







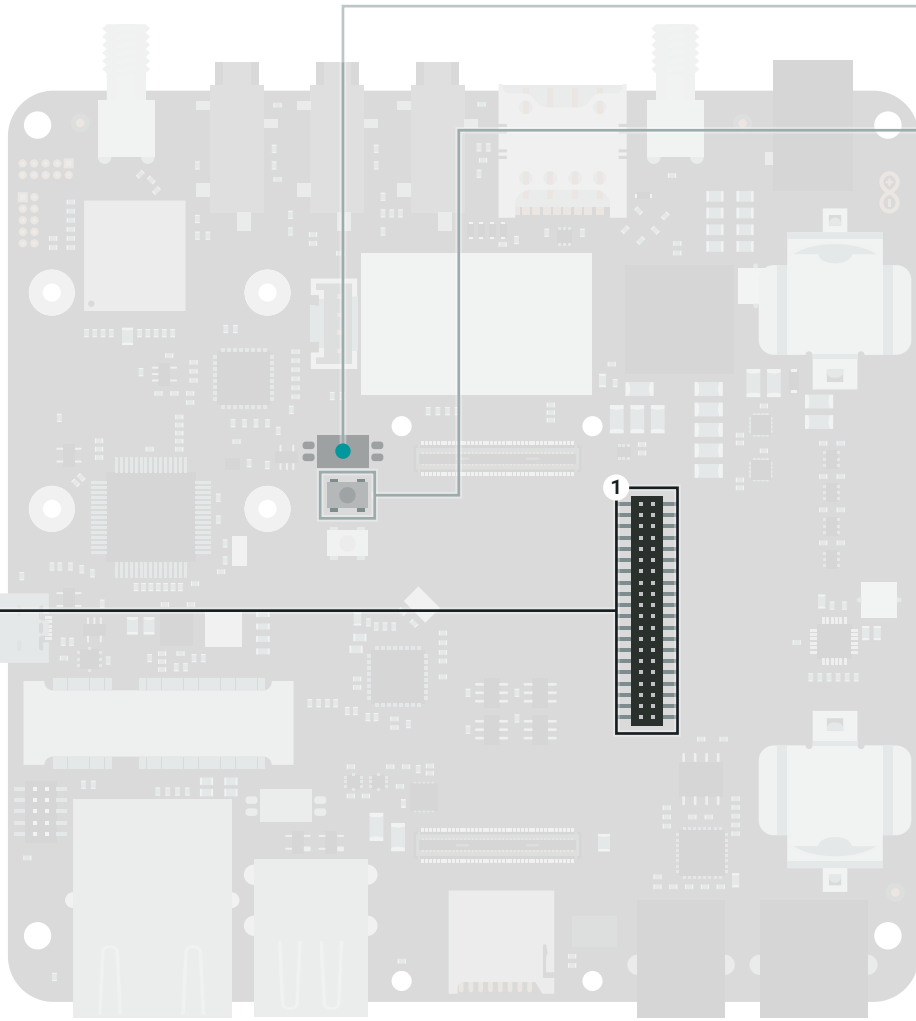
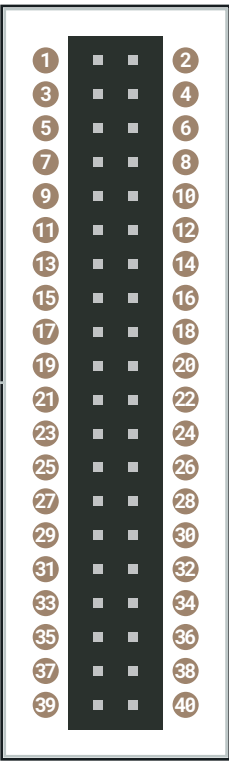
	Ground		Digital Pin
	Power		Analog Pin
	LED		Other Pin
	Internal Pin		High Density Connector
	SWD Pin		

WARNING External power supply or battery is required to supply 5V which powers most of the peripherals

WARNING 3V3 voltage is generated by Portenta

J5 HDC Stacker Connector	
+3V3	1
GND	2
J2-71 ANALOG_VREF_P	3
J2-72 ANALOG_VREF_N	4
J2-73 ANALOG_A0	5
J2-75 ANALOG_A1	6
J2-77 ANALOG_A2	7
J2-79 ANALOG_A3	8
J2-74 ANALOG_A4	9
J2-76 ANALOG_A5	10
J2-78 ANALOG_A6	11
J2-80 ANALOG_A7	12
GND	13
GND	14
J2-49 SAI CK	15
J2-36 SPI1 CS	16
J2-51 SAI FS	17
J2-38 SPI1 CK	18
J2-53 SAI D0	19
J2-40 SPI1 CIP0	20
J2-55 SAI D1	21
J2-42 SPI1 C0PI	22
J1-74 SPDIF_TX	23
J2-25 SERIAL3_TX	24
J1-76 SPDIF_RX	25
J2-27 SERIAL3_RX	26
J1-43 I2C1 SDA	27
J2-29 SERIAL3_RTS	28
J1-45 I2C1 SCL	29
J2-31 SERIAL3_CTS	30
+3V8	31
J2-45 I2C2 SDA	32
J2-62 PWM6	33
J2-47 I2C2 SCL	34
J2-64 PWM7	35
+5V	36
J2-66 PWM8	37
J1-50 CAN0_TX	38
J2-68 PWM9	39
J1-52 CAN0_RX	40



