

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: **ABX00051**

Revision: **V1.3**

Date: **18/02/2022**

Time: **09:12:49**

Sheet **1** of **8**

File: **TOP.SchDoc**

Author: **Silvio Navaretti**

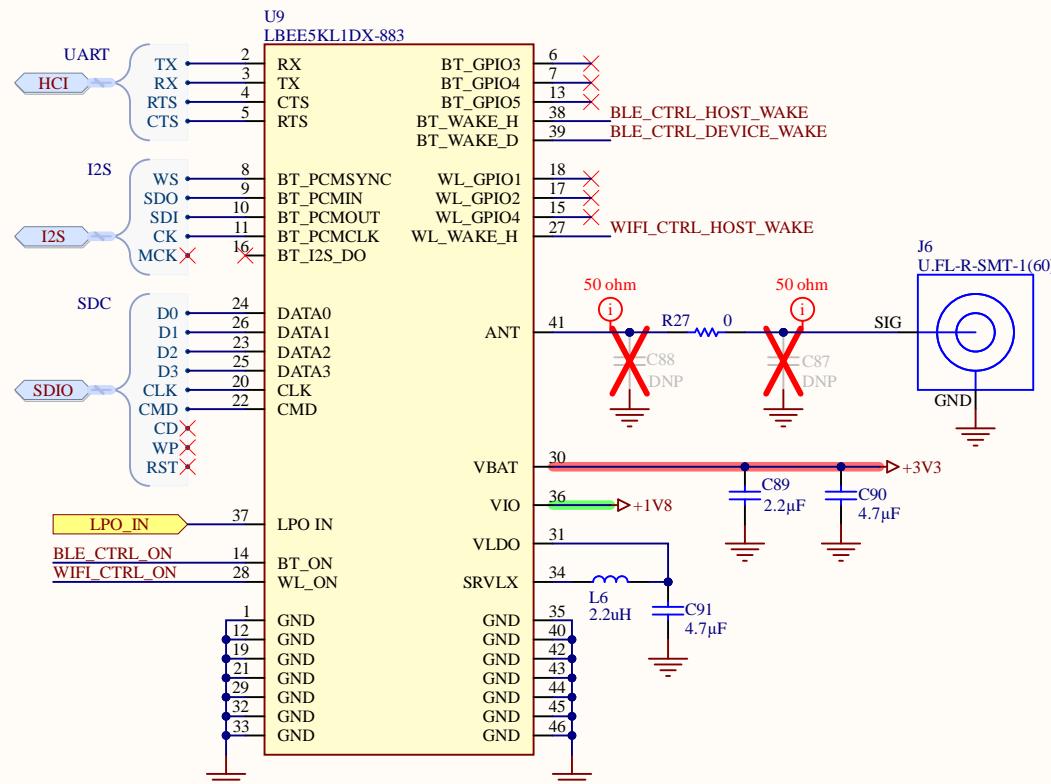
RevAuthor: **Silvio Navaretti**



A



B



C

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: **WIFI / BLE**

ID: **ABX00051**

Revision: **V1.3**

Date: **18/02/2022**

Time: **09:12:51**

Sheet **2** of **8**

File: **Wifi.SchDoc**

