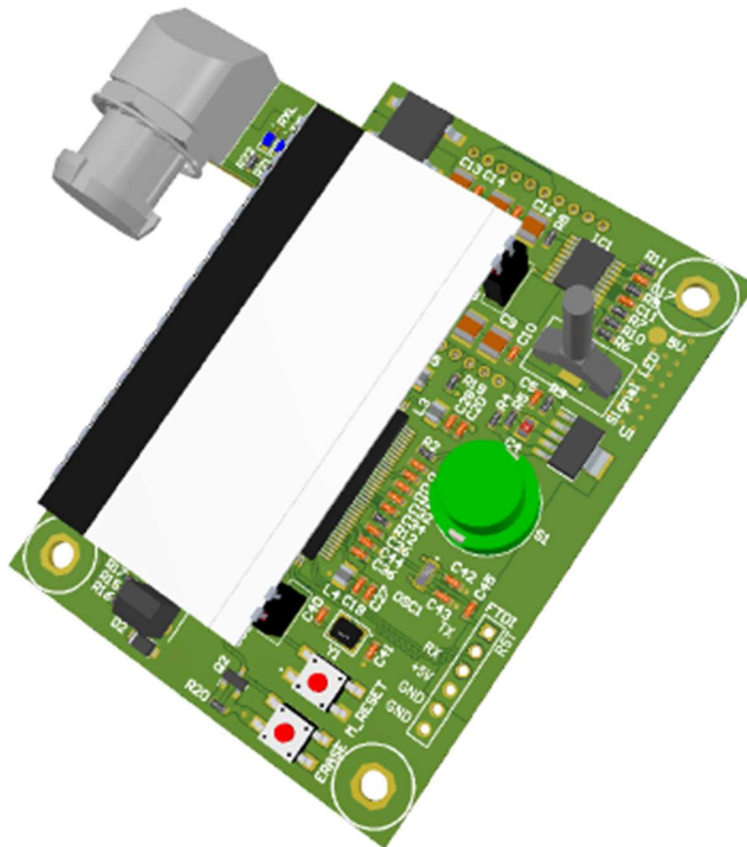


MACK SONY CAMERA FS5, FS7 OR FX6 CONTROL SYSTEM VERSION 1.0



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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 Sony Cameras FS5, FS7 & FX6 control system module

Table 1 Datasheet history

1. Features

- Operating Voltage is 3V to 60V with reverse polarity protection

- Recommendation Voltage is 9V to 55V.
- MACK Sony cameras control system modules have a two different Module:
 - MACK Sony camera sender control system module
 - MACK Sony camera receiver control system module
- MACK Sony cameras control system modules are working with ARM Cortex M-3 CPU & Atmel Mega328P CPU.
- Dog LCD display is working with SPI mode
- Both modules have a LEMO connector.
- Display control with Push Button
 - Easy select Sony one camera from FS5, FS7 or FX6 in MACK Sony camera sender control system module.
- Fully automatic Sony Camera control system
 - Need to select right Sony camera
 - Need to connect MACK Sony camera sender control system module with Sony camera which is selected inside module.
- MACK Sender control system module is connect with Sony Camera (FS5, FS7 or FX6) & MACK Sender control system module is connected with Sony Camera hand remote (see in Figure 11).

2. Applications

- Long distance (Outdoor up to 3 KM & indoor up to 300 meters) control Sony cameras (FS5, FS7 & FX6) via Sony remote using MACK Sony Camera control System

3. Overview

The MACK Sony cameras control system modules have a two different Module:

- **MACK Sony camera sender control system module**
- **MACK Sony camera receiver control system module**

The MACK Sony camera sender control system module must connect with selected Sony camera. This module has a display & push button. When push button will press at the same time, Dog LCD display will give selected Sony camera information. User must select right camera information inside this module otherwise circuit will not be running. This Module has a LEMO connector with LANC male cable & universal battery connector.

The MACK Sony camera receiver control system module must connect with selected Sony remote. This Module has a LEMO connector with LANC female cable & universal battery connector.

