

BOCGS SWAMP Full Kit

Item	Description	Qty	Designator	Package
	ENCLOSURE			
1	BOAT - BOCGS B	1		-
	PANEL			
2	BOCGS SWAMP Panel B	1		-
	KITS			
3	Kit Packaging V0.0	1		-
4	BOCGS SWAMP Mounting Kit V1.1	1		-
5	BOCGS SWAMP Hardware Kit V1.0	1		-
6	BOCGS SWAMP Component Kit V0.0	1		-
7	BOCGS SWAMP PCB Set V0.0	1		-

Bill of Materials for BOCGS SWAMP Full Kit V0.0
CGS405 - Boolean Logic Component Kit

Item	Description	Qty	Designator	Package
CAPACITOR				
1	10uF 35V Electrolytic	2	C801, C802	RB-D5.0-P2.0
CONNECTOR				
2	8-pin IC Socket 0.3inch	1	U401	DIP-8
3	Crimp - KK396	4	J801^4	-
4	KK396 - 4-way Crimp Housing	1	J801	3.96MM
5	KK396 - 4-way Straight - Locking Header	1	J801	-
DIODE				
6	1N4148	11	D101, D102, D201, D202, D301, D401, D402, D403, D404, D405, D407	DIODE-0.3
LINEAR				
7	TL072 Dual JFET Opamp	1	U401	DIP-8
INDUCTOR				
8	Ferrite Bead - 0.45uH 7A	2	L801, L802	AXIAL-0.3
RESISTOR				
9	1K0 1% 0.5W Metal Film	10	R107, R111, R206, R210, R306, R307, R401, R402, R407, R410	AXIAL-0.4
10	1K5 1% 0.5W Metal Film	7	R106, R110, R205, R209, R304, R406, R409	AXIAL-0.4
11	4K7 1% 0.5W Metal Film	5	R109, R208, R305, R405, R408	AXIAL-0.4
12	10K 1% 0.5W Metal Film	7	R102, R104, R108, R201, R203, R207, R302	AXIAL-0.4
13	100K 1% 0.5W Metal Film	9	R101, R103, R105, R202, R204, R301, R303, R403, R404	AXIAL-0.4
SMD				
14	100nF Ceramic X7R	2	C807, C808	1206
TRANSISTOR				
15	BC557B PNP Transistor	2	Q102, Q203	TO-92
16	BC547B NPN Transistor	4	Q101, Q201, Q202, Q301	TO-92

Bill of Materials for BOCGS SWAMP Full Kit V0.0
CGS336 - Pulse Divider Component Kit

Item	Description	Qty	Designator	Package
CAPACITOR				
1	10nF 5% Ceramic, Medium K	1	C503	RAD-0.2N
2	10nF 63V Polyester	1	C502	RAD-0.2
3	10uF 35V Electrolytic	2	C801, C802	RB-D5.0-P2.0
CONNECTOR				
4	KK396 - 4-way Crimp Housing	1	J801	3.96MM
5	16-pin IC Socket 0.3inch	4	U601, U602, U603, U604	DIP-16
6	8-pin IC Socket 0.3inch	1	U501	DIP-8
7	Crimp - KK396	4	J801^4	-
8	KK396 - 4-way Straight - Locking Header	1	J801	-
DIODE				
9	1N4148	17	D503, D601, D602, D603, D604, D605, D606, D607, D608, D611, D612, D613, D614, D615, D616, D617, D618	DIODE-0.3
LINEAR				
10	TL072 Dual JFET Opamp	1	U501	DIP-8
INDUCTOR				
11	Ferrite Bead - 0.45uH 7A	2	L801, L802	AXIAL-0.3
LOGIC				
12	CD4017 - Decade Counter/Divider	4	U601, U602, U603, U604	DIP-16
RESISTOR				
13	1K0 1% 0.5W Metal Film	7	R703, R706, R709, R712, R715, R718, R721	AXIAL-0.4
14	1K5 1% 0.5W Metal Film	7	R702, R705, R708, R711, R714, R717, R720	AXIAL-0.4
15	10K 1% 0.5W Metal Film	9	R501, R508, R701, R704, R707, R710, R713, R716, R719	AXIAL-0.4
16	15K 1% 0.5W Metal Film	1	R520	AXIAL-0.4
17	100K 1% 0.5W Metal Film	12	R502, R505, R509, R515, R519, R601, R602, R603, R604, R605, R606, R607	AXIAL-0.4
18	4M7 1% 0.5W Metal Film	2	R504, R511	AXIAL-0.4