TOP VIEW

DIP Switch SW1 218-2LPSTF	
1 BOOT_1	J2-01 BOOT
2 BT_SEL_1	J2-03 BT_SEL
PB1 Pushbutton	
NetPB_1	J2-05 PWRON

Ground	Digital Pin
Power	Analog Pin
LED	Other Pin
Internal Pin	High Density Connector
SWD Pin	

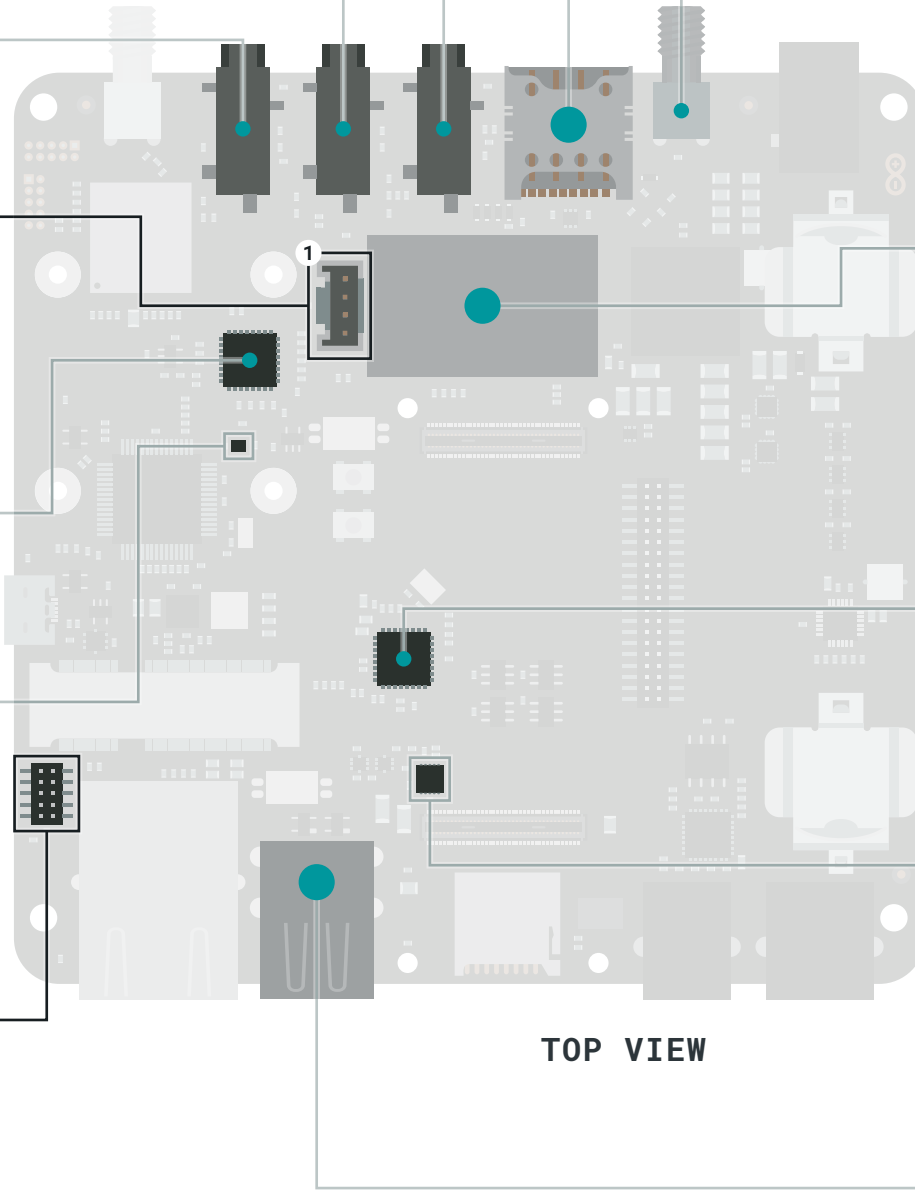
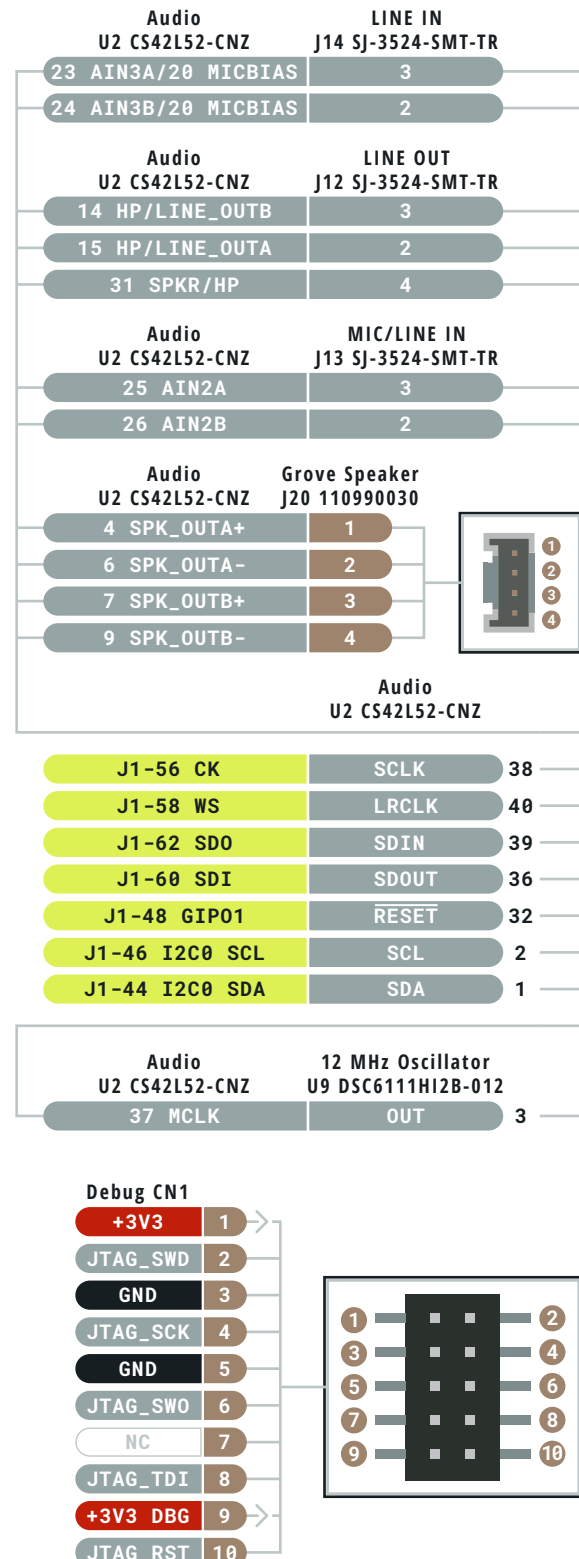
WARNING External power supply or battery is required to supply 5V which powers most of the peripherals

