

Pin layout for Board Rev. 1.00

J1	Function	Device	GPIO	Mode	/sys/class/gpio/gpio#	PCoreBBDSDI V1.30
1	I2C_B_IRQ	GPIO	GPIO1_IO13	IO	13	J15-5/J13-26
2	GPIO_J1_2	GPIO	GPIO1_IO15	IO	15	J15-4
3	I2C_B_SCL ⁽¹⁾	I2C4	GPIO5_IO20	IO	148	J15-3/J13-27/J12-20/J22-20
4	I2C_A_SCL	I2C6	GPIO3_IO28	IO	92	J11-16
5	I2C_B_SDA ⁽¹⁾	I2C4	GPIO5_IO21	IO	149	J15-2/J13-25
6	I2C_A_SDA	I2C6	GPIO3_IO29	IO	93	J11-17
7	GPIO_J1_7	GPIO	GPIO5_IO05	IO	133	J13-28
8	GND					
9	BL_ON	GPIO	GPIO5_IO03	IO	131	J14-2
10	CAN_A_RX	CAN-FD	GPIO3_IO27	IO	91	J11-24
11	BL_PWM	PWM2	GPIO5_IO04	IO	132	J14-3
12	CAN_A_TX	CAN-FD	GPIO3_IO26	IO	90	J11-26
13	VLCD_ON	GPIO	GPIO5_IO02	IO	130	J14-1
14	UART_A_RTS	UART2	GPIO5_IO28	IO	156	J11-36
15	GND					
16	UART_A_CTS	UART2	GPIO5_IO29	IO	157	J11-38
17	DSL_A_CLK_P	MIPI-DSI1 / LVDS0 ⁽²⁾				J13-9
18	UART_A_RXD ⁽⁴⁾	UART2	GPIO4_IO31	IO	127	(J9-3)
19	DSL_A_CLK_N	MIPI-DSI1 / LVDS0 ⁽²⁾		IO		J13-8
20	UART_A_TXD	UART2	GPIO5_IO00	IO	128	(J9-5)
21	GND			IO		
22	UART_B_RTS	UART4	GPIO3_IO08	IO	72	(J10-4)
23	DSL_A_DATA0_P	MIPI-DSI1 / LVDS0 ⁽²⁾				J13-2
24	UART_B_CTS	UART4	GPIO3_IO09	IO	73	(J10-6)
25	DSL_A_DATA0_N	MIPI-DSI1 / LVDS0 ⁽²⁾				J13-1
26	UART_B_RXD ⁽⁴⁾	UART4	GPIO3_IO06	IO	70	(J10-3)
27	GND					
28	UART_B_TXD	UART4	GPIO3_IO07	IO	71	(J10-5)
29	DSL_A_DATA1_P	MIPI-DSI1 / LVDS0 ⁽²⁾				J13-4
30	UART_C_RXD ⁽⁴⁾	UART1	GPIO4_IO22	IO	118	(J8-3)
31	DSL_A_DATA1_N	MIPI-DSI1 / LVDS0 ⁽²⁾				J13-3
32	UART_C_TXD	UART1	GPIO4_IO21	IO	117	(J8-5)
33	GND					
34	UART_D_RXD ⁽⁴⁾	UART3	GPIO5_IO26	IO	154	J11-15
35	DSL_A_DATA2_P	MIPI-DSI1 / LVDS0 ⁽²⁾				J13-6
36	UART_D_TXD	UART3	GPIO5_IO27	IO	155	J11-13
37	DSL_A_DATA2_N	MIPI-DSI1 / LVDS0 ⁽²⁾				J13-5
38	GND					

