

# PicoCOMA9X GPIO Reference Card V1.2

30.06.2025

Pin layout for Board Rev. 1.10, 1.11 and 1.20

J1	Function	Device	GPIO	Mode	/sys/class/gpio/gpio#	PCOMnet	PC2-SINTF
1	ETH_A_TX-	RGMI1 (PHY)				RJ1_2	(J2_1/2)
2	ETH_A_RX-	RGMI1 (PHY)				RJ1_6	(J2_3/6)
3	ETH_A_TX+	RGMI1 (PHY)				RJ1_1	(J2_1/2)
4	ETH_A_RX+	RGMI1 (PHY)				RJ1_3	(J2_3/6)
5	V33						
6	V33						
7	GND						
8	GND						
9	VBAT						
10	/RESET					J2_5 / (J3_20)	(S1)
11	UART_A_CTS EINT_B	UART4	GPIO7_IO04	IO	196	(U\$1_6)	J10_1
12	SD_CD EINT_A	SD2	GPIO1_IO06	IO	6	J1_CD1	J10_2
13	UART_B_TXD	UART3	GPIO4_IO30	IO	126	( J3_7 )	(J6_5)
14	UART_B_RXD	UART3	GPIO4_IO29	IO	125	( J3_8 )	(J6_3)
15	UART_B_RTS UART_C_TXD	UART3 UART5	GPIO4_IO24 GPIO2_IO13	IO IO	120 45	-	(J6_4)
16	UART_B_CTS UART_C_RXD	UART3 UART5	GPIO4_IO25 GPIO2_IO18	IO IO	121 50	-	(J6_6)
17	UART_A_TXD	UART4	GPIO7_IO01	IO	193	(U\$1_5)	(J7_5/7/8)
18	UART_A_RXD	UART4	GPIO7_IO05	IO	197	(U\$1_3)	(J7_3/7/8)
19	USBH_DP	OTG2				(J6_3 / J7_3)	J4_3
20	USBH_DN	OTG2				(J6_2 / J7_2)	J4_2
21	USBD_DP	OTG1				J5_3	J3_3
22	USBD_DN	OTG1				J5_2	J3_2
23	USBD_VBUS	OTG1				J5_1	J3_1
24	USBH_PWR	OTG2	GPIO1_IO12	IO	12	-	(J4_1)
25	GND						
26	SPI_MISO	SPI1	GPIO2_IO11	IO	43	J3_3	J10_3
27	SPI_MOSI *	SPI1	GPIO2_IO15	IO	47	J3_4 / J3_11	J10_4
28	SPI_CLK	SPI1	GPIO2_IO10	IO	42	J3_5	J10_5
29	SPI_CS0 *	SPI1	GPIO2_IO16	IO	48	J3_6	J10_6
30	CAN_A_TX	CAN1	GPIO7_IO07	IO	199	(J3_13 / J3_14)	(J10_25/26)
31	CAN_A_RX	CAN1	GPIO7_IO09	IO	201	(J3_13 / J3_14)	(J10_25/26)
32	I2C_A_SDA	I2C4	GPIO7_IO03	IO	195	J2_2 / J3_9	J10_9
33	I2C_A_SCL	I2C4	GPIO7_IO02	IO	194	J2_3 / J3_10	J10_10
34	SD_DAT0	SD2	GPIO6_IO08	IO	168	( J1_7 )	J5_7
35	SD_DAT1	SD2	GPIO6_IO09	IO	169	( J1_8 )	J5_8
36	SD_DAT2	SD2	GPIO6_IO10	IO	170	( J1_1 )	J5_9
37	SD_DAT3	SD2	GPIO6_IO11	IO	171	( J1_2 )	J5_1
38	SD_CLK	SD2	GPIO6_IO06	IO	166	( J1_5 )	J5_5
39	SD_CMD	SD2	GPIO6_IO07	IO	167	( J1_3 )	J5_2
40	EINT_C	GPIO	GPIO1_IO11	IO	11	J2_5	J10_11
41	PWM_A** EINT_D	PWM4 RGMII2 (PHY)	GPIO1_IO13 -	IO -	13	( RJ2LED )	J10_12
42	GND						
43	LCD_R3	LCD1	GPIO3_IO14	IO	78	J4-26	(J9_2)
44	LCD_R4	LCD1	GPIO3_IO15	IO	79	J4-25	(J9_31)
45	LCD_R5	LCD1	GPIO3_IO16	IO	80	J4-24	(J9_32)
46	LCD_R6	LCD1	GPIO3_IO17	IO	81	J4-23	(J9_33)
47	LCD_R7	LCD1	GPIO3_IO18	IO	82	J4-22	(J9_3/34)
48	LCD_G2	LCD1	GPIO3_IO07	IO	71	J4-20	(J9_27)
49	LCD_G3	LCD1	GPIO3_IO08	IO	72	J4-19	(J9_13)
50	LCD_G4	LCD1	GPIO3_IO09	IO	73	J4-18	(J9_7)
51	LCD_G5	LCD1	GPIO3_IO10	IO	74	J4-17	J10_15/(J9_6)
52	LCD_G6	LCD1	GPIO3_IO11	IO	75	J4-16	J10_16/(J9_5)
53	LCD_G7	LCD1	GPIO3_IO12	IO	76	J4-15	J10_7/(J9_4/14)
54	LCD_B3	LCD1	GPIO3_IO02	IO	66	J4-12	J10_8/(J9_11)
55	LCD_B4	LCD1	GPIO3_IO03	IO	67	J4-11	J10_14/(J9_10)
56	LCD_B5	LCD1	GPIO3_IO04	IO	68	J4-10	J10_20/(J9_9)
57	LCD_B6	LCD1	GPIO3_IO05	IO	69	J4-9	J10_21/(J9_16)
58	LCD_B7	LCD1	GPIO3_IO06	IO	70	J4-8	J10_22/(J9_12/15)
59	LCD_CLK	LCD1	GPIO3_IO00	IO	64	J4_28	(J9_19)
60	LCD_DE	LCD1	GPIO3_IO25	IO	89	J4_32	(J9_21)
61	GND						

