

# **Fallguy *MINI* Output Adapter**

## **ADAPTER FOR CONNECTING UP TO 16 LEDs AND A MATRIX KEYBOARD**

**Hardware Version Rev.B 05/2012**  
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## 1. Overview

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The Fallguy MINI Output Adapter is an adapter for connecting up to 16 LEDs and a matrix keyboard to the Fallguy MINI MP3 module. The adapter has to be simple stucked on the module using the J\_VOLTAGE, J\_EXPANSION and J\_SERIAL connectors.

## 2. Technical data

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### Connection for 16 LEDs:

- Outputs for 16 separate LEDs with integrated 220 Ohm resistor at 5V

### Connection for matrix keyboard:

- Different sizes possible: 1x4, 2x4, 3x4 or 4x4
- Functions of the keyboard depend on the firmware of the Fallguy MINI MP3 module

### Operating temperature:

- -20 °C to +85 °C

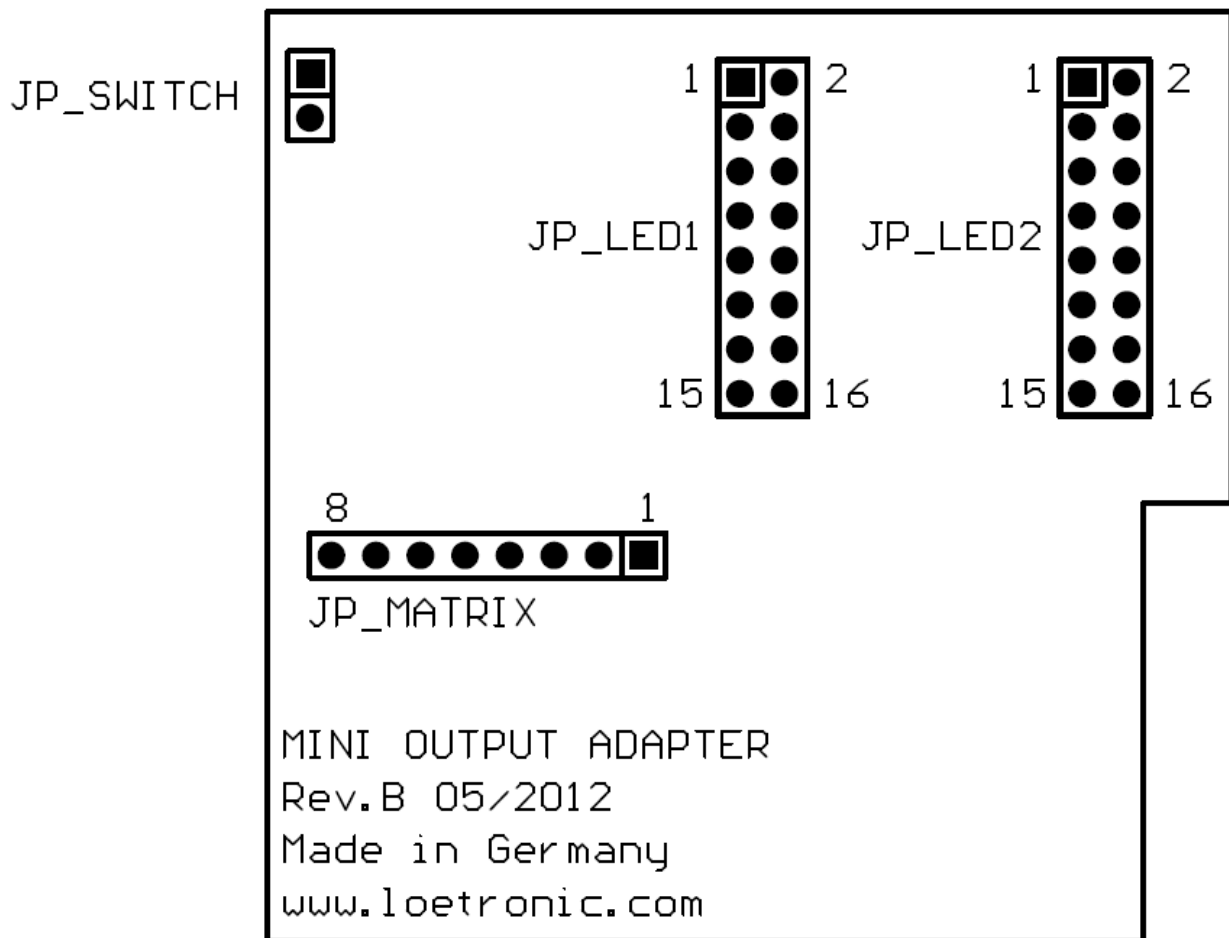
### Operating voltage:

- 5-12 V (DC) unstabilized using the Fallguy MINI MP3 module

### Current consumption:

- 200 mA together with the Fallguy MINI MP3 module

## 3. Connection possibilities



Picture 3.1 Fallguy MINI Output Adapter Rev.B – Connections

### JP\_LED1

- This interface is for connecting up to 8 LEDs. A resistor of 220 Ohm at 5V is integrated on the adapter. The driver ICs can supply a max. of 20 mA per LED.