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39	GND					
40	I2C_C_SCL ⁽¹⁾	I2C2	GPIO5_IO08	IO	136	
41	DSL_A_DATA3_P	MIPI-DSI1 / LVDS0 ⁽²⁾				J13-11
42	I2C_C_SDA ⁽¹⁾	I2C2	GPIO5_IO09	IO	137	
43	DSL_A_DATA3_N	MIPI-DSI1 / LVDS0 ⁽²⁾				J13-10
44	GPIO_J1_44	GPIO	GPIO3_IO00	IO	96	TP30
45	GND					
46	GPIO_J1_46	GPIO	GPIO3_IO01	IO	97	TP31
47	DSL_B_CLK_P	LVDS1 / HDMI ⁽²⁾				J13-21
48	I2C_D_SCL ⁽¹⁾	I2C3	GPIO5_IO18	IO	146	
49	DSL_B_CLK_N	LVDS1 / HDMI ⁽²⁾				J13-20
50	I2C_D_SDA ⁽¹⁾	I2C3	GPIO5_IO19	IO	147	
51	GND					
52	GPIO_J1_52	GPIO	GPIO3_IO14	IO	78	J11-18
53	DSL_B_DATA0_P ⁽²⁾	LVDS1 / HDMI ⁽²⁾				J13-13
54	GPIO_J1_54	GPIO	GPIO1_IO01	IO	1	J11-8
55	DSL_B_DATA0_N ⁽²⁾	LVDS1 / HDMI ⁽²⁾				J13-12
56	SPI_B_SS0 ⁽²⁾	ECSPI2	GPIO5_IO13	IO	141	J11-4
57	GND					
58	SPI_B_MISO ⁽²⁾	ECSPI2	GPIO5_IO12	IO	140	J11-5
59	DSL_B_DATA1_P ⁽²⁾	LVDS1 / HDMI				J13-16
60	SPI_B_MOSI	ECSPI2	GPIO5_IO11	IO	139	J11-6
61	DSL_B_DATA1_N ⁽²⁾	LVDS1 / HDMI				J13-15
62	SPI_B_SCLK	ECSPI2	GPIO5_IO10	IO	138	J11-3
63	GND					
64	SPI_A_SS0 ⁽²⁾	ECSPI3	GPIO5_IO25	IO	153	J23-5
65	DSL_B_DATA2_P ⁽²⁾	LVDS1 / HDMI				J13-19
66	SPI_A_MISO ⁽²⁾	ECSPI3	GPIO5_IO24	IO	152	J23-4
67	DSL_B_DATA2_N ⁽²⁾	LVDS1 / HDMI				J13-18
68	SPI_A_MOSI ⁽²⁾	ECSPI3	GPIO5_IO23	IO	151	J23-3
69	GND					
70	SPI_A_SCLK ⁽²⁾	ECSPI3	GPIO5_IO22	IO	150	J23-2
71	DSL_B_DATA3_P ⁽²⁾	LVDS1 / HDMI				J13-23
72	GND					
73	DSL_B_DATA3_N ⁽²⁾	LVDS1 / HDMI				J13-22
74	CSI_A_CLK_P	MIPI-CSI1				J12-8
75	GND					
76	CSI_A_CLK_N	MIPI-CSI1				J12-9
77	MPCIE_CTX_P	PCIE				
78	GND					
79	MPCIE_CTX_N	PCIE				
80	CSI_A_DATA0_P	MIPI-CSI1				J12-14
81	GND					

J1	Function	Device	GPIO	Mode	/sys/class/gpio/gpio#	PCoreBBDISI V1.30
82	CSL_A_DATA0_N	MIPI-CS11				J12-15
83	MPCIE_CRX_P	PCIE				
84	GND					
85	MPCIE_CRX_N	PCIE				
86	CSL_A_DATA1_P	MIPI-CS11				J12-11
87	GND					
88	CSL_A_DATA1_N	MIPI-CS11				J12-12
89	MPCIE_CLK_P	PCIE				
90	GND					
91	MPCIE_CLK_N	PCIE				
92	CSL_A_DATA2_P	MIPI-CS11				J12-5
93	GND					
94	CSL_A_DATA2_N	MIPI-CS11				J12-6
95	MPCIE_PERST	GPIO	GPIO4_IO30	IO	126	
96	GND					
97	MPCIE_WAKE	GPIO	GPIO5_IO01	IO	129	
98	CSL_A_DATA3_P	MIPI-CS11				J12-1
99	GND					
100	CSL_A_DATA3_N	MIPI-CS11				J12-2

- (1) Onboard Pull-Up 2.49k
- (2) Optional, see hardware documentation
- (3) Used internally
- (4) Onboard Pull-Up 100k

