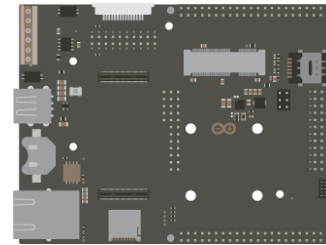


# Pinout Table - Portenta Mid Carrier

## Description

This document shows a detailed pinout table for the Portenta Mid Carrier sorted by its main connectors.



Breakout Header (J14)					
Pin number	Silkscreen	Power Net	Portenta HD Standard Pin	High-Density Pin	Interface
1	GND	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	
2	GND	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	
3	RTS0		SERIAL0_RTS	J1-38	UART 0 RTS
4	RTS1		SERIAL1_RTS	J1-37	UART 1 RTS
5	NC		NC	NC	
6	NC		NC	NC	
7	RX0		SERIAL0_RX	J1-36	UART 0 RX
8	RX1		SERIAL1_RX	J1-35	UART 1 RX
9	TX0		SERIAL0_TX	J1-34	UART 0 TX
10	TX1		SERIAL1_TX	J1-33	UART 1 TX
11	CTS0		SERIAL0_CTS	J1-40	UART 0 CTS
12	CTS1		SERIAL1_CTS	J1-39	UART 1 CTS
13	GND	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	
14	GND	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	
15	RTS2		SERIAL2_RTS	J2-30	UART 2 RTS
16	RTS3		SERIAL3_RTS	J2-29	UART 3 RTS
17	NC		NC	NC	
18	NC		NC	NC	
19	RX2		SERIAL2_RX	J2-28	UART 2 RX
20	RX3		SERIAL3_RX	J2-27	UART 3 RX
21	TX2		SERIAL2_TX	J2-26	UART 2 TX
22	TX3		SERIAL3_TX	J2-25	UART 3 TX

23	CTS2		SERIAL2_CTS	J2-32	UART 2 CTS
24	CTS3		SERIAL3_CTS	J2-31	UART 3 CTS
25	I2S CLK		I2S_CK	J1-56	I2S CK
26	CAN0 TX		CAN0_TX	J1-50	CAN 0 TX
27	I2S WS		I2S_WS	J1-58	I2S WS
28	CAN0 RX		CAN0_RX	J1-52	CAN 0 RX
29	I2S SDI		I2S_SDI	J1-60	I2S SDI
30	CAN1 TX		CAN1_TX	J1-49	CAN 1 TX
31	I2S SDO		I2S_SDO	J1-62	I2S SDO
32	CAN1 RX		CAN1_RX	J1-51	CAN 1 RX
33	SPDIF TX		SPDIF_TX	J1-74	SPDIF TX
34	PDM CLK		PDM_CK	J1-66	PDM CK
35	SPDIF RX		SPDIF_RX	J1-76	SPDIF RX
36	PDM D0		PDM_D0	J1-68	PDM D0
37	GPIO0		GPIO_0	J2-46	GPIO_0
38	PDM D1		PDM_D1	J1-70	PDM D1
39	GPIO1		GPIO_1	J2-48	GPIO_1
40	GPIO6		GPIO_6	J2-58	GPIO_6
41	GPIO2		GPIO_2	J2-50	GPIO_2
42	GPIO5		GPIO_5	J2-56	GPIO_5
43	GPIO3		GPIO_3	J2-52	GPIO_3
44	GPIO4		GPIO_4	J2-54	GPIO_4

Breakout Header (J15)					
Pin number	Silkscreen	Power Net	Portenta HD Standard Pin	High-Density Pin	Interface
1	GND	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	
2	GND	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	
3	OUT VCC	+3V3 Portenta (Out)	VCC	J2-23, J2-34, J2-43, J2-69	
4	OUT VCC	+3V3 Portenta (Out)	VCC	J2-23, J2-34, J2-43, J2-69	
5	IN 5V	+5V (In/Out)	VIN	J1-21, J1-32, J1-41, J1-48	
6	IN 5V	+5V (In/Out)	VIN	J1-21, J1-32, J1-41, J1-48	
7	VREFP		ANALOG_VREF_P	J2-71	
8	VREFN		ANALOG_VREF_N	J2-72	

