

AR5BCB-00022 CardBus Revision 050 Reference Design Bill of Materials

Item	Quantity	Reference	Part Description	Vendor Part Number	Vendor	Alternate Vendor Part Number	Alternate Vendor
1	1	C90	15pF,0402,NPO,+/-0.25pF,50V	0402CG150C9B	Phycomp		
2	1	C89	6.8pF,0402,NPO,+/-0.25pF,50V	0402CG689C9B	Phycomp		
3	27	C12,C13,C97,C102,C105,C106,C108,C110,C111,C113,C114,C115,C116,C118,C119,C152,C155,C182,C190,C193,C321,C324,C328,C346,C347,C348,C349	10pF,0402,NPO,+/-5%,50V	0402CG100J9B	Phycomp		
4	7	C55,C56,C87,C156,C173,C178,C180	22pF,0402,NPO,+/-5%,50V	0402CG220J9B	Phycomp		
5	3	C26,C92,C157	8.2pF,0402,NPO,+/-0.25pF,50V	0402CG829C9B	Phycomp		
6	11	C14,C19,C37,C128,C145,C146,C147,C149,C150,C151,C327	0.01uF,0402,X7R,+/-10%16V	04022R103K7B	Phycomp		
7	5	C15,C17,C21,C23,C192	4.7uF,1206,Y5V,+80/-20%,10V	12062F475Z6B	Phycomp		
8	14	C16,C52,C58,C91,C93,C121,C122,C126,C132,C135,C138,C148,C186,C188	0.1uF,0402,Y5V,+80/-20%,16V	04022F104Z7B	Phycomp		
9	1	C139	1.8pF,0402,NPO,+/-0.25pF,50V	0402CG189C9B			
10	6	C69,C70,C72,C78,C109,C191	120pF,0402,NPO,5%,50V	0402CG121J9B	Phycomp		
11	1	C20	22uF,1210,Y5V,+80/-20%,10V	GJ232NF51A226ZD01	Murata		
12	3	C22,C24,C42	2.2uF,0805, Y5V,+80/-20%,16V	08052F225Z7B	Phycomp		
13	20	C33,C35,C36,C40,C44,C48,C51,C53,C63,C84,C85,C100,C166,C167,C177,C326,C331,C340,C350,C351	1pF,0402,NPO,+/-0.25pF,50V	0402CG109C9B	Phycomp		
14	2	C11,C34	1uF,0603,X5R,+/-10%,10V	GRM188R61A105K	Murata		
15	2	C45,C46	30pF,0603,1%,50V	GRM1885C1H300FD01	Murata		
16	10	C43,C49,C54,C57,C64,C103,C176,C179,C325,C345	330pF,0402,X7R,+/-5%,50V	04022R331J9B	Phycomp		
17	5	C30,C31,C74,C77,C330	0.5pF,0402,NPO,+/-0.25pF,50V	ECJ-0EC1H0R5C	Panasonic		
18	4	C322,C329,C336,C337	1.5pF,0402,NPO,+/-0.25pF,50V	0402CG159C9B	Phycomp		
19	25	C1,C2,C3,C4,C5,C6,C7,C8,C71,C73,C79,C81,C94,C96,C153,C161,C163,C171,C339,C343,C344,C352,C353,C354,C355	2.2pF,0402,NPO,+/-0.25pF,50V	0402CG229C9B	Phycomp		
20	1	C65	470pF,0402,X7R,+/-10%,50V	04022R471K9B	Phycomp		
21	2	C18,C86	10uF,1206,Y5V,+80/-20%,10V	12062F106Z6B	Phycomp		
22	2	D1,D4	Single Schottky diode	SMS7630-996	Alpha Industries		
23	3	D5,D6,D7	Anti-parallel PIN diode	HMPP-3892-BLK	Agilent Technologies		
24	2	DS3,DS4	LED,0603	LTST-C190GKT	Liteon		
25	1	F1	Balun, 5.150GHz-5.875GHz, 50Ohm/100Ohm	5512BL15B100	Johanson Technology	LDB215G5110C-001	Murata
26	1	F3	5GHz band pass filter	LFB215G51SG8A132	Murata		
27	1	F6	5GHz band pass filter	TDFS8A-5437Z-10A	Toko		
28	1	F8	2.4GHz band pass filter	MDR747F	Soshin		
29	1	F9	2.4GHz band pass filter	MDR746F	Soshin		
30	1	F10	2.4GHz Balun	HHM-1517	TDK		
