

Bill of Materials

Project: UltraZed-EG PCIe Carrier Card
 Project Name: PRJ-US2CAR
 Revision: 1
 BOM: 01
 Variant: 05



Report Date: 2/5/2018 9:21:26 AM

#	Quantity	Designator	Description	Manufacturer 1	Manufacturer Part Number 1	Fitted	Notes
1	8	BMPR1, BMPR2, BMPR3,	BUMPER CYLIN 0.375" DIA BLK	3M	SJ61A4	Fitted	
2	1	BTH1	HOLDER BATT FOR LR44 COIN SMD	MPD (Memory Protection Devices)	BHX1-LR44-SM	Fitted	
3	68	C1, C2, C3, C4, C8, C10, C11,	CAP CER 0.1UF 25V 10% X5R 0201	Taiyo Yuden	TMK063C6104KP-F	Fitted	
4	1	C7	CAP CER 2.2UF 25V 10% X5R 0603	Samsung Electro-Mechanics America, Inc	CL10A225KA5LNNC	Fitted	
5	1	C9	CAP CER 4.7UF 25V 10% X5R 0805	AVX Corporation	08053D475KAT2A	Fitted	
6	10	C12, C14, C89, C90, C97, C98,	CAP CER 22UF 25V 10% X5R 1206	Murata	GRT31CR61E226KE01L	Fitted	
7	1	C22	CAP CER 5.6UF 10V 10% X7R 1206	KEMET	C1206C565K8RACTU	Fitted	
8	1	C24	CAP ALUM 150UF 6.3V 20% 2917	Panasonic Electronic Components	EEF-CX0J151XR	Fitted	
9	1	C27	CAP ALUM 120UF 6.3V 20% 2917	Panasonic Electronic Components	EEF-CX0J121R	Fitted	
10	8	C28, C48, C154, C156, C158,	CAP CER 1UF 50V 10% X7R 0805	KEMET	C0805C105K5RACTU	Fitted	
11	26	C37, C39, C40, C44, C46, C59,	CAP CER 10UF 10V 10% X5R 0603	TDK Corporation	C1608X5R1A106K080AC	Fitted	
12	1	C56	CAP CER 10UF 25V 10% X5R 1206	AVX Corporation	12063D106KAT2A	Fitted	
13	1	C113	CAP ALUM 220UF 20% 25V SMD	Panasonic Electronic Components	EEE-FTE221XAP	Fitted	
14	1	C114	CAP ALUM 560UF 20% 25V SMD	NICHICON	UCV1E561MNL1GS	Fitted	
15	6	C116, C128, C140, C146, C149,	CAP CER 22UF 10V 20% X5R 0603	TDK Corporation	C1608X5R1A226M080AC	Fitted	
16	17	C119, C121, C124, C129, C130,	CAP CER 0.1UF 25V 10% X7R 0402	AVX Corporation	04023C104KAT2A	Fitted	
17	3	C122, C123, C125	CAP CER 4.7UF 10V 10% X5R 0402	TDK Corporation	C1005X5R1A475K050BC	Fitted	
18	3	C126, C138, C144	CAP CER 220UF 6.3V 20% X5R 1210	Samsung Electro-Mechanics America, Inc	CL32A227MQVNNNE	Fitted	
19	4	C127, C136, C139, C145	CAP CER 47UF 16V 20% X5R 1206	TDK Corporation	C3216X5R1C476M160AB	Fitted	
20	2	C133, C134	CAP CER 100UF 16V 20% X5R 1210	KEMET	C1210C107M4PAC7800	Fitted	
21	2	C151, C152	CAP CER 10000PF 25V 10% X7R 0402	AVX Corporation	04023C103KAT2A	Fitted	
22	2	C159, C161	CAP CER 47UF 25V 20% X5R 1206	TDK	C3216X5R1E476M160AC	Fitted	
23	1	CON1	CONN SINGL-END ARRAY FEMALE 160POS	Samtec	ASP-134603-01	Fitted	
24	9	D1, D12, D13, D14, D15, D16,	LED CHIPLED 633NM RED 0603 SMD	OSRAM Opto Semiconductors Inc	LS Q976-NR-1	Fitted	
25	2	D2, D4	LED YELLOW 587NM 0603 SMD	OSRAM Opto Semiconductors Inc	LY L29K-H1K2-26-Z	Fitted	
26	1	D3	TVS DIODE 20VWM SMD	Bourns	CDSOT23-SR208	Fitted	
27	1	D5	TVS DIODE 5.5VWM 8VC SOT3	TEXAS INSTRUMENTS	TPD2EUSB30DRTR	Fitted	