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J1	Function	Device	GPIO	Mode	/sys/class/gpio/gpio#	PCOMnet	PC2-SINTF
62	GND						
63	LCD_HSYNC LCD_B2	LCD1	GPIO3_IO26 GPIO3_IO01	IO	90 65	J4_30	(J9_22)
64	LCD_VSYNC LCD_R2	LCD1	GPIO3_IO28 GPIO3_IO13	IO	92 77	J4_31	(J9_20)
65	LCD_PWM PWM_B	PWM7	GPIO3_IO22	IO	86	J4_6	(J9_18)
66	/LCD_VLCDON	GPIO	GPIO3_IO27	IO	91	( J4_36 )	(J9_25)
67	/LCD_VCFLOn	GPIO	GPIO3_IO24	IO	88	( J4_3/4/5 )	(J9_30)
68	/LCD_ENAB	GPIO	GPIO3_IO23	IO	87	J4_7	(J9_23)
69	UART_A_RTS	UART4	GPIO7_IO00	IO	192	( U\$1_4 )	J10_13/(J7_7/8)
70	/ETH_A_LED	RGMI1 (PHY)				( RJ1LED )	LED1
71	TOUCH_X+	TOUCH				J4_38	J8_7
72	GND						
73	GND						
74	TOUCH_X-	TOUCH				J4_40	J8_9
75	TOUCH_Y+	TOUCH				J4_37	J8_8
76	TOUCH_Y-	TOUCH				J4_39	J8_10
77	AUDIO_LOUT	AUDIO **				RJ2_2	J8_1
78	AUDIO_ROUT	AUDIO **				RJ2_6	J8_2
79	AUDIO_LIN	AUDIO **				RJ2_1	J8_3
80	AUDIO_RIN	AUDIO **				RJ2_3	J8_4

\* On Rev. 1.10 and 1.11, pins 27+29 are interchanged. Pin27: SPI\_CS0 - Pin29: SPI\_MOSI. On Rev. 1.20 this is a mounting option.  
 \*\* Pins are used for second ethernet on PCOMnet SKIT.