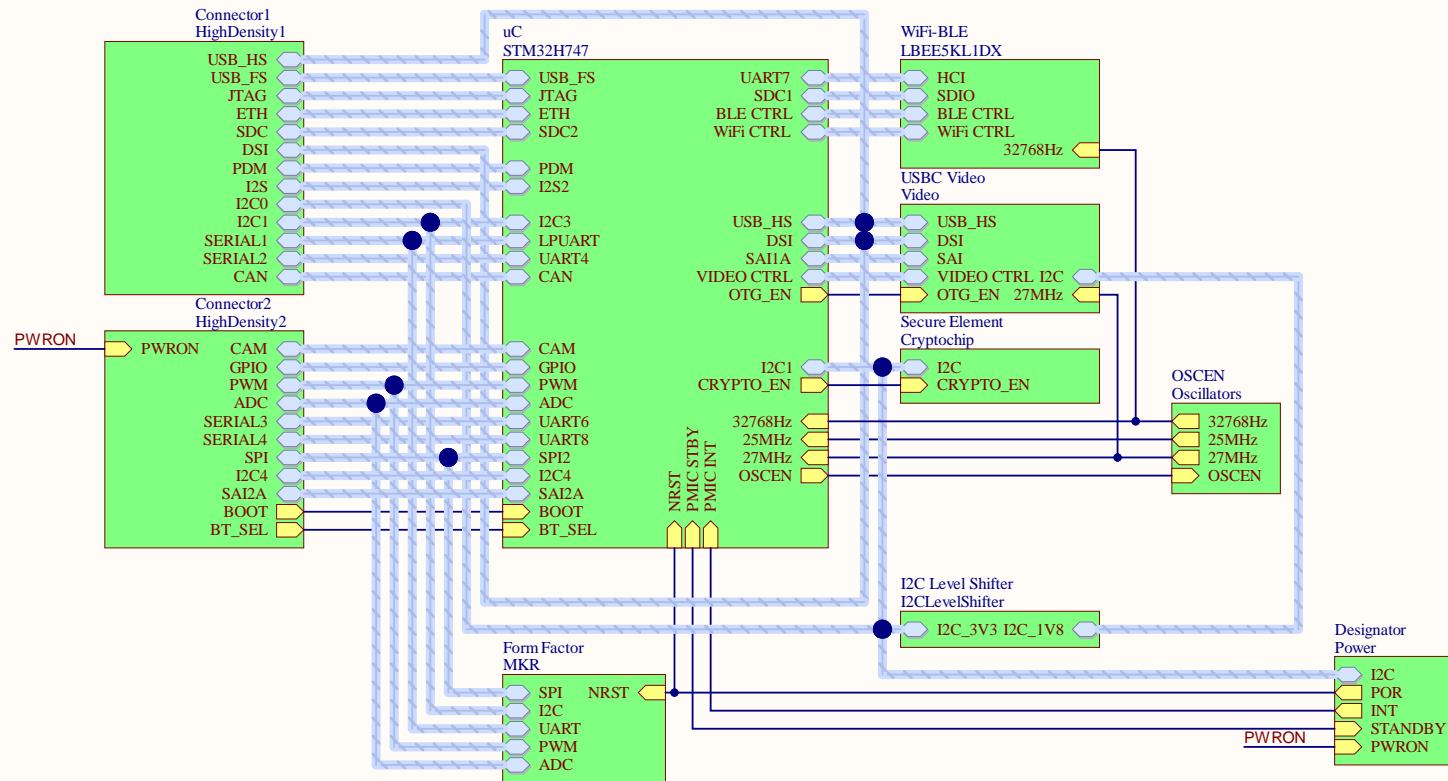


1

2

3



4



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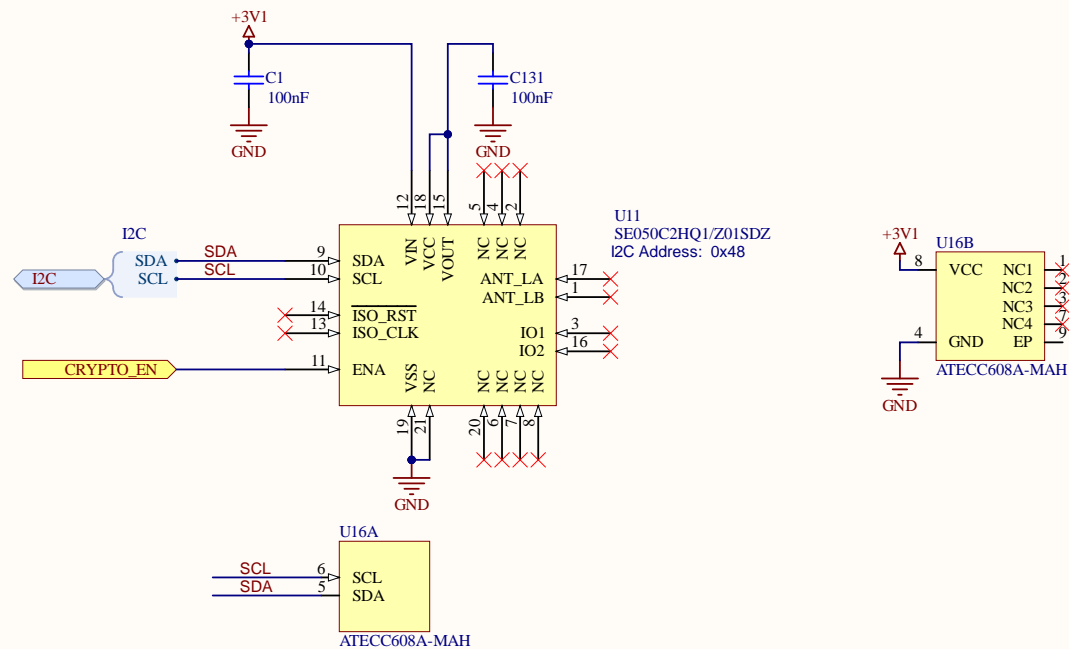
Title <b>Portenta H7</b>				
Size:	Number: *	Revision: 1.0		
Date: 1/7/2020	Time: 4:08:08 PM	Sheet * of *	Rev author <b>Dario Pennisi</b>	
File: 0_TopView.SchDoc	Author <b>Arturo Guadalupi</b>			

1



2

3

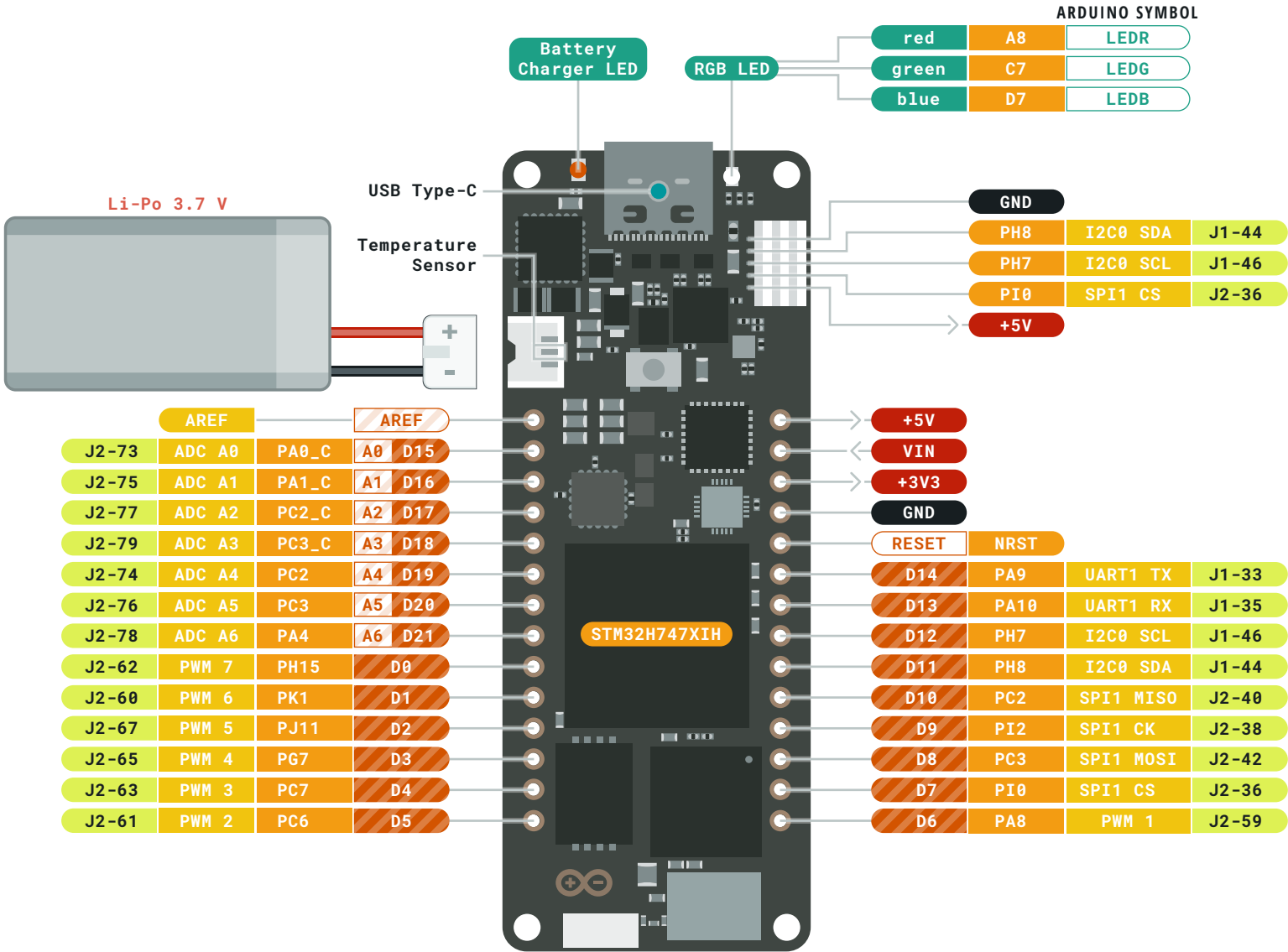
4



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Title <b>Portenta H7</b>			 	
Size:	Number: *	Revision: 1.0		
Date: 1/7/2020	Time: 4:08:09 PM	Sheet * of *		
File: Cryptochip.SchDoc	Author ArturoGuadalupi	Rev author Dario Pennisi		





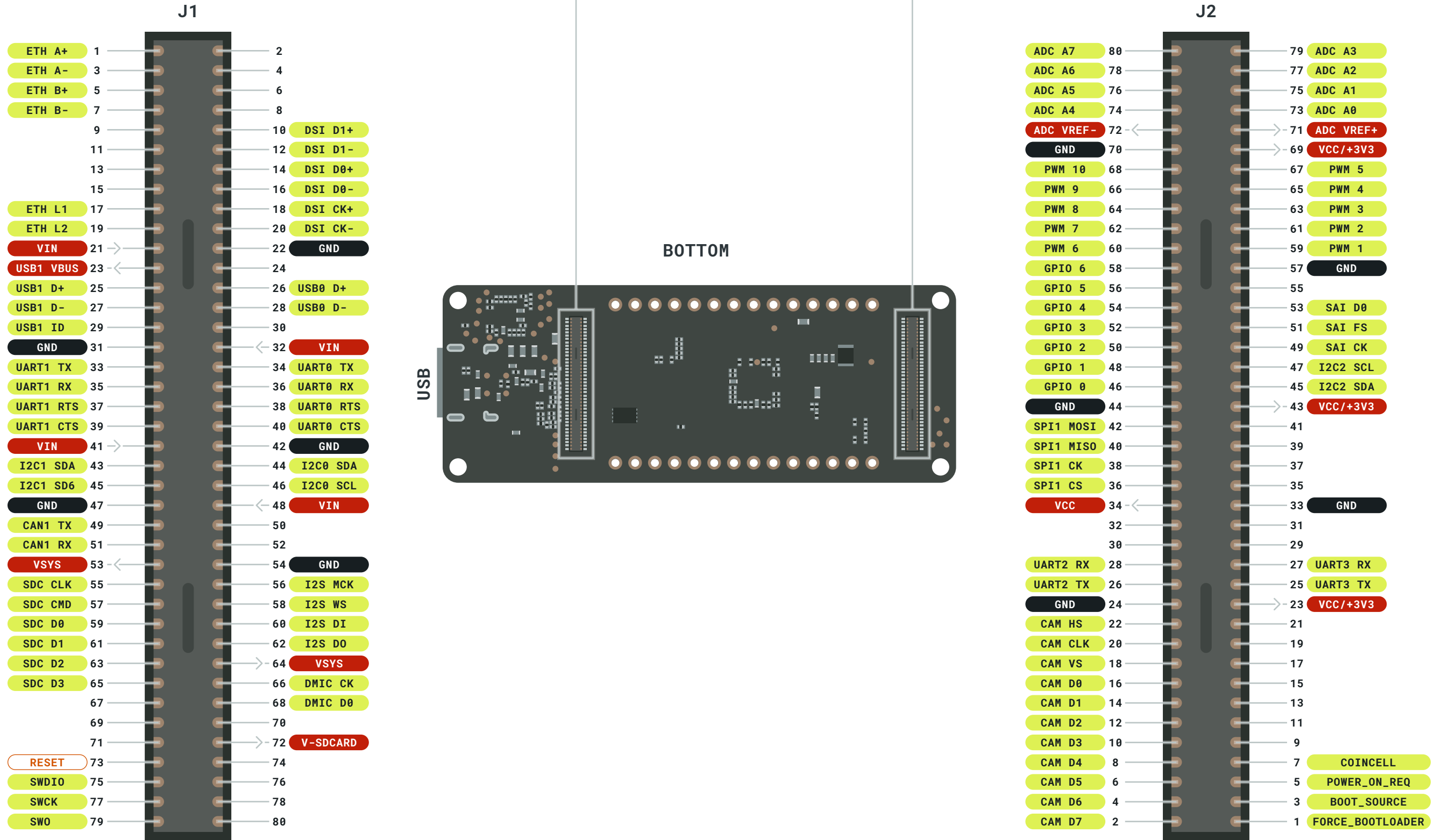
Ground	Digital Pin	Analog
Power	Analog Pin	Communication
LED	Other Pin	Timer
Internal Pin	Microcontroller's Port	Extra Features
SWD Pin	Default	Debug
	High Density Connector	

- ⚠ **WARNING** Total output current sunk by sum of all I/Os and control pins is 140 mA

⚠ **WARNING** Total output current sourced by sum of all I/Os and control pins is 140 mA

⚠ **WARNING** Output current sunk by any I/O and control pin is 20 mA





- Ground
- Power
- LED
- Internal Pin
- SWD Pin
- Digital Pin
- Analog Pin
- Other Pin
- Microcontroller's Port
- Default
- High Density Connector
- Analog
- Communication
- Timer
- Extra Features
- Debug

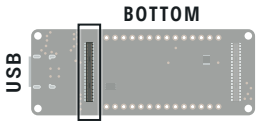
**WARNING** Total output current sunk by sum of all I/Os and control pins is 140 mA

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**WARNING** Output current sunk by any I/O and control pin is 20 mA



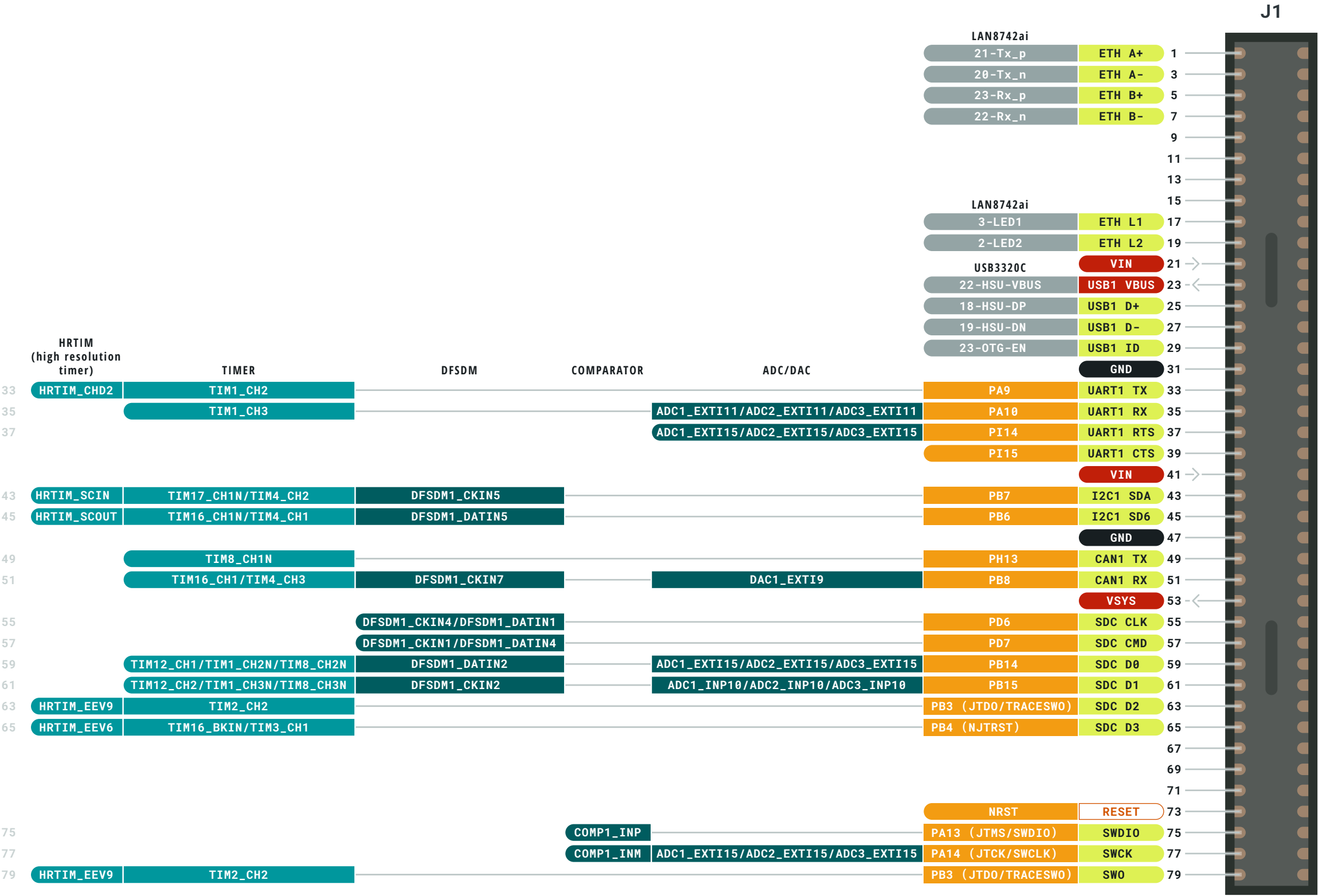
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J1\_odd - Analog/Timer

