

# Bill of Materials

Project: MicroZed SOM (7020 Commercial)  
 Project Name: Z7MB-7Z0X0-PRJ-G  
 Revision: G  
 BOM: 03  
 Variant: 02

Report Date: 7/27/2017 10:30:12 AM



#	Quantity	Designator	Description	Manufacturer 1	Manufacturer Part Number 1	Fitted	Notes
1	1	BPH1	BARE PCB Part Number	AES	PCB Document Name-G	Fitted	
2	16	C1, C13, C14, C19, C20, C21,	CAP CER 100UF 6.3V 20% X5R 1210	Murata	GRM32ER60J107ME20L	Fitted	
3	55	C2, C5, C7, C8, C9, C12, C24,	CAP CER 0.1UF 25V 10% X5R 0201	Samsung Electro-Mechanics America, Inc.	CL03A104KA3NNNC	Fitted	
4	5	C3, C51, C52, C56, C57	CAP CER 22UF 25V 20% X5R 0805	TDK Corporation	C2012X5R1E226M125AC	Fitted	
5	30	C6, C16, C17, C34, C36, C39,	CAP CER 4.7UF 6.3V 20% X5R 0402	Murata	GRM155R60J475ME87D	Fitted	
6	3	C10, C220, C221	CAP CER 2.2UF 25V 10% X5R 0603	Murata	GRM188R61E225KA12D	Fitted	
7	5	C11, C26, C48, C55, C226	CAP CER 10UF 10V 10% X5R 0603	Murata	GRM188R61A106KE69D	Fitted	
8	45	C15, C25, C88, C91, C95, C98,	CAP CER 0.47UF 16V 10% X5R 0402	Taiyo Yuden	EMK105ABJ474KVHF	Fitted	
9	22	C37, C38, C148, C149, C171,	CAP CER 10000PF 10V 10% X5R 0201	Murata	GRM033R61A103KA01D	Fitted	
10	6	C41, C42, C43, C44, C94, C160	CAP CER 47UF 10V 20% X5R 0805	Murata	GRM21BR61A476ME15L	Fitted	
11	1	C49	CAP CER 0.22UF 10V 10% X5R 0402	AVX Corporation	0402ZD224KAT2A	Fitted	
12	4	C50, C62, C207, C211	CAP CER 100UF 16V 20% X5R 1210	Taiyo Yuden	EMK325ABJ107MM-T	Fitted	
13	4	C53, C54, C58, C59	CAP CER 10UF 25V 10% X5R 1206	AVX Corporation	12063D106KAT2A	Fitted	
14	4	C60, C61, C63, C64	CAP CER 3300PF 50V 10% X7R 0402	Taiyo Yuden	UMK105B7332KV-F	Fitted	
15	4	C71, C72, C76, C77	CAP CER 0.1UF 50V 10% X7R 0603	Murata	GRM188R71H104KA93D	Fitted	
16	1	C165	CAP CER 470PF 50V 10% C0G 0402	AVX Corporation	04025A471JAT2A	Fitted	
17	4	C209, C210, C213, C215	CAP CER 2.2UF 25V 20% X5R 0402	TDK Corporation	C1005X5R1E225M050BC	Fitted	
18	2	D1, D7	TVS DIODE 20VWM SMD	Bourns	CDSOT23-SR208	Fitted	
19	1	D2	LED BLUE CHIP 0603 TOP EMIT	Avago Technologies US Inc.	HSMR-C191	Fitted	
20	1	D3	LED RED CHIP 0603 TOP EMIT	Avago Technologies US Inc.	HSMH-C191	Fitted	
21	3	D4, D8, D9	DIODE SCHOTTKY 30V 3A SMA	Diodes Inc.	B330A-13-F	Fitted	
22	1	D5	LED GREEN CHIP 0603 TOP EMIT	Avago Technologies US Inc.	HSMC-C190	Fitted	
23	1	D6	DIODE SML SIG 250V 0.2A SOT23-3	NXP Semiconductors	BAS21.215	Fitted	
24	1	D12	POLYZEN 5.6V PPTC/ZENER SMD	TE Connectivity	ZEN056V130A24LS	Fitted	
25	1	ESD1	ESD Bag	3M	TBD	Fitted	
26	1	J1	CONN MAGJACK 2PORT 1000 BASE-T	Bel Fuse Inc.	0821-1X1T-43-F	Fitted	
27	1	J2	CONN RCPT STD MICRO USB TYPE AB	FCI	10104111-0001LF	Fitted	
28	1	J3	CONN HEADER 14POS 2MM VERT SMD	Molex, LLC	0878321421	Fitted	
29	1	J5	CONN RCPT 12POS .100" DUAL VERT	Samtec	BCS-106-L-D-TE	Fitted	
30	1	J6	CONN MICRO SD CARD PUSH-PUSH R/A	Molex	502570-0893	Fitted	
31	3	JP1, JP2, JP3	CONN HEADR BRKWAY .100 3POS STR, SINGLE ROW	Samtec	TSW-103-23-L-S	Fitted	
32	4	JT4, JT5, JT7, JT8	RES 0.0 OHM 1/16W JUMP 0402 SMD-3 PAD JUMPER (1-2)	VISHAY DRALORIC	CRCW0402000020ED	Fitted	Position 1-2
33	1	JT6	RES 4.7K OHM 1/16W 1% 0402 SMD-3 PAD JUMPER (2-3)	Vishay Dale	CRCW04024K70FKED	Fitted	Position 2-3
34	2	JX1, JX2	CONN RECEIPT 100POS .8MM DUAL SMD	FCI	61082-101400LF	Fitted	
35	5	L1, L2, L3, L4, L5	FERRITE BEAD 220 OHM 2.0A 0805	Murata	BLM21PG221SN1D	Fitted	
36	3	L6, L7, L9	FIXED IND 1uH 2.35A 48 mOHM SMD	Bourns	SRN3015-1R0Y	Fitted	
37	1	L8	FIXED IND 2.2uH 6.3A 13 mOHM SMD	Bourns	SRN8040-2R2Y	Fitted	
38	1	Label1	Label, Product	AES	Z7MB-7Z0X0-PCB-G-01-00	Fitted	-
39	1	Label2	Label, Serial Number	AES	Z7MB-7Z0X0-PCB-G	Fitted	-
40	1	Label_ESD1	Label, ESD	AES	TBD	Fitted	-
41	1	Q1	TRANS NPN 40V 0.2A SOT-23	ON Semiconductor	MMBT3904LT3G	Fitted	
42	7	Q2, Q3, Q4, Q5, Q6, Q7, Q8	MOSFET N-CH 50V 200MA SOT23-3	Diodes Incorporated	BSS138-7-F	Fitted	
43	7	R1, R12, R47, R51, R54, R69,	RES 0.0 OHM JUMP 0402 1/16W	Bourns	CR0402-JI-000GLF	Fitted	
44	16	R3, R4, R45, R59, R67, R68,	RES 4.99K OHM 0402 1% 1/16W	Vishay Dale	CRCW04024K99FKED	Fitted	
45	28	R5, R6, R9, R13, R15, R16, R17,	RES 40.2 OHM 0402 1% 1/16W	Vishay Dale	CRCW040240R2FKED	Fitted	

