

Component List

Source Data: Artix_7A50.PrjPcb
 Project: Artix_7A50.PrjPcb
 Variant: REV-A01



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#	Quantity	Designator	Description	MFGPN	DNP
1	4	BMPR1, BMPR2, BMPR3, BMPR4	3M Bumper, 7.9mm	SJ61A4	
2	1	BPH1	LR44 Coin Cell Battery 1.5V	ANY	
3	1	BTH1	Conn Battery SKT 2 POS 2.54mm Solder RA Thru-Hole 3 Terminal 1 Port Tray	120591-1	
4	4	C1, C26, C29, C118	Cap Ceramic 0.1uF 6.3V X5R 10% SMD 0201 85°C Paper T/R	GRM033R60J104KE19D	
5	6	C2, C11, C86, C96, C122, C123	CAP SM 47uF 6.3V 20% X5R C0805	JMK212BJ476MG-T	
6	48	C3, C4, C5, C6, C12, C13, C14, C15, C30, C31, C34, C35, C39, C40, C42, C43, C44, C45, C48, C49, C51, C52, C53, C54, C55, C70, C71, C72, C73, C77, C94, C113, C117, C127, C128, C129, C140, C152, C155, C158, C161, C163, C164, C167, C169, C171, C176, C183	CAP SM 0.1uF 10V 10% X5R C0201	02016D104KAT2A	
7	26	C7, C8, C9, C10, C16, C17, C18, C19, C38, C46, C47, C62, C65, C66, C67, C68, C109, C110, C114, C132, C141, C142, C143, C144, C153, C182	CAP SM 0.01uF 10V 10% X5R C0201	0201ZD103KAT2A	
8	21	C20, C33, C79, C80, C81, C82, C87, C88, C90, C91, C95, C116, C124, C125, C126, C154, C159, C165, C172, C173, C175	CAP SM 4.7uF 6.3V 20% X5R C0402 85C	GRM155R60J475ME87D	
9	9	C21, C22, C23, C24, C25, C41, C50, C69, C185	CAP SM 10uF 6.3V 20% X5R C0603	06036D106MAT2A	
10	1	C27	Cap Ceramic 0.01uF 10V X7R 10% SMD 0201 125°C Paper T/R	GRM033R71A103KA01D	
11	10	C28, C78, C92, C93, C115, C119, C120, C121, C150, C151	CAP CER 100UF 6.3V 20% X5R 1210	JMK325BJ107MM-T	
12	2	C32, C36	CAP SM 2.2uF 6.3V 10% X5R C0603	06036D225KAT2A	
13	4	C37, C83, C84, C85	CAP SM 4.7uF 6.3V 20% X5R C0402 85C	GRM155R60J475ME87D	DNP
14	9	C56, C57, C58, C59, C60, C61, C74, C75, C76	Ceramic Chip Capacitor 0201 0.001uF 6.3v 10% X7R	GRM033R71E102KA01D	
15	2	C63, C64	Cap Ceramic 0.1uF 6.3V X5R 10% SMD 0402 85°C T/R	04026D104KAT2A	

