THE UNIVERSITY OF IOWA

MATERIAL BUILD RECORD

Department of Physics & Astronomy

Project: BLINKING CHIP — COURTESY DIMMER

Assembly: 102-73192

Board: 102-73192.B

Schematic: 102-73192.B

Idx #	Pg #	Comp S/N as needed	Component MIT	Part Type	Ref Des	Part Value	Flight Part Number	Kit by	Value Ver	Insp by	Lead Form	Insp by	Tinned by	Insp by	Appl by	Insp by
6	1	1.4D Bot	3.265 1.655	CAP CER X7R 50V SM0603	C15	.01UF	CL10B103KB8NNNC									
6	1	1.7D Top	1.570 1.730	CAP CER X7R 50V SM0603	C16	.01UF	CL10B103KB8NNNC									
6	1	1.3D Bot	3.225 0.980	CAP CER X7R 50V SM0603	C18	.01UF	CL10B103KB8NNNC									
6	1	1.3D Bot	3.250 0.760	CAP CER X7R 50V SM0603	C19	.01UF	CL10B103KB8NNNC									
6	1	1.7D Bot	1.925 1.150	CAP CER X7R 50V SM0603	C2	.01UF	CL10B103KB8NNNC									
6	1	1.3B Bot	2.605 1.540	CAP CER X7R 50V SM0603	C20	.01UF	CL10B103KB8NNNC									
6	1	1.3C Top	2.785 1.000	CAP CER X7R 50V SM0603	C21	.01UF	CL10B103KB8NNNC									
6	1	1.7D Top	1.770 1.730	CAP CER X7R 50V SM0603	C22	.01UF	CL10B103KB8NNNC									
6	1	1.2E Top	2.435 1.080	CAP CER X7R 50V SM0603	C23	.01UF	CL10B103KB8NNNC									
6	1	1.2F Bot	1.320 1.835	CAP CER X7R 50V SM0603	C26	.01UF	CL10B103KB8NNNC									
6	1	1.8D Bot	2.225 1.885	CAP CER X7R 50V SM0603	C3	.01UF	CL10B103KB8NNNC									
6	1	1.4C Bot	2.410 1.475	CAP CER X7R 50V SM0603	C4	.01UF	CL10B103KB8NNNC									
6	1	1.5E Bot	2.565 0.760	CAP CER X7R 50V SM0603	C5	.01UF	CL10B103KB8NNNC									
6	1	1.1F Bot	1.100 1.835	CAP CER X7R 50V SM0603	C6	.01UF	CL10B103KB8NNNC									
7	1	1.1F Bot	1.100 1.940	CAP CER X7R 50V SM0603	C11	.1UF	CL10B104KB8NNNC									
7	1	1.8B Bot	1.560 0.730	CAP CER X7R 50V SM0603	C13	.1UF	CL10B104KB8NNNC									
7	1	1.3B Bot	1.220 0.640	CAP CER X7R 50V SM0603	C14	.1UF	CL10B104KB8NNNC									
7	1	1.3F Bot	1.320 1.940	CAP CER X7R 50V SM0603	C7	.1UF	CL10B104KB8NNNC									