Bill of Materials for BOCGS SWAMP Full Kit V0.0
CGS336 - Pulse Divider Component Kit

Item	Description	Qty	Designator	Package
	SMD			
19	100nF Ceramic X7R	6	C803, C804, C805, C806, C807, C808	1206
	TRANSISTOR			
20	BC547B NPN Transistor	7	Q701, Q702, Q703, Q704, Q705, Q706, Q707	TO-92

Bill of Materials for BOCGS SWAMP Full Kit V0.0
CGS359B - Interface Component Kit

Item	Description	Qty	Designator	Package
CAPACITOR				
1	47pF 5% Ceramic	8	C201, C202, C211, C212, C221, C222, C231, C232	RAD-0.2N
2	10nF 63V Polyester	4	C101, C102, C103, C104	RAD-0.2
3	100nF Ceramic	10	C303, C304, C305, C306, C307, C308, C309, C310, C311, C312	RAD-0.2N
4	10uF 35V Electrolytic	2	C301, C302	RB-D5.0-P2.0
CONNECTOR				
5	Crimp - KK396	4	J301^4	-
6	KK396 - 4-way Straight - Locking Header	1	J301	-
7	8-pin IC Socket 0.3inch	5	U101, U201, U202, U203, U204	DIP-8
8	KK396 - 4-way Crimp Housing	1	J301	3.96MM
DIODE				
9	1N4148	2	D101, D102	DIODE-0.3
LINEAR				
10	LM393 - Dual Comparator	1	U101	DIP-8
11	TL072 Dual JFET Opamp	4	U201, U202, U203, U204	DIP-8
INDUCTOR				
12	Ferrite Bead - 0.45uH 7A	2	L301, L302	AXIAL-0.3
RESISTOR				
13	Wire Link	1		TO FIT
14	330R 1% 0.5W Metal Film	4	R204, R214, R224, R234	AXIAL-0.4
15	1K0 1% 0.5W Metal Film	4	R108, R120, R125, R130	AXIAL-0.4
16	1K3 1% 0.5W Metal Film	1	R107	AXIAL-0.4
17	2K0 1% 0.5W Metal Film	1	R119	AXIAL-0.4
18	2K2 1% 0.5W Metal Film	2	R124, R129	AXIAL-0.4
19	10K 1% 0.5W Metal Film	4	R110, R111, R112, R128	AXIAL-0.4
20	22K 1% 0.5W Metal Film	1	R113	AXIAL-0.4
21	33K 1% 0.5W Metal Film	1	R114	AXIAL-0.4
22	47K 1% 0.5W Metal Film	9	R103, R104, R106, R115, R116, R117, R118, R131, R132	AXIAL-0.4

Bill of Materials for BOCGS SWAMP Full Kit V0.0
CGS359B - Interface Component Kit

Item	Description	Qty	Designator	Package
23	100K 1% 0.5W Metal Film	13	R123, R201, R202, R203, R211, R212, R213, R221, R222, R223, R231, R232,	AXIAL-0.4
			R233	
24	150K 1% 0.5W Metal Film	1	R101	AXIAL-0.4
25	220K 1% 0.5W Metal Film	2	R122, R127	AXIAL-0.4
26	470K 1% 0.5W Metal Film	3	R102, R121, R126	AXIAL-0.4
27	1M0 1% 0.5W Metal Film	1	R105	AXIAL-0.4
	TRANSISTOR			
28	BC547B NPN Transistor	3	Q101, Q103, Q104	TO-92
29	BC557B PNP Transistor	2	Q102, Q105	TO-92

