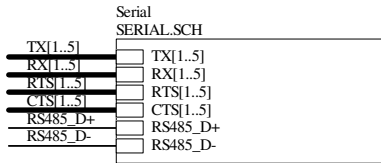
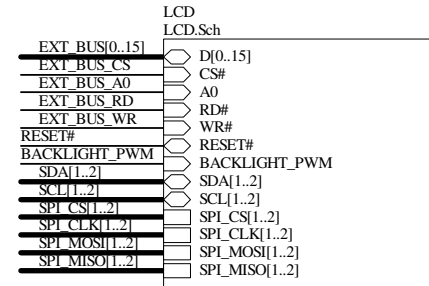


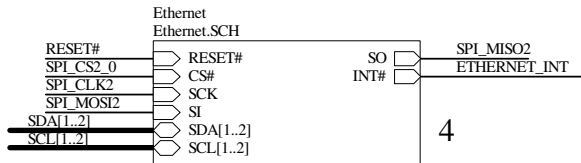
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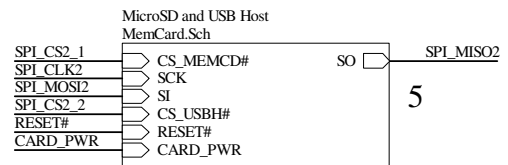
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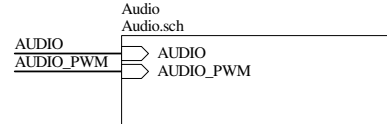
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4



