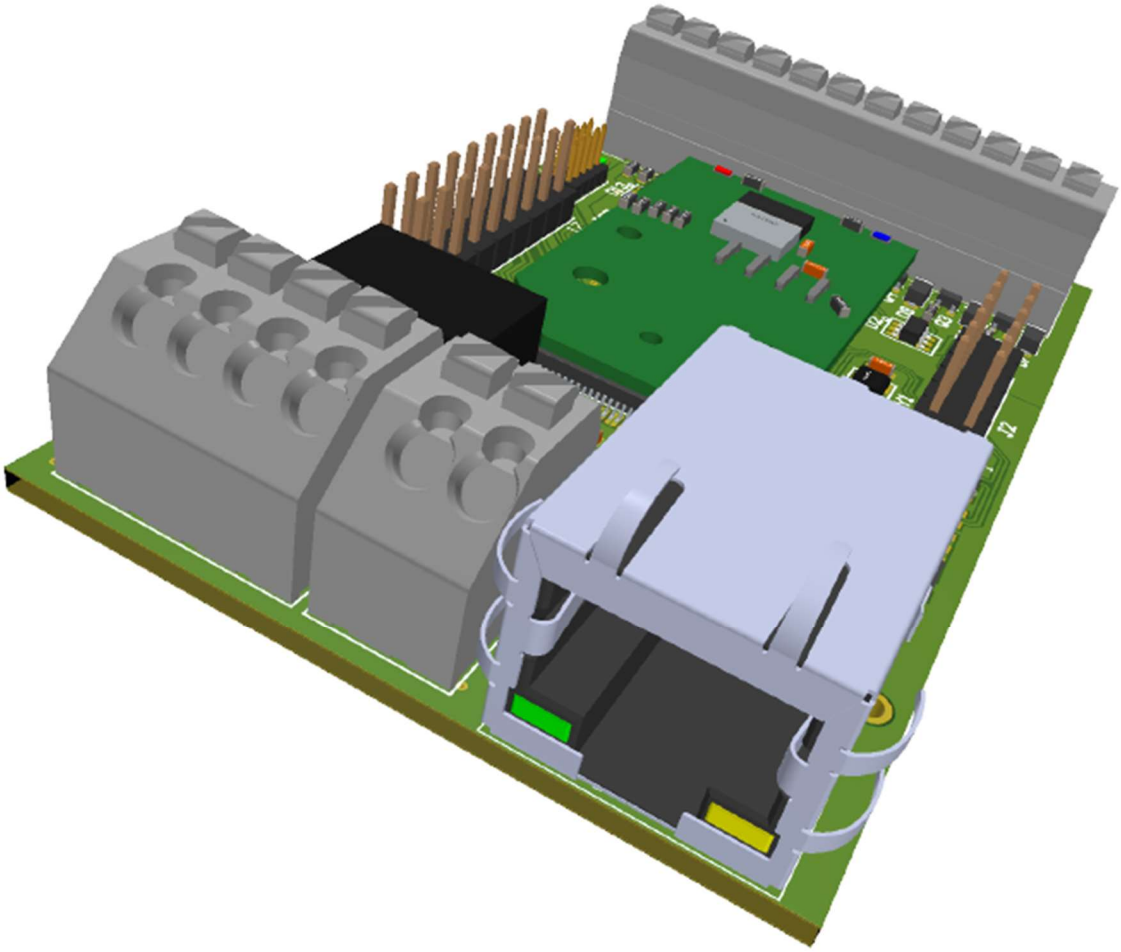
MACK HOME CONTROLLER MODULE

VERSION 1.0



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Created on: 29.01.2022
Last change on: 31.01.2022

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Datasheet Change history

Date	Version	Author	Changes
29.01.2022	1.0	Jenish Bed	Creation of the functional specification datasheet for MACK Dali light control via PoE with Modbus

Table 1: Datasheet history

1. Introduction

The MACK Dali light control via PoE with Modbus PCB is the first of new generation of Dali Light control module and with significantly enhance CPU, Input & Output pins.

