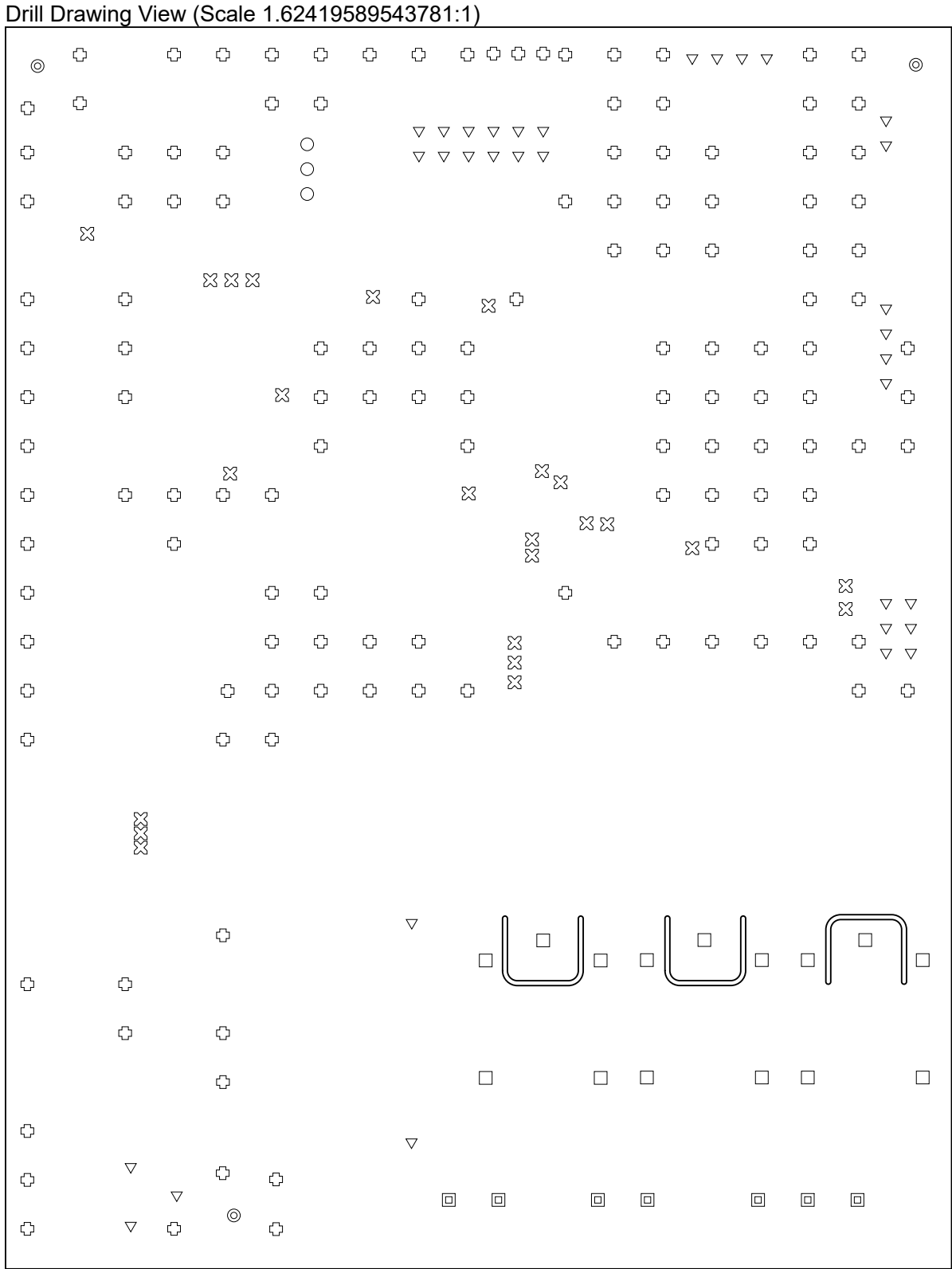
