

PicoCOMA5 GPIO Reference Card

V1.0

22.11.2013

Pin layout for Board Rev. 1.10 and Rev 1.2x (on Rev 1.10, pins 32+33 are reversed)

J1	Function	Device	GPIO	Mode	/sys/class/gpio/gpio#	PC2-SINTF
1	ETH0_TX-	ETH				(J2_1/2)
2	ETH0_RX-	ETH				(J2_3/6)
3	ETH0_TX+	ETH				(J2_1/2)
4	ETH0_RX+	ETH				(J2_3/6)
5	V33					
6	V33					
7	GND					
8	GND					
9	VBAT					
10	/PONRES					(S1)
11	CTS1/EINT1	UART/GPIO	PTB7	IO	29	J10_1
12	SDHC1_CD/EINT0	SDMMC/GPIO	PTA7	IO	134	J10_2
13	TXD2	UART	PTD0	IO	79	(J6_5)
14	RXD2	UART	PTD1	IO	80	(J6_3)
15	RTS2/TXD3	UART/UART	PTD2/PTA20	IO/IO	81/10*	(J6_4)
16	CTS2/RXD3	UART/UART	PTD3/PTA21	IO/IO	82/11*	(J6_6)
17	TXD1	UART	PTB4	IO	26	(J7_5/7/8)
18	RXD1	UART	PTB5	IO	27	(J7_3/7/8)
19	USB1_DP	USB HOST				J4_3
20	USB1_DN	USB HOST				J4_2
21	USB0_DP	USB DEVICE				J3_3
22	USB0_DM	USB DEVICE				J3_2
23	USB0_VBUS	USB DEVICE				J3_1
24	USB1_PWRON	USB HOST	PTE6	IO	111	(J4_1)
25	GND					
26	SPI0_MISO	SPI	PTB20	IO	42	J10_3
27	SPI0_MOSI	SPI	PTB21	IO	43	J10_4
28	SPI0_CLK	SPI	PTB22	IO	44	J10_5
29	SPI0_CS0	SPI	PTB19	IO	41	J10_6
30	CAN0_TX	CAN	PTB15	IO	37	(J10_25/26)
31	CAN0_RX	CAN	PTB14	IO	36	(J10_25/26)
32	SDA1/CAN1_TX	I2C/CAN	PTB17	IO	39 (38 on Rev 1.10)	J10_9
33	SCL1/CAN1_RX	I2C/CAN	PTB16	IO	38 (39 on Rev 1.10)	J10_10
34	SDHC1_DAT0	SDMMC	PTA26	IO	16	J5_7
35	SDHC1_DAT1	SDMMC	PTA27	IO	17	J5_8
36	SDHC1_DAT2	SDMMC	PTA28	IO	18	J5_9
37	SDHC1_DAT3	SDMMC	PTA29	IO	19	J5_1
38	SDHC1_CLK	SDMMC	PTA24	IO	14	J5_5
39	SDHC1_CMD	SDMMC	PTA25	IO	15	J5_2
40	GPIO0/EINT2	GPIO/GPIO	PTB26	IO	96	J10_11

