



**DEFCON 18 Circuit Board Badge**

**Bill-of-Materials**

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Item	Quantity	Reference	Manufacturer	Manuf. Part #	Distributor	Distrib. Part #	Description	Unit Price	Per Badge
1	1	BT1	MPD	BU2032SM-JJ-GTR	Digi-Key	BU2032SM-JJ-GTR-ND	Single-cell battery holder for CR2032, SMD	\$0.40000	\$0.4060
1b	1	N/A	Panasonic	CR2032	Digi-Key	P189-ND	CR2032 Lithium 3V Coin Cell Battery (225mAh)	\$0.13750	\$0.1375
2	6	C1,C6,C9,C10,C11,C15	TDK	C3216X7R1H105K	Digi-Key	445-1423-2-ND	1.0uF ceramic capacitor, 50V, X7R, 1206	\$0.03100	\$0.1943
3	6	C2,C3,C4,C5,C16,C17	Kemet	C0603C104K4RACTU	Digi-Key	399-1096-2-ND	0.1uF ceramic capacitor, 16V, X7R, 0603	\$0.00240	\$0.0143
4	1	C7	Kemet	T491A106M016AT	Newark	57K1640	10uF capacitor, 20%, 16V, tantalum, size A	\$0.06900	\$0.0693
5	1	C8	Taiyo Yuden	UMK212B7474KG-T	Digi-Key	587-1288-2-ND	0.47uF ceramic capacitor, 50V, X7R, 0805	\$0.03900	\$0.0524
6	2	C12,C13	Taiyo Yuden	TMK212BJ225KG-T	Digi-Key	587-1292-2-ND	2.2uF ceramic capacitor, 25V, X5R, 0805	\$0.02600	\$0.0582
7	1	C14	Kemet	C0603C475K8PACTU	Digi-Key	399-5503-2-ND	4.7uF ceramic capacitor, 10V, X5R, 0603	\$0.03900	\$0.0466
8	4	D1,D2,D3,D4	Avago	HSMH-C192	N/A	N/A	LED, Red, 0603, 1.8Vf, 17mcd @ 20mA	\$0.02900	N/A
9	1	D5	ON Semiconductor	MMDL914T1G	Mouser	863-MMDL914T1G	Diode, Switching, 100Vr, 1Vf @ 10mA, 5uA Ir @ 75V, SOD-323	\$0.02400	\$0.0251
10	1	LCD1	Kent Displays	1594101208	N/A	N/A	LCD, 128x32 Reflex Graphic Display Module	\$3.49000	\$3.4900
10b	1	N/A	GM Nameplate	N/A	N/A	N/A	3M 468MP adhesive tape for LCD attachment, 1" x 1/2" strips	\$0.07870	\$0.0822
11	1	P1	Hirose	UX60SC-MB-5ST(80)	Digi-Key	H11671TR-ND	Connector, Mini-USB Type B, R/A, 5 position, SMD	\$0.37500	\$0.4198
12	1	Q1	Fairchild	FDN340P	Digi-Key	FDN340PTR-ND	Transistor, MOSFET, P-Channel, 20V, 2A, SSOT3/SOT23	\$0.11100	\$0.1160
13	1	R1	Yageo	RC0603FR-07200RL	Mouser	603-RC0603FR-07200RL	200 ohm, 1%, 1/10W, 0603	\$0.00200	\$0.0030
14	5	R2,R3,R4,R5,R6	Panasonic	ERJ-3GEYJ102V	Digi-Key	P1.0KGTR-ND	1k, 5%, 1/10W, 0603	\$0.00120	\$0.0063
15	2	SW1,SW2	C&K	KSC201JLFS	Digi-Key	401-1756-2-ND	SPST tactile momentary switch, 120gf, 6.2 x 6.2mm, J-Lead	\$0.16600	\$0.3469
16	1	U1	Freescale	MC56F8006VLC	Avnet	N/A	Microcontroller/Digital Signal Controller, LQFP32	\$1.50000	N/A
17	1	U2	FTDI	FT232RL	Mouser	895-FT232RL	USB-to-Serial UART Converter, SSOP28W	\$1.89000	\$1.8900
17b	1	N/A	N/A	N/A	Avnet	N/A	Microcontroller programming service	\$0.10000	\$0.1000
18	6	W1,W2,W3,W4,W5,W6	Panasonic	ERJ-8GEY0R00V	Digi-Key	P0.0ETR-ND	Jumper, 0 ohm resistor, 1/4W, 1206	\$0.00380	\$0.0284
19	1	PCB	e-Teknet	DC18	N/A	N/A	PCB (fabrication, laser, assembly, test)	\$6.63000	\$6.6300