Both modules have a status LEDs. When MACK Sony sender & receiver module are connected, status LEDs are blinking with same speed.

4. Specification

Processor: High Performance CPU

Memory:	512 KB of Self-Programmable Flash program memory in Cortex M-3 Processor (84 MHz clock speed) 32 KB of Self-Programmable Flash program memory in Cortex ATmega328P Processor (16 MHz clock speed)
Connectivity:	1 x Display Connector 1 x LEMO Connector connected with LANC Cable & Power connector One push button
GPIO:	Standard GPIO header
Input Power:	9V to 55V via External Power Connector, max 2A
Environment:	Operating temperature 0-50°C

5. Mechanical Specifications

5.1 Mechanical Specifications for MACK Sony camera sender control system module

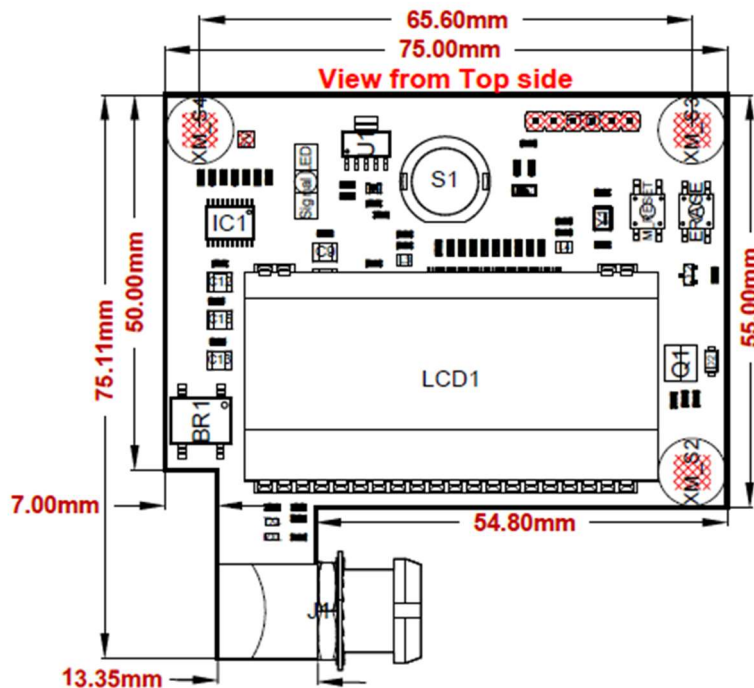


Figure 1 Mechanical specifications information for MACK Sony camera sender control system module

5.2 Mechanical Specifications for MACK Sony camera receiver control system module

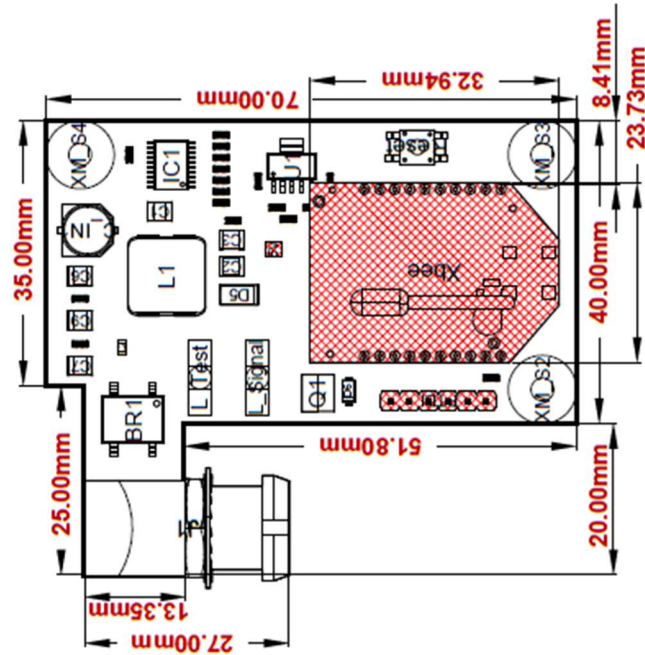


Figure 2 Mechanical specifications information for MACK Sony camera receiver control system module