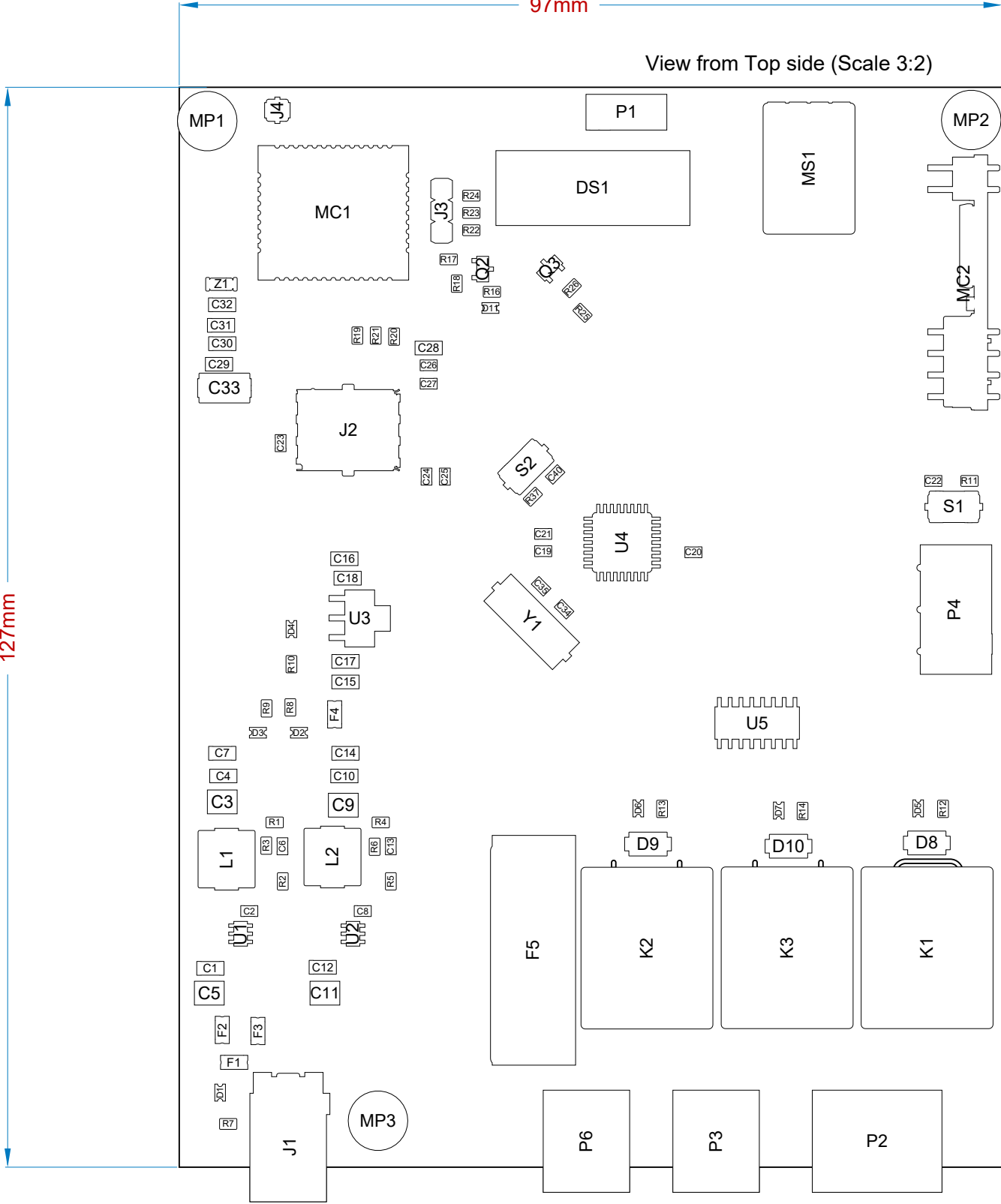



