

Bill Of Materials for 63V3.sch - Part list exclude XO section

Update 4-Dec-07

Item	Ref Des	Qty	Manufacturer	Part Number	Description	Value	Voltage	Price	Total
1	Q23-24 Q29-30	4	TOSHIBA	2SA970BL	PNP LOW NOISE TRANSISTOR	BL		\$ 0.20	\$ 0.80
2	Q21-22 Q27-28	4	TOSHIBA	2SC2240BL	LOW NOISE NPN SILICON TRANSISTOR	BL		\$ 0.20	\$ 0.80
3	Q20	8	TOSHIBA	2SJ74	P-CHANNEL, LOW NOISE JFET	BL/V	Matched	\$ 1.00	\$ 8.00
4	Q41 Q43 Q45 Q46	4	TOSHIBA	2SJ74	Optional, not included	BL	Matched	\$ 1.00	
5	Q50	1	TOSHIBA	2SJ148	MOSFET P CHAN TO-92			\$ 1.00	\$ 1.00
6	Q1 Q3-4 Q6 Q8-9 Q11 Q13-14 Q16 Q18-19 Q25-26 Q31-32	16	TOSHIBA	2SK170	N-CHANNEL, LOW NOISE JFET	BL	Matched	\$ 1.00	\$ 16.00
7	Q49	1	TOSHIBA	2SK982	MOSFET N CHANN TO-92			\$ 1.00	\$ 1.00
8	T1-2	2	MIDCOM	51698-LF3	MIDCOM 51698-LF3 SPDIF PULSE			\$ 2.00	\$ 4.00
9	U4 U11 U17	3	Fairchild	74VHC86	QUADRUPLE 2-INPUT EXCLUSIVE-OR GATE			\$ 0.75	\$ 2.25
10	D21-27 D29 D11-18	16	PHILIPS	BYV27-150	SOFT SCHOXY DIODE 150V 2A			\$ 0.45	\$ 7.20
11	C4 C15 C25 C36	4	Rifa	Use best cap	Film capacitor MKP or 100uF E-cap	10uF	250V	\$10	
12	C3 C14 C24 C35 C84 C85 C87 C88, C89 C90 C223 C229	12	Panasonic FC		ALUMINUM ELECTROLYTIC CAP.	1000uf	35V	\$ 0.45	\$ 5.40
13	C52 C54 C70 C72	4	Panasonic FJ		ALUMINUM ELECTROLYTIC CAP.	100uf	50V	\$ 0.15	\$ 0.60
14	C109 C110 C158-C159	4	Sanyo OS-Con		ALUMINUM ELECTROLYTIC CAP.	180uf	16V	\$ 0.30	\$ 1.20
15	C196 C199 C202 C230 C235 C239 C243	7	Panasonic FC		ALUMINUM ELECTROLYTIC CAP.	120uf	16V	\$ 0.15	\$ 1.05
16	C205 C226	2	Panasonic FC	or Philips	ALUMINUM ELECTROLYTIC CAP.	220uf	35V	\$ 0.20	\$ 0.40
17	C6 C10-11 C17 C20-21 C27 C31-32 C38 C41-42 C49-50 C67-68 C82 C102 C120 C122 C130 C136 C138 C142-145 C151 C169 C171 C179 C185 C187 C191-194 C209-210 C222 C233 C241	42	Panasonic FC		ALUMINUM ELECTROLYTIC CAP.	27uf	35V	\$ 0.15	\$ 6.30
18	C45-46 C59-60 C63-64 C77-78	8	Panasonic FC	Or 390uf when 330uf is out of stock	ALUMINUM ELECTROLYTIC CAP.	330uf	35V	\$ 0.30	\$ 2.40
19	C83 C86	2	Panasonic FC		ALUMINUM ELECTROLYTIC CAP.	390uf	35V	\$ 0.30	\$ 0.60
20	C100 C104 C106 C124 C128 C132 C134 C140 C149 C153 C155 C173 C177 C181 C183 C189	16	Panasonic FC	Or 27uF when 47uF is out of stock	ALUMINUM ELECTROLYTIC CAP.	47uf	25V	\$ 0.15	\$ 2.40