6. MACK Sony Camera Control System Modules Isometric view

6.1 Isometric view for MACK Sony camera sender control system module

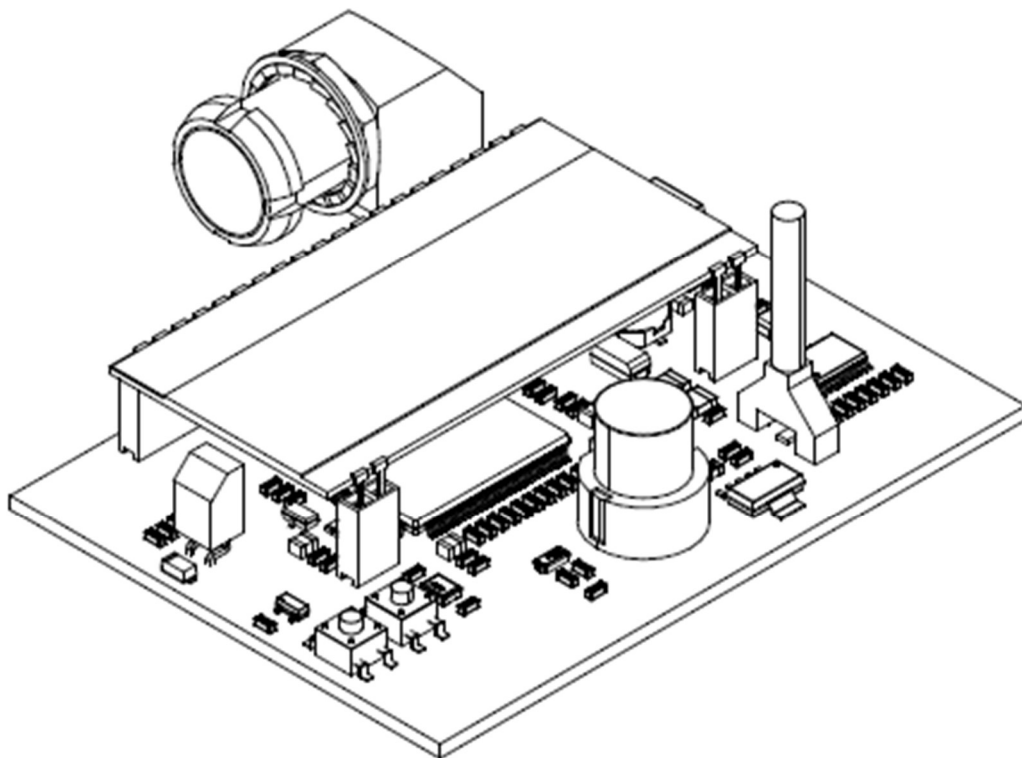


Figure 3 MACK Sony Camera Control System Sender PCB Top Isometric View

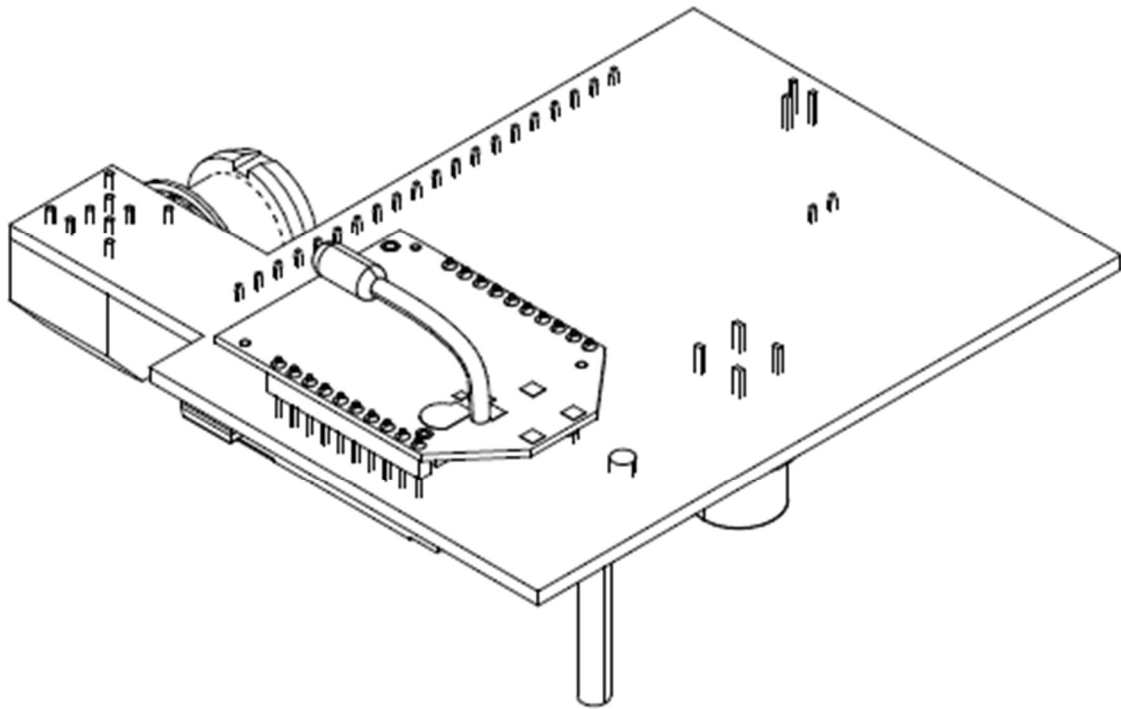


Figure 4: MACK Sony Camera Control System Sender PCB Bottom Isometric View