Pin layout for Board Rev. 1.00

J2	Function	Device	GPIO	Mode	/sys/class/gpio/gpio#	PCoreBBDSI V1.30
1	ETH_A_D1P	ETH_A				
2	AUDIO_A_VCC	AUDIO				
3	ETH_A_D1N	ETH_A				
4	AUDIO_A_GND	AUDIO				
5	ETH_A_D2P	ETH_A				
6	AUDIO_A_LOUT_L ⁽²⁾	AUDIO				J11-49
7	ETH_A_D2N	ETH_A				
8	AUDIO_A_LOUT_R ⁽²⁾	AUDIO				J11-45
9	ETH_A_D3P	ETH_A				
10	AUDIO_A_MIC ⁽²⁾	AUDIO				J11-41
11	ETH_A_D3N	ETH_A				
12	AUDIO_A_LIN_L ⁽²⁾	AUDIO				J11-48
13	ETH_A_D4P	ETH_A				
14	AUDIO_A_LIN_R	AUDIO				J11-44
15	ETH_A_D4N	ETH_A				
16	GND					
17	ETH_A_LED ⁽²⁾	ETH_A				
18	AUDIO_A_HP_L ⁽³⁾	AUDIO				
19	GND					
20	AUDIO_A_HP_R ⁽²⁾	AUDIO				
21	ETH_B_LED ⁽²⁾	ETH_B				
22	AUDIO_A_HP_GND	AUDIO				
23	ETH_B_D1P ⁽²⁾	ETH_B				
24	+V5S					
25	ETH_B_D1N ⁽²⁾	ETH_B				
26	+V5S					
27	ETH_B_D2P ⁽²⁾	ETH_B				
28	+V5S					
29	ETH_B_D2N ⁽²⁾	ETH_B				
30	GND					
31	ETH_B_D3P ⁽²⁾	ETH_B				
32	GND					
33	ETH_B_D3N ⁽²⁾	ETH_B				
34	GND					
35	ETH_B_D4P ⁽²⁾	ETH_B				
36	VDD_VBAT					
37	ETH_B_D4N ⁽²⁾	ETH_B				
38	Reserved	NC				
39	GND					
40	VDD_V3.3					
41	USB_HOST_VBUS	USB1				
42	RESETIn					
43	USB_HOST_DP	USB1				
44	PMIC_STBY					

J2	Function	Device	GPIO	Mode	/sys/class/gpio/gpio#	PCoreBBDSI V1.30
45	USB_HOST_DN	USB1				
46	PMIC_ON_REQ					
47	USB_HOST_PWRn	GPIO	GPIO1_IO12	IO	12	
48	ON_OFF					
49	GND					
50	BOOTSEL					
51	USB_OTG_VBUS	USB2				
52	SD_A_VCC ⁽⁶⁾	1V8/3V3				
53	USB_OTG_PWRn	GPIO	GPIO1_IO14	IO	14	
54	SD_A_STROBE	SD1	GPIO2_IO011	IO	43	
55	USB_OTG_ID	USB2				
56	SD_A_RST	SD1	GPIO2_IO10	IO	42	
57	USB_OTG_DP	USB2				
58	SD_A_WP	SD1	GPIO1_IO07	IO	7	
59	USB_OTG_DN	USB2				
60	SD_A_CD	SD1	GPIO1_IO6	IO	6	
61	GND					
62	SD_A_CMD ⁽⁴⁾	SD1	GPIO2_IO01	IO	33	
63	PWM	PWM3	GPIO1_IO10	IO	10	J11-34
64	SD_A_CLK	SD1	GPIO2_IO00	IO	32	
65	I2S_B_MCLK	SAI1	GPIO4_IO20	IO	116	J11-10
66	SD_A_DATA0 ⁽⁴⁾	SD1	GPIO2_IO02	IO	34	
67	I2S_B_TXFS	SAI1	GPIO3_IO22	IO	86	J11-12
68	SD_A_DATA1	SD1	GPIO2_IO03	IO	35	
69	I2S_B_TXC	SAI1	GPIO3_IO23	IO	87	J11-14
70	SD_A_DATA2	SD1	GPIO2_IO04	IO	36	
71	GND					
72	SD_A_DATA3	SD1	GPIO2_IO05	IO	37	
73	I2S_B_TXD0	SAI5	GPIO3_IO24	IO	88	J11-7
74	SD_A_DATA4	SD1	GPIO2_IO06	IO	38	
75	I2S_B_RXD0	SAI5	GPIO4_IO02	IO	98	J11-9
76	SD_A_DATA5	SD1	GPIO2_IO07	IO	39	
77	I2S_B_RXFS	SAI5	GPIO3_IO19	IO	83	
78	SD_A_DATA6	SD1	GPIO2_IO08	IO	40	
79	I2S_B_RXC	SAI5	GPIO3_IO20	IO	84	
80	SD_A_DATA7	SD1	GPIO2_IO09	IO	41	
81	GND					
82	GND					
83	SPI_C_SSO	ECSPI1	GPIO5_IO17	IO	145	
84	SD_B_RST ⁽⁴⁾	SD2	GPIO2_IO19	IO	51	J11-35
85	SPI_C_MISO	ECSPI1	GPIO5_IO16	IO	144	
86	SD_B_WP	SD2	GPIO2_IO20	IO	52	J11-33
87	SPI_C_MOSI	ECSPI1	GPIO5_IO07	IO	135	J11-6
88	SD_B_CD	SD2	GPIO2_IO12	IO	44	J11-32