21	C115-116 C164-165	4	Panasonic FC		ALUMINUM ELECTROLYTIC CAP.	470uf	16V	\$ 0.20	\$ 0.80
22	C203-204	2	Feng Hua	10%	Leaded ceramic	0.01uf	50V	\$ 0.10	\$ 0.20
23	C1 C5 C8 C12 C16 C19 C22 C26 C29 C33 C37 C40 C43-44 C47-48 C51 C53 C55-58	108	Epcos or S+M	10%	RADIAL FILM CAPACITOR, MKP	0.1uf	63V	\$ 0.10	\$ 10.80
24	C61-62 C65-66 C69 C71 C73- 76 C79-81 C91-94 C97-99 C101 C103 C105 C107-108 C111-114 C117-119 C121 C123 C125-127 C129 C131 C133 C135 C137 C139 C141		Epcos or S+M	10%	RADIAL FILM CAPACITOR, MKP	0.1uf	63V	\$ 0.10	\$ -
25	C146-148 C150 C152 C154 C156-157 C160-163 C166-168 C170 C172 C174-176 C178 C180 C182 C184 C186 C188 C190 C195 C198 C201 C206 C211-213 C218 C220-221 C224 C232 C234 C238 C242		Epcos or S+M	10%	RADIAL FILM CAPACITOR, MKP	0.1uf	63V	\$ 0.10	\$ -
26	C95-96 C225 C231	4	Epcos	5%	RADIAL FILM CAPACITOR, MKP	0.1uf	160v	\$ 0.25	\$ 1.00
27	C9 C30	2	CDE	5%	Silver Mica	150pF	100V	\$ 0.45	\$ 0.90
28	C7 C18 C28 C39	4	Nessei	5%	RADIAL FILM CAPACITOR, MKS	10nf	50V	\$ 0.15	\$ 0.60
29	C2 C13 C23 C34	4	CDE	5%	Silver Mica	2700pf	100V	\$ 0.80	\$ 3.20
30	C197	1	Murata	10%	RADIAL FILM CAPACITOR, MKP	330pf	50V	\$ 0.10	\$ 0.10
31	C200	1	Epcos	5%	RADIAL FILM CAPACITOR, MKP	47nf	100V	\$ 0.15	\$ 0.15
32	J12 J13-15 J18 J24	6	China	CONN-2P 5MM	Screw type 5mm connector			\$ 0.10	\$ 0.60
33	J2 J22 J9 J6 J7 J21 J5 J28 J29 JMP2 JMP3 JMP5 JMP6	2	China	2.5mm pin strip	2.5mm pin strip square gold plated for jumpers			\$ 0.10	\$ 0.20
34	J10-11 J16	3	China	CONN-3P 5MM	Screw type 5mm connector			\$ 0.15	\$ 0.45
35	U15	1	Crystal	CS8412	Price for DIR5001 to 8412 converter unit		Optional	\$ 20.00	
36	D20 D31 D45-47	5	GI	1N4148	100V 1A diode or 1N4002	1N4148		\$ 0.05	\$ 0.25
37	H1-13	13	China	Heatsink	630 x 600 x 1000 mil (L x W x H)			\$ 0.50	\$ 6.50
38	L2 L4-20	18	Murata		Radial inductors 100mA type	47uH		\$ 0.05	\$ 0.90
39	L3	1	Murata		Radial inductors 100mA type	47uH		\$ 0.05	\$ 0.05
40	L21	1	China		Inductor Bead	Bead		\$ 0.10	\$ 0.10
41	Q34 Q36	2	IR	IRF610	MOSFET N CHANN 200V 1.8A	or 510/620		\$ 0.60	\$ 1.20
42	Q33 Q35	2	IR	IRF9610	MOSFET P CHAN 200V 1.8A	or 9510/9620		\$ 0.60	\$ 1.20
43	D9-10 D19 D28 D30 D32 D48	7	Green or Red	Green x 6, Red x 1	LIGHT EMITTING DIODE			\$ 0.10	\$ 0.70