28	6	D6, D9, D25, D26, D27, D28	LED SMARTLED 570NM GREEN 0603	OSRAM Opto Semiconductors Inc	LG L29K-F2J1-24-Z	Fitted	
29	1	D7	TVS DIODE 5.5VWM 14VC 10SON	TEXAS INSTRUMENTS	TPD4E05U06DQAR	Fitted	
30	1	D8	DIODE SCHOTTKY 40V 2A SMB	ON Semiconductor	MBRS240LT3G	Fitted	
31	1	D10	TVS DIODE 5.5VWM 15SON	TEXAS INSTRUMENTS	TPD8S009DSMR	Fitted	
32	1	D11	TVS DIODE 5.5VWM SOT6	TEXAS INSTRUMENTS	TPD4E001DRLR	Fitted	
33	3	D21, D22, D23	DIODE SCHOTTKY 30V 0.2A SOT23-3	Diodes Inc.	BAT400D-7-F	Fitted	
34	1	D24	DIODE ZENER 2V 500MW SOD123	Micro Commercial Co	MMSZ4679-TP	Fitted	
35	2	D29, D30	DIODE SCHOTTKY 40V 5A SMC	ON Semiconductor	MBRS540T3G	Fitted	
36	1	ESD1	ESD Bag	3M	=ESDBagPN	Fitted	
37	2	FB1, FB2	FERRITE BEAD 220 OHM 0603 1LN	TDK Corporation	MPZ1608S221ATA00	Fitted	
38	2	FB3, FB5	FERRITE BEAD 600 OHM 0.3A 0402	Murata	BLM15AG601SN1D	Fitted	
39	4	FB6, FB7, FB8, FB9	FERRITE BEAD 220 OHM 1.0A 0402	Taiyo Yuden	BKP1005EM221-T	Fitted	
40	1	J1	CONN MICRO SD CARD PUSH-PUSH R/A	Molex	502570-0893	Fitted	
41	1	J2	CONN RCPT MICRO USB AB R/A SMD	Molex Inc	0475890001	Fitted	
42	1	J3	CONN HEADER 7POS VERT SMD 15GOLD	Molex, LLC	0678005005	Fitted	
43	1	J4	CONN RCPT MICRO USB 3.0 AB R/A SMD 10 POS	Kycon	KMMX-AB10-SMT1SB30TR	Fitted	
44	1	J5	CONN MAGJACK 1PORT 1000 BASE-T	Bel Fuse Inc	L829-1J1T-43	Fitted	
45	1	J6	CONN HEADER 14POS 2MM VERT SMD	Molex Inc	0878321420	Fitted	
46	1	J7	CONN HEADR BRKWAY .100 6POS STR, SINGLE ROW	Molex, LLC	0423752490	Fitted	

47	1	J8	CONN HEADER 6POS 4.2MM R/A TIN	Molex Inc	0039301060	Fitted	
48	1	J9	CONN HEADR BRKWAY .100 APOS STR, SINGLE ROW	Molex, LLC	0423752488	Fitted	
49	1	J10	CONN HEADER 3PIN	Molex, LLC	0022272031	Fitted	
50	1	JA,JB,JPS	Header TH 100mil 6X2 Right Angle PMOD Horizontal	SAMTEC	SSW-106-02-T-D-RA	Fitted	
51	3	JP1, JP2, JP6	CONN HEADR BRKWAY .100 2POS STR, SINGLE ROW	TE CONNECTIVITY / AMP	5-146280-2	Fitted	
52	8	JP3, JP4, JP5, JP7, JP8, JP10,	CONN HEADR BRKWAY .100 3POS STR, SINGLE ROW	Amphenol FCI	68001-403HLF	Fitted	
53	2	JT1, JT2	RES 4.7K OHM 1/16W 1% 0402 SMD-3 PAD JUMPER (1-2)	Panasonic Electronic Components	ERJ-2RKF4701X	Fitted	Position 1-2
54	2	JX1, JX2	CONN RCPT 140POS .8MM FH 7H 8AU	TE Connectivity AMP Connectors	5177985-6	Fitted	
55	1	JX3	CONN RCPT 100POS .8MM FH 7H 8AU	TE Connectivity AMP Connectors	5177985-4	Fitted	
56	1	L1	CHOKE COMMON MODE WW 190 OHM SMD	Bourns	SRF0504-191Y	Fitted	
57	3	L2, L3, L4	FIXED IND 3.3UH 5A 38 MOHM SMD	Bourns	SRP5030T-3R3M	Fitted	
58	1	L5	FIXED IND 1.5UH 6A 25 MOHM SMD	Bourns	SRP5030T-1R5M	Fitted	
59	2	Label1, Label2	Label, Product	AES	PBA-US2CAR-1-01-05	Fitted	
60	1	Label_ESD1	Label, ESD	AES	TBD	Fitted	
61	2	P2, P3	CONN RCPT R/A W/O FLANGE SMD	Molex, LLC	472720001	Fitted	
62	1	PCB1	BARE PCB Part Number	AES	PCB-US2CAR-1	Fitted	