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PORTENTA H7

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- Ground
- Power
- LED
- Internal Pin
- SWD Pin
- Digital Pin
- Analog Pin
- Other Pin
- Microcontroller's Port
- Default
- High Density Connector
- Analog
- Communication
- Timer
- Extra Features
- Debug

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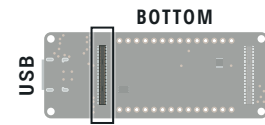
**WARNING** Output current sunk by any I/O and control pin is 20 mA

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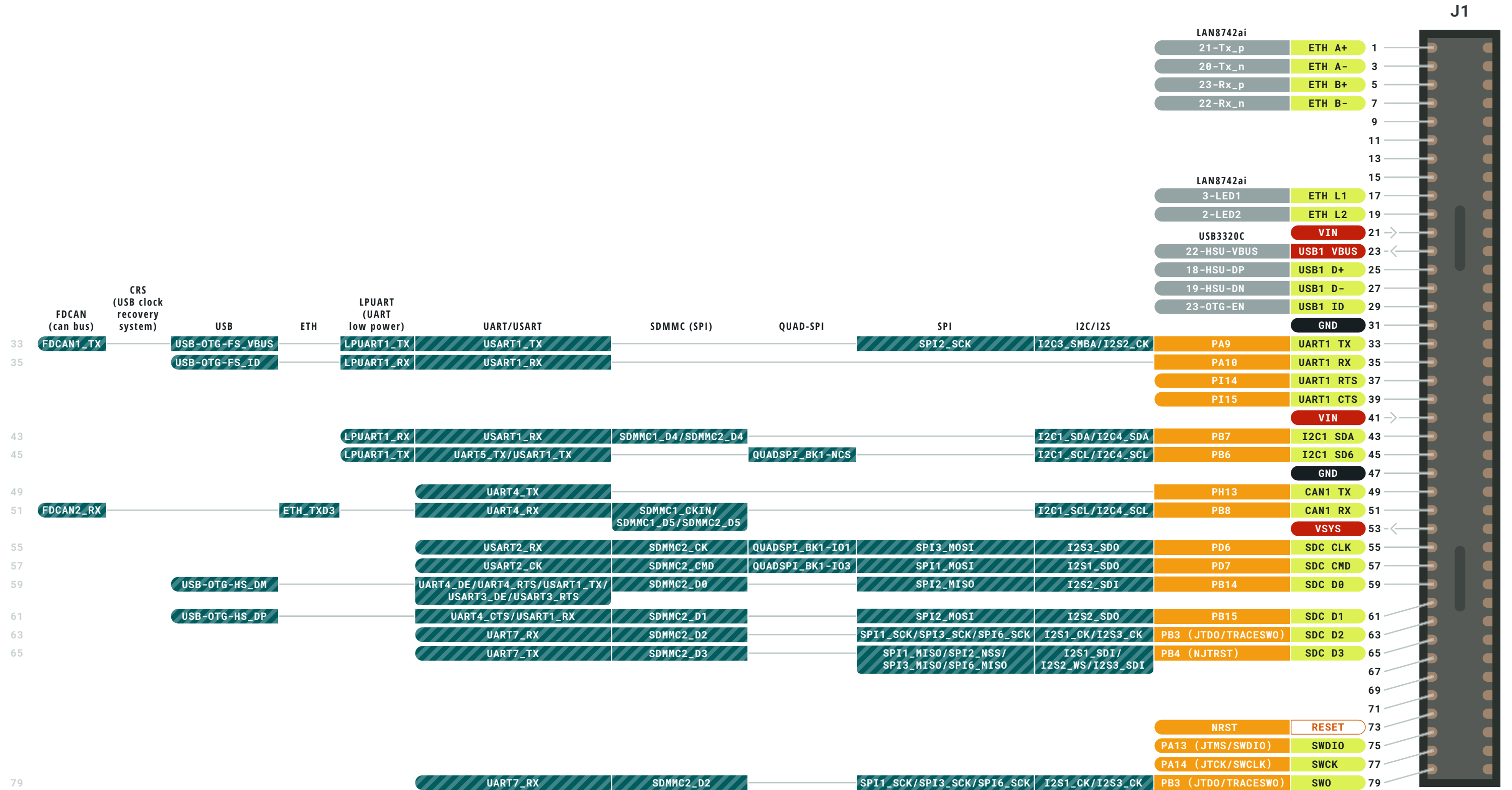
Last update: 23/03/2020



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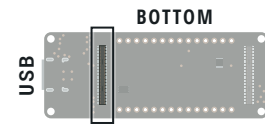
# J1\_odd - Communication



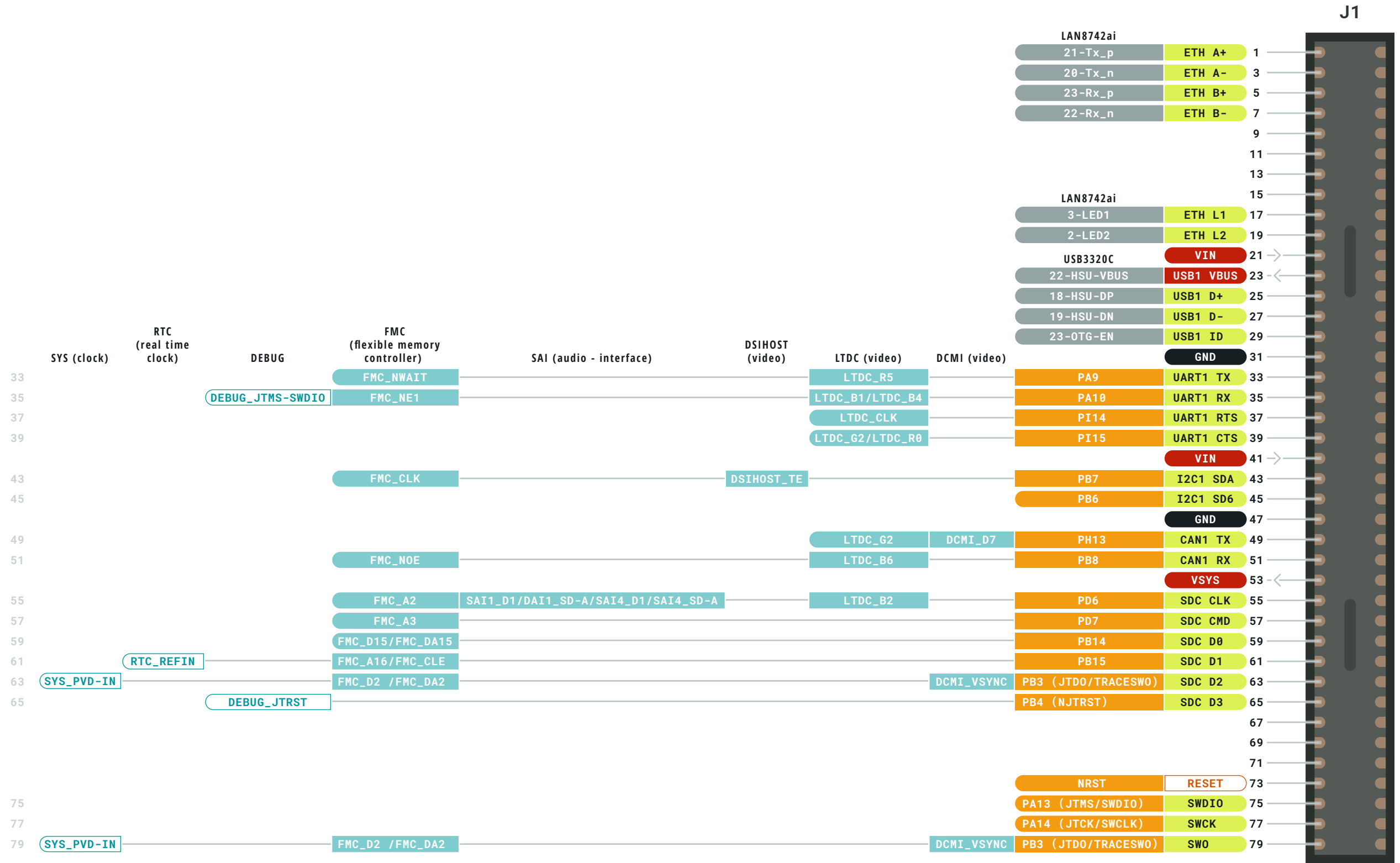
- Ground
- Power
- LED
- Internal Pin
- SWD Pin
- Digital Pin
- Analog Pin
- Other Pin
- Microcontroller's Port
- Default
- High Density Connector
- Analog
- Communication
- Timer
- Extra Features
- Debug

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- WARNING** Total output current sourced by sum of all I/Os and control pins is 140 mA
- WARNING** Output current sunk by any I/O and control pin is 20 mA





# J1\_odd - Extra/Debug

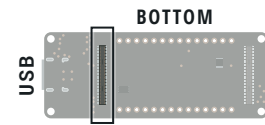


- Ground
- Power
- LED
- Internal Pin
- SWD Pin
- Digital Pin
- Analog Pin
- Other Pin
- Microcontroller's Port
- Default
- High Density Connector
- Analog
- Communication
- Timer
- Extra Features
- Debug

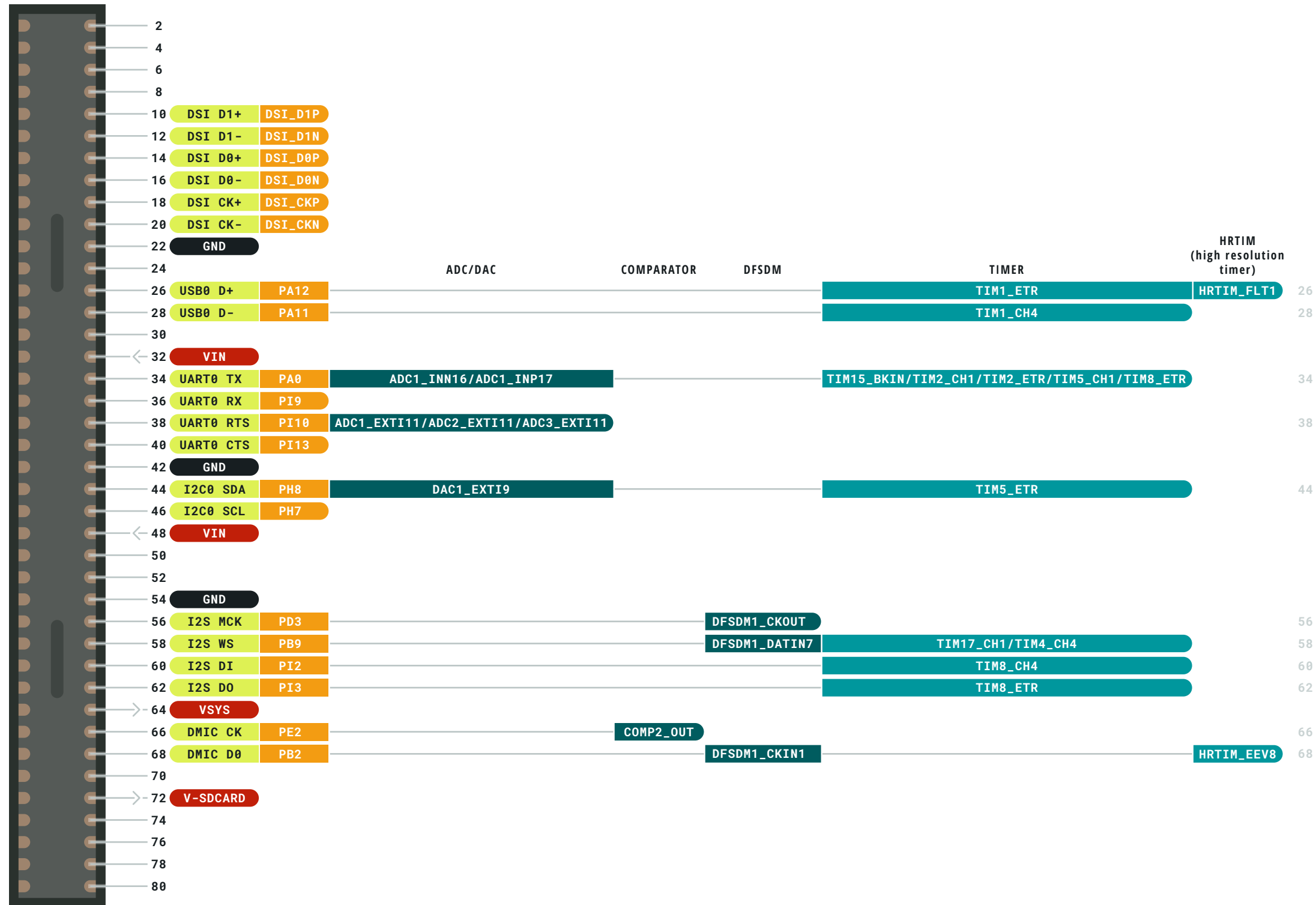
- WARNING** Total output current sunk by sum of all I/Os and control pins is 140 mA
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- WARNING** Output current sunk by any I/O and control pin is 20 mA







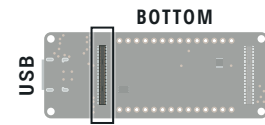
# J1\_even - Analog/Timer



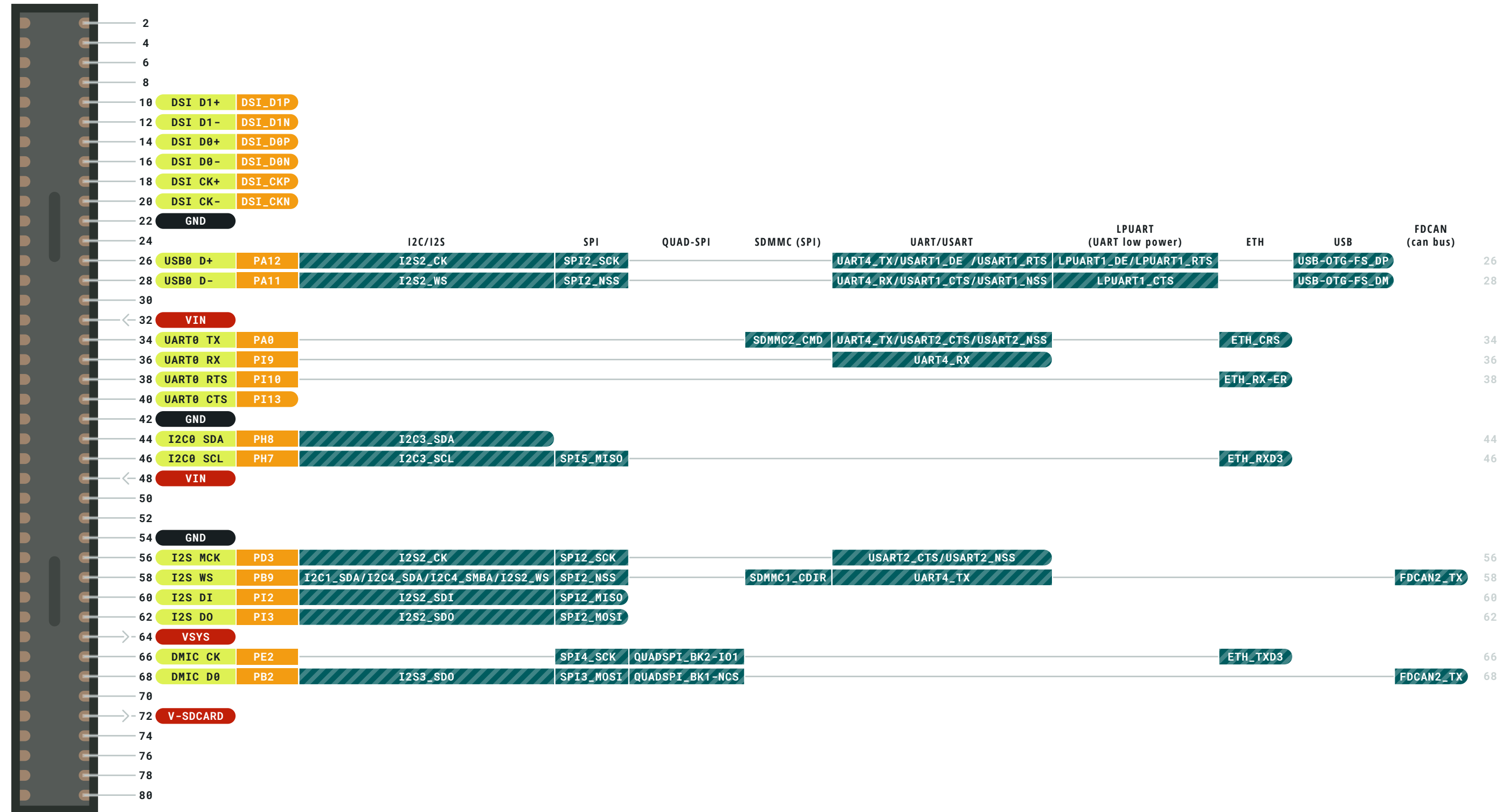
- Ground
- Power
- LED
- Internal Pin
- SWD Pin
- Digital Pin
- Analog Pin
- Other Pin
- Microcontroller's Port
- Default
- High Density Connector
- Analog
- Communication
- Timer
- Extra Features
- Debug