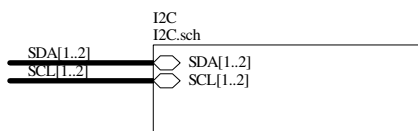
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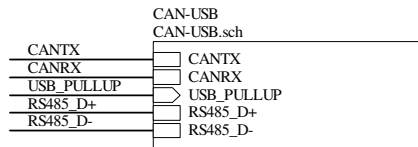
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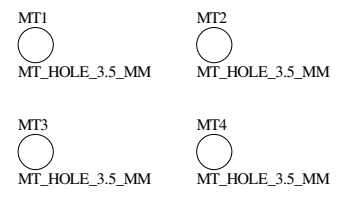
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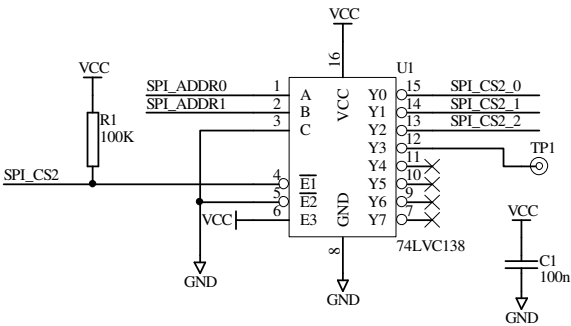
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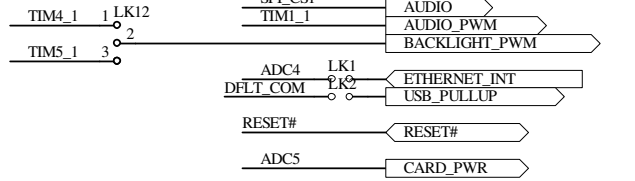
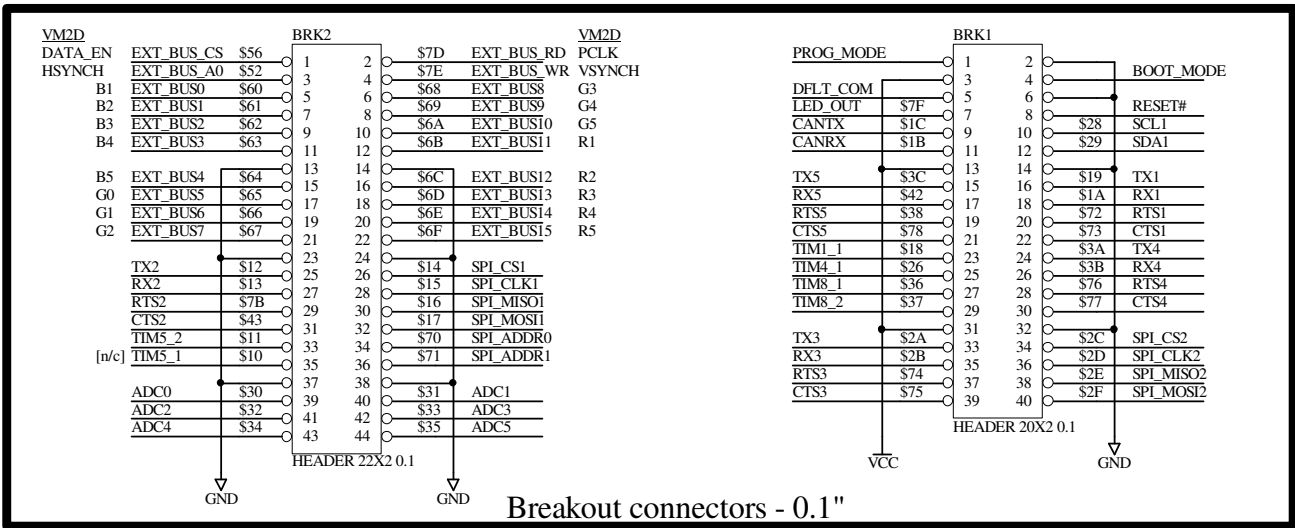
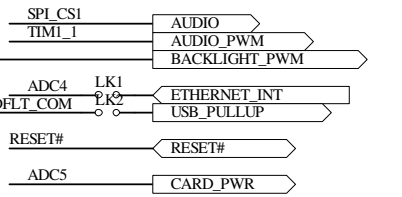
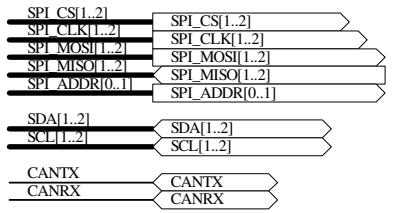
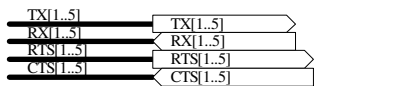
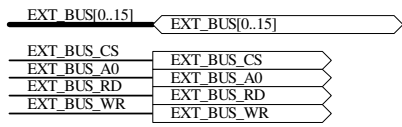
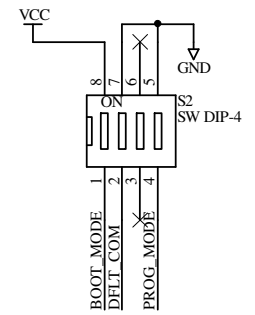
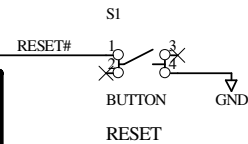
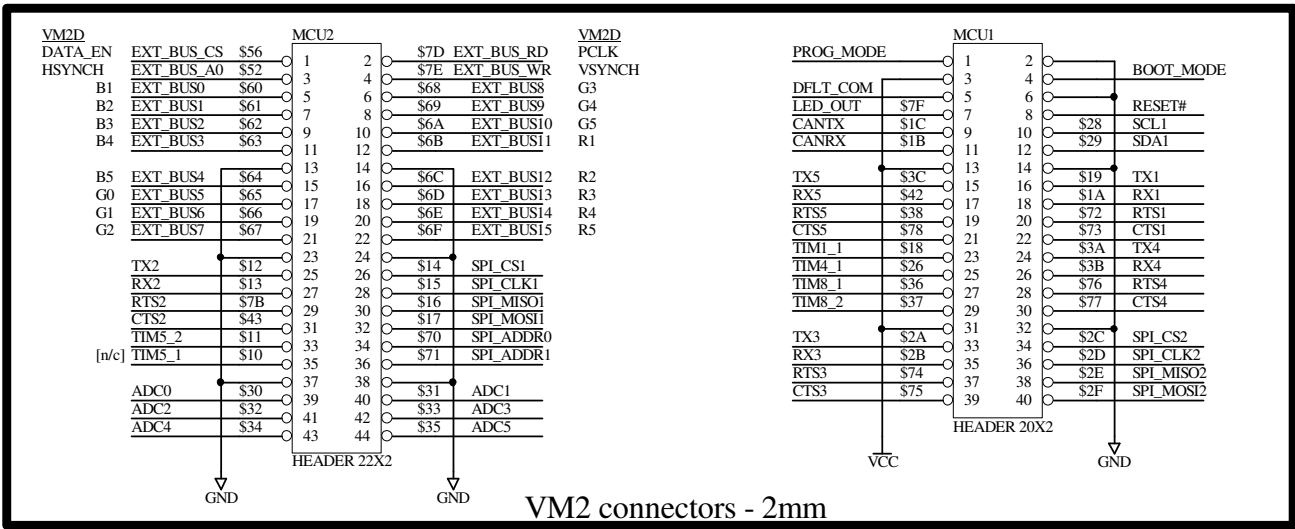


