# **RES-SD** module

This is a very simple board performing three functions:

- SD card socket
- Reset button
- Indicator LEDs

### **Schematic**

Connector J16E (SMT male header) carries 3v3 power and data signals for the SD card, along with the Reset and "LED" signals.

The Reset button has a damping capacitor.

The LEDs are connected through limiting resistors. The cathode pins are closest to the edge of the board.

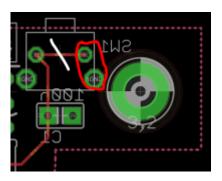
#### **BOM v1.0**

| Туре  | Qty   | Value               | Package     | Parts | Mouser       | Reichelt | Conrad    | Other        | Notes                       |
|-------|-------|---------------------|-------------|-------|--------------|----------|-----------|--------------|-----------------------------|
| Resis |       | <u> </u>            |             |       |              | '        | !         |              | '                           |
|       | 4     | ~1k 5%              | тнт         | R1-4  |              |          |           |              | depends on<br>LEDs          |
| Capa  | citor | 'S                  |             |       |              |          |           |              | •                           |
|       | 1     | 100n                | 1206 or THT | C1    |              |          |           |              |                             |
| LEDs  |       |                     |             |       |              |          |           |              |                             |
|       | 1     | Green               | 2*3*4       |       |              |          |           | еВау         | use<br>whatever<br>colours  |
|       | 1     | Orange              | 2*3*4       |       |              |          |           | see<br>above |                             |
|       | 1     | Red                 | 2*3*4       |       |              |          |           | see<br>above |                             |
|       | 1     | Blue                | 2*3*4       |       |              |          |           | see<br>above |                             |
| Swite | h     | •                   | :           | -     | •            | •        |           |              | •                           |
|       | 1     | tact low<br>profile |             |       | MJTP1117     |          | 700310-62 |              |                             |
| Head  | ers   |                     |             |       |              |          |           |              | ·                           |
|       | 1     | 2*8                 | SMT male    |       |              |          |           |              | could use a<br>longer strip |
| Sock  | ets   |                     |             |       |              |          | !         |              |                             |
|       | 1     | SD                  |             |       | SD-RSMT-2-MQ |          |           |              |                             |

| Type      | Qty | Value     | Package | Parts | Mouser | Reichelt | Conrad | Other | Notes |  |  |
|-----------|-----|-----------|---------|-------|--------|----------|--------|-------|-------|--|--|
| Resistors |     |           |         |       |        |          |        |       |       |  |  |
| Hardware  |     |           |         |       |        |          |        |       |       |  |  |
|           | 2   | M3 Spacer | 5mm(?)  |       |        |          |        |       |       |  |  |

#### **Versions**

v1.0: first release. **Important!** v1.0 boards have an error with the Reset switch. All boards should have one trace cut (shown in white), but it is required to bridge a pin with the adjacent mounting pin (as circled in red).



## **Assembly**

Note first of all that all components go on the bottom side apart from the SMT 2\*8 header. Try to align the header as straight and as centred as possible. You may want to test fit with the wcore\_usb module as the IDC socket fits into a routed edge when the two PCBs are stacked.

Note that if a box header is used, the notch should point towards the outer edge of the PCB (pin 1)

As the SD socket can be a bit heat sensitive I am tempted to suggest the pin header should go on before. This will make the board uneven though and thus harder to put the other parts on. So if the header is soldered after the SD socket, be very careful to not heat the socket up too much.

As noted, the switch for v1.0 boards needs a pad bridged. This can be done with a large solder blob or a short wire (even a scrap resistor leg).

LEDs could be mounted straight on, but I suggest they are bent 90 degrees and pushed through the panel. Ensure the cathode leg (normally the shorter leg, **but check first!**) is on the outer edge of the board.

#### License

Currently the design is © 2017 antilog devices with all rights reserved; all documentation is CC BY-NC-SA 3.0.

From:

http://www.midibox.org/dokuwiki/ - MIDIbox

Permanent link:

http://www.midibox.org/dokuwiki/doku.php?id=wcore\_res-sd&rev=1507154855

Last update: 2017/10/04 22:07

