Wireless Printer (WPR) BOM Revision: D

Last Modified: 09/20/2010 (see change list below)

Outsite Networks, Inc. 2009 2551 Eltham Ave, Suite N Norfolk, VA 23513

For BOM related questions, contact: Benjamin Raydo

tem Quar	ntity Designator	Value	Footprint	Manufacturer	Part Number	Distributor	Distributor Part Nu
	C1, C2, C3, C4, C8, C9, C10, C11, C12, C14, C15, C16, C17, C18, C22, C44, C49, C51,						
	C52, C53, C55, C56, C59, C70, C73, C78, C79, C80, C81, C82, C126, C127, C128,						
	C129, C130, C131, C136, C138, C139, C140, C141, C142, C145, C146, C148, C149, C151,						
	C152, C155, C157, C158, C160, C161, C162, C163, C172, C173, C174, C175, C176, C177,						
1	C178, C179, C180, C181, C182, C183, C184, 71 C185, C186, C187	0.1uF	603	Panasonic	ECJ-1VB1E104K	Digikey	PCC2277CT-ND
	C5, C13, C19, C20, C23, C33, C50, C54,						
2 3	14 C71, C75, C137, C150, C188, C190 4 C6, C7, C67, C68	10uF 22pF	603 603	Panasonic Panasonic	ECJ-1VB0J106M ECJ-1VC2A220J	Digikey Digikey	PCC2395CT-ND PCC1943CT-ND
4	C21, C34, C45, C46, C47, C48, C134, C135, 11 C147, C156, C189	10uF	1206	Panasonic	ECJ-3YB1C106M	Digikey	PCC2227CT-ND
5	2 C24, C35	22uF	1210	Murata	GRM32ER61C226ME20L	Digikey	490-1881-1-ND
6 7	8 C25, C32, C36, C76, C77, C83, C84, C108 1 C26	470pF 470uF	603 CAP_FK_V	Murata Panasonic	GRM188R71H471KA01D EEV-FK1V471Q	Digikey Digikey	490-1489-1-ND PCE3464CT-ND
8	2 C27, C37	1.0uF	1210	Panasonic	ECJ-4YB1H105K	Digikey	PCC2303CT-ND
9 10	2 C28, C38 6 C29, C39, C165, C166, C167, C168	0.47uF 10pF	805 603	Murata Murata	GRM21BR71H474KA88L GRM1885C1H100JA01D	Digikey Digikey	490-3328-1-ND 490-1403-1-ND
11	2 C30,C40 3 C31, C41, C43	1000pF	603	Murata	GRM1885C1H102JA01D	Digikey	490-1451-1-ND
12 13	1 C42	10uF 0.1uF	1210 805	Murata Panasonic	GRM32ER7YA106KA12L ECJ-2FB1H104K	Digikey Digikey	490-5314-1-ND PCC2452CT-ND
14	3 C57, C62, C65 2 C58, C66	15pF	805	Murata	ERB21B5C2E150JDX1L	Digikey	490-4886-1-ND
15 16	2 C68, C66 2 C60, C63	27pF 120pF	805 805	Panasonic Murata	ECJ-2VC1H270J GRM2165C2A121JA01D	Digikey Digikey	PCC270CGCT-ND 490-1601-1-ND
17	2 C61, C64	47pF	805	Murata	GRM2195C2A470JZ01D	Digikey	490-1593-1-ND
18 19	1 C69	330pF	603	Panasonic	ECJ-1VC1H331J	Digikey	PCC331ACVCT-ND
20	2 C72, C74 C85, C88, C103, C114, C115, C117, C119,	1.0uF	603	Panasonic	ECJ-1VB1A105K	Digikey	PCC2174CT-ND
21	10 C120, C121, C122	10nF	402	Murata	GRM155R71C103KA01D	Digikey	490-1313-1-ND
	C86, C87, C89, C90, C91, C92, C93, C94,						
22	C98, C99, C100, C101, C102, C104, C105, 21 C106, C112, C113, C118, C123, L13	10pF	402	Murata	GRM1555C1H100JZ01D	Digikey	490-1278-1-ND