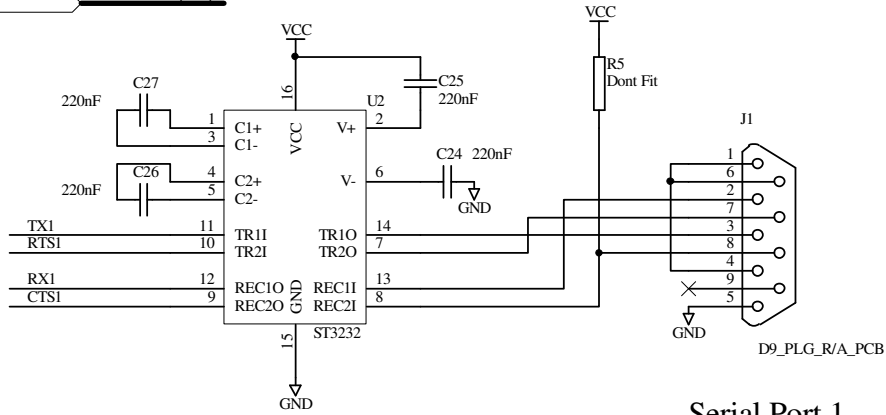
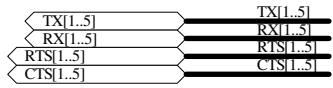
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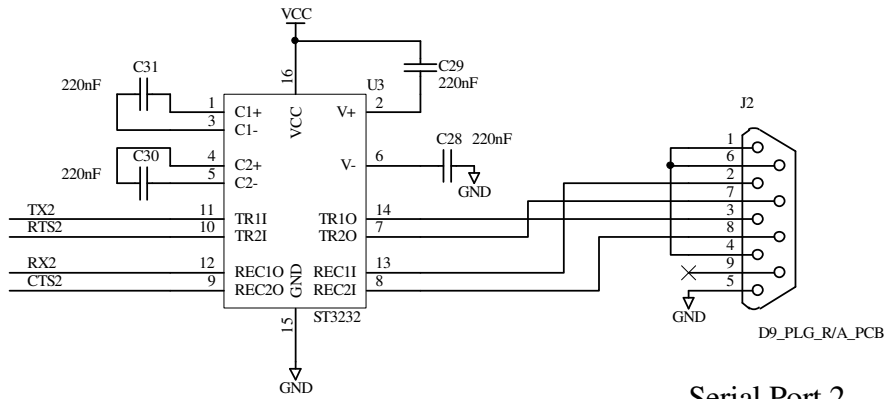
Address decode for devices on SPI bus 2.



