

Item	Qty	Reference Designator	Description	Mfg/Part Number	Footprint	Notes
1	14	1.0V, 1.0V_MGT, 1.2V_MGT, 1.5V_1.35V, 1.8V, 2.0V, 2.5V, 3.3V, GND1, GND2, GND3, GND4, GND5, TP2	Test Pad	N/A	TP	
2	1	BPH1	SFP EMI CAGE - TOP	AMP 6367035-1		
3	1	BPH2	SFP EMI CAGE - BOTTOM	AMP 6367034-1		
4	59	C1, C2, C3, C4, C5, C6, C10, C11, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C25, C26, C27, C28, C30, C32, C33, C34, C35, C36, C37, C38, C39, C43, C51, C56, C57, C58, C60, C64, C65, C67, C68, C76, C78, C80, C82, C83, C84, C86, C87, C88, C89, C90, C91, C92, C93, C31, C94, C95, C96	Ceramic Chip Capacitor 0402 0.1uF 16V 10% X5R	AVX 0402YD104KAT2A	CAPC.0402	
5	1	C7	330uF 25V TH Electrolytic Capacitor, 8.3 x 8.3mm	PIC EEE-FK1E331P	SMT Electrolytic 8x10.2mm	
6	5	C8, C9, C12, C40, C79	Ceramic Chip Capacitor 0805 10uF 16V 10% X5R	TYC EMK212BJ106KG-T	CAPC.0805	
7	5	C23, C24, C41, C42, C48	Ceramic Chip Capacitor 0805 10uF Low ESR 10V X5R	MUR GRM21BR61A106KE19L	CAPC.0805	
8	2	C29, C77	Capacitor, Polarized Tantalum, D Case 100uF 20V	AVX TAJD107K020RNJ	CAPCP.7343-31	
9	18	C44, C45, C46, C47, C49, C50, C52, C53, C54, C55, C59, C61, C62, C63, C66, C69, C70, C71	Capacitor, Polarized Tantalum, B Case 100uF 6.3V, Low ESR	KEM T520B107M006ASE040	CAPCP.3528-21	
10	4	C72, C73, C81, C85	Capacitor, Polarized Tantalum, B Case 47uF 10V	AVX TAJB476K010R	CAPCP.3528-21	
11	2	C74, C75	Ceramic Chip Capacitor 0402 0.01uF 16V 10% X7R	AVX 0402YC103KAT2A	CAPC.0402	
12	1	D1	Blue LED 0603	LTP LTST-C191TBKT	LED_LITE-LTST-C191TBKT-B	
13	8	D3, D4, D5, D6, D7, D8, D9, D10	Green LED 0603	LTP LTST-C191TGKT	LED_LITE-LTST-C191TBKT-G	
14	1	D11	Silicon Switching Diode, High-Speed, High-Voltage Switching	FSC BAS21	SOT23C	
15	2	D12, D19	Yellow LED	LTP LTST-C190YKT	LED_LITE-LTST-C191TBKT-Y	
16	6	D13, D14, D15, D16, D17, D18	Bi-Directional ESD Protection Diode	TE SESD0201C-006-058	RESC.0201	
17	5	D20, D21, D22, D23, D24	Red LED 0603	AGI HSMS-C190	LED_LITE-LTST-C191KRKT	
18	2	D25, D26	Diode, Schottky Barrier, 5A, 30V, Vf=350mV	NXP PMEG3050EP	DIO_TOSH-CMS01	
19	1	D27	PolyZen Polymer Protected Zener Diode 5.6V 1.3A	TE ZEN056V130A24LS	PolyZen	
20	1	F1	Chip Ferrite Bead 0402, 120 ohm, 1.5A, DC .095 ohm	MUR BLM15EG121SN1D	FBC.0402	
21	1	J1	2.0mm 7x2 shrouded header	MLX 87832-1420	CON_MLX-87332-1420	
22	2	J2, J5	Dual Digilent Module Connector 6x2 VERT	AMP 5-534206-6	DUAL_DIGILENT_VERT	
23	1	J3	Secure Micro Digital Card Socket (Reverse)	Tyco 1871602-2	CON_TE-1871602-2	