23	1 C107	1.0pF	402	Murata Murata	GRM1555C1H100J201D GRM1555C1H1R0CA01D	Digikey	490-1278-1-ND 490-3199-1-ND
24 25	1 C96 2 C97, C95	1.6pF 0.5pF	402 402	Murata Panasonic	GJM1555C1H1R6CB01D GRM1555C1HR50CZ01D	Digikey Digikey	490-3088-1-ND 490-1263-1-ND
26	1 C109	DNI	402	Murata		Diginey	
27 28	1 C110 2 C124, C125	15nF 5.0pF	402 402	Murata Murata	GRM155R71C153KA01D GRM1555C1H5R0CZ01D	Digikey Digikey	490-1314-1-ND 490-1274-1-ND
29	2 C132, C133	15pF	603	Murata	GRM1885C2A150JA01D	Digikey	490-1331-1-ND
30 31	4 C143, C144, C153, C154 2 C159, C164	47pF 4.7uF	603 603	Murata Murata	GRM1885C1H470JA01D GRM185R60G475ME15D	Digikey	490-1419-1-ND 490-3891-1-ND
32	1 C169	22nF	603	Murata	GRM188R71H223KA01D	Digikey Digikey	490-1517-1-ND
33	2 C170, C171	33pF	603	Murata	GRM1885C1H330JA01D	Digikey	490-1415-1-ND
34 35	4 D1, D3, D7, D10 5 D2, D4, D6, D8, D11	B340LB-13-F 1N4148WS-7-F	SMB SOD-323	Diodes Diodes Inc	B340LB-13-F 1N4148WS-7-F	Digikey Digikey	B340LB-FDICT-ND 1N4148WS-FDICT-N
36	1 D5	2.5V	SOT23-3L	National	LM4040DIM3-2.5/NOPB	Digikey	LM4040DIM3-2.5CT
37 38	1 D9 5 D12, D13, D14, D15, D16	1SMB5927BT3G Red	SMB LED_PLCC2	ON Semi Avago	1SMB5927BT3G HSMZ-A100-R00J1	Digikey Digikey	1SMB5927BT3GOS 516-1459-1-ND
39	1 F1	1.0A	NANO_FUSE	Littelfuse	0452001.MRL	Digikey	F2600CT-ND
40 41	2 F2, F3 1 J1	500mA SBH21-NBPN-D08-SM-BK	1206 HEADER_SMT_2MM_V16A	Bourns Sullins	MF-NSMF050-2 SBH21-NBPN-D08-SM-BK	Digikey Digikey	MF-NSMF050-2CT-I S9038-ND
42	1 J2	TCS7960-4320177	TCS7960-4320177	Hosiden	TCS7960-4320177		
43 44	1 J3 1 J4	26-48-1035 TSM-110-01-T-SH	HDR156_V3 TSM-110-01-T-SH	Molex Samtec	26-48-1035 TSM-110-01-T-SH	Digikey www.samtec.com	WM4601-ND TSM-110-01-T-SH
45	1 J5	XG4C-2631	XG4C-2631	Omron	XG4C-2631	Digikey	OR901-ND
46 47	1 J6 3 J7, J8, J11		TH_MOD8_8	Kobiconn Amp	154-2442-E 5555164-1	Mouser Digikey	154-2442-E A31442-ND
48	1 J9			Kobiconn	154-UAR80-E	Mouser	154-UAR80-E
49 50	2 J10, J13 1 J12	53261-1271	53261-1271	Molex JST	53261-1271 B5B-PH-K-S(LF)(SN)	Digikey Digikey	WM7630CT-ND 455-1707-ND
51	1 J14		J00-0065NL	Pulse	J00-0065NL	Digikey	553-1345-ND
52 53	6 L1, L2, L6, L7, L22, L23 1 L3	BEAD 4.7uH	603 2525	Panasonic Vishay	EXC-3BP121H IHLP2525CZER4R7M01	Digikey Digikey	P10750CT-ND 541-1010-1-ND
54	1 L4	8.2uH	2525	Vishay	IHLP2525CZER8R2M01	Digikey	541-1012-1-ND
55 56	1 L5 2 L8, L9	10uH 1.0uH	2525 1210	Vishay API Delevan	IHLP2525CZER100M01 S1210R-102K	Mouser Digikey	70-IHLP2525CZER1 DN7904CT-ND
57	2 L10, L17	5.6nH	402	Murata	LQG15HS5N6S02D	Digikey	490-2619-1-ND
58 59	1 L11 1 L12	15nH 1.5nH	402 402	Murata Murata	LQG15HS15NJ02D LQG15HS1N5S02D	Digikey Digikey	490-2625-1-ND 490-2612-1-ND
