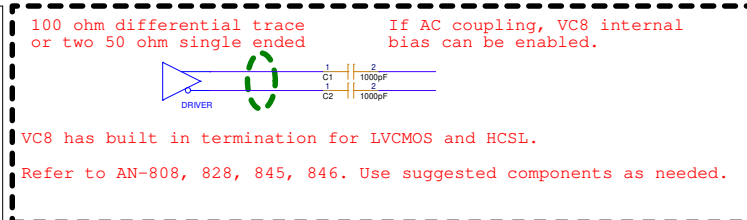


100 ohm differential trace  
or two 50 ohm single ended

If AC coupling, VC8 internal  
bias can be enabled.

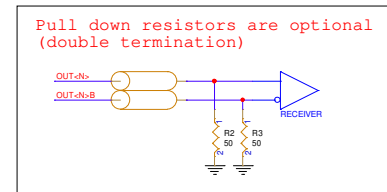
VC8 has built in termination for LVC MOS and HC SL.

Refer to AN-808, 828, 845, 846. Use suggested components as needed.

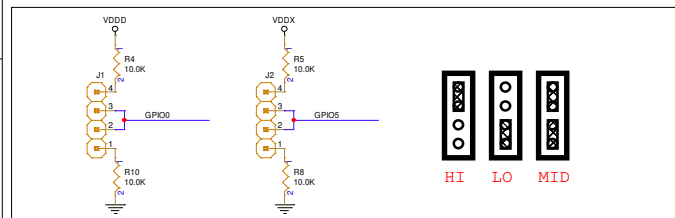
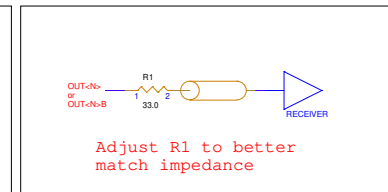


Pull down resistors are optional  
(double termination)

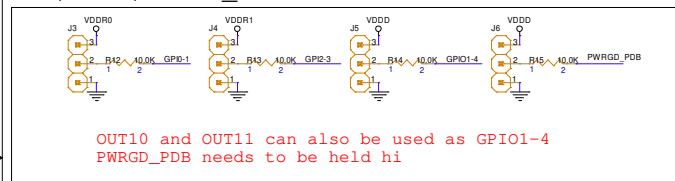
The diagram illustrates a differential bus system. On the left, two signal lines are labeled `OUT<0>` and `OUT<0>B`. These lines are terminated at their source with two yellow oval shapes. The lines extend to the right, where they are terminated with red dots. Below the lines, two optional pull-down resistors,  $R2$  and  $R3$ , are shown connected to ground. Each resistor is labeled with a value of 50. The lines continue to the right, where they are terminated with blue dots. The lines then enter a blue trapezoidal shape labeled `RECEIVER`.



Adjust R1 to better match impedance



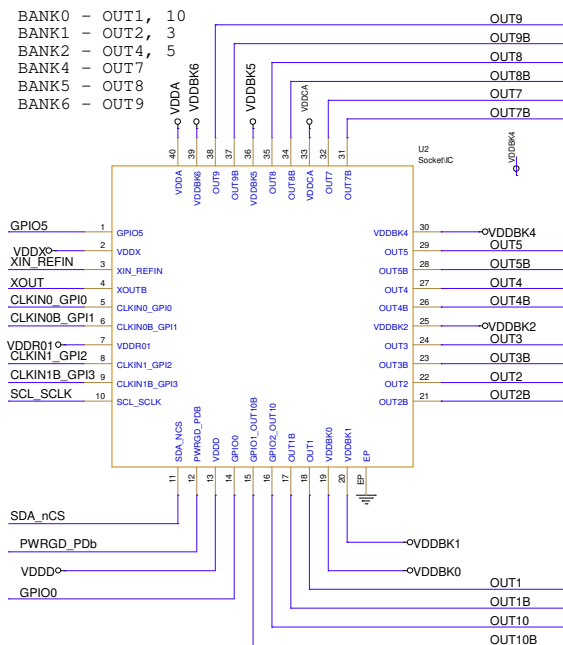
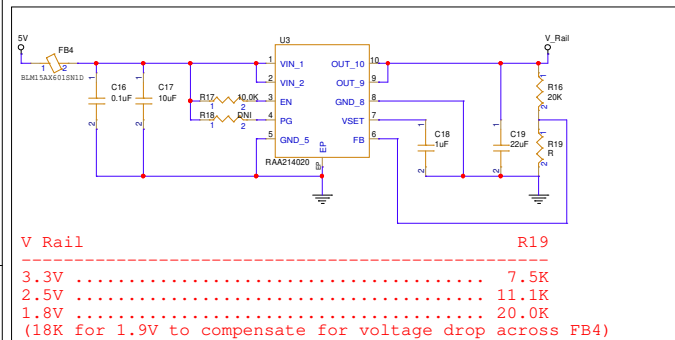
OUT10 and OUT11 can also be used as GPIO1-4  
PWRGD\_PDB needs to be held hi



V Rail

|            | R19   |
|------------|-------|
| 3.3V ..... | 7.5K  |
| 2.5V ..... | 11.1K |
| 1.8V ..... | 20.0K |

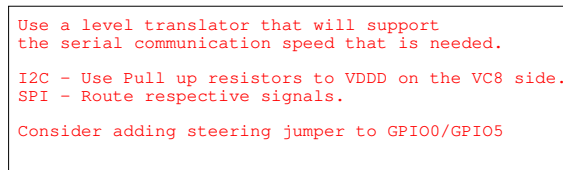
(18K for 1.9V to compensate for voltage drop across FB4)



Use a level translator that will support the serial communication speed that is needed.

I2C - Use Pull up resistors to VDD on the VC8 side.  
SPI - Route respective signals.

Consider adding steering jumper to GPIO0/GPIO5



**DIGITAL**

V\_Rail

FB1

1 2

C5 10uF

C6 0.1uF

VDD0

0V

**BANK<N>**

V\_Rail

FB3

1 2

C12 10uF

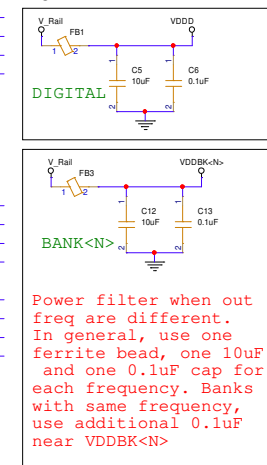
C13 0.1uF

VDDBK<N>

0V

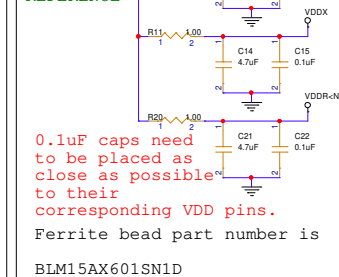
**Power filter when out freq are different.**

In general, use one ferrite bead, one 10uF and one 0.1uF cap for each frequency. Banks with same frequency, use additional 0.1uF near VDDBK<N>



0.1uF caps need to be placed as close as possible to their corresponding VDD pins.

Ferrite bead part number is BLM15AX601SN1D



A0-2 - pull hi or lo to set EEPROM address 0x50 - 0x57  
WP - pull hi to prevent writing

