MATERIAL BUILD RECORD

Department of
Physics & Astronomy

Project: BLINKING CHIP

Assembly: 102-73192

COURTESY DIMMER

Board: 102-73192.A

Schematic: 102-73192.A

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	2.975 1.040	CAP CER X7R 50V SM0603	C15	.01UF	CL10B103KB8NNNC									
6	1	1.9B Bot	1.775 1.685	CAP CER X7R 50V SM0603	C16	.01UF	CL10B103KB8NNNC									
6	1	1.7E Bot	2.170 1.415	CAP CER X7R 50V SM0603	C2	.01UF	CL10B103KB8NNNC									
6	1	1.3B Top	2.250 0.945	CAP CER X7R 50V SM0603	C20	.01UF	CL10B103KB8NNNC									
6	1	1.3C Bot	3.020 1.305	CAP CER X7R 50V SM0603	C21	.01UF	CL10B103KB8NNNC									
6	1	1.9B Bot	1.790 1.990	CAP CER X7R 50V SM0603	C22	.01UF	CL10B103KB8NNNC									
6	1	1.8E Bot	2.225 1.865	CAP CER X7R 50V SM0603	C3	.01UF	CL10B103KB8NNNC									
6	1	1.4C Top	2.250 1.044	CAP CER X7R 50V SM0603	C4	.01UF	CL10B103KB8NNNC									
6	1	1.5E Bot	2.485 1.505	CAP CER X7R 50V SM0603	C5	.01UF	CL10B103KB8NNNC									
6	1	1.1F Bot	1.459 1.303	CAP CER X7R 50V SM0603	C6	.01UF	CL10B103KB8NNNC									
7	1	1.1F Bot	1.215 1.450	CAP CER X7R 50V SM0805	C11	.1UF	CL21B104KBFNNNG									
7	1	1.8B Bot	1.500 0.625	CAP CER X7R 50V SM0805	C13	.1UF	CL21B104KBFNNNG									
7	1	1.3B Bot	1.325 0.625	CAP CER X7R 50V SM0805	C14	.1UF	CL21B104KBFNNNG									
7	1	1.2F Bot	1.240 1.950	CAP CER X7R 50V SM0805	C7	.1UF	CL21B104KBFNNNG									
7	1	1.4A Bot	0.860 1.045	CAP CER X7R 50V SM0805	C8	.1UF	CL21B104KBFNNNG									
8	1	1.7B Top	2.405 0.615	CAP CER NPO 50V SM0805	C12	100PF	885012007057									
9	1	1.1F Top	0.615 1.860	CAP TANTALUM SMP_M6032	C10	10UF/35V	10UF/35V									
9	1	1.8B Top	1.895 0.820	CAP TANTALUM SMP_M6032	C17	10UF/35V	10UF/35V									

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10	2	1.9D Top	2.475 1.755	CAP TAN SMP_M3528	C1	10UF	F931C106KBA									
10	2	1.3F Top	1.615 1.415	CAP TAN SMP_M3528	C9	10UF	F931C106KBA									
11	2	1.3D Bot	3.240 0.745	N/A Not Applicable SM0603	C18	N/A .01UF	Do NOT Install									
11	2	1.3D Top	3.185 0.370	N/A Not Applicable SM0603	C19	N/A .01UF	Do NOT Install									
12	2	1.9D Bot	2.405 1.805	DIODE SOT23-3	D4	BAV99	BAV99-7-F									
13	2	1.7B Top	2.630 0.578	SCHOTTKY DIODE 2A/60V DO214AC	DS1	SS26SHE3_B/H	SS26SHE3_B/H									
15	2	1.1C Top	4.475 3.650	CONTACT HARDWARE_CONTACT	HW2	0008580110	0008580110									
15	2	1.1C Top	4.475 3.650	CONTACT HARDWARE_CONTACT	HW3	0008580110	0008580110									
15	2	1.1C Top	4.475 3.650	CONTACT HARDWARE_CONTACT	HW4	0008580110	0008580110									
16	2	1.1B Top	3.975 3.675	CONN HOUSING LATCH 3 HARDWARE_HOUSING	HW1	0009503031	0009503031									
17	2	1.1A Top	3.415 3.655	RING TERMINAL HARDWARE_CONTACT	HW5	P14-8RHT	P14-8RHT6-M									
18	2	1.1B Top	1.560 0.890	CONNECTOR-MOLEX R/A HDR156-03	J3	0026605030	0026605030									
19	2	1.8C Top	1.750 1.840	CONNECTOR HDR_2X3	J1	75869-131LF	75869-131LF									
20	2	1.9C Top	1.800 1.600	POGO PIN ASSY 10 HDR_1X4_825	J1P	825-22-004-10-00X101	825-22-010-10-004101									
21	2	1.2D Top	3.515 1.020	N/A Not Applicable SJ-252X	J3M	N/A	Do NOT Install									
22	2	1.2C Top	3.515 0.590	CONN JACK STEREO SJ-252X	J3S	SJ-2524	SJ-2524-SMT-TR									
23	2	1.4E Top	3.450 1.460	CONN JACK STEREO SJ-352X	J2	SJ-3524	SJ-3524-SMT-TR									
24	2	1.7A Top	1.750 0.475	INDUCTOR AIAP-03	L1A	1mH	AIAP-03-102K									

