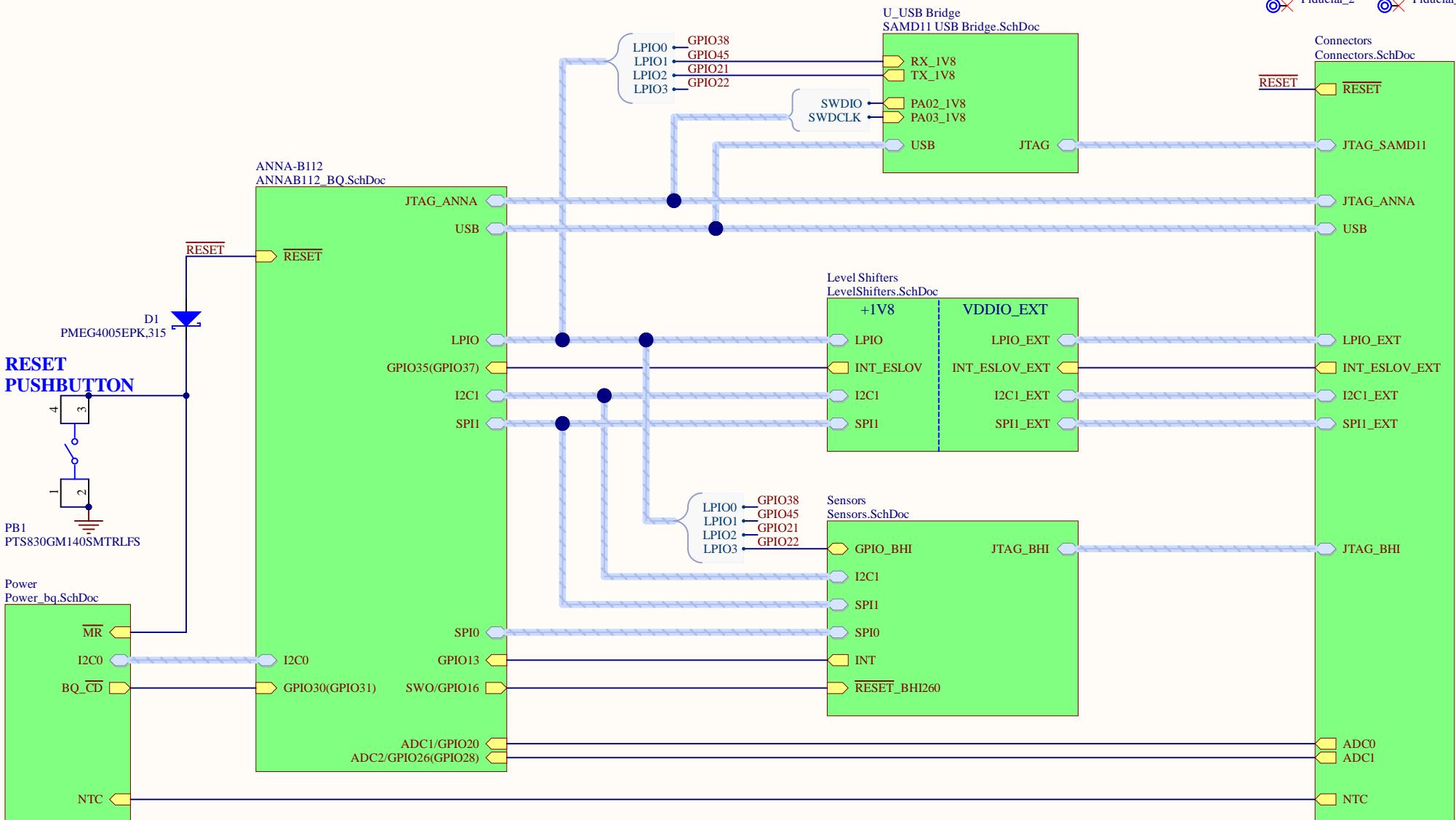


Fiducial_1 Fiducial_3
Fiducial_2 Fiducial_4



Reference Designs ARE PROVIDED "AS IS" AND "WITH ALL FAULTS. Arduino SA DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, REGARDING PRODUCTS, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Arduino SA may make changes to specifications and product descriptions at any time, without notice. The Customer must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined". Arduino SA reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them. The product information on the Web Site or Materials is subject to change without notice.