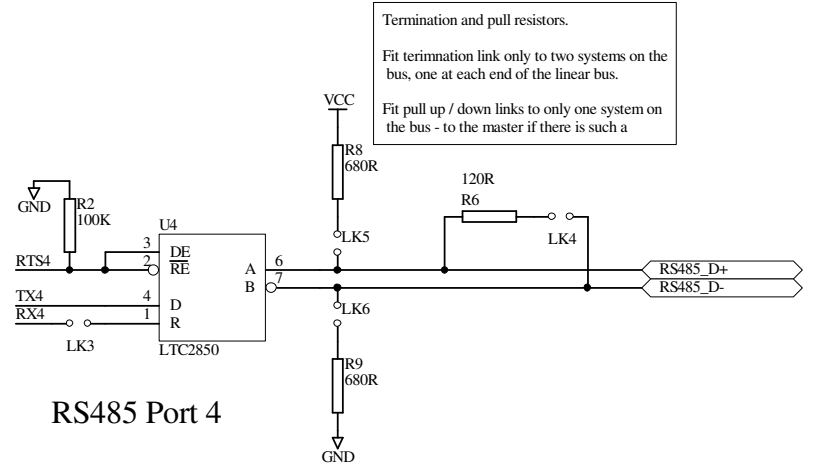




Serial Port 1



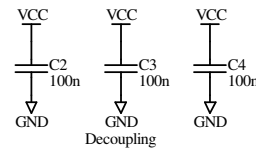
Serial Port 2

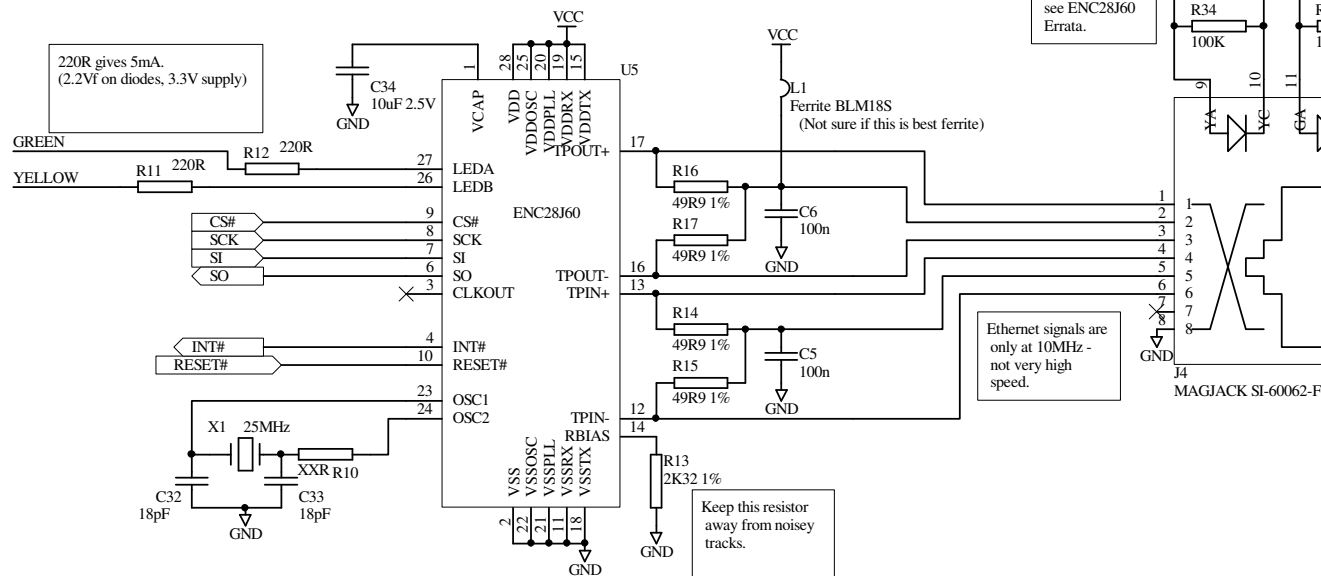


RS485 Port 4

HALF DUPLEX RS485 PORT WITH TERMINATION AND PULL UP/DOWNS

Termination and pull resistors.
Fit termination link only to two systems on the bus, one at each end of the linear bus.
Fit pull up / down links to only one system on the bus - to the master if there is such a





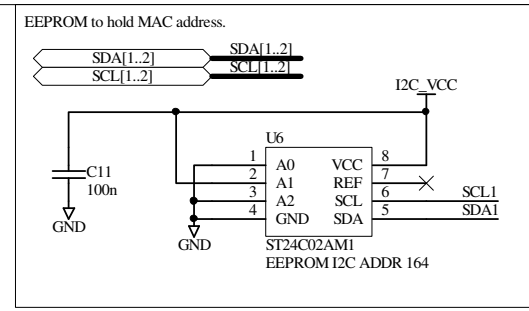
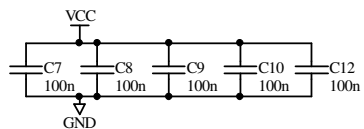
220R gives 5mA.
(2.2Vf on diodes, 3.3V supply)

Rs || to LEDs:
see ENC28J60
Errata.

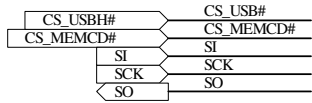
Ethernet signals are
only at 10MHz -
not very high
speed.

Keep this resistor
away from noisy
tracks.

SPI to Ethernet device

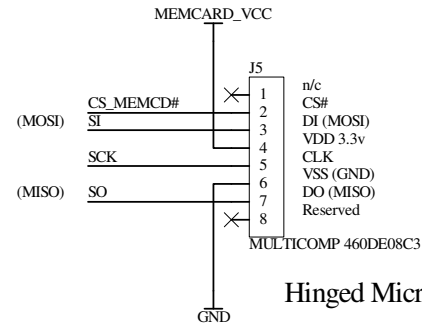


Default to full duplex: LEDB pull up or down
determines this.
Pulled up: Default is full duplex.