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7	2	1.4A Bot	0.830 1.045	CAP CER X7R 50V SM0603	C8	.1UF	CL10B104KB8NNNC									
8	2	1.7B Top	1.905 0.530	CAP CER NPO 50V SM0805	C12	100PF	885012007057									
9	2	1.6D Bot	1.750 0.865	CAP NPO/BP SM0603	C24	10PF	C0603C100K5GACTU									
9	2	1.6C Bot	1.750 1.060	CAP NPO/BP SM0603	C25	10PF	C0603C100K5GACTU									
10	2	1.1F Top	0.615 1.860	CAP TANTALUM SMP_M3528	C10	10UF/25V	10UF/15V									
10	2	1.8B Top	1.470 0.640	CAP TANTALUM SMP_M3528	C17	10UF/25V	10UF/15V									
12	2	1.9C Bot	2.410 1.855	DIODE SOT23-3	D4	BAV99	BAV99-7-F									
13	2	1.4E Top	2.250 1.595	LED RED DIFF 19MCD LED_T1-3/4	D1	LTL-4223	LTL-4223									
14	2	1.7B Top	2.250 0.463	SCHOTTKY DIODE 2A/90V DO213AB	DS1	SMS290	SMS290									
16	2	1.1C Top	4.475 3.650	CONTACT HARDWARE_CONTACT	HW2	0008580110	0008580110									
16	2	1.1C Top	4.475 3.650	CONTACT HARDWARE_CONTACT	HW3	0008580110	0008580110									
16	2	1.1C Top	4.475 3.650	CONTACT HARDWARE_CONTACT	HW4	0008580110	0008580110									
17	2	1.1B Top	3.975 3.675	CONN HOUSING LATCH 3 HARDWARE_HOUSING	HW1	0009503031	0009503031									
18	2	1.1A Top	3.415 3.655	RING TERMINAL HARDWARE_CONTACT	HW5	P14-8RHT	P14-8RHT6-M									
19	2	1.1B Top	1.560 0.890	CONNECTOR-MOLEX R/A HDR156-03	J3	0026605030	0026605030									
20	2	1.8C Bot	1.725 1.885	CONNECTOR HDR_2X3	J1	75869-131LF	75869-131LF									
21	2	1.9B Top	1.665 1.600	POGO PIN ASSY 10 HDR_1X4_825	J1P	825-22-004-10-004101	825-22-010-10-004101									
22	2	1.2D Top	3.515 1.100	N/A Not Applicable SJ-252X	J3M	N/A	Do NOT Install									

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23	3	1.2C Top		3.515 1.525	CONN JACK STEREO SJ-252X	J3S	SJ-2524	SJ-2524-SMT-TR									
24	3	1.4E Top		3.515 0.575	CONN JACK STEREO SJ-352X	J2	SJ-3524	SJ-3524-SMT-TR									
25	3	1.7A Top		1.695 0.265	INDUCTOR AIAP-03	L1A	1mH	AIAP-03-102K									
27	3	1.7B Top		1.690 0.265	N/A Not Applicable SM1812	L1	N/A	Do NOT Install									
32	3	1.6B Top		2.530 0.265	MOSFET P-CH 60V 7A SOT223	Q2	DMP6023LE	DMP6023LE-13									
33	3	1.5C Bot		2.160 0.455	MOSFET N-CHANNEL 1.2A/60V SOT23-3	Q1	ZXMN6A07	ZXMN6A07FTA									
34	3	1.4D Bot		2.770 0.720	RES THK-FLM SM0603	R12	10.0K	M55342K12B10E0TW									
34	3	1.9C Bot		2.535 1.860	RES THK-FLM SM0603	R4	10.0K	M55342K12B10E0TW									
34	3	1.9D Bot		2.430 2.010	RES THK-FLM SM0603	R5	10.0K	M55342K12B10E0TW									
34	3	1.8C Top		2.050 1.955	RES THK-FLM SM0603	R6	10.0K	M55342K12B10E0TW									
34	3	1.8C Bot		1.715 1.505	RES THK-FLM SM0603	R7	10.0K	M55342K12B10E0TW									
34	3	1.5C Bot		2.005 0.455	RES THK-FLM SM0603	R9	10.0K	M55342K12B10E0TW									
35	3	1.4D Bot		3.225 1.250	RES THK-FLM SM0603	R15	100K	M55342K12B100ETW									
36	3	1.3C Bot		2.970 1.485	RES THK-FLM SM0603	R14	100	M55342K12B100DTW									
36	3	1.3C Bot		3.095 1.350	RES THK-FLM SM0603	R16	100	M55342K12B100DTW									
37	3	1.4E Top		2.820 0.730	RES THK-FLM SMR0603-41	R2	100	M55342K12B100DTW									
37	3	1.4E Top		2.820 0.730	RES THK-FLM SMR0603-41	R3	100	M55342K12B100DTW									
38	3	1.5B Top		2.785 1.425	POT 10K OHM 0.787 PTV09-A4	R1	10K	PTV09A-4020U-B103									

