

TITLE: Bill of Materials								
BOM NO: 05-080303-01-a.csv								
DATE: 08/27/2024								
DESIGN: 02_080303a_top								
TEMPLATE: Z:\allegro\v174_site\cdssetup\template.bom								
ITEM#	Qty	WW_PN	DESCRIPTION	VALUE	LOCATION	MFG	MFG_PN	DNI
1	1	08_080303a	PCB			Analog Devices Supplied	08_080303a	
310:80	32	E043544	CAP CER 33UF 100V 22% X7S SMD	33UF	C8,C9,C10,C16,C17,C18,C32,C33,C34,C40,C41,C42,C56,C57,C58,C64,C65,C66,C80,C81,C82,C88,C89,C90,C109,C110,C111,C112,C113,C114,C115,C116	TDK	CAA572X7S2A336M	
4	3	E068090	CAP CER 2.2UF 100V 10% X7R 1210 AEC-Q20C	2.2UF	C99,C100,C101	TAIYO YUDEN	MCASH32MSB7225KPNA01	
6	9	E042962	CAP CER 0.1uF 100V 10% X7S 0603 AEC-Q200 LOW ESR	0.1uF	C103,CBST1,CBST2,CBST3,CBST4,CBST5,CBST6,CBST7,CBST8	TDK	CGA3E3X7S2A104K080AB	
7	2	E062930	CAP CER 0.1UF 16V 10% X7R 0805	0.1UF	C104,C120	YAGEO	CC0805KRX7R7BB104	
8	2	E044245	CAP CER 4.7PF 50V 0.25PF C0G 0603 AEC-Q20C	4.7PF	C105,C121	TDK	CGA3E2C0G1H4R7C080AA	
9	1	E055500	CAP CER 2.2UF 10V 10% X7S 0402, AEC-Q20C	2.2UF	C106	MURATA	GRT155C71A225KE13D	
10	2	E011546	CAP CER 47uF 10V 10% X7R 1210	47uF	C107,C123	MURATA	GRM32ER71A476KE15L	
11	1	E035952	CAP CER 1uF 10V 10% X7S 0402 AEC-Q20C	1uF	C108	MURATA	GCM155C71A105KE38D	
13	1	E044329	CAP CER 10UF 100V 10% X7S 1210	10UF	C117	MURATA	GRM32EC72A106KE05L	
14	1	E038280	CAP CER 0.01uF 100V 5% C0G 0603	0.01uF	C118	TDK	C1608C0G2A103J080AC	
15	1	E011865	CAP CER 0.1uF 50V 10% X7R 0603	0.1uF	C119	AVX	06035C104KAT2A	
16	1	E066995	CAP CER 2.2UF 10V 10% X7S 0603 AEC-Q20C	2.2UF	C122	MURATA	GCM188C71A225KE02D	
17	1	E024444	CAP CER 1uF 10V 10% X7R 0603	1uF	C124	KEMET	C0603C105K8RACTU	
18	4	E042961	CAP CER 1000pF 50V 5% C0G 0603 AEC-Q20C	1000pF	C15,C39,C63,C87	TDK	CGA3E2C0G1H102J080AA	
19	12	E042912	CAP ALUM 68UF 100V 20% 12.5x13.5mm, AEC-Q200 500mA 5000h	68UF	C2,C3,C4,C26,C27,C28,C50,C51,C52,C74,C75,C76	PANASONIC	EEVFK2A680Q	
20	8	E059683	CAP ALUM POLY 100UF 63V 20% 10X12.6MM 1000H	100UF	C22,C23,C46,C47,C70,C71,C94,C95	PANASONIC	63SXV100M	
22	4	E022365	CAP CER 0.1uF 16V 10% X7R 0603	0.1uF	C24,C48,C72,C96	YAGEO	CC0603KRX7R7BB104	
24	12	E048499	CAP CER 1UF 100V 10% X7S 0805	1UF	C5,C6,C29,C30,C53,C54,C77,C78,CFOUT1,CFOUT2,CFOUT3,CFOUT4	MURATA	GRJ21BC72A105KE11L	