Do not finalize a design with this info. ARDUINO and other Arduino brands and logos and Trademarks of Arduino SA. All Arduino SA Trademarks cannot be used without owner's formal permission.

Title: TOP

ID: ABX00050

Revision: V1.0

Date: 11/11/2022

Time: 3:23:22 PM

Sheet 1 of 7

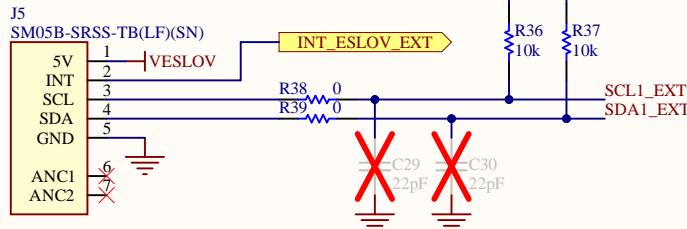
File: TOP.SchDoc

Author: Francesca Cenna



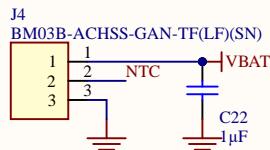
A

ESLOV CONNECTOR



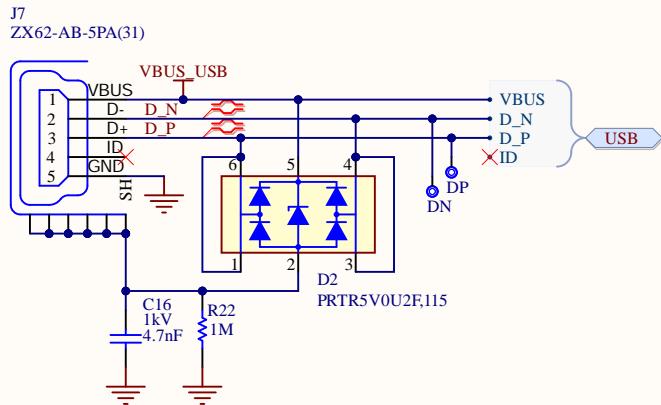
B

BATTERY CONNECTOR



C

USB CONNECTOR

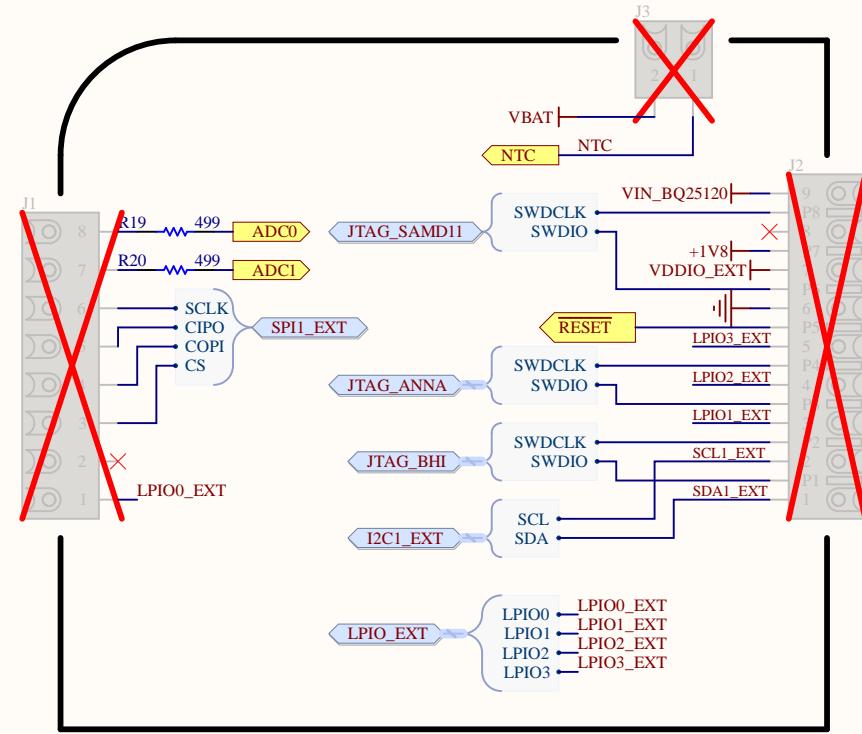


D

Reference Designs ARE PROVIDED "AS IS" AND "WITH ALL FAULTS. Arduino SA DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, REGARDING PRODUCTS, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Arduino SA may make changes to specifications and product descriptions at any time, without notice. The Customer must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined". Arduino SA reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them. The product information on the Web Site or Materials is subject to change without notice.