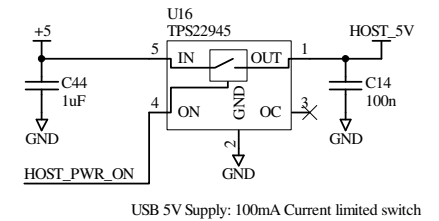
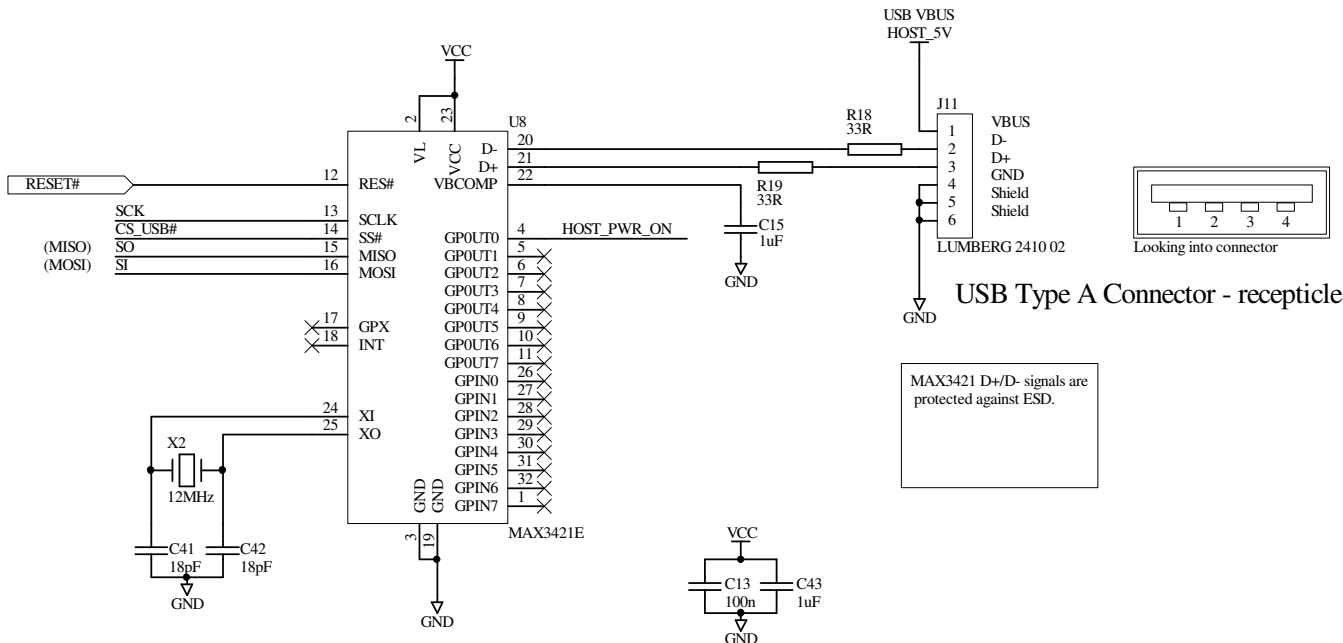
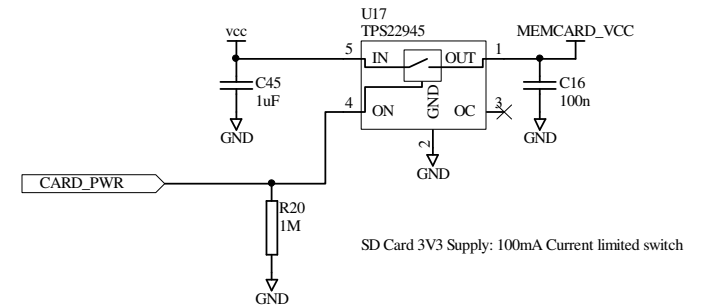


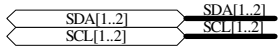
Connected to SPI Bus #2

Note: if Mem card is depowered, then care must be taken in Venom Driver: SPI outputs from VM2 must be turned into inputs (pulled low) temporarily. Memcard must remain (or be) selected so that CS is low. SPI bus must be locked for duration of power down in order to prevent other devices on the SPI powering up their SO pins, which are || to the memcard SO, and also stop them from attempting to use a disabled SPI bus.