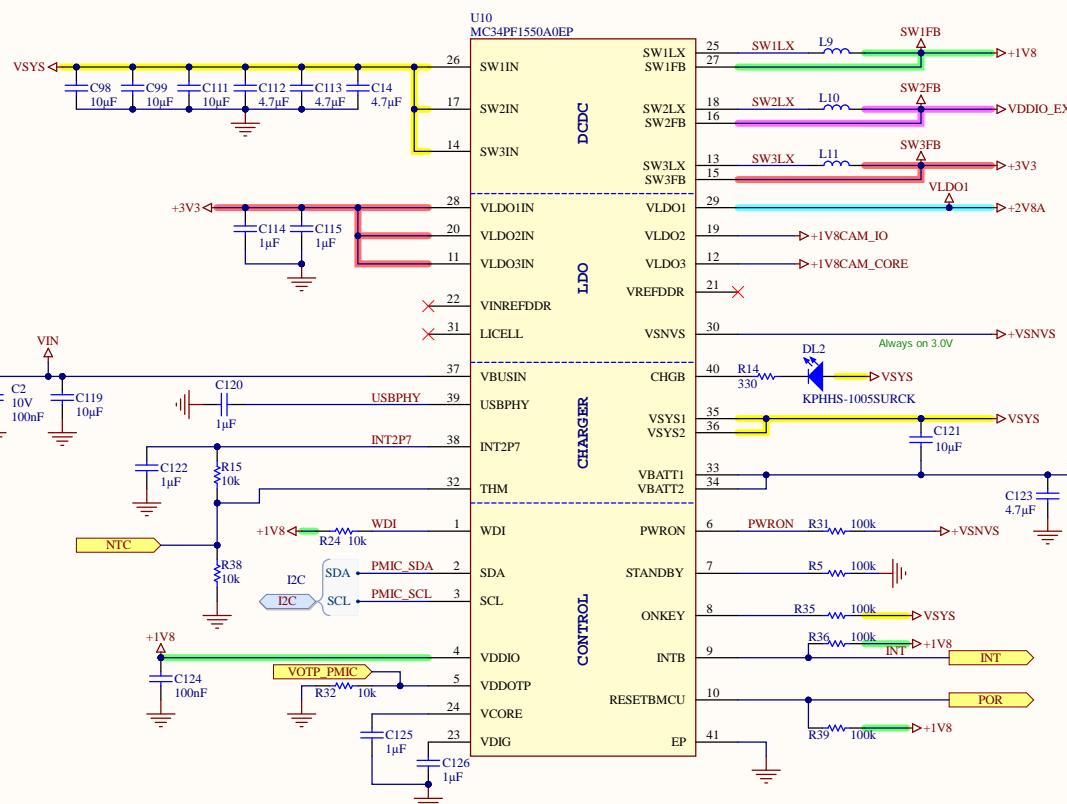
Author: **Arturo Guadalupi**



10

10

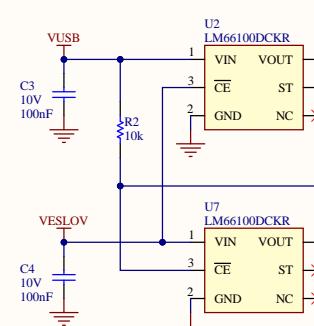
PMIC I2C 0x08



104

10

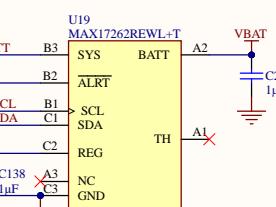
## OR-ING WITH IDEAL DIODES



104

10

BATTERY  
FUEL GAUGE I2C 0x6C



104

10

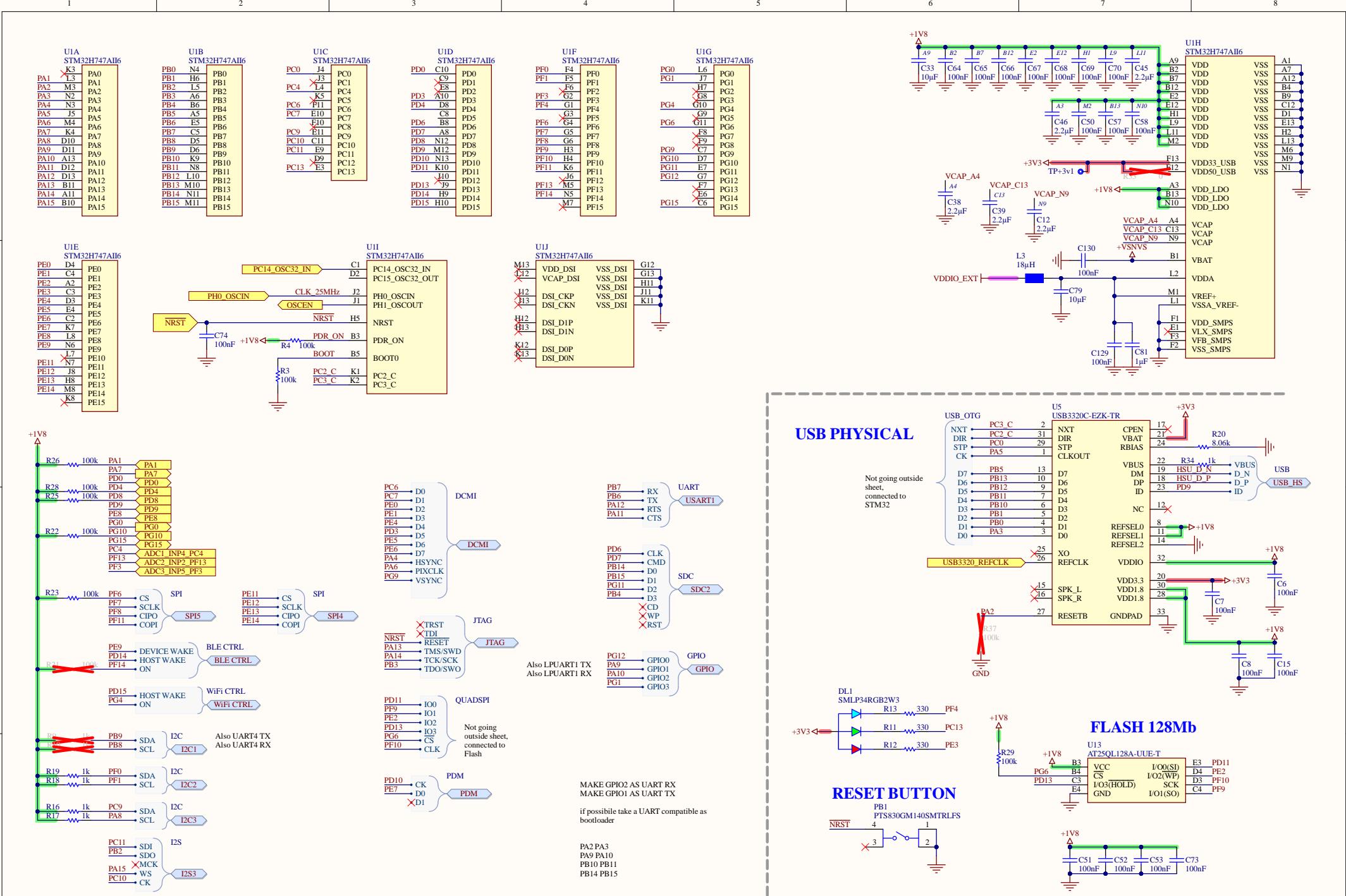
REFERENCE DESIGNS ARE PROVIDED "AS IS" AND "WITH ALL FAULTS. ARDUINO SA DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, REGARDING PRODUCTS, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