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- WARNING** Output current sunk by any I/O and control pin is 20 mA





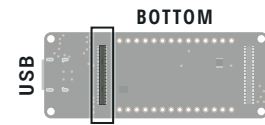
# J1\_even - Communication



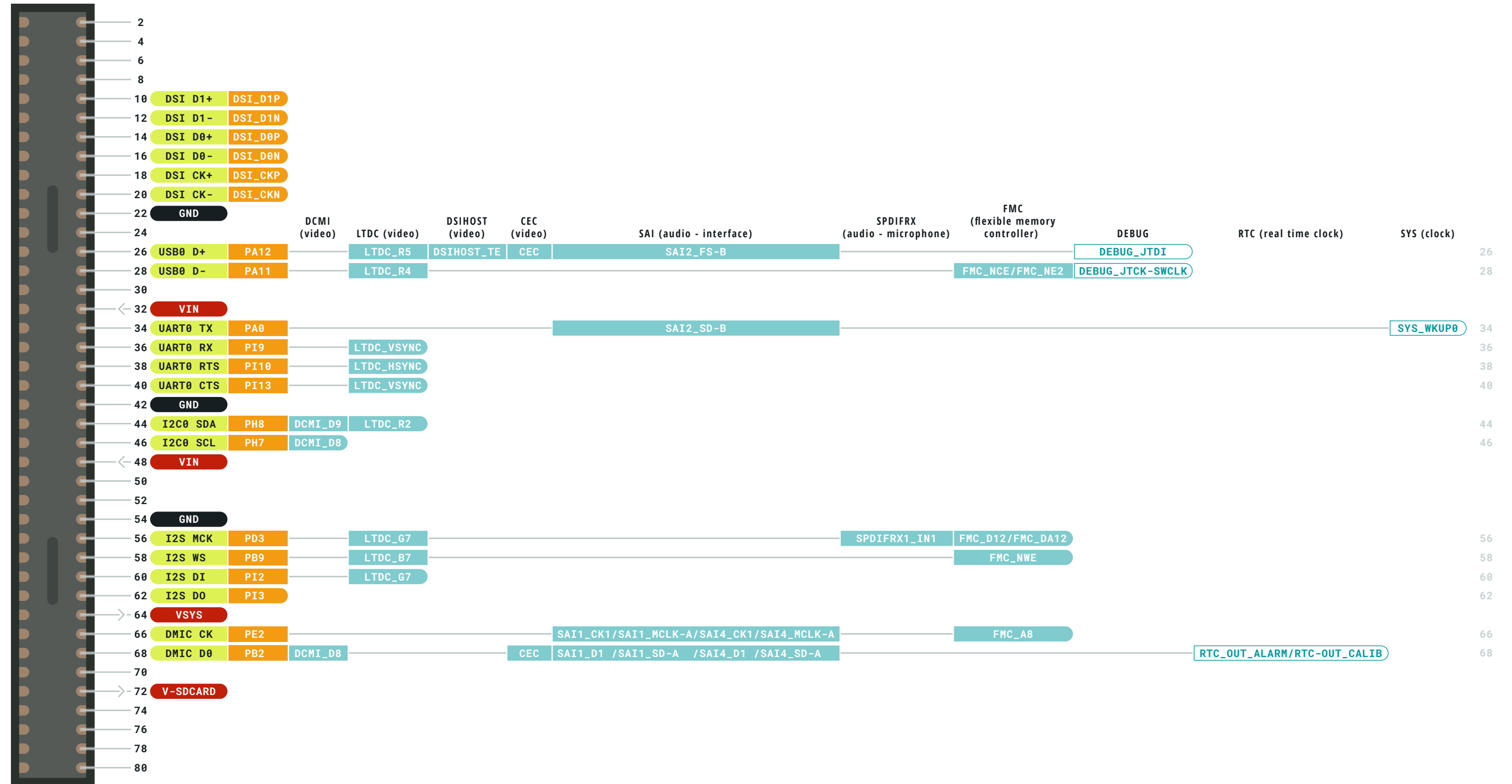
- Ground
- Power
- LED
- Internal Pin
- SWD Pin
- Digital Pin
- Analog Pin
- Other Pin
- Microcontroller's Port
- Default
- High Density Connector
- Analog
- Communication
- Timer
- Extra Features
- Debug

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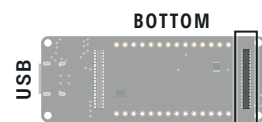
# J1\_even - Extra/Debug



- Ground
- Power
- LED
- Internal Pin
- SWD Pin
- Digital Pin
- Analog Pin
- Other Pin
- Microcontroller's Port
- Default
- High Density Connector
- Analog
- Communication
- Timer
- Extra Features
- Debug

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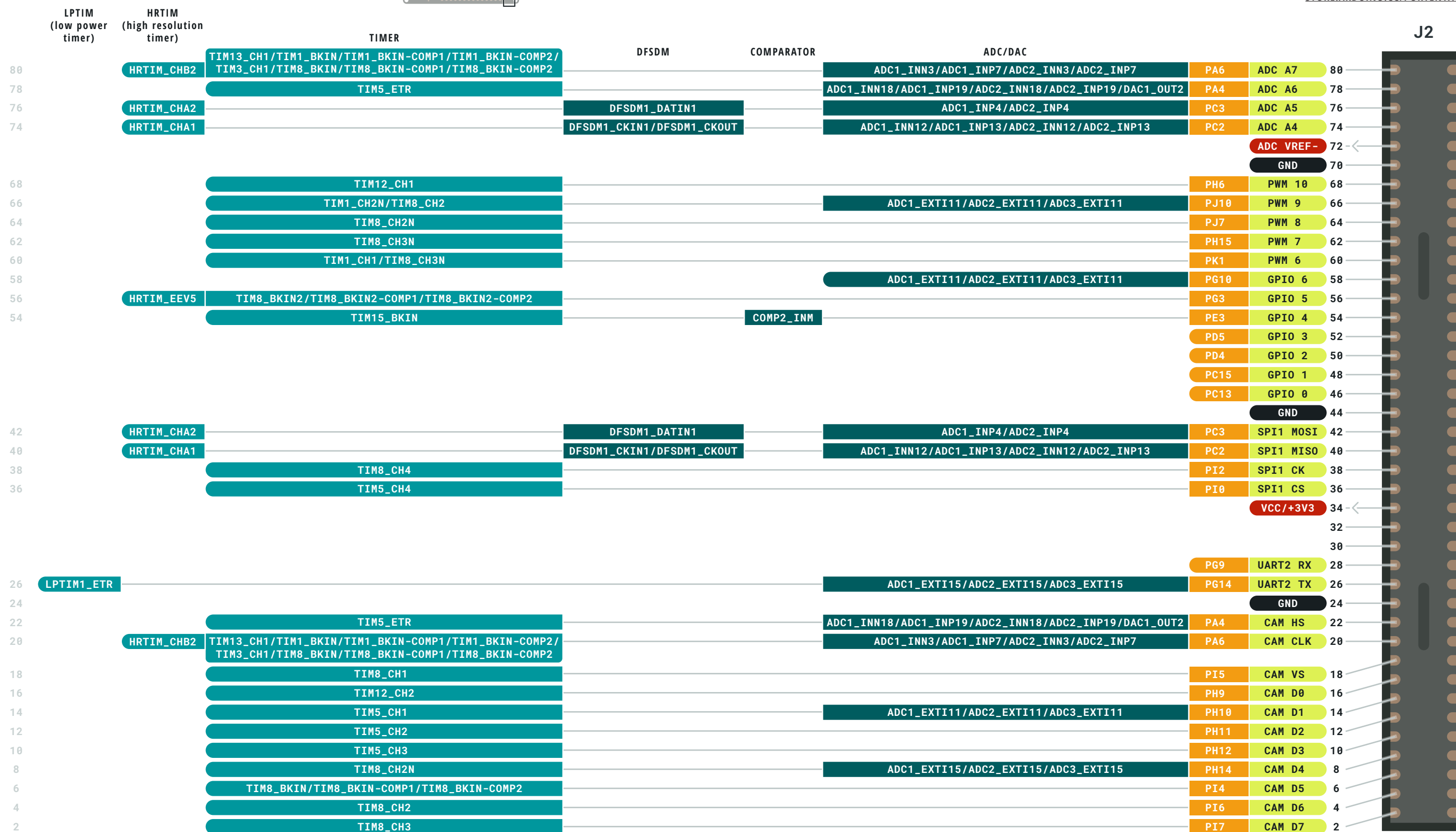





















## J2\_even - Analog/Timer


## ARDUINO PORTENTA H7


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- |  |  |  |
|--|--|--|
|  Ground       |  Digital Pin            |  Analog         |
|  Power        |  Analog Pin             |  Communication  |
|  LED          |  Other Pin              |  Timer          |
|  Internal Pin |  Microcontroller's Port |  Extra Features |
|  SWD Pin      |  Default                |  Debug          |
|  |  High Density Connector |  |

 **WARNING** Total output current sunk by sum of all I/Os and control pins is 140 mA

 **WARNING** Total output current sourced by sum of all I/Os and control pins is 140 mA

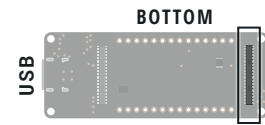
 **WARNING** Output current sunk by any I/O and control pin is 20 mA

ARDUINO.CC

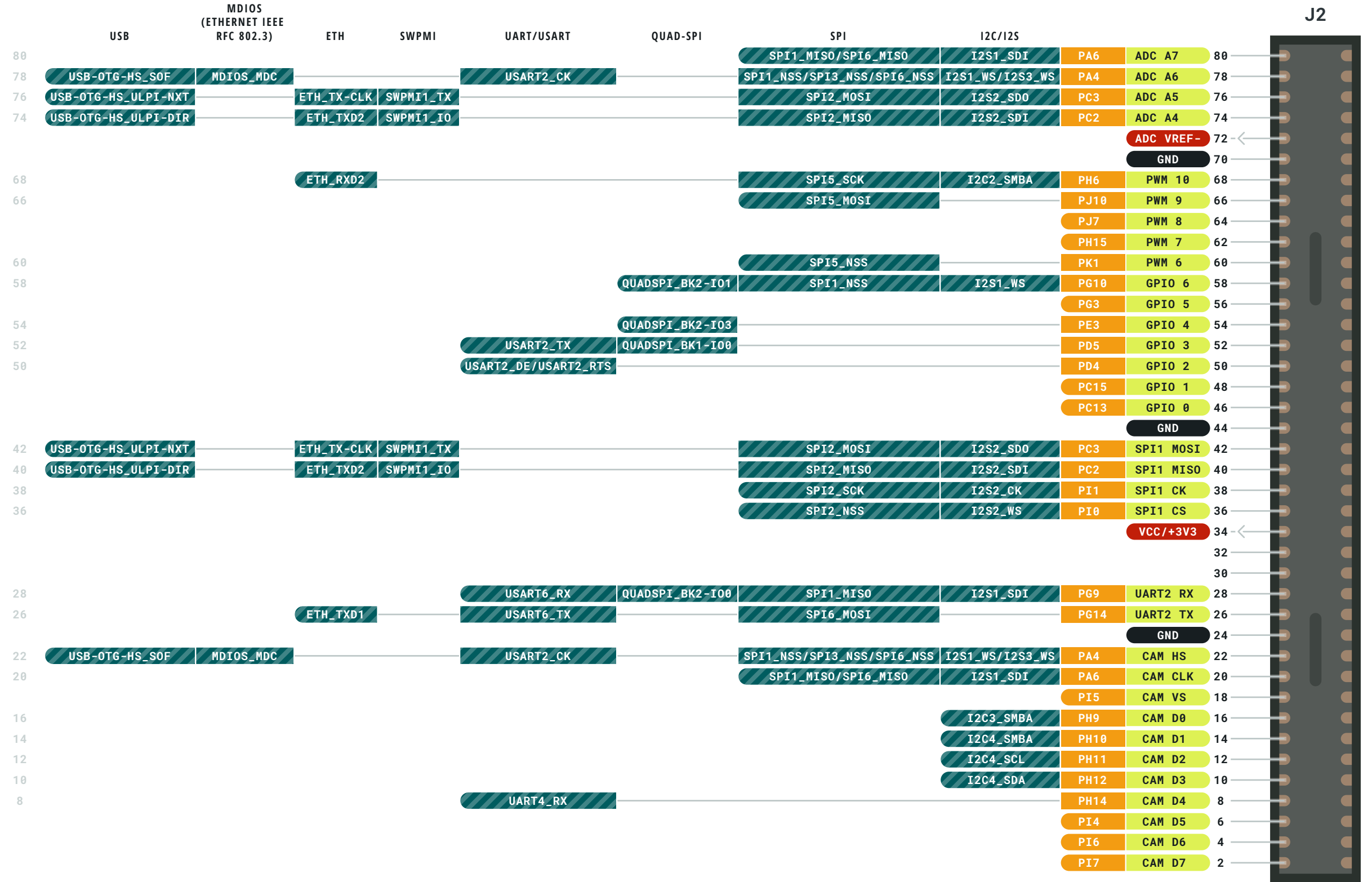
**Last update: 23/03/2020**



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# J2\_even - Communication



- Ground
- Power
- LED
- Internal Pin
- SWD Pin
- Digital Pin
- Analog Pin
- Other Pin
- Microcontroller's Port
- Default
- High Density Connector
- Analog
- Communication
- Timer
- Extra Features
- Debug

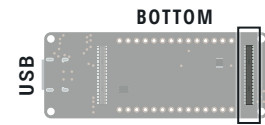
**WARNING** Total output current sunk by sum of all I/Os and control pins is 140 mA

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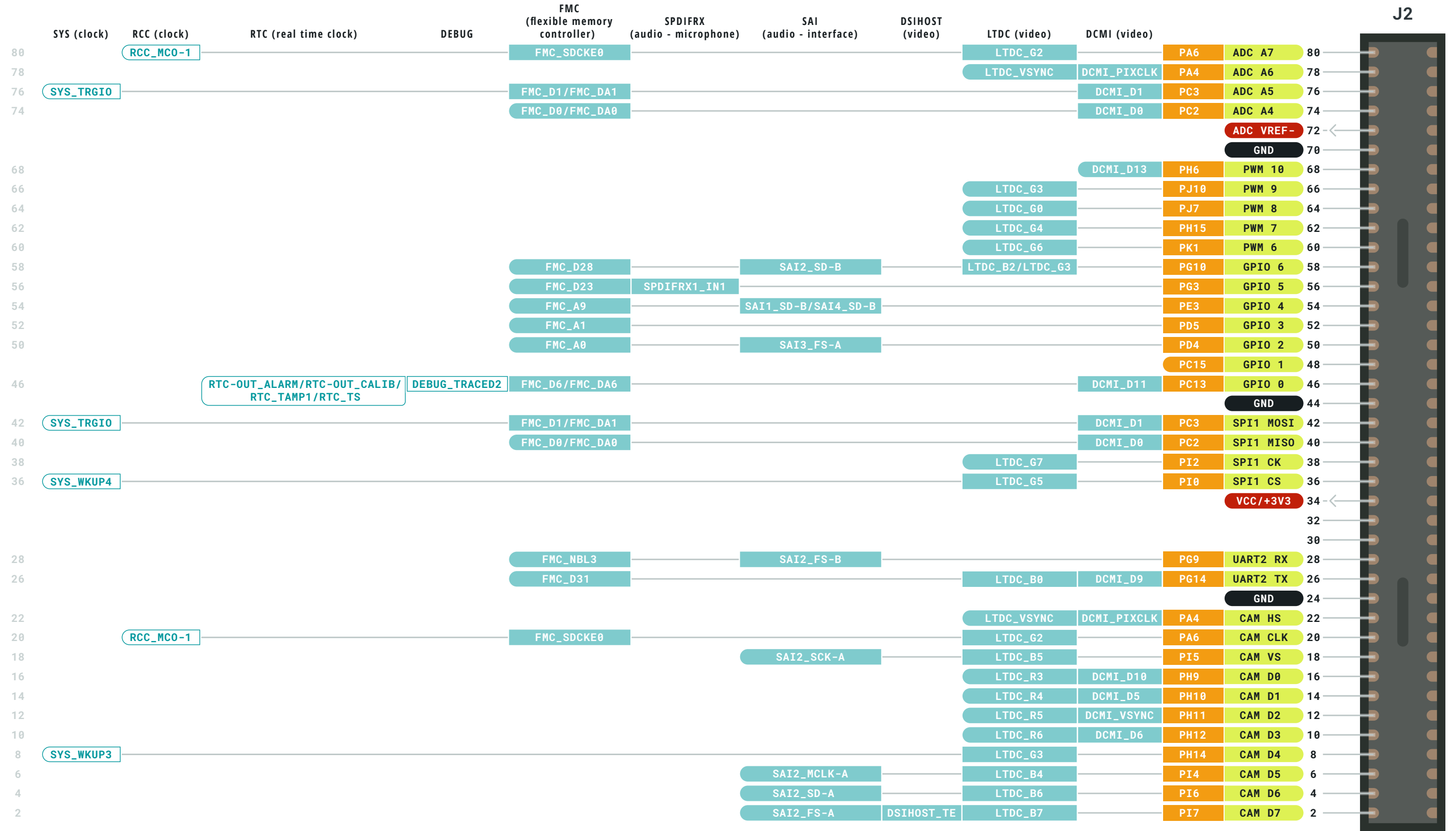
**WARNING** Output current sunk by any I/O and control pin is 20 mA



