



GPS back-up
Short JP7-1 and JP7-2 ONLY if no back-up or if there is a super cap. installed.
Connect back-up battery/super cap. to JP7-3 (+) and JP7-4 (-)

Filter
Shown values: LPF with -0,4 dB at 200 MHz
Default: Z2, Z4, Z10 = 0 Ohm and
Z1, Z3, Z5, Z6, Z7, Z8, Z9 not mounted

Encoder 1

Function	Arduino
A1	A0
B1	A1
A2	A2

Encoder 2

Function	Arduino
A2	A5
B2	A4
SW2	A3

Arduino	Pin	Usage	MCU
A0	A0/22	Ai/Dio	PA2
A1	A1/23	Ai/Dio	PA3
A2	A2/24	Ai/Dio	PA4
A3	A3/25	Ai/Dio	PA5
A4	A4/26	Ai/Dio	PA6
A5	A5/27	Ai/Dio	PA7
A6	A6/36	Ai/Dio	PB3
A7	A7/37	Ai/Dio	PA2
DAC0	A0/DAC0	Ai/Dio	PA2
D0	0	Dio	PA8
D1	1	Dio	PA9
D2	2	Dio	PA10
D3	3	Dio	PA11
D4	4	Dio	PA12
D5	5	Dio	PA13
D6	6	Dio	PA14
D7	7	Dio	PA15
D8	8	Dio	PA16
D9	9	Dio	PA17
D10	10	Dio	PA18
D11	11	Dio	PA19
D12	12	Dio	PA20
D13	13	Dio	PA21
D14	14	Dio	PA27
D15	15	Dio	PA28
D16	16	Dio	PB2
D17	17	Dio	PB3
D18	18	Dio	PB22
D19	19	Dio	PB23
D20	TX_LED/20	Do	PA30
D21	VALID_LED/21	Di	PA31
D35	PPS_LED/35	Do	PB11

i: input o: output io: input/output

RFzero™ Designed by: 5Q7J, OZ2M, OZ2XH, OZ5N

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Power

Terminal	Function
VI	~4,5 V
TP1	Digital 3,3 V
TP2	MCU USB DP
TP3	MCU USB DM
TP4	GPS data out
TP5	GPS data in
TP6	GPS PPS out
TP7	GPS LNA 3,3 V
TP8	I2C SCL local
TP9	I2C SDA local
TP10	GND
TP11	GPS USB DP
TP12	GPS USB DM
TP13	GPS USB DP
TP14	GPS USB DM

Power supply

Header	Pin	Function
Header2	1	3V3
Header2	2	GND
Header2	3	GND
Header2	4	GND
Header2	5	GND
Header2	6	GND
Header2	7	GND
Header2	8	GND
Header2	9	GND
Header2	10	GND
Header2	11	GND
Header2	12	GND
Header2	13	GND
Header2	14	GND
Header2	15	GND
Header2	16	GND
Header2	17	GND
Header2	18	GND
Header2	19	GND
Header2	20	GND
Header2	21	GND
Header2	22	GND
Header2	23	GND
Header2	24	GND
Header2	25	GND
Header2	26	GND
Header2	27	GND
Header2	28	GND
Header2	29	GND
Header2	30	GND
Header2	31	GND
Header2	32	GND
Header2	33	GND
Header2	34	GND
Header2	35	GND
Header2	36	GND
Header2	37	GND
Header2	38	GND
Header2	39	GND
Header2	40	GND
Header2	41	GND
Header2	42	GND
Header2	43	GND
Header2	44	GND
Header2	45	GND
Header2	46	GND
Header2	47	GND
Header2	48	GND
Header2	49	GND
Header2	50	GND
Header2	51	GND
Header2	52	GND
Header2	53	GND
Header2	54	GND
Header2	55	GND
Header2	56	GND
Header2	57	GND
Header2	58	GND
Header2	59	GND
Header2	60	GND
Header2	61	GND
Header2	62	GND
Header2	63	GND
Header2	64	GND
Header2	65	GND
Header2	66	GND
Header2	67	GND
Header2	68	GND
Header2	69	GND
Header2	70	GND
Header2	71	GND
Header2	72	GND
Header2	73	GND
Header2	74	GND
Header2	75	GND
Header2	76	GND
Header2	77	GND
Header2	78	GND
Header2	79	GND
Header2	80	GND
Header2	81	GND
Header2	82	GND
Header2	83	GND
Header2	84	GND
Header2	85	GND
Header2	86	GND
Header2	87	GND
Header2	88	GND
Header2	89	GND
Header2	90	GND
Header2	91	GND
Header2	92	GND
Header2	93	GND
Header2	94	GND
Header2	95	GND
Header2	96	GND
Header2	97	GND
Header2	98	GND
Header2	99	GND
Header2	100	GND