#### Assignment:

Pin-No.	Name	Description
1	Cathode 1	Cathode of the 1. LED
2	Anode 1	Anode of the 1. LED
3	Cathode 2	Cathode of the 2. LED
4	Anode 2	Anode of the 2. LED
5	Cathode 3	Cathode of the 3. LED
6	Anode 3	Anode of the 3. LED
7	Cathode 4	Cathode of the 4. LED
8	Anode 4	Anode of the 4. LED
9	Cathode 5	Cathode of the 5. LED
10	Anode 5	Anode of the 5. LED
11	Cathode 6	Cathode of the 6. LED
12	Anode 6	Anode of the 6. LED
13	Cathode 7	Cathode of the 7. LED
14	Anode 7	Anode of the 7. LED
15	Cathode 8	Cathode of the 8. LED
16	Anode 8	Anode of the 8. LED

## JP\_LED2

- This interface is for connecting up to 8 LEDs. A resistor of 220 Ohm at 5V is integrated on the adapter. The driver ICs can supply a max. of 20 mA per LED.

### Assignment:

Pin-No.	Name	Description
1	Cathode 9	Cathode of the 9. LED
2	Anode 9	Anode of the 9. LED
3	Cathode 10	Cathode of the 10. LED
4	Anode 10	Anode of the 10. LED
5	Cathode 11	Cathode of the 11. LED
6	Anode 11	Anode of the 11. LED
7	Cathode 12	Cathode of the 12. LED
8	Anode 12	Anode of the 12. LED
9	Cathode 13	Cathode of the 13. LED
10	Anode 13	Anode of the 13. LED
11	Cathode 14	Cathode of the 14. LED
12	Anode 14	Anode of the 14. LED
13	Cathode 15	Cathode of the 15. LED
14	Anode 15	Anode of the 15. LED
15	Cathode 16	Cathode of the 16. LED
16	Anode 16	Anode of the 16. LED

## JP\_MATRIX

- The JP\_MATRIX interface is for connecting different matrix keypads to the Fallguy MINI MP3 module. The keypads delivered from LOETRONIC must be connected in different ways:
  - 1x4 – Pin-No.1 (Flat cable of the keypad) at Pin-No.4 of the adapter.
  - 2x4 – Pin-No.1 (Flat cable of the keypad) at Pin-No.3 of the adapter.
  - 3x4 – Pin-No.1 (Flat cable of the keypad) at Pin-No.2 of the adapter.
  - 4x4 – Pin-No.1 (Flat cable of the keypad) at Pin-No.1 of the adapter.

### Assignment:

Pin-No.	Name	Description
1	Trigger 6	Analog or digital input (0 – 5 Volt)
2	Trigger 7	Analog or digital input (0 – 5 Volt)
3	In/Out 0	Digital in- and output (TTL-Level)
4	In/Out 1	Digital in- and output (TTL-Level)
5	In/Out 2	Digital in- and output (TTL-Level)
6	In/Out 3	Digital in- and output (TTL-Level)
7	In/Out 4	Digital in- and output (TTL-Level)
8	In/Out 5	Digital in- and output (TTL-Level)

## JP\_SWITCH

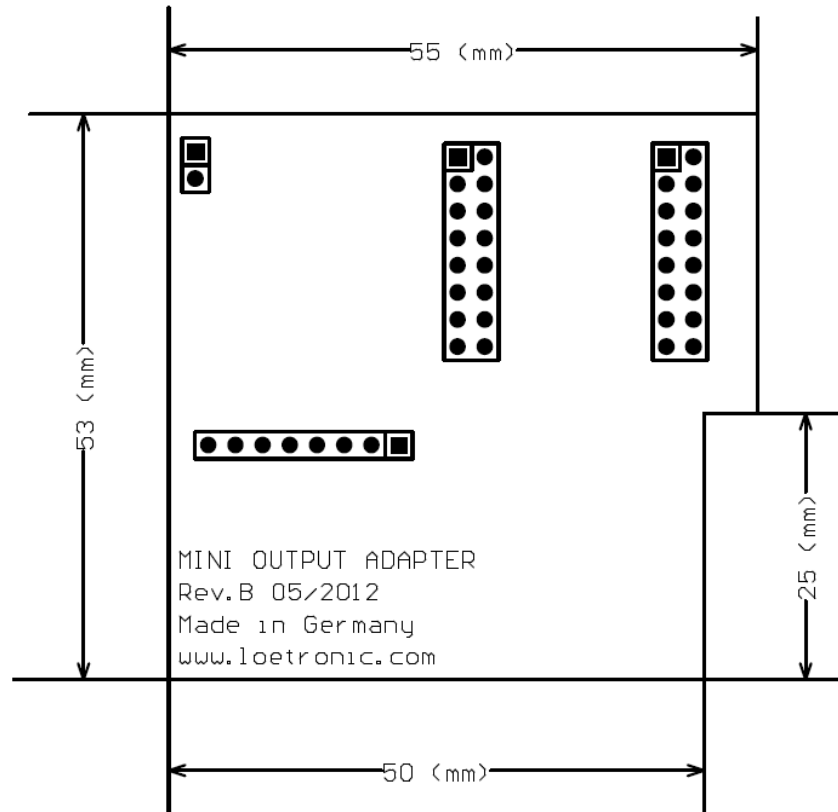
- To turn the Fallguy MP3 module on, a jumper has to be set at J\_SWITCH. Optionally any other switch could be used!

For connecting external devices to the adapter we recommend normal 1/10 inch IDC sockets.  
 (for example Reichelt Elektronik PFL 16, [www.reichelt.de](http://www.reichelt.de)).

## 4. Mechanical dimensions

**Dimensions:**

- Length: 55 mm / 2.13 inch, Width: 53 mm / 2.07 inch, Depth: 18,5 mm / 0.73 inch



Picture 4.1 Fallguy MINI Output Adapter Rev.B - Dimensions