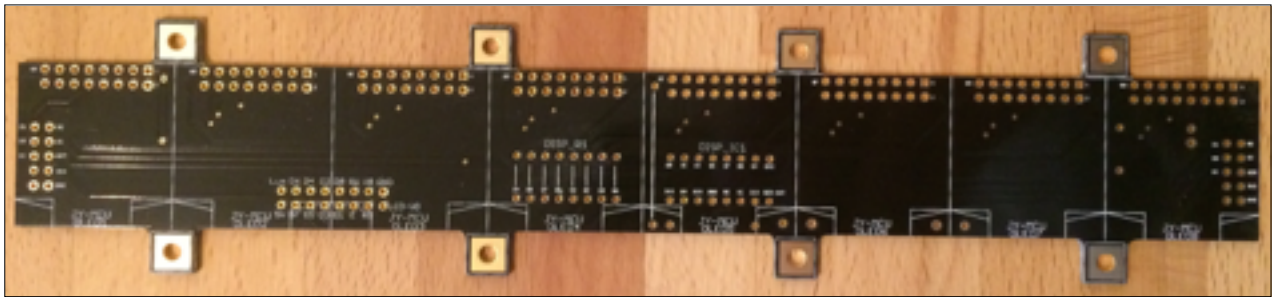

8ODISP - USERMANUAL

VERSION: 1.00

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- Various repositories on GitHub under the username "novski"
- The Manuals on vlrlab.com/support

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INDEX

1. Eight OLEDs in a Row

8oDisp gets you eight oleds rowed up in a minimum distance. Currently 0.96“ is the smalest oled in width i was able to find. Atleast its the smalest to row up, side by side to get a Display for channelsections like they are used with Audiomixers.

1.1. Connections

All connectors are 2.54“ Dualinline Male Headers with 10 or 16 Pins. The Displays require 16 Pin Female Headers.

1.2. Electrical Spezification

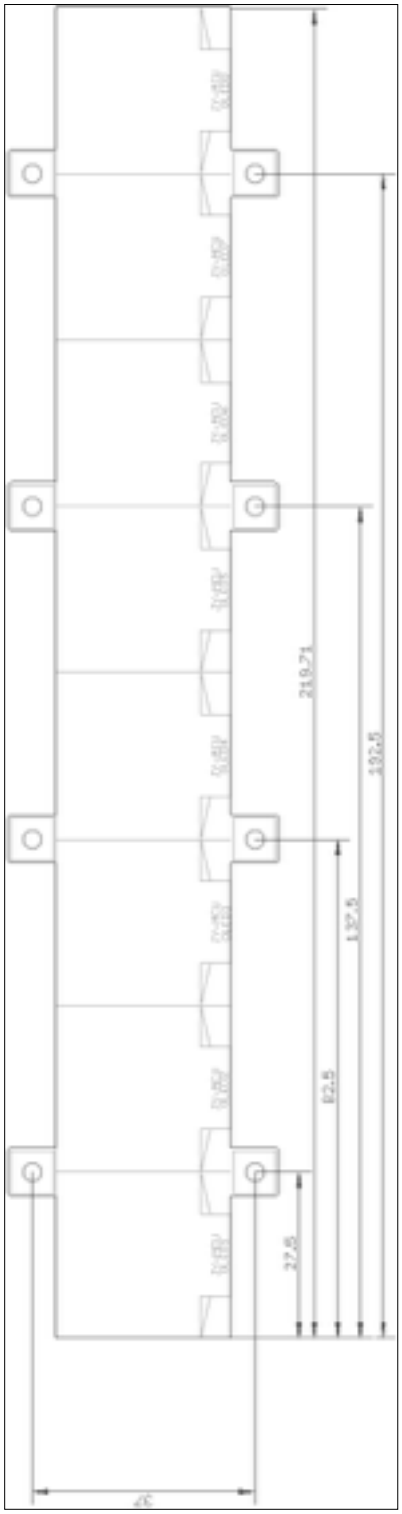
Supply Voltage: 3,3V
Power-consumption: 100mA per 8 Displays