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# J2\_even - Extra/Debug



**WARNING** Total output current sunk by sum of all I/Os and control pins is 140 mA

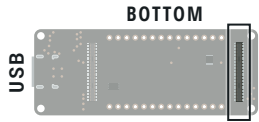
**WARNING** Total output current sourced by sum of all I/Os and control pins is 140 mA

**WARNING** Output current sunk by any I/O and control pin is 20 mA





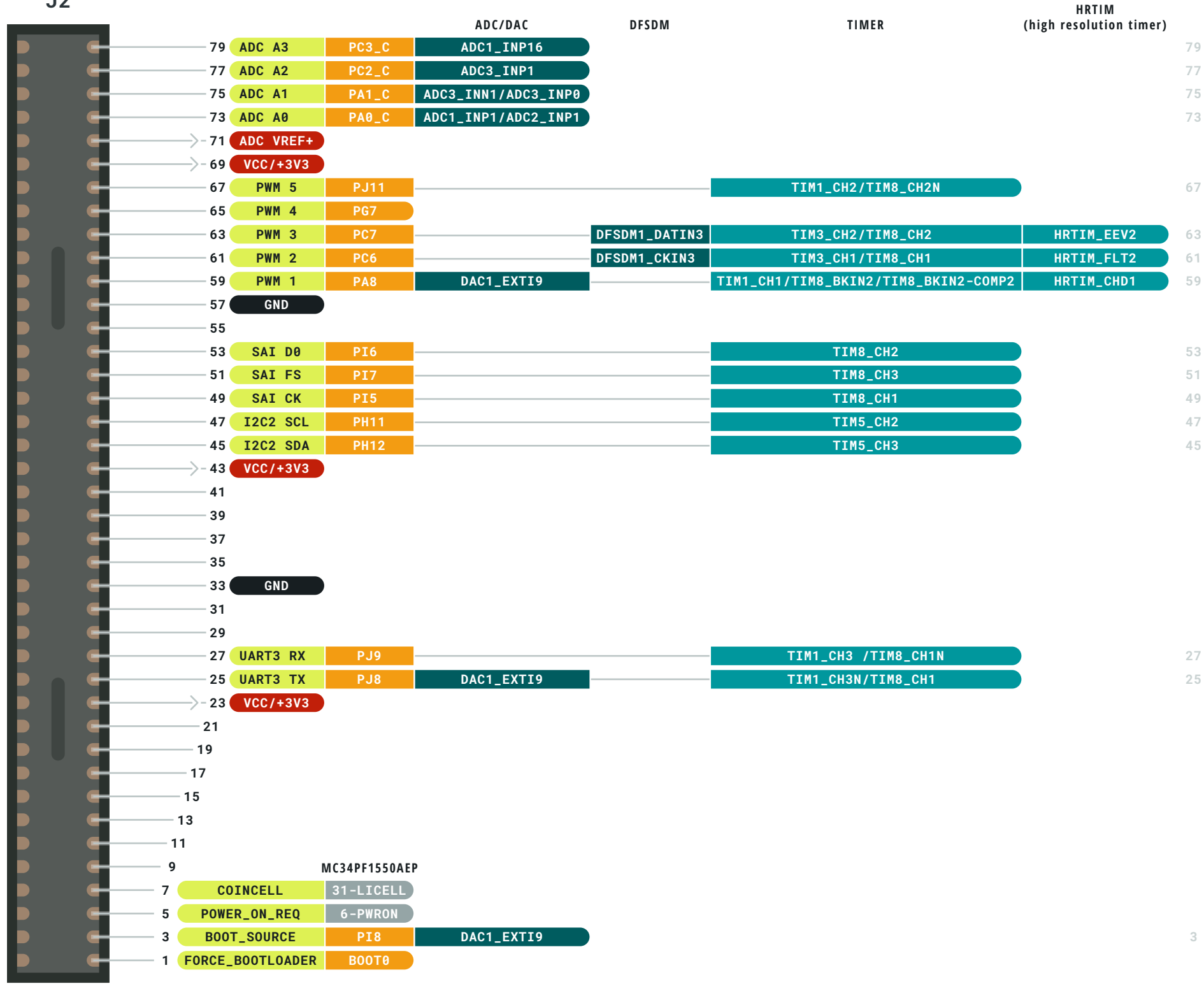
J2



# J2\_odd - Analog/Timer

ARDUINO  
PORTENTA H7

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- Ground
- Power
- LED
- Internal Pin
- SWD Pin
- Digital Pin
- Analog Pin
- Other Pin
- Microcontroller's Port
- Default
- High Density Connector
- Analog
- Communication
- Timer
- Extra Features
- Debug

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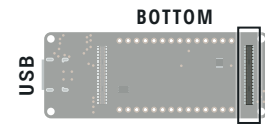
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Last update: 23/03/2020

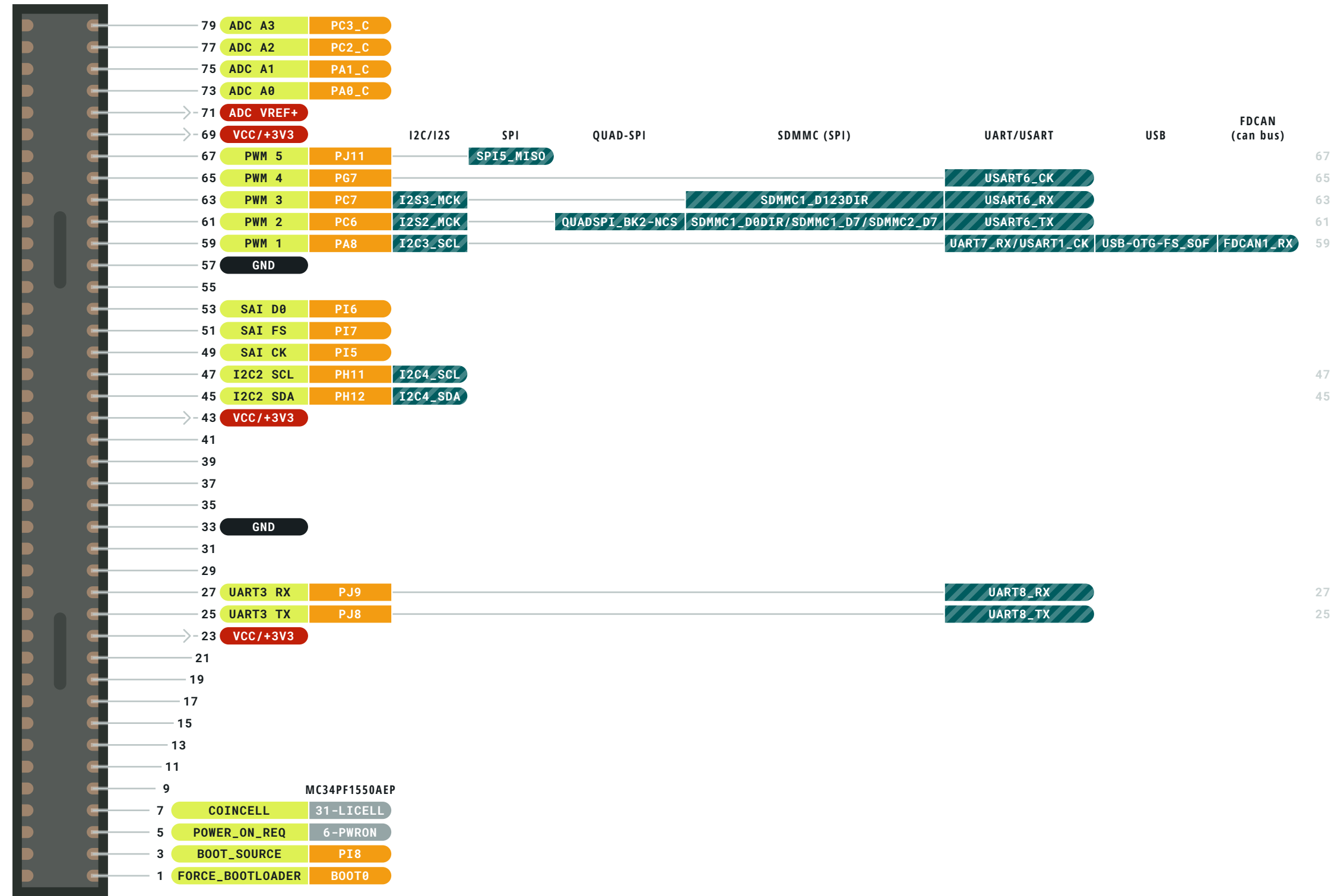


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# J2\_odd - Communication

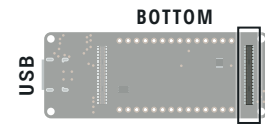


- Ground
- Power
- LED
- Internal Pin
- SWD Pin
- Digital Pin
- Analog Pin
- Other Pin
- Microcontroller's Port
- Default
- High Density Connector
- Analog
- Communication
- Timer
- Extra Features
- Debug

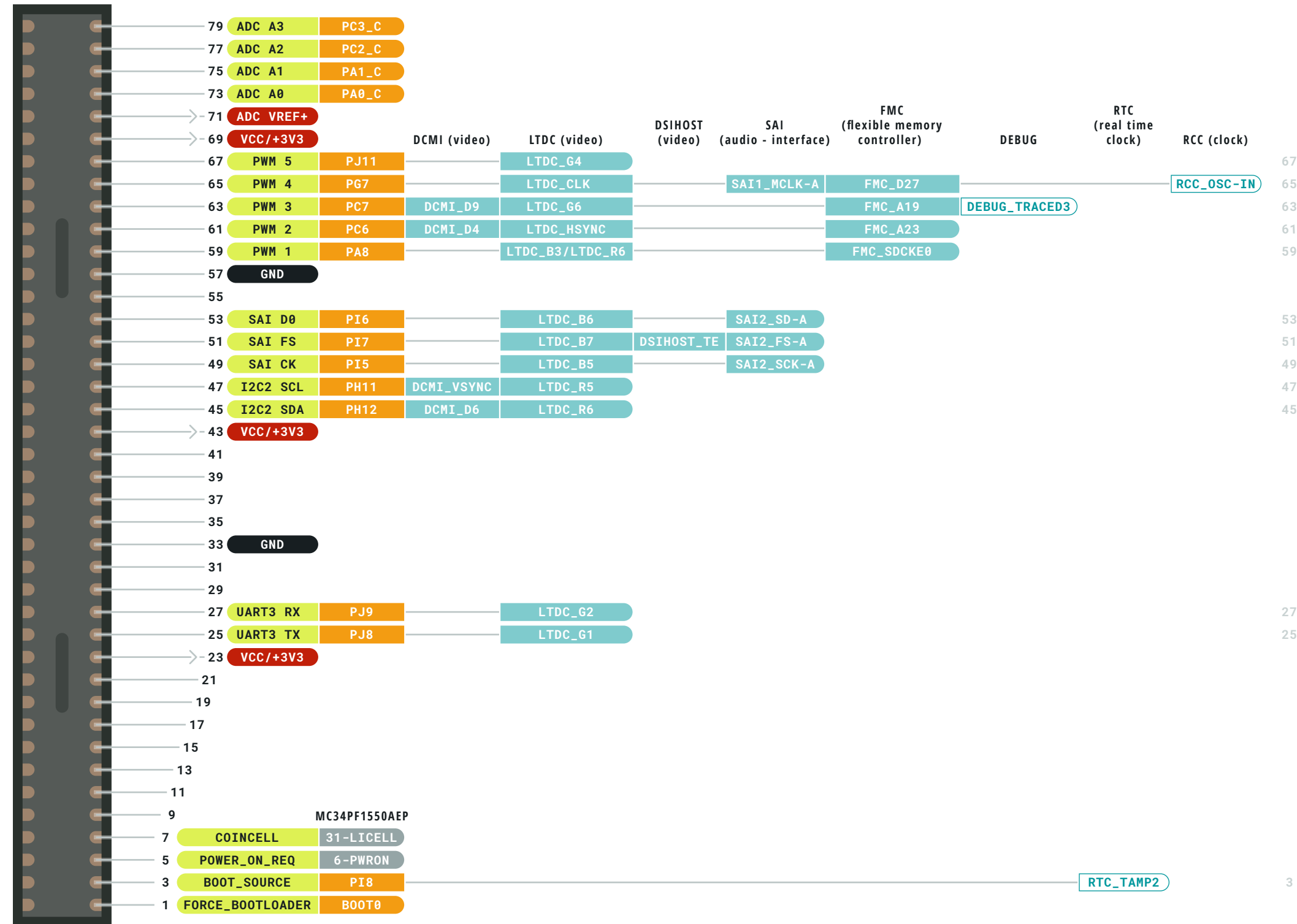
- WARNING** Total output current sunk by sum of all I/Os and control pins is 140 mA
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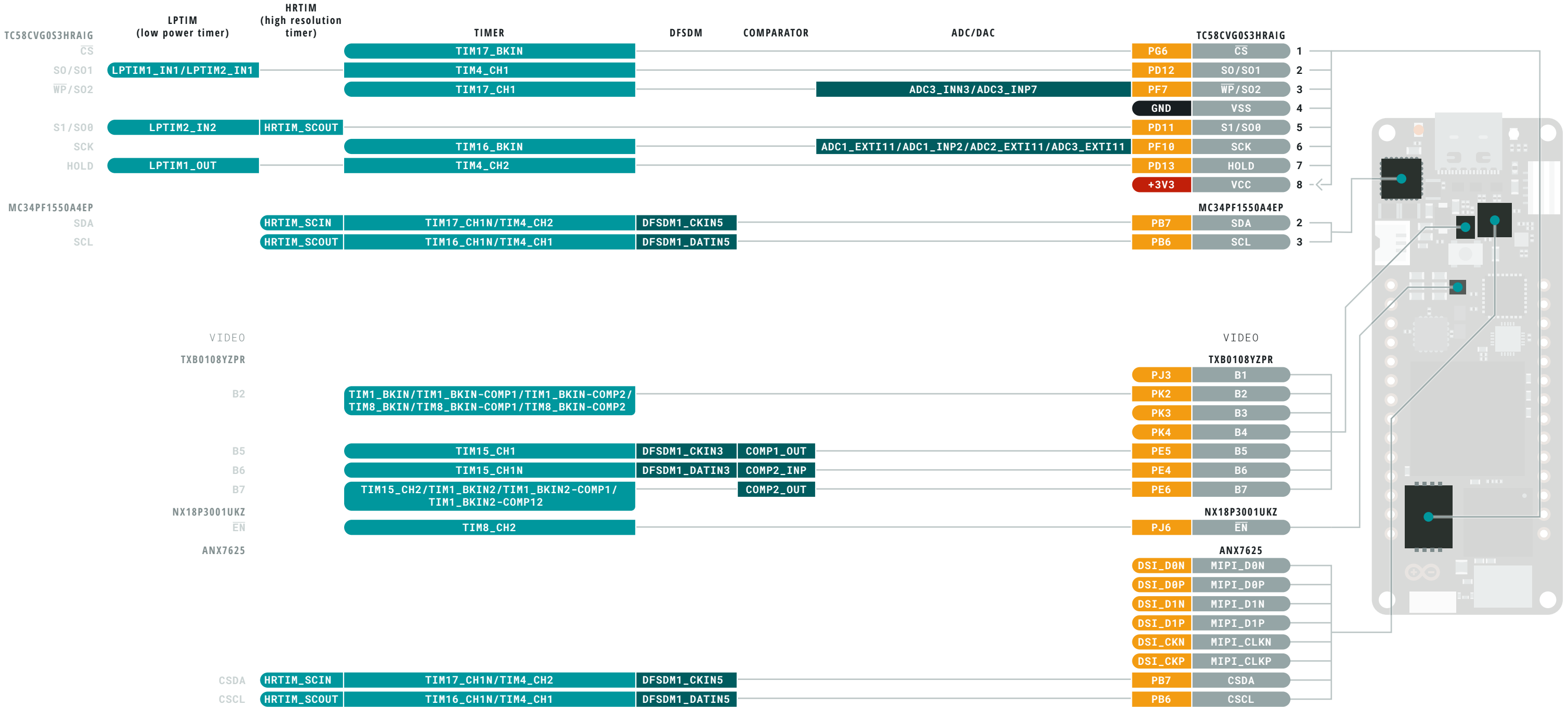
# J2\_odd - Extra/Debug



