



- ▶ Single Board Computer based on solderable, pin-compatible DHCOS STM32MP2x SOM
- ▶ Industrial grade, 10+ years available
- ▶ Mainline Linux support (also for Vivante GPU)
- ▶ Security Features e.g. Secure Boot / Storage
- ▶ Connectivity: Gbit Ethernet, WiFi/BT
- ▶ Multimedia: 3D GPU, display, video, camera
- ▶ STPMIC25 supports low power modes

## Technical Data

Board type	Single Board Computer
CPU details	2x ARM Cortex-A35 with 1.2 GHz 1x ARM Cortex-M33 up to 400 MHz
CPU vendor	ST
CPU type	Cortex-A35, Cortex-M33
Co-processor available	yes
Number of cores	2

PMIC	STPMIC25D
Features	Neuronal Processing Unit (NPU) VeriSilicon® with up to 900 MHz and 1.35 TOPS   Video decode / encode H264 up to 1080p60
Security	Secure boot   TrustZone® peripherals   active tamper   environmental monitors   display secure layers   hardware accelerators   Complete resource isolation framework   “On-the-fly” DDR encryption/decryption (AES-128)
LPDDR4 DRAM	4 GB
DRAM details	LPDDR4-2400 32-bit
eMMC flash	16 GB
SPI NOR flash	4 MB
EEPROM	4 kB
microSD socket	yes
Additional RTC	Temp. compensated RTC RV-3032-C7
Bluetooth available	yes
Bluetooth version	Bluetooth® v5.4 BR/EDR/LE
WiFi available	yes
WiFi version	Tri band 2.4 GHz, 5 GHz and 6 GHz for IEEE802.11a/b/g/n/ac/ax
Ethernet	2x 1 Gbit/s
USB	1x USB-C 3.2 Gen 1x1 with DisplayPort alt. mode support 1x USB 2.0 high-speed
LVDS	1x Dual Link, 2x 4-lane LVDS connector   Up to 1.1 Gbit/s per lane   Up to QXGA (2048 × 1536) @60 fps

MIPI-CSI2	1x 2-lanes connector   up to 2.5 Gbit/s   5 Mpixels @30 fps
UART (serial console)	1x TTL
TPM (Trusted Platform Module)	TPM 2.0 device ST33KTPM2I
Battery connector	1x PicoBlade coin cell connector
Buttons	1x power, 1x reset
Boot mode	4 bit boot mode switch
Debug interface	JTAG
BSP	Linux Yocto (Debian on request)
Power supply	5 VDC, USB Type-C power supply port
Dimensions	85 x 56 x 18 mm

## Raspberry Pi 40-pin Expansion

I2C	1x
UART	2x (with RTS and CTS)
SPI	1x (QPSI on request)
I2S/SAI	1x
PWM	2x
CAN	2x
GPIO	up to 28x

## Block Diagrams

