Red Mamba Neo
IP video streaming platform

Red Mamba Neo IP video encoding module has been specifically designed for compact embedded vision systems.

Combined with a iMX 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**.

o Easy configuration

Red Mamba Neo is a powerful embedded **video encoder** with its own custom website. It allows you to enable the features you need and setup all the system.

The possibility to **update by distance** the board via Ethernet is a big advantage for that evolving system.

o Customizable platform

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

It is a scalable module that features **a board-to-board connector** dedicated to host an additional PCB to **fit custom specifications** (video inputs/outputs, sensors, RTC, audio, POE…)

o Flexible & cost effective solution

Based on an embedded Linux OS, **Red Mamba Neo** offers **flexibility** to developers by using a solution which comes with a complete set of tools & libraries (**SDK**).
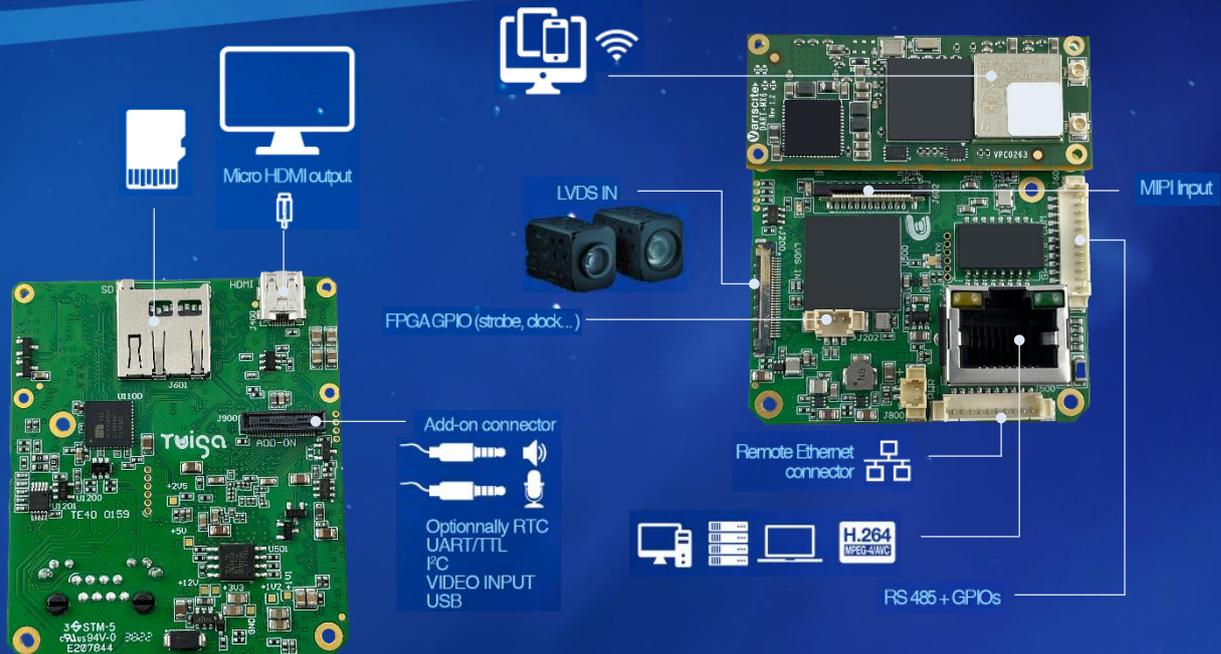
This pocket size streaming platform is ideal for a wide range of applications.

FEATURES

- o i.MX Quad Core ARM Cortex™-A9
- o Low latency h.264 encoding
- o Video streaming over IP & Wi-Fi supporting several protocols: RTSP, RTP multicast, RTP MPEG2TS
- o Video inputs: LVDS, MIPI, add-on connector
- o Video output: HDMI 1.4 - up to 1080p60
- o Video format detection
- o Communication: RS485 or UART TTL
- o Record and snapshot available
- o Storage: local and micro-SD card slot
- o Embedded Linux
- o Setup and update via custom Website
- o ONVIF Profile S compliant

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

Micro HDMI output

LVDS IN

MIPI Input

FPGA GPIO (strobe, clock...)

Add-on connector

Optionnally RTC
UART/TTL
I²C
VIDEO INPUT
USB

Remote Ethernet connector

H.264
MPEG-4/AVC

RS 485 + GPIOs

Red Mamba Neo – IP Video streaming platform	
Product code	TV20 0011
Multimedia	
Video encoding	h.264 Baseline Profile – up to 1080p30
Video decoding	h.264 Baseline, Main, High Profile – Up to 1080p60
Streaming	RTSP stream (128 to 20000 Kbit/s) – 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
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
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)