2. BOM

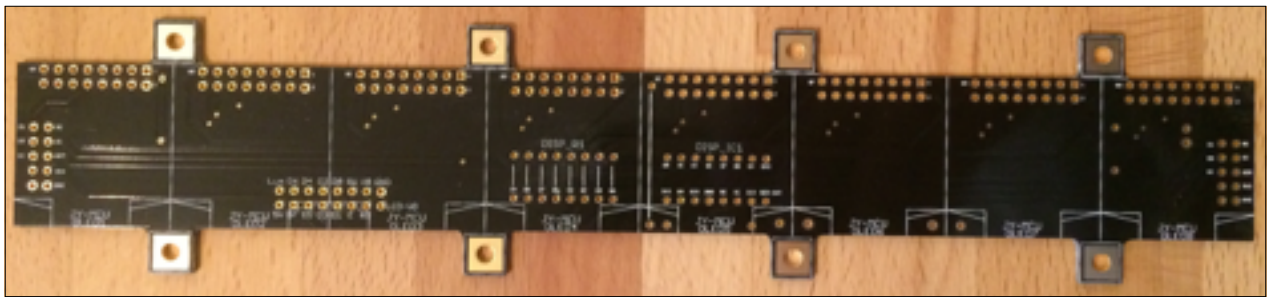
*for the first Midibox modul you can leave out the J1,J2 and shift-register.

PART	VALUE	DEVICE	PACKAGE	LIBRARY	SHEET
C1	100nF	C5/3	C5B3	capacitor-wima	1
C2	10uF	CPOL-EUE2.5-6	E2,5-6	rcl	1
DISP_C1	100nF	C5/3	C5B3	capacitor-wima	1
J0*	Disp. 1-8	ML16	ML16	con-ml	1
J1*	Disp-IN	ML10	ML10	con-harting-ml	1
J2*	Disp-OUT	ML10	ML10	con-harting-ml	1
OLED1	OLED1	0.96"OLED	0.96"	0.96" 128x64 OLED	1
OLED2	OLED2	0.96"OLED	0.96"	0.96" 128x64 OLED	1
OLED3	OLED3	0.96"OLED	0.96"	0.96" 128x64 OLED	1
OLED4	OLED4	0.96"OLED	0.96"	0.96" 128x64 OLED	1
OLED5	OLED5	0.96"OLED	0.96"	0.96" 128x64 OLED	1
OLED6	OLED6	0.96"OLED	0.96"	0.96" 128x64 OLED	1
OLED7	OLED7	0.96"OLED	0.96"	0.96" 128x64 OLED	1
OLED8	OLED8	0.96"OLED	0.96"	0.96" 128x64 OLED	1
R1-8		4116R	DIL16	Bourns Resistor Array	1
R9	1k	R-EU_0204/7	0204/7	resistor	1
DISP_IC1*	74HC595DIP16	74HC595DIP16	DIL16	595-541-165-uln2803	1
IC Holder		for R1-8			
IC Holder		for Disp_IC1			