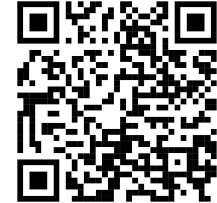
Title: <b>Bottom View</b>	Drawn by:	<b>Hossein Bagheri</b>	
Project: <b>AVR RCS</b>	Revision: <b>1.0</b>		
Company: <b>github.com/aKaReZa75</b>	Sheet <b>2</b> of <b>8</b>		



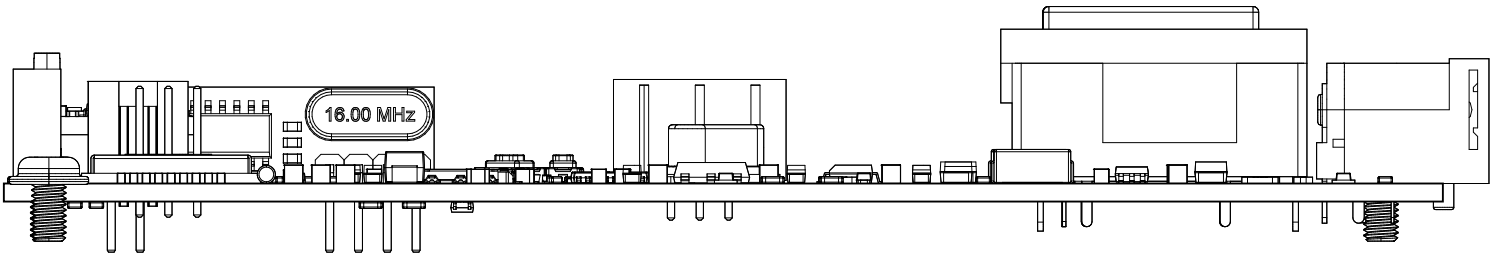
Drill Table

Symbol	Count	Hole Size	Plated	Hole Tolerance
⊗	24	1mm	Plated	
⊕	139	1mm	Plated	
▽	33	1mm	Plated	
○	3	1mm	Plated	
□	15	1mm	Plated	
▣	7	2mm	Plated	
◎	3	3mm	Plated	
224 Total				

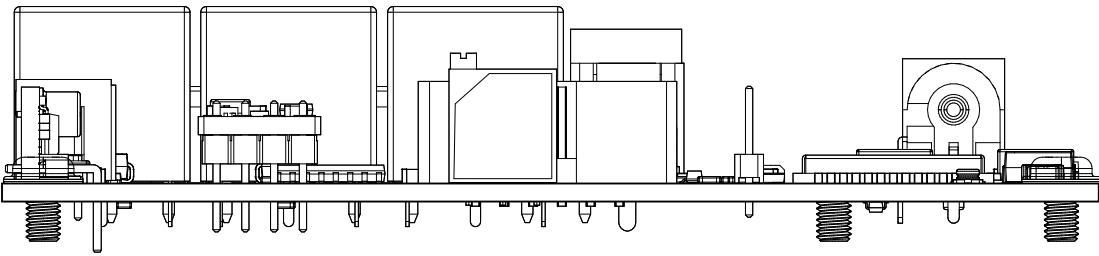


Title: <b>Drill Drawing and Dimensions</b>	Drawn by:	<b>Hossein Bagheri</b>  <b>aKaReZa</b>	
Project: <b>AVR RCS</b>	Revision: <b>1.0</b>		
Company: <b>github.com/aKaReZa75</b>	Sheet <b>3</b> of <b>8</b>		

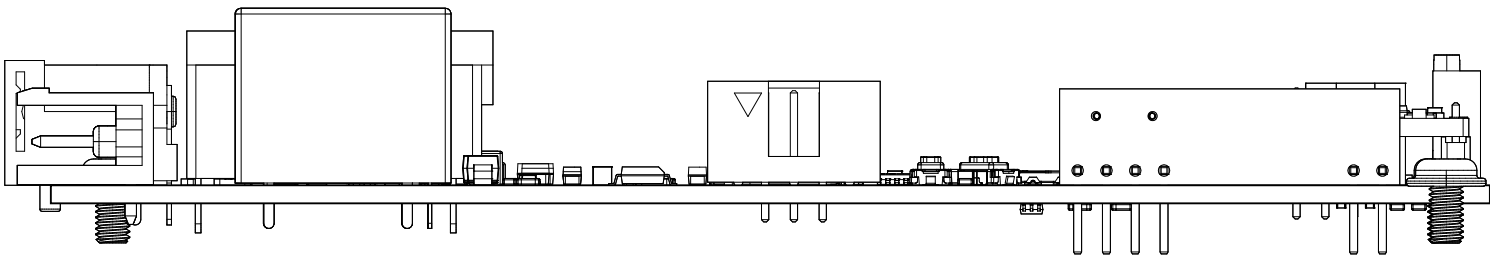
View from Left side (Scale 3:2)



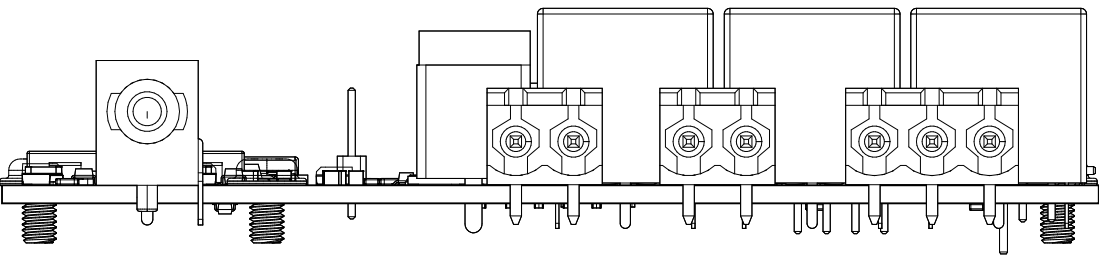
View from Back side (Scale 3:2)