6.2 Isometric view for MACK Sony camera receiver control system module

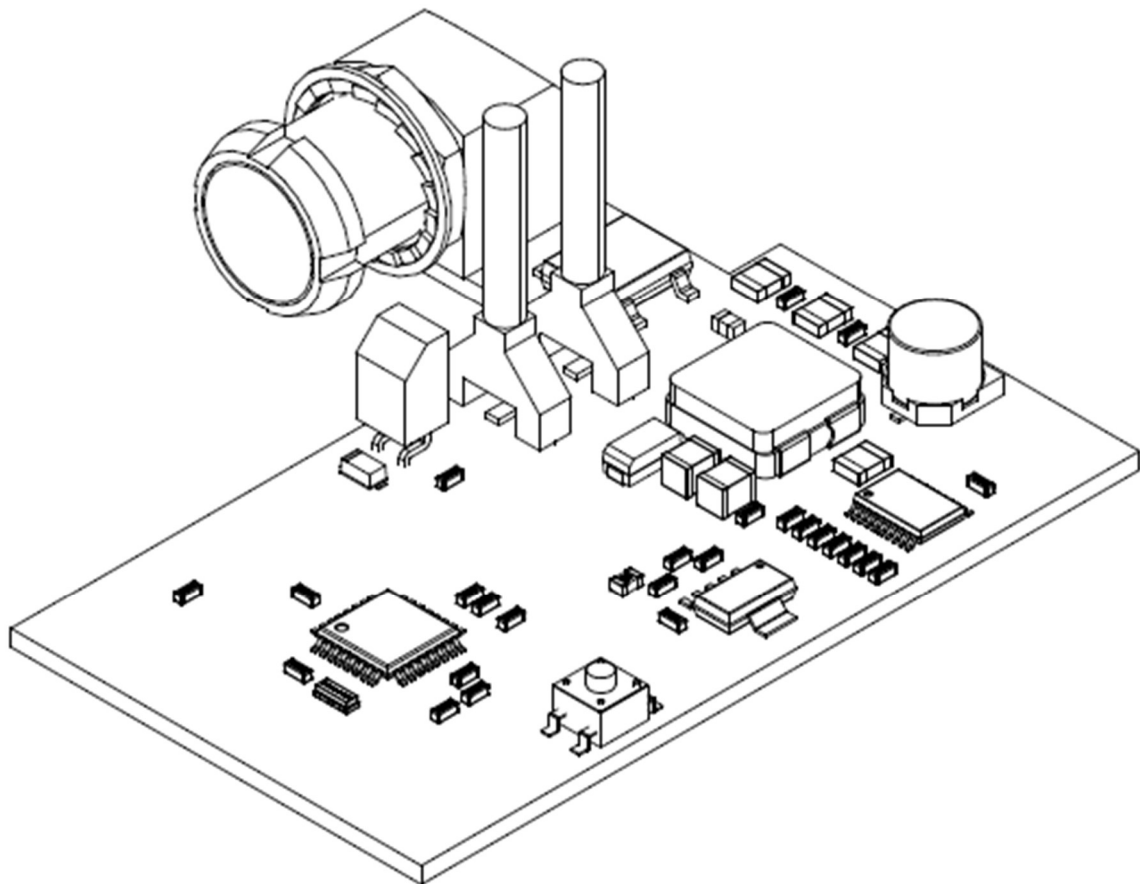


Figure 5 MACK Sony Camera Control System Receiver PCB Isometric View

7. LEMO connector information for sender & receiver modules



Figure 6 LEMO Connector for MACK Sony camera control system receiver module

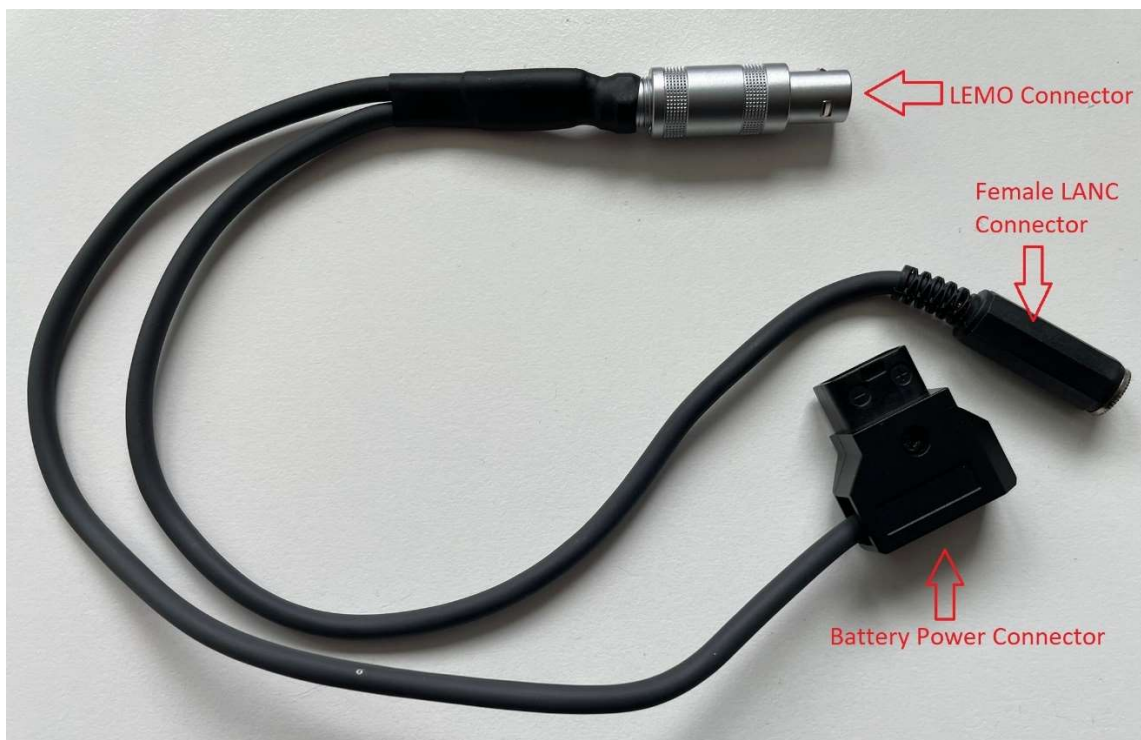