Bill of Materials for BOCGS SWAMP Full Kit V0.0
CGS359A - Column Component Kit

Item	Description	Qty	Designator	Package
	CAPACITOR			
1	470pF 10% Ceramic	1	C101	RAD-0.2N
2	10nF 63V Polyester	1	C102	RAD-0.2
3	22nF 63V Polyester	1	C103	RAD-0.2
	DIODE			
4	1N4148	5	D101, D102, D104, D105, D106	DIODE-0.3
	RESISTOR			
5	680R 1% 0.5W Metal Film	1	R112	AXIAL-0.4
6	820R 1% 0.5W Metal Film	1	R111	AXIAL-0.4
7	1K2 1% 0.5W Metal Film	1	R110	AXIAL-0.4
8	47K 1% 0.5W Metal Film	3	R101, R102, R109	AXIAL-0.4
9	100K 1% 0.5W Metal Film	1	R104	AXIAL-0.4
10	150K 1% 0.5W Metal Film	3	R105, R106, R108	AXIAL-0.4
11	220K 1% 0.5W Metal Film	4	R113, R114, R115, R116	AXIAL-0.4
12	470K 1% 0.5W Metal Film	1	R107	AXIAL-0.4
13	1M0 1% 0.5W Metal Film	1	R103	AXIAL-0.4
	TRANSISTOR			
14	BC557B PNP Transistor	3	Q101, Q102, Q103	TO-92
15	BC547B NPN Transistor	1	Q104	TO-92

Bill of Materials for BOCGS SWAMP Full Kit V0.0
CGS31 - Digital Noise Component Kit

Item	Description	Qty	Designator	Package
	CAPACITOR			
1	47pF 5% Ceramic	2	MIXER^2	RAD-0.2N
2	1nF 63V Polyester	1		RAD-0.2
3	2.2nF 63V Polyester	2		RAD-0.2
4	4n7 63V Polyester	1		RAD-0.2
5	15nF 63V Polyester	1		RAD-0.2
6	100nF Ceramic	6		RAD-0.2N
7	0.47uF 35V Electrolytic	1		RB-D6.3-P2.5
8	10uF 35V Electrolytic	6		RB-D5.0-P2.0
9	100nF Ceramic X7R	2		1206
	CONNECTOR			
10	16-pin IC Socket 0.3inch	1		DIP-16
11	8-pin IC Socket 0.3inch	3		DIP-8
12	Crimp - KK396	20		-
13	KK396 - 4-way Crimp Housing	5		3.96MM
14	KK396 - 4-way Straight - Locking Header	5		-
15	14-pin IC Socket 0.3inch	2		DIP-14
	DIODE			
16	1N4148	4		DIODE-0.3
	LINEAR			
17	TL072 Dual JFET Opamp	3		DIP-8
	INDUCTOR			
18	Ferrite Bead - 0.45uH 7A	6		AXIAL-0.3
	LOGIC			
19	CD4046 - PLL	1		DIP-16
20	CD4006 - 18-Stage Static Shift Register	1		DIP-14
21	CD4030 - Quad EXOR	1		DIP-14

Bill of Materials for BOCGS SWAMP Full Kit V0.0
CGS31 - Digital Noise Component Kit

Item	Description	Qty	Designator	Package
	RESISTOR			
22	Wire Link	2	NOISE^2	TO FIT
23	330R 1% 0.5W Metal Film	2	MIXER^2	AXIAL-0.4
24	1K0 1% 0.5W Metal Film	4		AXIAL-0.4
25	1K8 1% 0.5W Metal Film	2		AXIAL-0.4
26	4K7 1% 0.5W Metal Film	2	RL^2	AXIAL-0.4
27	10K 1% 0.5W Metal Film	10		AXIAL-0.4
28	15K 1% 0.5W Metal Film	1		AXIAL-0.4
29	18K 1% 0.5W Metal Film	1		AXIAL-0.4
30	33K 1% 0.5W Metal Film	1		AXIAL-0.4
31	100K 1% 0.5W Metal Film	14	MIXER^11, NOISE^3	AXIAL-0.4
32	1M0 1% 0.5W Metal Film	1		AXIAL-0.4
33	4M7 1% 0.5W Metal Film	1		AXIAL-0.4
	TRANSISTOR			
34	BC547B NPN Transistor	2		TO-92

Bill of Materials for BOCGS SWAMP Full Kit V0.0
CGS13 - Gated Comparator Component Kit

