Common Resources

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Internal Communication Lines

The device is equipped with multiple internal communication lines of the following types:

- SPI
- I2C
- UART

SPI

The device is equipped with the following SPI communication lines.

SPI1

Signal	Processor pin	Default function
Chip select 0	AD18	SPI1_CS0
Chip select 1	AG23	SPI1_CS1
Master in slave out	A7	SPI1_MISO
Clock	D6	SPI1_SCLK
Master out slave in	B7	SPI1_MOSI

SPI2

Signal	Processor pin	Default function
Chip select 0	A6	SPI2_CS0
Chip select 1	AF12	SPI2_CS1
Chip select 2	AB19	SPI2_CS2
Master in slave out	A8	SPI2_MISO

Signal	Processor pin	Default function
Clock	E6	SPI2_SCLK
Master out slave in	B8	SPI2_MOSI

I2C

The device is equipped with the following I2C communication lines.

I2C2

Device name: **/dev/i2c-1**

Signal	Processor pin	Default function
Clock	D10	I2C2_SCL
Data	D9	I2C2_SDA

I2C3

Device name: **/dev/i2c-2**

Signal	Processor pin	Default function
Clock	E10	I2C3_SCL
Data	F10	I2C3_SDA

I2C4

Device name: **/dev/i2c-3**

Signal	Processor pin	Default function
Clock	D13	I2C4_SCL
Data	E13	I2C4_SDA

UART

The device is equipped with the following UART communication lines.

UART1

Device name: **/dev/ttymxc0**

Signal	Processor pin	Default function
Receive (UART1 RX)	E14	UART1_RXD
Transmit (UART1 TX)	F13	UART1_TXD

UART2

Device name: **/dev/ttymxc1**

Signal	Processor pin	Default function
Receive (UART2 RX)	X	UART2_RXD
Transmit (UART2 TX)	X	UART2_TXD

UART3

Device name: **/dev/ttymxc2**

Signal	Processor pin	Default function
Receive (UART3 RX)	E18	UART3_RXD
Transmit (UART3 TX)	D18	UART3_TXD

UART4

Device name: **/dev/ttymxc3**

Signal	Processor pin	Default function
Receive (UART4 RX)	F19	UART4_RXD
Transmit (UART4 TX)	F18	UART4_TXD