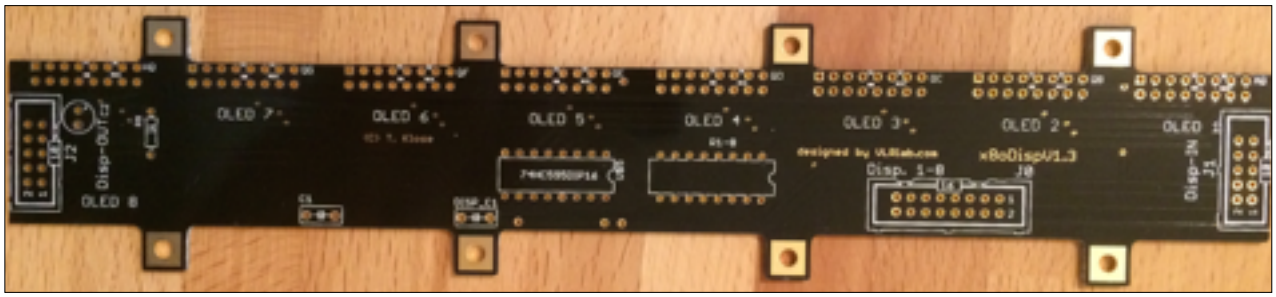
3. OUTLINES



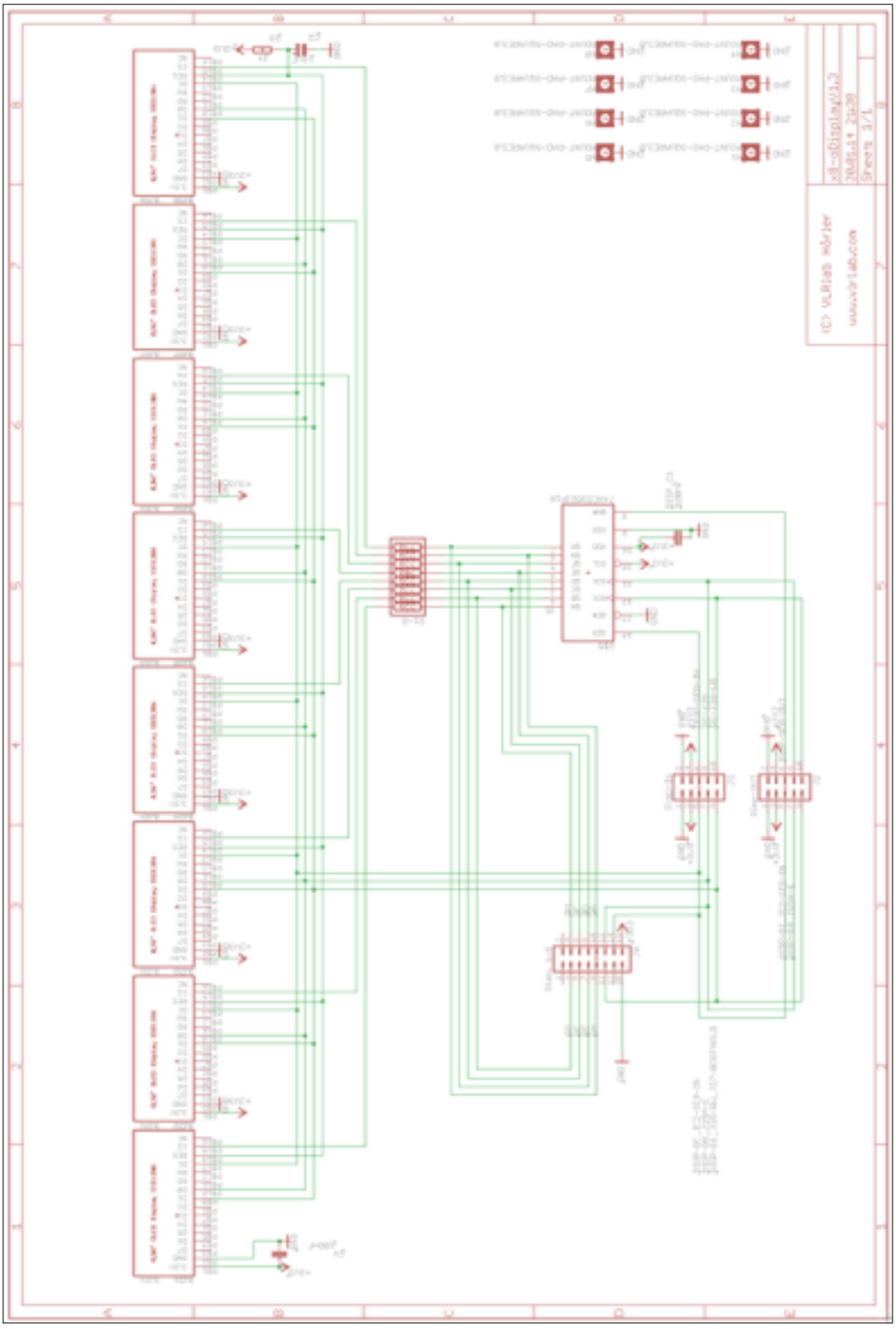
4. FRONTVIEW



5. REARVIEW



6. Schematics

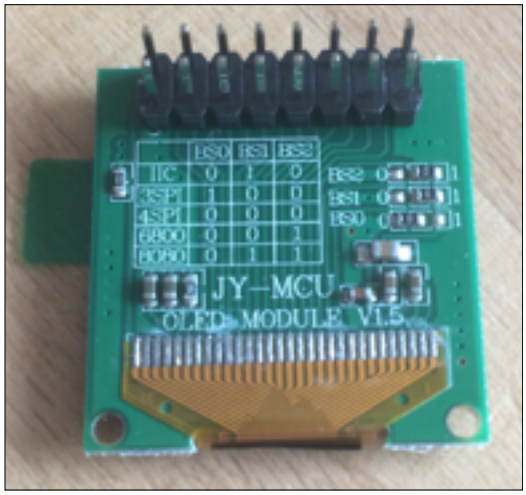


7. Geting Started

If you are building the first modul for a Midibox soluiton you don't have to solder J1,J2 and the shift-register. The J0 cable brings all the needed Signals from the core (J15A) to the Displays. Just the second to fourth modul need their own driver. Also they are connected to a different port on the core. More about that later.
Rearview:
Start soldering the dual inline sockets as first and then go on to the resistor-network and the shift register. you may want to solder a IC holder and stick them inside to be able to change the SR at any time.
After finishing the bottom components start with the topside headers and the preparation of the OLEDs.

