

The diagram illustrates the GPIO connectors for the Zynq-7010 SoC, showing the pinout for J10 and J11, and the connections for Serial Display, Memory testing, and Caravel Power Pin Headers.

GPIO Connectors:

Pin	Function	Pin	Function
1	RST	1	mpri_io[13]
2	GND	2	mpri_io[12]
3	vddio	3	mpri_io[11]
4	mpri_io[37]	4	mpri_io[10]
5	mpri_io[36]	5	mpri_io[9]
6	mpri_io[35]	6	mpri_io[8]
7	mpri_io[34]	7	mpri_io[7]
8	mpri_io[33]	8	mpri_io[6]
9	mpri_io[32]	9	mpri_io[5]
10	mpri_io[31]	10	mpri_io[4]
11	mpri_io[30]	11	mpri_io[3]
12	mpri_io[29]	12	mpri_io[2]
13	mpri_io[28]	13	mpri_io[1]
14	mpri_io[27]	14	mpri_io[0]
15	mpri_io[26]	15	vdda1
16	mpri_io[25]	16	GND
17	mpri_io[24]	17	GND
18	mpri_io[23]	18	xcclk
19	mpri_io[22]	19	gpio
20	mpri_io[21]	20	vccd2
21	mpri_io[20]	21	vcc1
22	mpri_io[19]	22	vdda2
23	mpri_io[18]	23	vcc3
24	mpri_io[17]	24	vcc3
25	mpri_io[16]	25	GND
26	mpri_io[15]	26	GND
27	mpri_io[14]	27	GND
28	GND	28	GND

Serial Display (J4):

Pin	Function
1	+3V3
2	GND
3	mpri_io[6]

Memory testing (J7):

Pin	Function
1	MEM_CS
2	MEM_SO
3	MEM_WP
4	MEM_HOLD
5	MEM_SCK
6	MEM_SI

Caravel Power Pin Headers:

Pin	Function
1	+1V8
2	vcc1

TP1 TestPoint:

Pin	Function
1	GND

TP2 TestPoint:

Pin	Function
1	GND

[illegible]

default frequency: 48.65MHz
frequency range: 130kHz to 66.6MHz

The schematic diagram illustrates the power supply section of the circuit. It begins with a USB input (VBUS) connected to a 600R/0.5A fuse (FB1). The VBUS line is filtered by a 0.01uF capacitor (C23) to ground. The filtered VBUS is then connected to a 5V regulator (U6, TAR55xxU). The regulator's VIN is connected to the filtered VBUS, and its VOUT is connected to the +5V output. The regulator is also connected to a 1V8OUT pin (J8) and a 1V8 pin (J9). The +5V output is filtered by a 0.1uF capacitor (C24) to ground. The +5V output is also connected to a 5V regulator (U5, TAR55xxU). The regulator's VIN is connected to the +5V output, and its VOUT is connected to the +3V3 output. The regulator is also connected to a 3V3OUT pin (J9) and a 3V3 pin (J9). The +3V3 output is filtered by a 0.01uF capacitor (C11) to ground. The +3V3 output is also connected to a 3V3 pin (J9).

VBUS Filter to 5V
*Place close to the USB connector

Voltage Regulators

The image contains two circuit diagrams. The first diagram shows two LEDs connected to a +3V3 supply. The first LED, labeled 'RED', is connected through a 1K resistor (R11) to the +3V3 supply and its cathode is connected to a GPIO pin. The second LED, labeled 'D4 RED', is connected through a 1K resistor (R14) to the +3V3 supply and its cathode is connected to GND. The second diagram shows a Reset Switch (SW1) connected between the ACBUS1 pin and the RST pin of the microcontroller. The SW_Push pin is connected to GND.

[illegible]

The schematic diagram illustrates the electrical connections for the Caravel M.2 Card. It features two main integrated circuits: U8 (M.2-CONNECTOR-E) and U7 (W25Q32FVSS). The MEMS Oscillator (DSC6001-10MHZ) is connected to the xclk pin of U8. The Flash memory (U7) is connected to the MEM_HOLD, MEM_SCK, and MEM_SI pins of U8. The diagram also shows the connection of various pins to +3V3, GND, and other components like capacitors (C9, C17, C18, C19) and resistors (R7, R8, R9, R10, R12, R13).

U8: M.2-CONNECTOR-E

Pin	Signal	Pin	Signal
75	mprij_io[13]	74	mprij_io[14]
73	mprij_io[12]	72	mprij_io[15]
71	mprij_io[11]	70	mprij_io[16]
69	mprij_io[10]	68	mprij_io[17]
67	mprij_io[9]	66	mprij_io[18]
65	mprij_io[8]	64	mprij_io[19]
63	mprij_io[7]	62	mprij_io[20]
61	mprij_io[6]	60	mprij_io[21]
59	mprij_io[5]	58	mprij_io[22]
57	mprij_io[4]	56	mprij_io[23]
55	mprij_io[3]	54	mprij_io[24]
53	mprij_io[2]	52	mprij_io[25]
51	mprij_io[1]	50	mprij_io[26]
49	mprij_io[0]	48	mprij_io[27]
47	GND	46	mprij_io[28]
45	GND	44	mprij_io[29]
43	GND	42	mprij_io[30]
41	GND	40	mprij_io[31]
39	GND	38	mprij_io[32]
37	GND	36	mprij_io[33]
35	vccd1	34	mprij_io[34]
33	vdda1	32	mprij_io[35]
23	Caravel_SCK	22	mprij_io[36]
21	gpio	20	mprij_io[37]
19	Caravel_D1	18	GND
17	Caravel_D0	16	vddio
15	vccd	14	vccd
13	vdda2	12	GND
11	Caravel_CS	10	GND
9	xclk	8	GND
7	RST	6	GND
5	vdda	4	GND
3	vddio	2	GND
1	vccd2		

U7: W25Q32FVSS

Pin	Signal	Pin	Signal
1	MEM_CS	8	VCC
2	MEM_SO	7	HOLD(D3)
3	MEM_WP	6	SCK
4	GND	5	SI(D0)

MEMS Oscillator

Flash memory

Id: 1/1