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.

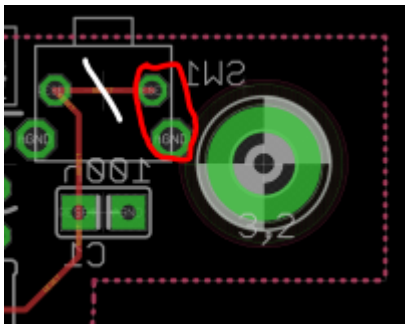
BOM v1.0

Type	Qty	Value	Package	Parts	Mouser	Reichelt	Conrad	Other	Notes
Resistors									
	4	~1k 5%	THT	R1-4					depends on LEDs
Capacitors									
	1	100n	1206 or THT	C1					
LEDs									
	1	Green	2*3*4					eBay	use whatever colours
	1	Orange	2*3*4					see above	
	1	Red	2*3*4					see above	
	1	Blue	2*3*4					see above	
Switch									
	1	tact low profile			MJTP1117		700310-62		
Headers									
	1	2*8	**SMT** male						could use a longer strip
Sockets									
	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

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Last update: **2017/10/04 22:07**