Item	Description	Qty	Designator	Package
CAPACITOR				
1	1nF 63V Polyester	2		RAD-0.2
2	100nF Ceramic	5		RAD-0.2N
3	10uF 35V Electrolytic	3		RB-D5.0-P2.0
CONNECTOR				
4	16-pin IC Socket 0.3inch	1		DIP-16
5	8-pin IC Socket 0.3inch	3		DIP-8
6	KK396 - 4-way Crimp Housing	1		3.96MM
7	KK396 - 4-way Straight - Locking Header	1		-
8	Crimp - KK396	4		-
DIODE				
9	1N4148	2		DIODE-0.3
LINEAR				
10	TL072 Dual JFET Opamp	2		DIP-8
11	LM393 - Dual Comparator	1		DIP-8
INDUCTOR				
12	Ferrite Bead - 0.45uH 7A	2		AXIAL-0.3
LOGIC				
13	CD4015 - Dual 4-bit Static Shift-register	1		DIP-16
RESISTOR				
14	Wire Link	6		TO FIT
15	10R 1% 0.5W Metal Film	1		AXIAL-0.4
16	1K0 1% 0.5W Metal Film	12	R1, R2, R3, RA^9	AXIAL-0.4
17	1K5 1% 0.5W Metal Film	9	RB^9	AXIAL-0.4
18	2K2 1% 0.5W Metal Film	9	RL^9	AXIAL-0.4
19	10K 1% 0.5W Metal Film	7		AXIAL-0.4
20	15K 1% 0.5W Metal Film	4		AXIAL-0.4

Bill of Materials for BOCGS SWAMP Full Kit V0.0
CGS13 - Gated Comparator Component Kit

Item	Description	Qty	Designator	Package
21	47K 1% 0.5W Metal Film	3		AXIAL-0.4
22	100K 1% 0.5W Metal Film	17		AXIAL-0.4
23	200K 1% 0.5W Metal Film	10		AXIAL-0.4
	SMD			
24	100nF Ceramic X7R	9		1206
	TRANSISTOR			
25	BC557B PNP Transistor	1		TO-92
26	BC547B NPN Transistor	9		TO-92

Bill of Materials for BOCGS SWAMP Full Kit V0.0
BOAT [BOCGS SWAMP Mounting Kit]

Item	Description	Qty	Designator	Package
CONNECTOR				
1	MIC - 4-pin Male Panel	1	BOAT	-
2	MIC - 4-pin Female Plug	1	BOAT	-
3	Crimp - KK254	4	J17^4	-
4	4-way 0.1inch Crimp Housing	1	J17	-
5	4-way 0.1inch Straight Header	1	J17	2.54MM
HARDWARE				
6	M3 x 10mm Bolt PH	4	MH1, MH32, MH33, MH64	-
7	M3 Nut	4	MH1, MH32, MH33, MH64	-
8	M3 x 3mm Spacer Nylon Untapped	4	MH1, MH32, MH33, MH64	-

BOCGS SWAMP Hardware Kit

Item	Description	Qty	Designator	Package
	KITS			
1	CGS336 - Pulse Divider Hardware Kit V2.0	1		-
2	CGS405 - Boolean Logic Hardware Kit P0.0	1		-
3	BOCGS359 - Sequencer Hardware Kit V0.2	1		-
4	BOCGS31 - Digital Noise Hardware Kit V0.2	1		-
5	BOCGS13 - Gated Comparator Hardware Kit V0.0	1		-

Bill of Materials for BOCGS SWAMP Full Kit V0.0
BOCGS359 - Sequencer Hardware Kit