60	1 2.2	1.51111	402	Wulata	EQQ 13113 1143302D	Digikey	430-2012-1-ND
61 62	1 L14, L15, L21	2.2nH	402	Murata	LQG15HS2N2S02D	Digikey	490-2614-1-ND
62 63	1 L16	8.2nH	402	Murata	LQP15MN8N2B02D	Digikey	490-1135-1-ND
64	4 149	4.7511	400	Murata	LOCAFIICANIZCOOD	Digilary	400 2649 4 ND
65 66	1 L18 2 L19, L20	4.7nH 82nH	402 402	Murata Murata	LQG15HS4N7S02D LQG15HS82NJ02D	Digikey Digikey	490-2618-1-ND 490-2634-1-ND
67 68	1 LS1	CCCCCCAAADY	CDEAVED CMT 4400	Shores	GC0286MAPX		
68 69	1 P1	GC0286MAPX SMA R/A	SPEAKER_SMT_1100 RF_SMA	Shogyo Linx	CONREVSMA002	Digikey	CONREVSMA002-N
70	6 Q1, Q2, Q3, Q4, Q5, Q7	2N7002	SOT23-3L	Fairchild	2N7002	Digikey	2N7002NCT-ND
71 72	1 Q6 8 R1, R2, R3, R46, R47, R48, R49, R50	NE662M04-A 1.0k	SOT343 603	CEL Panasonic	NE662M04-A ERJ-3GEYJ102V	Digikey Digikey	NE662M04-A-ND P1.0KGCT-ND
73	4 R4, R5, R6, R7	30k	603	Panasonic	ERJ-3GEYJ303V	Digikey	P30KGCT-ND
74 75	7 R8, R56, R57, R59, R60, R61, R62 1 R9	27 4.99k	603 603	Panasonic Panasonic	ERJ-3GEYJ270V ERJ-3EKF4991V	Digikey Digikey	P27GCT-ND P4.99KHCT-ND
76	1 R10	24.9k	603	Panasonic	ERJ-3EKF2492V	Digikey	P24.9KHCT-ND
77 78	2 R11, R25 4 R12, R23, R27, R77	40.2k 1.00k	603 603	Panasonic Panasonic	ERJ-3EKF4022V ERJ-3EKF1001V	Digikey Digikey	P40.2KHCT-ND P1.00KHCT-ND
79	1 R13	0	603	Panasonic	ERJ-3GEY0R00V	Digikey	P0.0GCT-ND
80 81	3 R14, R28, R30 4 R15, R26, R73, R74	8.06k 174k	603 603	Panasonic Panasonic	ERJ-3EKF8061V ERJ-3EKF1743V	Digikey Digikey	P8.06KHCT-ND P174KHCT-ND
	1 R16	61.9k	603	Panasonic	ERJ-3EKF6192V	Digikey	P61.9KHCT-ND
82	1 R19	20.0k 10k	603 603	Panasonic Panasonic	ERJ-3EKF2002V ERJ-3GEYJ103V	Digikey Digikey	P20.0KHCT-ND P10KGCT-ND
82 83 84	4 R18, R21, R32, R44		603	Panasonic	ERJ-3EKF2001V	Digikey	P2.00KHCT-ND
83 84 85	2 R40, R41	2.00k	000	Panasonic	ERJ-3EKF1332V ERJ-3EKF1004V	Digikey Digikey	P13.3KHCT-ND P1.00MHCT-ND
83 84		13.3k 1.0M	603 603	Panasonic		J J	
83 84 85 86 87	2 R40, R41 1 R20 1 R22 1 R24	13.3k 1.0M 42.2k	603 603	Panasonic	ERJ-3EKF4222V	Digikey	P42.2KHCT-ND
83 84 85 86 87 88	2 R40, R41 1 R20 1 R22 1 R24 1 R17	13.3k 1.0M 42.2k 24.3k	603 603	Panasonic Panasonic	ERJ-3EKF4222V ERJ-3EKF2432V	Digikey	P24.3KHCT-ND
83 84 85 86 87	2 R40, R41 1 R20 1 R22 1 R24 1 R17 1 R29	13.3k 1.0M 42.2k 24.3k 71.5k	603 603	Panasonic	ERJ-3EKF4222V		
83 84 85 86 87 88 89 90 91	2 R40, R41 1 R20 1 R22 1 R24 1 R17 1 R29 1 R31 1 R33	13.3k 1.0M 42.2k 24.3k 71.5k 768 127	603 603 603 603 603	Panasonic Panasonic Panasonic Panasonic Panasonic	ERJ-3EKF4222V ERJ-3EKF2432V ERJ-3EKF7152V ERJ-3EKF7680V ERJ-3EKF1270V	Digikey Digikey Digikey Digikey	P24.3KHCT-ND P71.5KHCT-ND P768HCT-ND P127HCT-ND