25	1	E024908	CAP CER 0.1uF 100V 10% X7R 0603	0.1uF	C97	MURATA	GRM188R72A104KA35D	
26	1	E044889	CAP ALUM ELECT 10uF 100V 20% 8X10.2MM, AEC-Q200 1.3 OHM 70MA 2000H	10uF	C98	PANASONIC	EEE-TG2A100P	
27	8	E007966	CAP CER 6800pF 50V 10% X7R 0603	6800pF	CC1,CC2,CC3,CC4,CC5,CC6,CC7,CC8	YAGEO	CC0603KRX7R9BB682	
28	12	E028468	CAP CER 4.7uF 50V 10% X7R 0805	4.7uF	CGATE1,CGATE2,CGATE3,CGATE4,CVDD1,CVDD2,CVDD3,CVDD4,CXVCC1,CXVCC2,CXVCC3,CXVCC4	MURATA	GRM21BZ71H475KE15L	
29	4	E038603	CAP CER 0.01uF 50V 10% X8R 0603 AEC-Q200	0.01uF	CIMON1,CIMON2,CIMON3,CIMON4	TDK	CGA3E2X8R1H103K080AA	
30	4	E042972	CAP CER 220pF 50V 5% C0G 0603 AEC-Q200 LOW ESR	220pF	CP1,CP3,CP5,CP7	TDK	CGA3E2C0G1H221J080AA	
31	4	E046982	CAP CER 62PF 50V 5% C0G 0603 LOW ESR	62PF	CP2,CP4,CP6,CP8	KEMET	C0603C620J5GACTU	
32	4	E061685	CAP CER 0.22UF 100V 10% X7S 0603 AEC-Q20C	0.22UF	CSS1,CSS2,CSS3,CSS4	TAIYO YUDEN	MCASH168SC7224KTCA1J	
33	4	E014012	DIODE MEGA SCHOTTKY BARRIER RECT	PMEG3010BEA,115	D1,D3,D5,D7	NXP SEMICONDUCTORS	PMEG3010BEA,115	
34	1	E001202	DIODE BZX84C 18V ZENER SOT-23	BZX84-C18V	D2	PHILIPS	BZX84-C18V	
36	8	E042975	DIO ULTRA-FAST RECTIFIER 1A, AUTOMOTIVE	US1GWF-7	DBST1,DBST2,DBST3,DBST4,DBST5,DBST6,DBST7,DBST8	DIODES INCORPORATED	US1GWF-7	
37	13	E021431	CONN-PCB TEST POINT COMPACT MINI	5019	DG1,DG2,DG3,DG4,E1,E2,E3,E4,GND1,GND2,GND3,GND4,IMON	KEYSTONE ELECTRONICS	5019	
38	4	E060252	LED UNI-COLOR RED 637NM 0603	HSMC-C197	DS1,DS2,DS3,DS4	BROADCOM LIMITED	HSMC-C197	
39	2	E043052	CONN-PCB 4POS UNSHROUDED HEADER VERT 2MM PITCH	TMM-102-02-L-D	JP1,JP2	SAMTEC INC.	TMM-102-02-L-D	

40	4	E061087	IND POWER CHOKE SHIELDED 15UH 15% 100KHZ 30A 0.00264OHM AEC-Q200	15UH	L1,L2,L3,L4	WURTH ELEKTRONIK	7443641500	
41	1	E016651	IND SHIELDED POWER 2.2uH 0.0235OHM AEC-Q200	2.2uH	L5	COILCRAFT	XFL4020-222MEC	
42	2	E047705	IND POWER SHIELDED WIREWOUND 22UH 20% 100KHZ 2.9A 0.135OHM 2525	22UH	L6,L7	VISHAY	IHLP2525CZER220M11	
43	16	E059896	TRAN MOSFET N-CH 100V 90A	BSC070N10NS3GATMA1	MA1,MA3,MA5,MA7,MB1,MB3,MB5 ,MB7,MC2,MC4,MC6,MC8,MD2,MD 4,MD6,MD8	INFINEON TECHNOLOGIES	BSC070N10NS3GATMA1	
45	4	E063963	TRAN MOSFET N-CH 100V 21A 3W 3.0 RDS TDSON	ISC030N10NM6ATMA1	MDG1,MDG3,MDG5,MDG7	INFINEON TECHNOLOGIES	ISC030N10NM6ATMA1	
