

Bill of Materials			Microsemi Low Cost Board_Rev1.prjpcb								
Source Data From: Microsemi Low Cost Board_Rev1.prjpcb											
Project: Microsemi Low Cost Board_Rev1.prjpcb											
Variant: Microsemi LoCostB_R1											
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Item#	Quantity	Designator	Value	Footprint	Description	MFR	MFR PN	Future PN (CT)	Future PN (TR)	Fitted	
1	47	C1, C2, C3, C4, C5, C6, C7, C8, C14, C15, C16, C17, C23, C24, C25, C27, C28, C29, C30, C31, C32, C33, C34, C35, C38, C41, C50, C64, C108, C113, C114, C115, C116, C117, C118, C119, C120, C121, C123, C124, C125, C127, C129, C131, C133, C134, C137	100n	0402(C1005)L	Cap 0402 SM X7R 50V 10%	TDK	C1005X7R1H104K	TBD	04025C104KATN	Fitted	
2	4	C10, C11, C72, C73	18p	0402(C1005)L	Cap 0402 SM COG 25V 5%	AVX	04023A180JAT2A	04023A180JATN-CT	04023A180JATN	Fitted	
3	2	C12, C13	4u7	0402(C1005)L	Cap 0402 SM X5R 10V 20%	SAMSUNG	CL05A475MP5NRNC	TBD	TBD	Fitted	
4	6	C18, C19, C20, C21, C22, C111	10n	0402(C1005)L	Cap 0402 SM X7R 25V 5%	YAGEO	CL0402JRX7R68B103	04023C103JATN-CT	04023C103JATN	Fitted	
5	9	C26, C34, C35, C36, C112, C135, C136, C138, C139	10u	0402(C1005)L	Cap 0402 SM X5R 10V >20%	SAMSUNG	CL05A105MP5NRUNC	TBD	0402ZD105MATN	Fitted	
6	1	C36	1n	1206(C3216)L	Cap 1206 SM-X7R-2kV-10%	AVX	1206GC102KAT1A	1206GC102KATM-CT	1206GC102KATM	Fitted	
7	1	C37	10u	0603(C1608)L	Cap 0603 SM X5R 25V 20%	SAMSUNG	CL10A105M4BRNC	TBD	0603ZD105MATN	Fitted	
8	1	C39	33p	0402(C1005)L	Cap 0402 SM NPO 50V 5%	MURATA	GRM1555C1H30J201D- obsolete in 2013	04025A330JATN-CT	04025A330JATN	Fitted	
9	6	C40, C44, C49, C53, C107, C109	22u	1206(C3216)L	Cap 1206 SM X5R 10V 20%	AVX	1206ZD225MAT2A	TBD	1206ZD225MATN	Fitted	
10	2	C42, C43	10n	0201(C0402)L	Cap 0201 SM X7R 10V 10%	YAGEO	CC0201KRX7R68B103	0201ZC103KATN-CT	0201ZC103KATN	Fitted	
11	3	C45, C54, C110	1u	0603(C1608)L	Cap 0603 SM X5R 10V 10%	AVX	0603ZD105KAT2A	0603ZD105KATN-CT	0603ZD105KATN	Fitted	
12	4	C46, C51, C55, C140	22u	0603(C1608)L	Cap 0603 SM X5R 6.3V 20%	SAMSUNG	CL10A225MQ6NRNE	06036D225MATN-CT	06036D225MATN	Fitted	
13	41	C47, C52, C56, C57, C58, C59, C60, C61, C62, C63, C65, C66, C74, C75, C76, C77, C78, C79, C80, C81, C82, C83, C84, C85, C86, C87, C88, C89, C90, C91, C92, C93, C96, C99, C100, C101, C102, C103, C104, C105, C106	220n	0201(C0402)L	Cap 0201 SM X5R 10V 20%	TDK	C0603X5R1A224M0308B	TBD	0201ZD224MATN	Fitted	
14	2	C48, C67	22p	0402(C1005)L	Cap 0402 SM NPO 25V 5%	YAGEO	CC0402JRNPO9B8N220	04023A220JATN-CT	04023A220JATN	Fitted	
15	4	C68, C69, C70, C71	100u	1206(C3216)L	Cap 1206 SM X5R 6.3V 20%	MURATA	GRM31CR60J107ME39L	TBD	12066D107MATN	Fitted	
16	1	C9	3u3	0402(C1005)L	Cap 0402 SM X5R 10V >20%	YAGEO	C1005X5R1A335M050BC	TBD	C1005X5R1A335M050BC	Fitted	
17	1	C97	47u	1206(C3216)L	Cap 1206 SM X5R 6.3V 10%	AVX	12066D475MAT2A	TBD	12066D475MATN	Fitted	
