



**TITLE** CY8CKIT-030 PSoC 3 Development Kit

**PCA #** 120-09589-0 \*\*

**SCH #** REF-15091 \*\*

**DATE** 12/6/2010

Item	Qty	Reference	Value	Description	Manufacturer	Mfr Part Number
				PCB	Cypress	PDC-09589
1	1	BH1	BAT 9V MALE	BATTERY HOLDER 9V Male PC MT	Keystone Electronics	593
2	1	BH2	BAT 9V FEMALE	BATTERY HOLDER 9V Female PC MT	Keystone Electronics	594
3	9	C2,C4,C5,C13,C14,C15,C28,C45,C46	10 uFd 16v	CAP 10UF 16V TANTALUM 10% 3216	AVX	TAJA106K016R
4	2	C6,C22	22 uFd	CAP CER 22UF 10V 10% X5R 1210	Kemet	C1210C226K8PACTU
5	29	C7,C10,C12,C16,C17,C18,C19,C20,C21,C26,C32,C33,C34,C35,C36,C38,C40,C41,C43,C47,C48,C49,C50,C51,C52,C53,C1,C3,C23	0.1 uFd	CAP .1UF 16V CERAMIC Y5V 0402	Panasonic - ECG	ECJ-0EF1C104Z
6	2	C8,C9	0.01 uFd	CAP 10000PF 16V CERAMIC 0402 SMD	Panasonic - ECG	ECJ-0EB1C103K
7	1	C11	2.2 uFd	CAP CER 2.2UF 6.3V 20% X5R 0402	Panasonic - ECG	ECJ-0EB0J225M
8	4	C29,C37,C42,C44	1.0 uFd	CAP CERAMIC 1.0UF 25V X5R 0603 10%	Taiyo Yuden	TMK107BJ105KA-T
9	4	C30,C31,C25,C27	22pF	CAP, CER, 22 pF, 50V, 5%, COG, 0603, SMD	Panasonic - ECG	ECJ-0EC1H220J
10	1	C39	2200 pFd	SMD/SMT 0805 2200pF 50volts C0G 5%	Murata	GRM2165C1H222JA01D
11	6	D1,D2,D3,D4,D7,D8	SS12-E3/61T	DIODE SCHOTTKY 20V 1A SMA	Vishay/General Semiconductor	SS12-E3/61T

12	1	D5	LED Green	LED GREEN CLEAR 0805 SMD	Chicago Miniature	CMD17-21VGC/TR8
13	1	D6	ZHCS	DIODE SCHOTTKY 40V 1.0A SOT23-3	Zetex	ZHCS1000TA
14	2	J1,J2	USB MINI B	CONN USB MINI AB SMT RIGHT ANGLE	TYCO	1734035-2
15	1	J3	50MIL KEYED SMD	CONN HEADER 10 PIN 50MIL KEYED SMD	Samtec	FTSH-105-01-L-DV-K
16	1	J4	POWER JACK P-5	CONN JACK POWER 2.1mm PCB RA	CUI	PJ-102A
17	5	TP1, J26, J27, J35, J28	BLACK TEST POINT	TEST POINT PC MINI .040"D Black	Keystone Electronics	5001
19	4	LED1,LED2,LED3,LED4	LED Red	LED RED CLEAR 0805 SMD	Rohm Semiconductor	SML-210LTT86
20	1	L1	22 uH	INDUCTOR SHIELD PWR 22UH 7032	TDK Corporation	SLF7032T-220MR96-2-PF
21	2	P1,P2	20x2 RECP RA	CONN FEMALE 40POS DL .100 R/A GOLD	Sullins Electronics Corp.	PPPC202LJBN-RC
22	1	P7	DB9 FEMALE	CONN DB9 FEMALE VERT PRESSFIT SLD	Norcomp Inc.	191-009-223R001
23	1	P8	LCD HEADER W/O BACKLIGHT	CONN RECEIPT 16POS .100 VERT AU	Tyco Electronics	1-534237-4
24	2	R3,R4	100K	RES 100K OHM 1/16W 5% 0402 SMD	Panasonic - ECG	ERJ-2GEJ104X
25	6	R9,R23,R24,R26,R27,R71	ZERO	RES 0.0 OHM 1/10W 5% 0805 SMD	Panasonic-ECG	ERJ-6GEY0R00V
26	2	R5,R6	2.2K	RES 2.2K OHM 1/16W 5% 0402 SMD	Panasonic - ECG	ERJ-2GEJ222X
27	1	R11	1K	RES 1.0K OHM 1/8W 5% 0805 SMD	Panasonic - ECG	ERJ-6GEYJ102V
28	1	R12	3.16K	RES 3.16K OHM 1/10W .5% 0603 SMD	Yageo	RT0603DRD073K16L
29	1	R13	3.74K	RES 3.74K OHM 1/10W 1% 0603 SMD	Panasonic - ECG	ERJ-3EKF3741V
30	1	R14	100K	RES 100K OHM 1/10W 1% 0603 SMD	Yageo	RC0603FR-07100KL
31	5	R15,R59,R60,R61,R62	330 ohm	RES 330 OHM 1/10W 5% 0805 SMD	Panasonic - ECG	ERJ-6GEYJ331V
32	8	R17,R40,R41,R42,R43,R44,R45,R46	10K	RES 10K OHM 1/16W 5% 0402 SMD	Stackpole Electronics Inc	RMCF 1/16S 10K 5% R