47	8	E039893	CONN-PCB THREADED BROACHING STUD, 625MIL LENGTH	KFH-032-10ET	P1,P2,P3,P4,P5,P6,P7,P8	PENN ENGINEERING	KFH-032-10ET	
48	30	E007502	RES SMD 0 Ohm JUMPER 1/10W 0603 AEC-Q200 PRECISION POWER	0	R1,R1C1,R1C2,R1C3,R1C4,R2C1,R2C 2,R2C3,R2C4,R11,R21,R31,R43,R45,R BG1,RBG2,RBG3,RBG4,RBG5,RBG6,R BG7,RBG8,RBST1,RBST2,RBST3,RBST 4,RBST5,RBST6,RBST7,RBST8	VISHAY	CRCW06030000Z0EA	
49	8	E026585	RES SMD 15K Ohm 1% 1/10W 0603	15K	R9,R10,R19,R20,R29,R30,R39,R40	YAGEO	RC0603FR-0715KL	
50	10	E003563	RES SMD 20 Ohm 1% 1/8W 0805 AEC-Q200	20	R2,R12,R22,R32,R57,R58,RIN1,RIN2, RIN3,RIN4	PANASONIC	ERJ-6ENF20R0V	
51	8	E003666	RES SMD 10 Ohm 1% 1/10W 0603 AEC-Q20C	10	R3,R4,R13,R14,R23,R24,R33,R34	PANASONIC	ERJ-3EKF10R0V	
53	8	E003673	RES SMD 49.9 Ohm 1% 1/10W 0603 AEC-Q20C	49.9	R6,R7,R16,R17,R26,R27,R36,R37	PANASONIC	ERJ-3EKF49R9V	
54	4	E003667	RES SMD 499 Ohm 1% 1/10W 0603 AEC-Q20C	499	R8,R18,R28,R38	PANASONIC	ERJ-3EKF4990V	
55	4	E028541	RES SMD 825K Ohm 1% 1/10W 0603	825K	R1A1,R1A2,R1A3,R1A4	YAGEO	RC0603FR-07825KL	
56	4	E042867	RES SMD 23.7K OHM 1% 1/10W 0603 AEC-Q20C	23.7K	R1B1,R1B2,R1B3,R1B4	PANASONIC	ERJ-3EKF2372V	
57	4	E064436	RES SMD 549K OHM 1% 1/10W 0603 AEC-Q20C	549K	R2A1,R2A2,R2A3,R2A4	PANASONIC	ERJ-3EKF5493V	
58	4	E058983	RES SMD 10K OHM 1% 1/10W 0603	10K	R2B1,R2B2,R2B3,R2B4	VISHAY	CRCW060310K0FKECC	
60	1	E013392	RES SMD 24.3K Ohm 1% 1/10W 0603 AEC-Q20C	24.3K	R41	PANASONIC	ERJ-3EKF2432V	
61	4	E030873	RES SMD 1MEG Ohm 1% 1/10W 0603 AEC-Q20C	1MEG	R46,R49,R69,R78	VISHAY	CRCW06031M00FKEA	
62	2	E011039	RES SMD 25.5K Ohm 1% 1/10W 0603 AEC-Q20C	25.5K	R48,R71	PANASONIC	ERJ-3EKF2552V	
63	1	E025011	RES SMD 86.6K Ohm 1% 1/10W 0402 AEC-Q20C	86.6K	R50	PANASONIC	ERJ-2RKF8662X	
64	8	E006826	RES SMD 0 Ohm JUMPER 1/10W 0603 AEC-Q200	0	R51,R52,R53,R54,R80,R81,R82,R83	PANASONIC	ERJ-3GEY0R00V	
65	4	E067932	RES SMD 0.014 OHM 1% 2W 2512 AEC-Q20C	0.014	R65,R66,R67,R68	VISHAY	WSL2512R0140FEA18	
66	1	E067952	RES SMD 191K OHM 1% 1/8W 0805	191K	R72	YAGEO	RC0805FR-07191KL	
67	2	E042745	RES SMD 30K OHM 5% 1/10W 0603 AEC-Q20C	30K	R73,R76	PANASONIC	ERJ-3GEYJ303V	
68	1	E003671	RES SMD 10K Ohm 1% 1/10W 0603 AEC-Q20C	10K	R74	PANASONIC	ERJ-3EKF1002V	
