JPEMBEDDED
Embedding ideas

SMART GRID / IOT PROTOCOL CONVERTER

JPEmbedded's protocol converter enables the communication between the IoT and Intelligent Electronic Devices (IEDs). It converts the most popular protocols like MQTT, Modbus, IEC 61850, or DNP3. The converter may be ordered as a standalone gateway, easily mountable at din-rail or, as a hardware module to integrate into the device.

JPE APIS protocol converter - standalone version

KEY FEATURES

· Any to any protocol converter.

· Conversion of various protocols: MQTT, Modbus RTU, Modbus TCP, IEC 61850, DNP3, IEC 60870-5-103, IEC 60870-5-104.·

· Different physical interfaces: CAN, I2C, SPI, RS 485, Ethernet.

· Manageable switch with two ports.

· User-friendly mapping and configuration interface (dedicted application - Drosera).

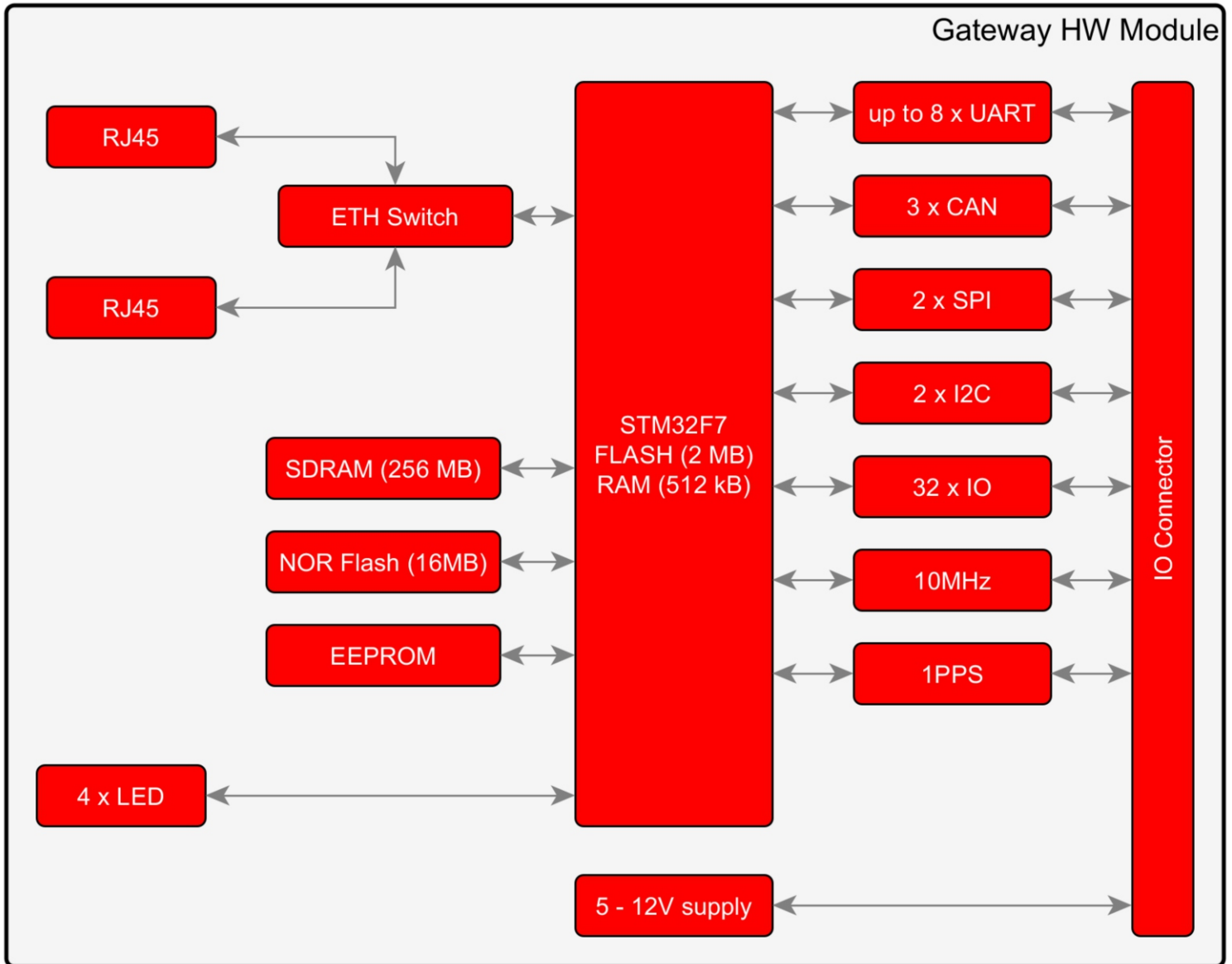· Available in various software and hardware versions.

DEDICATED MAPPING APPLICATION

The Dedicated Drosera application allows simple and fast configuration of JPEmbedded protocol converters. This tool is addressed especially to integrators and device manufacturers and does not require any programming knowledge. The intuitive user interface provides access to configuration and mappings along with performing the operations necessary to establish reliable communication between JPEmbedded's gateways and third-party devices.

APIS PROTOCOL CONVERTER - SYSTEM ARCHITECTURE

Gateway HW Module

RJ45

ETH Switch

RJ45

STM32F7
FLASH (2 MB)
RAM (512 kB)

SDRAM (256 MB)

NOR Flash (16MB)

EEPROM

4 x LED

5 - 12V supply

up to 8 x UART

3 x CAN

2 x SPI

2 x I2C

32 x IO

10MHz

1PPS

IO Connector

PROTOCOLS

MQTT, IEC 61850, DNP3, Modbus RTU, Modbus TCP, IEC 60870-5-101, IEC 60870-5-103, IEC 60870-5-104

TECHNICAL SPECIFICATION

System		Inputs and outputs	Mechanical	
			Casing dim.	110x45x120 mm
CPU	STM32F7, 216MHz	UART x 2	Installation	DIN-Rail mount
Memory	16MB SDRAM	CAN x 2	PCB dim.	49x18x96 mm
	16MB Nor Flash	SPI x 2		
	2MB Nand Flash	I2C x 2	Power supply	
		SD	12V - 50V DC	
OS	FreeRTOS	USB AB	110V-220V AC	
		GPIO x 32		
LED	4 configurable LEDs	1 PPS signal	Environmental	
		10 MHz signal	Operating Temp.	-20÷60℃
			Storage Temp.	-30÷80℃

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