83 84 85 86 87 88 89 90	2 R40, R41 1 R20 1 R22 1 R24 1 R17 1 R29	13.3k 1.0M 42.2k 24.3k 71.5k	603 603 603 603	Panasonic Panasonic Panasonic Panasonic	ERJ-3EKF4222V ERJ-3EKF2432V ERJ-3EKF7152V ERJ-3EKF7680V	Digikey Digikey Digikey	P24.3KHCT-ND P71.5KHCT-ND P768HCT-ND
83 84 85 86 87 88 89 90 91 92 93 94 95	2 R40, R41 1 R20 1 R22 1 R24 1 R17 1 R29 1 R31 1 R33 1 R34 1 R35 2 R36, R38	13.3k 1.0M 42.2k 24.3k 71.5k 768 127 820 3.3k 1.5	603 603 603 603 603 603 805 805	Panasonic Panasonic Panasonic Panasonic Panasonic Panasonic Panasonic Panasonic Panasonic	ERJ-3EKF4222V ERJ-3EKF2432V ERJ-3EKF7152V ERJ-3EKF7680V ERJ-3EKF1270V ERJ-6GEYJ821V ERJ-6GEYJ332V ERJ-6GEYJ1R5V	Digikey Digikey Digikey Digikey Digikey Digikey	P24.3KHCT-ND P71.5KHCT-ND P768HCT-ND P127HCT-ND P820ACT-ND P3.3KACT-ND P1.5ACT-ND
83 84 85 86 87 88 89 90 91 92 93 94 95 96	2 R40, R41 1 R20 1 R22 1 R24 1 R17 1 R29 1 R31 1 R33 1 R34 1 R35	13.3k 1.0M 42.2k 24.3k 71.5k 768 127 820 3.3k 1.5	603 603 603 603 603 603 805 805	Panasonic Panasonic Panasonic Panasonic Panasonic Panasonic Panasonic	ERJ-3EKF4222V ERJ-3EKF2432V ERJ-3EKF7152V ERJ-3EKF7680V ERJ-3EKF1270V ERJ-6GEYJ821V ERJ-6GEYJ332V	Digikey Digikey Digikey Digikey Digikey Digikey Digikey	P24.3KHCT-ND P71.5KHCT-ND P768HCT-ND P127HCT-ND P820ACT-ND P3.3KACT-ND P1.5ACT-ND
83 84 85 86 87 88 89 90 91 92 93 94 95	2 R40, R41 1 R20 1 R22 1 R24 1 R17 1 R29 1 R31 1 R33 1 R34 1 R35 2 R36, R38 5 R37, R39, R42, R45, R51	13.3k 1.0M 42.2k 24.3k 71.5k 768 127 820 3.3k 1.5	603 603 603 603 603 603 805 805	Panasonic	ERJ-3EKF4222V ERJ-3EKF2432V ERJ-3EKF7152V ERJ-3EKF7680V ERJ-3EKF1270V ERJ-6GEYJ821V ERJ-6GEYJ332V ERJ-6GEYJ1R5V ERJ-6GEYJ151V	Digikey Digikey Digikey Digikey Digikey Digikey	P24.3KHCT-ND P71.5KHCT-ND P768HCT-ND P127HCT-ND P820ACT-ND P3.3KACT-ND P1.5ACT-ND

102	1 R58	22k	603	Panasonic	ERJ-3GEYJ223V	Digikey	P22KGCT-ND
103	1 R63	1.5k	603	Panasonic	ERJ-3GEYJ152V	Digikey	P1.5KGCT-ND
104	4 R64, R65, R66, R67	49.9	603	Panasonic	ERJ-3EKF49R9V	Digikey	P49.9HCT-ND
105	1 R68	10	603	Panasonic	ERJ-3EKF10R0V	Digikey	P10.0HCT-ND
106	1 R69	1.0M	603	Panasonic	ERJ-3GEYJ105V	Digikey	P1.0MGCT-ND
107	2 R70, R71	270	603	Panasonic	ERJ-3GEYJ271V	Digikey	P270GCT-ND
108	1 R72	12.4k	603	Panasonic	ERJ-3EKF1242V	Digikey	P12.4KHCT-ND
	RN1, RN2, RN3, RN4, RN5, RN6, RN7, RN RN9, RN10, RN11, RN12, RN13, RN14,	N8,					
109	16 RN15, RN16		0402-4	Panasonic	EXB-28V270JX	Digikey	Y7270CT-ND
110	1 U1		LFBGA-217	Atmel	AT91SAM9G20B-CU	Nu Horizons	AT91SAM9G20B-CU
111	2 U2, U3		TSOP-54	Micron	MT48LC16M16A2P-7E:D	Nu Horizons	MT48LC16M16A2P-7E:D