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26	3	1.7B Top	1.750 0.475	N/A Not Applicable SM1812	L1	N/A	Do NOT Install									
31	3	1.6B Top	2.395 0.225	MOSFET P-CH 60V 7A SOT223	Q2	DMP6023LE	DMP6023LE-13									
32	3	1.5C Top	1.835 1.130	MOSFET N-CHANNEL 1.2A/60V SOT23-3	Q1	ZXMN6A07	ZXMN6A07FTA									
33	3	1.4D Bot	2.695 1.630	RES THK-FLM SM0603	R12	10.0K	M55342K12B10E0TW									
33	3	1.9D Bot	2.600 1.780	RES THK-FLM SM0603	R4	10.0K	M55342K12B10E0TW									
33	3	1.9E Bot	2.615 1.975	RES THK-FLM SM0603	R5	10.0K	M55342K12B10E0TW									
33	3	1.8C Bot	1.975 1.835	RES THK-FLM SM0603	R6	10.0K	M55342K12B10E0TW									
33	3	1.8C Bot	1.750 1.465	RES THK-FLM SM0603	R7	10.0K	M55342K12B10E0TW									
33	3	1.5C Top	1.835 1.290	RES THK-FLM SM0603	R9	10.0K	M55342K12B10E0TW									
34	3	1.4D Top	2.915 0.755	RES THK-FLM SM0603	R15	100K	M55342K12B100ETW									
35	3	1.4E Top	2.710 1.645	RES THK-FLM SMR0805-41	R2	100	M55342K06B10D0TW									
35	3	1.4E Top	2.710 1.545	RES THK-FLM SMR0805-41	R3	100	M55342K06B10D0TW									
36	3	1.3C Bot	2.760 0.630	RES THK-FLM SM0603	R14	100	M55342K12B100DTW									
37	3	1.5B Top	2.645 1.044	POT 10K OHM PTV09-A4	R1	10K	PTV09A-4030F-B103									
38	3	1.5B Bot	2.545 0.475	RES THK-FLM SM0805	R10	2.49K	M55342K06B2E49TW									
39	3	1.5B Top	2.625 0.225	RES THK-FLM SM0805	R11	4.99K	M55342K06B4E99TW									
39	3	1.5B Bot	2.225 1.143	RES THK-FLM SM0805	R8	4.99K	M55342K06B4E99TW									
40	3	1.7B Top	2.420 0.760	RES THK-FLM SM0805	R13	47	M55342K06B47D5TW									

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41	4	1.3C Top	2.955 0.625	N/A Not Applicable SM0603	R16	N/A	Do NOT Install				X	X	X	X		
42	4	1.9E Top	2.485 1.940	SWITCH PUSH BUTTON SW_KMR2	SW2	KMR221	KMR221NG-LFS									
44	4	1.8D Top	2.225 1.865	LOGIC GATE AND SOT23-6	U2	74LVC1G11	SN74LVC1G11DBVR									
45	4	1.5D Top	2.485 1.490	LOGIC GATE INVERT ST SOT23-6	U3	74LVC2G14	SN74LVC2G14DBVR									
47	4	1.4B Bot	2.370 0.765	OP AMP SOT23-5	U4	LMV321	LMV321IDBVR									
47	4	1.4C Bot	2.870 1.230	OP AMP SOT23-5	U5	LMV321	LMV321IDBVR									
48	4	1.6D Top	2.180 1.360	EZ8 PROCESSOR 4K SO8	U1	Z8F0423	Z8F0423SB005EG									
49	4	1.2F Top	1.240 1.835	VOLTAGE REGULATOR 3.3V SOT223	VR1	LT1117CST-3.3	LT1117CST-3.3#TRPBF									

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

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1	63	5	1.6E	Top	-3.950 -1.950	Documentation Artifact	BRD5	DRAWING FRAME	VP: Documentation Artifact									
2	64	5	1.6F	Top	4.950 -1.950	Documentation Artifact	BRD4	DRAWING FRAME	VP: Documentation Artifact									
3	65	5	1.6F	Bot	1.480 0.185	Documentation Artifact	BRD6	DRAWING FRAME	VP: Documentation Artifact									
4	66	5	1.6F	Bot	0.400 1.300	Documentation Artifact	BRD3	DRAWING FRAME	VP: Documentation Artifact									
5	67	5	1.7F	Top	0.000 0.000	Documentation Artifact	BRD2	DRAWING FRAME	VP: Documentation Artifact									
14	68	5	1.6F	Top	0.365 0.930	Documentation Artifact	ESD1	DRAWING FRAME	VP: Documentation Artifact									
25	69	5	1.7F	Top	0.585 0.085	Documentation Artifact	LOGO1	DRAWING FRAME	VP: Documentation Artifact									
27	70	5	1.4F	Top	0.000 0.000	Invalid Flight Part(1)	PCB1	102-73192	Invalid Flight Part (see schematic)									
28	71	5	1.10E	Top	-3.850 3.750	Documentation Artifact	PWA1	DRAWING FRAME	VP: Documentation Artifact									
29	72	5	1.10F	Top	-3.850 3.750	Documentation Artifact	PWB1	DRAWING FRAME	VP: Documentation Artifact									
30	73	5	1.1A	Top	0.885 1.450	Invalid Flight Part(1)	PAD1	PAD	Invalid Flight Part (see schematic)									
30	74	5	1.1B	Top	1.220 1.045	Invalid Flight Part(1)	PAD2	PAD	Invalid Flight Part (see schematic)									
30	75	5	1.1A	Top	0.885 0.640	Invalid Flight Part(1)	PAD3	PAD	Invalid Flight Part (see schematic)									
43	76	5	1.3F	Top	1.995 1.155	Pad	TP1	PAD	VP: Not a Physical Part									
46	77	5		Top	-3.400 0.300	Documentation Artifact	U$1	DRAWING FRAME	VP: Documentation Artifact									