J2	Function	Device	GPIO	Mode	/sys/class/gpio/gpio#	PCoreBBD SI V1.30
89	SPI_C_SCLK	ECSP11	GPIO5_IO06	IO	134	J11-3
90	SD_B_CMD ⁽³⁾⁽⁴⁾	SD2	GPIO2_IO14	IO	46	J11-31
91	GND					
92	SD_B_CLK ⁽³⁾	SD2	GPIO2_IO13	IO	45	J11-30
93	JTAG_TCK	JTAG				
94	SD_B_DATA0 ⁽³⁾⁽⁴⁾	SD2	GPIO2_IO15	IO	47	J11-29
95	JTAG_TMS	JTAG				
96	SD_B_DATA1 ⁽³⁾	SD2	GPIO2_IO16	IO	48	J11-28
97	JTAG_TDI	JTAG				
98	SD_B_DAT2 ⁽³⁾	SD2	GPIO2_IO17	IO	49	J11-25
99	JTAG_TDO	JTAG				
100	SD_B_DATA3 ⁽³⁾	SD2	GPIO2_IO18	IO	50	J11-23

- (1) Onboard Pull-Up 2.49k
- (2) Optional, see hardware documentation
- (3) Used internally
- (4) Onboard Pull-Up 100k
- (5) Onboard Pull-Up 10k
- (6) Depends on level of SD_A_VSEL, low = 3.3V, high = 1V8, default: 3.3V

Pin layout for Board Rev. 1.00

J3	Function	Device	GPIO	Mode	/sys/class/gpio/gpio#	PCoreBBD SI V1.30
1	USB_HOST_SS_RXP	USB1				
2	GND	GND				
3	USB_HOST_SS_RXN	USB1				
4	CSI_B_CLK_P	MIPI-CS12				J22-8
5	GND	GND				
6	CSI_B_CLK_N	MIPI-CS12				J22-9
7	USB_HOST_SS_TXP	USB1				
8	GND	GND				
9	USB_HOST_SS_TXN	USB1				
10	CSI_B_DATA0_P	MIPI-CS12				J22-14
11	GND	GND				
12	CSI_B_DATA0_N	MIPI-CS12				J22-15
13	USB_OTG_TYPEC_EN	GPIO	GPIO1_IO05	IO	5	
14	GND	GND				
15	USB_OTG_TYPEC_ALERT	GPIO	GPIO1_IO08	IO	8	
16	CSI_B_DATA1_P	MIPI-CS12				J22-11
17	USB_OTG_TYPEC_SEL	GPIO	GPIO1_IO09	IO	9	
18	CSI_B_DATA1_N	MIPI-CS12				J22-12
19	GND	GND				
20	GND	GND				
21	USB_OTG_SS_RXP	USB2				
22	CSI_B_DATA2_P	MIPI-CS12				J22-5
23	USB_OTG_SS_RXN	USB2				
24	CSI_B_DATA2_N	MIPI-CS12				J22-6
25	GND	GND				
26	GND	GND				
27	USB_OTG_SS_TXP	USB2				
28	CSI_B_DATA3_P	MIPI-CS12				J22-1
29	USB_OTG_SS_TXN	USB2				
30	CSI_B_DATA3_P	MIPI-CS12				J22-2