9	A0		ANALOG_A0	J2-73	
10	SPI0 CS		SPI0_CS	J2-35	SPI 0 CS
11	A1		ANALOG_A1	J2-75	
12	SPI0 SCLK		SPI0_CK	J2-37	SPI 0 CK
13	A2		ANALOG_A2	J2-77	
14	SPI0 CIP0		SPI0_MISO	J2-39	SPI 0 CIP0
15	A3		ANALOG_A3	J2-79	
16	SPI0 COPI		SPI0_MOSI	J2-41	SPI 0 COPI
17	A4		ANALOG_A4	J2-74	
18	SPI1 CS		SPI1_CS	J2-36	SPI 1 CS
19	A5		ANALOG_A5	J2-76	
20	SPI1 SCLK		SPI1_CK	J2-38	SPI 1 CK
21	A6		ANALOG_A6	J2-78	
22	SPI1 CIP0		SPI1_MISO	J2-40	SPI 1 CIP0
23	A7		ANALOG_A7	J2-80	
24	SPI1 COPI		SPI1_MOSI	J2-42	SPI 1 COPI
25	PWM0		PWM_0	J2-59	
26	I2C0 SDA		I2C0_SDA	J1-44	I2C 0 SDA
27	PWM1		PWM_1	J2-61	
28	I2C0 SCL		I2C0_SCL	J1-46	I2C 0 SCL
29	PWM2		PWM_2	J2-63	
30	I2C1 SDA		I2C1_SDA	J1-43	I2C 1 SDA
31	PWM3		PWM_3	J2-65	
32	I2C1 SCL		I2C1_SCL	J1-45	I2C 1 SCL
33	PWM4		PWM_4	J2-67	
34	I2C2 SDA		I2C2_SDA	J2-45	I2C 2 SDA
35	PWM5		PWM_5	J2-60	
36	I2C2 SCL		I2C2_SCL	J2-47	I2C 2 SCL
37	PWM6		PWM_6	J2-62	
38	SAI CLK		SAI_CK	J2-49	SAI CLK
39	PWM7		PWM_7	J2-64	
40	SAI FS		SAI_FS	J2-51	SAI FS
41	PWM8		PWM_8	J2-66	
42	SAI D0		SAI_D0	J2-53	SAI D0
43	PWM9		PWM_9	J2-68	
44	SAI D1		SAI_D1	J2-55	SAI D1

Power Block CAN bus (J4)					
Pin number	Silkscreen	Power Net	Portenta HD Standard Pin	High-Density Pin	Interface
1	VIN	+5V (In/Out)	VIN	J1-21, J1-32, J1-41, J1-48	
2	GND	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	
3	VCC	+3V3 Portenta (Out)	VCC	J2-23, J2-34, J2-43, J2-69	
4	GND	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	
5	CANH		CAN1 TX	J1-49 (Through U2)	CAN BUS 1 - CANH
6	CANL		CAN1 RX	J1-51 (Through U2)	CAN BUS 1 - CANL

JTAG Header (J3)					
Pin number	Silkscreen	Power Net	Portenta HD Standard Pin	High-Density Pin	Interface
1	N/A	+3V3 Portenta (Out)	VCC	J2-23, J2-34, J2-43, J2-69	
2	N/A		JTAG_SWO	J1-75	JTAG SWO
3	N/A	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	
4	N/A		JTAG_SCK	J1-77	JTAG SCK
5	N/A	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	
6	N/A		JTAG_SWO	J1-79	JTAG SWO
7	N/A		NC	NC	
8	N/A		JTAG_TDI	J1-78	JTAG TDI
9	N/A		JTAG_TRST	J1-80	JTAG TRST
10	N/A		JTAG_RST	J1-73	JTAG_RESET

MIPI Camera (J10)					
Pin number	Silkscreen	Power Net	Portenta HD Standard Pin	High-Density Pin	Interface
1	N/A	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	
2	N/A		CAM_D0_D0_N	J2-16	
3	N/A		CAM_D1_D0_P	J2-14	
4	N/A	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	
5	N/A		CAM_D2_D1_N	J2-12	
6	N/A		CAM_D3_D1_P	J2-10	
7	N/A	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	
8	N/A		CAM_CK_CK_N	J2-20	
9	N/A		CAM_VS_CK_P	J2-18	
10	N/A	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	
11	N/A		GPIO_3	J2-52	
12	N/A		NC	NC	
13	N/A		I2C0_SCL	J1-46	I2C 0 SCL
14	N/A		I2C0_SDA	J1-44	I2C 0 SDA
15	N/A	+3V3 Portenta (Out)	VCC	J2-23, J2-34, J2-43, J2-69	

