

Bill of Materials for ASM321 - Basic VCO Full Kit V0.5
Main [ASM321 - Basic VCO Component Kit]

Item	Description	Qty	Designator	Package
CAPACITOR				
1	180pF 5% Ceramic, Low K	1	C301	RAD-0.2N
2	100nF Ceramic	4	C403, C404, C405, C406	RAD-0.2N
3	10uF 35V Electrolytic	2	C401, C402	RB-D5.0-P2.0
CONNECTOR				
4	16-pin IC Socket 0.3inch	1	U301	DIP-16
5	IDC16 Receptacle	3	J101, J102, J103	-
6	8-pin IC Socket 0.3inch	3	U101, U201, U302	DIP-8
7	14-pin Wirewrap IC Socket 0.3inch	1	ASM1	DIP-14
8	IDC16 Box Header	1	J401	2.54MM
DIODE				
9	BAT48 Schottky Diode	2	D301, D302	DIODE-0.3
HARDWARE				
10	M3 x 20mm Bolt PH	1	ASM1*4	-
11	M3 x 12mm Spacer Threaded Nylon	4	ASM1^4	-
12	M3 Nut	1	ASM1*4	-
LINEAR				
13	LM13700 - Dual OTA	1	U301	DIP-16
14	TL071 JFET Opamp	1	U101	DIP-8
15	TL072 Dual JFET Opamp	1	U302	DIP-8
16	OPA2134 - Audio Opamp	1	U201	DIP-8
INDUCTOR				
17	Ferrite Bead - 0.45uH 7A	2	L401, L402	AXIAL-0.3
RESISTOR				
18	Do Not Fit	2	R203, R204	-
19	Wire Link	3	P202, R101, R102	TO FIT
20	1K0 1% 0.5W Metal Film	7	R209, R210, R291, R309, R312, R313, R318	AXIAL-0.4

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Item	Description	Qty	Designator	Package
21	2K2 1% 0.5W Metal Film	1	R205	AXIAL-0.4
22	3K3 1% 0.5W Metal Film	1	R305	AXIAL-0.4
23	3K6 1% 0.5W Metal Film	1	R208	AXIAL-0.4
24	5K1 1% 0.5W Metal Film	1	R317	AXIAL-0.4
25	10K 1% 0.5W Metal Film	4	R302, R303, R304, R306	AXIAL-0.4
26	11K 1% 0.5W Metal Film	1	R311	AXIAL-0.4
27	15K 1% 0.5W Metal Film	1	R308	AXIAL-0.4
28	20K 1% 0.5W Metal Film	1	R307	AXIAL-0.4
29	47K 1% 0.5W Metal Film	1	R319	AXIAL-0.4
30	68K 1% 0.5W Metal Film	1	R301	AXIAL-0.4
31	100K 1% 0.5W Metal Film	8	R103, R104, R107, R108, R201, R206, R314, R316	AXIAL-0.4
32	330K 1% 0.5W Metal Film	1	R106	AXIAL-0.4
33	430K 1% 0.5W Metal Film	1	R202	AXIAL-0.4
34	470K 1% 0.5W Metal Film	1	R310	AXIAL-0.4
35	560K 1% 0.5W Metal Film	1	R105	AXIAL-0.4
36	634K 1% 0.5W Metal Film	1	R315	AXIAL-0.4
37	2M2 1% 0.5W Metal Film	1	R207	AXIAL-0.4
	TRIMPOT			
38	Do Not Fit	1	P202	3306W
39	10K 25TV Cermet	1	P303	T93YA
40	50K 25TV Cermet	1	P302	T93YA
41	100K 20TV Cermet	3	P301, P304, P305	T93YA
42	500K 25TV Cermet	1	P201	T93YA
43	1M 25TV Cermet	1	P306	T93YA
	KITS			
44	ASM VCO Core Component Kit V1.6	1	ASM1	-
	UNITS			
45	Panther - IDC16 - 24cm	1	J401	-

