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Bill of Materials for ED147 - Polydac-8 [4mm] Full Kit V5.0
Voice 1 [ED147 - Polydac-8 Component Kit]

Item	Description	Qty	Designator	Package
	CAPACITOR			
1	33pF 5% Ceramic	1	C102	RAD-0.2N
2	10nF 63V Polyester	3	C101, C103, C104	RAD-0.2
3	100nF Ceramic	4	C301, C302, C303, C304	RAD-0.2N
4	10uF 35V Electrolytic	2	C201, C202	RB-D5.0-P2.0
5	47uF Electrolytic	1	C305	RB-D5-P2.5
	CONNECTOR			
6	IDC16 RA Box Header	1	J201	2.54MM
	DIODE			
7	5.1V 5% 500mW	1	D301	DIODE-0.3
	LINEAR			
8	NCS20072 - Dual RRO CMOS Opamp	1	U102	SO-8
9	NCV20074 - Quad RRO CMOS Opamp	1	U101	SO-14
	OPTO-ELECTRONIC			
10	3mm HE-Yellow LED	1	D101	-
	RESISTOR			
11	75R 1% 0.5W Metal Film	4	R108, R109, R110, R115	AXIAL-0.4
12	470R 1% 0.5W Metal Film	1	R301	AXIAL-0.4
13	2K2 1% 0.5W Metal Film	1	R111	AXIAL-0.4
14	3K3 1% 0.5W Metal Film	1	R112	AXIAL-0.4
15	4K7 1% 0.5W Metal Film	1	R114	AXIAL-0.4
16	6K8 1% 0.5W Metal Film	1	R113	AXIAL-0.4
17	10K 1% 0.5W Metal Film	7	R101, R102, R103, R104, R105, R106, R107	AXIAL-0.4
	TRANSISTOR			
18	2N3904 NPN Transistor	1	Q101	TO-92

Bill of Materials for ED147 - Polydac-8 [4mm] Full Kit V5.0

Voice 2 [ED147 - Polydac-8 Component Kit]

Item	Description	Qty	Designator	Package
	CAPACITOR			
1	33pF 5% Ceramic	1	C102	RAD-0.2N
2	10nF 63V Polyester	3	C101, C103, C104	RAD-0.2
3	100nF Ceramic	4	C301, C302, C303, C304	RAD-0.2N
4	10uF 35V Electrolytic	2	C201, C202	RB-D5.0-P2.0
5	47uF Electrolytic	1	C305	RB-D5-P2.5
	CONNECTOR			
6	IDC16 RA Box Header	1	J201	2.54MM
	DIODE			
7	5.1V 5% 500mW	1	D301	DIODE-0.3
	LINEAR			
8	NCS20072 - Dual RRO CMOS Opamp	1	U102	SO-8
9	NCV20074 - Quad RRO CMOS Opamp	1	U101	SO-14
	OPTO-ELECTRONIC			
10	3mm HE-Yellow LED	1	D101	-
	RESISTOR			
11	75R 1% 0.5W Metal Film	4	R108, R109, R110, R115	AXIAL-0.4
12	470R 1% 0.5W Metal Film	1	R301	AXIAL-0.4
13	2K2 1% 0.5W Metal Film	1	R111	AXIAL-0.4
14	3K3 1% 0.5W Metal Film	1	R112	AXIAL-0.4
15	4K7 1% 0.5W Metal Film	1	R114	AXIAL-0.4
16	6K8 1% 0.5W Metal Film	1	R113	AXIAL-0.4
17	10K 1% 0.5W Metal Film	7	R101, R102, R103, R104, R105, R106, R107	AXIAL-0.4
	TRANSISTOR			
18	2N3904 NPN Transistor	1	Q101	TO-92

Bill of Materials for ED147 - Polydac-8 [4mm] Full Kit V5.0
Voice 3 [ED147 - Polydac-8 Component Kit]