Camera Socket (J11)					
Pin number	Silkscreen	Power Net	Portenta HD Standard Pin	High-Density Pin	Interface
1	VCC	+3V3 Portenta (Out)	VCC	J2-23, J2-34, J2-43, J2-69	
2	GND	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	
3	SCL0		I2C0_SCL	J1-46	I2C 0 SCL
4	SDA0		I2C0_SDA	J1-44	I2C 0 SDA
5	VSYNC		CAM_VS_CK_P	J2-18	CSI CAM_VS_CK_P
6	HREF		CAM_HS	J2-22	CSI CAM_HS
7	PCLK		CAM_CK_CK_N	J2-20	CSI CAM_CK_CK_N
8	XCLK		PWM_0	J2-59	

9	DOUT7		CAM_D7_D3_P	J2-2	CSI CAM_D7_D3_P
10	DOUT6		CAM_D6_D3_N	J2-4	CSI CAM_D6_D3_N
11	DOUT5		CAM_D5_D2_P	J2-6	CSI CAM_D5_D2_P
12	DOUT4		CAM_D4_D2_N	J2-8	CSI CAM_D4_D2_N
13	DOUT3		CAM_D3_D1_P	J2-10	CSI CAM_D3_D1_P
14	DOUT2		CAM_D2_D1_N	J2-12	CSI CAM_D2_D1_N
15	DOUT1		CAM_D1_D0_P	J2-14	CSI CAM_D1_D0_P
16	DOUT0		CAM_D0_D0_N	J2-16	CSI CAM_D0_D0_N
17	PWRENABLE		GPIO_3	J2-52	GPIO_3
18	PWDN		GPIO_4	J2-54	GPIO_4
19	PWRENABLE		GPIO_3	J2-52	GPIO_3
20	PWDN		GPIO_4	J2-54	GPIO_4

USB-A (J13)					
Pin number	Silkscreen	Power Net	Portenta HD Standard Pin	High-Density Pin	Interface
1	N/A	+5V (In/Out)	VIN	J1-21, J1-32, J1-41, J1-48	
2	N/A		USB0_D_N	J1-28	USB D-
3	N/A		USB0_D_P	J1-26	USB D+
4	N/A	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	

SD Card Slot (J12)					
Pin number	Silkscreen	Power Net	Portenta HD Standard Pin	High-Density Pin	Interface
1	N/A		SDC_D2	J1-63	
2	N/A		SDC_D3	J1-65	
3	N/A		SDC_CMD	J1-57	
4	N/A	VDD_SDCARD	VSD	J1-72	
5	N/A		SDC_CLK	J1-55	
6	N/A	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	
7	N/A		SDC_D0	J1-59	
8	N/A		SDC_D1	J1-61	

CD1	N/A		SDC_CD	J1-67	
CD2	N/A	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	

Ethernet (J18)					
Pin number	Silkscreen	Power Net	Portenta HD Standard Pin	High-Density Pin	Interface
1	N/A	+3V3 Portenta (Out)	VCC (through SW3)	J2-23, J2-34, J2-43, J2-69	
2	N/A		ETH_C_N	J1-11	
3	N/A		ETH_C_P	J1-9	
4	N/A		ETH_B_P	J1-5	
5	N/A		ETH_B_N	J1-7	
6	N/A	+3V3 Portenta (Out)	VCC (through SW3)	J2-23, J2-34, J2-43, J2-69	
7	N/A	+3V3 Portenta (Out)	VCC (through SW3)	J2-23, J2-34, J2-43, J2-69	
8	N/A		ETH_D_P	J1-13	
9	N/A		ETH_D_N	J1-15	
10	N/A		ETH_A_N	J1-3	
11	N/A		ETH_A_P	J1-1	
12	N/A	+3V3 Portenta (Out)	VCC (through SW3)	J2-23, J2-34, J2-43, J2-69	
13	N/A	Ground	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	
14	N/A		ETH_LED2	J1-19 (through resistor)	
15	N/A		ETH_LED1	J1-17	
16	N/A	VCC	VCC (through resistor)	J2-23, J2-34, J2-43, J2-69	
17	N/A		NC	NC	

