

# KSZ9031MNX Evaluation-Socket Board Rev 1.1, Schematic Rev 1.0

## Bill Of Materials

## Revision History

v1.0 08/16/12 BOM for board assembly - unpopulated components are not listed

Item	Quantity	Reference	Description	Package	Manufacturer / Part Number
1	2	C5,C6	22pF, 50V 5% COG ceramic	0603	
2	2	C73,C75	27pF, 50V 5% COG ceramic	0603	
3	2	C47,C72	470pF, 50V 5% COG ceramic	0603	
4	18	C18,C19,C20,C21,C31,C35, C36,C37,C38,C39,C40,C51, C52,C53,C54,C62,C63,C64	10nF, 50V 10% X7R ceramic	0402	
5	1	C3	10nF, 50V 10% X7R ceramic	0603	
6	1	C79	33nF, 50V 10% X7R ceramic	0603	
7	3	C23,C30,C46	0.1uF, 25V 10% X5R ceramic	0402	
8	23	C2,C7,C8,C9,C14,C16,C25, C26,C33,C42,C43,C49,C56, C58,C60,C65,C68,C70,C71, C76,C77,C78,C80	0.1uF, 50V 10% X7R ceramic	0603	
9	3	C11,C12,C13	0.1uF, 50V 10% X7R ceramic	0805	
10	16	C4,C15,C22,C24,C27,C29, C32,C41,C44,C45,C48,C59, C66,C67,C69,C74	10uF / 16V Tantalum	A-size	
11	7	C1,C17,C28,C34,C50,C57, C61	47uF/16V Tantalum	C-size	
12	1	C55	220uF / 16V, straight leads 3.5mm spacing	Al Electrolytic / radial lead	Panasonic EEUFC1C221
13	1	C10	1000pF / 2kV, Y5P Ceramic Disc	radial lead	Panasonic ECK-A3D102KBP
14	1	CN1	USB Connector	thru hole / right-angle	TYCO / AMP 292304-1
15	3	D2,D3,D5	LED / 565nm Green	0805 SMD	Lumex SML-LXT0805GW
16	1	D4	Tri-color Dual LED (green / red)	1210 SMD	Dialight 598-8610-207F
17	1	D1	Switching Diode	SOD-123	Diodes BAV16W-7-F
18	12	FB1,FB2,FB3,FB4,FB5,FB6, FB7,FB8,FB9,FB10,FB11, FB12	Ferrite Bead	1206	Steward HI1206N101R-10
19	1	J1	Male MII Connector, SCSI-2, 40-pin	PCB edge mount	Goal Ray Industry Co. Ltd MDS-40MM-3-C2
20	1	J2	Power Jack	thru hole	Switchcraft RAPC712X
21	27	JP1,JP2,JP3,JP4,JP5,JP6, JP7,JP8,JP9,JP10,JP11, JP12,JP13,JP14,JP16,JP17, JP18,JP19,JP20,JP21,JP22, JP23,JP24,JP25,JP26,JP27, JP30	Header 3X1	thru hole / 0.1" pitch	
22	2	JP28,JP29	Header 2X1	thru hole / 0.1" pitch	
23	1	RJ1	RJ-45 Connector ("traditional jack" cable-to-pin configuration)	thru hole / right-angle	Cherng Weei Technology Corp CAJ-008SH-F-X-B1-N1
24	2	RN1,RN2	Resistor Pack 0 Ohm	0402 x 8	CTS 741X163000XP Mouser 774-741X163000XJP
25	12	R30,R31,R32,R33,R34,R35, R36,R37,R38,R39,R63,R64	0 Ohm	0402	
26	2	R61,R62	27 Ohm 5%	0603	
27	4	R26,R27,R28,R29	75 Ohm 5%	0603	
28	4	R13,R14,R15,R48	220 Ohm 5%	0603	
29	1	R49	470 Ohm 5%	0603	
30	10	R6,R7,R8,R9,R21,R22,R23, R24,R25,R50	1K 5%	0603	
31	3	R40,R47,R60	1.50K 1%	0603	
32	1	R43	2.43K 1%	0603	
33	2	R45,R46	2.49K 1%	0603	
34	1	R42	3.92K 1%	0603	
35	6	R10,R11,R51,R56,R57,R58	4.7K 5%	0603	
36	1	R12	12.1K 1%	0603	
37	1	R44	5.62K 1%	0603	
38	14	R1,R2,R3,R4,R5,R16,R17, R18,R19,R20,R52,R53,R54, R59	10K 5%	0603	

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Item	Quantity	Reference	Description	Package	Manufacturer / Part Number
39	1	R55	200K 5%	0603	
40	1	S1	Switch (push button)	SMT	Panasonic EVQ-PHV03T
41	1	T1	Ethernet Transformer	SMT	Pulse Engineering H5007NL
42	4	TP9,TP10,TP11,TP12	TestPoint: GND	thru hole / 0.1" pitch	
43	1	TP3	TestPoint: INT_N	thru hole / 0.1" pitch	
44	1	Y1	25MHz +/-30ppm	cylinder	Epson CA-301 25.0000M-C:PBFREE / Digikey SER3441-ND
45	1	Y2	6MHz +/-50ppm	cylinder	CSA309-6.000MABJ-UB
46	1	Q1	P-channel MOSFET (Pb-free)	SOT-223	Fairchild FDT434P
47	1	U6	USB UART/FIFO I.C.	48-LQFP	FTDI FT2232D
48	1	U7	Dual Bidirectional Voltage Level Translator	US8, 8-VSSOP	TI PCA9306DCUR
49	28	<no reference>	Jumper Block (for 0.1" pitch headers)		
Micrel Components:					
50	1	U1	KSZ9031MNX	64-QFN	Micrel KSZ9031MNX
51	1	U2	1.2V LDO Regulator (Adj.)	5-pin S-PAK	Micrel MIC49150WR
52	1	U3	1.8V, 2.5V LDO Regulator (Adj.)	5-Pin SOT-23	Micrel MIC5207YM5
53	1	U4	3.3V LDO Regulator (Adj.)	TO-263-5	Micrel MIC29302WU
54	1	U5	5.0V LDO Regulator (Fixed)	5-Pin SOT-23	Micrel MIC5207-5.0YM5