18	4	J1, J2, J5, J6		HDR100-6PIN-TH-Socket	Connector 1 Row Vert TH 1x8 2.54mm Socket Header	SULLINS	PPTC081LFBN-RC	TBD	SBC-8P-S-100-T	Fitted	
19	1	J3		J-USB-MICRO-B-RA-SMD-SLOT	Connector USB 2.0 Micro B RA Bot_Mount SM 1x5pos	GCT	USB83075-30-A	TBD	USB-MC8B-ST-SMT-S	Fitted	
20	1	J4		HDR100-6PIN-VERT-TH-Socket	Connector 1 Row Vert TH 1x8 2.54mm Socket Header	SULLINS	PPTC081LFBN-RC	TBD	PPTC081LFBN	Fitted	
21	1	J7		HDR100-10PIN-VERT-TH-Socket	Connector 1 Row Vert TH 1x10 2.54mm Socket Header	SULLINS	PPTC101LFBN-RC	TBD	PPTC101LFBN-RC	Fitted	
22	1	J8		HDR100-2x6-RA-Socket-TH	Connector 2Row RA TH 2x6 2.54mm Socket Header	SULLINS	PPTC062LJBN-RC	TBD	PPTC062LJBN-RC	Fitted	
23	2	L1, L2	330Ohm@100MHz	0805(R2012)N-Ind	Ferrite Bead, 330ohm@100MHz, 0.09Ohm, 1.5A, 0805	MURATA	BLM21PG331SN1	BLM21P331SGPT-CT	BLM21P331SGPT	Fitted	
24	3	L3, L4, L5	0.68uH	INDSMD3.6X3.0	INDUCTOR POWER 0.68uH 5.5A 17mOhm SMD	Vishay	HLP1212B2ERR68M11	HLP1212B2ERR68M11-CT	HLP1212B2ERR68M11-CT	Fitted	
25	2	LED1, LED2	RG LED	Bi-Cd KingB	LED, RedGreen LED SMD 3.5x2.5mm	KingBright	APB3025ESGC-F01	HSMF-C155-CT	HSMF-C155	Fitted	
26	2	LED3, LED4	GRN LED	GRN LED	2x06u Led, Green, 2.1V, 26mA	Lumileds	SML-LX0603GW-TR-CT	SML-LX0603GW-TR	SML-LX0603GW-TR	Fitted	
27	2	R1, R9	12k	0402(R1005)L	Res 0402 SM 63mW 1% 100ppm	YAGEO	RC0402FR-0712KL	CR0402-1202FTR-CT	CR0402-1202FTR	Fitted	
28	9	R10, R23, R24, R25, R26, R51, R52, R55, R57	1k	0402(R1005)L	Res 0402 SM 63mW 1% 100ppm	YAGEO	RC0402FR-071KL	CR0402-1001FTR-CT	CR0402-1001FTR	Fitted	
29	5	R11, R44, R45, R48, R97	0R	0402(R1005)L	Res 0402 SM 63mW	VISHAY	RCW04020000Z0ED	CR0402-0000JTR-CT	CR0402-0000JTR	Fitted	
30	6	R12, R13, R14, R17, R21, R22	4k7	0402(R1005)L	Res 0402 SM 63mW 1% 100ppm	YAGEO	RC0402FR-074K7L	CR0402-4701FTR-CT	CR0402-4701FTR	Fitted	
31	22	R16, R29, R54, R56, R58, R60, R62, R64, R66, R68, R70, R72, R74, R76, R78, R81, R83, R85, R87, R89, R90, R92	49R9	0402(R1005)L	Res 0402 SM 63mW 1% 100ppm	YAGEO	RC0402FR-0749R9L	CR0402-49R9FTR-CT	CR0402-49R9FTR	Fitted	
32	1	R18	22R	0402(R1005)L	Res 0402 SM 63mW 1% 100ppm	YAGEO	RC0402FR-0722RL	CR0402-22R0FTR-CT	CR0402-22R0FTR	Fitted	
33	9	R2, R3, R4, R6, R7, R8, R15, R19, R20	10k	0402(R1005)L	Res 0402 SM 63mW 1% 100ppm	YAGEO	RC0402FR-0710KL	CR0402-1002FTR-CT	CR0402-1002FTR	Fitted	
34	1	R27	1M	1206(R3216)L	Res 1206 SM 250mW 1% 100ppm	YAGEO	RC1206FR-071ML	CR1206-1004FTR-CT	CR1206-1004FTR	Fitted	
35	2	R28, R34	2k	0402(R1005)L	Res 0402 SM 63mW 1% 100ppm	YAGEO	RC0402FR-072KL	CR0402-2001FTR-CT	CR0402-2001FTR	Fitted	
36	1	R30	10k	0201(R0402)L	Res 0201 SM 65mW 1% 200ppm	YAGEO	RC0201FR-0710KL	CR0201-1002FTR-CT	CR0201-1002FTR	Fitted	
37	8	R31, R36, R39, R41, R46, R49, R95, R96	100k	0402(R1005)L	Res 0402 SM 63mW 1% 100ppm	YAGEO	RC0402FR-07100KL	CR0402-1003FTR-CT	CR0402-1003FTR	Fitted	
38	3	R32, R38, R47	10R	0603(R1608)L	Res 0603 SM 100mW 1% 100ppm	YAGEO	RC0603FR-0710RL	CR0603-10R0FTR-CT	CR0603-10R0FTR	Fitted	
