

Bill of Materials

Project: MICROZED SBC
 Project Name: Z7MB-Z70x0-SBC
 Revision: B
 Variant: NONE



Report Date: 5/7/2014 11:17:08 AM

#	Quantity	Designator	Description	MFG	MFGPN	DNP
1	1	BPH1	PCB	Avnet	Z7MB-Z70x0-PCB-SBC-A	
2	5	C1, C41, C53, C207, C211	CAP SM 100uF 16V 20% X5R C1210	Taiyo Yuden	EMK325ABJ107MM-T	
3	53	C2, C3, C5, C6, C8, C10, C22, C56, C57, C60, C63, C65, C66, C67, C68, C69, C70, C75, C76, C77, C78, C79, C80, C82, C83, C84, C85, C145, C164, C165, C170, C171, C175, C176, C178, C180, C181, C183, C184, C185, C187, C188, C189, C193, C199, C201, C202, C204, C205, C206, C208, C213, C215	CAP SM 0.1uF 16V 10% X5R C0201	TDK	C0603X5R1C104K030BC	
4	5	C4, C42, C43, C47, C48	CAP SM 22uF 16V 20% X5R C0805	Taiyo Yuden	EMK212BBJ226MG-T	
5	1	C7	CAP SM 2.2uF 6.3V 10% X5R C0603	AVX	06036D225KAT2A	
6	4	C9, C24, C39, C46	CAP SM 10uF 6.3V 20% X5R C0603	AVX	06036D106MAT2A	
7	17	C11, C12, C16, C17, C18, C19, C20, C21, C25, C26, C27, C28, C37, C38, C166, C167, C194	CAP SM 100uF 6.3V 20% Y5V C1210	Murata	GRM32EF50J107ZE20K	
8	31	C13, C23, C81, C87, C91, C92, C94, C95, C96, C97, C98, C101, C108, C111, C113, C114, C115, C118, C119, C121, C124, C131, C137, C138, C139, C140, C146, C154, C156, C160, C161	CAP SM 0.47uF 6.3V 10% X5R C0402	Taiyo Yuden	JMK105BJ474KV-F	
9	28	C14, C15, C31, C36, C64, C88, C89, C93, C100, C102, C103, C104, C106, C109, C110, C112, C116, C122, C126, C133, C144, C150, C151, C155, C157, C159, C162, C163	CAP SM 4.7uF 6.3V 20% X5R C0402	Murata	GRM155R60J475ME87D	
10	22	C29, C30, C141, C142, C168, C169, C172, C173, C174, C177, C179, C182, C186, C190, C191, C192, C195, C196, C197, C198, C200, C203	CAP SM 0.01uF 16V 10% X5R C0201	Taiyo Yuden	EMK063BJ103KP-F	
11	6	C32, C33, C34, C35, C86, C153	CAP SM 47uF 6.3V 20% X5R C0805	Taiyo Yuden	JMK212BJ476MG-T	
12	1	C40	CAP SM 0.22uF 6.3V 10% X5R C0402	AVX	04026D224KAT2A	
13	4	C44, C45, C49, C50	CAP SM 10uF 25V 10% X5R C1206	AVX	12063D106KAT2A	
14	4	C51, C52, C54, C55	CAP SM 0.0033uF 25V 5% X7R C0402	AVX	04023C332JAT2A	
15	1	C58	CAP SM 0.0033uF 25V 5% X7R C0402	AVX	04023C332JAT2A	DNP
16	1	C59	CAP SM 10uF 25V 10% X5R C1206	AVX	12063D106KAT2A	DNP
17	5	C61, C209, C210, C212, C214	CAP SM 2.2uF 16V 20% X5R C0402	Taiyo Yuden	EMK105ABJ225MV-F	
18	1	C62	CAP SM 22uF 10V 20% X5R C0805	Murata	GRM219R61A226MEA0D	DNP