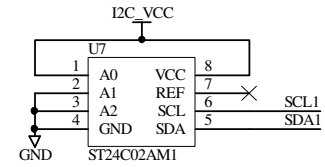
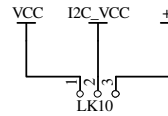


Hinged Micro SD card holder

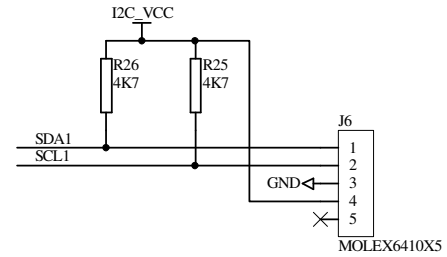




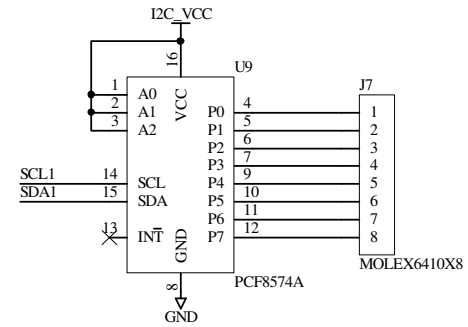
So users can change the I2C Bus voltage.
ALL I2C Bus devices must be powered by I2C_VCC !