31	2	J1,J2	Antenna, CB, Wideband	TBD	Atheros		
32	1	J3	CardBus connector	NVS-CN-CB10.21TR	Novus Technology		
33	1	L1	4.7uH	078-472LK-000	Coilcraft		
34	1	L9	1.5nH,0402,+/-0.1nH	LQP15MN1N5B02B	Murata		
35	2	L17,L18	2.2nH,0402,+/-0.1nH	LQP15MN2N2B00	Murata		
36	2	L45,L46	2.7nH,0402,+/-0.1nH	LQP15MN2N7B00	Murata		
37	1	L7	3.3nH,0402,+/-0.1nH	LQP15MN3N3B00	Murata		
38	1	L10	3.9nH,0402,+/-0.1nH	LQP15MN3N9B00	Murata		
39	3	L4,L42,L43	Ferrite bead,0805,0.80Ohm max	BK 2125LM252-T	Taiyo Yuden		
40	7	L20,L22,L24,L25,L26,L47,L48	18nH,0402,+/-5%	LQG15HN18NJ02B	Murata		
41	2	L19,L28	10nH,0402,+/-5%	LQG15HN10NJ02B	Murata		
42	4	L2,L3,L5,L6	1uH,0603,5%	078-102LJ-000	Coilcraft		
43	1	L40	1uH, 1008	ELJ-PC1R0MF	Panasonic		
44	6	L8,L11,L23,L31,L32,L33	6.8nH,0402,+/-5%	LQG15HN6N8J02B	Murata		
45	1	L21	4.7nH,0402,+/-0.1nH	LQP15MN4N7B00	Murata		
46	3	Q1,Q7,Q9	2N3906, SOT-323, PNP	MMST3906	Diodes, Inc.	CMPT3906	Rohm
47	2	Q3,Q6	2N3904, SOT-323, NPN	MMST3904	Diodes, Inc.	CMPT3904	Rohm
48	1	Q4	2N7002, N Channel, SOT23	2N7002	Fairchild		
49	1	Q5	5GHz low noise amplifier	ATF-551M4-BLK	Agilent Technologies		
50	1	Q8	2.4GHz low noise amplifier	SGA-8343	Sirenza		
51	1	R10	20k,0402,5%,1/16W	CR10B203JT	RG Allen	RM73B1E203J	KOA
52	3	R12,R69,R103	6.19k,0402,1%,1/16W	CR10A6191FT	RG Allen	RK73H1E6191F	KOA
53	1	R20	100k, 0402,1%, 1/16W	CR10A1003FT	RG Allen	RK73H1E1003F	KOA
54	5	R14,R21,R131,R132,R145	365,0402,1%,1/16W	CR10A3650FT	RG Allen	RK73H1E3650F	KOA
55	1	R2	324k,0402,1%,1/16W	CR10A3243FT	RG Allen	RK73H1E3243F	KOA
56	11	R36,R38,R48,R49,R62,R63,R67,R152,R153,R156,R157	221,0402,1%,1/16W	CR10A2210FT	RG Allen	RK73H1E2210F	KOA
57	10	R1,R11,R27,R45,R78,R133,R134,R160,L15,L16	0,0402,5%,1/16W	ERJ-2GE0R00X	Panasonic		
58	1	L44	0.1206,5%,1/8W	ERJ-8GEY0R00V	Panasonic		
59	12	R24,R28,R40,R46,R73,R77,R136,R137,R139,R154,R155,R159	10k,0402,1%,1/16W	CR10A1002FT	RG Allen	RK73H1E1002F	KOA
60	1	R29	39,0402,5%,1/16W	9C04021A39R9JLHF3	Phycomp/Yageo	MCR01MZSJ390	Rohm
61	1	R161	33,0402,5%,1/16W	CR10B330JT	RG Allen	RM73B1E330J	KOA
62	1	R3	309k,0402,1%,1/16W	CR10A3093FT	RG Allen	RK73H1E3093F	KOA
63	2	R15,R165	511,0402,1%,1/16W	CR10A5110FT	RG Allen	RK73H1E5110F	KOA
64	3	R16,R25,R39	15,0402,1%,1/16W	CR10A15R0FT	RG Allen	RK73H1E15R0F	KOA
65	1	R4	2.2,0402,1%,1/16W	MCR01MZSF2R2	Rohm	ERJ2RBF2R200V	Panasonic
66	2	R26,R41	3.57k,0402,1%,1/16W	CR10A3571FT	RG Allen	RK73H1E3571F	KOA
67	2	R30,R47	1.1k,0402,1%,1/16W	CR10A1101FT	RG Allen	RK73H1E1101F	KOA
68	1	R146	5.1k,0402,5%	CR10B512JT	RG Allen	RM73B1E512J	KOA
69	3	R18,R35,R76	47,0402,5%/1/16W	CR10B470JT	RG Allen	RM73B1E470J	KOA