33	13	R35,R36,R39,R47,R48,R49,R50,R51,R52,R53,R54,R64,R66	ZERO	RES ZERO OHM 1/16W 5% 0603 SMD	Panasonic - ECG	ERJ-3GEY0R00V
34	2	R32,R33	22E	RES 22 OHM 1/16W 1% 0603 SMD	Panasonic - ECG	ERJ-3EKF22R0V
35	2	R63,R65	100 ohm	RES 100 OHM 1/8W 5% 0805 SMD	Rohm	MCR10EZHJ101
36	1	R56	POT 10K	POT 10K OHM 9MM SQ PLASTIC	Bourns Inc.	3310Y-001-103L
37	1	R58	10E	RES 10 OHM 1/8W 5% 0805 SMD	Stackpole Electronics Inc	RMCF 1/10 10 5% R
38	1	R68	100 ohm	RES 100 OHM 1/16W 5% 0603 SMD	Panasonic - ECG	ERJ-3GEYJ101V
39	1	R69	10K	RES 10K OHM 1/16W 5% 0603 SMD	Panasonic - ECG	ERJ-3GEYJ103V
40	3	SW1,SW2,SW3	SW PUSHBUTTON	LT SWITCH 6MM 160GF H=2.5MM SMD	Panasonic - ECG	EVQ-Q2P02W
41	1	U1	LT1763CS8	IC LDO REG LOW NOISE ADJ 8-SOIC	Linear Technology	LT1763CS8#PBF
42	1	U2	AP1117D50G	IC REG LDO 1.0A 5.0V TO-252	Diodes Inc	AP1117D50G-13
43	1	U3	24LC00/SN	IC EEPROM 128BIT 400KHZ 8SOIC	Microchip Technology	24LC00/SN
44	1	U4	LM1117MPX-3.3	IC REG 3.3V 800MA LDO SOT-223	National Semiconductor	LM1117IMP-3.3/NOPB
45	1	U5	CY7C68013A-56LTXC	IC, FX2 HIGH-SPEED USB PERIPHERAL CONTROLLER QFN56	Cypress Semiconductor	CY7C68013A-56LTXC
46	1	U7	CY8C3866AXI-040 TQFP100	PSoC3 Mixed-Signal Array	Cypress Semiconductor	CY8C3866AXI-040
47	1	U8	MAX3232CDR	IC 3-5.5V LINE DRVR/RCVR 16-SOIC	Texas Instruments	MAX3232IDR
48	1	Y1	24 MHz	RESONATOR, 24.000MHZ, WITH CAPS, SMD	Murata	CSTCE24M0XK2010-R0
49	1	Y2	32.768KHz XTAL	CRYSTAL 32.768 KHZ CYL 12.5PF CFS308	Citizen America Corporation	CFS308-32.768KDZF-UB
50	1	Y3	24 MHz Crystal	CRYSTAL 24.000MHZ 20PF SMD	ECS Inc	ECS-240-20-5PX-TR
51	3	J8,J33, TP2	RED TEST POINT	TEST POINT PC MINI .040"D RED	Keystone Electronics	5000
52	1	R38	2.2K	RES 2.2KOHM 1/16W 2700PPM 5%0603	Panasonic - ECG	ERA-V27J222V

53	2	J10,J11	3p_jumper	CONN HEADER VERT SGL 3POS GOLD	3M	961103-6404-AR
54	1	J30	2p_jumper	CONN HEADER VERT SGL 2POS GOLD	3M	961102-6404-AR
55	1	NA	3.3V LCD Module 16POS w/16 pin header installed	3.3V LCD Module 16POS w/16 pin header installed	Lumex	LCM-S01602DTR/A-3
56	1	NA	16 pin header	CONN HEADER VERT SGL 16POS GOLD	3M	961116-6404-AR
57	6	D9, D10, D11, D12, D13, D14	ESD diode	SUPPRESSOR ESD 5VDC 0603 SMD	Bourns Inc.	CG0603MLC-05LE
58	1	R21	39K	RES 39.0K OHM 1/10W 1% 0603 SMD	Rohm Semiconductor	MCR03EZPFX3902
59	1	R22	62K	RES 62.0K OHM 1/10W 1% 0603 SMD	Rohm Semiconductor	MCR03EZPFX6202

