



**DEFCON 27 Circuit Board Badge (Production A)**

**Bill-of-Materials**

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**Notes:**

1) Do Not Populate: J1, P1

Item	Quantity	Reference	Manufacturer	Manuf. Part #	Distributor	Distrib. Part #	Description
1	1	BT1	MPD	BU2032SM-JJ-GTR	N/A	N/A	Battery Holder, CR2032, SMD
1b	1	N/A	Panasonic	CR2032	Mouser	658-CR2032	Battery, Coin Cell, Lithium, 3V, 225mAh
2	8	C1, C2, C4, C5, C17, C18, C19, C20	Samsung	CL05A105KP5NNNC	Digi-Key	1276-1076-2-ND	Capacitor, 1uF, 10V, Ceramic, 10%, X5R, 0402
3	6	C3, C6, C7, C9, C15, C16	Kemet	C0402C104K8PACTU	Digi-Key	399-3027-2-ND	Capacitor, 0.1uF, 10V, Ceramic, 10%, X5R, 0402
4	6	C8, C10, C11, C12, C13, C14	Taiyo Yuden	AMK063BJ474MP-F	Mouser	963-AMK063BJ474MP-F	Capacitor, 0.47uF, 4V, Ceramic, 20%, X5R, 0201
5	6	D1, D2, D3, D4, D5, D6	Kingbright	APTR3216QR4F/D-W2	N/A	N/A	LED, Warm White, 3000K, 200mcd, 3.3Vf, Reverse Mount, 1206
5b	6	D1, D2, D3, D4, D5, D6	Kingbright	APTR3216VRVF1F	N/A	N/A	LED, Purple, X=0.19, Y=0.05, 100mcd, 3.3Vf, Reverse Mount, 1206
5c	6	D1, D2, D3, D4, D5, D6	Kingbright	APTR3216SECK	N/A	N/A	LED, Orange, 605nm, 250mcd, 2.1Vf, Reverse Mount, 1206
5d	6	D1, D2, D3, D4, D5, D6	Kingbright	APTR3216SURCK	N/A	N/A	LED, Red, 630nm, 230mcd, 1.95Vf, Reverse Mount, 1206
5e	6	D1, D2, D3, D4, D5, D6	Kingbright	APTR3216ZGCK	N/A	N/A	LED, Aqua Green, 525nm, 550mcd, 3.3Vf, Reverse Mount, 1206
5f	6	D1, D2, D3, D4, D5, D6	Kingbright	APTR3216QBC/D	N/A	N/A	LED, Blue, 465nm, 100mcd, 3.3Vf, Reverse Mount, 1206
6	3	L1, L2, L3	Murata	BLM18RK102SN1D	Digi-Key	490-5228-2-ND	Inductor, Ferrite Bead, 1000R @ 100MHz, 200mA, 0603
7	1	L4	Sunlord	MTNF6040FS3R7JTFY01	N/A	N/A	Antenna, NFMI, 3.7uH @ 10.56MHz, Q 50, 6.2 x 4mm, SMD
8	1	LS1	Murata	PKMCS0909E4000-R1	Rutronik	PIEZO4155	Buzzer, Piezoelectric, 72dB @ 1.5Vpp, 4kHz, 9 x 9mm, SMD
9	5	R1, R2, R3, R4, R5	Yageo	RC0402FR-0710KL	Digi-Key	311-10.0KLRTR-ND	Resistor, 10k, 1%, 1/16W, 0402
10	3	R6, R7, R8	Yageo	RC0402FR-071KL	Digi-Key	311-1.00KLRTR-ND	Resistor, 1.0k, 1%, 1/16W, 0402
11	1	U1	Texas Instruments	LP5569RTWR	TI Store	N/A	IC, LED Driver, 9-Channel, I2C, WQFN-24
12	1	U2	NXP	MKL27Z64VDA4R	Future	N/A	IC, Microcontroller, ARM Cortex-M0+, 64KB Flash, XFBGA-36
13	1	U3	NXP	NXH2261UK/A1BSCZ	Future	N/A	IC, Radio, NFMI, WLCSP-48
14	1	U4	STMicroelectronics	LD39020DTPU18R	Arrow	N/A	Voltage Regulator, LDO, 1.8V, 200mA, DFN1x1-4L
15	1	U5	STMicroelectronics	LD39020DTPU13R	Arrow	N/A	Voltage Regulator, LDO, 1.3V, 200mA, DFN1x1-4L
16	2	W1, W2	MAC8	MJW-0.8-T	N/A	N/A	Jumper, High Current, 26.32mm L, 6.3mm H, SMD
17	1	Y1	Abracon	ABS07-32.768KHZ-1-T	Digi-Key	535-9808-2-ND	Crystal, 32.768kHz, 10ppm, 12.5pF, ESR=70kR, SMD
18	1	PCB	Fusion EMS	DC27	N/A	N/A	PCB Fabrication, Assembly, Test
19	1	M1	GM Nameplate	N/A	N/A	N/A	Tape, Adhesive Transfer, 3M 9483, 1.5" D, 0.005" T
19b	1	M2	Yee-On Gems	N/A	N/A	N/A	Gemstone, Milky Quartz, Natural, Coin Shape, 60mm D, 6mm T
19c	1	M2	Yee-On Gems	N/A	N/A	N/A	Gemstone, Milky Quartz, Dyed Blue, Coin Shape, 60mm D, 6mm T
19d	1	M2	Yee-On Gems	N/A	N/A	N/A	Gemstone, Milky Quartz, Dyed Purple, Coin Shape, 60mm D, 6mm T
19e	1	M2	Yee-On Gems	N/A	N/A	N/A	Gemstone, Milky Quartz, Dyed Green, Coin Shape, 60mm D, 6mm T
19f	1	M2	Yee-On Gems	N/A	N/A	N/A	Gemstone, Milky Quartz, Dyed Pink, Coin Shape, 60mm D, 6mm T
19g	1	M2	Yee-On Gems	N/A	N/A	N/A	Gemstone, Milky Quartz, Dyed Red, Square, 60x60mm, 6mm T