ASM VCO Core Component Kit

Item	Description	Qty	Designator	Package
	CAPACITOR			
1	18pF 5% Ceramic	1	C203	RAD-0.2N
2	100pF 5% Ceramic	2	C201, C204	RAD-0.2N
3	2200pF 2.5% Polystyrene	1	C202	AXIAL-0.4
4	100nF 63V Polyester	1	C101	RAD-0.2
5	100nF Ceramic	4	C301, C302, C303, C304	RAD-0.2N
6	1uF 35V Tantalum	2	C305, C306	RB-D5.0-P5.0
	CONNECTOR			
7	Jumper Shunt - Red	1	JP100	2.54MM
8	1x2 Pin 9mm Header	1	JP100	2.54MM
9	14-pin IC Socket 0.3inch	1	U101	DIP-14
10	8-pin Wirewrap IC Socket 0.3inch	1	U201	-
			NB: See modification	
11	Strip Line Header - 7-way	2	J1A, J1B	SIL-7
12	8-pin IC Socket 0.3inch	2	Q201, U202	DIP-8
	DIODE			
13	Do Not Fit	4	D301, D302, D303, D304	-
14	1N4148	2	D201, D202	DIODE-0.3
	LINEAR			
15	LM337LZ - Adjustable Negative Voltage Regulator	1	U302	TO-92
16	CA3140 Opamp	1	U201	DIP-8
			NB: See modification	
17	LM311 - Comparator	1	U202	DIP-8
18	LT1014 - Quad Low-drift Opamp	1	U101	-
19	LM317LZ - Adjustable Positive Voltage Regulator	1	U301	TO-92
	RESISTOR			
20	Do Not Fit	2	R302, R305	-
21	TEMPCO - PT146 1K 3500ppm	1	Q201	AXIAL-0.5
22	62R 1% 0.5W Metal Film	1	R108	AXIAL-0.4

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Item	Description	Qty	Designator	Package
			NB: 50ppm	
23	232R 1% 0.5W Metal Film	2	R303, R306	AXIAL-0.4
24	680R 1% 0.5W Metal Film	1	R204	AXIAL-0.4
25	1K4 1% 0.5W Metal Film	2	R301, R304	AXIAL-0.4
26	3K3 1% 0.5W Metal Film	1	R206	AXIAL-0.4
27	10K 1% 0.5W Metal Film	3	R110, R202, R207	AXIAL-0.4
28	13K 1% 0.5W Metal Film	1	R208	AXIAL-0.4
29	15K 1% 0.5W Metal Film	2	R105, R205	AXIAL-0.4
30	56K 1% 0.5W Metal Film	1	R107	AXIAL-0.4
31	68K 1% 0.5W Metal Film	1	R209	AXIAL-0.4
32	91K 1% 0.5W Metal Film	2	R106, R111	AXIAL-0.4
33	100K 1% 0.5W Metal Film	5	R101, R102, R112, R203, R210	AXIAL-0.4
34	100K 0.1% Metal Film	1	R104	AXIAL-0.4
35	887K 1% 0.5W Metal Film	1	R201	AXIAL-0.4
36	1M0 1% 0.5W Metal Film	2	R109, R113	AXIAL-0.4
			NB: R113 - See modification	
37	1M5 1% 0.5W Metal Film	1	R103	AXIAL-0.4
	TRANSISTOR			
38	LS312 - Dual Matched NPN Transistors	1	Q201	DIP-8
39	J108 JFET	1	Q202	TO-92
40	2N3904 NPN Transistor	1	Q203	TO-92
	TRIMPOT			
41	200R 25TV Cermet	2	P301, P302	T93YA
42	10K 25TV Cermet	1	P101	T93YA
43	50K 25TV Cermet	1	P201	T93YA
44	100K 20TV Cermet	1	P100	T93YA

