FPS – RTP multicast – RTP MPEG2TS

Video Input

LVDS	x1
MIPI	x1
ADD-ON	x1

Video Output

HDMI	x1 – 1.4a (1920x1080)
Ethernet	10/100 Mbit/s Ethernet (Remote RJ45)
WI-FI	802.11 a/b/g/n + MIMO

Connectivity

RS485	up to 1 – VISCA/PELCO protocol
UART	up to 2
GPIO's	up to 8
I ² C	via add-on connector
SD Card slot	x1

CPU

CPU Name/type	NXP/ Freescale i.MX6 Quad core ARM® CortexTM-A9 Core
CPU clock (Max) Memory	up to 800MHz

Memory

LPDDR2 RAM	up to 1GB
eMMC NAND Flash (8bit) OS Support	up to 64GB eMMC storage

OS Support

Linux	Yocto, Linux
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Electronic specifications

Supply voltage	6 to 12VDC
Digital I/O voltage	3.3V

Environmental specifications

Operating temperature range	0 °C to 60 °C
Storage temperature range	-20 °C to 60 °C

Mechanical specifications

Dimensions (W x L x H)	50 mm x 57 mm x 15 mm (Remote RJ45 connector)
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