WARNING 3V3 voltage is generated by Portenta

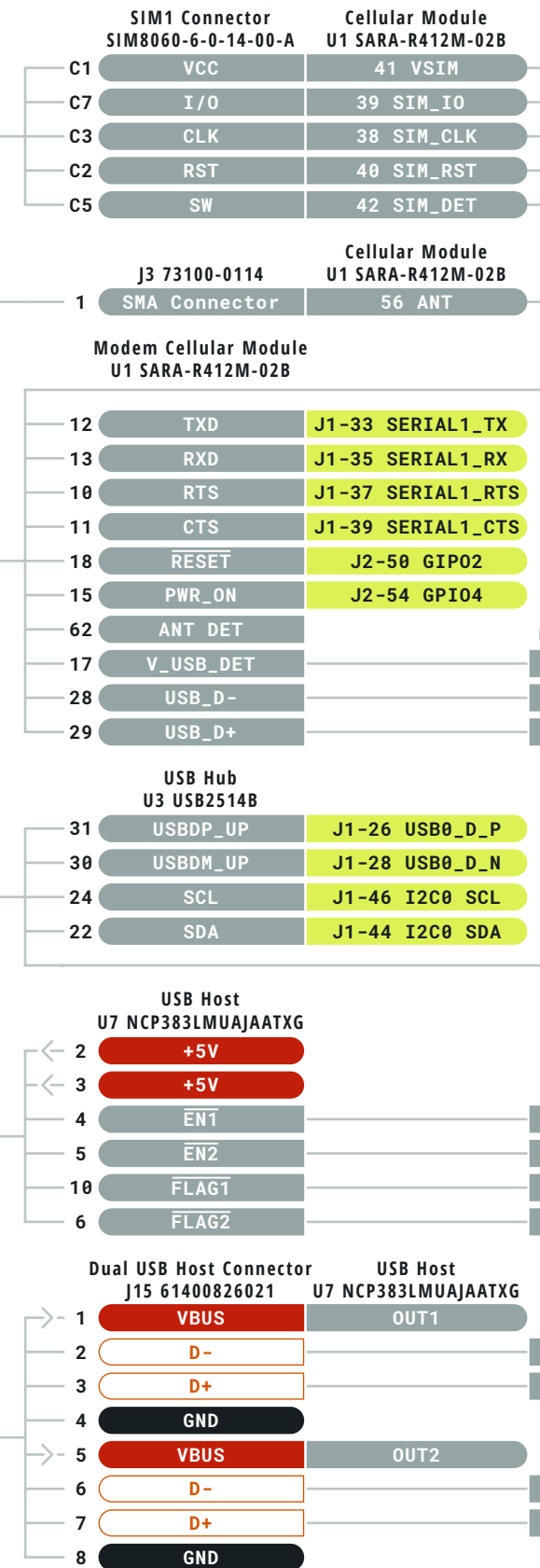




Pins 2 and 3 of J14 SJ-3524-SMT-TR are both connected to pin 20 MICBIAS of U2 CS42L52-CN2



TOP VIEW



ARDUINO
PORTENTA MAX CARRIER

Translated from
1V8 (Modem) to
3V3 (Portenta)

- Ground
- Power
- LED
- Internal Pin
- SWD Pin
- Digital Pin
- Analog Pin
- Other Pin
- High Density Connector

WARNING External power supply or battery is required to supply 5V which powers most of the peripherals