- Ground
- Power
- LED
- Internal Pin
- SWD Pin
- Digital Pin
- Analog Pin
- Other Pin
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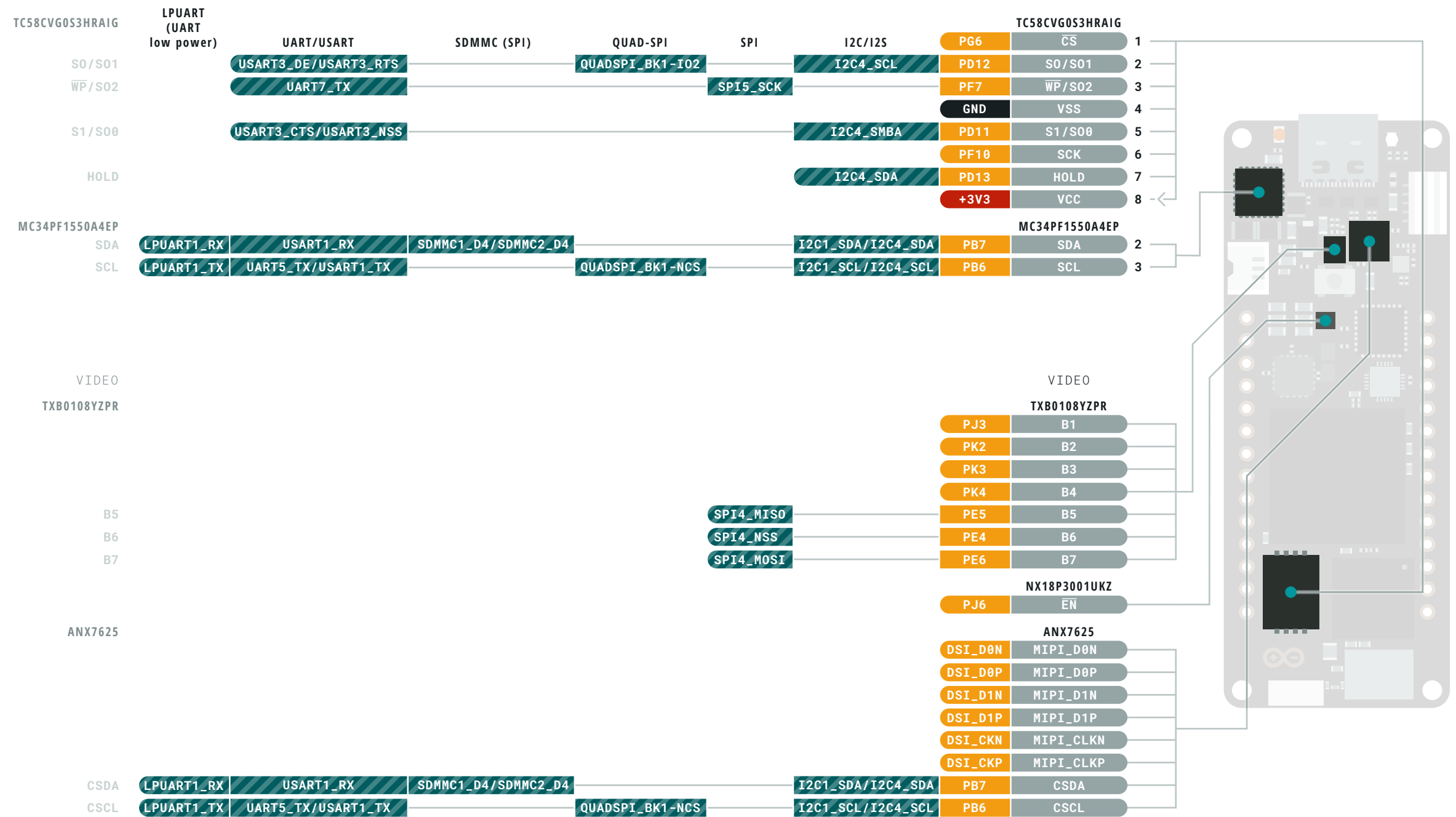




- Ground
- Power
- LED
- Internal Pin
- SWD Pin
- Digital Pin
- Analog Pin
- Other Pin
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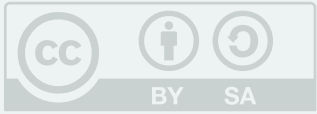


- Ground
- Power
- LED
- Internal Pin
- SWD Pin
- Digital Pin
- Analog Pin
- Other Pin
- Microcontroller's Port
- Default
- High Density Connector
- Analog
- Communication
- Timer
- Extra Features
- Debug

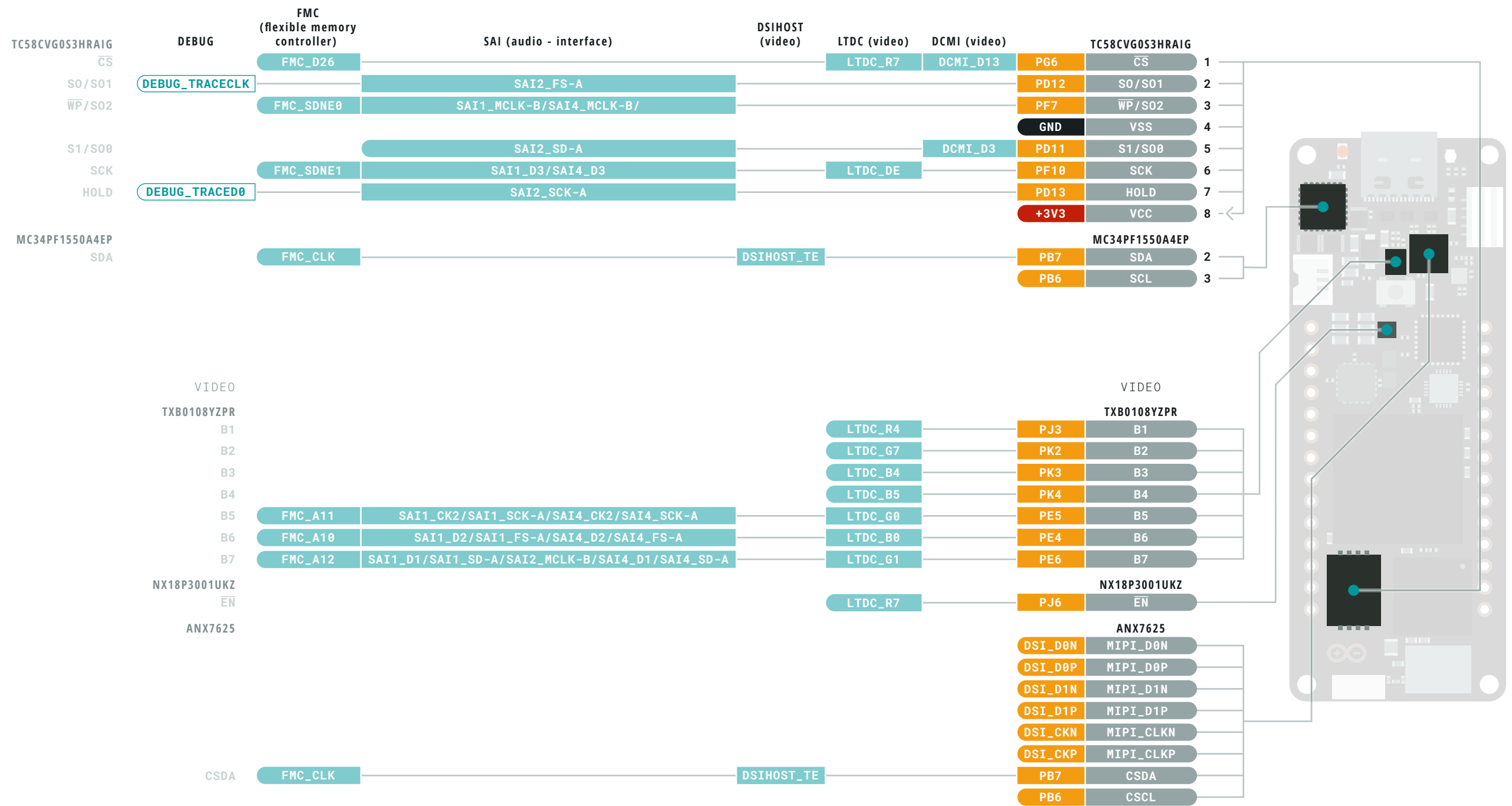
**WARNING** Total output current sunk by sum of all I/Os and control pins is 140 mA

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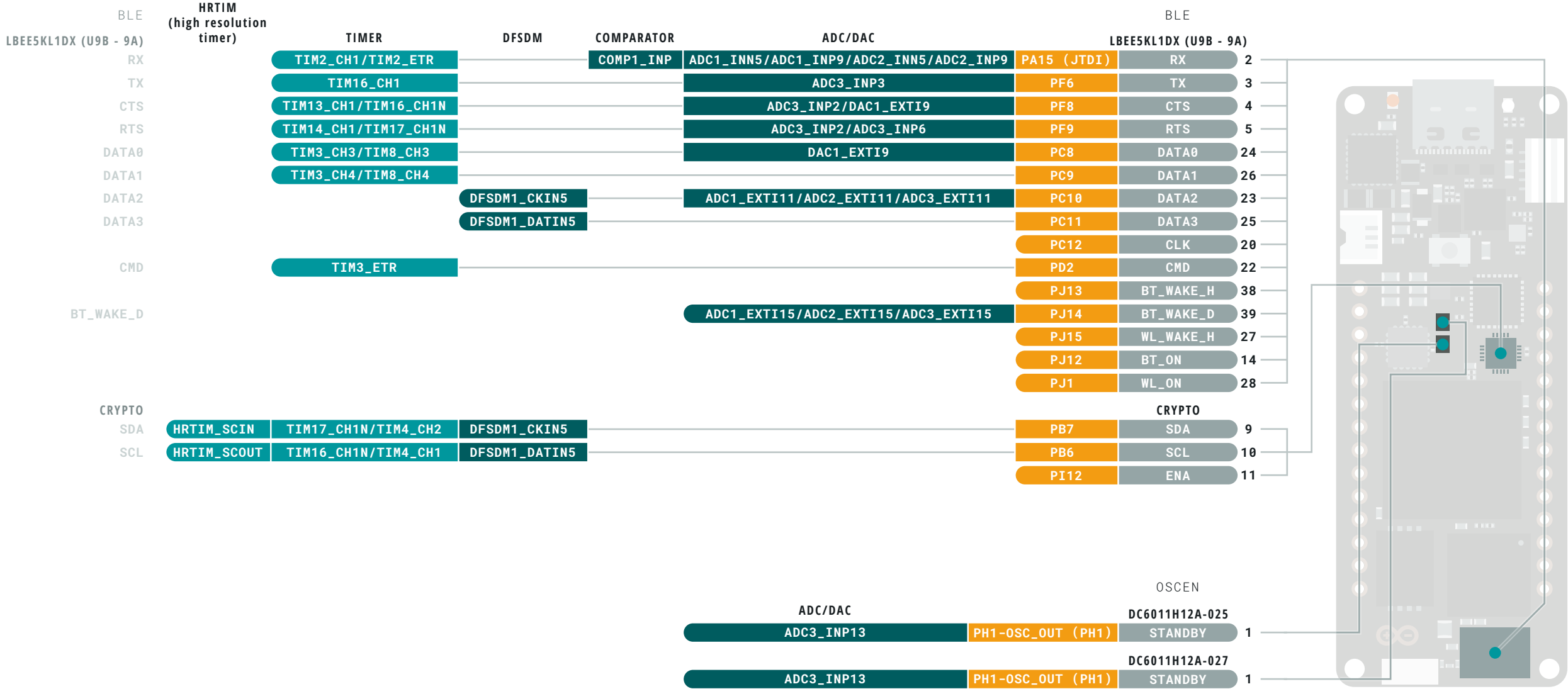
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- |              |                        |                |
|--------------|------------------------|----------------|
| Ground       | Digital Pin            | Analog         |
| Power        | Analog Pin             | Communication  |
| LED          | Other Pin              | Timer          |
| Internal Pin | Microcontroller's Port | Extra Features |
| SWD Pin      | Default                | Debug          |
|              | High Density Connector |                |

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- Ground

Power

LED

Internal Pin

SWD Pin
- Digital Pin

Analog Pin

Other Pin

Microcontroller's Port

Default

High Density Connector
- Analog

Communication

Timer

Extra Features

Debug

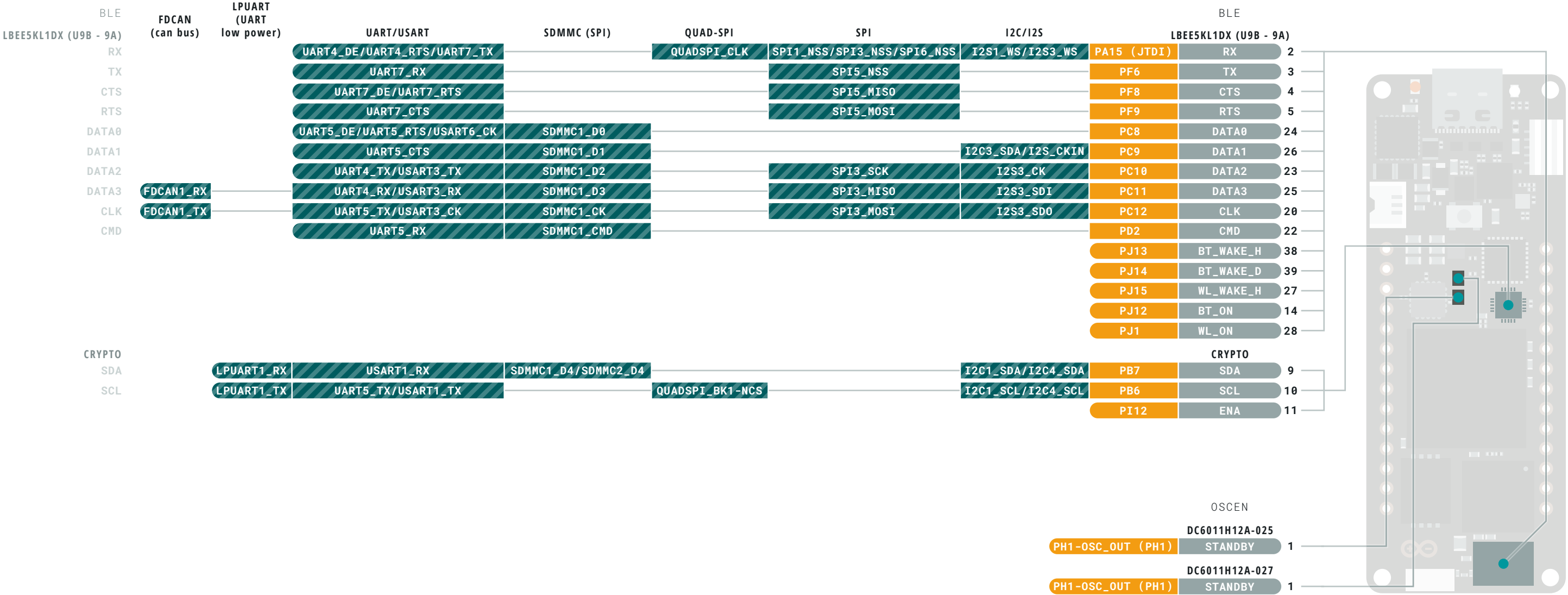
- WARNING

Total output current sunk by sum of all I/Os and control pins is 140 mA
- WARNING

Total output current sourced by sum of all I/Os and control pins is 140 mA
- WARNING

Output current sunk by any I/O and control pin is 20 mA





- Ground
- Power
- LED
- Internal Pin
- SWD Pin
- Digital Pin
- Analog Pin
- Other Pin
- Microcontroller's Port
- Default
- High Density Connector
- Analog
- Communication
- Timer
- Extra Features
- Debug

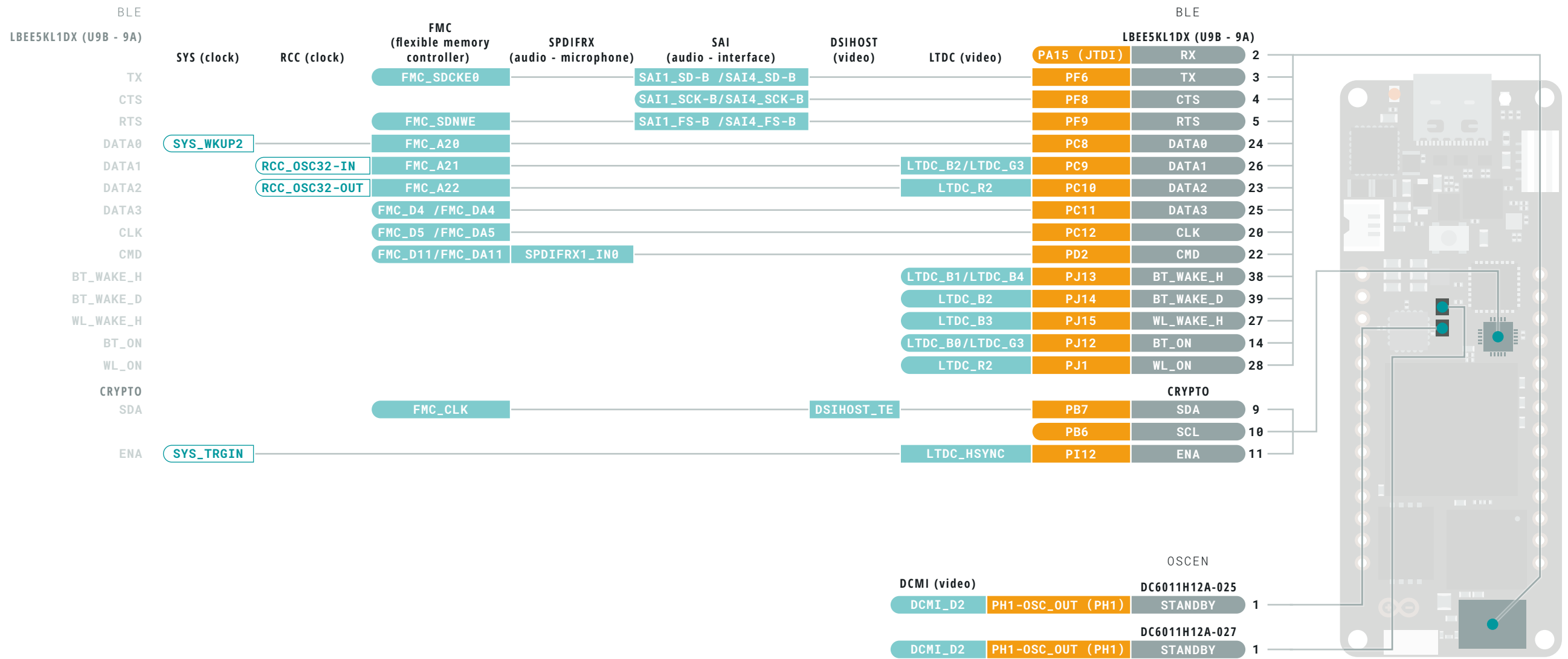
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**WARNING** Total output current sourced by sum of all I/Os and control pins is 140 mA