Figure 7 LEMO Connector for MACK Sony camera control system sender module

8. MACK Sony camera control system modules Realistic View

8.1 Realistic view for MACK Sony camera sender control system module

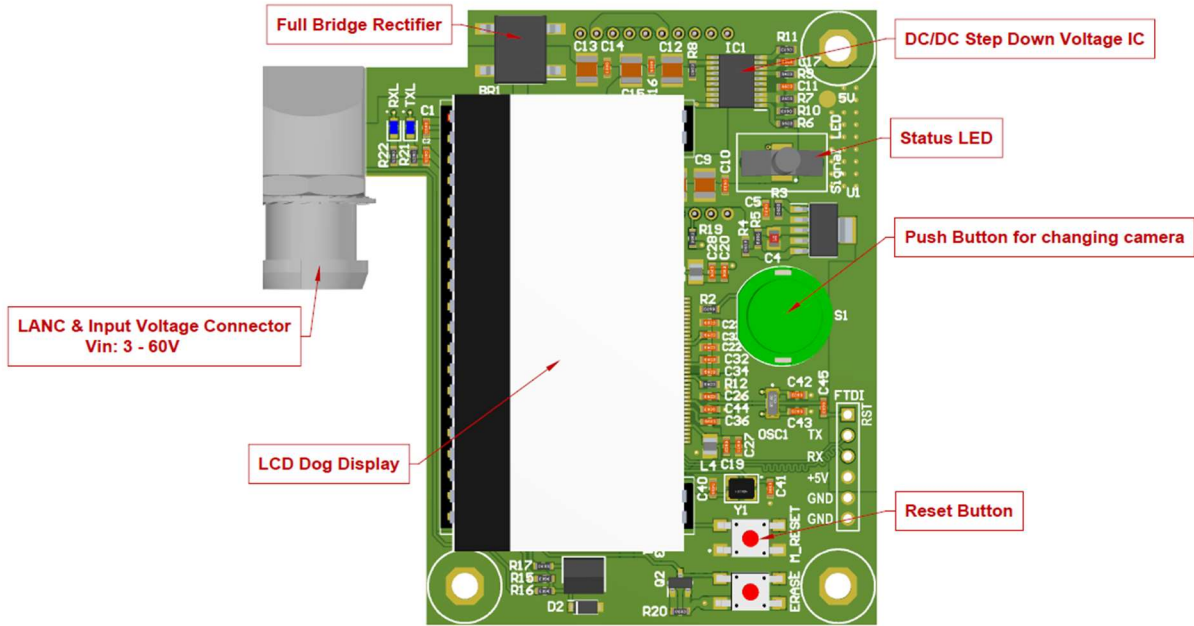


Figure 8 Realistic Top view for MACK Sony camera sender control system module

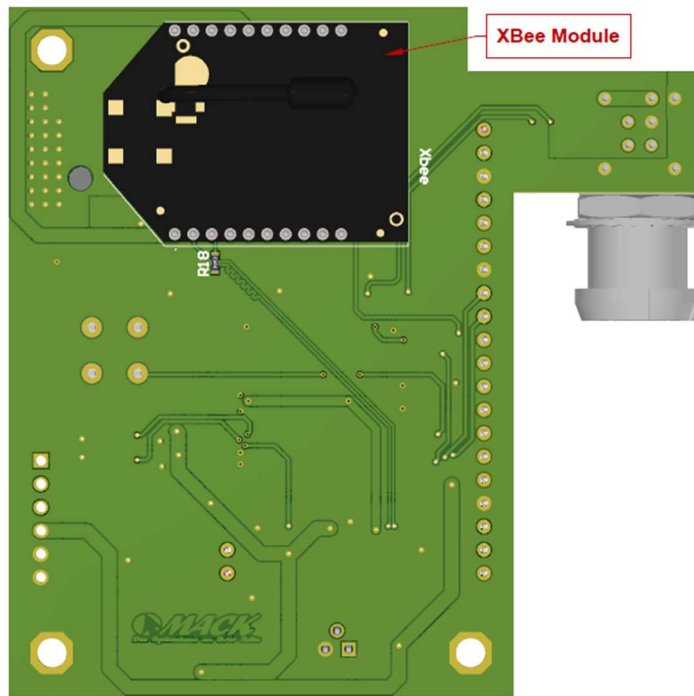


Figure 9 Realistic Bottom view for MACK Sony camera sender control system module

The MACK Sony camera sender control system module must connect with a selected Sony camera via LEMO Connector. The LEMO connector connected with LANC male cable & universal battery connector. LANC male cable must connect with one of Sony cameras like FS5, FS7 or FX6. User can connect only one Sony camera with this module at the same time.