19	4	C71, C72, C73, C74	CAP SM 0.1uF 50V 10% X7R C0603	Kemet	C0603C104K5SRAC TU	
20	17	C90, C99, C105, C117, C120, C123, C125, C127, C128, C129, C130, C134, C135, C143, C147, C148, C152	CAP SM 0.47uF 6.3V 10% X5R C0402	Taiyo Yuden	JMK105BJ474KV-F	DNP
21	4	C107, C132, C136, C149	CAP SM 4.7uF 6.3V 20% X5R C0402	Murata	GRM155R60J475ME87D	DNP
22	1	C158	CAP SM 470pF 50V 5% X7R C0402	AVX	04025C471JAT2A	DNP
23	1	D1	ESD Protection array	Bourns	CDSOT23-SR208	
24	1	D2	LED BLUE 468nm SM 3.3V 20mA 35mcd LED-B	Avago	HSMN-C190	
25	1	D3	LED, RED 631nm SM 2.0V 20mA 54mcd LED-R	Lite-On	LTST-C191KRKT	
26	2	D4, D7	Diode SM Barrier Rectifier Schottky 3A 30V DIO-S SMA	Diodes Inc	B330A-13-F	
27	1	D5	LED GREEN 525nm 3.3V 20mA 120mcd LED-G	Avago	HSMN-C190	
28	1	D6	Diode SM BAS21 Fast Switching 200mA 250V 225mW DIO SOT23AXC	Fairchild	BAS21	
29	1	D8	RES 0.0-OHM 1/4W JUMP 1206 SMD ON DIO-S SMA	Vishay Dale	CRCW12060000Z0EA	
30	1	J1	Bel Fuse - RJ45 Right Angle Jack 10/100/1000 Base-T AutoMDIX w/Mags and LEDs - Tab Up	Bel Fuse	L829-1J1T-43	
31	1	J2	CONN RCPT MICRO USB TYPE AB RA	FCI	10104111-0001LF	
32	2	J3, J4	FCI - Connector Unshrouded Header HDR 6 POS 2.54mm Solder ST - Thru-Hole - Right Angle	FCI	77315-401-06LF	
33	1	J5	Secure Micro Digital Card Socket	Molex	502570-0893	
34	1	J5	Micro SD Card Connector - Alternate PN	Amphenol	114-00841-68	DNP
35	3	JP1, JP2, JP3	TE Connectivity - 3-pin 0.1" Header/TH - Conn Unshrouded Header HDR 3 POS 2.54mm Solder ST Thru-Hole	TE Connectivity	5-146280-3	
36	1	JP4	CONN HEADER 3POS RT ANGLE	Molex	22-05-2031	DNP
37	5	JT1, JT6, JT7, JT8, JT10	Jumper 3-pad 0402 RES - 1K Ohm - Pads 1-2	Vishay Dale	CRCW04021K00FKED	
38	1	JT2	Jumper 3-pad 0402 RES - 4.75K Ohm - Pads 2-3	Vishay Dale	CRCW04024K75FKED	
39	4	JT3, JT4, JT5, JT9	Jumper 3-pad 0402 RES - 1K Ohm - Pads 1-2	Vishay Dale	CRCW04021K00FKED	DNP
40	1	JT11	Jumper 3-pad 0402 RES - 0 Ohm - Pads 1-2	Vishay Dale	CRCW04020000Z0ED	
41	1	JT12	Jumper 3-pad 0402 RES - 4.99K Ohm - Pads 1-2	Vishay Dale	CRCW04024K99FKED	
42	2	JX1, JX2	Microheader 100 pos Plug, 8mm 6.7mm	FCI	61082-103400LF	
43	5	L1, L2, L3, L4, L5	FB SM 220 ohm @ 100MHz 2000mA 0.25 0.045 ohm @ DC L0805	Murata	BLM21PG221SN1D	
44	3	L6, L7, L9	IND SM 1uH 2.35A DCR=48mOhm	Bourns	SRN3015-1R0Y	
45	1	L8	IND SM 2.2uH 6.3A DCR=7mOhm	Bourns	SRN8040-2R2Y	
46	1	L10	IND SM 1uH 2.35A DCR=48mOhm	Bourns	SRN3015-1R0Y	DNP