J1	Function	Device	GPIO	Mode	/sys/class/gpio/gpio#	PC2-SINTF
41	PWM/EINT3/ETH1_LED	PWM/GPIO/ETH	PTB8/-	IO/-	30/- (HW coded)	J10_12
42	GND					
43	LCD_R3	LCD	PTE8	IO	113	(J9_2)
44	LCD_R4	LCD	PTE9	IO	114	(J9_31)
45	LCD_R5	LCD	PTE10	IO	115	(J9_32)
46	LCD_R6	LCD	PTE11	IO	116	(J9_33)
47	LCD_R7	LCD	PTE12	IO	117	(J9_3/34)
48	LCD_G2	LCD	PTE15	IO	120	(J9_27)
49	LCD_G3	LCD	PTE16	IO	121	(J9_13)
50	LCD_G4	LCD	PTE17	IO	122	(J9_7)
51	LCD_G5	LCD	PTE18	IO	123	J10_15/(J9_6)
52	LCD_G6	LCD	PTE19	IO	124	J10_16/(J9_5)
53	LCD_G7	LCD	PTE20	IO	125	J10_7/(J9_4/14)
54	LCD_B3	LCD	PTE24	IO	129	J10_8/(J9_11)
55	LCD_B4	LCD	PTE25	IO	130	J10_14/(J9_10)
56	LCD_B5	LCD	PTE26	IO	131	J10_20/(J9_9)
57	LCD_B6	LCD	PTE27	IO	132	J10_21/(J9_16)
58	LCD_B7	LCD	PTE28	IO	133	J10_22/(J9_12/15)
59	LCD_CLK	LCD	PTE2	IO	107	(J9_19)
60	LCD_DE	LCD	PTE4	IO	109	(J9_21)
61	GND					
62	GND					
63	LCD_HSYNC/LCD_B2/SDA2	LCD/LCD/I2C	PTE0/PTE23/PTD27	IO/IO/IO	105/128/67*	(J9_22)
64	LCD_VSYNC/LCD_R2/SCL2	LCD/LCD/I2C	PTE1/PTE7/PTD28	IO/IO/IO	106/112/66*	(J9_20)
65	BL_CTRL	PWM	PTB0	IO	22	(J9_18)
66	VLCD_ON	LCD	PTE3	IO	108	(J9_25)
67	VCFL_ON	LCD	PTC29	IO	102	(J9_30)
68	LCD_DEN	LCD	PTB3	IO	25	(J9_23)
69	RTS1	UART	PTB6	IO	28	J10_13/(J7_7/8)
70	ETH0_LED	ETH				LED1
71	X+	TOUCH				J8_7
72	GND					
73	GND					
74	X-	TOUCH				J8_9
75	Y+	TOUCH				J8_8
76	Y-	TOUCH				J8_10
77	LOUT/ETH1_TX-	AUDIO/ETH			(HW-coded)	J8_1
78	ROUT/ETH1_RX-	AUDIO/ETH			(HW-coded)	J8_2
79	LIN/ETH1_TX+	AUDIO/ETH			(HW-coded)	J8_3
80	RIN/ETH1_RX+	AUDIO/ETH			(HW-coded)	J8_4

* You must not configure more than one GPIO as output or combine function and output; set unused GPIOs as input

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Pin layout for Board Rev. 1.00

J1	Function	Device	GPIO	Mode	/sys/class/gpio/gpio#	PC2-SINTF
1	ETH0_TX-	ETH				(J2_1/2)
2	ETH0_RX-	ETH				(J2_3/6)
3	ETH0_TX+	ETH				(J2_1/2)
4	ETH0_RX+	ETH				(J2_3/6)
5	V33					
6	V33					
7	GND					
8	GND					
9	VBAT					
10	/PONRES					(S1)
11	CTS5/EINT1	UART/GPIO	PTC17	IO	62	J10_1
12	SDHC1_CD/EINT0	SDMMC/GPIO	PTA7	IO	134	J10_2
13	TXD1	UART	PTB4	IO	26	(J6_5)
14	RXD1	UART	PTB5	IO	27	(J6_3)
15	RTS1/TXD2	UART/UART	PTB6	IO/IO	28	(J6_4)
16	CTS1/RXD2	UART/UART	PTB7	IO/IO	29	(J6_6)
17	TXD5	UART	PTC14	IO	59	(J7_5/7/8)
18	RXD5	UART	PTC15	IO	60	(J7_3/7/8)
19	USB1_DP	USB HOST				J4_3
20	USB1_DN	USB HOST				J4_2
21	USB0_DP	USB DEVICE				J3_3
22	USB0_DM	USB DEVICE				J3_2
23	USB0_VBUS	USB DEVICE				J3_1
24	USB1_PWRON	USB HOST	PTE6	IO	111	(J4_1)
25	GND					
26	SPI0_MISO	SPI	PTB20	IO	42	J10_3
27	SPI0_MOSI	SPI	PTB21	IO	43	J10_4
28	SPI0_CLK	SPI	PTB22	IO	44	J10_5
29	SPI0_CS0	SPI	PTB19	IO	41	J10_6
30	CAN0_TX	CAN	PTB15	IO	37	(J10_25/26)
31	CAN0_RX	CAN	PTB14	IO	36	(J10_25/26)
32	SDA2	I2C	PTD27	IO	67	J10_9
33	SCL2	I2C	PTD28	IO	66	J10_10
34	SDHC1_DAT0	SDMMC	PTA26	IO	16	J5_7
35	SDHC1_DAT1	SDMMC	PTA27	IO	17	J5_8
36	SDHC1_DAT2	SDMMC	PTA28	IO	18	J5_9
37	SDHC1_DAT3	SDMMC	PTA29	IO	19	J5_1
38	SDHC1_CLK	SDMMC	PTA24	IO	14	J5_5
39	SDHC1_CMD	SDMMC	PTA25	IO	15	J5_2
40	GPIO0/EINT2	GPIO/GPIO	PTB26	IO	96	J10_11