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 "under development".

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: <b>POWER</b>			
ID: ABX00051	Revision: V1.3		
Date: 18/02/2022	Time: 09:12:53	Sheet 3 of 8	
File: Power.SchDoc	Author: Arturo Guadalupe		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 are Trademarks of Arduino SA. All Arduino SA Trademarks cannot be used without owner's formal permission.

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.

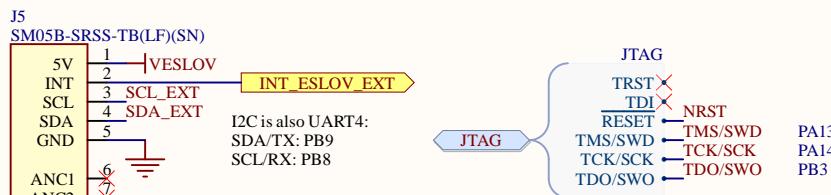
Title: STM32H747

File: STM32H747.SchDoc | Revision: V1.3 | Sheet 4 of 8 | Author: Silvio Navaretti | RevAuthor: Silvio Navaretti

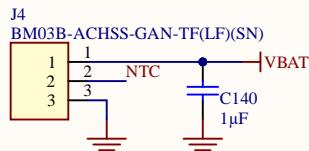



1 | 2 | 3 | 4

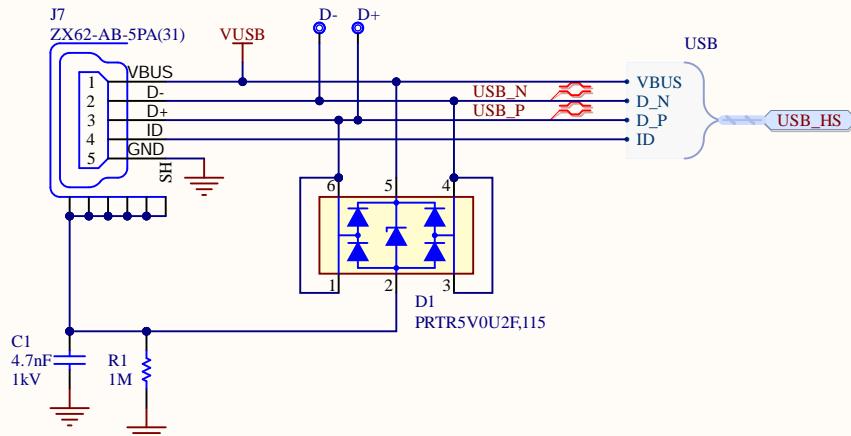
## ESLOV CONNECTOR



## BATTERY CONNECTOR



## USB CONNECTOR



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.