View from Right side (Scale 1.5:1)





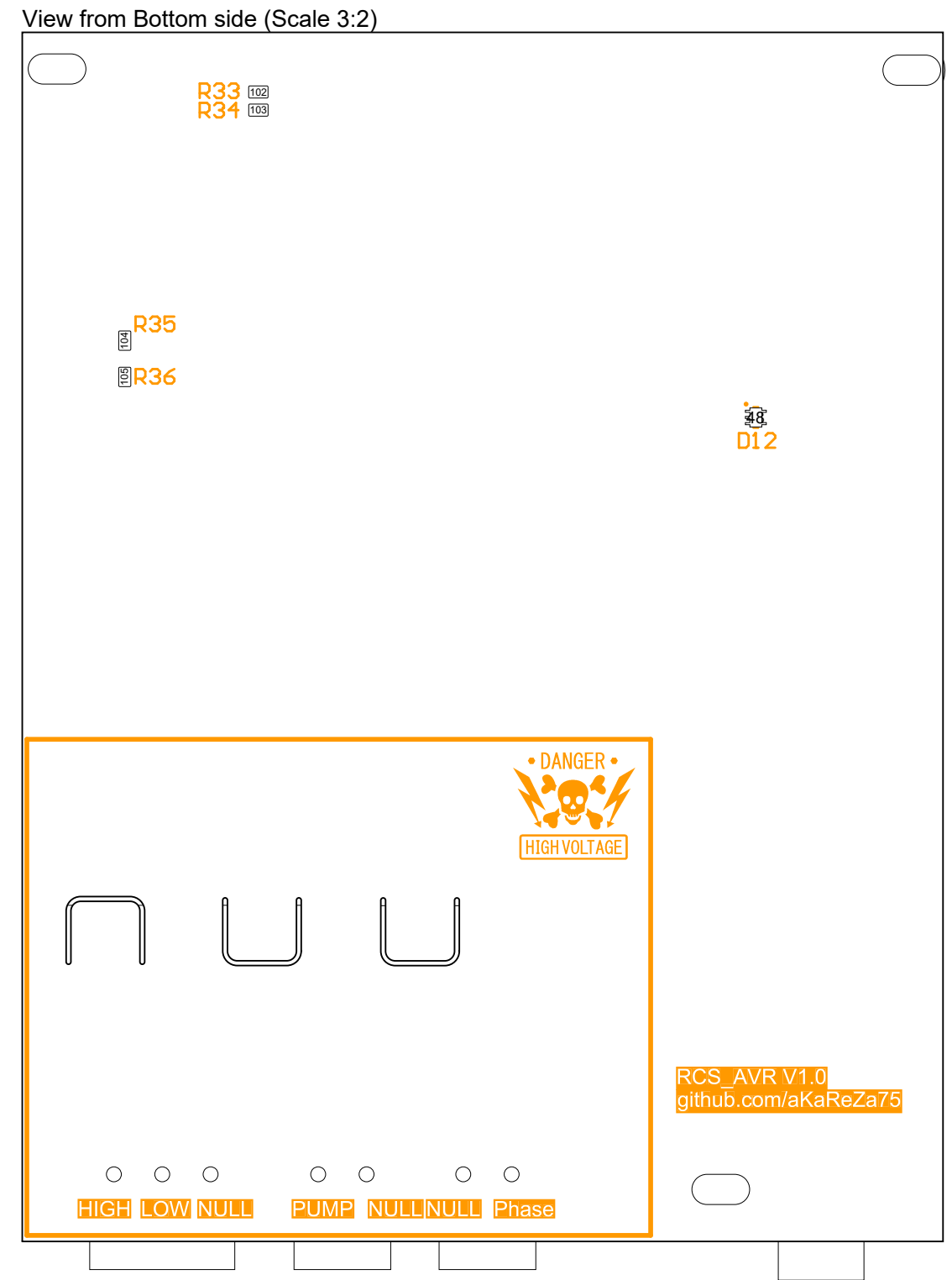