112	1 U4		TSOP-48	Micron	MT29F32G08CBABAWP:B	Nu Horizons	MT29F32G08CBABAWP:B
113	1 U5		SO8	Atmel	AT45DB161D-SU	Nu Horizons	AT45DB161D-SU-ND
114	3 U6, U8, U29		SO8	Semtech	SC4215ASTRT	Digikey	SC4215ASCT-ND
115	1 U7		TSSOP-20TH	Linear	LT3510EFE#PBF	Nu Horizons	LT3510EFE#PBF
116	1 U9		SO14	TI	LM339AD	Digikey	296-6604-5-ND
117	1 U10	CS51413ED8G	SO8	ON Semi	CS51413EDR8G	Digikey	CS51413ED8GOS-ND
118	1 U11	MFRC530	SO32	NXP	MFRC53001T/0FE,112	Digikey	568-2223-5-ND
119	1 U12	MAX5556ESA+	SO8	Maxim	MAX5556ESA+	Digikey	MAX5556ESA+-ND
120	1 U13		TSOT23-8	Analog Devices	AD5228BUJZ10-RL7	Digikey	AD5228BUJZ10RL7CT-ND
121	1 U14		SOT23-5	TI	LMV321IDBVRQ1	Digikey	296-20922-1-ND
122	1 U15	LM4876M/NOPB	SO8	National	LM4876M/NOPB	Digikey	LM4876M-ND
123	1 U16			TI	SN74LVC125ANSR	Digikey	296-13234-1-ND
124	2 U17, U18	UPG2179TB	SOT-363	CEL	UPG2179TB	Nu Horizons	UPG2179TB-A-ND
125	1 U19	HHM1517	HHM1517	TDK	HHM1517	Digikey	445-1233-1-ND
126	1 U20	ZIC2410QN48	QFN-48	CEL	ZIC2410QN48	Nu Horizons	ZIC2410QN48
127	1 U21		6-TSON	CEL	μPG2250T5N	Nu Horizons	μPG2250T5N
128	1 U22			Johanson	2450LP15A050E	Digikey	712-1132-1-ND
129	3 U23, U24, U25	SP3232EBCN	SO16	Exar	SP3232EBCN	Nu Horizons	SP3232EBCN
130	2 U26, U27	SN74LVC14ADR	D014_N	TI	SN74LVC14ADR	Digikey	296-1699-1-ND
131	1 U28		QFN-36	SMSC	LAN8700C-AEZG	Nu Horizons	LAN8700C-AEZG
132	1 Y1	18.432MHz	HC49US	Abracon	ABLS-18.432MHZ-B2-T	Digikey	535-9072-1-ND
133	1 Y2	13.56MHz	HC49US	Abracon	ABLS-13.560MHZ-B2-T		
134	1 Y3	16.000MHz	ABM8	Abracon	ABM8-16.000MHZ-6-R70-C-1-X-P		
135	1 Y4	25.000MHz	HC49US	Abracon	ABLS-25.000MHZ-B2F-T	Digikey	535-9078-1-ND
136	2 C111, C116	10uF	3216-18	Kemet	T491A106K006AT	Digikey	399-3683-1-ND
137	1 Q8		SOT23-3L	Diodes	ZXM41N10FTA	Digikey	ZXM41N10FCT-ND
138	1 R75	215k	603	Panasonic	ERJ-3EKF2153V	Digikey	P215KHCT-ND
139	1 R76	5.60k	603	Panasonic	ERJ-3EKF5601V	Digikey	P5.60KHCT-ND
140	2 R78, R79	2.00k	402	Panasonic	ERJ-2RKF2001X	Digikey	P2.00KLCT-ND
141	1 WirelessPrinter_RevD_Gerbers.zip			Outsite Networks	WirelessPrinter_RevD_Gerbers.zip		
142	1 WirelessPrinter_PickNPlace_RevD.txt			Outsite Networks	WirelessPrinter_PickNPlace_RevD.txt		
143	1 R73	240	603	Panasonic	ERJ-3EKF2400V	Digikey	P240HCT-ND
144	1 R74	3.60k	603	Panasonic	ERJ-3EKF3601V	Digikey	P3.60KHCT-ND
145	1 U30	LM317KTTR	TO263-3	TI	LM317KTTR	Digikey	296-21390-1-ND
146	1 U31	DNI					

Summary of Changes

From Rev B (Preliminary - Not for build) to Rev B (Ready for build)

- 1) Added line item column Line item 1: added C172,C173,C174,C175,C176,C177,C178,C179,C180,C181,C182,C183,C184,C185,C186,C187 2)