16	20	C89, C97, C98, C99, C100, C101, C104, C105, C106, C107, C111, C112, C130, C131, C134, C135, C136, C137, C138, C139	CAP SM 0.47uF 6.3V 10% X5R C0402	JMK105BJ474KV-F/BKN	
17	3	C102, C103, C108	CAP SM 0.47uF 6.3V 10% X5R C0402	JMK105BJ474KV-F/BKN	DNP
18	1	C145	CAP SM 100uF 10V 10% X5R C1210	EMK325ABJ107MM-T	
19	2	C146, C147	CAP SM 100uF 10V 10% X5R C1210	EMK325ABJ107MM-T	DNP
20	2	C148, C149		04026D105KAT2A	
21	1	C156	CAP SM 3300pF 10V 10% X5R C0402	GRM1557U1A332JA01D	
22	4	C157, C162, C166, C170	CAP SM 22uF 10V 20% X5R C0805	LMK212BJ226MG-T	
23	1	C160	CAP SM 2700pF 10V 5% X5R C0402	GRM1557U1A272JA01D	
24	2	C168, C174	CAP SM 1800pF 10V 5% X5R C0402	GRM1557U1A182JA01D	
25	5	C177, C178, C179, C180, C181	CAP SM 0.1uF 10V 10% X5R C0201	02016D104KAT2A	DNP
26	2	D1, D21	Diode SM Barrier Rectifier Schottky 3A 30V DIO-S SMA	B330A-13-F	
27	2	D2, D25	Schottky Diodes Vf=0.35V@10mA Vr=30V	BAT54LT1G	
28	1	D9	Schottky Diodes Vf=0.35V@10mA Vr=30V	BAT54LT1G	DNP
29	1	D3	Schottky Diodes Vf=0.35V@10mA Vr=30V	BAT54LT1G	DNP
30	1	D4	OVP SM Over Voltage Protection 1.3A 24V 5.6V POLY_ZEN PolyZen	ZEN056V130A24LS	
31	1	D5	ESD Protection array	CDSOT23-SR208	
32	1	D6	LED, Yel, 585nm, Vf=2.1V, If=10mA, Iv=6mcd	LTST-C190YKT	
33	1	D7	LED, Grn, 565nm, Vf=2.1V, If=20mA, Iv=12mcd	LTST-C190GKT	
34	9	D8, D11, D12, D13, D14, D15, D16, D17, D18	LED, Red, 631nm, Vf=2.0V, If=20mA, Iv=54mcd	LTST-C191KRKT	
35	1	D10	LED, Blu, 468nm, Vf=3.4V, If=20mA, Iv=20mcd	LTST-C191TBKT	D10 Must be rotated 180° (Silk is wrong)
36	2	D19, D20	Diode SM MBRA130LT3G Schottky 1.0A 30V DIO-S SMA	MBRA130LT3G	
37	1	D22	LED, GREEN 525nm 3.2V 20mA 150mcd LED-G LED_LITE-LTST-C191TBKT-G	LTST-C191TGKT	
38	1	J1	CONN RCPT MICRO USB TYPE AB RA	10104111-0001LF	
39	2	J2, J4	Bel RJ45, Integrated Mags, 10/100T, TH	2250067-3	Good Cross = 0875-1G1T-P2
40	2	J3, J5	5x2 0.1" Through-hole Header	5-146256-5	
41	6	J6, J7, J8, J9, J10, J11	Header TH 100mil 6X2 Right Angle PMOD Horizontal	SSQ-106-02-T-D-RA	
42	1	J12	Conn Shrouded Header HDR 14 POS 2mm Solder ST SMD Tube	87832-1420	DNP
43	1	J13	CONN SM Barrel Jack 2.1MMX5.5MM Barrel_Socket-2 CON_CUI-PJ-002BH-SMT	PJ-002BH-SMT-TR	
44	3	JP1, JP2, JP8	CONN HEADR BRKWAY .100 2POS STR	5-146280-2	
45	2	JP6, JP7	Header TH 100mil 3x1 HDR3 HDR3-100	5-146280-3	
46	7	JT1, JT2, JT3, JT4, JT5, JT19, JT20	Jumper 3-pad 0402 RES-3padJPR R0402-DUAL_JMP - 0 Ohm at Pads 1-2	CRCW04020000Z0ED: Placed at pads 1-2	
47	10	JT6, JT7, JT8, JT9, JT10, JT12, JT13, JT14, JT15, JT16	Jumper 3-pad 0402 RES-3padJPR R0402-DUAL_JMP - 2.2K Ohm at Pads 1-2	CRCW04022K20FKED: Placed at pads 1-2	
48	1	JT11	Jumper 3-pad 0402 RES-3padJPR R0402-DUAL_JMP - 40.2 Ohm at Pads 1-2	CRCW040240R2FKED: Placed at pads 1-2	
49	1	JT18	Jumper 3-pad 0402 RES-3padJPR R0402-DUAL_JMP - 0 Ohm at Pads 2-3	CRCW04020000Z0ED: Placed at pads 2-3	
50	1	JT21	Jumper 3-pad 0402 RES-3padJPR R0402-DUAL_JMP - 0 Ohm at Pads 1-2	CRCW04020R00FKED: Placed at pads 1-2	
51	8	L1, L2, L3, L4, L5, L6, L11, L12	FB SM 220 ohm@100MHz 2000mA 0.25 0.045 ohm@DC L0805	BLM21PG221SN1D	
52	1	L7	1uH, 36mO, 3.2Apk	SRU6013-1R0Y	
53	1	L8	1.5uH, 40mO, 3.0Apk	SRU6013-1R5Y	
54	1	L9	2.2uH, 21mO, 3.2Apk	SRU5028-2R2Y	
55	1	L10	4.7uH, 32mO, 2.2Apk	SRU5028-4R7Y	
56	5	NT1, NT2, NT3, NT4, NT5	Net Tie 2 points	None	
57	1	PCB1	PCB	A7MB-7A50T-PCB-A	

