





Bill of Materials for ES01 - Random Voltage Generator [4mm] Full Kit V0.4  
**Column 2 [ES01 - Random Voltage Generator Component Kit]**

Item	Description	Qty	Designator	Package
<b>CAPACITOR</b>				
1	Do Not Fit	1	C106	-
2	82pF 5% Ceramic	1	C201	RAD-0.2N
3	10nF 63V Polyester	1	C105	RAD-0.2
4	100nF 63V Polyester	1	C104	RAD-0.2
5	100nF Ceramic	2	C301, C302	RAD-0.2N
6	470nF 63V Polyester	2	C102, C103	RAD-0.2X
7	10uF 35V Tantalum	1	C101	RB-D7.5-P5.0
8	4u7 Ceramic X7R	2	C303, C304	0805
<b>CONNECTOR</b>				
9	8-pin IC Socket 0.3inch	2	U101, U201	DIP-8
10	IDC16 RA Box Header	1	J301	2.54MM
<b>DIODE</b>				
11	1N4148	1	D201	DIODE-0.3
<b>LINEAR</b>				
12	LM741 - GP Opamp	1	U201	DIP-8
13	TL082 Dual JFET Opamp	1	U101	DIP-8
<b>INDUCTOR</b>				
14	Ferrite Bead - 5A	2	L101, L102	AXIAL-0.3
<b>OPTO-ELECTRONIC</b>				
15	3mm HE-Yellow LED	1	D202	-
<b>RESISTOR</b>				
16	330R 1% 0.5W Metal Film	1	R109	AXIAL-0.4
17	470R 1% 0.5W Metal Film	1	R110	AXIAL-0.4
18	560R 1% 0.5W Metal Film	1	R203	AXIAL-0.4
19	1K3 1% 0.5W Metal Film	1	R204	AXIAL-0.4



**Main [ES01 - Random Voltage Generator Component Kit]**

Item	Description	Qty	Designator	Package
	<b>CAPACITOR</b>			
1	22pF 10% Ceramic	2	C302, C402	RAD-0.2N
2	470pF 10% Ceramic	1	C203	RAD-0.2N
3	1nF 63V Polyester	1	C202	RAD-0.2
4	10nF 63V Polyester	1	C201	RAD-0.2
5	33nF 63V Polyester	1	C401	RAD-0.2
6	100nF Ceramic	7	C603, C604, C605, C606, C607, C608, C611	RAD-0.2N
7	150nF 63V Polyester	1	C301	RAD-0.2
8	10uF 35V Electrolytic	2	C601, C602	RB-D5.0-P2.0
	<b>CONNECTOR</b>			
9	IDC16 Receptacle	2	J101, J201	2.54MM
10	8-pin IC Socket 0.3inch	3	Q301, U302, U401	DIP-8
11	14-pin IC Socket 0.3inch	1	U201	DIP-14
12	16-pin IC Socket 0.3inch	1	U301	DIP-16
13	IDC10 Box Header	1	J601	2.54MM
	<b>DIODE</b>			
14	1N4148	5	D201, D202, D203, D204, D401	DIODE-0.3
	<b>LINEAR</b>			
15	CA3140 Opamp	2	U302, U401	DIP-8
16	LM13700 - Dual OTA	1	U301	DIP-16
17	LM3900 - Quad Norton Amplifier	1	U201	DIP-14
	<b>INDUCTOR</b>			
18	Ferrite Bead - 5A	2	L601, L602	AXIAL-0.3
	<b>MODULE</b>			
19	Dual Matched PNP Sub-Assembly	1	Q301	-