WARNING 3V3 voltage is generated by Portenta

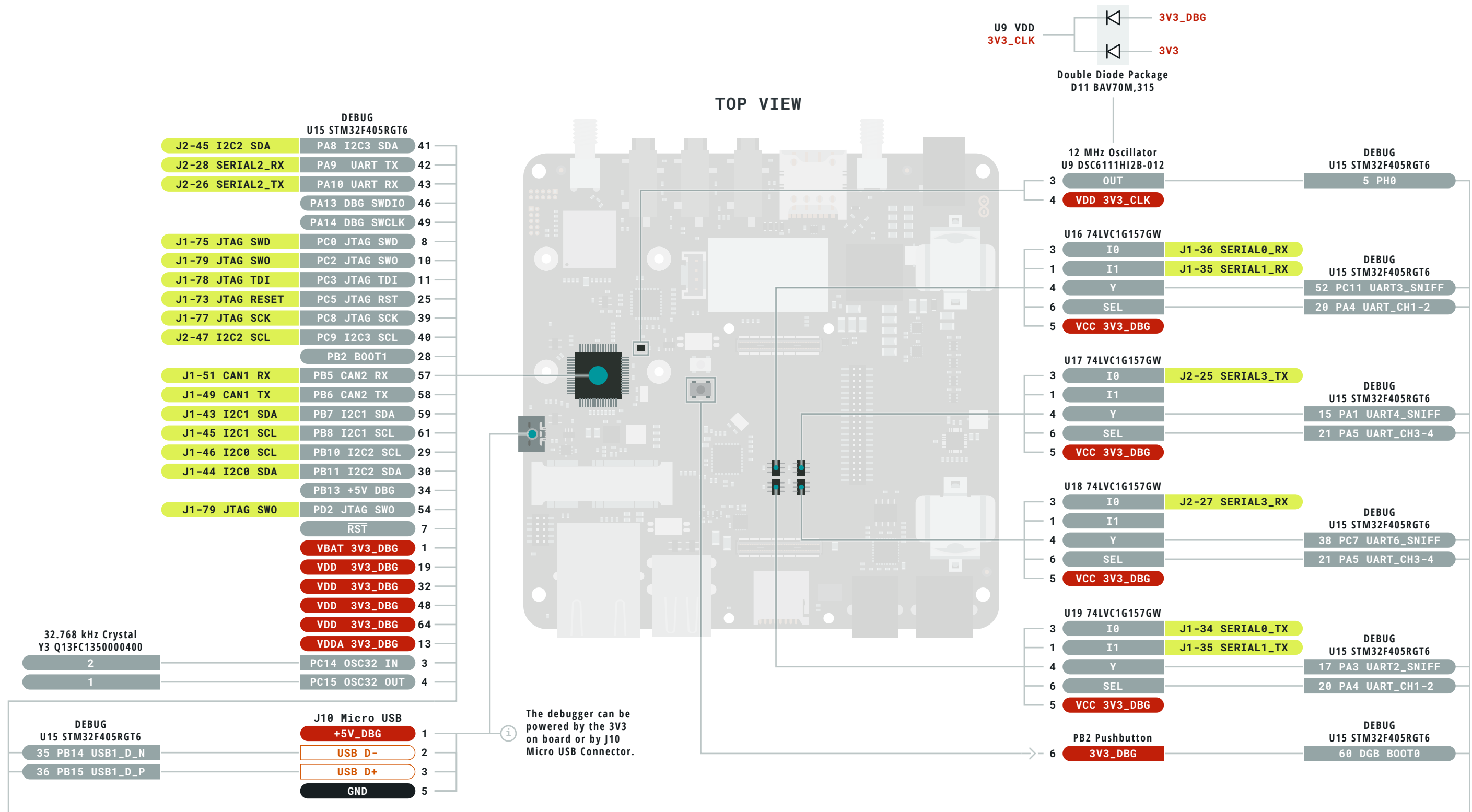
ARDUINO . CC

Last update: 30 Mar, 2022



This work is licensed under the Creative Commons Attribution-ShareAlike 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-sa/4.0/> or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.