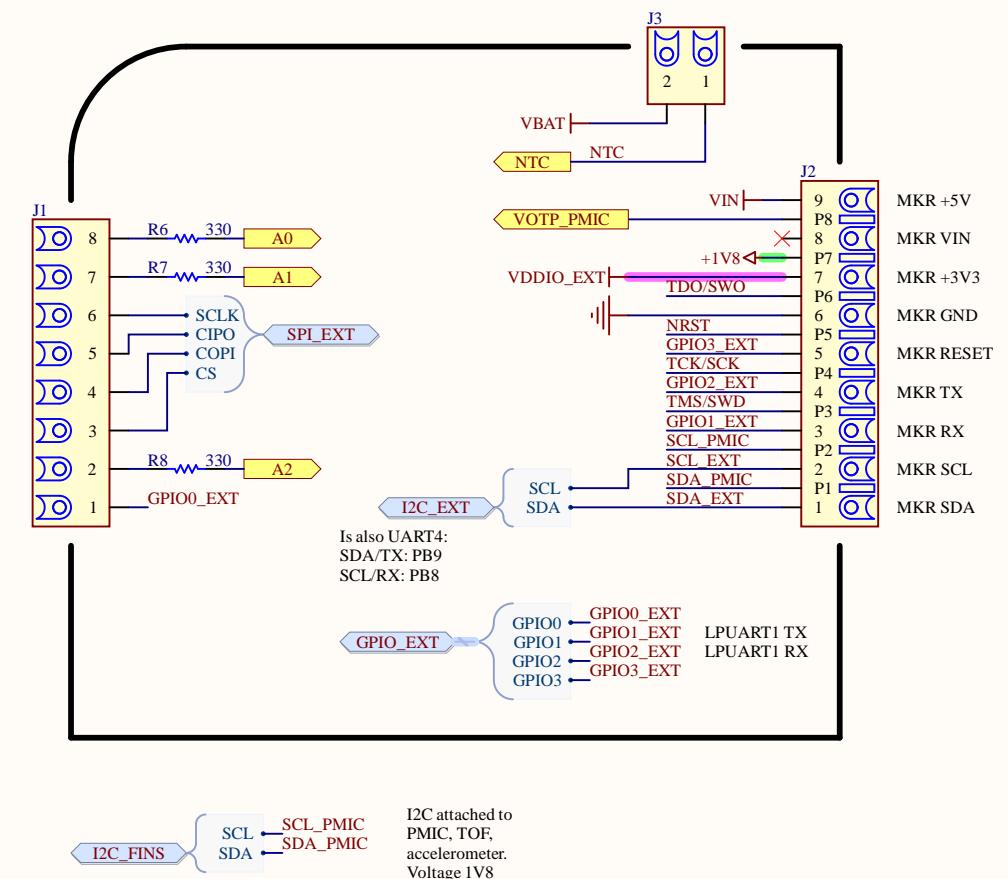
Do not finalize a design with this info. ARDUINO and other Arduino brands and logos and Trademarks of Arduino SA. All Arduino SA Trademarks cannot be used without owner's formal permission.