69	1	E028772	RES SMD 121K Ohm 1% 1/10W 0603 AEC-Q20C	121K	R75	PANASONIC	ERJ-3EKF1213V	
70	1	E044313	RES SMD 221K OHM 1% 1/10W 0603 AEC-Q20C	221K	R77	VISHAY	CRCW0603221KFKEA	
71	1	E018406	RES SMD 191K Ohm 1% 1/10W 0603 AEC-Q20C	191K	R79	VISHAY	CRCW0603191KFKEA	
72	8	E011129	RES SMD 30.1K Ohm 1% 1/10W 0603 AEC-Q200	30.1K	RC1,RC2,RC4,RC5,RC7,RC8,RC10,RC1 1	PANASONIC	ERJ-3EKF3012V	
76	4	E021508	RES SMD 11K Ohm 0.1% 1/10W 0603 AEC-Q200 HIGH RELIABILITY	11K	RIMON1,RIMON2,RIMON3,RIMON4	PANASONIC	ERA-3AEB113V	
77	4	E030875	RES SMD 0 Ohm JUMPER 1/8W 0805 AEC-Q20C	0	ROUT1,ROUT2,ROUT3,ROUT4	VISHAY	CRCW08050000Z0EA	
78	4	E044022	RES SMD 1.69K OHM 1% 1/10W 0603	1.69K	RPWGD1,RPWGD2,RPWGD3,RPWG D4	YAGEO	RC0603FR-071K69L	
79	4	E067217	RES SMD 0.003 OHM 1% 3W 3637, AEC-Q20C	0.003	RSNS1,RSNS4,RSNS7,RSNS10	VISHAY	WSL36373L000FEA	
82	4	E043780	RES SMD 0.001 OHM 1% 3W 3637, AEC-Q20C	0.001	RSNS3,RSNS6,RSNS9,RSNS12	VISHAY	WSL36371L000FEA	
83	4	E025112	RES SMD 39.2K Ohm 1% 1/10W 0603	39.2K	RT1,RT2,RT3,RT4	YAGEO	RC0603FR-0739K2L	
84	4	E042637	IC-ADI 100VIN AND VOUT SYNCHRONOUS 4-SW BUCK-BOOST DC/DC CONTROLLER	LT8210AUJ-1#PBF	U1,U2,U3,U4	ANALOG DEVICES	LT8210AUJ-1#PBF	
85	1	E035295	IC-ADI MULTIPHASE OSCILLATOR WITH SPREAD SPECTRUM FREQUENCY MODULATION	LTC6902CMS#PBF	U5	ANALOG DEVICES	LTC6902CMS#PBF	
86	2	E044227	IC-ADI 100, 1A SYNCHRONOUS MICROPOWER STEP DOWN REGULATOR	LT8631HFE#PBF	U6,U7	ANALOG DEVICES	LT8631HFE#PBF	
87	1	E052913	IC-ADI OPAMP QUAD AUTO ZERO/CHOPPER RRO 11V 14LD SOIC N	LTC2052CS#PBF	U8	ANALOG DEVICES	LTC2052CS#PBF	

Mechanical Parts								
ITEM#	Qty	WW_PN	DESCRIPTION	VALUE	LOCATION	MFG	MFG_PN	DNI
2	16	M039278	NUT, HEX STEEL, 10-32 THREAD, 9.27MM OUT DIA		P1,P2,P3,P4,P5,P6,P7,P8	KEystone	4705	
3	2	M022926	SHUNT, 2POS, 2MM PITCH, BLACK		JP1,JP2	SAMTEC INC.	2SN-BK-G	
4	6	M025339	SCREW, MACHINE NYLON PAN HEAD PHILLIPS 4-40 THREAD, 1/4 INCH LONG		(STANDOFF)	B&F FASTENER SUPPLY	NY PMS 440 0025 PH	
5	6	M025474	STANDOFF, NYLON HEX FEMALE 6.35MM O.D, 4-40 THREAD, 1/2 INCH LONG		(STANDOFF)	KEystone	1902C	
6	8	M039918	WASHER, LOCK STEEL 3/64 INCHES THICK		P1,P2,P3,P4,P5,P6,P7,P8	KEystone	1477	
7	8	M039279	WASHER, #10 FLAT STEEL		P1,P2,P3,P4,P5,P6,P7,P8	KEystone	4703	