Item	Description	Qty	Designator	Package
	CAPACITOR			
1	33pF 5% Ceramic	1	C102	RAD-0.2N
2	10nF 63V Polyester	3	C101, C103, C104	RAD-0.2
3	100nF Ceramic	4	C301, C302, C303, C304	RAD-0.2N
4	10uF 35V Electrolytic	2	C201, C202	RB-D5.0-P2.0
5	47uF Electrolytic	1	C305	RB-D5-P2.5
	CONNECTOR			
6	IDC16 RA Box Header	1	J201	2.54MM
	DIODE			
7	5.1V 5% 500mW	1	D301	DIODE-0.3
	LINEAR			
8	NCS20072 - Dual RRO CMOS Opamp	1	U102	SO-8
9	NCV20074 - Quad RRO CMOS Opamp	1	U101	SO-14
	OPTO-ELECTRONIC			
10	3mm HE-Yellow LED	1	D101	-
	RESISTOR			
11	75R 1% 0.5W Metal Film	4	R108, R109, R110, R115	AXIAL-0.4
12	470R 1% 0.5W Metal Film	1	R301	AXIAL-0.4
13	2K2 1% 0.5W Metal Film	1	R111	AXIAL-0.4
14	3K3 1% 0.5W Metal Film	1	R112	AXIAL-0.4
15	4K7 1% 0.5W Metal Film	1	R114	AXIAL-0.4
16	6K8 1% 0.5W Metal Film	1	R113	AXIAL-0.4
17	10K 1% 0.5W Metal Film	7	R101, R102, R103, R104, R105, R106, R107	AXIAL-0.4
	TRANSISTOR			
18	2N3904 NPN Transistor	1	Q101	TO-92

Bill of Materials for ED147 - Polydac-8 [4mm] Full Kit V5.0
Voice 4 [ED147 - Polydac-8 Component Kit]

Item	Description	Qty	Designator	Package
	CAPACITOR			
1	33pF 5% Ceramic	1	C102	RAD-0.2N
2	10nF 63V Polyester	3	C101, C103, C104	RAD-0.2
3	100nF Ceramic	4	C301, C302, C303, C304	RAD-0.2N
4	10uF 35V Electrolytic	2	C201, C202	RB-D5.0-P2.0
5	47uF Electrolytic	1	C305	RB-D5-P2.5
	CONNECTOR			
6	IDC16 RA Box Header	1	J201	2.54MM
	DIODE			
7	5.1V 5% 500mW	1	D301	DIODE-0.3
	LINEAR			
8	NCS20072 - Dual RRO CMOS Opamp	1	U102	SO-8
9	NCV20074 - Quad RRO CMOS Opamp	1	U101	SO-14
	OPTO-ELECTRONIC			
10	3mm HE-Yellow LED	1	D101	-
	RESISTOR			
11	75R 1% 0.5W Metal Film	4	R108, R109, R110, R115	AXIAL-0.4
12	470R 1% 0.5W Metal Film	1	R301	AXIAL-0.4
13	2K2 1% 0.5W Metal Film	1	R111	AXIAL-0.4
14	3K3 1% 0.5W Metal Film	1	R112	AXIAL-0.4
15	4K7 1% 0.5W Metal Film	1	R114	AXIAL-0.4
16	6K8 1% 0.5W Metal Film	1	R113	AXIAL-0.4
17	10K 1% 0.5W Metal Film	7	R101, R102, R103, R104, R105, R106, R107	AXIAL-0.4
	TRANSISTOR			
18	2N3904 NPN Transistor	1	Q101	TO-92

Bill of Materials for ED147 - Polydac-8 [4mm] Full Kit V5.0

Voice 5 [ED147 - Polydac-8 Component Kit]

Item	Description	Qty	Designator	Package
	CAPACITOR			
1	33pF 5% Ceramic	1	C102	RAD-0.2N
2	100nF Ceramic	2	C101, C102	RAD-0.2N
3	10uF 35V Electrolytic	2	C201, C202	RB-D5.0-P2.0
4	47uF Electrolytic	1	C305	RB-D5-P2.5
	CONNECTOR			
5	IDC16 RA Box Header	1	J201	2.54MM
	DIODE			
6	5.1V 5% 500mW	1	D301	DIODE-0.3
	LINEAR			
7	NCS20072 - Dual RRO CMOS Opamp	1	U101	SO-8
8	NCV20074 - Quad RRO CMOS Opamp	1	U101	SO-14
	OPTO-ELECTRONIC			
9	3mm HE-Yellow LED	1	D101	-
	RESISTOR			
10	75R 1% 0.5W Metal Film	4	R108, R109, R110, R115	AXIAL-0.4
11	470R 1% 0.5W Metal Film	1	R301	AXIAL-0.4
12	2K2 1% 0.5W Metal Film	1	R111	AXIAL-0.4
13	3K3 1% 0.5W Metal Film	1	R112	AXIAL-0.4
14	4K7 1% 0.5W Metal Film	1	R114	AXIAL-0.4
15	6K8 1% 0.5W Metal Film	1	R113	AXIAL-0.4
16	10K 1% 0.5W Metal Film	7	R101, R102, R103, R104, R105, R106, R107	AXIAL-0.4
	TRANSISTOR			
17	2N3904 NPN Transistor	1	Q101	TO-92

