

# Common Resources

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

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# 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, EMC, LVD					
Norms		61000-6-2 - Immunity standard for industrial environments 61000-6-4 - Emission standard for industrial environments					

## Pin assignments

P10

P11

**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	

CE RoHS COMPLIANT

Redisage ELECTRONICS

**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	

A1 B1 A2 B2





SC SC

220 220

SC - Software Control

CE RoHS COMPLIANT

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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	

A1 B1 A2 B2





SC SC

220 220

SC - Software Control

CE RoHS COMPLIANT

Redisage ELECTRONICS

# 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**.