Do not finalize a design with this info. ARDUINO and other Arduino brands and logos and Trademarks of Arduino SA. All Arduino SA Trademarks cannot be used without owner's formal permission.



Title: CONNECTORS

ID: ABX00050

Revision: V1.0

Date: 11/11/2022

Time: 3:23:26 PM

Sheet 2 of 7

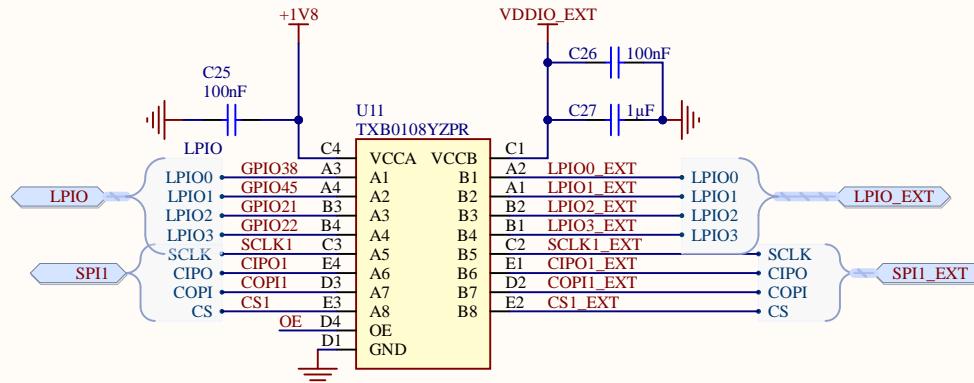
File: Connectors.SchDoc

Author: Francesca Cenna

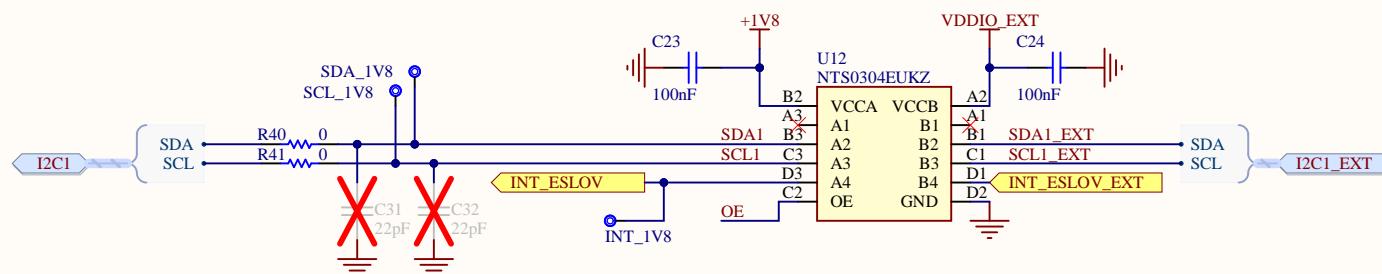


RevAuthor: Silvio Navaretti

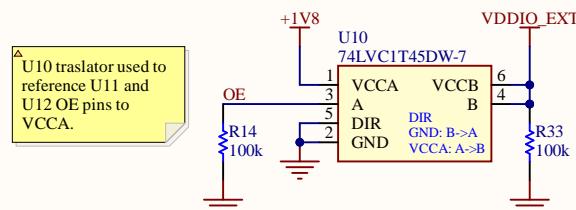
A



B



C



D

Reference Designs ARE PROVIDED "AS IS" AND "WITH ALL FAULTS. Arduino SA DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, REGARDING PRODUCTS, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Arduino SA may make changes to specifications and product descriptions at any time, without notice. The Customer must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined". Arduino SA reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them. The product information on the Web Site or Materials is subject to change without notice.

Do not finalize a design with this info. ARDUINO and other Arduino brands and logos and Trademarks of Arduino SA. All Arduino SA Trademarks cannot be used without owner's formal permission.