Bill of Materials for ED147 - Polydac-8 [4mm] Full Kit V5.0
Voice 6 [ED147 - Polydac-8 Component Kit]

Item	Description	Qty	Designator	Package
	CAPACITOR			
1	33pF 5% Ceramic	1	C102	RAD-0.2N
2	10uF 35V Electrolytic	2	C201, C202	RB-D5.0-P2.0
3	47uF Electrolytic	1	C305	RB-D5-P2.5
	CONNECTOR			
4	IDC16 RA Box Header	1	J201	2.54MM
	DIODE			
5	5.1V 5% 500mW	1	D301	DIODE-0.3
	LINEAR			
6	NCS20072 - Dual RRO CMOS Opamp	1	U101	SO-8
7	NCV20074 - Quad RRO CMOS Opamp	1	U101	SO-14
	OPTO-ELECTRONIC			
8	3mm HE-Yellow LED	1	D101	-
	RESISTOR			
9	75R 1% 0.5W Metal Film	4	R108, R109, R110, R115	AXIAL-0.4
10	470R 1% 0.5W Metal Film	1	R301	AXIAL-0.4
11	2K2 1% 0.5W Metal Film	1	R111	AXIAL-0.4
12	3K3 1% 0.5W Metal Film	1	R112	AXIAL-0.4
13	4K7 1% 0.5W Metal Film	1	R114	AXIAL-0.4
14	6K8 1% 0.5W Metal Film	1	R113	AXIAL-0.4
15	10K 1% 0.5W Metal Film	7	R101, R102, R103, R104, R105, R106, R107	AXIAL-0.4
	TRANSISTOR			
16	2N3904 NPN Transistor	1	Q101	TO-92

Bill of Materials for ED147 - Polydac-8 [4mm] Full Kit V5.0
Voice 7 [ED147 - Polydac-8 Component Kit]

Item	Description	Qty	Designator	Package
	CAPACITOR			
1	33pF 5% Ceramic	1	C102	RAD-0.2N
2	10uF 35V Electrolytic	2	C201, C202	RB-D5.0-P2.0
3	47uF Electrolytic	1	C305	RB-D5-P2.5
	CONNECTOR			
4	IDC16 RA Box Header	1	J201	2.54MM
	DIODE			
5	5.1V 5% 500mW	1	D301	DIODE-0.3
	LINEAR			
6	NCS20072 - Dual RRO CMOS Opamp	1	U101	SO-8
7	NCV20074 - Quad RRO CMOS Opamp	1	U101	SO-14
	OPTO-ELECTRONIC			
8	3mm HE-Yellow LED	1	D101	-
	RESISTOR			
9	75R 1% 0.5W Metal Film	4	R108, R109, R110, R115	AXIAL-0.4
10	470R 1% 0.5W Metal Film	1	R301	AXIAL-0.4
11	2K2 1% 0.5W Metal Film	1	R111	AXIAL-0.4
12	3K3 1% 0.5W Metal Film	1	R112	AXIAL-0.4
13	4K7 1% 0.5W Metal Film	1	R114	AXIAL-0.4
14	6K8 1% 0.5W Metal Film	1	R113	AXIAL-0.4
15	10K 1% 0.5W Metal Film	7	R101, R102, R103, R104, R105, R106, R107	AXIAL-0.4
	TRANSISTOR			
16	2N3904 NPN Transistor	1	Q101	TO-92

Bill of Materials for ED147 - Polydac-8 [4mm] Full Kit V5.0

Voice 8 [ED147 - Polydac-8 Component Kit]