Video Display Connector (J19)					
Pin number	Silkscreen	Power Net	Portenta HD Standard Pin	High-Density Pin	Interface
1	DSI D1N		DSI_D1_N	J1-12	DSI D1 N
2	DSI D1P		DSI_D1_P	J1-10	DSI D1 P
3	GND	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	
4	GND	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	
5	DSI CKN		DSI_CK_N	J1-20	DSI CK N
6	DSI CKP		DSI_CK_P	J1-18	DSI CK P
7	GND	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	
8	GND	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	
9	DSI D0N		DSI_D0_N	J1-16	DSI D0 N
10	DSI D0P		DSI_D0_P	J1-14	DSI D0 P
11	GND	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	
12	GND	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	
13	DSI D2N		DSI_D2_N	J1-8	DSI D2 N
14	DSI D2P		DSI_D2_P	J1-6	DSI D2 P
15	GND	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	
16	GND	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	
17	DSI D3N		DSI_D3_N	J1-4	DSI D3 N



18	DSI D3P		DSI_D3_P	J1-2	DSI D3 P
19	NC		NC	NC	
20	NC		NC	NC	
21	VIN	+5V	VIN	J1-21, J1-24, J1-32, J1-41, J1-48	
22	GND	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70	
23	VCC	+3V3 Portenta (Out)	VCC	J2-23, J2-34, J2-43, J2-69	
24	VIN	+5V (In/Out)	VIN	J1-21, J1-24, J1-32, J1-41, J1-48	

mPCIE Connector (J8)						
Pin number	Silkscreen	Power Net	Portenta HD Standard Pin	High-Density Pin	Interface	Note
1	N/A					Connected to pin 23 of J16 connector
2	N/A	+3V3 PCIE (Out)				From PCIE dedicated high current 3V3 power supply
3	N/A					Connected to pin 21 of J16 connector
4	N/A	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70		
5	N/A					Connected to pin 19 of J16 connector
6	N/A					Connected to pin 17 of J16 connector
7	N/A		GPIO_1	J2-48	GPIO 1/PCIE CLKREQ	
8	N/A				USIM PWR	Connected to pin C1 of SIM1 slot
9	N/A	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70		
10	N/A				USIM DATA	Connected to pin C7 of SIM1 slot

11	N/A		PCIE_CK_N	J2-19	PCIE CK N	
12	N/A				USIM CLK	Connected to pin C3 of SIM1 slot
13	N/A		PCIE_CK_P	J2-17	PCIE CK P	
14	N/A				USIM RST	Connected to pin C2 of SIM1 slot
15	N/A	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70		
16	N/A					Connected to pin 15 of J16 connector
17	N/A					Connected to pin 13 of J16 connector
18	N/A	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70		
19	N/A					Connected to pin 11 of J16 connector
20	N/A		GPIO_2	J2-50	GPIO 2/PCIE W_DISABLE	
21	N/A	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70		
22	N/A		PCIE_RST	J2-21	PCIE RST	Connected to pin 9 of J16 connector
23	N/A		PCIE_RX_N	J2-15	PCIE RX N	
24	N/A	+3V3 PCIE (Out)				From PCIE dedicated high current 3V3 power supply
25	N/A		PCIE_RX_P	J2-13	PCIE RX P	
26	N/A	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70		
27	N/A	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70		
28	N/A					Connected to pin 22 of J16 connector
29	N/A	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70		
30	N/A		I2C0_SCL		I2C 0_SCL	Connected to pin 28 of J15 connector

31	N/A		PCIE_TX_N	J2-11	PCIE TX N	
32	N/A		I2C0_SDA		I2C 0 SDA	Connected to pin 26 of J15 connector
33	N/A		PCIE_TX_P	J2-9	PCIE TX P	
34	N/A	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70		
35	N/A	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70		
36	N/A		USB0_D_N	J1-28	USB 0 D-	Connected to USB-A connector J13
37	N/A	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70		
38	N/A		USB0_D_P	J1-26	USB 0 D+	Connected to USB-A connector J13
39	N/A	+3V3 PCIE (Out)				From PCIE dedicated high current 3V3 power supply
40	N/A	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70		
41	N/A	+3V3 PCIE (Out)				From PCIE dedicated high current 3V3 power supply
42	N/A					Connected to pin 20 of J16 connector
43	N/A	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70		
44	N/A					Connected to pin 18 of J16 connector
45	N/A					Connected to pin 12 of J16 connector
46	N/A					Connected to pin 16 of J16 connector
47	N/A					Connected to pin 10 of J16 connector