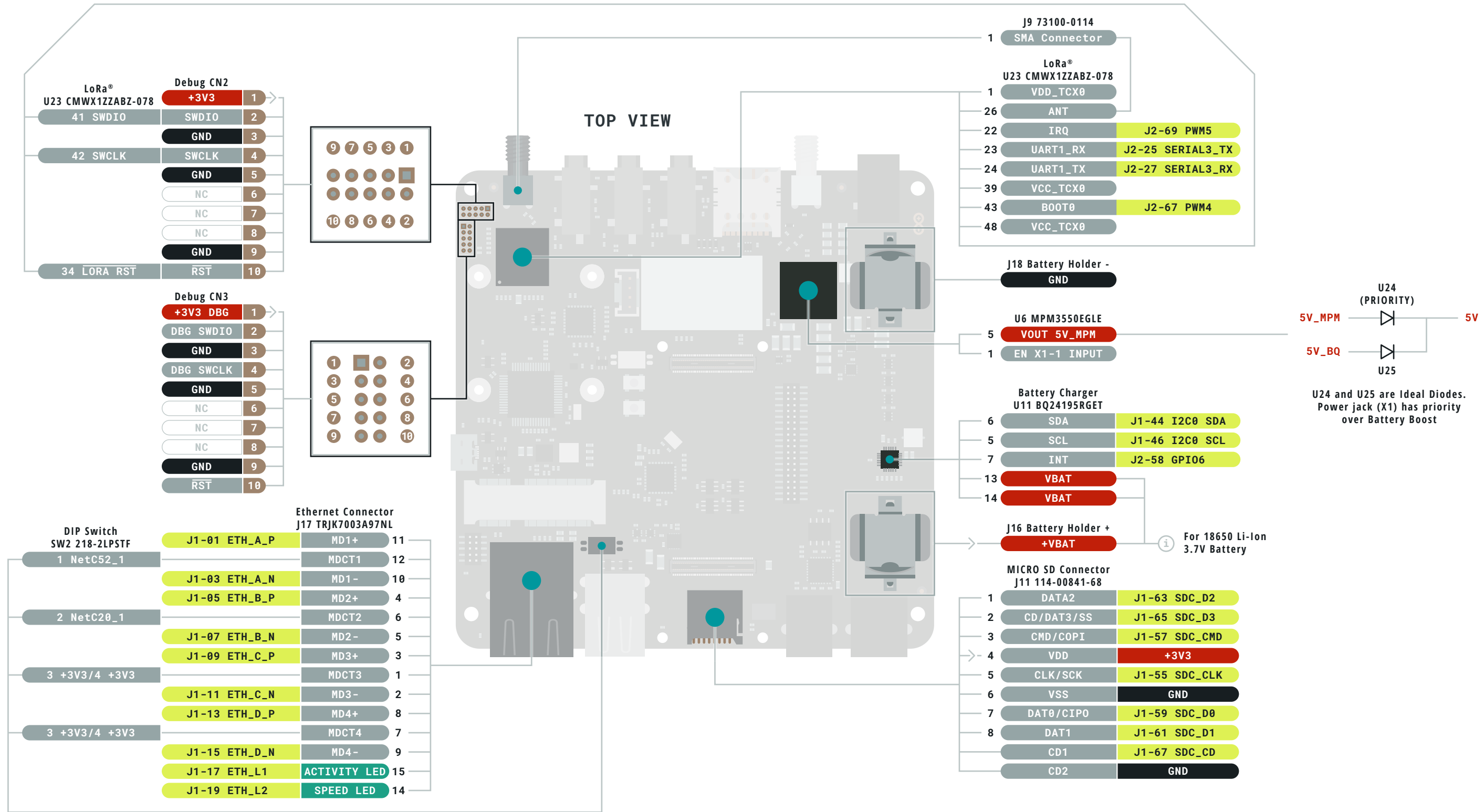
TOP VIEW



- Ground
- Power
- LED
- Internal Pin
- SWD Pin
- Digital Pin
- Analog Pin
- Other Pin
- High Density Connector

- WARNING** External power supply or battery is required to supply 5V which powers most of the peripherals
- WARNING** 3V3 voltage is generated by Portenta