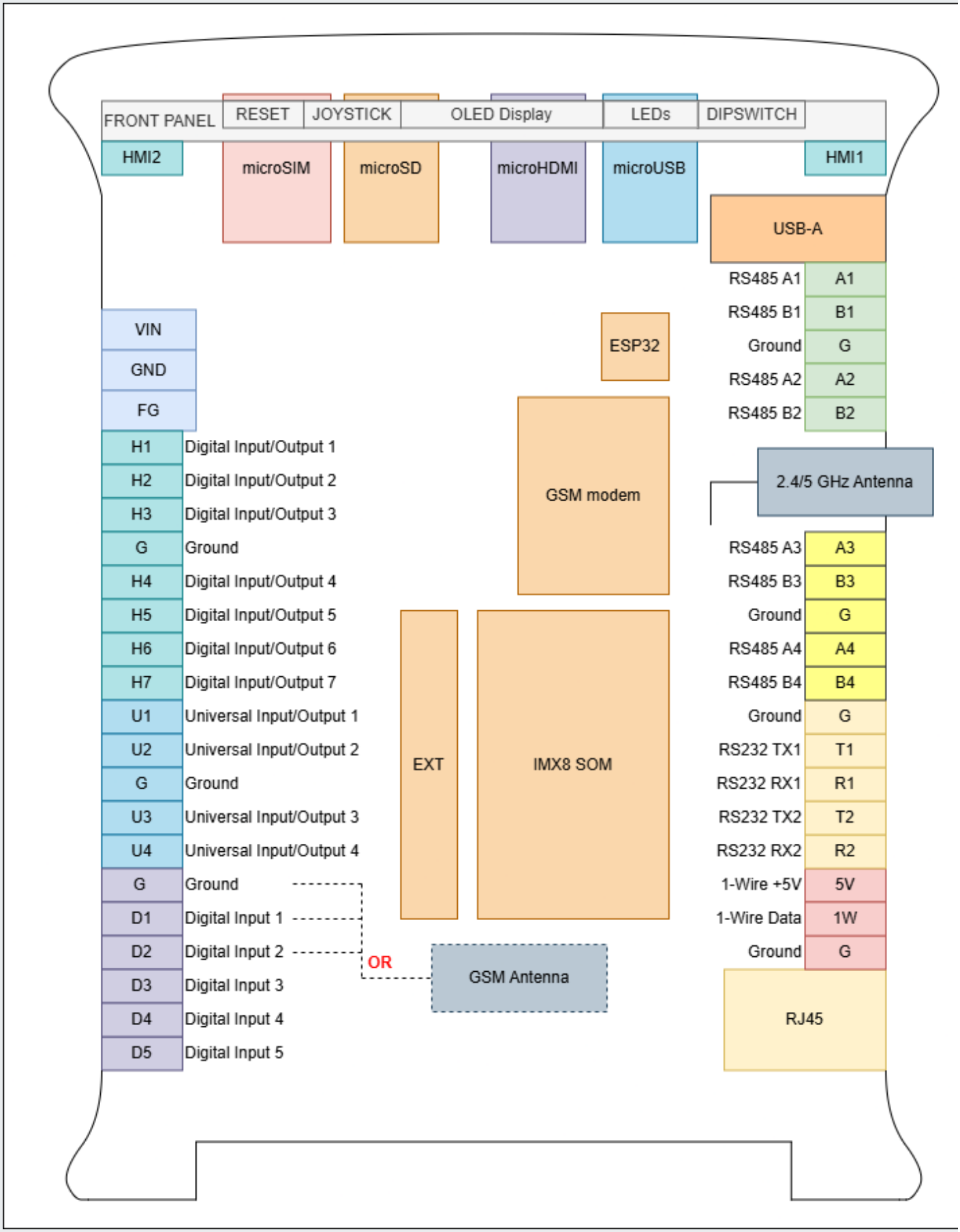
Introduction

Tiger City IMX Industrial Computer with Linux OS

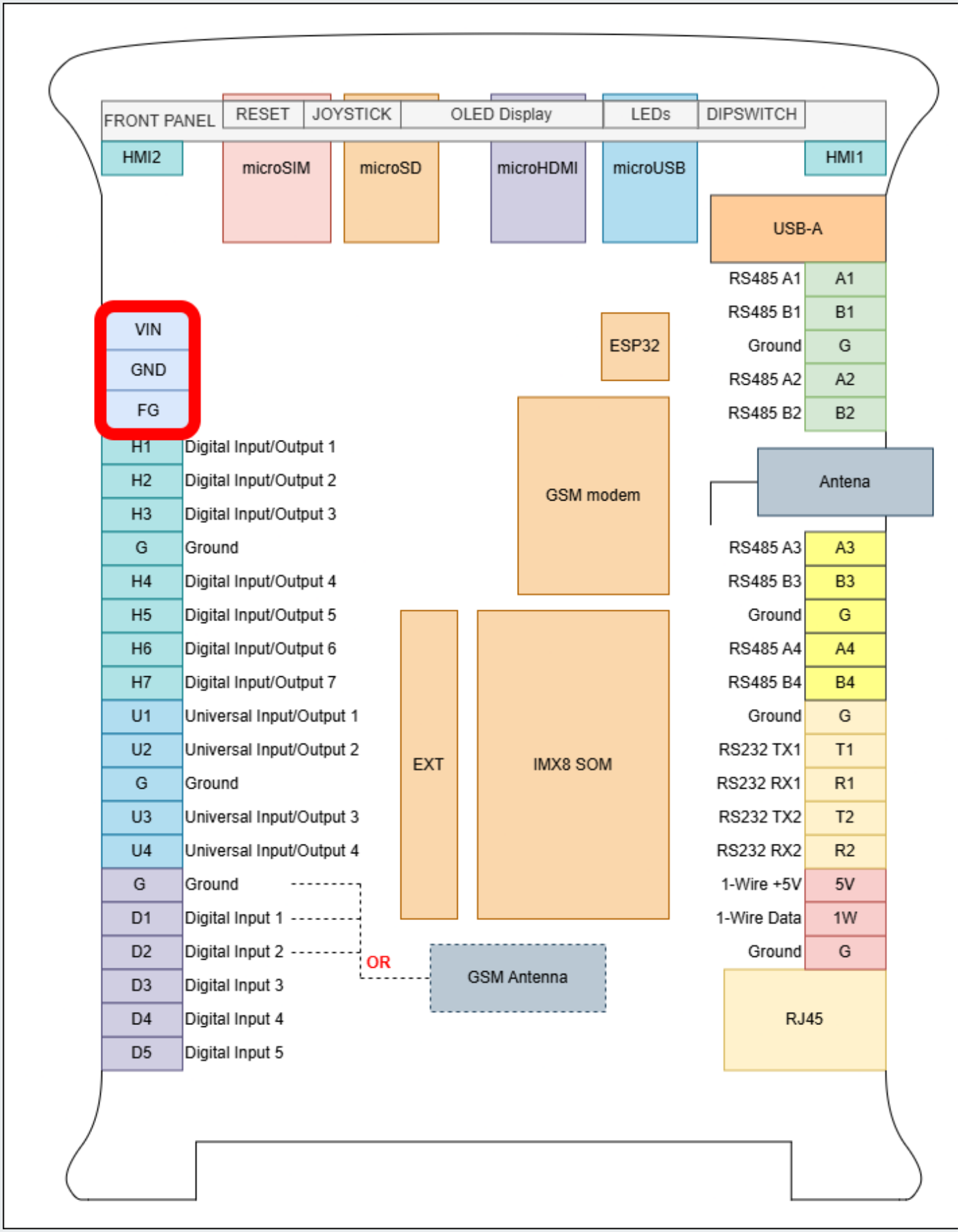
The Tiger City IMX minicomputer uses Linux operating systems and is equipped with several communication interfaces such as: Ethernet, USB 2.0, HDMI, GSM, RS232, RS485, 1-Wire and multiple analog-digital inputs and outputs. It can also be configured to include a Wi-Fi module and encryption modules that increase the security of the device. The casing enables installation on the DIN rail. The front panel has switches, an OLED display and a joystick for manual control of the device operation.