2. Features

- Complete MACK DALI Light Control via PoE with Modbus PCB is ruining with POE (**P**ower **O**ver **E**thernet) or big range external power supply.
- Operating external voltage is between 24V to 50V with reverse polarity protection
- MACK DALI Light Control PCB working with Renesas Synergy Controller
  - Maximum operating frequency: 240MHz
  - Up to 4-MB code flash memory
  - 64-KB data flash memory
- Operating Voltage
  - +24V with reverse polarity protection
- Operating Temperature
  - 0°C to +85°C
- Connectivity
  - Ethernet MAC Controller
  - 2 x PT1000 temperature sensor
  - 5 x Input Voltage
  - 5 x Open Collector Output
  - 2 x 0V to 10V output control via app

3. Applications

- Control Dali Light with Modbus
- Control Dali Light with MACK Dali Software
- Sensor module control via PCB
- Easy to interface Dali light

4. Mechanical Specifications

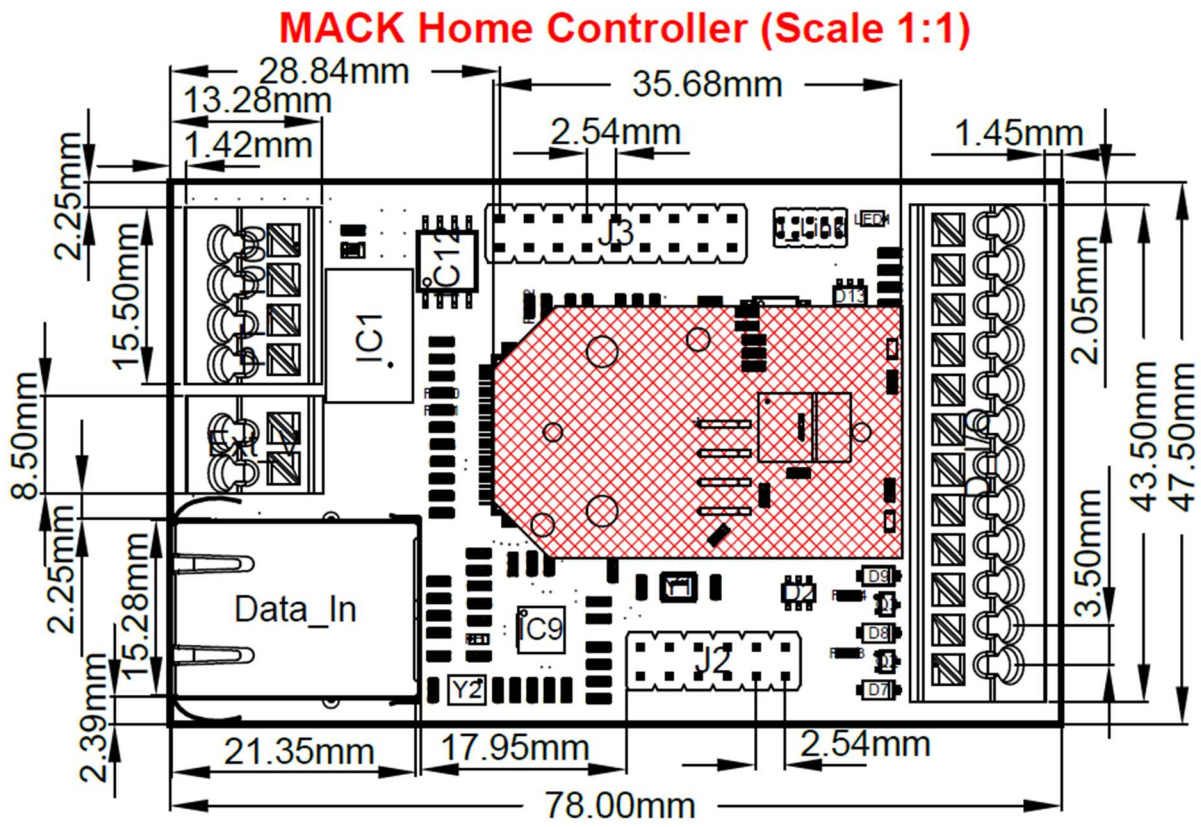


Figure 1: Mechanical specifications information

5. PCB Isometric view

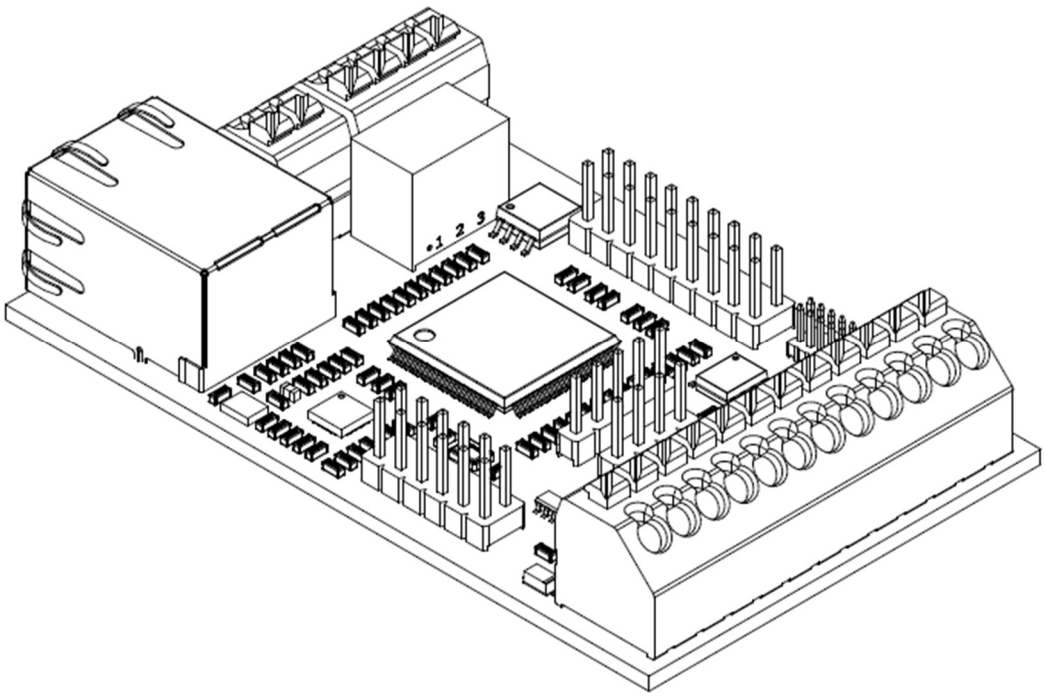


Figure 2: MACK Dali light control via PoE with Modbus PCB Isometric View

6. PCB Realistic View

MACK Dali light control via PoE with Modbus PCB realistic view top & bottom view are available in bottom.