Title: LEVEL SHIFTERS

ID: ABX00050

Revision: V1.0

Date: 11/11/2022

Time: 3:23:31 PM

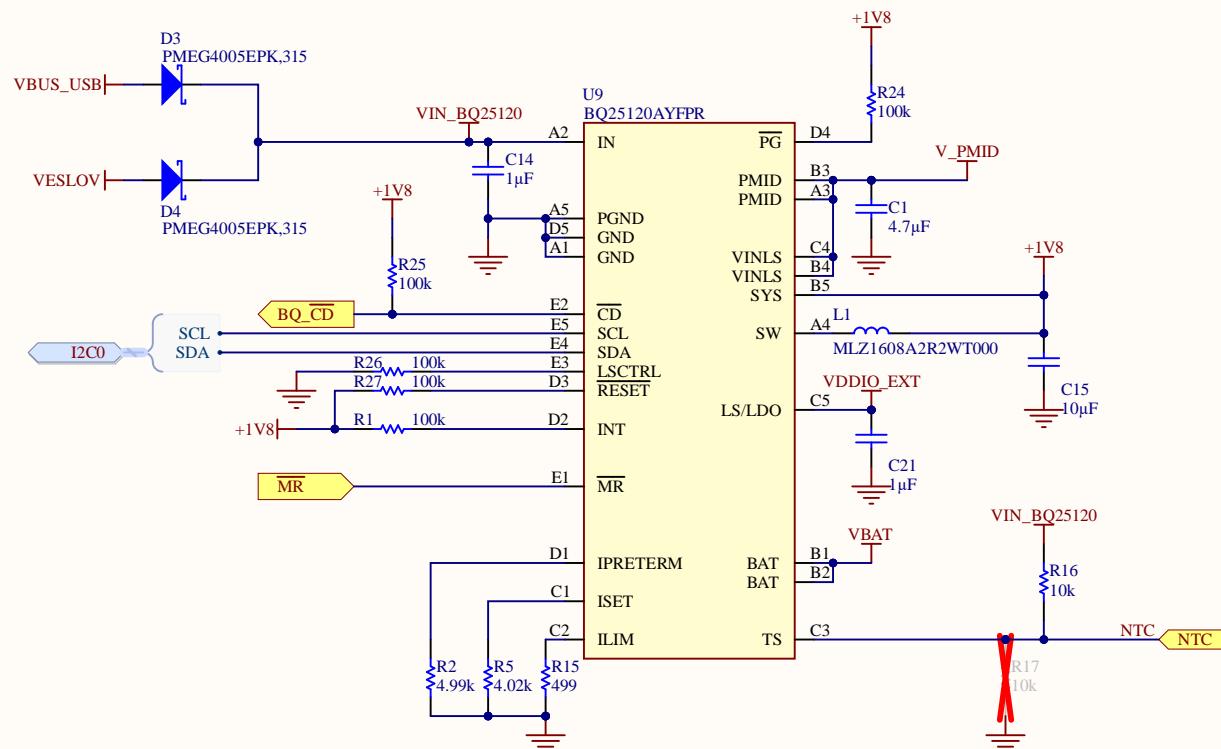
Sheet 3 of 7

File: LevelShifters.SchDoc

Author: Francesca Cenna



A



B

C

D

BATTERY-PACK NTC MONITOR			MIN	TYP	MAX	UNIT
V_{HOT}	High temperature threshold	V_{TS} falling, 1% V_{IN} Hysteresis	14.5	15	15.2	% V_{IN}
V_{WARM}	Warm temperature threshold	V_{TS} falling, 1% V_{IN} Hysteresis	20.1	20.5	20.8	% V_{IN}
V_{COOL}	Cool temperature threshold	V_{TS} rising, 1% V_{IN} Hysteresis	35.4	36	36.4	% V_{IN}
V_{COLD}	Low temperature threshold	V_{TS} rising, 1% V_{IN} Hysteresis	39.3	39.8	40.2	% V_{IN}
TS_{OFF}	TS Disable threshold	V_{TS} rising, 2% V_{IN} Hysteresis	55	60	60	% V_{IN}

Reference Designs ARE PROVIDED "AS IS" AND "WITH ALL FAULTS. Arduino SA DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, REGARDING PRODUCTS, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Arduino SA may make changes to specifications and product descriptions at any time, without notice. The Customer must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined". Arduino SA reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them. The product information on the Web Site or Materials is subject to change without notice.