8. Preparation of the OLEDs

The OLED has several possibilities to control it. What we use is the 4SPI control witch is achieved by soldering a bridge between the middle pin and 0. As the modules come with a 0Ohm resistor soldered for a 8080 connection we need to replace them carefully. That can be done pretty easy with a screwdriver pressing on top of the resistor and with the other hand heating the solder-pads. As soon as you feel the resistor slide you can pull it over to the position „0".

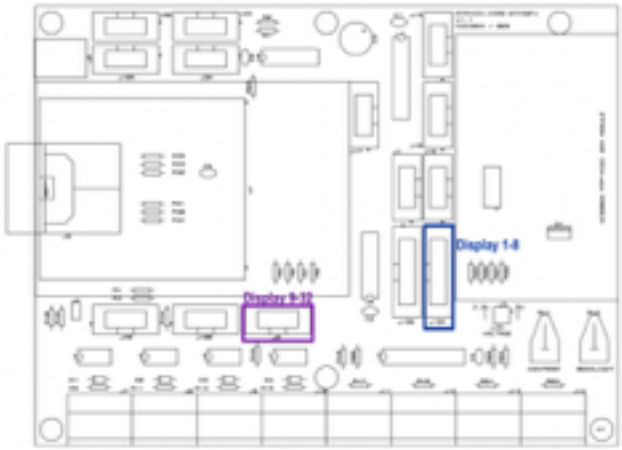


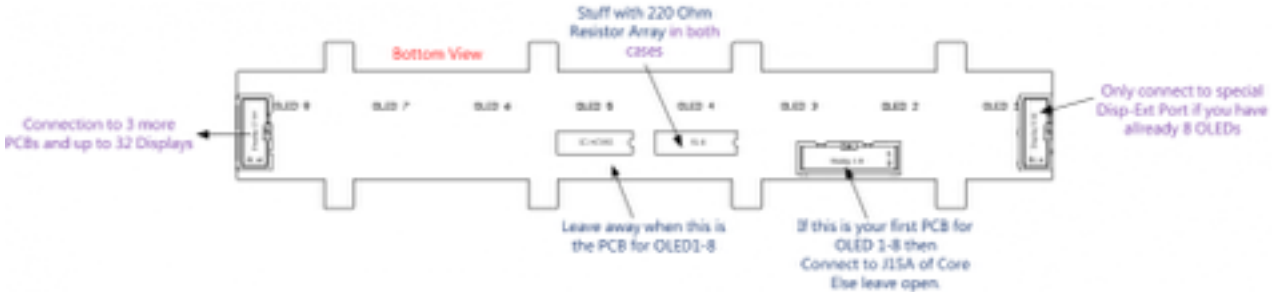
The code has to be like this:
BS2 - 0
BS1 - 0
BS0 - 0

9. More modules in the chain

VLRlab Core:

Benoits RTP MIDI Core:





A connection diagram:

10. Config

1. MIOS

Sample:{LCD ”@(DisplayNr:Row:Collumn)your Text here”}

This is a Test file for Mios:
RESET_HW
LCD ”%C”
LCD ”@(1:1:1)OLED1”
LCD ”@(2:1:1)OLED2”
LCD ”@(3:1:1)OLED3”
LCD ”@(4:1:1)OLED4”
LCD ”@(5:1:1)OLED5”
LCD ”@(6:1:1)OLED6”
LCD ”@(7:1:1)OLED7”
LCD ”@(8:1:1)OLED8”
LCD ”@(9:1:1)OLED9”
LCD ”@(10:1:1)OLED10”
LCD ”@(11:1:1)OLED11”
LCD ”@(12:1:1)OLED12”
LCD ”@(13:1:1)OLED13”
LCD ”@(14:1:1)OLED14”
LCD ”@(15:1:1)OLED15”
LCD ”@(16:1:1)OLED16”
LCD ”@(17:1:1)OLED17”
LCD ”@(18:1:1)OLED18”
LCD ”@(19:1:1)OLED19”
LCD ”@(20:1:1)OLED20”
LCD ”@(21:1:1)OLED21”
LCD ”@(22:1:1)OLED22”
LCD ”@(23:1:1)OLED23”
LCD ”@(24:1:1)OLED24”
LCD ”@(25:1:1)OLED25”
LCD ”@(26:1:1)OLED26”
LCD ”@(27:1:1)OLED27”
LCD ”@(28:1:1)OLED28”
LCD ”@(29:1:1)OLED29”
LCD ”@(30:1:1)OLED30”
LCD ”@(31:1:1)OLED31”
LCD ”@(32:1:1)OLED32”