Drawings

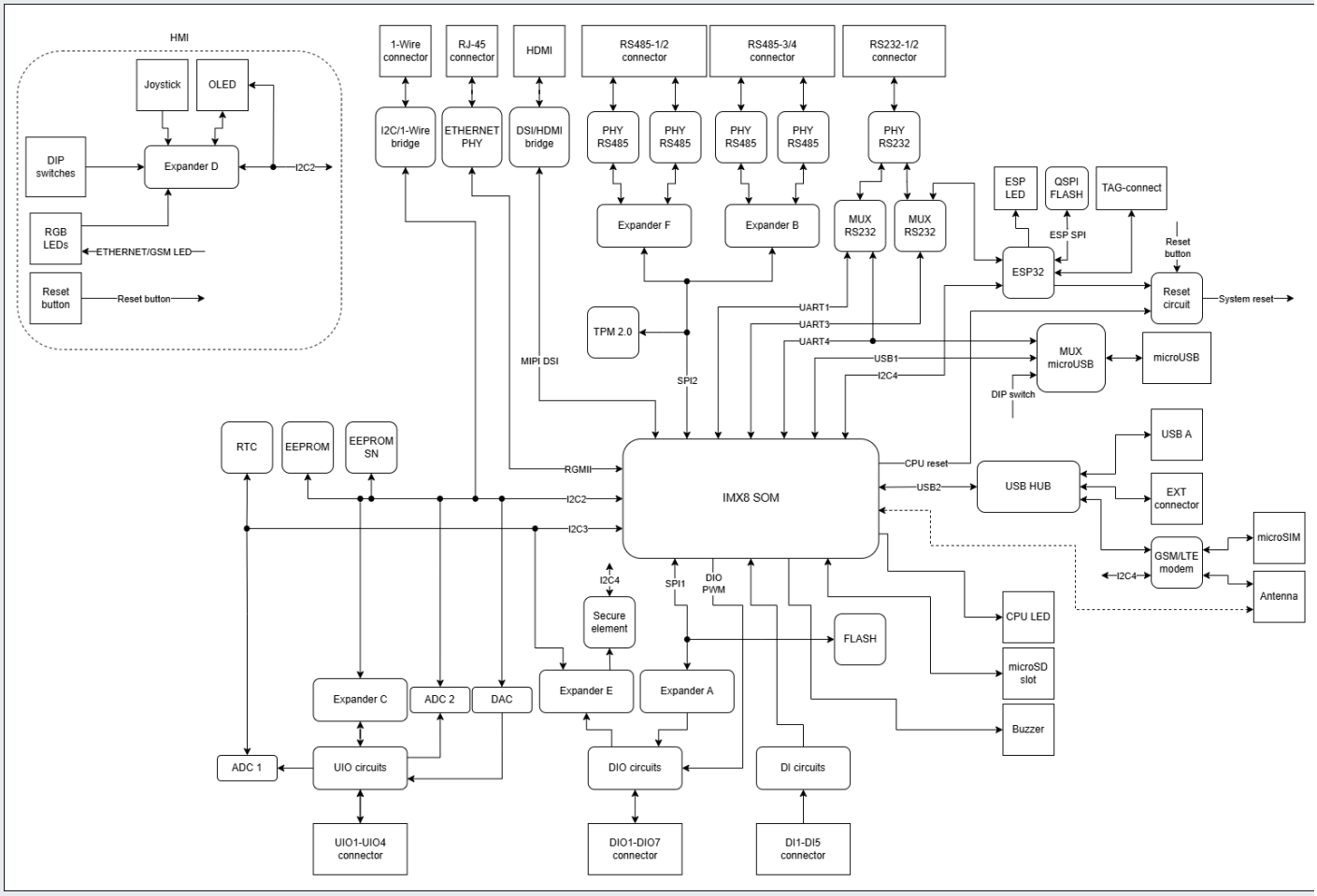
Placement of peripherals



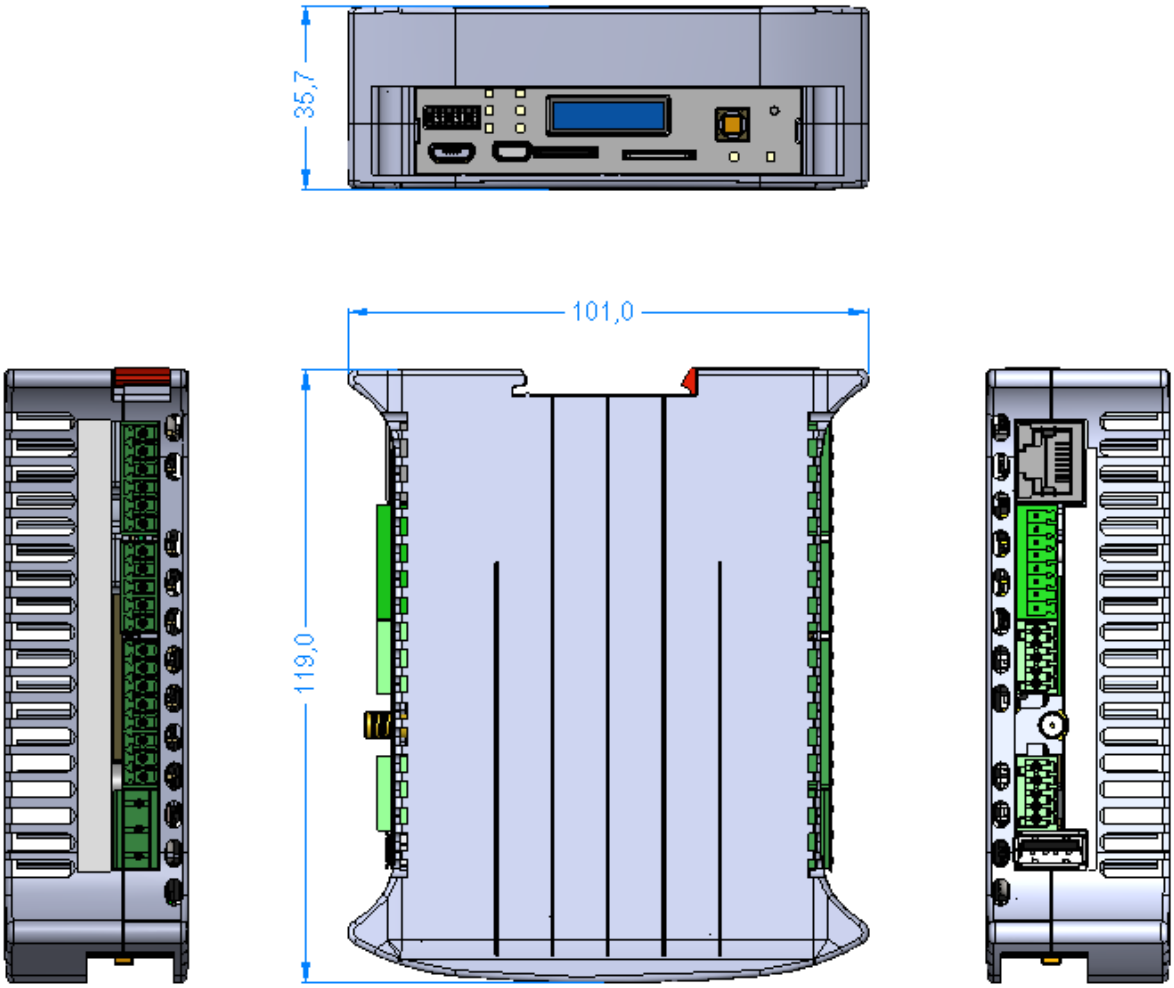
Power supply



Detailed connections diagram


HMI
Joystick
OLED
DIP switches
Expander D
I2C2
RGB LEDs
ETHERNET/GSM LED
Reset button
Reset button
1-Wire connector
RJ-45 connector
HDMI
RS485-1/2 connector
RS485-3/4 connector
RS232-1/2 connector
I2C/1-Wire bridge
ETHERNET PHY
DSI/HDMI bridge
PHY RS485
PHY RS485
PHY RS485
PHY RS485
PHY RS232
Expander F
Expander B
MUX RS232
MUX RS232
ESP LED
QSPI FLASH
TAG-connect
ESP SPI
ESP32
Reset button
Reset circuit
System reset
TPM 2.0
UART1
UART3
UART4
USB1
I2C4
MUX microUSB
microUSB
DIP switch
MIPI DSI
SPI2
RTC
EEPROM
EEPROM SN
RGMII
I2C2
I2C3
IMX8 SOM
CPU reset
USB2
USB HUB
USB A
EXT connector
GSM/LTE modem
microSIM
I2C4
Antenna
I2C4
SPI1
DIO PWM
Secure element
FLASH
CPU LED
microSD slot
Buzzer
Expander C
ADC 2
DAC
Expander E
Expander A
ADC 1
UIO circuits
DIO circuits
DI circuits
UIO1-UIO4 connector
DIO1-DIO7 connector
DI1-DI5 connector

Enclosure


35,7
101,0
119,0