**WARNING** Output current sunk by any I/O and control pin is 20 mA



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- Ground
- Power
- LED
- Internal Pin
- SWD Pin
- Digital Pin
- Analog Pin
- Other Pin
- Microcontroller's Port
- Default
- High Density Connector
- Analog
- Communication
- Timer
- Extra Features
- Debug

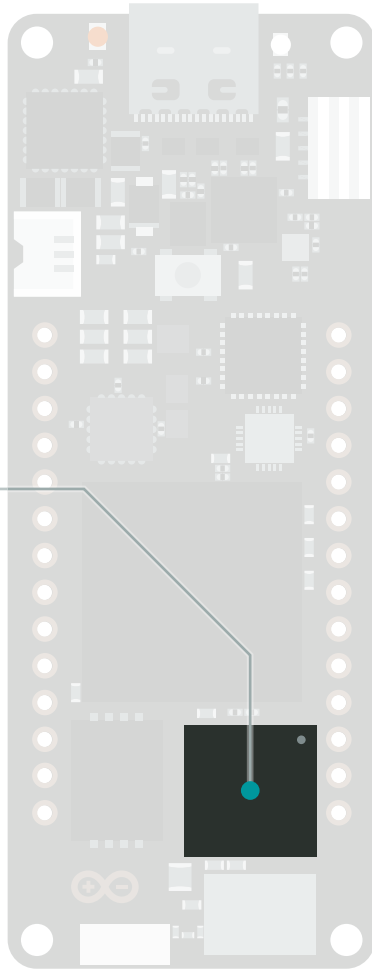
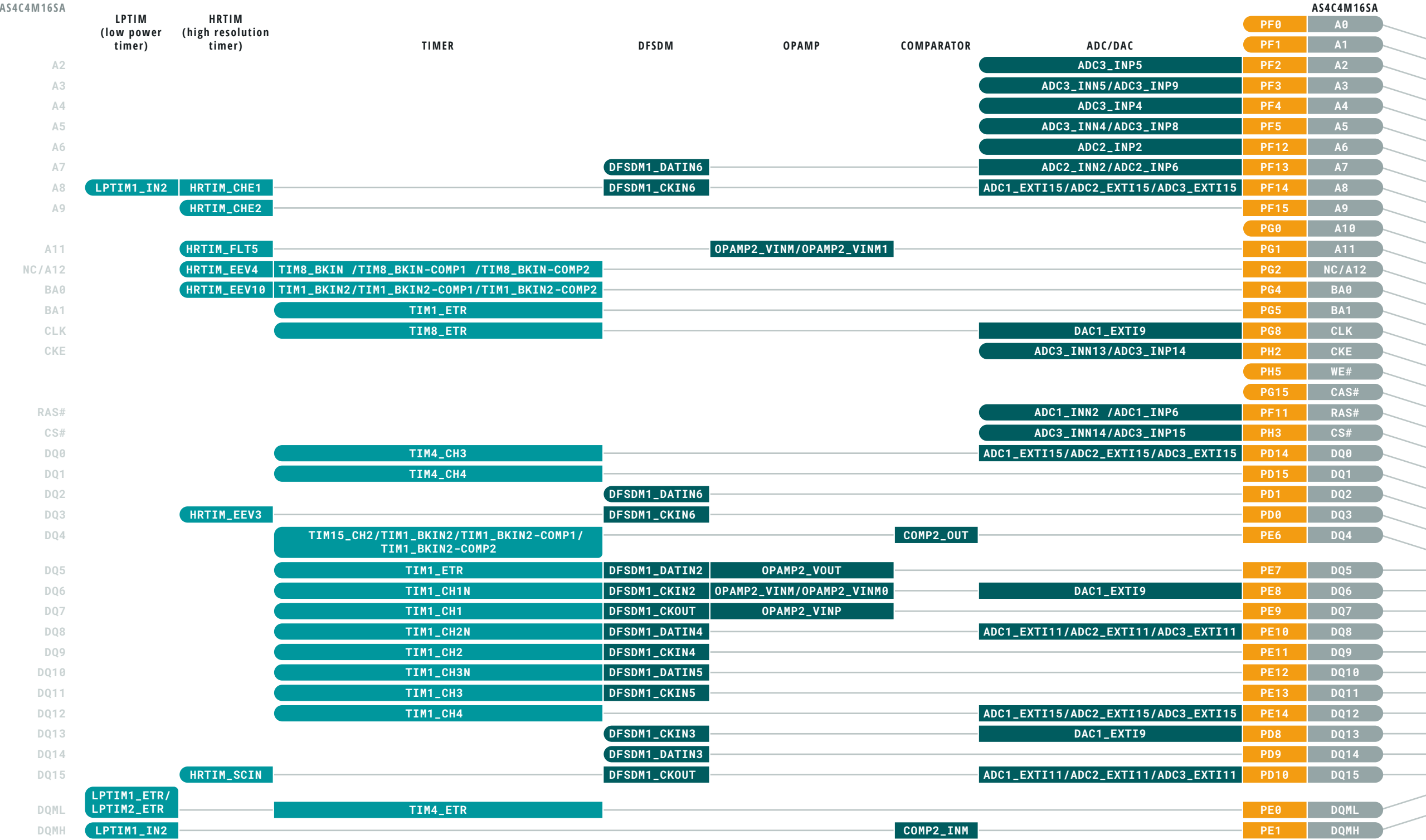
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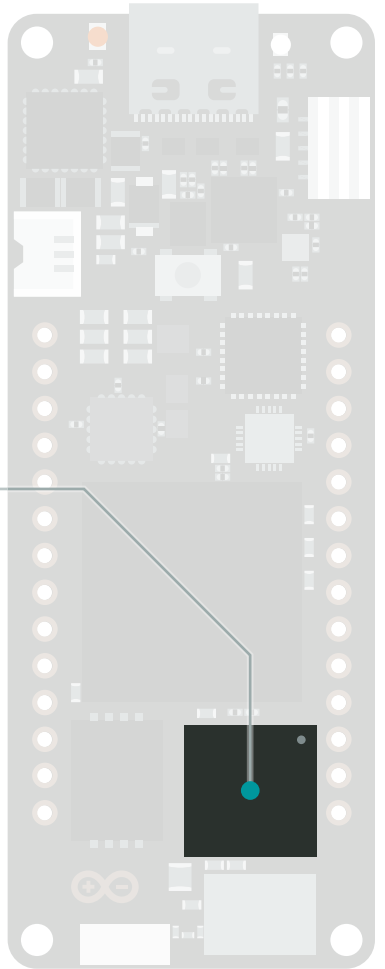
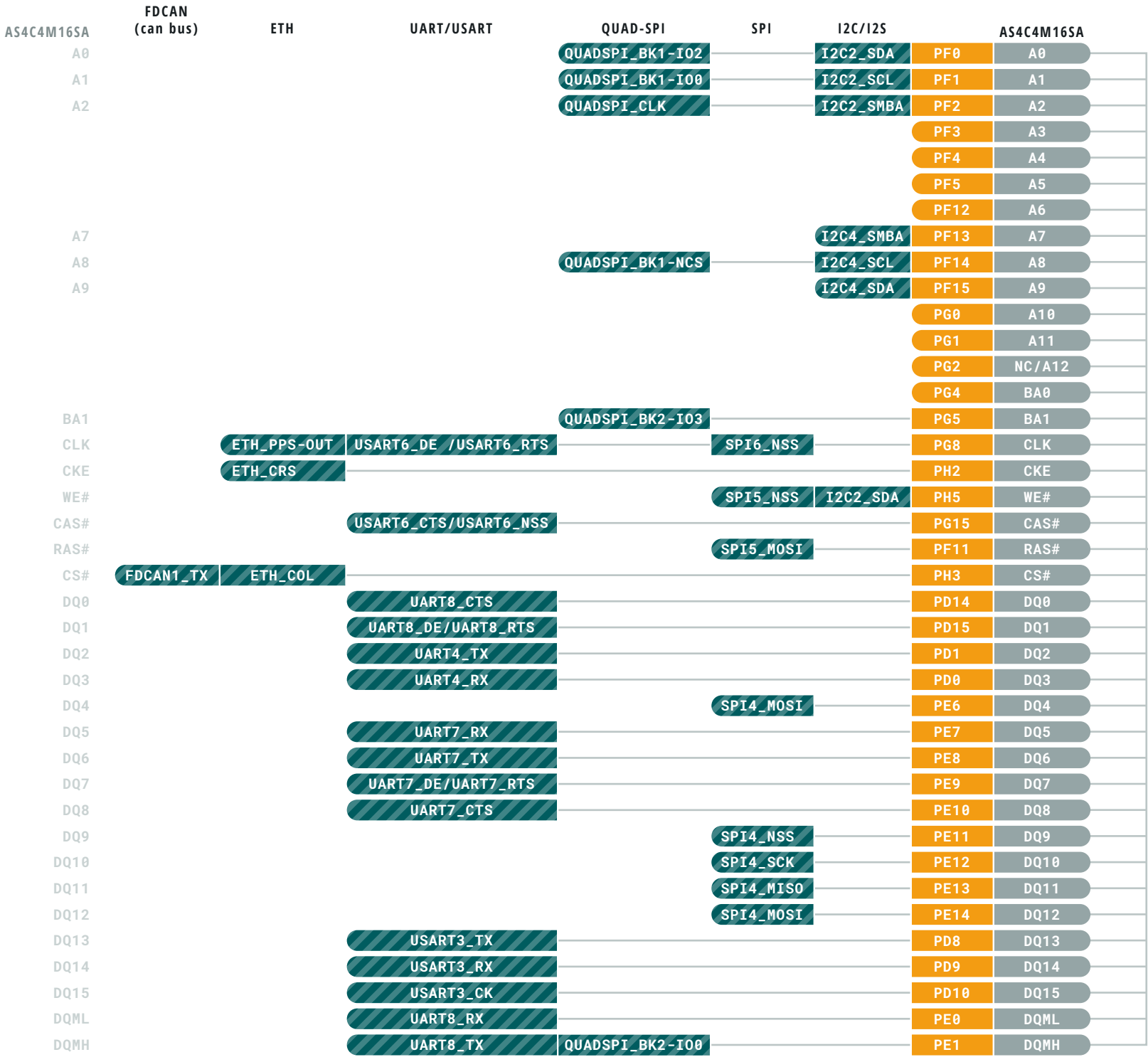
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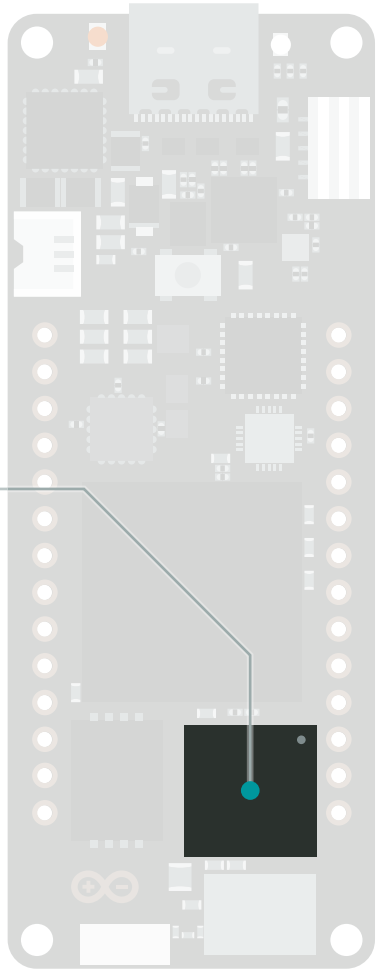
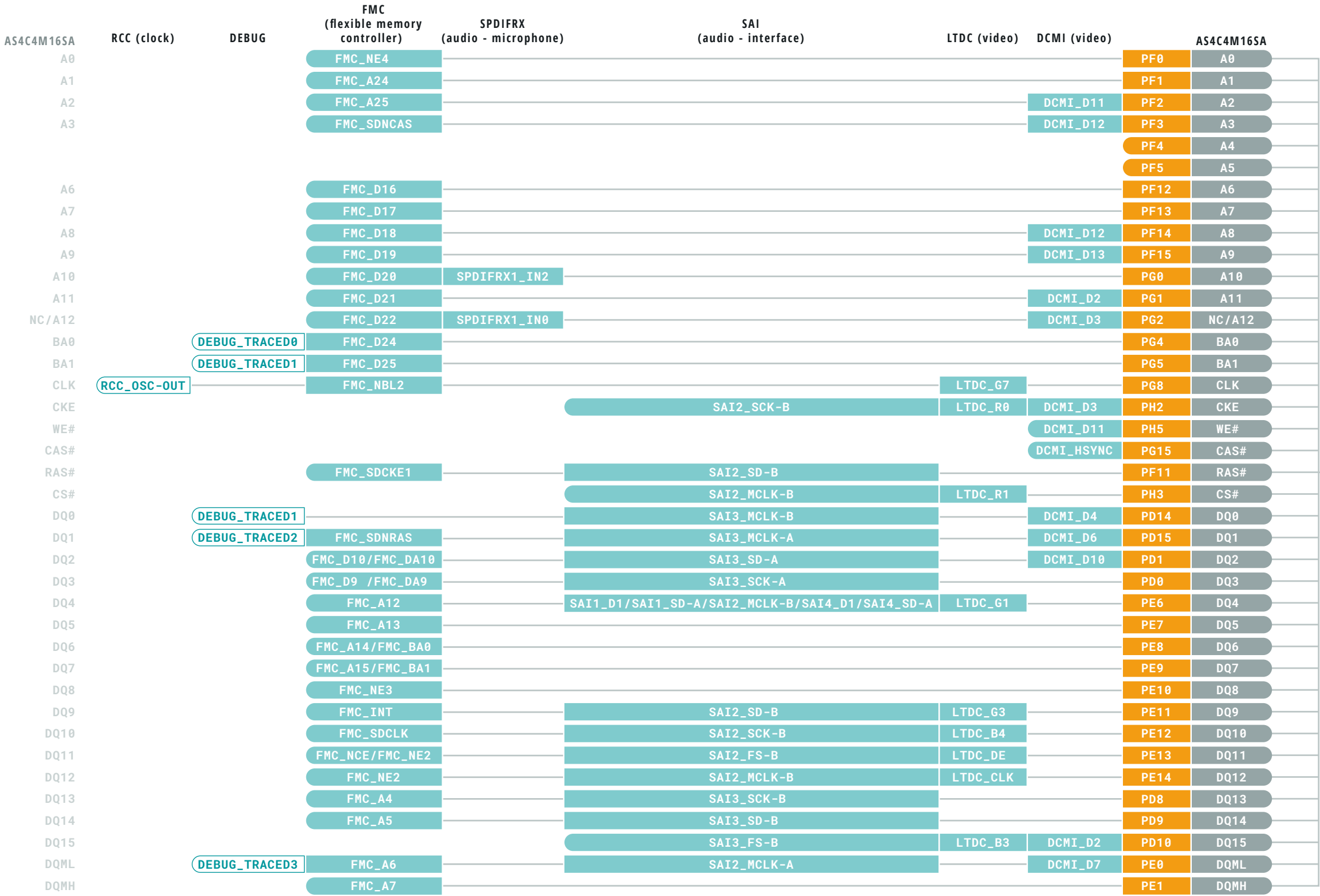
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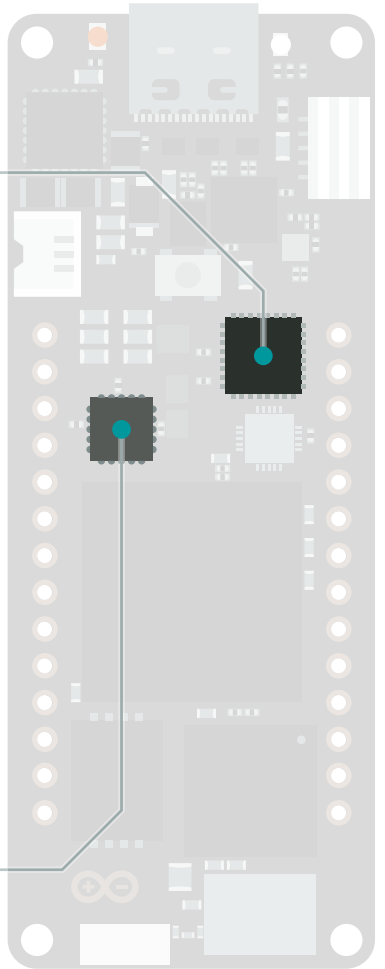
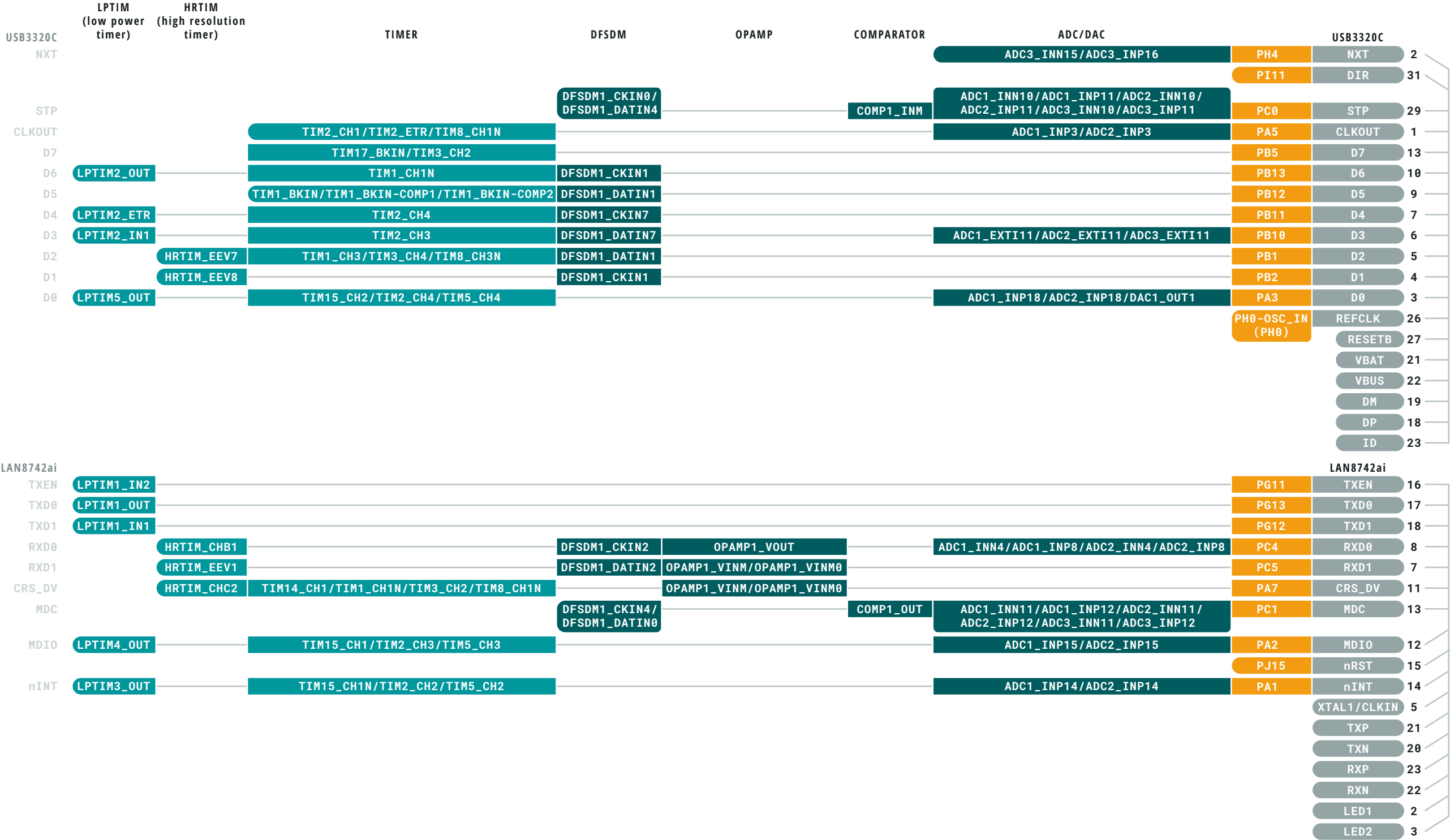
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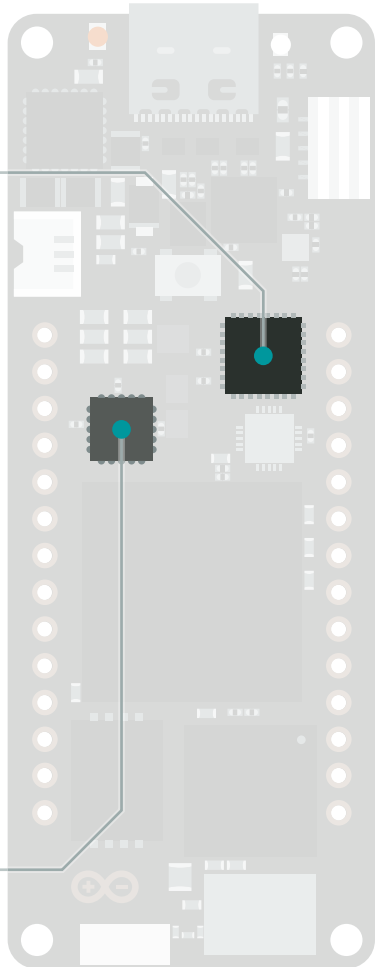
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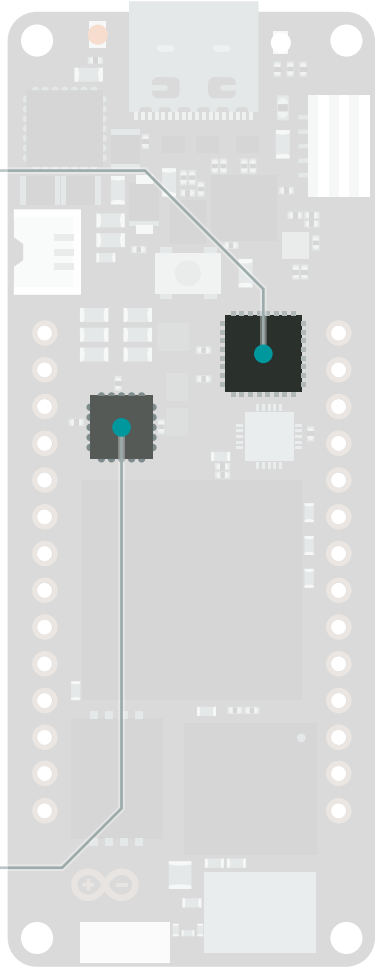
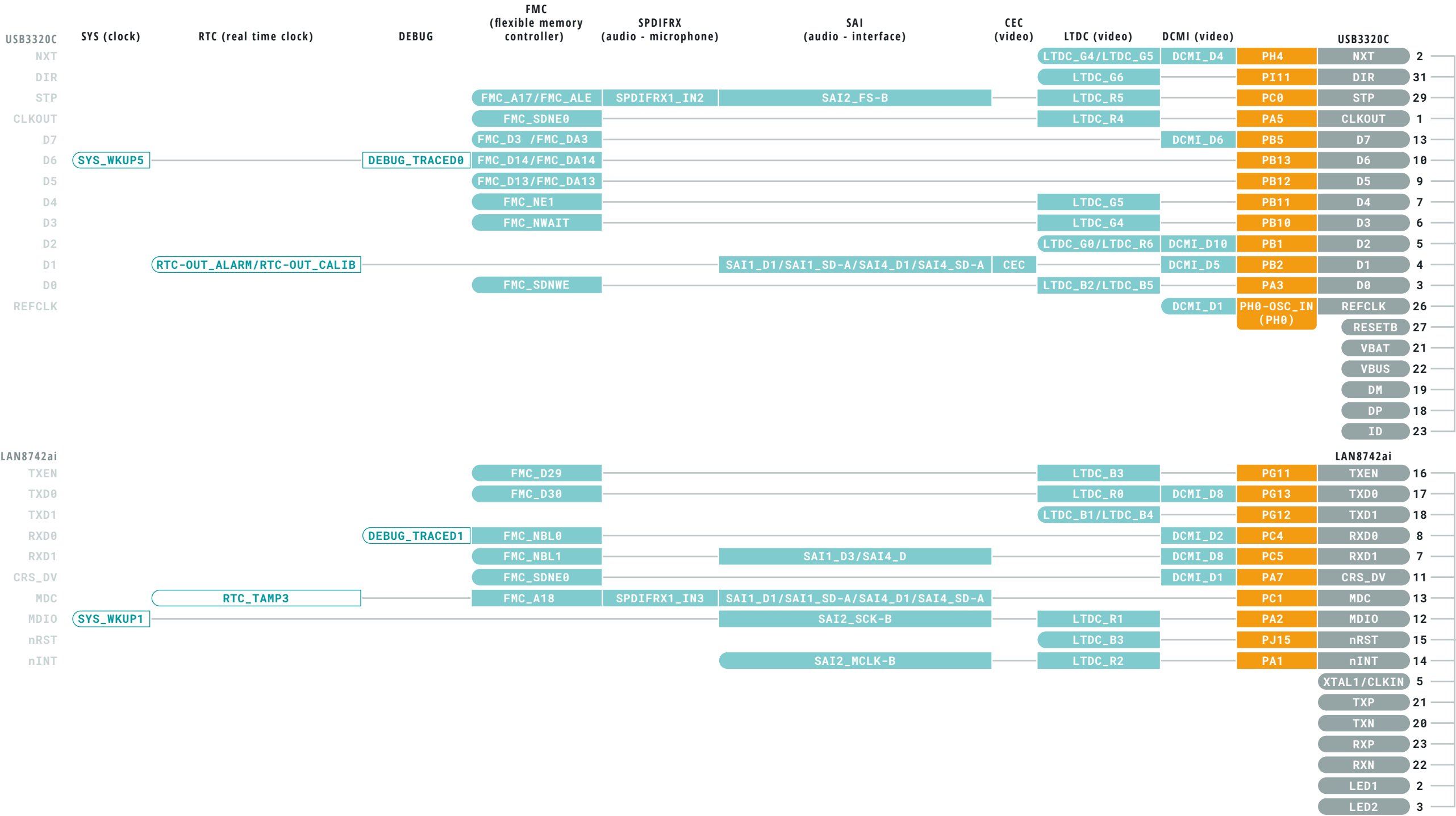