46	8	R7, R8, R46, R55, R58, R61,	RES 20.0K OHM 0402 1% 1/16W	Vishay Dale	CRCW040220K0FKED	Fitted	
47	9	R10, R11, R14, R41, R42, R65,	RES 240 OHM 0402 1% 1/16W	Yageo	RC0402FR-07240RL	Fitted	
48	14	R32, R33, R56, R60, R62, R63,	RES 10.0K OHM 0402 1% 1/16W	Vishay Dale	CRCW040210K0FKED	Fitted	
49	8	R34, R40, R72, R73, R92, R93,	RES 1.00K OHM 0402 1% 1/16W	Vishay Dale	CRCW04021K00FKED	Fitted	
50	1	R35	RES 1.5K OHM 0402 1% 1/16W	Vishay Dale	CRCW04021K50FKED	Fitted	
51	1	R36	RES 18.7K OHM 0402 1% 1/16W	Panasonic	ERJ-2RKF1872X	Fitted	
52	2	R37, R39	RES 15.0K OHM 0402 1% 1/16W	Vishay Dale	CRCW040215K0FKED	Fitted	
53	1	R38	RES 13.0K OHM 0402 1% 1/16W	Vishay Dale	CRCW040213K0FKED	Fitted	
54	1	R43	RES 56.2K OHM 0402 1% 1/16W	Vishay Dale	CRCW040256K2FKED	Fitted	
55	1	R44	RES 18.2K OHM 0402 1% 1/16W	Vishay Dale	CRCW040218K2FKED	Fitted	
56	1	R50	RES 0.0 OHM JUMP 0603 1/10W	Vishay / Dale	CRCW06030000Z0EA	Fitted	
57	1	R57	RES 8.06K OHM 0402 1% 1/16W	Vishay Dale	CRCW04028K06FKED	Fitted	
58	3	R74, R75, R77	RES 80.6 OHM 0402 1% 1/16W	Vishay / Dale	CRCW040280R6FKED	Fitted	
59	1	R96	RES 100 OHM 0402 1% 1/16W	Vishay Dale	CRCW0402100RFKED	Fitted	
60	2	RP1, RP2	RES ARRAY 4.7K OHM 4 RES 1206	Bourns	CAT16-4701F4LF	Fitted	
61	3	SH1, SH2, SH3	SHUNT, ECON, PHBR 15 AU, BLACK	TE Connectivity	1-382811-6	Fitted	
62	2	SW1, SW2	SWITCH TACTILE SPST-NO 0.1A 24V	Bourns	7914J-1-000E	Fitted	
63	1	U1	IC SDIO PORT EXPANDER 24WQFN	Texas Instruments	TXS02612RTWVR	Fitted	
64	1	U2	IC SGL USB-TO-UART BRIDGE 24QFN	Silicon Labs	CP2104-F03-GM	Fitted	
65	1	U3	SINGLE-PORT EEE GIGABIT ETHERNET PHY WITH RGMII, COMMERCIAL	Marvell	88E1512-A0-NNP2C000	Fitted	
66	1	U4	MULTI-FREQ USB 2.0 ULPI PHY	Microchip Technology	USB3320C-EZK	Fitted	
67	1	U5	OSC MEMS 24.000MHZ CMOS SMD	Abrakon LLC	ASDMB-24.000MHZ-LC-T	Fitted	
68	1	U6	OSC MEMS 25.000MHZ CMOS SMD	Abrakon LLC	ASDMB-25.000MHZ-LY-T	Fitted	
69	1	U7	IC FLASH 128MBIT 133MHZ 24BGA, INDUSTRIAL	Spansion	S25FL128SAGBH1200	Fitted	Alternate = S25FL128SAGBHIA00
70	1	U8	IC TRANSLATOR VOLTAGE 8-X2SON	Texas Instruments	TXS0102DQER	Fitted	