The following components are part of the PCB or are NOT to be installed								
ITEM#	Qty	WW_PN	DESCRIPTION	VALUE	LOCATION	MFG	MFG_PN	DNI
2	4	E048499	CAP CER 1UF 100V 10% X7S 0805	1UF	C1,C25,C49,C73	MURATA	GRJ21BC72A105KE11L	DNI
5	1	E000382	DO NOT INSTALL	TBD0603	C102	TBD0603	TBD0603	DNI
12	28	E043544	CAP CER 33UF 100V 22% X7S SMD	33UF	C11,C12,C13,C14,C19,C20,C21,C35,C36,C37,C38,C43,C44,C45,C59,C60,C61,C62,C67,C68,C69,C83,C84,C85,C86,C91,C92,C93	TDK	CAA572X7S2A336M	DNI
21	12	E042912	CAP ALUM 68UF 100V 20% 12.5x13.5mm, AEC-Q200 500mA 5000h	68UF	C7,C22_1,C23_1,C31,C46_1,C47_1,C55,C70_1,C71_1,C79,C94_1,C95_1	PANASONIC	EEVFK2A680Q	DNI
23	8	E068852	CAP ALUM ELECT 68UF 160V 20% 16X21.5MM 0.32A 5000H	68UF	C3_1,C4_1,C27_1,C28_1,C51_1,C52_1,C75_1,C76_1	NICHICON CORPORATION	UUJ2C680MNU6MS	DNI
35	2	E029142	DIO SCHOTTKY BARRIER RECTIFIER, COMMERCIAL	DFLS1100-7	D4,D9	DIODES INCORPORATED	DFLS1100-7	DNI
44	16	E059896	TRAN MOSFET N-CH 100V 90A	BSC070N10NS3GATMA1	MA2,MA4,MA6,MA8,MB2,MB4,MB6,MB8,MC1,MC3,MC5,MC7,MD1,MD3,MD5,MD7	INFINEON TECHNOLOGIES	BSC070N10NS3GATMA1	DNI
46	4	E063963	TRAN MOSFET N-CH 100V 21A 3W 3.0 RDS TDSN	ISC030N10NM6ATMA1	MDG2,MDG4,MDG6,MDG8	INFINEON TECHNOLOGIES	ISC030N10NM6ATMA1	DNI
52	10	E007502	RES SMD 0 Ohm JUMPER 1/10W 0603 AEC-Q200 PRECISION POWER	0	R5,R15,R25,R35,R42,R44,RXVCC1,RXVCC2,RXVCC3,RXVCC4	VISHAY	CRCW06030000Z0EA	DNI
59	25	E004050	DO NOT INSTALL (TBD_R0603), PLEASE USE SYM_3 AND/OR SYM_4	TBD0603	R3C1,R3C2,R3C3,R3C4,R47,R55,R56,R59,R60,R61,R62,R63,R64,R70,RC6,R9,RC12,RSNPA1,RSNPA2,RSNPA3,RSNPA4,RSNPB1,RSNPB2,RSNPB3,RSNPB4	TBD0603	TBD0603	DNI
73	1	E024282	RES SMD 46.4K Ohm 0.1% 1/10W 0603 AEC-Q200 HIGH RELIABILITY	46.4K	RC3	PANASONIC	ERA-3AEB4642V	DNI
74	4	E030871	RES SMD 100K Ohm 1% 1/10W 0603 AEC-Q20C	100K	REN1,REN3,REN5,REN7	VISHAY	CRCW0603100KFKEA	DNI
75	4	E024280	RES SMD 71.5K Ohm 0.1% 1/10W 0603 AEC-Q200 HIGH RELIABILITY	71.5K	REN2,REN4,REN6,REN8	PANASONIC	ERA-3AEB7152V	DNI
80	12	E043663	RES SMD 0.005 OHM 1% 3W 4026, AEC-Q200	0.005	RSNS1_1,RSNS2_1,RSNS3_1,RSNS4_1,RSNS5_1,RSNS6_1,RSNS7_1,RSNS8_1,RSNS9_1,RSNS10_1,RSNS11_1,RSNS12_1	VISHAY	WSL40265L000FEA	DNI
81	4	E046287	RES SMD 0.002 OHM 1% 3W 3637, AEC-Q20C	0.002	RSNS2,RSNS5,RSNS8,RSNS11	VISHAY	WSL36372L000FEA	DNI