

Bill of Materials for ES16 - Extended ADSR Component Kit V0.0 - Column 1

Item	Description	Qty	Designator	Package
	CAPACITOR			
1	47pF 5% Ceramic	1	C201	RAD-0.2N
2	100nF Ceramic Capacitor	2	C202, C203	RAD-0.2N
	CONNECTOR			
3	IDC16 RA Box Header	1	J101	2.54MM
4	8-pin IC Socket 0.3inch	1	U201	DIP-8
	DIODE			
5	1N4148	2	D201, D202	DIODE-0.3
	LINEAR			
6	TL072 Dual JFET Opamp	1	U201	DIP-8
	RESISTOR			
7	2K0 1% 0.5W Metal Film	5	R103, R106, R109, R111, R205	AXIAL-0.4
8	3K3 1% 0.5W Metal Film	2	R208, R212	AXIAL-0.4
9	8K2 1% 0.5W Metal Film	1	R209	AXIAL-0.4
10	22K 1% 0.5W Metal Film	1	R211	AXIAL-0.4
11	33K 1% 0.5W Metal Film	6	R101, R104, R107, R110, R204, R206	AXIAL-0.4
12	82K 1% 0.5W Metal Film	5	R102, R105, R108, R202, R207	AXIAL-0.4
13	100K 1% 0.5W Metal Film	3	R201, R203, R210	AXIAL-0.4

Bill of Materials for ES16 - Extended ADSR Component Kit V0.0 - Column 3

Item	Description	Qty	Designator	Package
CAPACITOR				
1	100pF 5% Ceramic	1	C102	RAD-0.2N
2	47nF 63V Polyester	1	C101	RAD-0.2
3	100nF Ceramic Capacitor	2	C201, C202	RAD-0.2N
CONNECTOR				
4	IDC16 RA Box Header	1	J201	2.54MM
5	1x4 Pin 9mm Header	1	J302	2.54MM
6	1x3 Open Pin Header	1	JP201	2.54MM
7	1x4 Pin 20mm Header	1	S101	-
8	8-pin IC Socket 0.3inch	1	U101	DIP-8
9	Jumper Shunt	1	JP201	2.54mm
LINEAR				
10	LF353 - Dual JFET Opamp	1	U101	DIP-8
OPTO-ELECTRONIC				
11	3mm Green LED	1	D101	-
POTENTIOMETER				
12	50KB LIN - 18T Spline	2	P201, P202	ALPHA 16MM
RESISTOR				
13	330R 1% 0.5W Metal Film	2	R103, R109	AXIAL-0.4
14	1K0 1% 0.5W Metal Film	1	R104	AXIAL-0.4
15	22K 1% 0.5W Metal Film	1	R108	AXIAL-0.4
16	47K5 1% 0.5W Metal Film	1	R101	AXIAL-0.4
17	51K1 1% 0.5W Metal Film	1	R102	AXIAL-0.4
18	2M2 1% 0.5W Metal Film	1	R107	AXIAL-0.4
19	22M 5% 0.25W Metal Glazed	1	R106	AXIAL-0.4
SWITCH				
20	SPDT PCB RA [ON-OFF-ON]	1	S101	7103

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Item	Description	Qty	Designator	Package
	TRANSISTOR			
21	BC547B NPN Transistor	2	Q101, Q102	TO-92

Bill of Materials for ES16 - Extended ADSR Component Kit V0.0 - Main

Item	Description	Qty	Designator	Package
CAPACITOR				
1	10pF 5% Ceramic	1	C202	RAD-0.2N
2	47pF 5% Ceramic	1	C201	RAD-0.2N
3	220pF 5% Ceramic	2	C102, C103	RAD-0.2N
4	1nF 63V Polyester	1	C104	RAD-0.2
5	10nF 5% Ceramic, Medium K	1	C509	RAD-0.2N
6	22nF 63V Polyester	1	C101	RAD-0.2
7	100nF Ceramic Capacitor	5	C505, C506, C510, C511, C512	RAD-0.2N
8	10uF 35V Tantalum	1	C105	RB-D7.5-P5.0
9	10uF 35V Electrolytic	2	C501, C502	RB-D5.0-P2.0
CONNECTOR				
10	IDC16 Box Header	1	J501	2.54MM
11	1x3 Open Pin Header	2	JP1, JP2	2.54MM
12	IDC16 Receptacle	3	J101, J201, J301	-
13	8-pin IC Socket 0.3inch	1	U201	DIP-8
14	14-pin IC Socket 0.3inch	4	U101, U102, U103, U203	DIP-14
15	Jumper Shunt	2	JP1, JP2	2.54mm
DIODE				
16	5.1V 2% 500mW	1	D103	DIODE-0.3
17	1N4148	4	D101, D102, D201, D202	DIODE-0.3
LINEAR				
18	LM324 - Quad opamp	1	U103	DIP-14
19	LF353 - Dual JFET Opamp	1	U201	DIP-8
INDUCTOR				
20	Ferrite Bead - 0.45uH 7A	2	L501, L502	-
LOGIC				
21	CD4069 - Hex Inverter Unbuffered	1	U101	DIP-14
22	CD4016 - Quad Analogue switch	1	U203	DIP-14

Bill of Materials for ES16 - Extended ADSR Component Kit V0.0 - Main

Item	Description	Qty	Designator	Package
	LOGIC - continued			
23	CD4001 - Quad 2-input NOR Gate	1	U102	DIP-14
	RESISTOR			
24	680R 1% 0.5W Metal Film	1	R113	AXIAL-0.4
25	22K 1% 0.5W Metal Film	1	R210	AXIAL-0.4
26	47K 1% 0.5W Metal Film	2	R205, R206	AXIAL-0.4
27	47K5 1% 0.5W Metal Film	2	R207, R208	AXIAL-0.4
28	82K 1% 0.5W Metal Film	2	R112, R209	AXIAL-0.4
29	100K 1% 0.5W Metal Film	5	R101, R102, R104, R108, R109	AXIAL-0.4
30	330K 1% 0.5W Metal Film	5	R103, R105, R106, R107, R110	AXIAL-0.4
31	470K 1% 0.5W Metal Film	1	R111	AXIAL-0.4
	TRANSISTOR			
32	BC557B PNP Transistor	1	Q103	TO-92
33	BCM856DS Dual Matched PNP	1	Q201	SOT-457
34	BCM847DS Dual Matched NPN	2	Q101, Q202	SOT-457
	UNITS			
35	Panther - IDC16 - 24cm	1	J501	-

Bill of Materials for ES16 - Extended ADSR Hardware Kit V0.0 - Column 3

Item	Description	Qty	Designator	Package
	CONNECTOR			
1	3.5mm Mono PCB Socket c/w Nut - Green	1	J302	-
	HARDWARE			
2	KNOB - Panther Hi-contrast Blue	2	P201, P202	18T SPLINE

Bill of Materials for ES16 - Extended ADSR PCB Set V0.0 - Column 3

Item	Description	Qty	Designator	Package
	PCB			
1	Panther Carrier PCB V1A	2	J302, S101	-