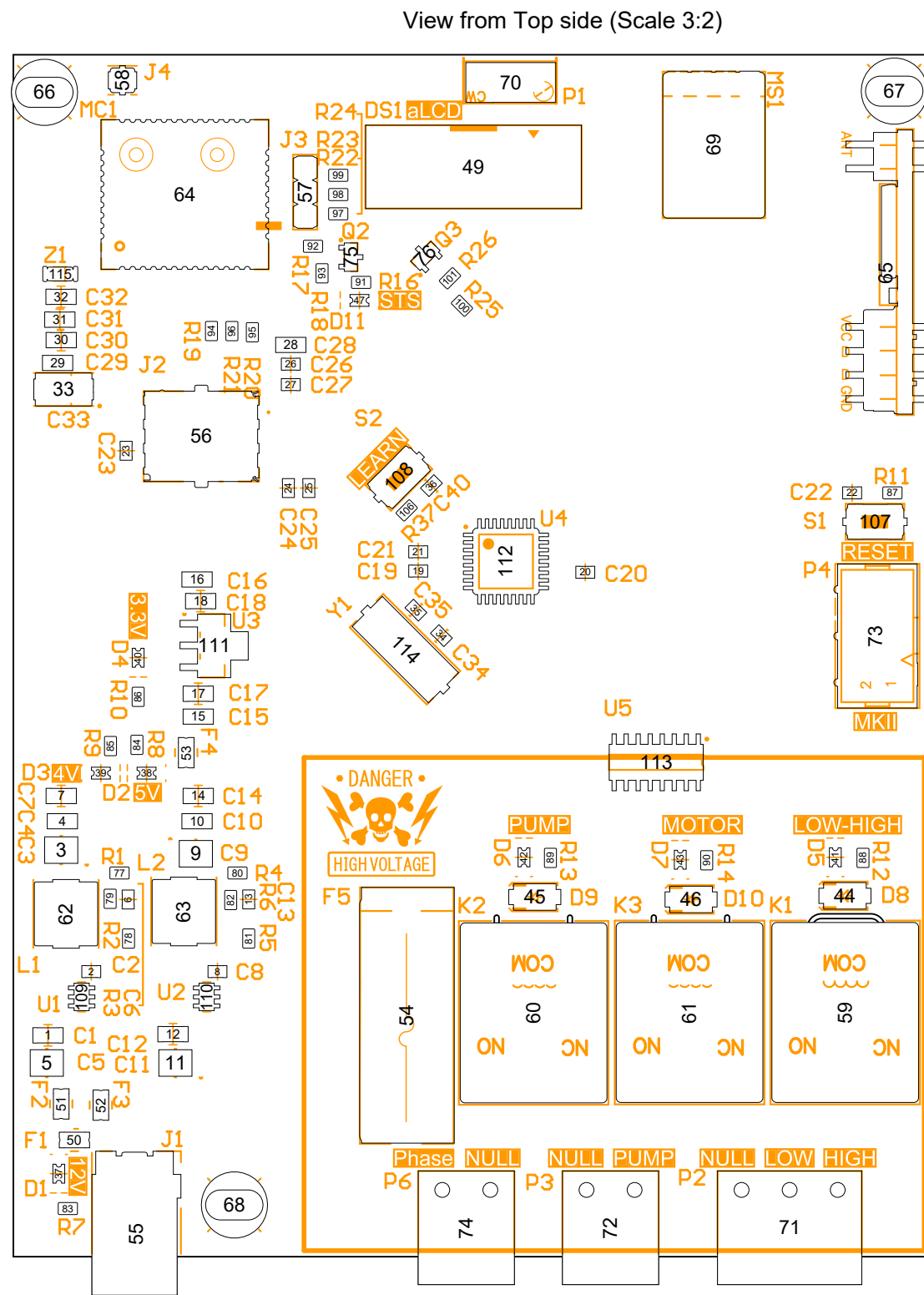
View from Front side (Scale 3:2)