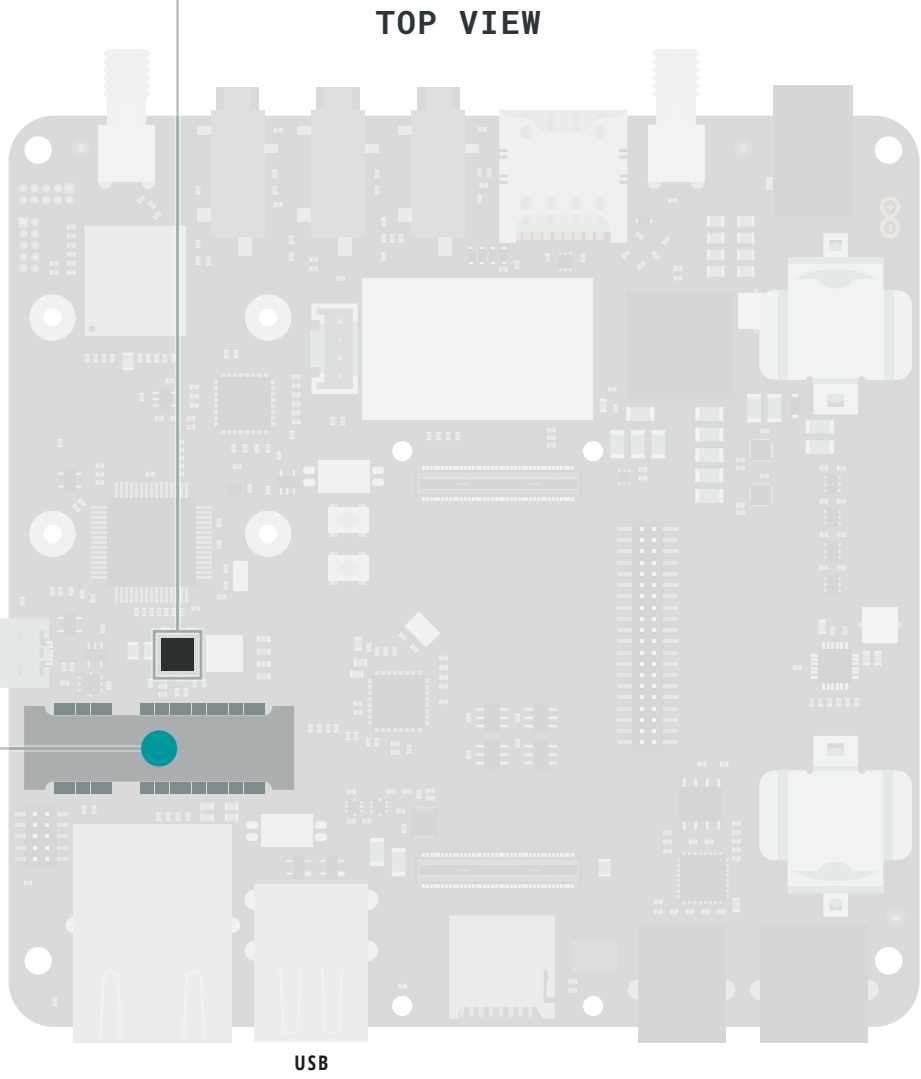
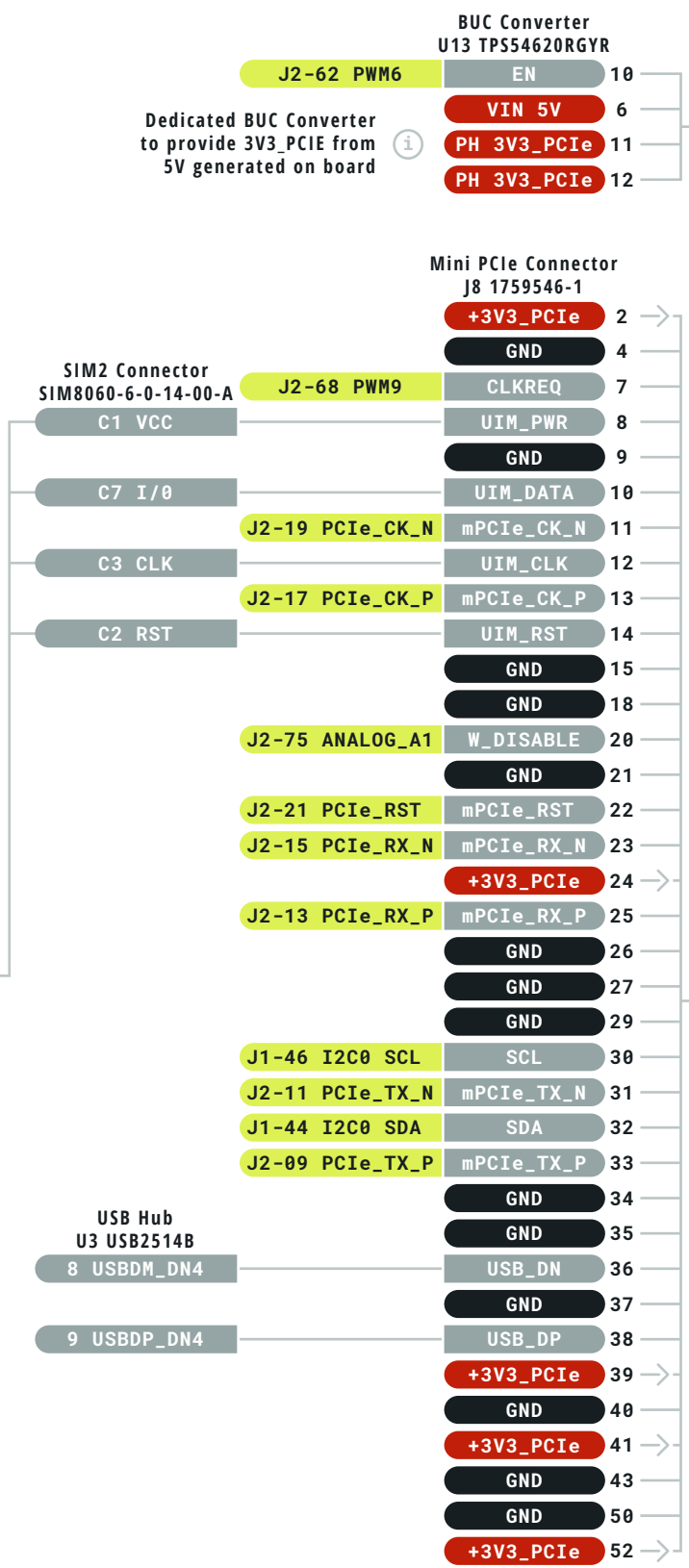
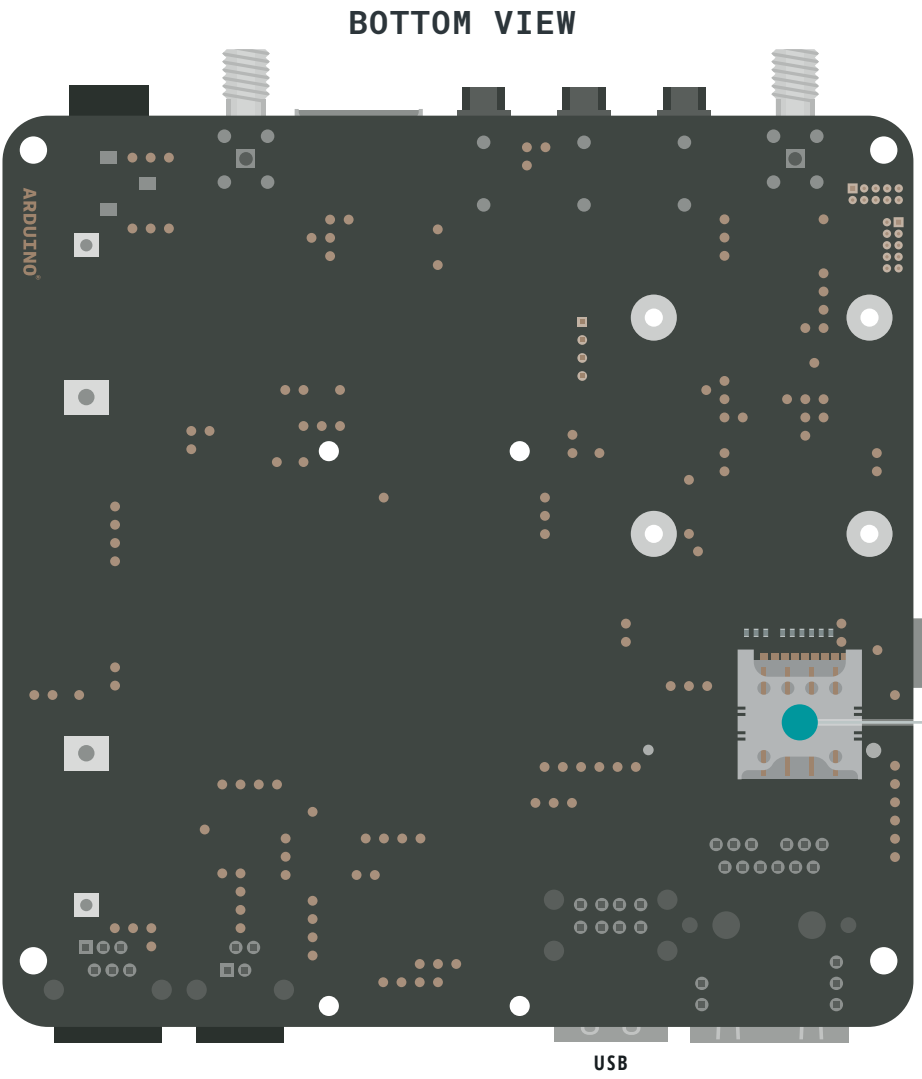
- Ground
- Power
- LED
- Internal Pin
- SWD Pin
- Digital Pin
- Analog Pin
- Other Pin
- High Density Connector