58	1	Q1	MOSFET-N	BSS138LT1G	
59	1	Q2	DUAL N CH MOSFET SO8, 6.5A	FDS9926A	
60	2	Q3, Q4	MOSFET-N	BSS138LT1G	DNP
61	2	R1, R2	Res Thick Film 0402 10K Ohm 1% 1/16W ±100ppm/°C Molded SMD Paper T/R	CRCW040210K0FKED	
62	1	R3	Res Thick Film 0402 80.6 Ohm 1% 1/16W ±100ppm/°C Molded SMD SMD Paper T/R	CRCW040280R6FKED	
63	15	R4, R7, R18, R37, R38, R64, R67, R68, R73, R74, R75, R76, R77, R78, R116	RES SM 240 62mW 0.01 R0402	CRCW0402240RFKED	
64	5	R5, R26, R28, R41, R43	Chip Resistor 0402 2.20K 1/16W 5%	CRCW04022K20JNED	
65	9	R6, R20, R21, R22, R23, R33, R34, R35, R36	Chip Resistor 0402 49R9 1/16W 1%	CRCW040249R9FKED	
66	1	R8	Resistor	CRCW0603680RJNEA	
67	7	R9, R10, R63, R87, R147, R149, R150	Res Thick Film 0402 4.75K Ohm 1% 1/16W ±100ppm/°C Molded SMD SMD Paper T/R	CRCW04024K75FKED	
68	5	R11, R12, R13, R15, R127	RES SM 0 ohm 62mW J R0402	CRCW04020000Z0ED	DNP
69	1	R14	RES SM 100 ohm 62mW J R0402	CR0402-JW-101GLF	
70	1	R16	RES SM 4.99K 62mW 0.01 R0402	CRCW04024K99FKED	
71	15	R17, R24, R32, R39, R80, R81, R91, R97, R100, R107, R112, R117, R119, R120, R123	RES SM 0 ohm 62mW J R0402	CRCW04020000Z0ED	
72	21	R19, R31, R65, R66, R128, R129, R132, R133, R134, R135, R136, R137, R138, R139, R140, R141, R142, R143, R144, R145, R146	Res Thick Film 0402 40.2 Ohm 1% 1/16W ±100ppm/°C Molded SMD SMD Paper T/R	CRCW040240R2FKED	
73	3	R25, R40, R62	Chip Resistor 0402 1.50K 1/16W 1%	CRCW04021K50FKED	
74	4	R27, R29, R42, R44	Chip Resistor 0402 220R 1/16W 5%	CRCW0402220RJNED	
75	3	R30, R45, R104	RES 4K87 0402 1%, RES 4K87 0402 1%, 4.87K resistor, 1%, 0402	CRCW04024K87FKED	
76	2	R46, R79	RES 0.005, 1%, 1W, 50ppm 1206	CSNL1206FT5L00	
77	18	R47, R48, R49, R50, R51, R52, R53, R54, R55, R56, R57, R58, R82, R83, R84, R85, R86, R90	100 ohm 1% 0402	CRCW0402100RFKED	
78	1	R125	RES SM 20.0K 62mW 0.01 R0402	CRCW040220K0FKED	
79	3	R59, R60, R61	RES SM 1K 62mW 1% R0402	RC0402FR-071KL	
80	6	R69, R70, R71, R72, R89, R148	RES SM 1K 62mW 0.01 R0402	CRCW04021K00FKED	
81	1	R88	RES SM 9.09K 62mW 0.01 R0402	CRCW04029K09FKED	
82	10	R92, R98, R101, R108, R113, R118, R121, R122, R124, R126	Res Thick Film 0402 4.75K Ohm 1% 1/16W ±100ppm/°C Molded SMD SMD Paper T/R	CRCW04024K75FKED	DNP
83	1	R93	31.6K resistor, 1%, 0402	CRCW040231K6FKED	
84	1	R94	64.9K resistor, 1%, 0402	CRCW040264K9FKED	
85	1	R95	16.2K resistor, 1%, 0402	CRCW040216K2FKED	
86	1	R96	4.42K resistor, 1%, 0402	CRCW04024K42FKED	
87	1	R99	2.43K resistor, 1%, 0402	CRCW04022K43FKED	
88	1	R102	13.3K resistor, 1%, 0402	CRCW040213K3FKED	
89	1	R103	41.2K resistor, 1%, 0402	CRCW040241K2FKED	
90	1	R105	26.7K resistor, 1%, 0402	CRCW040226K7FKED	
91	2	R106, R114	23.2K resistor, 1%, 0402	CRCW040223K2FKED	
92	1	R109	28.7K resistor, 1%, 0402	CRCW040228K7FKED	
93	1	R110	35.7K resistor, 1%, 0402	CRCW040235K7FKED	