Layer Stack Legend

Material	Layer	Thickness	Dielectric Material	Type	Gerber
	Top Overlay			Legend	GTO
Surface Material	Top Solder	0mm	Solder Resist	Solder Mask	GTS
Copper	Top Layer	0mm		Signal	GTL
		1mm	FR-4	Dielectric	
Copper	Bottom Layer	0mm		Signal	GBL
Surface Material	Bottom Solder	0mm	Solder Resist	Solder Mask	GBS
	Bottom Overlay			Legend	GBO
Total thickness: 2mm					


Title: <b>Layer Stack and Side View</b>	Drawn by:	<b>Hossein Bagheri</b>  <b>aKaReZa</b>	
Project: <b>AVR RCS</b>	Revision: <b>1.0</b>		
Company: <b>github.com/aKaReZa75</b>	Sheet <b>4</b> of <b>8</b>		



Title: <b>Component Positions View</b>	Drawn by:	<b>Hossein Bagheri</b>	
Project: <b>AVR RCS</b>	Revision: <b>1.0</b>		
Company: <b>github.com/aKaReZa75</b>	Sheet <b>5</b> of <b>8</b>		

A		B		C		D		E		F	
Bill Of Materials											
Line #	Designator	Comment	Library Ref	Footprint	Package	Rating	Type	Value			
1	C1	100n	Cap_Multi_SMD_100nF_1206	CAP 1206/3216	1206	50V	MultiLayer	100n			
2	C2	100n	Cap_Multi_SMD_100nF_0805	CAP 0805/2012	0805	50V	MultiLayer	100n			
3	C3	47u	Cap_Tantalum	SMT_C_Tantalum_B	Package?	6.3v	Tantalum	47u			
4	C4	10u	Cap_Tantalum	SMT_C_Tantalum_A	Package?	6.3v	Tantalum	10u			
5	C5	10u	Cap_Tantalum	SMT_C_Tantalum_B	Package?	25v	Tantalum	10u			
6	C6	68p	Cap_Multi_SMD_0805	CAP 0805/2012	0805	Rating?	MultiLayer	68p			
7	C7	100n	Cap_Multi_SMD_100nF_1206	CAP 1206/3216	1206	50V	MultiLayer	100n			
8	C8	100n	Cap_Multi_SMD_100nF_0805	CAP 0805/2012	0805	50V	MultiLayer	100n			
9	C9	47u	Cap_Tantalum	SMT_C_Tantalum_B	Package?	6.3v	Tantalum	47u			
10	C10	10u	Cap_Tantalum	SMT_C_Tantalum_A	Package?	6.3v	Tantalum	10u			
11	C11	10u	Cap_Tantalum	SMT_C_Tantalum_B	Package?	25v	Tantalum	10u			
12	C12	100n	Cap_Multi_SMD_100nF_1206	CAP 1206/3216	1206	50V	MultiLayer	100n			
13	C13	68p	Cap_Multi_SMD_0805	CAP 0805/2012	0805	Rating?	MultiLayer	68p			
14	C14	100n	Cap_Multi_SMD_100nF_1206	CAP 1206/3216	1206	50V	MultiLayer	100n			
15	C15	10u	Cap_Tantalum	SMT_C_Tantalum_A	Package?	6.3v	Tantalum	10u			
16	C16	22u	Cap_Tantalum	SMT_C_Tantalum_A	Package?	6.3v	Tantalum	22u			
17	C17	100n	Cap_Multi_SMD_100nF_1206	CAP 1206/3216	1206	50V	MultiLayer	100n			
18	C18	100n	Cap_Multi_SMD_100nF_1206	CAP 1206/3216	1206	50V	MultiLayer	100n			
19	C19	100n	Cap_Multi_SMD_100nF_0805	CAP 0805/2012	0805	50V	MultiLayer	100n			
20	C20	100n	Cap_Multi_SMD_100nF_0805	CAP 0805/2012	0805	50V	MultiLayer	100n			
21	C21	100n	Cap_Multi_SMD_100nF_0805	CAP 0805/2012	0805	50V	MultiLayer	100n			
22	C22	100n	Cap_Multi_SMD_100nF_0805	CAP 0805/2012	0805	50V	MultiLayer	100n			
23	C23	33p	Cap_Multi_SMD_0805	CAP 0805/2012	0805	Rating?	MultiLayer	33p			
24	C24	33p	Cap_Multi_SMD_0805	CAP 0805/2012	0805	Rating?	MultiLayer	33p			
25	C25	33p	Cap_Multi_SMD_0805	CAP 0805/2012	0805	Rating?	MultiLayer	33p			
26	C26	100n	Cap_Multi_SMD_100nF_0805	CAP 0805/2012	0805	50V	MultiLayer	100n			
27	C27	33p	Cap_Multi_SMD_0805	CAP 0805/2012	0805	Rating?	MultiLayer	33p			
28	C28	1u	Cap_Tantalum	SMT_C_Tantalum_A	SMD-A	6.3V	Tantalum	1u			
29	C29	1u	Cap_Tantalum	SMT_C_Tantalum_A	SMD-A	6.3V	Tantalum	1u			
30	C30	100n	Cap_Multi_SMD_100nF_1206	CAP 1206/3216	1206	50V	MultiLayer	100n			
31	C31	10p	Cap_Multi_SMD_1206	CAP 1206/3216	1206	50V	MultiLayer	10p			
32	C32	33p	Cap_Multi_SMD_1206	CAP 1206/3216	1206	50V	MultiLayer	33p			
33	C33	100u	Cap_Tantalum	SMT_C_Tantalum_C	SMD-C	6.3V	Tantalum	100u			
34	C34	22p	Cap_Multi_SMD_0805	CAP 0805/2012	0805	Rating?	MultiLayer	22p			
35	C35	22p	Cap_Multi_SMD_0805	CAP 0805/2012	0805	Rating?	MultiLayer	22p			
36	C40	100n	Cap_Multi_SMD_100nF_0805	CAP 0805/2012	0805	50V	MultiLayer	100n			
37	D1	Yellow	Semi_LED_SMD	LED 0805/2012 YELLOW	Package?	Rating?	LED	Yellow			
38	D2	Red	Semi_LED_SMD	LED 0805/2012 RED	Package?	Rating?	LED	Red			
39	D3	Blue	Semi_LED_SMD	LED 0805/2012 BLUE	Package?	Rating?	LED	Blue			
40	D4	Green	Semi_LED_SMD	LED 0805/2012 GREEN	Package?	Rating?	LED	Green			
41	D5	Green	Semi_LED_SMD	LED 0805/2012 GREEN	Package?	Rating?	LED	Green			
42	D6	Green	Semi_LED_SMD	LED 0805/2012 GREEN	Package?	Rating?	LED	Green			
43	D7	Green	Semi_LED_SMD	LED 0805/2012 GREEN	Package?	Rating?	LED	Green			
						Title: <b>Bill of Materials</b>		Drawn by:		Hossein Bagheri	
						Project: <b>AVR RCS</b>		Revision: <b>1.0</b>		 <b>aKaReZa</b>	
						Company: <b>github.com/aKaReZa75</b>		Sheet <b>6</b> of <b>8</b>			
A		B		C		D		E		F	