63	11	Q1, Q6, Q7, Q8, Q9, Q10, Q11,	TRANS NPN 40V 0.2A SOT-23	ON Semiconductor	MMBT3904L3TG	Fitted	
64	7	Q2, Q3, Q4, Q5, Q16, Q17, Q18	MOSFET N-CH 50V 200MA SOT23-3	Infineon Technologies	BSS138NH6327XTSA2	Fitted	
65	4	R1, R2, R3, R11	RES 4.99K OHM 0402 1% 1/16W	Panasonic Electronic Components	ERJ-2RKF4991X	Fitted	
66	1	R4	RES 40.2 OHM 0402 1% 1/16W	Panasonic Electronic Components	ERJ-2RKF40R2X	Fitted	
67	29	R5, R6, R24, R29, R47, R58,	RES 1.00K OHM 0402 1% 1/16W	Panasonic Electronic Components	ERJ-2RKF1001X	Fitted	
68	33	R7, R8, R17, R25, R31, R34,	RES 0.0 OHM JUMP 0402 1/16W	Yageo	RC0402FR-070RL	Fitted	
69	23	R9, R10, R15, R16, R19, R20,	RES 10.0K OHM 0402 1% 1/16W	Panasonic Electronic Components	ERJ-2RKF1002X	Fitted	
70	4	R14, R23, R27, R49	RES SMD 240 OHM 5% 1/16W 0402	Panasonic Electronic Components	ERJ-2GEJ241X	Fitted	
71	4	R18, R51, R108, R112	RES 100 OHM 0402 1% 1/16W	Panasonic Electronic Components	ERJ-2RKF1000X	Fitted	
72	1	R28	RES 191 OHM 1206 1% 1/4W	Panasonic Electronic Components	ERJ-8ENF1910V	Fitted	
73	1	R32	RES 2.49K OHM 0402 1% 1/16W	Panasonic Electronic Components	ERJ-2RKF2491X	Fitted	
74	1	R33	RES 1.5K OHM 0402 1% 1/16W	Panasonic Electronic Components	ERJ-2RKF1501X	Fitted	
75	2	R37, R39	RES 49.9 OHM 0402 1% 1/16W	Panasonic Electronic Components	ERJ-2RKF49R9X	Fitted	
76	7	R38, R40, R42, R61, R62, R101,	RES 100K OHM 0402 1% 1/16W	Panasonic Electronic Components	ERJ-2RKF1003X	Fitted	
77	5	R41, R129, R137, R141, R149	RES 10 OHM 0402 1% 1/16W	Panasonic Electronic Components	ERJ-2RKF10R0X	Fitted	
78	3	R43, R44, R128	RES 1M OHM 0402 1% 1/16W	Panasonic Electronic Components	ERJ-2RKF1004X	Fitted	
79	1	R48	RES 18.2K OHM 0402 1% 1/16W	Panasonic Electronic Components	ERJ-2RKF1822X	Fitted	
80	1	R50	RES 4.02K OHM 0402 1% 1/16W	Panasonic Electronic Components	ERJ-2RKF4021X	Fitted	
81	2	R57, R124	RES 2 OHM 0402 1% 1/16W	Vishay Dale	CRCW04022R00FKED	Fitted	
82	6	R71, R72, R79, R80, R100, R102	RES 240 OHM 0402 1% 1/16W	Panasonic Electronic Components	ERJ-2RKF2400X	Fitted	
83	7	R91, R92, R93, R104, R105,	RES 4.70K OHM 0402 1% 1/16W	Panasonic Electronic Components	ERJ-2RKF4701X	Fitted	
84	7	R109, R110, R111, R113, R119,	RES 22.1 OHM 0402 1% 1/16W	Panasonic Electronic Components	ERJ-2RKF22R1X	Fitted	
85	1	R116	RES 102 OHM 0402 1% 1/16W	Panasonic Electronic Components	ERJ-2RKF1020X	Fitted	
86	1	R118	RES 2.00K OHM 0402 1% 1/16W	Panasonic Electronic Components	ERJ-2RKF2001X	Fitted	
87	5	R130, R133, R136, R138, R148	RES 649 OHM 0402 1% 1/16W	Panasonic Electronic Components	ERJ-2RKF6490X	Fitted	
88	2	R132, R134	RES 3.48K OHM 0402 1% 1/16W	Panasonic Electronic Components	ERJ-2RKF3481X	Fitted	
89	1	R142	RES 0.0 OHM JUMP 1210 1/2W	Panasonic Electronic Components	ERJ-14Y0R00U	Fitted	
90	1	R150	RES 249 OHM 0402 1% 1/16W	Panasonic Electronic Components	ERJ-2RKF2490X	Fitted	
