Bill of Materials for ES37 - Quantizer Full Kit P0.1

Item	Description	Qty	Designator	Package
	HARDWARE			
1	M3 Thumbscrew	2		-
2	M3 x 6mm Bolt PH	2		-
	PANEL			
3	ES37 - Quantizer Front Panel V0.0	1		-
	KITS			
4	ES37 - Quantizer PCB Set P0.1	1		-
5	ES37 - Quantizer Hardware Kit P0.1	1		-
6	ES37 - Quantizer Component Kit P0.1	1		-

Item	Description	Qty	Designator	Package
	CAPACITOR			
1	10nF 5% Ceramic, Medium K	9	C401, C402, C403, C404, C405, C406, C407, C408, C410	RAD-0.2N
2	100nF Ceramic Capacitor	1	C409	RAD-0.2N
	CONNECTOR			
3	IDC12 RA Box Header	1	J407	-
4	1x4 Pin 20mm Header	1	S401	-
5	1x4 Pin 9mm Header	4	J401, J402, J403, J404	2.54MM
6	16-pin IC Socket 0.3inch	1	U401	DIP-16
7	5-way 0.1inch Straight - Locking Header	1	J405	2.54MM
	LOGIC			
8	CD4051 - Single 8-channel Multiplexer	1	U401	DIP-16
	RESISTOR			
9	15K 1% 0.5W Metal Film	1	R415	AXIAL-0.4
10	33K 1% 0.5W Metal Film	8	R402, R404, R406, R408, R410, R411, R412, R414	AXIAL-0.4
11	43K 1% 0.5W Metal Film	1	R413	AXIAL-0.4
12	100K 1% 0.5W Metal Film	4	R401, R403, R405, R407	AXIAL-0.4
	SWITCH			
13	SPDT PCB RA [ON-OFF-ON]	1	S401	7103
	TRANSISTOR			
14	2N3904 NPN Transistor	1	Q401	TO-92

Item	Description	Qty	Designator	Package
	CAPACITOR			
1	82pF 5% Ceramic	4	C502, C504, C506, C508	RAD-0.2N
2	10nF 63V Polyester	4	C501, C503, C505, C507	RAD-0.2
3	100nF Ceramic Capacitor	5	C509, C510, C511, C512, C513	RAD-0.2N
	CONNECTOR			
4	IDC12 RA Box Header	1	J506	-
5	1x4 Pin 20mm Header	1	S501	-
6	1x4 Pin 9mm Header	4	J501, J502, J503, J504	2.54MM
7	8-pin IC Socket 0.3inch	2	U502, U503	DIP-8
8	16-pin IC Socket 0.3inch	1	U501	DIP-16
	LINEAR			
9	LF353 - Dual JFET Opamp	2	U502, U503	DIP-8
	LOGIC			
10	CD4051 - Single 8-channel Multiplexer	1	U501	DIP-16
	RESISTOR			
11	330R 1% 0.5W Metal Film	4	R502, R504, R506, R508	AXIAL-0.4
12	15K 1% 0.5W Metal Film	1	R511	AXIAL-0.4
13	22K 1% 0.5W Metal Film	4	R501, R503, R505, R507	AXIAL-0.4
14	33K 1% 0.5W Metal Film	1	R510	AXIAL-0.4
15	43K 1% 0.5W Metal Film	1	R509	AXIAL-0.4
	SWITCH			
16	SPDT PCB RA [ON-OFF-ON]	1	S501	7103
	TRANSISTOR			
17	2N3904 NPN Transistor	1	Q501	TO-92

Item	Description	Qty	Designator	Package
	CAPACITOR			
1	82pF 5% Ceramic	2	C101, C203	RAD-0.2N
2	220pF 5% Ceramic	2	C201, C202	RAD-0.2N
3	10nF 5% Ceramic, Medium K	1	C317	RAD-0.2N
4	100nF Ceramic Capacitor	7	C305, C306, C311, C312, C313, C314, C315	RAD-0.2N
5	10uF 35V Tantalum	1	C316	RB-D7.5-P5.0
6	10uF 35V Electrolytic	2	C301, C302	RB-D5.0-P2.0
	CONNECTOR			
7	IDC10 Box Header	1	J301	2.54MM
8	IDC12 Receptacle	2	J302, J303	-
9	1x3 Open Pin Header	1	JP102	2.54MM
10	8-pin IC Socket 0.3inch	2	U202, U203	DIP-8
11	14-pin IC Socket 0.3inch	1	U101	DIP-14
12	16-pin IC Socket 0.3inch	4	U102, U103, U104, U201	DIP-16
13	Jumper Shunt	1	JP102	2.54mm
	LINEAR			
14	TLC7524 - 8-bit D/A Converter	1	U201	DIP-16
15	TL431 - Precision Programmable Reference	1	D301	TO-92
16	LF353 - Dual JFET Opamp	1	U203	DIP-8
17	LM311 - Comparator	1	U202	DIP-8
	INDUCTOR			
18	Ferrite Bead - 0.45uH 7A	2	L301, L302	-
	LOGIC			
19	CD4093 - Quad 2-input NAND Schmitt trigger	1	U101	DIP-14
20	CD4520 - Dual Binary Up-Counter	3	U102, U103, U104	DIP-16
	RESISTOR			
21	330R 1% 0.5W Metal Film	1	R206	AXIAL-0.4
22	6K8 1% 0.5W Metal Film	1	R301	AXIAL-0.4

Item	Description	Qty	Designator	Package
	RESISTOR - continued			
23	15K 1% 0.5W Metal Film	2	R201, R202	AXIAL-0.4
24	33K 1% 0.5W Metal Film	1	R101	AXIAL-0.4
25	41K2 1% 0.5W Metal Film	1	R302	AXIAL-0.4
26	47K 1% 0.5W Metal Film	1	R205	AXIAL-0.4
27	82K5 1% 0.5W Metal Film	1	R304	AXIAL-0.4
28	100K 1% 0.5W Metal Film	1	R102	AXIAL-0.4
29	280K 1% 0.5W Metal Film	1	R303	AXIAL-0.4
30	3M3 1% 0.5W Metal Film	1	R203	AXIAL-0.4
	TRIMPOT			
31	50K 25TV Cermet	1	P301	3296W
	UNITS			
32	Panther - IDC16-10 - 24cm	1	J301	-

Item	Description	Qty	Designator	Package
	CONNECTOR			
1	3.5mm Mono PCB Socket c/w Nut - Blue	4	J401, J402, J403, J404	-
2	3.5mm Mono PCB Socket c/w Nut - Red	1	J406	-

Item	Description	Qty	Designator	Package
	CONNECTOR			
1	3.5mm Mono PCB Socket c/w Nut - Green	4	J501, J502, J503, J504	-
2	3.5mm Mono PCB Socket c/w Nut - Red	1	J506	-

Item	Description	Qty	Designator	Package
	PCB			
1	ES37 - Quantizer Column 2 PCB P0.1	1		-
2	ES37 - Quantizer Column 1 PCB P0.1	1		-
3	ES37 - Quantizer Main PCB P0.1	1		-
4	Panther Carrier PCB V1A	2		-
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