39	1	R33	158k	0402(R1005)L	Res 0402 SM 63mW 1% 100ppm	YAGEO	RC0402FR-07158KL	CR0402-1583FTR-CT	CR0402-1583FTR	Fitted	
40	1	R35	344k	0402(R1005)L	Res 0402 SM 63mW 1% 100ppm	YAGEO	RC0402FR-0734K9L	CR0402-3482FTR-CT	CR0402-3482FTR	Fitted	
41	3	R37, R40, R42	1R	0402(R1005)L	Res 0402 SM 63mW 1% 100ppm	YAGEO	RC0402FR-071RL	TBD	CR0402-1R00FTR	Fitted	
42	1	R43	150R	0402(R1005)L	Res 0402 SM 63mW 1% 100ppm	YAGEO	RC0402FR-07150RL	CR0402-1500FTR-CT	CR0402-1500FTR	Fitted	
43	1	R5	2k2	0402(R1005)L	Res 0402 SM 63mW 1% 100ppm	YAGEO	RC0402FR-072K2L	CR0402-2201FTR-CT	CR0402-2201FTR	Fitted	
44	1	R50	49k9	0402(R1005)L	Res 0402 SM 63mW 1% 100ppm	YAGEO	RC0402FR-0749K9L	CR0402-4982FTR-CT	CR0402-4982FTR	Fitted	
45	1	R53	100R	0402(R1005)L	Res 0402 SM 63mW 1% 100ppm	YAGEO	RC0402FR-07100RL	CR0402-1000FTR-CT	CR0402-1000FTR	Fitted	
46	1	R94	0R	0503(R1608)L	Res 0503 SM 100mW	ROHM	MCR03E2P-1000	CR0603-0000JTR-R-CT	CR0603-0000JTR-R	Fitted	
47	3	SW1, SW2, SW3	SPST Mom	SW-TAG-J-SMD	Switch Momentary Tac SPST SMD J leads	CAK	KSC2222JLFS	KSC2222JLFS	KSC2222JLFS	Fitted	
48	1	U1	BGA256_14X14mm	FPGA Flash PCIe BGA256 SM 1.14-1.26Vop 400MHz	MICROSEMI	M2GL025-VF256	TBD	M2GL025-VF256	M2GL025-VF256	Fitted	
49	1	U10		SOU8	Memory Flash Serial SQI SOU8 SM 2.5-3.0Vop 64Mbit 104MHz	MICROCHIP	SST26VF064B-104JSM	TBD	25WQ6401W S0I	Fitted	
50	1	U12		PSOP8 - EPad	PMIC LDO Bur Termination Reg SPAK-7 SM 1.1-1.5Vvin 18Rdtsch	EXAR	XRP2997IDBTR-F	XRP2997IDBTR-CT	XRP2997IDBTR-F	Fitted	
51	1	U2		SOT23_6	USB Nus protector Very low capacitance ESD protection	ST	USBLC6-25C6	USBLC6-25C6-CT	USBLC6-25C6	Fitted	
52	1	U3	400MHz - 1.8V	BGA84	Memory DDR2 Synchronous DRAM BGA 84 SM 1.8Vop 512Mbit (32M x 16) 400MHz	ALANCE	AS4C32M16D2A-25BCN	TBD	TBD	Fitted	
53	1	U4		LOFP64_M	Interface USB to UART Quad HSPeed LOFP64 SM 1.82-1.8Vvcore 12-480MHz	FTDI	FT4232HL-REEL	FT4232HL-R-CT	FT4232HL-R	Fitted	
54	1	U5		SOT23	Interface 3Pin MCU Reset Open-Drain SOT23 SM 3.0-5V 64uops 3.08V Monitor	DIODES	APX803-31SAG-7	TBD	APX803-31SAG-7	Fitted	
55	1	U6		SSOP28	Analog Converter A/D TSSOP28 SM 5.5-5.5Vad 2.7-5.5Vid 64uops	MICROCHIP	MCP3903-E/SS	TBD	MCP3903-E/SS	Fitted	
56	1	U7		SO8	Memory EEPROM MicroWire SO8 SM 2.5-5.5Vop 1Kbit 2MHz	ST	M93C46-WMN6TP	93LC46SOITR-CT	93LC46SOITR	Fitted	
57	3	U8, U9, U11		UDFN8	PMIC Buck Hysteretic Sync Reg Const Freq UDFN8 SM 3.0-5.5Vop 3MHz	MICROSEMI	LX1761ACLD-TR	TBD	LX1761ACLD-TR	Fitted	
58	1	X1	12.000MHz	ABM8	Crystal 12.000MHz ABM8 SMD	ABRACON	ABM8G-12.000MHZ-18-D2Y-T3	TBD	12.000M-ABM8GT-OR8T3	Fitted	
59	1	X2		CO43	Timing Oscillator CO43 SM 50.000MHz ±100 PPM 3.3VIn	RALTRON	CO4310-50.000-T-TR	TBD	50.000M-F4100T	Fitted	
60	1	X3		ABS07	Timing Crystal ABS07 SM 32.768KHz ±20 ppm 12.5pF	ABRACON	ABS07-32.768KHZ-T	32.768K-CM315-CT	32.768K-CM315	Fitted	
Approved											
Notes											
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