WARNING External power supply or battery is required to supply 5V which powers most of the peripherals

WARNING 3V3 voltage is generated by Portenta



This work is licensed under the Creative Commons Attribution-ShareAlike 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-sa/4.0/> or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.



Ground

Power

LED

Internal Pin

SWD Pin

Digital Pin

Analog Pin

Other Pin

High Density Connector

WARNING External power supply or battery is required to supply 5V which powers most of the peripherals

WARNING 3V3 voltage is generated by Portenta



BOTTOM VIEW

RS485/232 Connector
J6 615006138421

B
Y
GND
Z
A
GND

CAN Connector
J7 615004143821

CANH
+5V
CANL
GND

USB

TOP VIEW

USB

CAN
U5 TJA1049T/3J

1 TX J1-49 CAN1 TX
2 RX J1-51 CAN1 RX
6 CANL
7 CANH
8 STB J1-65 PWM3

CAN Connector
J7 615004143821

3 CANL
2 CANH

RS485/232
U4 SP33SECR1-L

22 T1IN J1-34 485_TX
21 T2IN J1-38 485_RTS
20 RE J2-66 PWM8
7 R2OUT J1-36 485_RX
6 R1OUT J1-40 485_CTS
15 HALF/FULL J2-59 PWM0
14 RS-485/RS-232 J2-61 PWM1

11 SLEW +3V3
12 FD_TX_TERM J2-56 GPIO5
13 TERM J2-64 PWM7
10 SHDN J2-63 PWM2

RS485/232 Connector
J6 615006138421

3 Z 2 Z
4 Y 3 Y
19 B 5 B
18 A 4 A

RS485/232 Connector
J6 615006138421

1 GND
2 Z
3 Y
4 A
5 B
6 GND

CAN Connector
J7 615004143821

1 +5V
2 CANH
3 CANL
4 GND

Protected with a 500mA PTC
(F1 0ZCG0050AF2C)

- Ground
- Power
- LED
- Internal Pin
- SWD Pin
- Digital Pin
- Analog Pin
- Other Pin
- High Density Connector

WARNING External power supply or battery is required to supply 5V which powers most of the peripherals