24	1	J4	Molex 6-pin Through-hole Mini-Fit Connector	MLX 39-29-1067	CON_MLX-39-29-1067	
25	1	J6	Power Socket, 8 pos, .200", 7A contacts	Sam HPF-08-01-T-S	CON_SAM-HPF-08-01-T-S	
26	1	J7	Low Profile Socket, 10 position, SMT	Samtec CLP-105-02-F-D-A	CON_SAM-CLP-105-02-F-D	

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27	1	J8	CONN RCPT MICRO USB TYPE AB RA	1981584-1	USB_AB_1981584	
28	1	J9	DisplayPort Connector	TE 2040451-1	CON_TE-2040451-1	
29	1	J10	.050" Mini Header, 10 position, SMT	Samtec FW-05-05-F-D-490-	160-A	
30	4	J11, J12, J13, J14	Vertical SMA Connector	EJF 142-0711-201	CON_JC-142-0711	
31	1	J15	Power Socket, 10 pos, .200", 7A contacts	Sam HPF-10-01-T-S	CON_SAM-HPF-10-01-S	
32	1	JP1	CONN HEADER 4POS 0.200 RT ANG TIN	MLX 15-24-4441	CON_MLX-15-24-4441	
33	1	JP2	3-pin 0.1" Header/TH	AMP 5-146280-3	JPR1X3	
34	2	JP3, JP4	0.1" 0.230" Post, 2-Pin Header, Thru-Hole	AMP 5-146280-2	JPR1X2	
35	1	JP5	0.1" 2x2 through-hole Header	AMP 5-146256-2	HDR2x2	
36	14	JT1, JT2, JT3, JT4, JT5, JT6, JT7,	3-pad 0R0 0402 Jumper, Chip Resistor 0402 0R0 1/16W	DAL CRCW04020000Z0ED	RESC.0402, RESC.0402/DUAL	
37	2	JX1, JX2	MMP Connector - Main (Tyco 1658016-3)	Tyco 1658016-3	CON_TE-1658016-3	
38	1	JX3	FMC Carrier Card Low Pin Count Connector (10mm	MLX 45971-4305	MCDaughterCard	
39	2	L1, L2	Inductor, 1uH, 500mA, 1210	PIC ELJ-EA1R0MF	IND/ELJ-EA1R0MF	
40	1	P1	SFP Host Connector	AMP 1367073-1	CAGE_SFPC-SL	
41	2	P2, TP1	PCIe x4 Connector, Test Pad		PCIEXP5V-X4, TP	
42	1	Q1	N-Channel enhancement mode FET	FCS 2N7002	SOT23C	
43	8	Q2, Q3, Q4, Q5, Q6, Q7, Q8, Q9	NPN General Purpose Amplifier	FSC MMBT3904	SOT23C	
44	4	R1, R13, R18, R61	Chip Resistor 0402 1.0K 1/16W 1%	DAL CRCW04021K00FKEA	RESC.0402	
45	1	R2	Chip Resistor 0603 330 1/10W 5%	Vishay CRCW0603330RJNEA	RESC.0603	
46	24	R3, R4, R5, R14, R19, R20, R21, R22, R23, R26, R31, R33, R34, R35, R36, R37, R38, R41, R42, R44, R66, R75, R76, R80	Chip Resistor 0402 4.75K 1/16W 1%	DAL CRCW04024K75FKED	RESC.0402	
47	7	R6, R7, R8, R9, R10, R11, R12	Chip Resistor 0402 1.0K 1/16W 1%	DAL CRCW04021K00FKED	RESC.0402	
48	6	R15, R16, R32, R43, R62, R64	Chip Resistor 0402 681 1/16W 1%	DAL CRCW0402681RFKED	RESC.0402	
49	2	R24, R25	Chip Resistor 0402 22R 1/16W	DAL CRCW040222R1FKED	RESC.0402	
50	3	R39, R40, R68	Chip Resistor 0402 100K 1/16W 1%	DAL CRCW0402100KFKED	RESC.0402	
51	1	R45	Chip Resistor 0201 100R 1/20W 1%	CRCW0201100RJNED	RESC.0201	