91	3	R164, R165, R166	RES 4.7 OHM 2512 5% 3W	TE Connectivity AMP Connectors	35224R7JT	Fitted	
92	1	R167	RES 499 OHM 0402 1% 1/16W	Panasonic Electronic Components	ERJ-2RKF4990X	Fitted	
93	1	RP1	RES ARRAY 8 RES 240 OHM 1606	Rohm Semiconductor	MNR18ERAPJ241	Fitted	
94	1	RP2	RES ARRAY 8 RES 4.7K OHM 1506	Panasonic Electronic Components	EXB-2HV472JV	Fitted	
95	11	SH1, SH2, SH3, SH4, SH5, SH6,	SHUNT, ECON, PHBR 15 AU BLACK	Samtec	SNT-100-BK-G-H	Fitted	
96	5	SW1, SW2, SW3, SW4, SW6	SWITCH TACTILE SPST-NO 0.05A 24V	TE Connectivity Alcoswitch Switches	1825910-7	Fitted	
97	1	SW5	SWITCH DIP HALF PITCH 8POS 24V	TE CONNECTIVITY / AMP	1-1571983-1	Fitted	
98	1	SW7	SWITCH SLIDE SPDT 6A 120V	C&K Components	1101M2S3CME2	Fitted	
99	1	U1	IC SGL USB-DL UART BRIDGE 24QFN	Silicon Labs	CP2105-F01-GMR	Fitted	
100	1	U2	IC SW CURR LIMIT HI SIDE 8-MSOP	Microchip Technology	MIC2544-1YMOP	Fitted	
101	1	U3	IC DRVR/R/CVR3.3V LVDS HS 14TSSOP	Fairchild Semiconductor	FIN1019MTCX	Fitted	
102	1	U4	IC REG LDO ADJ 0.5A 8TDFN	Maxim Integrated	MAX8902BATA+T	Fitted	
103	1	U5	CLOCK GENERATOR 1MHZ TO 350MHZ 24-VFQFPN	Integrated Device Technology	5P49V5935B536LTGI	Fitted	
104	1	U6	IC EEPROM 2KBIT 400KHZ SOT23-6, With MAC ID	Microchip Technology	24AA025E48T-I/OT	Fitted	
105	1	U7	IC 4BIT NON-INV TRANSLTR 14TSSOP	TEXAS INSTRUMENTS	TXS0104EPWR	Fitted	
106	1	U8	JTAGSMT2 FPGA PROGRAMMER	Digilent, Inc.	210-251P-BOARD	Fitted	
107	1	U10	IC REG BUCK SYNC, 5 OUTPUTS (A01)	Infineon	IRPS5401MTRPBF A01	Fitted	
108	1	U11	IC REG LDO 3.3V 1.5A D2PAK	ON Semiconductor	NCP565D2133R4G	Fitted	

109	0	C5, C29, C36, C73, C83, C117	CAP CER 0.1UF 25V 10% X5R 0201	Taiyo Yuden	TMK063C6104KP-F	Not Fitted	
110	0	C6	CAP CER 4.7UF 25V 10% X5R 0805	AVX Corporation	08053D475KAT2A	Not Fitted	
111	0	D20	DIODE SCHOTTKY 30V 0.2A SOT23-3	Diodes Inc.	BAT400D-7-F	Not Fitted	
112	0	FB4	FERRITE BEAD 600 OHM 0.3A 0402	Murata	BLM15AG601SN1D	Not Fitted	
113	0	J11	CONN HEADR BRKWAY .100 4POS STR, DUAL ROW	Molex Inc	0010897081	Not Fitted	
114	0	JP13	CONN HEADR BRKWAY .100 2POS STR, SINGLE ROW	TE CONNECTIVITY / AMP	5-146280-2	Not Fitted	
115	0	R12, R13	RES 0.0 OHM JUMP 0402 1/16W	Yageo	RC0402FR-070RL	Not Fitted	
116	0	R125	RES 10.0K OHM 0402 1% 1/16W	Panasonic Electronic Components	ERJ-2RKF1002X	Not Fitted	
117	0	R126, R135, R140, R143, R145,	RES 0.0 OHM JUMP 1210 1/2W	Panasonic Electronic Components	ERJ-14Y0R00U	Not Fitted	
118	0	R159	RES 121 OHM 0402 1% 1/16W	Panasonic Electronic Components	ERJ-2RKF1210X	Not Fitted	
119	0	TP10, TP11, TP12, TP13	Test Point-0.040"(1.02mm), HEADER, TEST PIN	TE CONNECTIVITY / AMP	5-146280-1	Not Fitted	
120	0	U9	IC REG LDO 3.3V 1.5A D2PAK	STMicroelectronics	LD1086D2T33TR	Not Fitted	
Approved				Notes			