WARNING 3V3 voltage is generated by Portenta

ARDUINO . CC

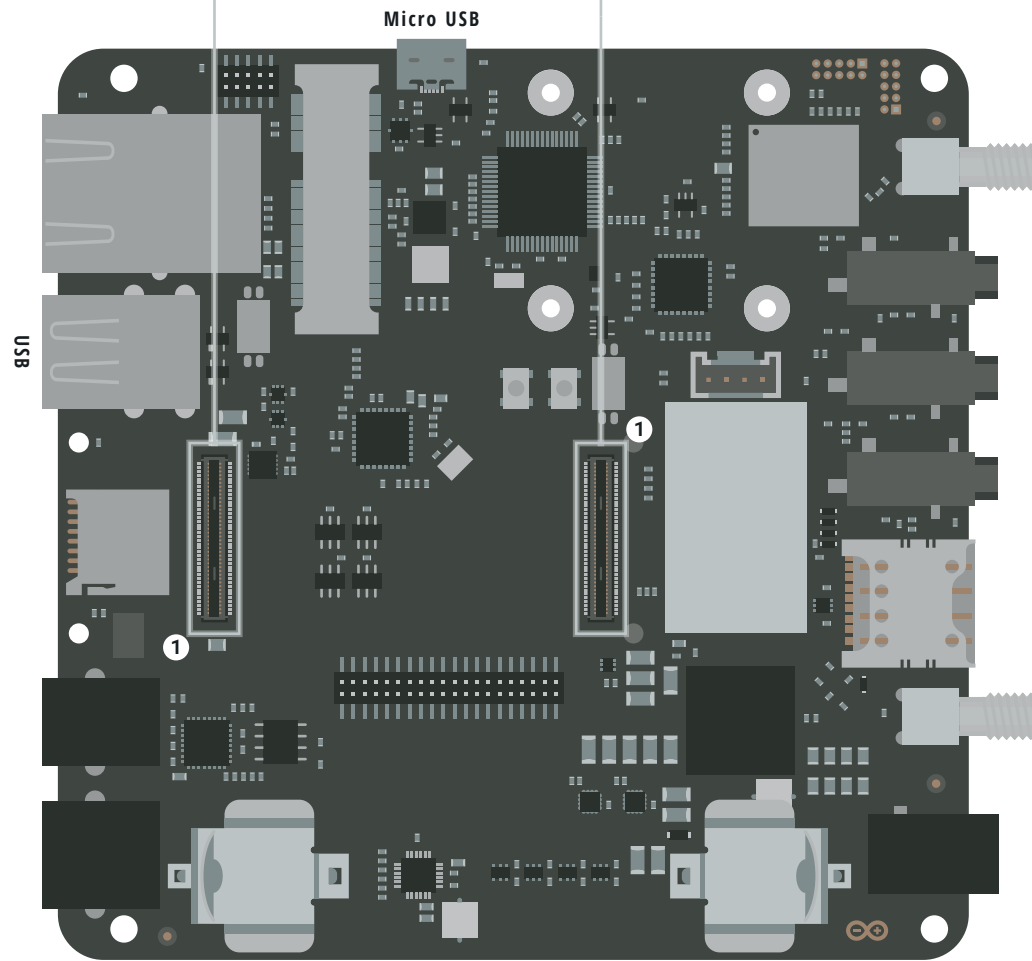
Last update: 30 Mar, 2022



This work is licensed under the Creative Commons Attribution-ShareAlike 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-sa/4.0/> or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.



J1-Female			
SW0	79	80	
SWCK	77	78	
SWDIO	75	76	
RESET	73	74	
	71	72	V-SDCARD
	69	70	
	67	68	DMIC D0
	65	66	DMIC CK
SDC D3	63	64	VSYS
SDC D2	61	62	I2S D0
SDC D1	59	60	I2S DI
SDC D0	57	58	I2S WS
SDC CMD	55	56	I2S MCK
VSYS	53	54	GND
CAN1 RX	51	52	
CAN1 TX	49	50	
GND	47	48	VIN
I2C1 SD6	45	46	I2C0 SCL
I2C1 SDA	43	44	I2C0 SDA
VIN	41	42	GND
UART1 CTS	39	40	UART0 CTS
UART1 RTS	37	38	UART0 RTS
UART1 RX	35	36	UART0 RX
UART1 TX	33	34	UART0 TX
GND	31	32	VIN
USB1 ID	29	30	
USB1 D-	27	28	USB0 D-
USB1 D+	25	26	USB0 D+
USB1 VBUS	23	24	
VIN	21	22	GND
ETH L2	19	20	DSI CK-
ETH L1	17	18	DSI CK+
	15	16	DSI D0-
	13	14	DSI D0+
	11	12	DSI D1-
	9	10	DSI D1+
ETH B-	7	8	
ETH B+	5	6	
ETH A-	3	4	
ETH A+	1	2	



TOP VIEW

J2-Female			
CAM D7	2	1	FORCE_BOOTLOADER
CAM D6	4	3	BOOT_SOURCE
CAM D5	6	5	POWER_ON_REQ
CAM D4	8	7	COINCELL
CAM D3	10	9	
CAM D2	12	11	
CAM D1	14	13	
CAM D0	16	15	
CAM VS	18	17	
CAM CLK	20	19	
CAM HS	22	21	
GND	24	23	VCC/+3V3
UART2 TX	26	25	UART3 TX
UART2 RX	28	27	UART3 RX
	30	29	
	32	31	
VCC	34	33	GND
SPI1 CS	36	35	
SPI1 CK	38	37	
SPI1 CIP0	40	39	
SPI1 COPI	42	41	
GND	44	43	VCC/+3V3
GPIO 0	46	45	I2C2 SDA
GPIO 1	48	47	I2C2 SCL
GPIO 2	50	49	SAI CK
GPIO 3	52	51	SAI FS
GPIO 4	54	53	SAI D0
GPIO 5	56	55	
GPIO 6	58	57	GND
PWM 6	60	59	PWM 1
PWM 7	62	61	PWM 2
PWM 8	64	63	PWM 3
PWM 9	66	65	PWM 4
PWM 10	68	67	PWM 5
GND	70	69	VCC/+3V3
ADC VREF-	72	71	ADC VREF+
ADC A4	74	73	ADC A0
ADC A5	76	75	ADC A1
ADC A6	78	77	ADC A2
ADC A7	80	79	ADC A3

- Ground

Power

LED

Internal Pin

SWD Pin
- Digital Pin

Analog Pin

Other Pin

High Density Connector

WARNING External power supply or battery is required to supply 5V which powers most of the peripherals

WARNING 3V3 voltage is generated by Portenta

