
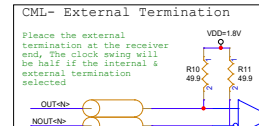
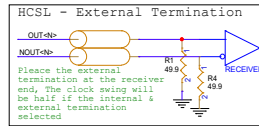
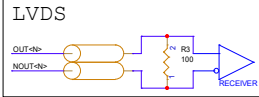
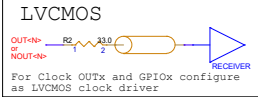


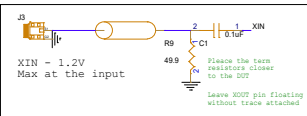
RC38312_BGA100_CUSTOMER_REFERENCE SCHEMATIC

| | | | | |
|---|------------|--|--------------------|------|
|  | | Renesas 1140 West Warner Rd. Tempe, AZ 85284 | | |
| Title: RC38312-Reference Schematic | | | | |
| Size | HW Number: | HW# | Engineer: Ming Lim | Rev. |
| B | Date: | 12/14/2023 | Sheet: 1 of 2 | A |

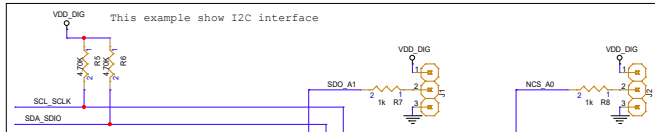
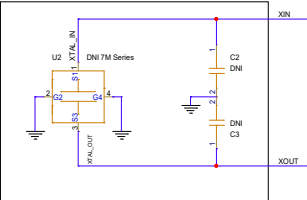
Use Single Ended clock traces with LVCMOS.



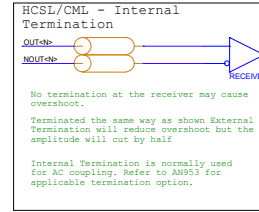
XIN Overdrive option: AC-Coupled



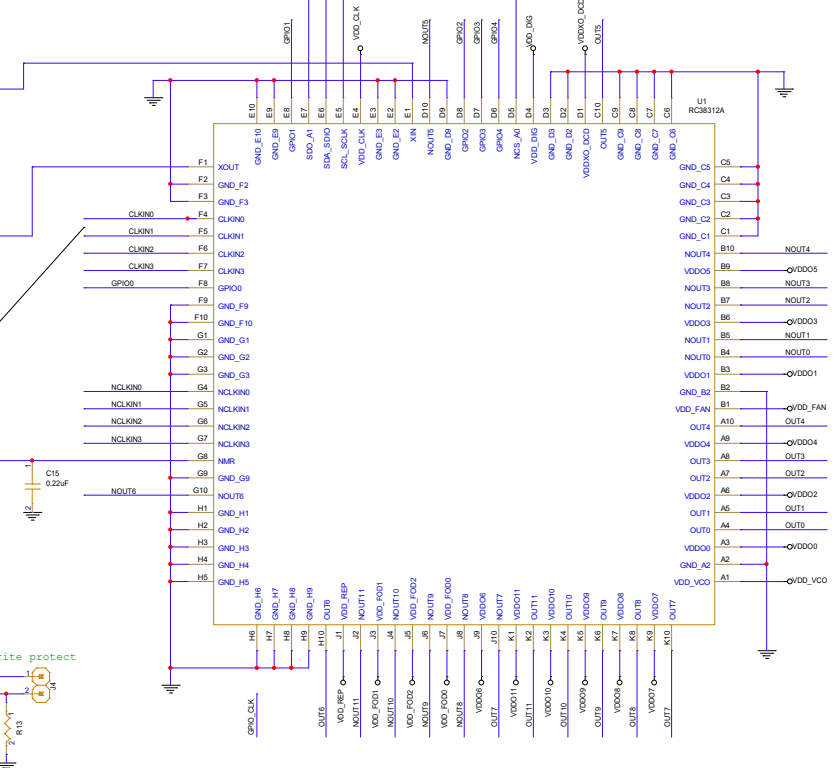
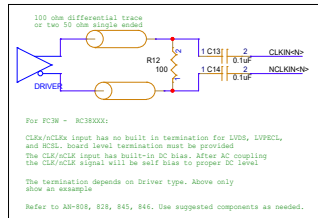
CRYSTAL INPUT



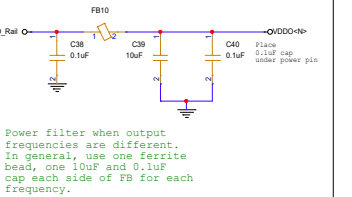
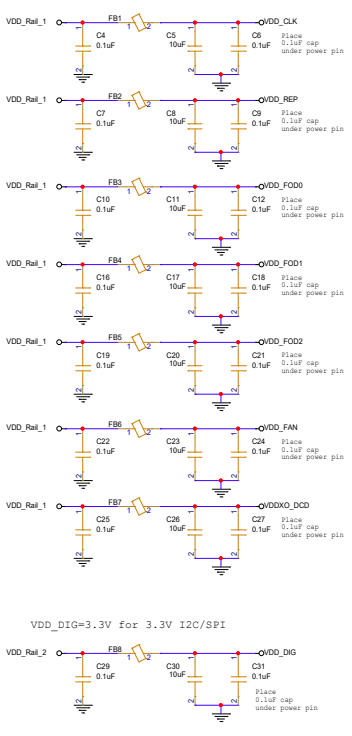
Use Differential clock traces for differential signals
Refer to AN-953 for information on termination.



REFERENCE INPUT AC Coupling Example

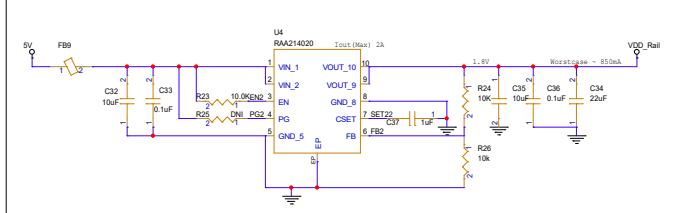


VDD_Rail_1=1.8V
VDD_Rail_2=1.8V or 3.3V



Power filter when output frequencies are different. In general, use one ferrite bead, one 10uF and 0.1uF cap each side of FB for each frequency.

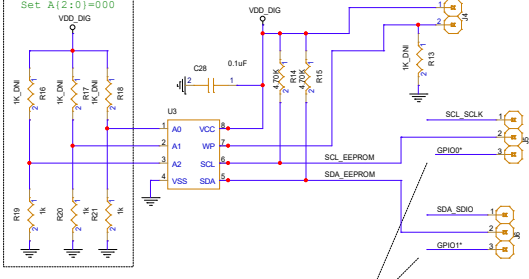
POWER (LDO)



Refer to RAA214020 Data sheet for voltage setting

| VDD Rail | R24 |
|----------|-------|
| 3.3V | 26.7K |
| 1.8V | 10K |

For Example: EEPROM address=50
Set A[2:0]=000



* GPIOx pins can be multi-purposes. When the GPIO pins are used as I2C CLK and DATA for EEPROM loading. Make sure pull up resistors are populated. Typically GPIO0 and GPIO1 will be used for EEPROM loading, but this is not always the case. Please consult the Datasheet Addendum to determined which pins are used for the EEPROM loading.