- 3) Line item 1: removed C76,C77,C83,C84, moved to Line item 6
- 4) Line item 52: added L23
- 5) Line item 112: changed part number
- Line item 131: changed part number Added color coding for substitutable line items

From Rev B to Rev C

- 1) Moved C40 from line item 1 to 11
- Moved C37 from line item 2 to 8 2)
- Moved C111,C116 from line item 2 to 136 3) Moved C108 from line item 22 to 6 4)
- Moved C95 from line item 23 to 25 5) 6) Moved L13 from line item 60 to 22
- Moved C62,C65 from line item 18 to 14 7) 8) Moved L17 from line item 64 to 57
- 9) Moved L15 from line item 62 to 61
- Moved L21 from line item 67 to 61 10)
- Moved R17 from line item 83 to 81 11) Moved R26 from line item 89 to 81
- 12) Line item 2: added C188,C190 13)
- 14) Line item 4: added C189
- 15) Line item 11: changed part number
- Line item 14: part number now specified 16)
- Line item 17: part number now specified 17) 18) Line item 18: deleted
- 19) Line item 23: changed part number 20) Line item 24: changed part number
- 21) Line item 28: changed part number
- 22) Line item 43: changed part number Line item 57: part number now specified 23)
- 24) Line item 58: part number now specified 25) Line item 59: part number now specified
- 26) Line item 60: deleted
- 27) Line item 61: part number now specified
- 28) Line item 62: deleted 29) Line item 64: deleted
- 30) Line item 65: part number now specified
- 31) Line item 67: deleted 32) Line item 78: added R77
- 33) Line item 81: changed part number
- 34) Line item 82: changed part number
- 35) Line item 83: deleted
- 36) Line item 86: changed part number 37) Line item 87: changed part number
- 38) Line item 89: deleted
- 39) Line item 94: changed part number 40) Line item 95: part number now specified
- 41) Line item 98: changed part number Line item 99: changed part number 42)
- 43) Line item 114: added U29 44) Line item 116: changed part number
- 45) Line item 137: added Q8 46) Line item 138: added R75
- 47) Line item 139: added R76
- 48) Line item 140: added R78,R79
- 49) Line item 141: 'WirelessPrinter_RevC_Gerbers03102010.zip 50) Line item 142: 'WirelessPrinter_PickNPlace_RevC.txt
- From Rev C to Rev D Line item 86: changed part number 1)
- 2) Moved R19 from line item 85 to 83 3) Moved R17 from line item 81 to 89
- 4) Line item 137: changed part number 5) Moved R73 from line item 81 to 143
- 6) Moved R74 from line item 81 to 144
- 7) Line item 145: U30 added 8) Line item 146: U31 added (DNI)
- 9) Line item 141: changed part number
- 10) Line item 142: changed part number (U5,U16 pads fixed. R73,R74,C8 moved. U30,U31 added)