52	5	R46, R47, R48, R49, R50	Chip Resistor 0402 330R 1/16W 5%	DAL CRCW0402330RJNED	RESC.0402	
53	1	R51	Chip Resistor 0402 84.5 1/10W 1%	DAL CRCW040284R5FKEA	RESC.0402	
54	9	R52, R53, R54, R55, R56, R57, R58, R59, R78	Chip Resistor 0402 10K 1/16W 1%	DAL CRCW040210K0FKED	RESC.0402	
55	1	R60	Chip Resistor 0402 39.2K 1/16W 1%	DAL CRCW040239K2FKEA	RESC.0402	
56	2	R67, R69	Chip Resistor 0402 1.0M 1/16W 1%	DAL CRCW04021M00FKED	RESC.0402	
57	1	R79	Chip Resistor 0402 10R0 1/16W 1%	DAL CRCW040210R0FKED	RESC.0402	
58	4	R81, R82, R83, R84	Thick-film Resistor, 0.010ohm, 1.0W	PIC ERJ-M1WSJ10MU	RESC.2512	
59	1	R85	Chip Resistor 0402 0R0 1/16W	Vishay CRCW04020000Z0ED	RESC.0402	
60	1	RP1	4-Resistor Array 3.2x1.6mm 1K ohm	BNS CAY16-102J4LF	RPAK4LCC	
61	4	RP2, RP3, RP4, RP5	4-Resistor Array 3.2x1.6mm 4.7K ohm	Bourns CAY16-472J4LF	RPAK4LCC	

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62	1	SW1	2-position SPST DIP switch (SMT)	TE 1571983-1	SW2/CKTDA	
63	2	SW2, SW11	4-position SPST DIP switch (SMT)	TE 1571983-4	SW4/CKTDA	
64	6	SW4, SW7, SW8, SW9, SW10,	Switch, Pushbutton SPST SMD	TE 8-1437565-0	SW_TE-8-1437565-1	
65	1	SW5	SPDT Slide Switch	CKS 1101M2S3CQE2	SW_C&K-1101M2S3CQE2	
66	1	SW6	8-position SPST DIP switch (SMT)	TE 1-1571983-1	SW_TE-1-1571983-1	
67	3	SW13, SW14, SW15	SW DPDT	1201M2S1CQE2	SW_C&K-1201M2S1CQE2	
68	1	U1	Digilent USB JTAG-SMT1 Module	JTAG SMT1	JTAG_SMT1	
69	2	U2, U6	20-bit 2.5V/3.3V FET BUS SWITCH	TI SN74CB3T16210DGV	TVSOP48-0.4MM	
70	1	U3	Low Jitter Differential Clock Generator	TI CDCM61001RHB	QFN32	
71	1	U4	Programmable 1-PLL VCXO Clock Synthesizer	CDCE913PW	TSSOP65P640X120-14N	
72	1	U5	LVDS Clock Multiplexer 4:1, 2:1	ICS854S057BI	TSSOP20-0.65mm	
73	1	U7	Single-Chip USB to UART Bridge	SLL CP2102-GM	QUAD-MLP28	
74	1	U8	PolySwitch Overcurrent Surge Protector	miniSMDC150F/24	SMDC150F_24	
75	1	U9	PCI Express Jitter Attenuator, TSSOP-20	IDT 874003BG-05LF	TSOP65P650X120-20N	
76	1	U10	HCMOS 7.5x5.2mm SMD Oscillator, 27.000MHz	FOX 768-27-222	OSC\SMDS	
77	1	X1	Crystal 27MHz 12pF 50 Ohm 2-Pin HC-49/US	Kyocera CX5032GB27000H0HEQZ1	XTAL_M5032X10N	
78	1	PCB	Mini-Module Plus Baseboard 2 PCB			
79	1	BAG	Anti-static Bag 7"x14" minimum	N/A		
80	1	LABEL-BC	White exterior Label for Serial Num and Part Num (~2"x3")	N/A		
81	1	LABEL-SN	Small for Serial number only, placed directly on finished PCB	N/A		
82	5		Rubber bumps	MMM SJ-5303		
83	1		"No PCIe" Sticker	No-PCIe-pwr-stkr		