J1	Function	Device	GPIO	Mode	/sys/class/gpio/gpio#	PC2-SINTF
41	PWM/EINT3	PWM/GPIO	PTB1	IO	23	J10_12
42	GND					
43	LCD_R3	LCD	PTE8	IO	113	(J9_2)
44	LCD_R4	LCD	PTE9	IO	114	(J9_31)
45	LCD_R5	LCD	PTE10	IO	115	(J9_32)
46	LCD_R6	LCD	PTE11	IO	116	(J9_33)
47	LCD_R7	LCD	PTE12	IO	117	(J9_3/34)
48	LCD_G2	LCD	PTE15	IO	120	(J9_27)
49	LCD_G3	LCD	PTE16	IO	121	(J9_13)
50	LCD_G4	LCD	PTE17	IO	122	(J9_7)
51	LCD_G5	LCD	PTE18	IO	123	J10_15/(J9_6)
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54	LCD_B3	LCD	PTE24	IO	129	J10_8/(J9_11)
55	LCD_B4	LCD	PTE25	IO	130	J10_14/(J9_10)
56	LCD_B5	LCD	PTE26	IO	131	J10_20/(J9_9)
57	LCD_B6	LCD	PTE27	IO	132	J10_21/(J9_16)
58	LCD_B7	LCD	PTE28	IO	133	J10_22/(J9_12/15)
59	LCD_CLK	LCD	PTE2	IO	107	(J9_19)
60	LCD_DE	LCD	PTE4	IO	109	(J9_21)
61	GND					
62	GND					
63	LCD_HSYNC/LCD_B2	LCD/LCD	PTE0/PTE23*	IO/IO	105/128*	(J9_22)
64	LCD_VSYNC/LCD_R2	LCD/LCD	PTE1/PTE7*	IO/IO	106/112*	(J9_20)
65	BL_CTRL	PWM	PTB0	IO	22	(J9_18)
66	VLCD_ON	LCD	PTE3	IO	108	(J9_25)
67	VCFL_ON	LCD	PTC29	IO	102	(J9_30)
68	LCD_DEN	LCD	PTB3	IO	25	(J9_23)
69	RTS5	UART	PTC16	IO	61	J10_13/(J7_7/8)
70	ETH0_LED	ETH				LED1
71	X+	TOUCH				J8_7
72	GND					
73	GND					
74	X-	TOUCH				J8_9
75	Y+	TOUCH				J8_8
76	Y-	TOUCH				J8_10
77	LOUT	AUDIO				J8_1
78	ROUT	AUDIO				J8_2
79	LIN	AUDIO				J8_3
80	RIN	AUDIO				J8_4

* You must not configure both GPIOs as output or combine a function and output; one GPIO must remain input