A		B		C		D		E		F	
Bill Of Materials											
Line #	Designator	Comment	Library Ref	Footprint	Package	Rating	Type	Value			
44	D8	1N5819	Semi_Diod_Sch_1N5819_SMD	430X270D	SMA	Rating?	Schottky	1N5819			
45	D9	1N5819	Semi_Diod_Sch_1N5819_SMD	430X270D	SMA	Rating?	Schottky	1N5819			
46	D10	1N5819	Semi_Diod_Sch_1N5819_SMD	430X270D	SMA	Rating?	Schottky	1N5819			
47	D11	Blue	Semi_LED_SMD	LED 0805/2012 BLUE	Package?	Rating?	LED	Blue			
48	D12	SMF-05	Semi_Diod_TV5_SMF05	SC70-5_N	SC70-5	Rating?	TVS	SMF-05			
49	DS1	16x2	ModSen_LCD_CH_16x2_Box	BOX-HDR-2x6-2.54mm-S	Dip	Rating?	Alphanumeric	16x2			
50	F1	3A	Other_Elec_Fuse_SMD	1206_F	1206	Rating?	Fast	3A			
51	F2	2A	Other_Elec_Fuse_SMD	1206_F	1206	Rating?	Fast	2A			
52	F3	1A	Other_Elec_Fuse_SMD	1206_F	1206	Rating?	Fast	1A			
53	F4	0.5A	Other_Elec_Fuse_SMD	1206_F	1206	Rating?	Fast	0.5A			
54	F5	5A	Other_Elec_Fuse_THT	FUSE_BX_20x5	Package?	Rating?	Type?	5A			
55	J1	Female	Con_Power_Jack	Power Jack BIG	Package?	Rating?	Type?	Female			
56	J2	6'Pin	Con_Socket_SimCard_1	GCT_SIM8051_Plastik	SMD	Rating?	Nano	6'Pin			
57	J3	3	Con_MPH_3x1_V_THT_2.54	HDR_THT_3M_2.54m	Package?	Rating?	Type?	3			
58	J4	U.FL	Con_RF_U.FL	IPEX-3x3mm	SMD	Rating?	RF	U.FL			
59	K1	12V	SW_Relay_SPDT	Relay 18.85x15.35x15.70	Dip	Rating?	SPDT	12V			
60	K2	12V	SW_Relay_SPDT	Relay 18.85x15.35x15.70	Dip	Rating?	SPDT	12V			
61	K3	12V	SW_Relay_SPDT	Relay 18.85x15.35x15.70	Dip	Rating?	SPDT	12V			
62	L1	10u	Ind_SMD	L_7	Package?	3.8A	Type?	10u			
63	L2	10u	Ind_SMD	L_7	Package?	3.8A	Type?	10u			
64	MC1	M66	ModSen_Com_M66	m66	Dip	Rating?	GSM-GPRS	M66			
65	MC2	RXB22	ModSen_Com_RXB22_433	RF_ETRXB	Dip	433M	Learning	RXB22			
66	MP1	M3	Other_Mech_Screw	SCREW-M3	Package?	Rating?	Screw	M3			
67	MP2	M3	Other_Mech_Screw	SCREW-M3	Package?	Rating?	Screw	M3			
68	MP3	M3	Other_Mech_Screw	SCREW-M3	Package?	Rating?	Screw	M3			
69	MS1	AHT20	ModSen_AHT20	AHT20	Dip	Rating?	Air T&H	AHT20			
70	P1	10K	Res_Multi	Multi turn 01	Package?	Rating?	Type?	10K			
71	P2	Value?	Con_Power_3	Phoenix_3PIN_RA_P5.08mm	Dip	3b	Type?	Value?			
72	P3	2'Pin	Con_Power_2	Phoenix_2PIN_RA_P5.08mm	Package?	Rating?	Type?	2'Pin			
73	P4	3x2	Con_Prog_MKII ISP	IDC_2X3	Package?	Rating?	Type?	3x2			
74	P6	2'Pin	Con_Power_2	Phoenix_2PIN_RA_P5.08mm	Package?	Rating?	Type?	2'Pin			
75	Q2	NPN	Semi_BJT_BC817	SOT23_N	Package?	Rating?	Type?	NPN			
76	Q3	NPN	Semi_BJT_BC817	SOT23_N	Package?	Rating?	Type?	NPN			
77	R1	49.9b	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	1%	49.9b			
78	R2	17.8K	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	1%	17.8K			
79	R3	100K	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	1%	100K			
80	R4	49.9b	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	1%	49.9b			
81	R5	13.7K	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	1%	13.7K			
82	R6	100K	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	1%	100K			
83	R7	1.8K	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	10%	1.8K			
84	R8	680b	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	10%	680b			
85	R9	100b	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	10%	100b			
86	R10	220b	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	10%	220b			
87	R11	10K	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	10%	10K			
88	R12	1.8K	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	10%	1.8K			
89	R13	1.8K	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	10%	1.8K			
90	R14	1.8K	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	10%	1.8K			
91	R16	100b	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	10%	100b			
92	R17	4.7K	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	10%	4.7K			
						Title: <b>Bill of Materials</b>		Drawn by:		Hossein Bagheri	
						Project: <b>AVR RCS</b>		Revision: <b>1.0</b>		 <b>aKaReZa</b>	
						Company: <b>github.com/aKaReZa75</b>		Sheet <b>7</b> of <b>8</b>			
A		B		C		D		E		F	