Item	Description	Qty	Designator	Package
	CAPACITOR			
1	33pF 5% Ceramic	1	C102	RAD-0.2N
2	10nF 63V Polyester	4	C201, C202, C204, C205	RAD-0.2
3	100nF Ceramic	12	C101, C102, C103, C104, C402, C405, C409, C410, C411, C412, C413, C414	RAD-0.2N
4	10uF 35V Electrolytic	2	C201, C202	RB-D5.0-P2.0
5	47uF Electrolytic	1	C305	RB-D5-P2.5
	CONNECTOR			
6	IDC16 RA Box Header	1	J201	2.54MM
	DIODE			
7	5.1V 5% 500mW	1	D301	DIODE-0.3
	LINEAR			
8	NCS20072 - Dual RRO CMOS Opamp	1	U101	SO-8
9	NCV20074 - Quad RRO CMOS Opamp	1	U101	SO-14
	OPTO-ELECTRONIC			
10	3mm HE-Yellow LED	1	D101	-
	RESISTOR			
11	75R 1% 0.5W Metal Film	4	R108, R109, R110, R115	AXIAL-0.4
12	470R 1% 0.5W Metal Film	1	R301	AXIAL-0.4
13	2K2 1% 0.5W Metal Film	1	R111	AXIAL-0.4
14	3K3 1% 0.5W Metal Film	1	R112	AXIAL-0.4
15	4K7 1% 0.5W Metal Film	1	R114	AXIAL-0.4
16	6K8 1% 0.5W Metal Film	1	R113	AXIAL-0.4
17	10K 1% 0.5W Metal Film	7	R101, R102, R103, R104, R105, R106, R107	AXIAL-0.4
	TRANSISTOR			
18	2N3904 NPN Transistor	1	Q101	TO-92

Bill of Materials for ED147 - Polydac-8 [4mm] Full Kit V5.0

Column 9 [ED147 - Polydac-8 Component Kit]

Item	Description	Qty	Designator	Package
	CONNECTOR			
1	8-pin IC Socket 0.3inch	1	U102	DIP-8
2	IDC16 RA Box Header	1	J105	2.54MM
3	3.5mm Stereo Socket DPST - PCB	2	J101, J103	-
	DIODE			
4	LM329 - 6V9 Precision	1	D101	TO-92
	HARDWARE			
5	KNOB - HEX PCB - Vertical - Segment Wheel	1	S101	PT65
	LINEAR			
6	LF412 - Dual Bi-FET Opamp	1	U102	DIP-8
	RESISTOR			
7	1K8 1% 0.5W Metal Film	1	R104	AXIAL-0.4
8	4K7 1% 0.5W Metal Film	1	R103	AXIAL-0.4
9	10K 1% 0.5W Metal Film	1	R107	AXIAL-0.4
10	47K 1% 0.5W Metal Film	4	R101, R102, R105, R106	AXIAL-0.4
11	4 x 1K Commoned Resistor Network	1	R108	SIP-5
	SWITCH			
12	HEX PCB Right-angle 5.08mm	1	S101	-
	TRIMPOT			
13	2K MTV Cermet	1	P101	T93YA

Column 10 [ED147 - Polydac-8 Component Kit]

Item	Description	Qty	Designator	Package
	CAPACITOR			
1	100nF Ceramic	2	C101, C102	RAD-0.2N
	CONNECTOR			
2	8-pin IC Socket 0.3inch	1	U101	DIP-8
3	5-PIN DIN Round Panel Socket	2	J101, J102	-
4	IDC10 RA Box Header	1	J103	-
	DIODE			
5	1N4148	1	D101	DIODE-0.3
	HARDWARE			
6	SLEEING - 2.4mm Heatshrink [@ 1cm]	1	D102*4 NB: Fit on to MIDI LED	-
7	Equipment Wire 7/0.2 Red [@ 1cm]	5	J103^5	-
8	Equipment Wire 7/0.2 Yellow [@ 1cm]	10	J101^5, J103^5	-
9	Equipment Wire 7/0.2 Green [@ 1cm]	10	J101^5, J103^5	-
	LINEAR			
10	6N138 - Opto-coupler	1	U101	DIP-8
	OPTO-ELECTRONIC			
11	3mm HE-Green LED	1	D102	-
	POTENTIOMETER			
12	50KB LIN - 18T Spline	2	P101, P102	ALPHA 16MM
	RESISTOR			
13	220R 1% 0.5W Metal Film	4	R101, R102, R105, R106	AXIAL-0.4
14	1K0 1% 0.5W Metal Film	3	R104, R110, R111	AXIAL-0.4
15	1K5 1% 0.5W Metal Film	1	R108	AXIAL-0.4
16	3K3 1% 0.5W Metal Film	1	R103	AXIAL-0.4
17	10K 1% 0.5W Metal Film	1	R109	AXIAL-0.4

