

Variant: 001
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AMPS131 REV B Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	IPCB	1		AMPS131	Any	Printed Circuit Board	
2	C1, C2	2	2.2uF	CGA4J3X7R1H225K125AB	TDK	CAP, CERM, 2.2 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	805
3	C3, C4, C8, C9, C14, C15	6	0.22uF	C1005X5R1C224K050BB	TDK	CAP, CERM, 0.22 uF, 16 V, +/- 10%, X5R, 0402	402
4	C5, C6, C10, C13	4		TWK107B7104MVHT	Taiyo Yuden	Cap Ceramic 0.1uF 25V X7R 20% Wide Terminal SMD 0306 125C Automotive T/R	306
5	C7	1	330pF	GRM1885C2A331JA01D	MuRata	CAP, CERM, 330 pF, 100 V, +/- 5%, C0G/NP0, 0603	603
6	C11	1	56pF	GRM1555C1E560JA01D	MuRata	CAP, CERM, 56 pF, 25 V, +/- 5%, C0G/NP0, 0402	402
7	C12	1	100pF	CGA2B2C0G1H101J050BA	TDK	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0402	402
8	C16	1	0.1uF	C1608X7R1H104K080AA	TDK	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603	603
9	C20, C29, C33, C42	4	10uF	GRM21BZ71E106KE15L	MuRata	CAP, CERM, 10 uF, 25 V, +/- 10%, X7R, 0805	805
10	C21, C30	2	1uF	C0603C105K3RACTU	Kemet	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, 0603	603
11	C22, C25, C27, C31, C34, C37	6	0.1uF	LLL185R71A104MA11L	MuRata	CAP, CERM, 0.1 uF, 10 V, +/- 20%, X7R, 0306	306
12	C23, C24, C26, C28, C32, C35, C36, C38, C39, C41	10	1uF	GRM155R61E105KE11D	MuRata	CAP, CERM, 1 uF, 25 V, +/- 10%, X5R, 0402	402
13	C40, C44	2	100nF	ATC530L104KT16T	American Technical Ceramics	0.1uF ±10% 16V Ceramic Capacitor X7R 0402 (1005 Metric)	402
14	C43	1	2.2uF	GRM31MR71E225KA93L	MuRata	CAP, CERM, 2.2 uF, 25 V, +/- 10%, X7R, 1206	1206
15	GND1, VCC1, VEE1	3		108-0740-001	Cinch Connectivity	Standard Banana Jack, Uninsulated, 15A	Banana Jack
16	H1, H2, H3, H4	4		NY PMS 440 0025 PH	B&F Fastener Supply	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw
17	H5, H6, H7, H8	4		1902C	Keystone	Standoff, Hex, 0.5" #4-40 Nylon	Standoff
18	J1, J2, J3, J4, J5	5		142-0711-201	Cinch Connectivity	Connector, SMA Jack, Vertical, Gold, SMD	SMA
19	L1	1	6.8nH	LQG15WZ6N8J02D	MuRata	Inductor, Multilayer, Air Core, 6.8 nH, 0.7 A, 0.14 ohm, AEC-Q200 Grade 1, SMD	402
20	L2, L3	2	1000 ohm	BLM21AG102SN1D	MuRata	Ferrite Bead, 1000 ohm @ 100 MHz, 0.5 A, 0805	805
21	P1, P2, P3	3		6095	Keystone	Standard Banana Jack, Uninsulated	Keystone_6095
22	R1, R2	2	1.00k	RC0603FR-071KL	Yageo	RES, 1.00 k, 1%, 0.1 W, 0603	603
23	R3, R29	2	50	FC0402E50R0BST1	Vishay-Dale	RES, 50, 0.1%, 0.05 W, 0402	402
24	R4	1	13.0k	CRCW040213K0FKED	Vishay-Dale	RES, 13.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
25	R5	1	30.9	CRCW040230R9FKED	Vishay-Dale	RES, 30.9, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
26	R7	1	50	FC0603E50R0B TBST1	Vishay Thin Film	RES, 50, 0.1%, 0.125 W, 0603	603
27	R8	1	10.0Meg	CRCW040210M0FKED	Vishay-Dale	RES, 10.0 M, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
28	R9	1	787k	CRCW0402787KFKED	Vishay-Dale	RES, 787 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
29	R10	1	2.00k	CRCW04022K00FKED	Vishay-Dale	RES, 2.00 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
30	R11	1	17.8k	CRCW040217K8FKED	Vishay-Dale	RES, 17.8 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
31	R12, R14, R19	3	0	ERJ-2GE0R00X	Panasonic	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	402
32	R13	1	200k	CRCW0402200KFKED	Vishay-Dale	RES, 200 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
33	R15	1	78.7k	CRCW040278K7FKED	Vishay-Dale	RES, 78.7 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
34	R16	1		3296W-1-254LF	Bourns	250 kOhms 0.5W, 1/2W PC Pins Through Hole Trimmer Potentiometer Cermet 25 Turn Top Adjustment	PTH_3
35	R18	1	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	603
36	R21	1	10.0k	RC0603FR-0710KL	Yageo	RES, 10.0 k, 1%, 0.1 W, 0603	603
37	R22, R23	2	0	CRCW04020000Z0EDHP	Vishay-Dale	RES, 0, 0%, 0.2 W, AEC-Q200 Grade 0, 0402	402
38	R24	1	64.9	CRCW040264R9FKED	Vishay-Dale	RES, 64.9, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
39	R25	1	15	CRCW040215R0FKED	Vishay-Dale	RES, 15.0, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
40	R26	1	1.00Meg	RC0201FR-7D1ML	Yageo America	RES, 1.00 M, 1%, 0.05 W, 0201	201
41	R27	1	75	CRCW040275R0FKED	Vishay-Dale	RES, 75.0, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
42	R30	1	18.0k	ERJ2RKF1802X	Panasonic	RES, 18.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	402
43	TP1, TP2, TP5	3		5012	Keystone	Test Point, Multipurpose, White, TH	White Multipurpose Testpoint
44	TP3, TP6	2		5019	Keystone	Test Point, Miniature, SMT	Test Point, Miniature, SMT
45	TP4	1		5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
46	TP7, TP9	2		5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
47	TP8	1		5004	Keystone	Test Point, Miniature, Yellow, TH	Yellow Miniature Testpoint
48	U1, U3	2		BUF802IRGT	Texas Instruments	BUF802IRGT	VQFN16
49	U2	1		OPA140AIDBVT	Texas Instruments	11 MHz, Single Supply, Low Noise, Precision, Rail-to-Rail Output, JFET Amplifier, 4.5 to 36 V, -40 to 125 degC, 5-pin SOT23 (DBV5), Green (RoHS & no Sb/Br)	DBV0005A
50	C17, C18, C19	0	0.22uF	C1005X5R1C224K050BB	TDK	CAP, CERM, 0.22 uF, 16 V, +/- 10%, X5R, 0402	402
51	D1, D2	0	2V	MMSZ4679T1G	ON Semiconductor	Diode, Zener, 2 V, 500 mW, SOD-123	SOD-123
52	FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
53	R6	0	50	FC0603E50R0B TBST1	Vishay Thin Film	RES, 50, 0.1%, 0.125 W, 0603	603
54	R17	0	32.4k	RT0603BRD0732K4L	Yageo America	RES, 32.4 k, 0.1%, 0.1 W, 0603	603
55	R20	0	200k	CRCW0402200KFKED	Vishay-Dale	RES, 200 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
56	R28	0	51.1	CRCW040251R1FKED	Vishay-Dale	RES, 51.1, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402