A		B		C		D		E		F	
Bill Of Materials											
Line #	Designator	Comment	Library Ref	Footprint	Package	Rating	Type	Value			
93	R18	47K	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	10%	47K			
94	R19	22b	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	10%	22b			
95	R20	22b	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	10%	22b			
96	R21	22b	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	10%	22b			
97	R22	1K	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	10%	1K			
98	R23	1K	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	10%	1K			
99	R24	5.6K	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	10%	5.6K			
100	R25	4.7K	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	10%	4.7K			
101	R26	47K	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	10%	47K			
102	R33	4.7K	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	10%	4.7K			
103	R34	4.7K	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	10%	4.7K			
104	R35	1K	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	10%	1K			
105	R36	1.8K	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	10%	1.8K			
106	R37	10K	Res_SMD_0805	RES 0805 (2012X06L)	0805	0.125W	10%	10K			
107	S1	PB	SW_PushButton_2_SMD	SW_PB_SMD_2PIN_S	SMD	2b	Vertical	PB			
108	S2	PB	SW_PushButton_2_SMD	SW_PB_SMD_2PIN_S	SMD	2b	Vertical	PB			
109	U1	Value?	IC_Reg_TPS54302	TPS54302	SOT-23-6	S	Switching	Value?			
110	U2	Value?	IC_Reg_TPS54302	TPS54302	SOT-23-6	S	Switching	Value?			
111	U3	3.3V	IC_Reg_AMS1117_3.3	SOT223_M	SOT223	1A	LDO	3.3V			
112	U4	ATmega328P	IC_MCU_ATmega328P_SMD	ATMEGA328	Package?	Rating?	Type?	ATmega328P			
113	U5	ULN2003	IC_Driver_ULN2003	SO16_M	SO-16	Rating?	Driver	ULN2003			
114	Y1	12M	Other_Elec_Xtal_SMD	Crystal SMD	SMD	Rating?	Quartz	12M			
115	Z1	5.1V	Semi_Diod_Zener_SMD	SOD80, LL-34	SOD-80	0.5W	Zener	5.1V			
	</										