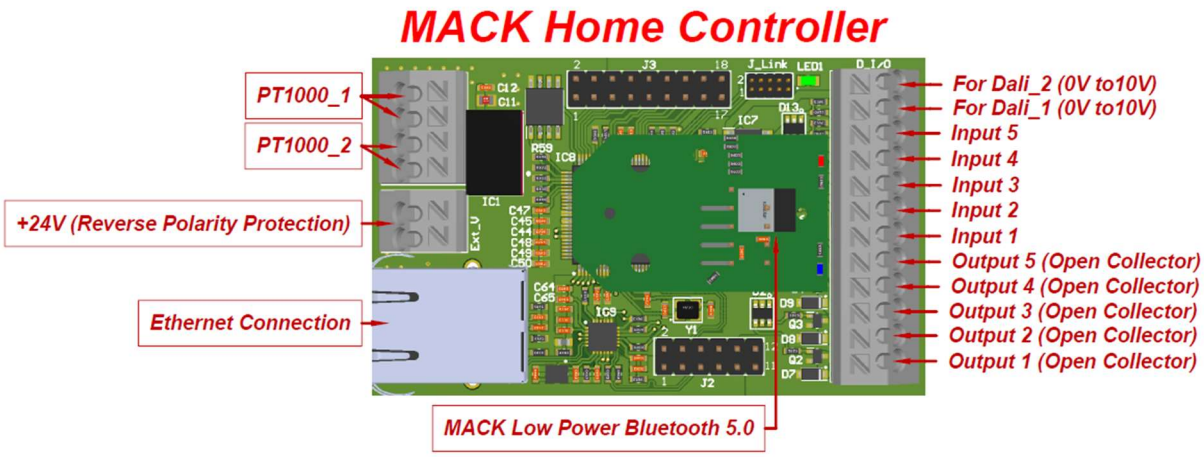
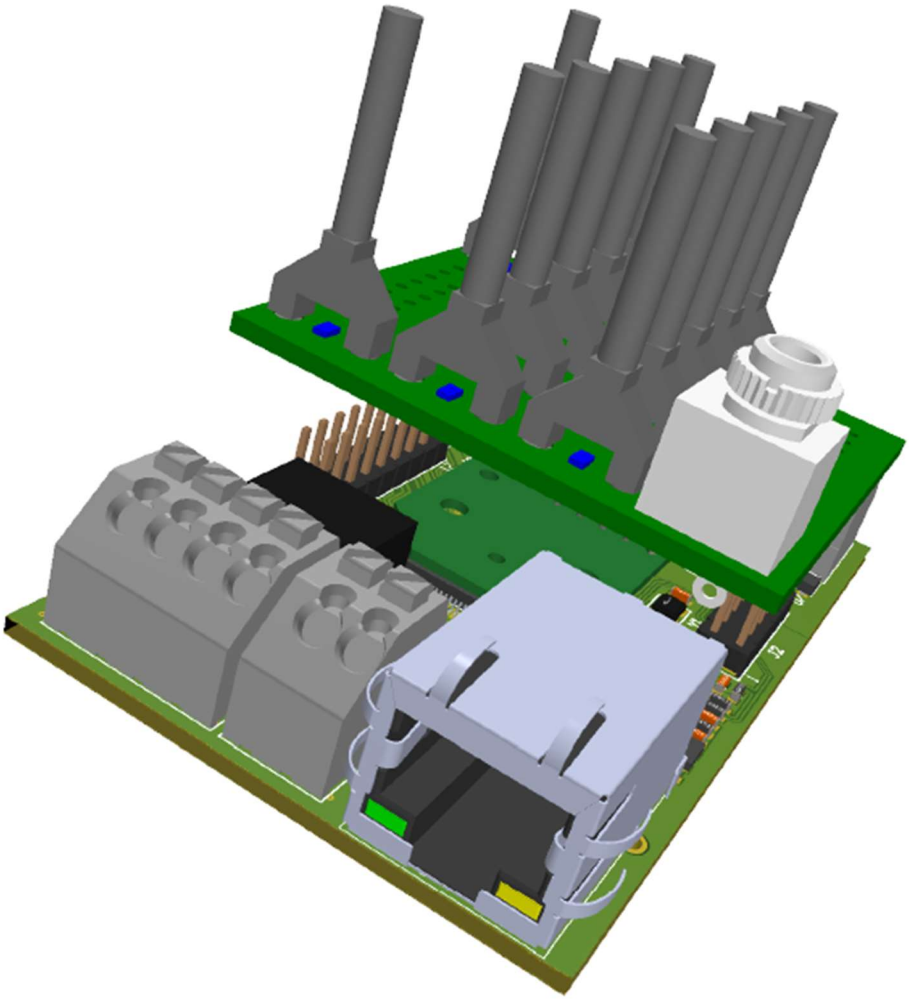


Figure 3: MACK Dali light control via PoE with Modbus PCB Realistic View



7. Recommended Operating Conditions

	MIN	MAX	UNIT
PCB power supply voltage	24	50	V
PoE (**P**ower **O**ver **E**thernet)	48	57	V
PCB power supply required current	1	2	A
Logic input voltage with Renesas Synergy Controller	3.0	3.3	V
Controller analog pin input voltage	0	3.3	V
Controller PWM pin output voltage	3.0	3.3	V
Operating ambient temperature	0	85	°C

Table 2: MACK Heating Control System PCB Operation condition information