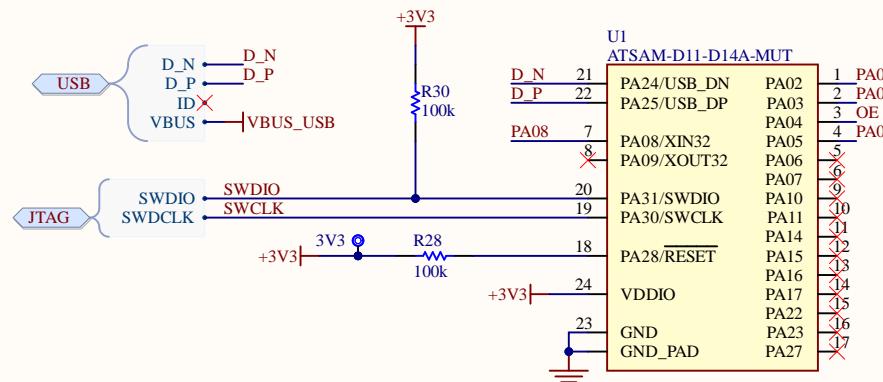
Do not finalize a design with this info. ARDUINO and other Arduino brands and logos and Trademarks of Arduino SA. All Arduino SA Trademarks cannot be used without owner's formal permission.

Title: POWER

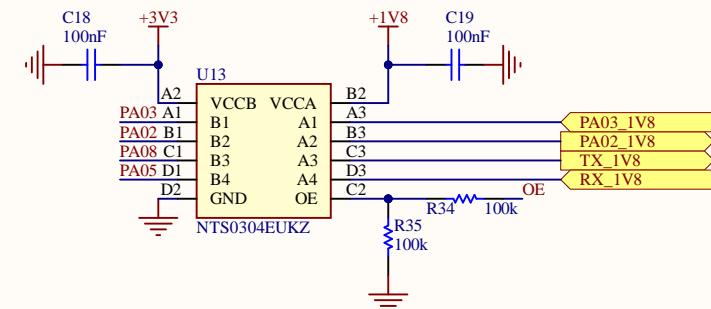
ID: ABX00050	Revision: V1.0
Date: 11/11/2022	Time: 3:23:35 PM
Sheet 4 of 7	
File: Power_bq.SchDoc	Author: Francesca Cenna RevAuthor: Silvio Navaretti



A



LEVEL TRANSLATOR

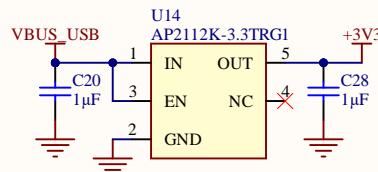


B

C

D

LDO 3V3



Reference Designs ARE PROVIDED "AS IS" AND "WITH ALL FAULTS. Arduino SA DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, REGARDING PRODUCTS, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Arduino SA may make changes to specifications and product descriptions at any time, without notice. The Customer must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined". Arduino SA reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them. The product information on the Web Site or Materials is subject to change without notice.

Do not finalize a design with this info. ARDUINO and other Arduino brands and logos and Trademarks of Arduino SA. All Arduino SA Trademarks cannot be used without owner's formal permission.

Title: **USB BRIDGE**

ID: [ABX00050](#)

Revision: [V1.0](#)

Date: [11/11/2022](#)

Time: [3:23:39 PM](#)

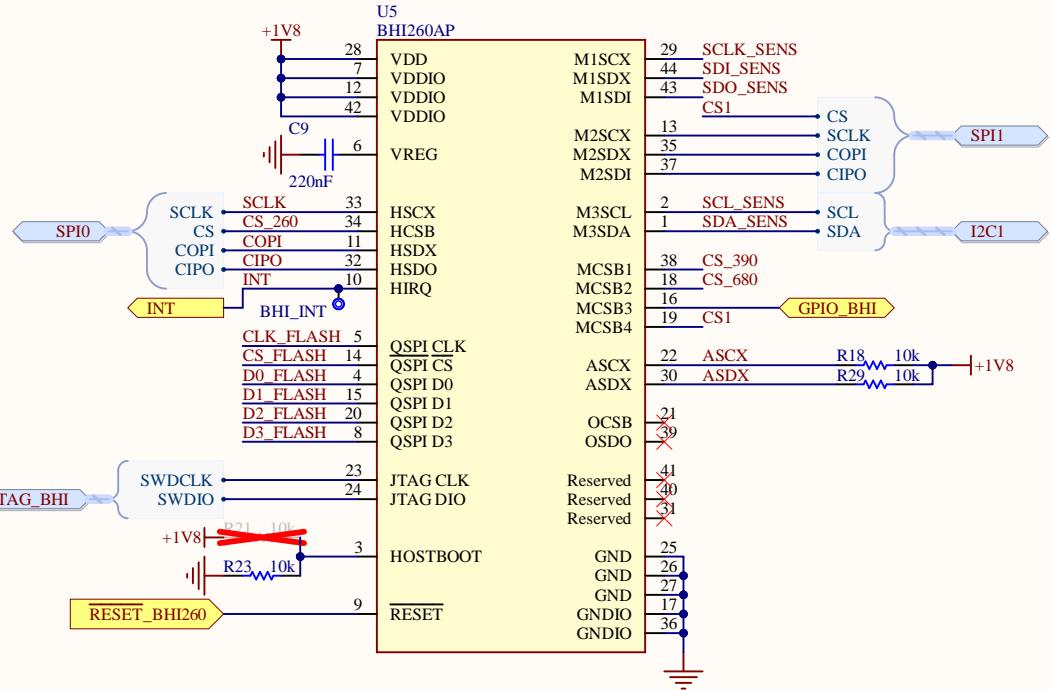
Sheet [5](#) of [7](#)

