

# Common Resources

Source of common resources used across the Open IoT and IIoT Gateways documentation

- [Tables](#)
- [Introduction](#)

# Tables

## Specifications

Redisage PN		P10	P11	P12
Ports	RS232	4x	-	2x
	RS485	-	4x	2x
	RS232/RS485	-	-	-
Microcontroller		STM32		
WiFi		N/A		
Bluetooth		N/A		
SMA socket connector for WiFi/BT antenna		:x:		
Tactile switch		:white_check_mark:		
Power	Voltage	12-30 VDC		
	Power	< 1 W		
Frame ground protection		yes		
Baud rate		up to 115200 bps		
LED indicators		power, link activity, programmable RGB		

Redisage PN		P10	P11	P12
RS485 termination		120 ohm manually enabled		
Connector	RS232/RS485	8-pin terminal block max. 2.5 mm <sup>2</sup> wire		
	Power	3-pin terminal block max. 2.5 mm <sup>2</sup> wire		
	Ethernet	RJ45		
Transmission distance	RS485	max. 1,200 m at 9.6 kbps; max. 400 m at 115.2 kbps (Belden 9841 2P twisted-pair cable, if different cables are used, the transmission distance may change)		
	RS232	max. 15 m at 115.2 kbps		
Mounting and enclosure		DIN rail, plastic PA - UL 94 V0, black/green		
Temperatures		-40°C to +75°C operating and storage		
Humidity		10 - 90% RH, non-condensing		
ESD protection		±4 kV contact discharge / ±8 kV air discharge		
Certification		CE, RoHS		

## Pin assignments





P10

**P10** Open IoT  
Ethernet Gateway

012345678901234

Power: --- 12-30V/DC < 1W  
Temperature: -40°C + 75°C  
Port: 4xRS232 ETH  
Ethernet: 10/100BaseT  
MAC Add: #####MAC1#####  
REV1 MADE IN EU

4 Gnd	8 Tx2	12 Rx3	Ethernet RJ45
3 FG	7 Rx2	11 Tx3	
2 Vin2	6 Tx1	10 Tx4	
1 Vin1	5 Rx1	9 Rx4	

  **RoHS**  
COMPLIANT  
 **Redisage**  
ELECTRONICS 





P11

**P11** Open IoT Gateway  
4xRS485

012345678901234

Power: --- 12-30V/DC < 1W  
Temperature: -40°C + 75°C  
Port: 4xRS485 ETHERNET  
Ethernet: 10/100BaseT  
MAC Add: #####MAC1#####  
REV1 MADE IN EU

4 Gnd	8 A4	12 B2	Ethernet RJ45
3 FG	7 B4	11 A2	
2 Vin2	6 A3	10 B1	
1 Vin1	5 B3	9 A1	

  **RoHS**  
COMPLIANT  
 **Redisage**  
ELECTRONICS 

A1 B1 A2 B2

SC SC

220 220

SC - Software Control





P12

**P12** Open IoT Gateway  
2xRS232 2xRS485

012345678901234

Power: --- 12-30V/DC < 1W  
Temperature: -40°C + 75°C  
Port: 2xRS232 2xRS485 ETH  
Ethernet: 10/100BaseT  
MAC Add: #####MAC1#####  
REV1 MADE IN EU

4 Vin	8 Tx2	12 A2	Ethernet RJ45
3 Gnd	7 Rx2	11 B2	
2 Din	6 Tx1	10 A1	
1 FG	5 Rx1	9 B1	

  **RoHS**  
COMPLIANT  
 **Redisage**  
ELECTRONICS 

A1 B1 A2 B2

SC SC

220 220

SC - Software Control

# Introduction

## STM32 Open IoT and IIoT Gateways (P10 - P12)

Open IoT Gateway is also called as a PAC (Programmable Automation Controller). PAC products combine the functionality and openness of PC, the reliability of a programmable logic unit like PLC and the intelligence of I/O modules with flexible software tools for a wide range of applications from data acquisition, process control, motion control to energy and building management.

Our PAC family includes FreeRTOS PACs for different requirements in OS, CPU and development platforms.

The P10 - P12 gateways are based on **STM32 ARM Cortex-M4**.