User must select connected camera information inside module via pushbutton. Selected Sony camera information find from the dog LCD display.

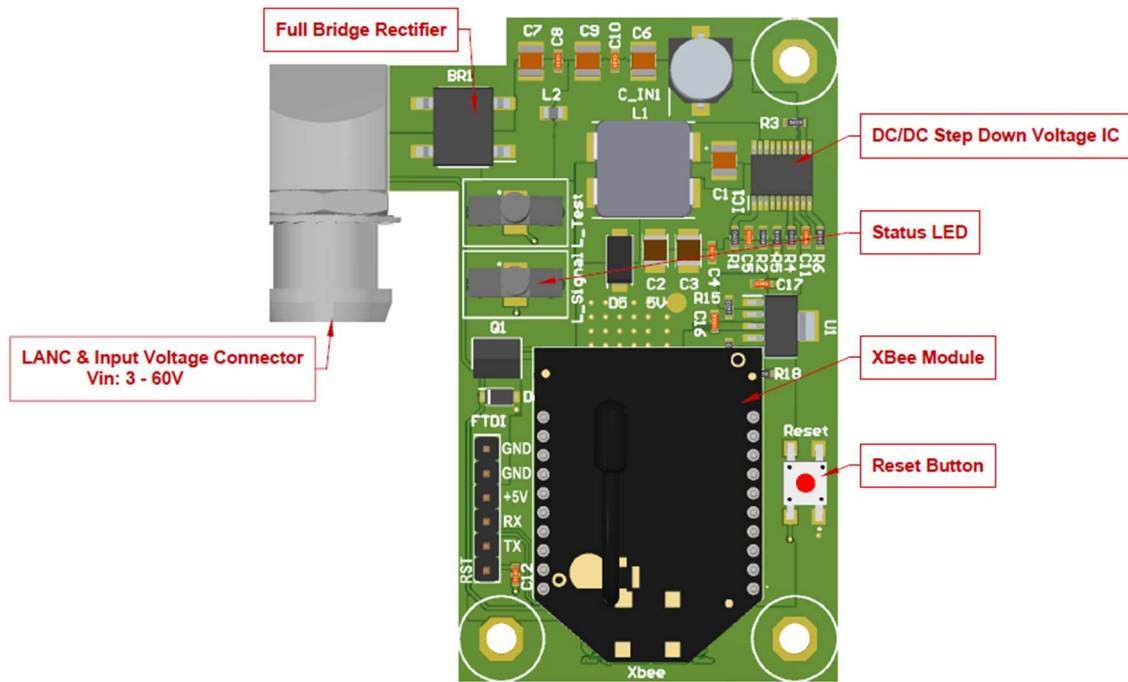


Figure 10: Realistic Top view for MACK Sony camera receiver control system module

The MACK Sony camera receiver control system module must connect with Sony camera remote via LEMO Connector. The LEMO connector connected with LANC female cable & universal battery connector. LANC female cable must connect with Sony camera hand remote (see in Figure 11).

Both modules are connected via XBee module. The XBee module has an outdoor range up to 3 KM range & indoor rang up to 300 meters. The Status LED is giving status of XBee connection.



Figure 11 Sony camera hand remote



Figure 12 MACK Sony camera sender control system module with case



Figure 13 Realistic MACK Sony camera receiver control system module with case

9. Recommended Operating Conditions

	MIN	MAX	UNIT
PCB power supply voltage	3	55	V
PCB power supply required current	1	2.5	A
Logic input voltage	3.3	5	V
Controller analog pin input voltage	0	5	V
Controller PWM pin output voltage	3.3	5	V
Operating ambient temperature	0	85	°C

Table 2: MACK Sony camera control system PCB operation condition information