USB

Header	Pin	Function
Header10	1	GND
Header10	2	GND
Header10	3	GND
Header10	4	GND
Header10	5	GND
Header10	6	GND
Header10	7	GND
Header10	8	GND
Header10	9	GND
Header10	10	GND
Header10	11	GND
Header10	12	GND
Header10	13	GND
Header10	14	GND
Header10	15	GND
Header10	16	GND
Header10	17	GND
Header10	18	GND
Header10	19	GND
Header10	20	GND
Header10	21	GND
Header10	22	GND
Header10	23	GND
Header10	24	GND
Header10	25	GND
Header10	26	GND
Header10	27	GND
Header10	28	GND
Header10	29	GND
Header10	30	GND
Header10	31	GND
Header10	32	GND
Header10	33	GND
Header10	34	GND
Header10	35	GND
Header10	36	GND
Header10	37	GND
Header10	38	GND
Header10	39	GND
Header10	40	GND
Header10	41	GND
Header10	42	GND
Header10	43	GND
Header10	44	GND
Header10	45	GND
Header10	46	GND
Header10	47	GND
Header10	48	GND
Header10	49	GND
Header10	50	GND
Header10	51	GND
Header10	52	GND
Header10	53	GND
Header10	54	GND
Header10	55	GND
Header10	56	GND
Header10	57	GND
Header10	58	GND
Header10	59	GND
Header10	60	GND
Header10	61	GND
Header10	62	GND
Header10	63	GND
Header10	64	GND
Header10	65	GND
Header10	66	GND
Header10	67	GND
Header10	68	GND
Header10	69	GND
Header10	70	GND
Header10	71	GND
Header10	72	GND
Header10	73	GND
Header10	74	GND
Header10	75	GND
Header10	76	GND
Header10	77	GND
Header10	78	GND
Header10	79	GND
Header10	80	GND
Header10	81	GND
Header10	82	GND
Header10	83	GND
Header10	84	GND
Header10	85	GND
Header10	86	GND
Header10	87	GND
Header10	88	GND
Header10	89	GND
Header10	90	GND
Header10	91	GND
Header10	92	GND
Header10	93	GND
Header10	94	GND
Header10	95	GND
Header10	96	GND
Header10	97	GND
Header10	98	GND
Header10	99	GND
Header10	100	GND

LED

Header	Pin	Function
Header2	1	3V3
Header2	2	GND
Header2	3	GND
Header2	4	GND
Header2	5	GND
Header2	6	GND
Header2	7	GND
Header2	8	GND
Header2	9	GND
Header2	10	GND
Header2	11	GND
Header2	12	GND
Header2	13	GND
Header2	14	GND
Header2	15	GND
Header2	16	GND
Header2	17	GND
Header2	18	GND
Header2	19	GND
Header2	20	GND
Header2	21	GND
Header2	22	GND
Header2	23	GND
Header2	24	GND
Header2	25	GND
Header2	26	GND
Header2	27	GND
Header2	28	GND
Header2	29	GND
Header2	30	GND
Header2	31	GND
Header2	32	GND
Header2	33	GND
Header2	34	GND
Header2	35	GND
Header2	36	GND
Header2	37	GND
Header2	38	GND
Header2	39	GND
Header2	40	GND
Header2	41	GND
Header2	42	GND
Header2	43	GND
Header2	44	GND
Header2	45	GND
Header2	46	GND
Header2	47	GND
Header2	48	GND
Header2	49	GND
Header2	50	GND
Header2	51	GND
Header2	52	GND
Header2	53	GND
Header2	54	GND
Header2	55	GND
Header2	56	GND
Header2	57	GND
Header2	58	GND
Header2	59	GND
Header2	60	GND
Header2	61	GND
Header2	62	GND
Header2	63	GND
Header2	64	GND
Header2	65	GND
Header2	66	GND
Header2	67	GND
Header2	68	GND
Header2	69	GND
Header2	70	GND
Header2	71	GND
Header2	72	GND
Header2	73	GND
Header2	74	GND
Header2	75	GND
Header2	76	GND
Header2	77	GND
Header2	78	GND
Header2	79	GND
Header2	80	GND
Header2	81	GND
Header2	82	GND
Header2	83	GND
Header2	84	GND
Header2	85	GND
Header2	86	GND
Header2	87	GND
Header2	88	GND
Header2	89	GND
Header2	90	GND
Header2	91	GND
Header2	92	GND
Header2	93	GND
Header2	94	GND
Header2	95	GND
Header2	96	GND
Header2	97	GND
Header2	98	GND
Header2	99	GND
Header2	100	GND

Backlight control

Header	Pin	Function
Header2	1	3V3
Header2	2	GND
Header2	3	GND
Header2	4	GND
Header2	5	GND
Header2	6	GND
Header2	7	GND
Header2	8	GND
Header2	9	GND
Header2	10	GND
Header2	11	GND
Header2	12	GND
Header2	13	GND
Header2	14	GND
Header2	15	GND
Header2	16	GND
Header2	17	GND
Header2	18	GND
Header2	19	GND
Header2	20	GND
Header2	21	GND
Header2	22	GND
Header2	23	GND
Header2	24	GND
Header2	25	GND
Header2	26	GND
Header2	27	GND
Header2	28	GND
Header2	29	GND
Header2	30	GND
Header2	31	GND
Header2	32	GND
Header2	33	GND
Header2	34	GND
Header2	35	GND
Header2	36	GND
Header2	37	GND
Header2	38	GND
Header2	39	GND
Header2	40	GND
Header2	41	GND
Header2	42	GND
Header2	43	GND
Header2	44	GND
Header2	45	GND
Header2	46	GND
Header2	47	GND
Header2	48	GND
Header2	49	GND
Header2	50	GND
Header2	51	GND
Header2	52	GND
Header2	53	GND
Header2	54	GND
Header2	55	GND
Header2	56	GND
Header2	57	GND
Header2	58	GND
Header2	59	GND
Header2	60	GND
Header2	61	GND
Header2	62	GND
Header2	63	GND
Header2	64	GND
Header2	65	GND
Header2	66	GND
Header2	67	GND
Header2	68	GND
Header2	69	GND
Header2	70	GND
Header2	71	GND
Header2	72	GND
Header2	73	GND
Header2	74	GND
Header2	75	GND
Header2	76	GND</