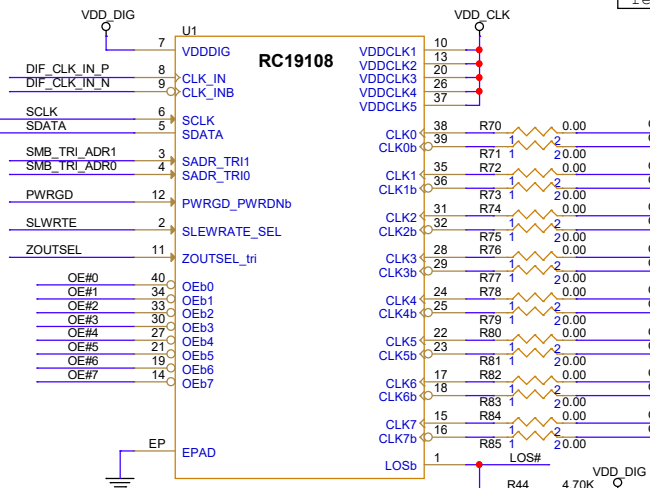
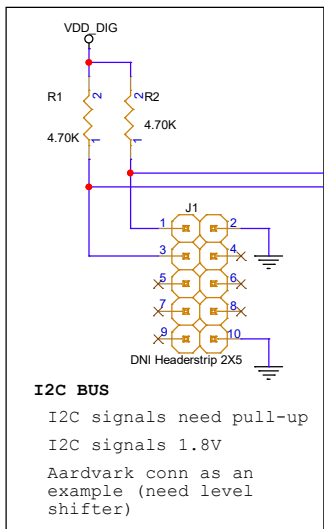




When in 85-ohm option, use 7.5-ohm series resistor and place it close to driver/output pin. Then use diff 100-ohm transmission lines. Or use diff 85-ohm transmission lines without series resistor.

When in 33-ohm option, use 33-ohm series resistor and place it close to driver/output pin. Then use SE 50-ohm or diff 100-ohm transmission lines

Output driver can be configured 33/85/100-ohm diff impedance and internally terminated. Following examples are 100-ohm.

(1)DC-coupled to Rcvr with 100-ohm internal term

(2)AC-coupled to Rcvr with 100-ohm internal term.DC-bias may be added depending Rcvr

(3)DC-coupled to Rcvr with out internal term

Diff impedance 33/85/100ohm
10" diff pair from OUT to Rcvr

Serial resistors:

0-ohm:
When 100-ohm driver configured

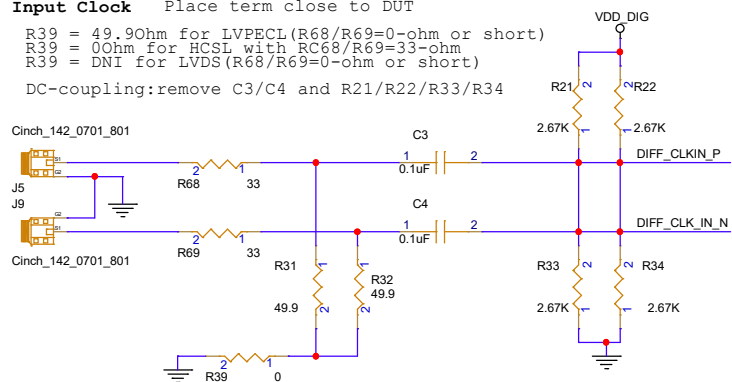
7.5-ohm:
When 85-ohm driver configured

Input Clock

Place term close to DUT

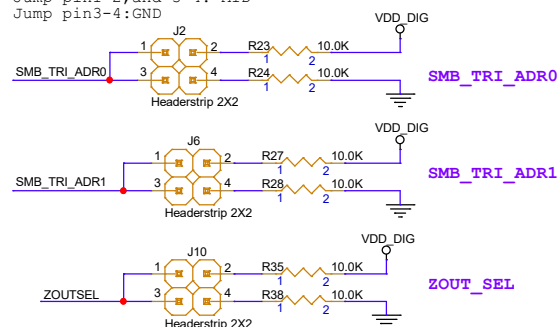
R39 = 49.90hm for LVPECL(R68/R69=0-ohm or short)
R39 = 00hm for HCSL with RC68/R69=33-ohm
R39 = DNI for LVDS(R68/R69=0-ohm or short)

DC-coupling:remove C3/C4 and R21/R22/R33/R34



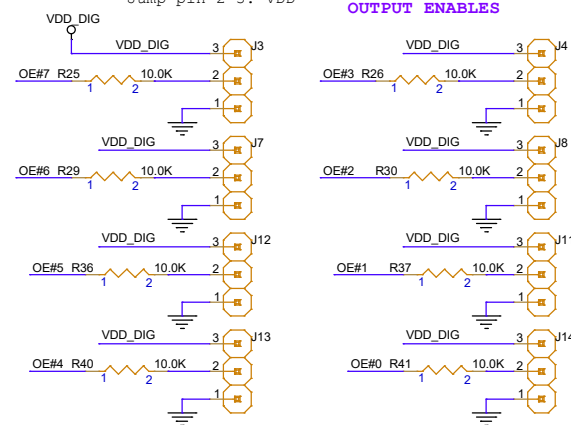
For all 4-header jumpers:

Jump pin 1-2: VDD
Jump pin1-2, and 3-4: MID
Jump pin3-4:GND



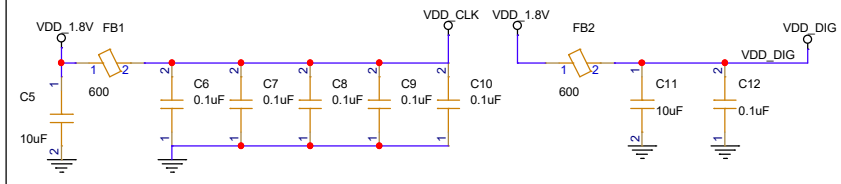
For all 3-header jumpers:

Jump pin 1-2: GND
Jump pin 2-3: VDD



Power Supplies

Place a 0.1uF as close to each power pin as possible

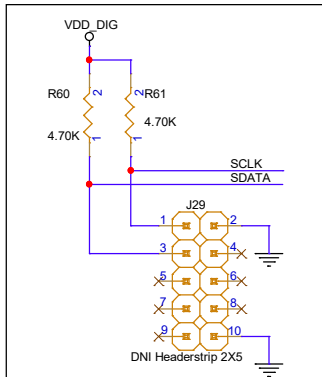


RENESAS

Renesas
1140 West Warner Rd.
Tempe, AZ 85284

Title: **RC19108 Ref Sch**

Size B	HW Number:	HW#	Engineer: Renesas Applications	Rev. A
	Date: 04/29/2024		Sheet: 1 of 2	



I2C BUS

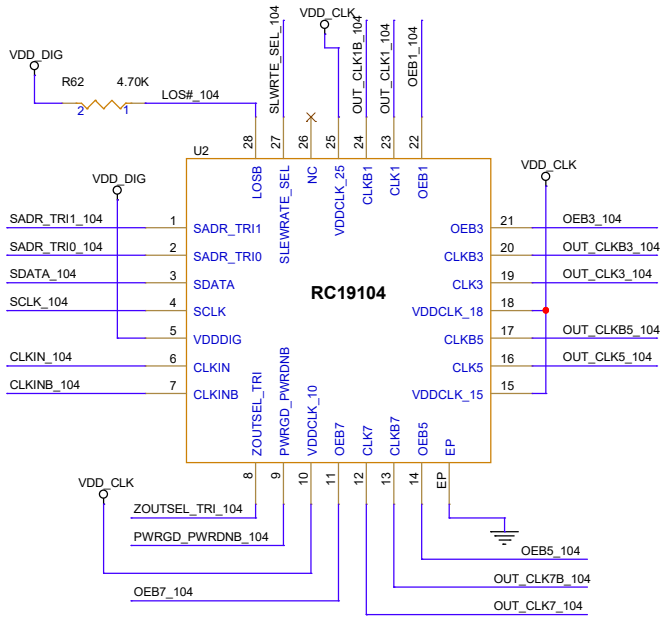
I2C signals need pull-up
I2C signals 1.8V
Aardvark conn as an example (need level shifter)

INPUT CLOCKS

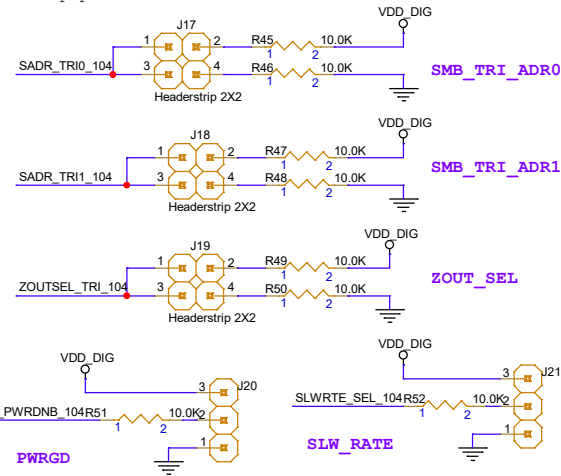
CLKIN_104/CLKINB_104 and CLKIN_102/CLKINB_102 are input clocks for RC19104 and RC19102, respectively. Please refer to INPUT CLOCK notes on Page 1 for ac-coupling and DC-biasing circuit.

Power filtering

A 0.1uF decoupling capacitor is used for each power pin and placed as close to the pin as possible

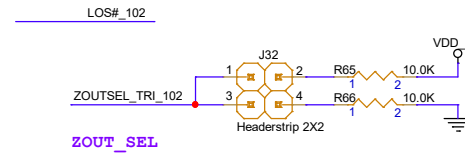


For all 4-header jumpers:
Jump pin 1-2: VDD
Jump pin1-2, and 3-4: MID
Jump pin3-4: GND



OUTPUT CLOCKS

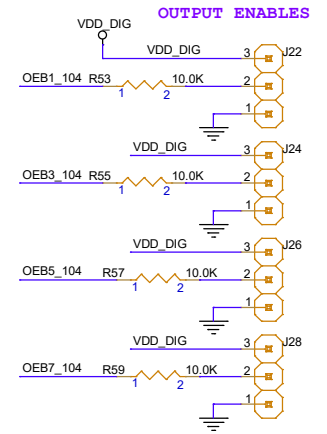
RC19104 has 4 diff outputs: OUT_CLKx_104/OUT_CLKxB_104 (x = 1,3,5,7) Please refer to Page 1 for output connections and terminations.



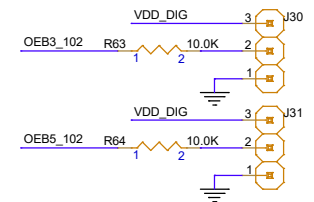
OUTPUT CLOCKS

RC19102 has 2 diff outputs: OUT_CLKx_104/OUT_CLKxB_104 (x = 1,3) Please refer to Page 1 for output connections and terminations.

For all 3-header jumpers:
Jump pin 1-2: GND
Jump pin 2-3: VDD



OUTPUT ENABLES



RENESAS

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Title: Project Name

Size B	HW Number: HW#	Engineer: Engineer Name	Rev. A
Date: 03/07/2024	Sheet: 2	of 2	