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A

A

B

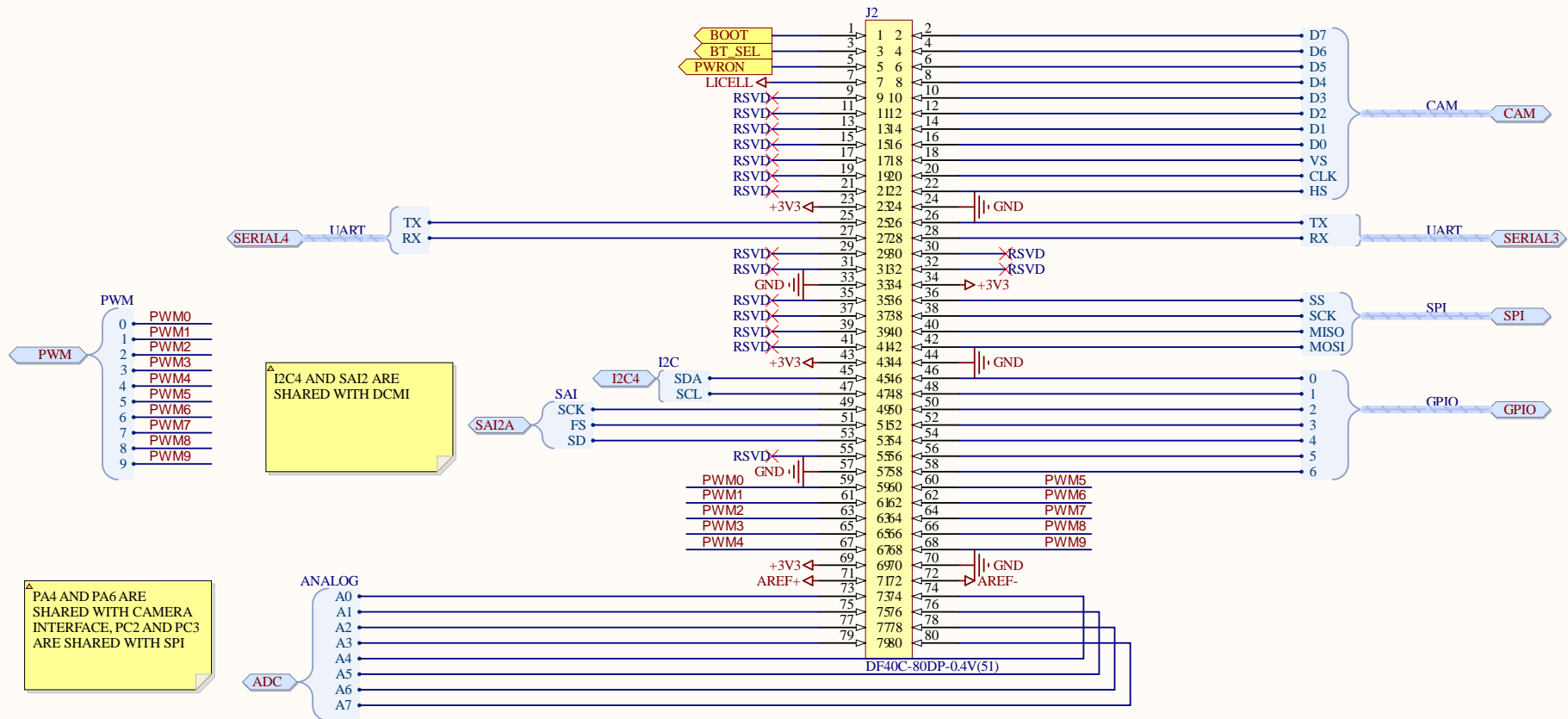
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C

C

D



D



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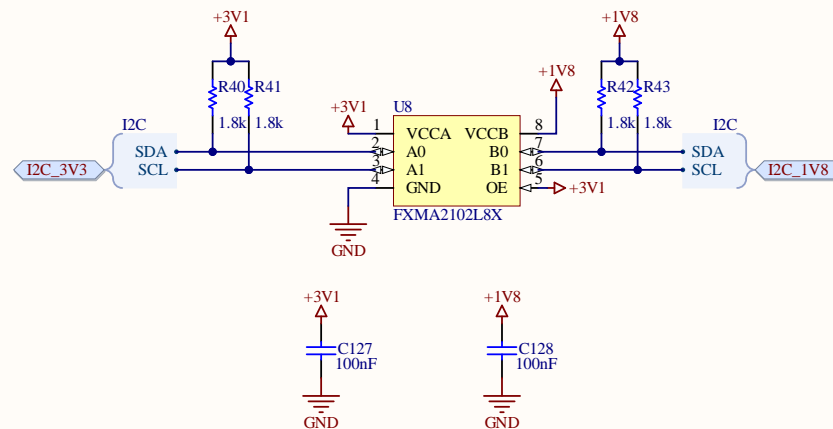
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Size:	Number: *	Revision: 1.0		
Date: 1/7/2020	Time: 4:08:09 PM	Sheet * of *		
File: HighDensity2.SchDoc	Author Arturo Guadalupi	Rev author Dario Pennisi		

1

2

3



4



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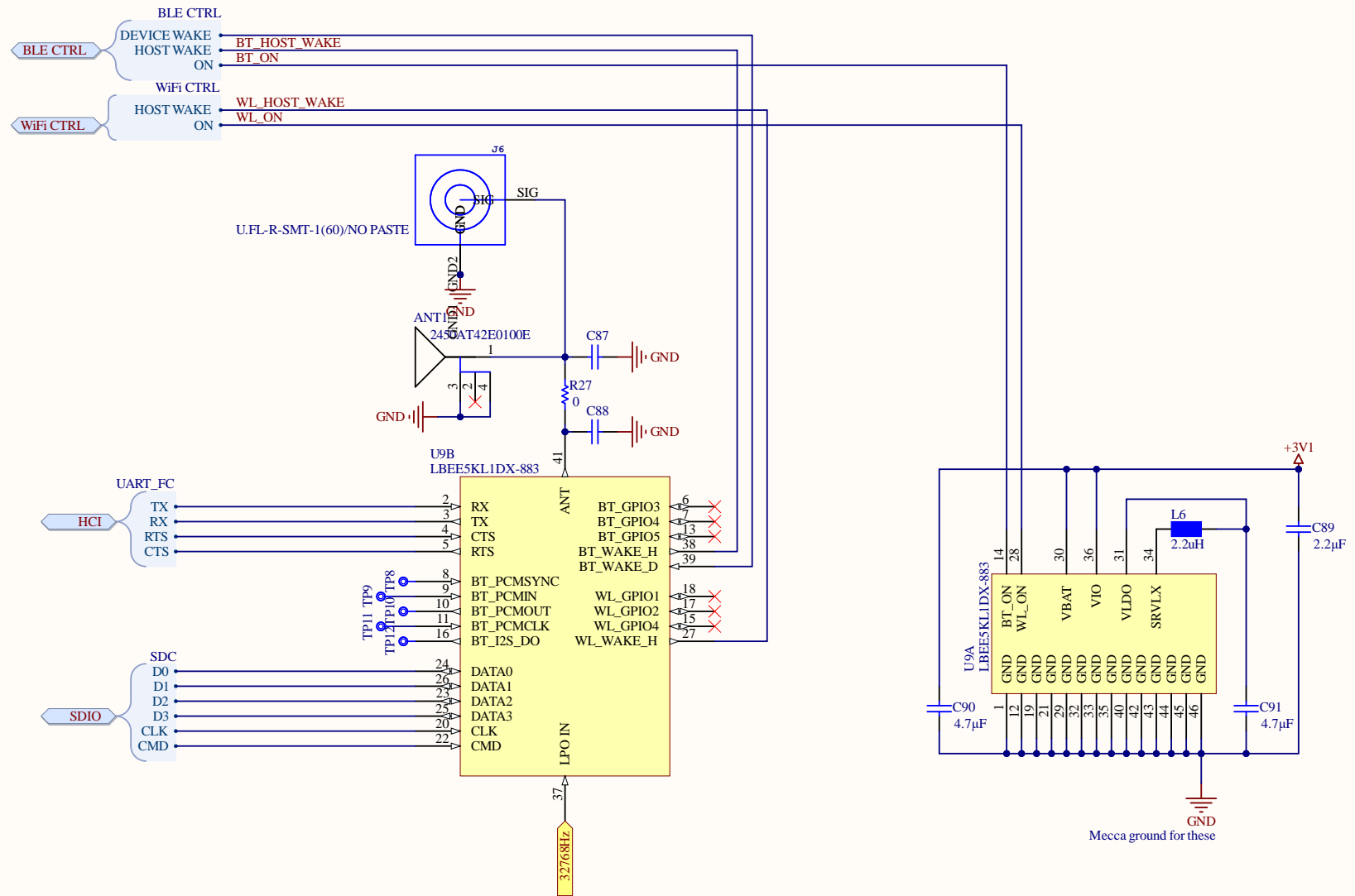
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File: I2CLevelShifter.SchDoc	Author Arturo Guadalupi	Rev author Dario Pennisi		