Item	Description	Qty	Designator	Package
	CONNECTOR			
1	4mm Socket - Yellow [Logic OUT]	10	ALL_EVENTS, COMMON, STAGE1, STAGE2, STAGE3, STAGE4, STAGE5, STAGE6, STAGE7, STAGE8	-
2	4mm Socket - Green [DC OUT]	4	A, B, C, D	-
3	4mm Socket - Red [Logic IN]	10	STAGE1, STAGE2, STAGE3, STAGE4, STAGE5, STAGE6, STAGE7, STAGE8, STEP_LEFT, STEP_RIGHT	-
	HARDWARE			
4	KNOB - Serge 1900H	32	STAGE11, STAGE12, STAGE13, STAGE14, STAGE21, STAGE22, STAGE23, STAGE24, STAGE31, STAGE32, STAGE33, STAGE41, STAGE42, STAGE43, STAGE44, STAGE51, STAGE52, STAGE53, STAGE54, STAGE61, STAGE62, STAGE63, STAGE64, STAGE71, STAGE72, STAGE73, STAGE74, STAGE81, STAGE82, STAGE83, STAGE84, STAGE334	18T
	OPTO-ELECTRONIC			
5	LED Panel Indicator - YELLOW	8	STAGE1, STAGE2, STAGE3, STAGE4, STAGE5, STAGE6, STAGE7, STAGE8	-
	POTENTIOMETER			
6	100KB LIN - 18T Spline	32	STAGE11, STAGE12, STAGE13, STAGE14, STAGE21, STAGE22, STAGE23, STAGE24, STAGE31, STAGE32, STAGE33, STAGE41, STAGE42, STAGE43, STAGE44, STAGE51, STAGE52, STAGE53, STAGE54, STAGE61, STAGE62, STAGE63, STAGE64, STAGE71, STAGE72, STAGE73, STAGE74, STAGE81, STAGE82, STAGE83, STAGE84, STAGE334	ALPHA 16MM
	SWITCH			
7	SPDT PB Panel [ON-MOM]	8	STAGE1, STAGE2, STAGE3, STAGE4, STAGE5, STAGE6, STAGE7, STAGE8	-

Bill of Materials for BOCGS SWAMP Full Kit V0.0
BOCGS31 - Digital Noise Hardware Kit

Item	Description	Qty	Designator	Package
	CONNECTOR			
1	4mm Socket - White [AC OUT]	2	PINK, WHITE	-
2	4mm Socket - Blue [DC IN]	1	CLOCK_RATE	-
3	4mm Socket - Green [DC OUT]	1	RANDOM_GATE	-
4	4mm Socket - Red [Logic IN]	1	CLOCK	-
	HARDWARE			
5	KNOB - Serge 1900H	1	CLOCK_RATE	18T
	OPTO-ELECTRONIC			
6	LED Panel Indicator - RED	1	GATE	-
	POTENTIOMETER			
7	100KB LIN - 18T Spline	1	CLOCK_RATE	ALPHA 16MM
	SWITCH			
8	SPDT Panel [ON-ON]	1	INTERNAL	-

BOCGS13 - Gated Comparator Hardware Kit

Item	Description	Qty	Designator	Package
CONNECTOR				
1	4mm Socket - Red [Logic IN]	3	CLOCK, LOOP_ENABLE, LOOP_IN	-
2	4mm Socket - Green [DC OUT]	4	MIX, MIX_INV, RANDOM, RANDOM_INV	-
3	4mm Socket - Blue [DC IN]	2	IN, SENSE	-
4	4mm Socket - Yellow [Logic OUT]	9	GATE1, GATE2, GATE3, GATE4, GATE5, GATE6, GATE7, GATE8, OUT	-
HARDWARE				
5	KNOB - Serge 1900H	11	GATE1, GATE2, GATE3, GATE4, GATE5, GATE6, GATE7, GATE8, RANGE, SENSE_B, SENSE_S	18T
OPTO-ELECTRONIC				
6	LED Panel Indicator - YELLOW	9	COMPARATOR, GATE1, GATE2, GATE3, GATE4, GATE5, GATE6, GATE7, GATE8	-
POTENTIOMETER				
7	10KB LIN - 18T Spline	1	RANGE	ALPHA 16MM
8	100KB LIN - 18T Spline	10	GATE1, GATE2, GATE3, GATE4, GATE5, GATE6, GATE7, GATE8, SENSE_A, SENSE_B	ALPHA 16MM
SWITCH				
9	SPDT Panel [ON-ON]	1	LOOP_ENABLE	-
10	SPDT Panel. [ON-OFF-MOM]	1	MANUAL_LOOP	-

BOCGS SWAMP PCB Set

Item	Description	Qty	Designator	Package
	PCB			
1	CGS336 - Pulse Divider PCB V2.0	1		-
2	CGS405 - Boolean Logic PCB P0.0	1		-
3	CGS13 - Gated Comparator V0.0	1		-
4	CGS359A - Stage PCB V1.0	8		-
5	CGS359B - Interface PCB V1.0	1		-
6	CGS31 - Digital Noise PCB V1.2	1		-
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