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70	2	R162,R163	150,04021%,1/16W	CR10A1500FT	RG Allen	RK73H1E1500F	KOA
71	1	R164	390,0402,5%,1/16W	RM73B1E391J	KOA		
72	1	R151	43k,0402,5%,1/16W	CR10B433JT	RG Allen	RM73B1E433J	KOA
73	1	R79	100,0402,5%,1/16W	CR10B101JT	RG Allen	RM73B1E101J	KOA
74	1	R147	1M,0402,5%,1/16W	CR10B105JT	RG Allen	RM73B1E105J	KOA
75	1	R33	432,0402,1%,1/16W	CR10A4320FT	RG Allen	RK73H1E4320F	KOA
76	2	R158	1k,0402,5%,1/16W	CR10B102JT	RG Allen	RM73B1E102J	KOA
77	1	R43	200,0402,5%,1/16W	CR10B201JT	RG Allen	RM73B1E201J	KOA
78	1	S1	SPDT RF Switch	AC812	Alpha Industries		
79	1	S3	In-line switch	MM8430-2600TB1	Murata		
80	1	U1	AR2111	AR2111	Atheros		
81	1	U2	600mA switching regulator,QLP16	VT102Q-ADJ	Volterra		
82	1	U4	802.11a RoC - radio on a chip, 64-lead leadless package	AR5111	Atheros		
83	1	U3	2.5V LDO,SOT25	TK71725SCL	Toko		
84	1	U5	5GHz power amplifier	LX5503	Microsemi		
85	1	U6	802.11a MAC and baseband, BGA196	AR5211	Atheros		
86	1	U9	2.4GHz power amplifier	RFSP2010	RF Solutions		
87	1	U22	EEPROM,16K,TSSOP8	AT93C86-10TI-2.7	Atmel		
88	1	U23	DPDT RF Switch	MASWSS0039	M/A-COM		
89	1	Y1	32.000MHZ	CX-91F32.000MHZ19.5PF	KSS		

No Load Components

Item	Quantity	Reference	Part Description	Vendor Part Number	Vendor	Alternate Vendor Part Number	Alternate Vendor
1	3	R5,R9,R13	R,0402				
2	8	C101,C107,C120,C117,C338,C341,C342,C356	C,0402				
3	1	S2	In-line switch	MM8430-2600TB1	Murata		

Murata part numbers ending in 00 may be substituted with lead free parts by replacing the 00 with 02 in many cases.