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4



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File: LBEE5KL1DX.SchDoc	Author Arturo Guadalupi	Rev author Dario Pennisi		

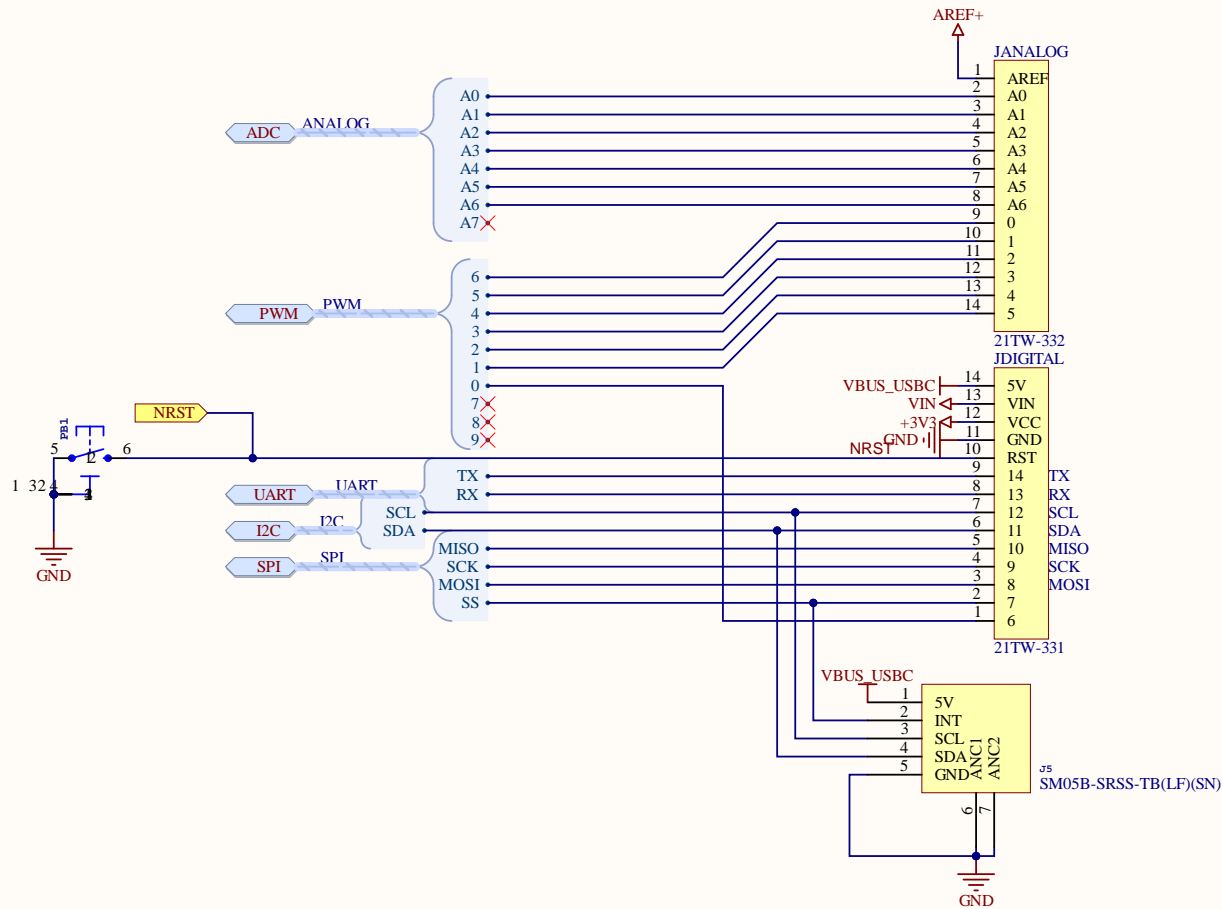
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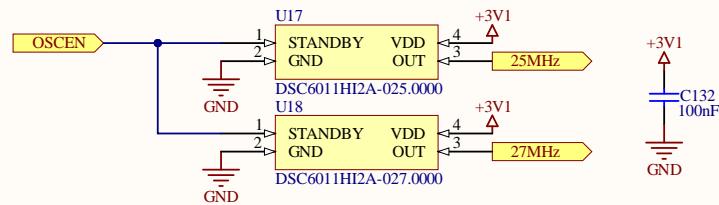
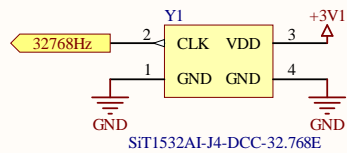
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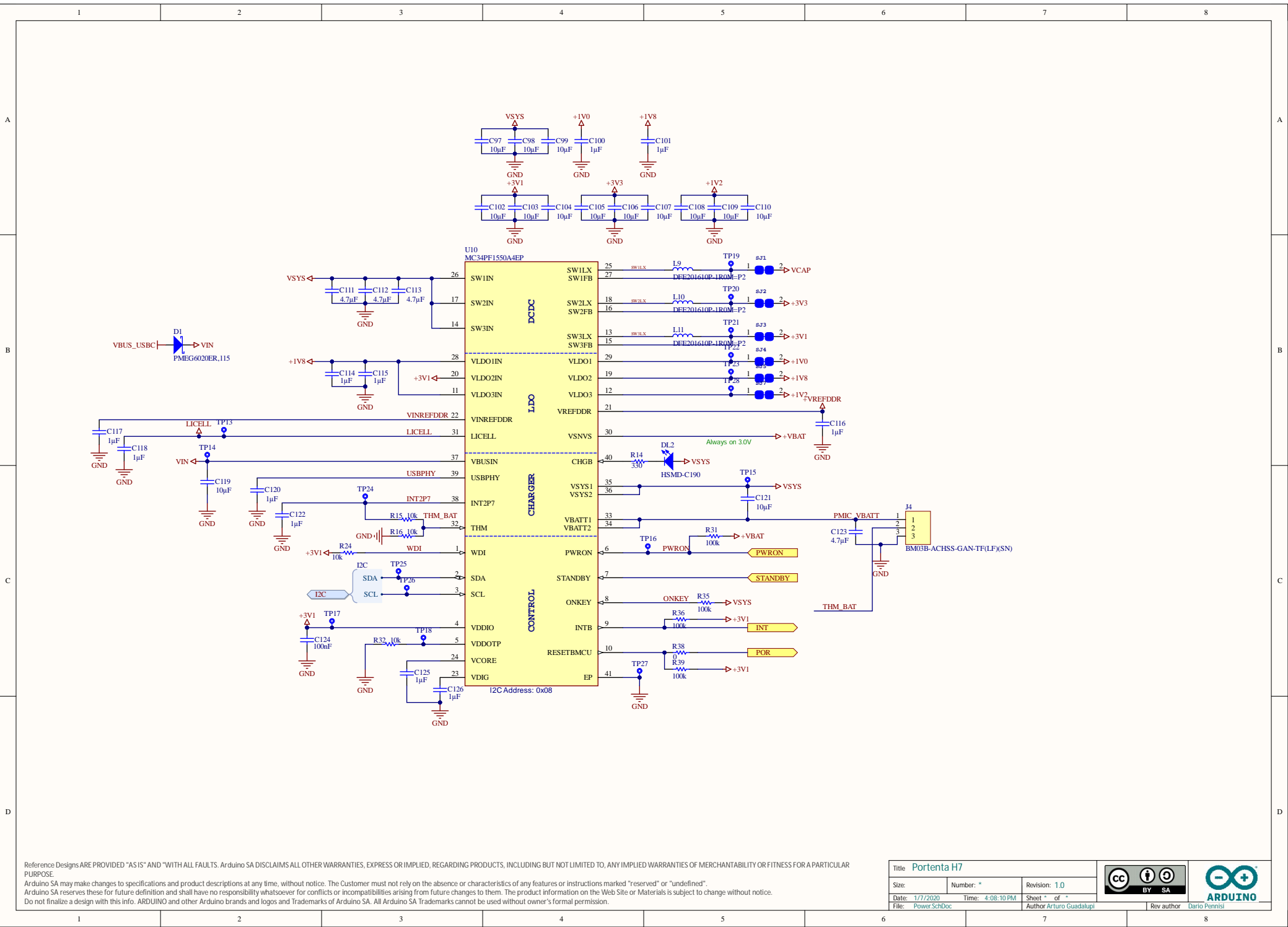
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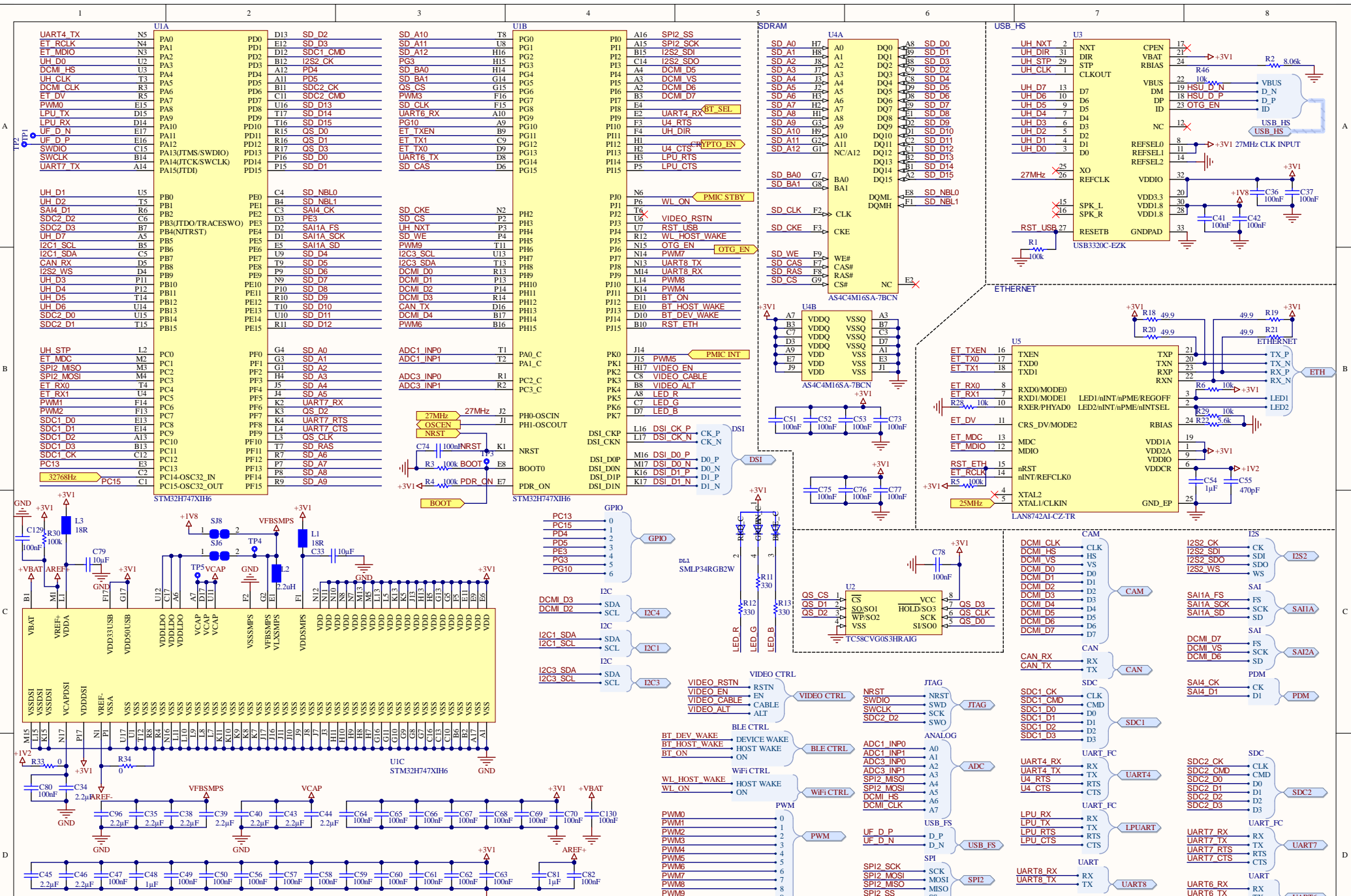
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Title <b>Portenta H7</b>			 	
Size:	Number: *	Revision: 1.0		
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File: Oscillators.SchDoc	Author Arturo Guadalupi	Rev author Dario Pennisi		





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Portenta H7

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Revision: 1.0

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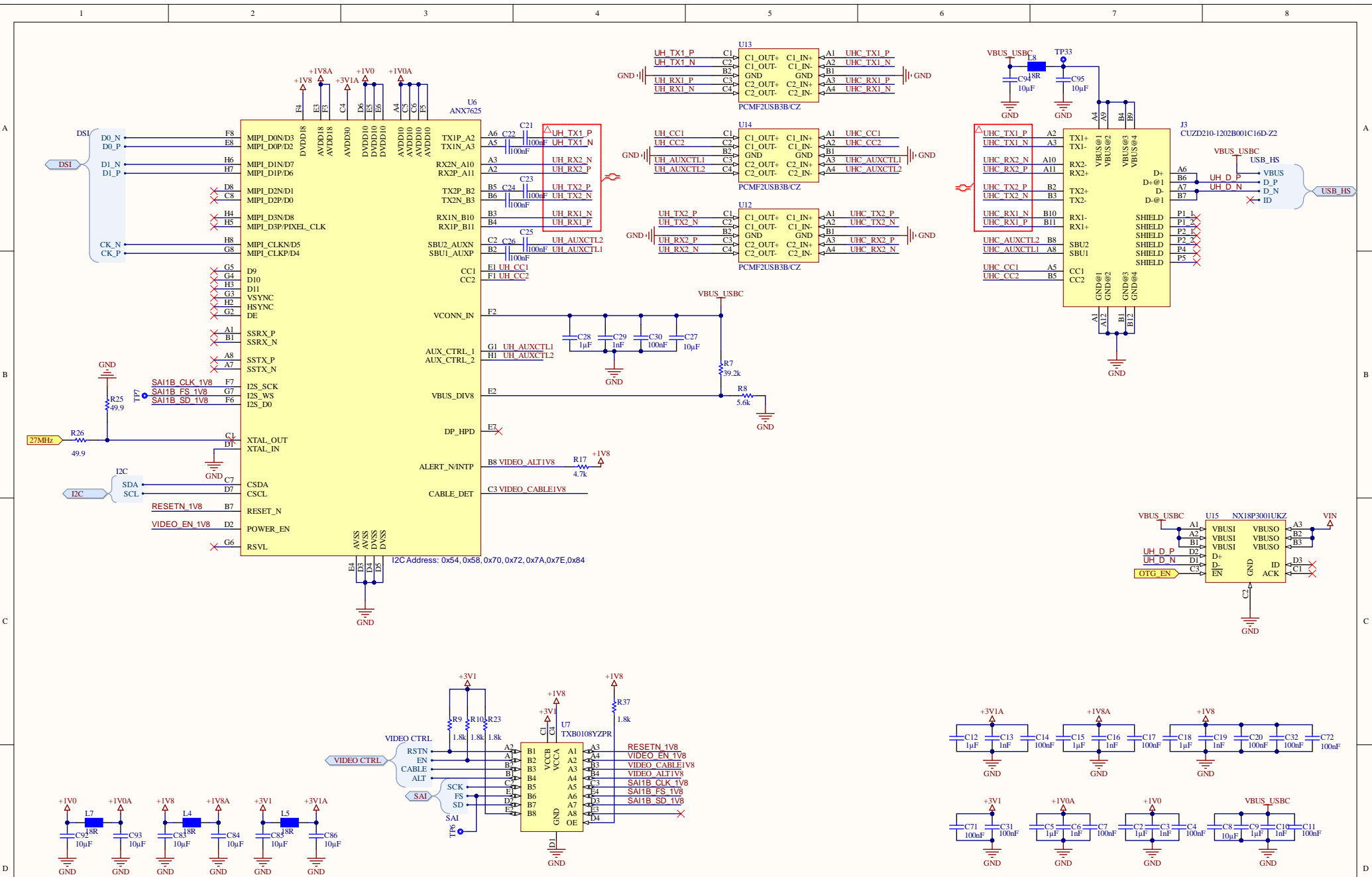
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Author: Arturo Guadalupi

Rev author: Dario Ponnisi



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