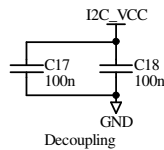
EEPROM I2C ADDR 162



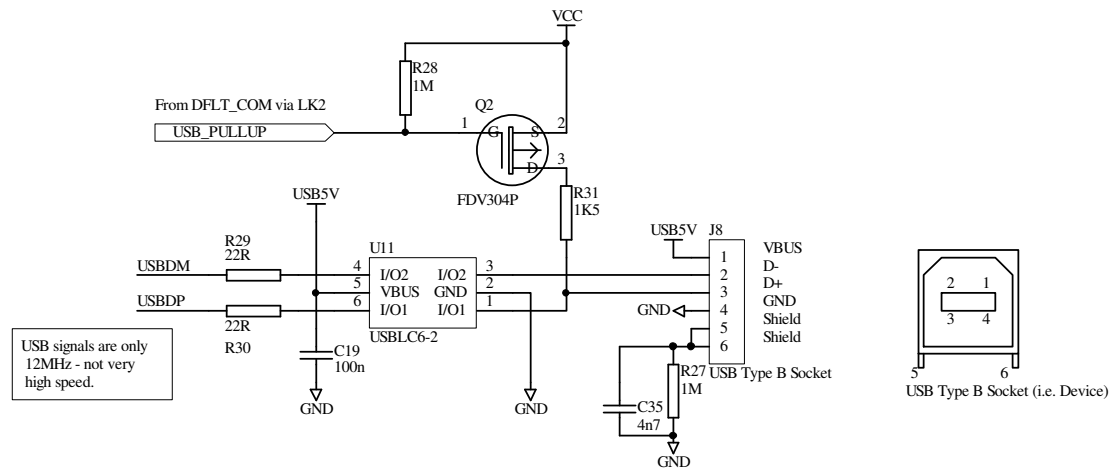
IIC Bus 1



4x4 Matrix Keypad
I2C ADDR 126

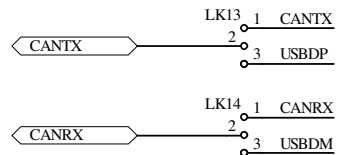
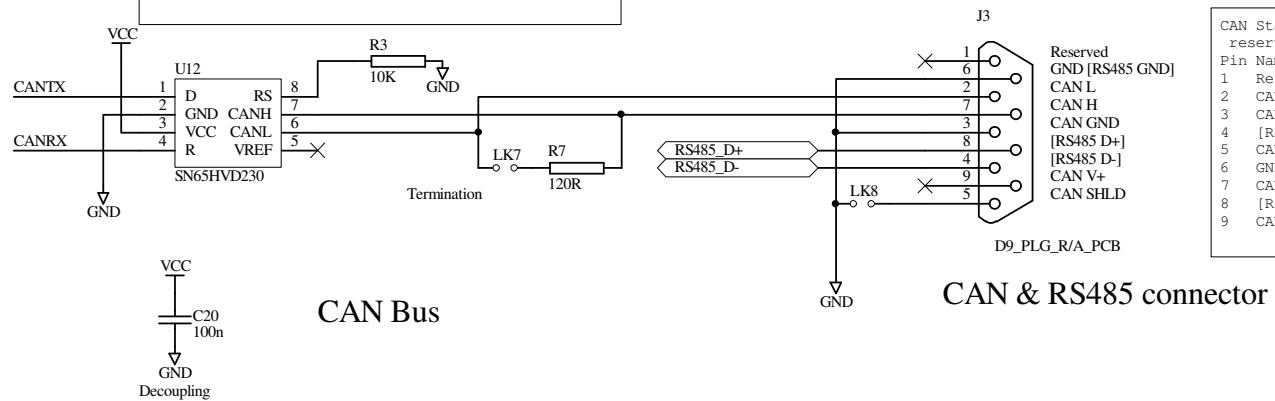


I2C Bus	© Venom Control Systems Ltd. 128 Low Road Burwell CB25 0EJ Cambs Tel. +44 (0) 1223 459232
Revision:	
Date: 9-Nov-2020 16:53:08	
Sheet 6 of 10	
File:	

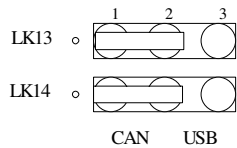


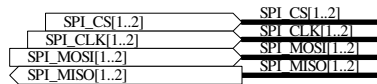
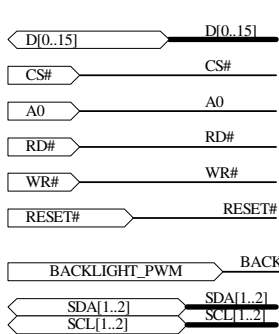
USB 'Slave' Port. 12MHz

Through-hole resistor to allow customisation of this slope/power control terminal.
No need to pull up input D as it is pulled to recessive state on open cct.



CAN Bus and USB are on the same processor pins. They can't be used concurrently. Diagram shows CAN function selected.

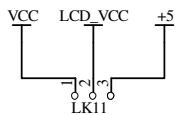
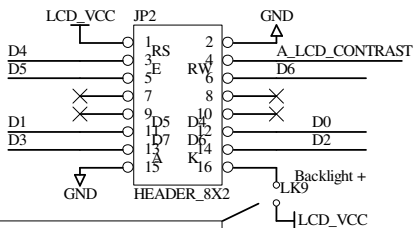




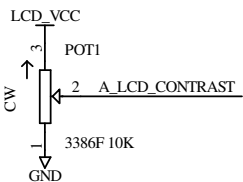
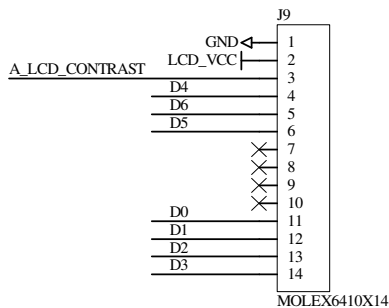
ALPHALCD REVERSE DIL IDC CONNECTOR

Can also support PLED displays

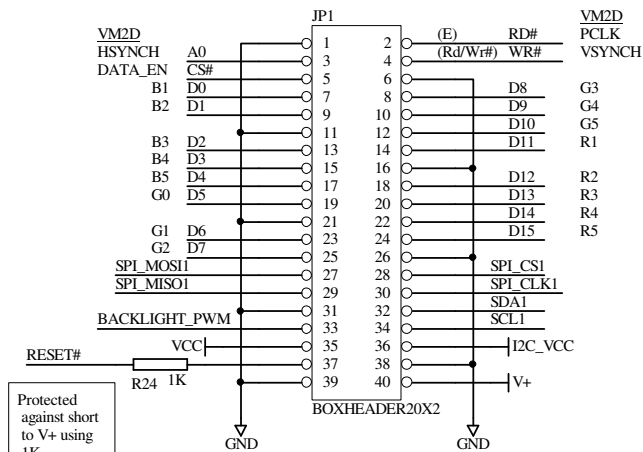
This pinout is for DIL connectors to an LCD where a transition connector has been soldered in to the BACK side of the LCD unit.



Select voltage for LCD display. Most Alphanumeric displays need 5V.