#### No Load Components

60	1	C24	1.0 uFd	CAP CERAMIC 1.0UF 25V X5R 0603 10%	Taiyo Yuden	TMK107BJ105KA-T
61	13	J5,J6,J12,J14,J29,J31,J18,J22,J25 ,TP3,TP4,J16,J39	RED	TEST POINT PC MINI .040"D RED	Keystone Electronics	5000
62	4	J7,J32,J34,J36	BLACK	TEST POINT PC MINI .040"D Black	Keystone Electronics	5001
63	1	TP5	WHITE	TEST POINT PC MINI .040"D WHITE	Keystone Electronics	5002
64	1	J50	Breadboard	BREADBOARD 17x5x2	3M	923273-I
65	4	P3,P4,P6,P9	RECP 8X1	CONN RECT 8POS .100 VERT	3M	929850-01-08-RA
66	1	R67	10K	POT 10K OHM 1/4" SQ CERM SL ST	Bourns Inc.	3362P-1-103LF
67	10	R30,R34,R57,R72,R25,R31,R70,R 37,R29, R73	ZERO	RES 0.0 OHM 1/10W 5% 0805 SMD	Panasonic-ECG	ERJ-6GEY0R00V
68	1	R55	10K	TRIMPOT 10K OHM 4MM TOP ADJ SMD	Bourns Inc.	3214W-1-103E
69	2	R1,R28	ZERO	RES ZERO OHM 1/10W 5% 0603 SMD	Panasonic - ECG	ERJ-3GEY0R00V
70	1	U6	LM4140	IC REF PREC VOLT MICROPWR 8-SOIC	National Semiconductor	LM4140ACM-1.0/NOPB
71	1	R8	1.5K	RES 1.5KOHM 1/10W 1500PPM 5%0805	Panasonic - ECG	ERA-S15J152V

72	1	R2	3K	RES 1/10W 3K OHM 0.1% 0805	Stackpole Electronics Inc	RNC 20 T9 3K 0.1% R
73	1	P5	4x1 RECP	CONN RECEPT 4POS .100 VERT GOLD	3M	929850-01-04-RA
74	1	J38	3p_jumper	CONN HEADER VERT SGL 3POS GOLD	3M	961103-6404-AR
75	1	J37	2p_jumper	CONN HEADER VERT SGL 2POS GOLD	3M	961102-6404-AR
76	1	J40	50MIL KEYED SMD	CONN HEADER 10 PIN 50MIL KEYED SMD	Samtec	FTSH-105-01-L-DV-K
77	2	CSB1,CSB2	CapSense	CapSense Button	Cypress	
78	1	CSS1	CapSense Linear Slider 5 Seg	CapSense Slider	Cypress	
79	9	J9,J13,J15,J17,J19,J20,J21,J23,J24	PADS	PADS		
80	2	TV1,TV2	PADS	PADS		

**Install On Bottom of PCB As Close To Corners As Possible**

81	5			BUMPER CLEAR .500X.23" SQUARE	Richco Plastic Co	RBS-3R
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**Special Jumper Installation Instructions**

82	1	J30	Install jumper across pins 1 and 2	Rectangular Connectors MINI JUMPER GF 13.5 CLOSE TYPE BLACK	Kobiconn	151-8030-E
83	2	J10, J11	Install jumper across pins 1 and 2	Rectangular Connectors MINI JUMPER GF 13.5 CLOSE TYPE BLACK	Kobiconn	151-8030-E

**External Assembly**

84	1		Install 3.3V label as per assembly spec	3.3V label		
85	2		4-40 X 5 +13 Brass Spacer Stud with Nut	Spacer and nut for RS232 Connector P7		

**Additional assembly instructions:**

- 1 RoHS compliant assembly. Use only non-lead solder.
- 2 Substitute only with RoHS compliant components.
- 3 Install 5 rubber bumper feet per board on secondary side
- 4 Install 16 pin header on LCD pin-1 aligned. Load LCD/header combo at P8 left justified.
- 5 Solder bare wire across Y2 crystal
- 6 Install Spacer and nut on RS232 Connector P7