File: [SAMD11 USB Bridge.SchDoc](#)

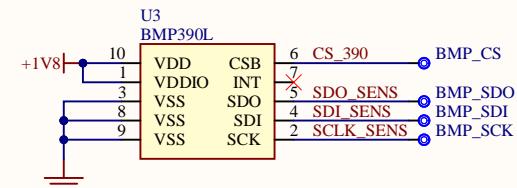
Author: [Francesca Cenna](#)



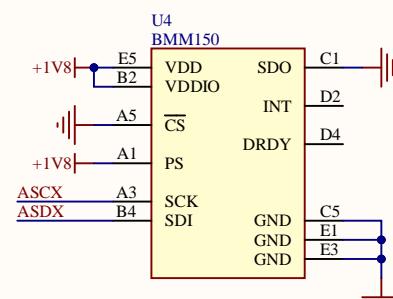
Sensor Fusion / 6 DOF IMU



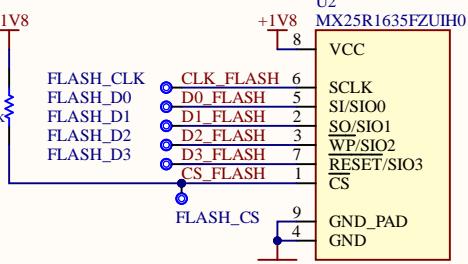
Pressure Sensor



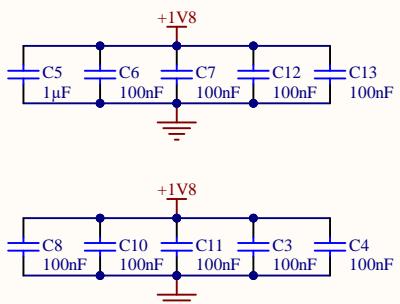
Magnetometer



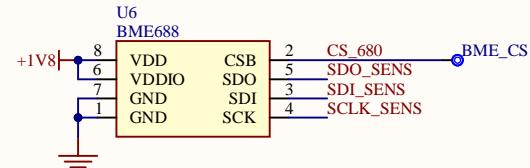
BHI Flash



Bypass Capacitors



Pressure, Humidity, Temperature, VOC



Reference Designs ARE PROVIDED "AS IS" AND "WITH ALL FAULTS. Arduino SA DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, REGARDING PRODUCTS, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Arduino SA may make changes to specifications and product descriptions at any time, without notice. The Customer must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined". Arduino SA reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them. The product information on the Web Site or Materials is subject to change without notice.

Do not finalize a design with this info. ARDUINO and other Arduino brands and logos and Trademarks of Arduino SA. All Arduino SA Trademarks cannot be used without owner's formal permission.