1

2

3

4



Title: CONNECTORS

ID: ABX00051

Revision: V1.3

Date: 18/02/2022 Time: 09:13:01

Sheet 5 of 8

File: Connectors.SchDoc

Author: Silvio Navaretti



1

2

3

4

A

A

B

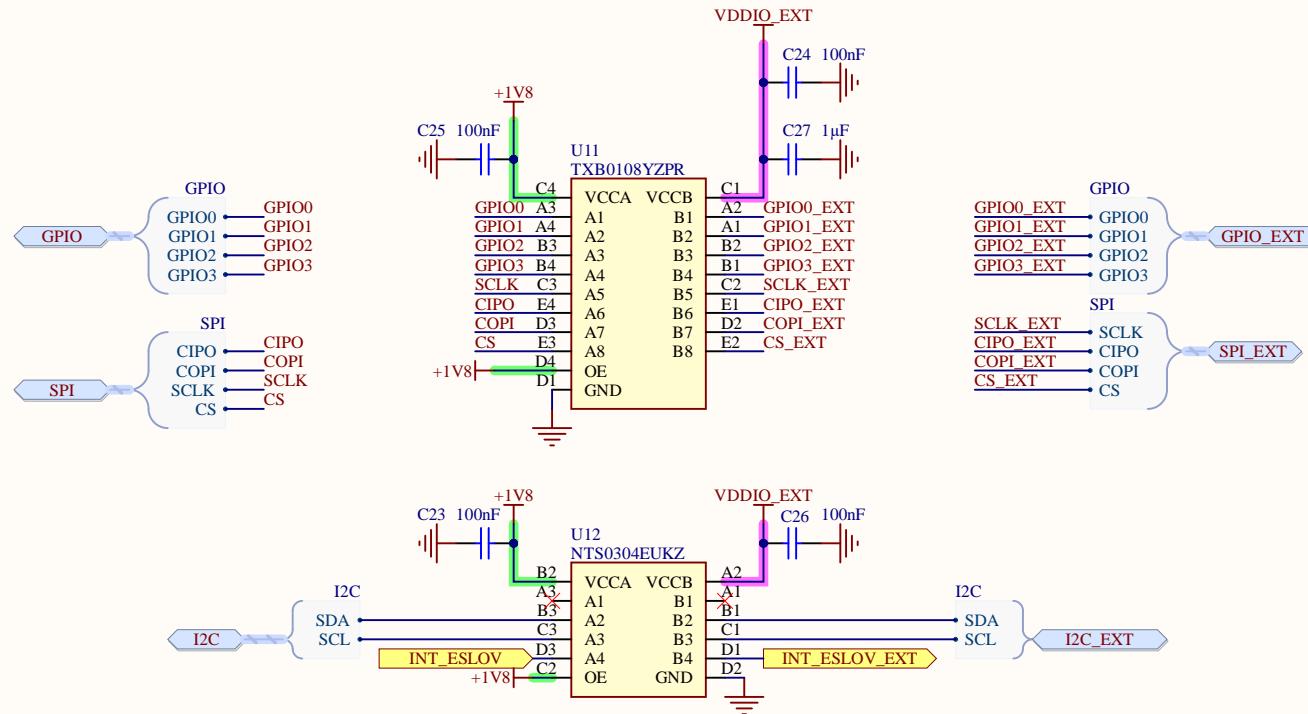
B

C

C

D

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: ABX00051

Revision: V1.3

Date: 18/02/2022 Time: 09:13:04

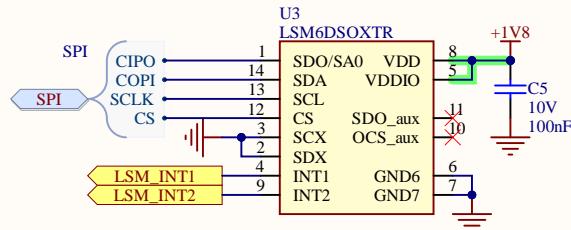
Sheet 6 of 8

File: LevelShifters.SchDoc

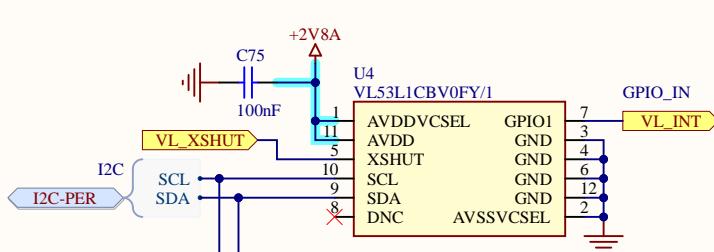
Author: Francesca Cenna



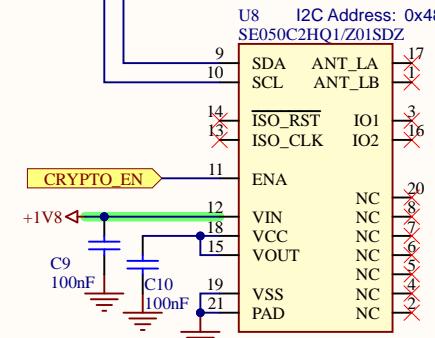
## ACCELEROMETER



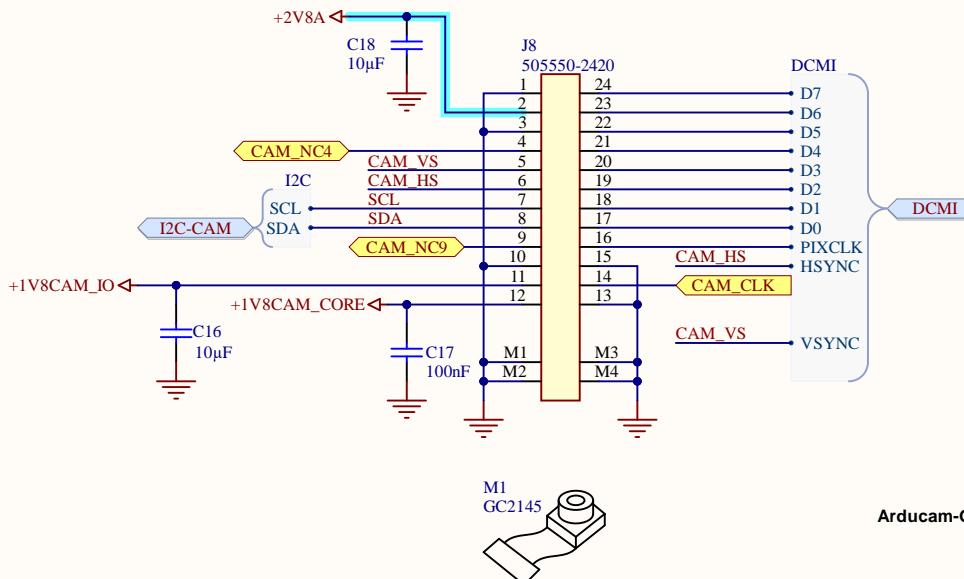
## TIME OF FLIGHT I2C 0x52



## SECURE ELEMENT I2C 0x48



## CAMERA

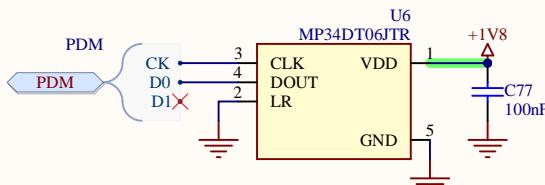