48	N/A					Connected to pin 14 of J16 connector
49	N/A					Connected to pin 8 of J16 connector
50	N/A	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70		
51	N/A					Connected to pin 6 of J16 connector
52	N/A	+3V3 PCIE (Out)				From PCIE dedicated high current 3V3 power supply

Breakout Header (J16)						
Pin number	Silkscreen	Power Net	Portenta HD Standard Pin	High-Density Pin	Interface	Note
1	N/A		PCIE_CK_P	J2-17	PCIE CK P	
2	N/A		PCIE_TX_P	J2-9	PCIE TX P	
3	N/A		PCIE_CK_N	J2-19	PCIE CK N	
4	N/A		PCIE_TX_N	J2-11	PCIE TX N	
5	N/A		PCIE_RX_N	J2-15	PCIE RX N	
6	N/A					Connected to pin 51 of mPCIE J8 connector
7	N/A		PCIE_RX_P	J2-13	PCIE RX P	
8	N/A					Connected to pin 49 of mPCIE J8 connector
9	N/A		PCIE_RST	J2-21	PCIE RST	Connected to pin 22 of mPCIE J8 connector
10	N/A					Connected to pin 47 of mPCIE J8 connector
11	N/A					Connected to pin 19 of mPCIE J8 connector
12	N/A					Connected to pin 45 of mPCIE J8 connector

13	N/A					Connected to pin 17 of mPCIe J8 connector
14	N/A					Connected to pin 48 of mPCIe J8 connector
15	N/A					Connected to pin 16 of mPCIe J8 connector
16	N/A					Connected to pin 46 of mPCIe J8 connector
17	N/A					Connected to pin 6 of mPCIe J8 connector
18	N/A					Connected to pin 44 of mPCIe J8 connector
19	N/A					Connected to pin 5 of mPCIe J8 connector
20	N/A					Connected to pin 42 of mPCIe J8 connector
21	N/A					Connected to pin 3 of mPCIe J8 connector
22	N/A					Connected to pin 28 of mPCIe J8 connector
23	N/A					Connected to pin 1 of mPCIe J8 connector
24	N/A	GND	GND	J1-22, J1-31, J1-42, J1-47, J1-54 J2-24, J2-33, J2-44, J2-57, J2-70		
25	N/A		I2C0_SCL	J1-46	I2C 0_SCL	
26	N/A					Connected to pin 30 of mPCIe J8 connector
27	N/A		I2C0_SDA	J1-44	I2C 0_SDA	
28	N/A					Connected to pin 32 of mPCIe J8 connector

Breakout Header (J17)						
Pin number	Silkscreen	Power Net	Portenta HD Standard Pin	High-Density Pin	Interface	Note
1	N/A		SERIAL1_RX	J1-35	UART 1 RX	Connected to pin 8 of J14 connector
2	N/A		SERIAL1_TX	J1-33	UART 1 TX	Connected to pin 10 of J14 connector
3	N/A		SERIAL1_RTS	J1-37	UART 1 RTS	Connected to pin 4 of J14 connector
4	N/A		SERIAL1_CTS	J1-39	UART 1 CTS	Connected to pin 12 of J14 connector
5	N/A		GPIO_6	J2-58	GPIO 6 / PCIE RST via jumper	Connected to pin 40 of J14 connector   Can be connected to mPCIE_RST with a jumper

Breakout Header (J9)						
Pin number	Silkscreen	Power Net	Portenta HD Standard Pin	High-Density Pin	Interface	Note
1	3V3 PCIE	+3V3 PCIE (Out)				
2	VCC	+3V3 Portenta (Out)				
3	3V3 BUCK	+3V3 Buck (Out)				
4	N/A	PCIE EN (+3V3)	GPIO_5	J2-56	GPIO 5/ PCIE ENABLE	Connected to pin 42 of J14 connector
5	NC		NC			
6	GND	GND				