Title: SENSORS

ID: ABX00050

Revision: V1.0

Date: 11/11/2022

Time: 3:23:43 PM

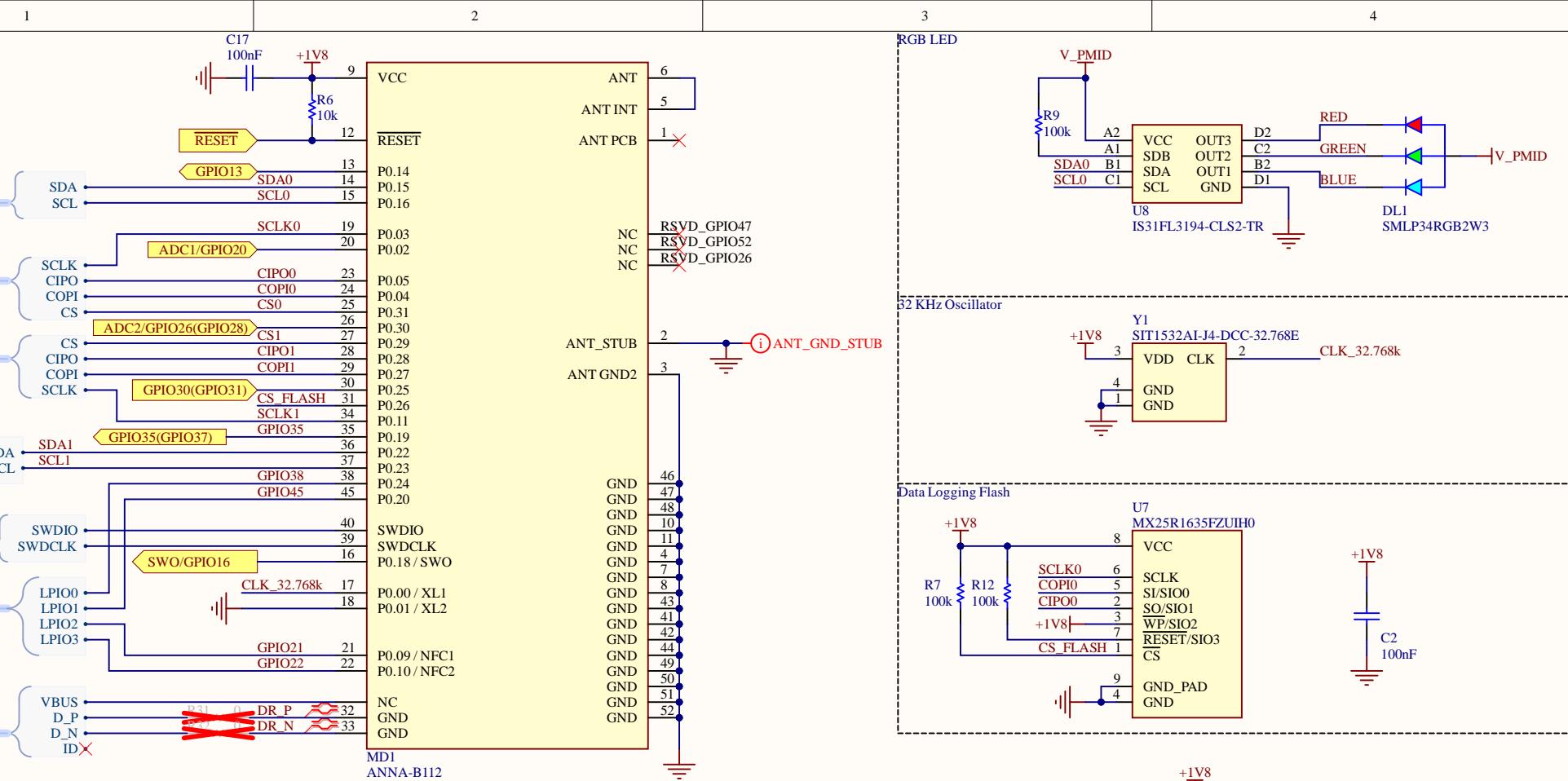
Sheet 6 of 7

File: Sensors.SchDoc

Author: Francesca Cenna

RevAuthor: Silvio Navaretti





Reference Designs ARE PROVIDED "AS IS" AND "WITH ALL FAULTS. Arduino SA DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, REGARDING PRODUCTS, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Arduino SA may make changes to specifications and product descriptions at any time, without notice. The Customer must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined". Arduino SA reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them. The product information on the Web Site or Materials is subject to change without notice.

Do not finalize a design with this info. ARDUINO and other Arduino brands and logos and Trademarks of Arduino SA. All Arduino SA Trademarks cannot be used without owner's formal permission.

Title: ANNAB112

ID: ABX00050

Revision: V1.0



Date: 11/11/2022

Time: 3:23:48 PM

Sheet 7 of 7

File: ANNAB112_BQ.SchDoc

Author: Francesca Cenna

RevAuthor: Silvio Navaretti