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44	D33-36	4	National Semi	LM336-5V	PROGRAMMABLE PRECISION REFERENCE			\$ 0.60	\$ 2.40
45	U2 U5 U9 U12 U20	5	On Semi or ST	LM317T	POSITIVE VOLTAGE REGULATOR: ADJUSTABLE			\$ 0.50	\$ 2.50
46	U3 U6 U10 U13	4	Fairchild or ST	LM337T	NEGATIVE VOLTAGE REGULATOR:ADJUSTABLE			\$ 0.70	\$ 2.80
47	U18 U21-24	5	Fairchild or ST	LT1117-5	Fixed Regulator 5V			\$ 0.50	\$ 2.50
48	U1 U7-8 U14	4	Burr Brown	PCM63PK	20bit Digital to Analogy Converter			\$ 25.00	
49	R6 R15 R26 R36 R57-58 R75-80 R96 R102-104 R110-111 R115-116 R85-87 R91-94 R99-101 R106-108	32	Metal film		Metal film resistor 1/4W 1%	100			
50	R5 R14 R25 R35 R117 R125 R158-159	8	Metal film		Metal film resistor 1/4W 1%	100K			
51	R41-42 R52 R54 R59-60 R70 R72 R51 R53 R69 R71	12	Metal film		Metal film resistor 1/4W 1%	10k			
52	R123	1	Metal film		Metal film resistor 1/4W 1%	110			
53	R120	1	Metal film		Metal film resistor 1/4W 1%	120			
54	R128 R160 R157 R121	4	Metal film		Metal film resistor 1/4W 1%	150			
55	R47-48 R65-66	4	metal film		Metal film resistor 1/4W 1%	15k			
56	R153	1	Metal film		Metal film resistor 1/4W 1%	1k3			
57	R148-151	4	Metal film		Metal film resistor 1/4W 1%	33R	Optional		
58	R55-56 R73-74 R114	5	Metal film		Metal film resistor 1/4W 1%	1k			
59	R4 R13 R24 R34	4	Metal film		Metal film resistor 1/4W 1%	1k5			
60	R7 R16 R27 R37	4	Metal film		Metal film resistor 1/4W 1%	100k			
61	R155-156	2	Metal film		Metal film resistor 1/4W 1%	200k			
62	R19-20 R30 R40	4	Metal film		Metal film resistor 1/4W 1%	22R			
63	R90	1	Metal film		Metal film resistor 3W 5%	470R	3W		
64	R97-98 R105 R109 R112-113 R126-127	8	Metal film		Metal film resistor 1/4W 1%	300			
65	R3 R12 R23 R33	4	Metal film		Metal film resistor 1/4W 1%	33R			
66	R89 R124	2	Metal film		Metal film resistor 1/4W 1%	3k9			
67	R49-50 R67-68	4	Metal film		Metal film resistor 1/4W 1%	4k7			
68	R141-144	4	Metal film		Metal film resistor 1/4W 1%	10k	Optional		
69	R81-82	2	Metal film		Metal film resistor 1/4W 1%	5R1			
70	R118-119 R146-147 R161	5	Metal film		Metal film resistor 1/4W 1%	5R1			
71	R45-46 R63-64 R154	5	Metal film		Metal film resistor 1/4W 1%	5k1			
72	R88	1	Metal film		Metal film resistor 1/4W 1%	75R			
73	R145	1	Metal film		Metal film resistor 1/4W 1%	680			
74	R83-84	2	Metal film		Metal film resistor 1/4W 1%	8k2			
75	K1-4	4	Takamisawa	RY5W-K	5V relay 2P2T	5Vdc		\$ 1.50	\$ 6.00
76	U16	1	NPC	SM5842AP/APT	High Performance Digital Filter			\$ 25.00	
77	R8-9 R17-18	4	20 turns type	100k or 50k	VR (TOP ADJUST TYPE)	100k	Optional	\$ 0.40	
78	R43-44 R61-62	4	20 turns type	1k	VR (TOP ADJUST TYPE)	1k		\$ 0.40	\$ 1.60
79	R1 R10 R21 R31	4	20 turns type	50R	VR (TOP ADJUST TYPE)	50R		\$ 0.40	\$ 1.60
80	R2 R11 R22 R32	4	20 turns type	5K	VR (TOP ADJUST TYPE)	5k		\$ 0.40	\$ 1.60
81	Jumper 2-pin short female for Jxx and JMPxx	12	China	Red color	To short two of the jumper pins 2.54mm			\$ 0.02	\$ 0.24
82	IC socket 28 pin and 14 pin	6	China		Round type pin strip good for all lcs			\$ 0.50	\$ 3.00
83	Heatsink kit set	13	China		M3 screw, plastic washer, insulation sheet & spring washer			\$ 0.15	\$ 1.95
84	D1 Ver3 PCB	1	DIY Fun		2mm FR4 gold plated, white mask black text			\$ 32.00	\$ 32.00
85	Transformer	1	Farnell Part #	953-1750	9V x 2 30VA 230V input only			\$ 20.00	
86	Transformer	1	Farnell Part #	953-1793	18V x 2 50VA 230V input only			\$ 20.00	
87	8414/5847 converter board	1	DIY Fun		2 Converter boards set with IC pin & cap	\$6	Optional	\$ 6.00	
								Sub-Total	\$ 149.49
								Shipping & Handling	\$ 25.00
								Add 4% paypal	\$ 174.49
								Total	\$ 181.47

 Provided but can delete from order
 Not available
 Estimated price, will not provide

Note: You would need 4 film cap, 4 PCM63P, one SM5842, one receiver IC CS8412, resistors & two transformers to complete the kit.
 For receiver, DIR9001 converter board in kit form is available for US\$14. Complete and tested unit will charge US\$20.
 There are also 8414 to 8412 and SM5847 to SM5842 converter board plus accessories available for total US\$6.
 Note that all components above (Green in column A) has only limited stock and some parts may not be available at the time of order.
 For resistor package, I shall charge another US\$15 but I do not prefer to provide any resistors in this kit.
 Shipping is by registered airmail to world wide and there is no insurance for this package.
 Buyers can order the pcb and selected parts as you may already have some of the parts on hand.
 Documentation will be provided after order :- Update circuit, BOM, Assembly instruction, PCB silkscreen top, and PCB dimension in pdf format.
This is a kit for experienced diyers with some trouble shooting skill and the DAC is quite complicated. Think twice before you order.