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Bill of Materials for ED147 - Polydac-8 [4mm] Full Kit V5.0

Main [ED147 - Polydac-8 Component Kit]

Item	Description	Qty	Designator	Package
	CAPACITOR			
1	18pF 5% Ceramic	2	C103, C104	RAD-0.2N
2	33pF 5% Ceramic	2	C203, C206	RAD-0.2N
3	10nF 63V Polyester	4	C201, C202, C204, C205	RAD-0.2
4	100nF Ceramic	12	C101, C102, C402, C405, C409, C410, C411, C412, C413, C414, C415, C416	RAD-0.2N
5	10uF 35V Electrolytic	2	C401, C407	RB-D5.0-P2.0
6	22uF 50V Electrolytic	3	C403, C404, C408	RB-D5.0-P2.0
7	220uF 25V Electrolytic	1	C417	RB-PD10.0-P5.0
	CONNECTOR			
8	8-pin IC Socket 0.3inch	1	U202	DIP-8
9	16-pin IC Socket 0.3inch	2	U102, U201	DIP-16
10	14-pin IC Socket 0.3inch	1	U205	DIP-14
11	Jumper Shunt	1	JP1	2.54MM
12	1x2 Pin 9mm Header	1	JP1	2.54MM
13	IDC16 Box Header	1	J401	2.54MM
14	40-pin IC Socket 0.6inch	1	U101	DIP-40
15	IDC10 Receptacle	1	J306	2.54MM
16	IDC16 Receptacle	10	J301, J302, J303, J304, J305, J306, J307, J308, J309, J311	2.54MM
17	24-pin IC Socket 0.6inch	2	U204, U206	DIP-24W
	CRYSTAL			
18	16MHz Crystal	1	X101	HC49/4H
	DIODE			
19	1N4004 200V 1A	1	D401	DIODE-0.4
20	BAT48 Schottky Diode	1	D201	DIODE-0.3
	LINEAR			
21	ATMEGA16-16PU	1	U101	DIP-40
22	TL074 Quad JFET Opamp	1	U205	DIP-14
23	78L05 +5V 100mA Fixed Voltage Regulator	1	U401	TO-92

Bill of Materials for ED147 - Polydac-8 [4mm] Full Kit V5.0
Main [ED147 - Polydac-8 Component Kit]

Item	Description	Qty	Designator	Package
	LINEAR - continued			
24	AD8300 - 12-bit Serial A/D Converter	1	U202	DIP-8
25	AD712	1	U203	SO-8
	INDUCTOR			
26	Ferrite Bead - 5A	2	L401, L402	AXIAL-0.3
	LOGIC			
27	CD4099 - 8-bit Addressable Latch	1	U102	DIP-16
28	CD4067 - Analog Multiplexer/Demultiplexer	2	U204, U206	DIP-24W
29	CD4504 - Octal Buffer	1	U201	DIP-16
	RESISTOR			
30	10R 1% 0.5W Metal Film	1	R205	AXIAL-0.4
31	47R 1% 0.5W Metal Film	1	R401	AXIAL-0.4
32	75R 1% 0.5W Metal Film	3	R206, R207, R208	AXIAL-0.4
33	100R 1% 0.5W Metal Film	2	R402, R403	AXIAL-0.4
34	4K7 1% 0.5W Metal Film	1	R201	AXIAL-0.4
35	10K 1% 0.5W Metal Film	2	R104, R108	AXIAL-0.4
36	11K 1% 0.5W Metal Film	1	R203	AXIAL-0.4
37	11K5 1% 0.5W Metal Film	1	R202	AXIAL-0.4
38	22K 1% 0.5W Metal Film	1	R204	AXIAL-0.4
39	5 x 1K Commoned Resistor Network	1	R101	SIP-6
	TRIMPOT			
40	2K MTH Cermet	1	P201	TX93A
	FIRMWARE			
41	FIRM - PolyDAC[X] Firmware V4.0	1	U101	-
	UNITS			
42	Panther - IDC16-10 - 24cm	1	J401	-

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