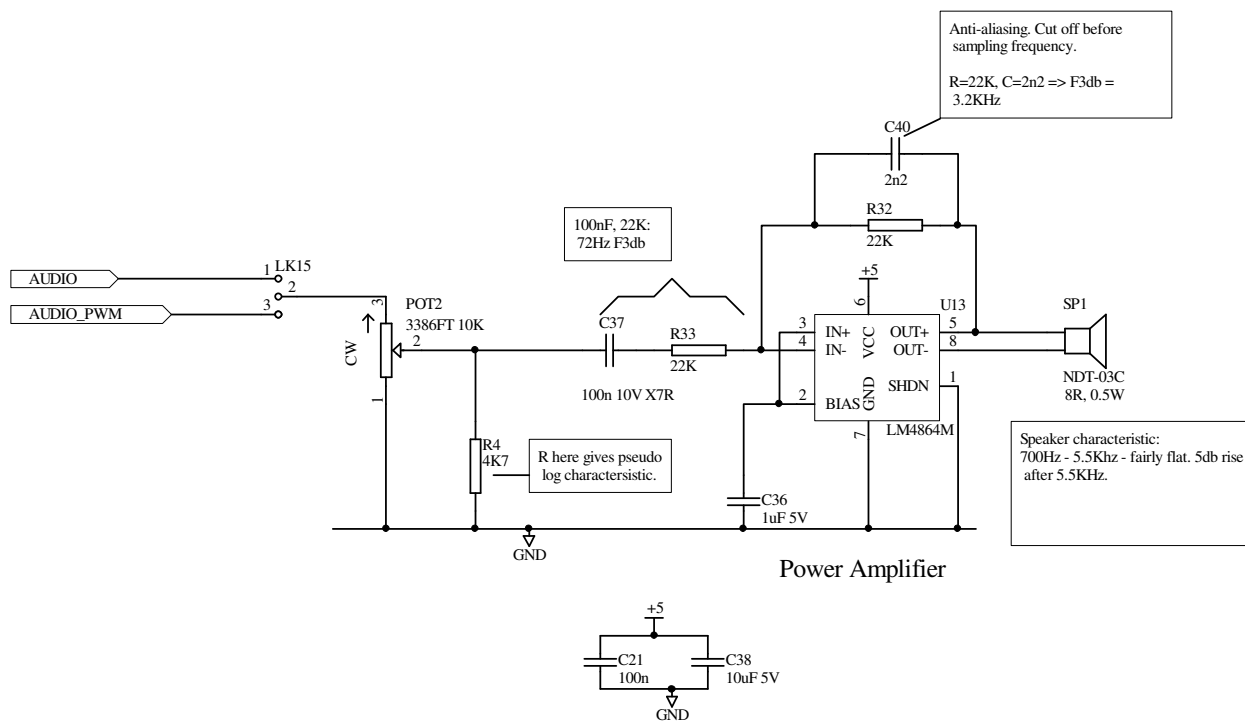
ALPHA LCD - SIL connector
Can also support PLED displays

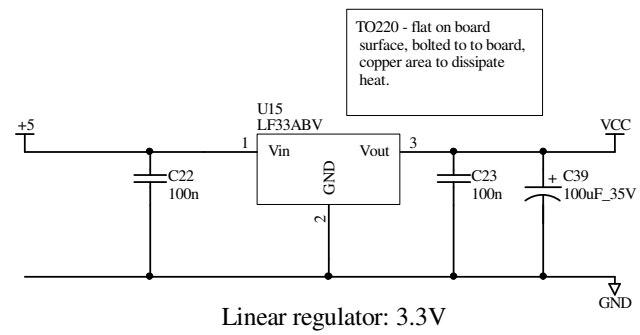
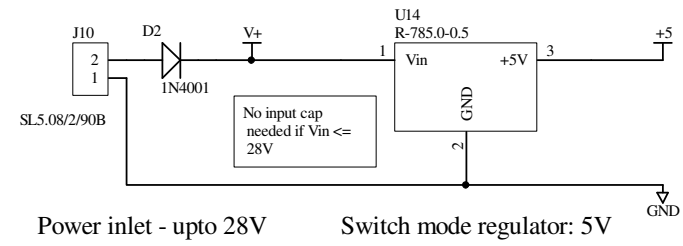


VM2 Graphics connector standard

PCF8574 I2C ADDR 122, WHEN USED

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