71	1	U9	IC SOC CORTEX-A9, Zynq-7000, 400BGA, COMMERCIAL	Xilinx Inc.	XC7Z020-1CLG400C	Fitted	
72	1	U10	OSC MEMS 33.333MHZ CMOS SMD	Abrakon LLC	ASDMB-33.333MHZ-LY-T	Fitted	
73	2	U11, U12	IC DDR3 SDRAM 4GBIT 933MHZ FBGA, COMMERCIAL	Micron Technology	MT41K256M16TW-107:P	Fitted	
74	1	U13	IC REG SINK/SOURCE DDR 10SON	Texas Instruments	TPS51206DSQR	Fitted	
75	4	U14, U15, U16, U17	IC REG BUCK SYNC ADJ 3A 16QFN	Texas Instruments	TLV62130RGTT	Fitted	
76	1	U19	IC BUFFER UHS DUAL OD 6-MICROPACK	Fairchild Semiconductor	NC7WZ07FHX	Fitted	
77	2	U20, U21	IC GATE AND 1CH 2-INP SOT-23-5	Texas Instruments	SN74AHC1G08DBVT	Fitted	
78	0	C4, C115, C139, C143, C156	CAP CER 4.7UF 6.3V 20% X5R 0402	Murata	GRM155R60J475ME87D	Not Fitted	
79	0	C18, C28	CAP CER 100UF 6.3V 20% X5R 1210	Murata	GRM32ER60J107ME20L	Not Fitted	
80	0	C65	CAP CER 3300PF 50V 10% X7R 0402	Taiyo Yuden	UMK105B7332KV-F	Not Fitted	
81	0	C66	CAP CER 10UF 25V 10% X5R 1206	AVX Corporation	12063D106KAT2A	Not Fitted	
82	0	C69	CAP CER 22UF 25V 20% X5R 0805	TDK Corporation	C2012X5R1E226M125AC	Not Fitted	
83	0	C127, C130, C136, C137	CAP CER 0.47UF 16V 10% X5R 0402	Taiyo Yuden	EMK105ABJ474KVHF	Not Fitted	
84	0	C212, C217, C218	CAP CER 100UF 16V 20% X5R 1210	Taiyo Yuden	EMK325ABJ107MM-T	Not Fitted	
85	0	D10, D11	DIODE SCHOTTKY 30V 0.2A SOT23-3	ON Semiconductor	BAT54LT1G	Not Fitted	
86	0	J4	CONN POWER JACK 2.1X5.5MM HI CUR	CUI Inc	PJ-002AH-SMT-TR	Not Fitted	
87	0	JP4	CONN HEADER 3PIN	Molex, LLC	0022272031	Not Fitted	
88	0	JT1, JT2, JT3	RES 0.0 OHM 1/16W JUMP 0402 SMD-3 PAD JUMPER (1-2)	VISHAY DRALORIC	CRCW04020000Z0ED	Not Fitted	Position 1-2
89	0	L10	FIXED IND 1uH 2.35A 48 mOHM SMD	Bourns	SRN3015-1R0Y	Not Fitted	
90	0	R2, R97, R98, R99, R112	RES 0.0 OHM JUMP 0402 1/16W	Bourns	CR0402-JI-000GLF	Not Fitted	
91	0	R48	RES 1.78K OHM 0402 1% 1/16W	Bourns	CR0402-FX-1781GLF	Not Fitted	
92	0	R49	RES 9.53K OHM 0402 1% 1/16W	Vishay Dale	CRCW04029K53FKED	Not Fitted	
93	0	R52, R53	RES 100K OHM 0402 1% 1/16W	Vishay Dale	CRCW0402100KFKED	Not Fitted	
94	0	U18	IC REG BUCK SYNC ADJ 1A 16QFN	Texas Instruments	TLV62150RGTT	Not Fitted	

Approved

Notes