## Arducam-GC2145

CONNECTOR PIN DESCRIPTION	
No.	定义
1	AGND
2	AVDD2.8V
3	GND
4	NC
5	FVLD
6	LVLD
7	SCL
8	SDA
9	NC
10	DGND
11	IOVDD1.8V
12	DVDD1.8V
13	DGND
14	MCLK
15	DGND
16	PCLK
17	D0
18	D1
19	D2
20	D3
21	D4
22	D5
23	D6
24	D7

Arducam-GC2145 camera module pinout

## MICROPHONE



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: MISCELLANEOUS

ID: ABX00051

Revision: V1.3

Date: 18/02/2022 Time: 09:13:07

Sheet 7 of 8

File: Misc.SchDoc Author: Silvio Navaretti



A

A

B

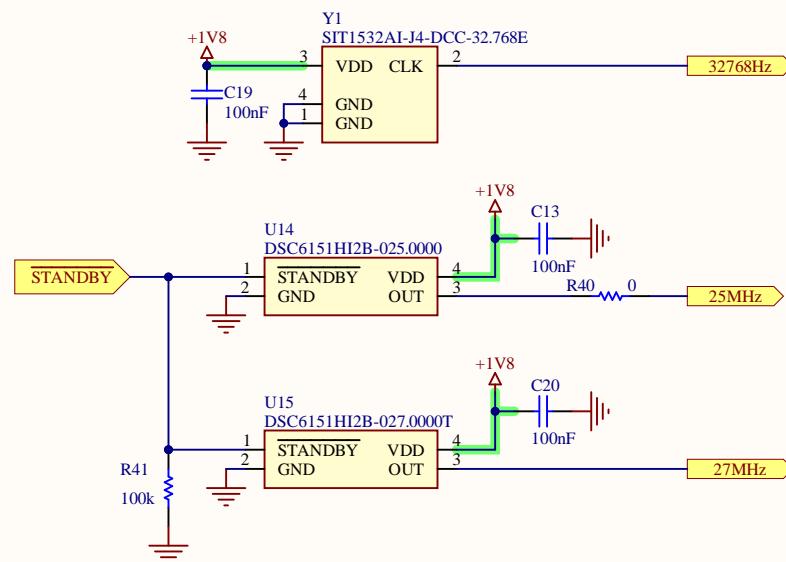
B

C

C

D

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: OSCILLATORS

ID: ABX0051

Revision: V1.3

Date: 18/02/2022 Time: 09:13:09

Sheet 8 of 8

File: Oscillators.SchDoc

Author: Silvio Navaretti