94	1	R111	6.81K resistor, 1%, 0402	CRCW04026K81FKED	
95	1	R115	60.4K resistor, 1%, 0402	CRCW040260K4FKED	
96	2	R130, R131	Res Thick Film 0402 100K Ohm 1% 1/16W ±100ppm/°C Molded SMD Paper T/R	CRCW0402100KFKED	
97	5	RP1, RP2, RP3, RP5, RP6	Res Thick Film Array 4.7K Ohm 5% ISOL Molded 8-Pin 1206 Concave SMD Paper T/R	CAT16-472J4LF	
98	5	SH1, SH2, SH6, SH7, SH8	SHUNT,ECON,PHBR 15AU,BLACK L/P	1-382811-6	
99	6	SW1, SW2, SW3, SW4, SW5, SW8	Switch Momentary SM PB-SPST Push Button NO 1ch 16VDC 100mA SW-PB-SPST SW_BOU-7914	7914J-1-000E	
100	2	SW6, SW7	DIP Switch, 4 Position, SPST	GDH04STR04	
101	16	TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP11, TP12, TP13, TP14, TP15, TP16, TP17	Test Point 24 mil pad, round, 10 mil hole, small symbol TPS TP24TH	None	DNP
102	1	U1	DRAM Chip DDR3L SDRAM 2G-Bit 128Mx16 1.35V 96-Pin FBGA, 8x14mm	MT41K128M16JT-125:K	
103	1	U2	FPGA Artix-7 Family 52160 Cells 28nm Technology 1V 256-Pin FBGA	XC7A50T-1FTG256C	
104	1	U3	32MB QSPI	N25Q256A13ESF40G	
105	1	U4	I2C EEPROM, 32KB	M24C32-WDW6TP	
106	1	U5	1 Wire EEPROM	DS28E15P+	
107	1	U6	USB UART Bridge	CP2104-F03-GM	
108	2	U7, U9	DP83630 Precision PHYTER™ - IEEE 1588 Precision Time Protocol Transceiver	DP83630SQ/NOPB	
109	1	U8	TI REF3012 1.25V CMOS Vref IC	REF3012AIDBZT/BKN	
110	1	U10	TI Current Shunt Monitor, high side, Gain: 25	INA216A1YFFR	
111	1	U11	JTAG SMT2 HIGH SPEED PROGRAMMING MODULE	210-251	
112	1	U12	LDO Regulator Neg/Pos -0.1V to 3.5V 3A 10-Pin VSON EP T/R	TPS51200DRCT	
113	1	U13	5-CH Power w/ Quad Buck Reg and 200mA LDO	ADP5052ACPZ-R7	
114	1	X1	200MHz MEMs, 3.3V, LVCMOS, 3.2x5mm	ASFLMPC-200.0000MHz-R	

Approved	Notes
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