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39	4	1.2C Bot	3.365 1.405	RES THK-FLM SM0603	R18	10	M55342K12B10D0TW									
39	4	1.2D Bot	3.365 0.985	RES THK-FLM SM0603	R19	10	M55342K12B10D0TW									
40	4	1.5B Bot	2.330 0.455	RES THK-FLM SM0603	R10	2.49K	M55342K12B2E49TW									
41	4	1.4E Bot	2.285 1.465	RES THK-FLM SM0603	R17	330	M55342K12B332DTW									
42	4	1.5B Bot	2.445 0.265	RES THK-FLM SM0603	R11	4.99K	M55342K12B4E99TW									
42	4	1.5B Bot	2.410 1.285	RES THK-FLM SM0603	R8	4.99K	M55342K12B4E99TW									
43	4	1.7B Top	1.685 0.530	RES THK-FLM SM0603	R13	47	M55342K12B47D5TW									
44	4	1.9D Top	2.485 1.995	SWITCH PUSH BUTTON SW_KMR2	SW2	KMR221	KMR221NG-LFS									
46	4	1.8C Top	2.225 1.900	LOGIC GATE AND SOT23-6	U2	74LVC1G11	SN74LVC1G11DBVR									
47	4	1.5D Top	2.535 0.760	LOGIC GATE INVERT ST SOT23-6	U3	74LVC2G14	SN74LVC2G14DBVR									
49	4	1.4B Bot	2.780 1.425	OP AMP SOT23-5	U4	LMV321	LMV321IDBVR									
49	4	1.4C Bot	2.760 1.035	OP AMP SOT23-5	U5	LMV321	LMV321IDBVR									
50	4	1.6E Top	2.100 1.065	EZ8 PROCESSOR 8K/1K SO28	U6	Z8F0822	Z8F0822SJ020SG									
51	4	1.2F Top	1.240 1.835	VOLTAGE REGULATOR 3.3V SOT223	VR1	LT1117CST-3.3	LT1117CST-3.3#TRPBF									
52	4	1.6C Top	1.760 1.045	CRYSTAL 18.432MHZ 18PF HC49U	X1	ECS-184-18-4X	ECS-184-18-4X									

NON-POPULATED and NON-PARTS (do not fill in this sheet)

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1	70	5	1.6E Top	-3.950 -1.950	Documentation Artifact	BRD5	DRAWING FRAME	VP: Documentation Artifact									
2	71	5	1.6F Top	4.950 -1.950	Documentation Artifact	BRD4	DRAWING FRAME	VP: Documentation Artifact									
3	72	5	1.6F Bot	1.570 0.120	Documentation Artifact	BRD6	DRAWING FRAME	VP: Documentation Artifact									
4	73	5	1.6F Bot	0.345 1.095	Documentation Artifact	BRD3	DRAWING FRAME	VP: Documentation Artifact									
5	74	5	1.7F Top	0.000 0.000	Documentation Artifact	BRD2	DRAWING FRAME	VP: Documentation Artifact									
11	75	5	1.9D Top	2.455 1.795	Invalid Flight Part(1)	C1	10UF	Invalid Flight Part (see schematic)									
11	76	5	1.3F Top	1.995 1.600	Invalid Flight Part(1)	C9	10UF	Invalid Flight Part (see schematic)									
15	77	5	1.6F Top	0.365 0.930	Documentation Artifact	ESD1	DRAWING FRAME	VP: Documentation Artifact									
26	78	5	1.7F Top	0.585 0.085	Documentation Artifact	LOGO1	DRAWING FRAME	VP: Documentation Artifact									
28	79	5	1.4F Top	0.000 0.000	Invalid Flight Part(1)	PCB1	102-73192	Invalid Flight Part (see schematic)									
29	80	5	1.10E Top	-3.850 3.750	Documentation Artifact	PWA1	DRAWING FRAME	VP: Documentation Artifact									
30	81	5	1.10F Top	-3.850 3.750	Documentation Artifact	PWB1	DRAWING FRAME	VP: Documentation Artifact									
31	82	5	1.1A Top	0.885 1.450	Invalid Flight Part(1)	PAD1	PAD	Invalid Flight Part (see schematic)									
31	83	5	1.1B Top	1.220 1.045	Invalid Flight Part(1)	PAD2	PAD	Invalid Flight Part (see schematic)									
31	84	5	1.1A Top	0.885 0.640	Invalid Flight Part(1)	PAD3	PAD	Invalid Flight Part (see schematic)									
45	85	5	1.3F Top	3.095 0.385	Pad	TP1	PAD	VP: Not a Physical Part									
48	86	5	Top	-3.400 0.300	Documentation Artifact	U$1	DRAWING FRAME	VP: Documentation Artifact									