47	27	NT1, NT2, NT3, NT4, NT5, NT6, NT7, NT8, NT9, NT10, NT11, NT12, NT13, NT14, NT15, NT16, NT17, NT18, NT19, NT20, NT21, NT22, NT23, NT24, NT25, NT26, NT27	Net Tie 2 Points, 2210 NT2-2210	None	None	DNP
48	1	Q1	NPN SM BJT 200mA 60V 225mW NPN SOT23BEC	On Semi	MMBT3904LT1G	
49	5	Q2, Q3, Q4, Q5, Q6	MOSFET N-CH 50V 3.5-ohm Rds On 200mA SOT-23	On Semi	BSS138LT1G	
50	9	R1, R5, R17, R54, R60, R66, R68, R78, R104	RES SM 0 ohm 62mW J R0402	Vishay Dale	CRCW04020000Z0ED	
51	5	R2, R3, R52, R53, R70	RES SM 0 ohm 62mW J R0402	Vishay Dale	CRCW04020000Z0ED	DNP
52	8	R4, R50, R67, R75, R97, R98, R100, R101	RES SM 4.99K 62mW 0.01 R0402	Vishay Dale	CRCW04024K99FKED	
53	1	R7	Res SM 10kOhm R0603 1% 1/8W	Vishay Dale	CRCW060310K0FKEA	
54	28	R8, R11, R16, R18, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R88, R90, R91, R92, R93, R94, R96	RES SM 40.2 62mW 0.01 R0402	Vishay Dale	CRCW040240R2FKED	
55	2	R9, R10	RES SM 4.75K 62mW 0.01 R0402	Vishay Dale	CRCW04024K75FKED	
56	10	R12, R13, R19, R46, R47, R71, R77, R81, R89, R95	RES SM 240 62mW 0.01 R0402	Vishay Dale	CRCW0402240RFKED	
57	8	R14, R15, R51, R61, R62, R63, R79, R86	RES SM 20.0K 62mW 0.01 R0402	Vishay Dale	CRCW040220K0FKED	
58	8	R37, R38, R72, R73, R74, R99, R102, R103	RES SM 10K 62mW 0.01 R0402	Vishay Dale	CRCW040210K0FKED	
59	9	R39, R40, R45, R64, R69, R76, R80, R82, R83	RES SM 1K 62mW 0.01 R0402	Vishay Dale	CRCW04021K00FKED	
60	2	R41, R44	RES SM 18.7K 62mW 0.01 R0402	Vishay Dale	CRCW040218K7FKED	
61	1	R42	RES SM 15.0K 62mW 0.01 R0402	Vishay Dale	CRCW040215K0FKED	
62	1	R43	RES SM 13.0K 62mW 0.01 R0402	Vishay Dale	CRCW040213K0FKED	
63	1	R48	RES SM 56.2K 62mW 0.01 R0402	Vishay Dale	CRCW040256K2FKED	
64	1	R49	RES SM 18.2K 62mW 0.01 R0402	Vishay Dale	CRCW040218K2FKED	
65	1	R55	RES SM 1.78K 62mW 0.01 R0402	Vishay Dale	CRCW04021K78FKED	DNP
66	1	R56	RES SM 9.53K 62mW 0.01 R0402	Vishay Dale	CRCW04029K53FKED	DNP
67	1	R57	RES SM 0 0.1W 0.01 R0603	Bourns	CR0603-J-000ELF	
68	1	R58	RES SM 100K 62mW 0.01 R0402	Vishay Dale	CRCW0402100KFKED	DNP
69	1	R59	RES SM 100K 62mW 0.01 R0402	Vishay Dale	CRCW0402100KFKED	
70	1	R65	RES SM 8.06k 62mW 0.01 R0402	Vishay Dale	CRCW04028K06FKED	
71	3	R84, R85, R87	RES SM 80.6 62mW 0.01 R0402	Vishay Dale	CRCW040280R6FKED	
72	2	RP1, RP2	RPACK SM 4.7K 62mW 0.05 RPACK4-LCC	Bourns	CAT16-472J4LF	
73	1	SH1	Shunt 100mil 2x1 Shunt	TE Connectivity	1-382811-8	
74	1	SH2	Shunt 100mil 2x1 Shunt	TE Connectivity	1-382811-8	
75	1	SH3	Shunt 100mil 2x1 Shunt	TE Connectivity	1-382811-8	
76	1	TP1	Test Pad	None	None	DNP
77	1	TP2	Test Pad	None	None	DNP
78	1	U1	TXS02612RTW_QFN24	Texas Instruments	TXS02612RTW	
79	1	U2	Microchip - EEPROM/MAC ID Serial-2Wire 2K-bit - 256 x 8 - 2.5V/3.3V/5V - 8-Pin SOIC	Microchip	24AA025E48-I/SN	
80	1	U3	High Integrated 10/100/1000 Ultra Gigabit Ethernet Transceiver	Marvell	88E1512-A0-NNP2C000	
81	1	U4	USB 2.0 ULPI OTG Transceiver	Microchip	USB3320C-EZK	
82	1	U5	OSC, SM, ABRACON, 1.8V, 24.000MHz, 50ppm, 2.5x2.0mm	Abracon	ASDMB-24.000MHZ-LC-T	
83	1	U6	OSC, SM, ABRACON, 1.8V, 25.000MHz, 50ppm, 2.5x2.0mm	Abracon	ASDMB-25.000MHZ-LC-T	
84	1	U7	Quad SPI Flash - 3V, 128M x 8-bit, 24-pin FBGA	Spansion	S25FL128SAGBH1200	
85	2	U8, U18	2-Bit Bidirectional Voltage-Level Translator	Texas Instruments	TXS0102DQE	
86	1	U9	Zynq 7010/7020 SOC CLG400	Xilinx	XC7Z010-1CLG400C	
87	1	U10	OSC, SM, ABRACON, 1.8V 33.333MHz, 50ppm, 2.5x2.0mm	Abracon	ASDMB-33.333MHZ-LC-T	
88	2	U11, U12	4Gb 64M x 16 DDR3 SDRAM	Micron	MT41K256M16HA-125:E	
89	1	U13	DDR Termination Regulator, 2A	Texas Instruments	TPS51206DSQT	
90	4	U14, U15, U16, U17	Step Down Switcher, 3A, 3V-17V, Adjustable	Texas Instruments	TLV62130RGT	
91	1	U19	Step Down Switcher, 1A, 3V-17V, Adjustable	Texas Instruments	TLV62150RGT	DNP
92	1	U20	UHS Dual Buffer 1.65V-5.5V	Fairchild	NC7W207FHX	
93	1	U21	AND SM LVCOS Single	Texas Instruments	SN74LVC1G08DCKT	
Approved				Notes		