

Mother Board REV B Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	Package/Reference
1	PCB1	1		Mother Board	Any	Printed Circuit Board	
2	QAV, BIAS_VIN	1		3300	Raystone Electronics	Test Point, Minutaire, Rect, TH	Rect Minutaire Testpoint
3	ADKD, RES_02ND	2		500T	Raystone Electronics	Test Point, Minutaire, Black, TH	Black Minutaire 5000T
4	AGND, B445, R6, I2V, POND, TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11, TP12, TP13, TP14, VIN	16		0372-0-15-15-34-27-10-0	M&M Max	Pin Receptacle, .032-.046" 205° Dia, Gullt, TH	Pin Receptacle
5	C1, C6	2	100uF	06031V100M5045	Yageo	CAP, AL, 100uF, 630 V, +/- 20%, TH	0.60x0.31mm
6	C2, C11, C12, C14, C16, C17	6	1000uF	84586C7188M00	TEK	CAP, AL, 1800 uF, 35 V, +/- 20%, 0.023 ohm, AEC-Q200 Grade 1, TH	0.78x0.51 5mm
7	C3, C5	2	0.47uF	CGA8P17727474M5090	TDK	CAP, CERMA, 0.47 uF, 630 V, +/- 20%, X7T, AEC-Q200 Grade 1, 2220	2220
8	C8, C56	2	0.01uF	CGA6H400G21103125A4	TDK	CAP, CERMA, 0.01 uF, 630 V, +/- 5%, COGNP0, AEC-Q200 Grade 1, 1210	1210
9	C7, C8, C9, C10, C13, C31	6	2.2uF	CGA8L37H122K25160AB	TDK	CAP, CERMA, 2.2 uF, 50 V, +/- 10%, X7S, AEC-Q200 Grade 1, 1206	1206
10	C15, C26, C28, C27, C28, C31, C32, C33, C34, C36, C37, C38, C39, C40, C41, C42, C43	20	10uF	CGA8P3X7S110M2505AE	TDK	CAP, CERMA, 10 uF, 50 V, +/- 10%, X7S, AEC-Q200 Grade 1, 1210	1210
11	C18, C20, C22, C29, C40, C44, C53, C76, C78, C79, C84, C86, C88, C95, C96, C98, C105, C106	18	0.1uF	CGA5B3X7R1E1040505BB	TDK	CAP, CERMA, 0.1 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
12	C23	1	0.001uF	CGA5E2X7R254720080A	TDK	CAP, CERMA, 200 pF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
13	C25	1	0.01uF	C148E103J25CAU0T0	Kemet	CAP, CERMA, 0.01 uF, 250 V, +/- 5%, COGNP0, AEC-Q200 Grade 1, 1206	1206
14	C24, C35	2	10pF	0402R0100CAT2A	AVX	CAP, CERMA, 10 pF, 50 V, +/- 2.5%, COGNP0, AEC-Q200 Grade 1, 0402	0402
15	C30, C45, C54, C55, C77, C79, C80, C91, C92, C93, C94, C98, C101, C102, C103	15	220pF	AC0402R0R7070B221	Yageo	CAP, CERMA, 220 pF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
16	C39, C40, C43, C46, C48, C50, C52, C56, C58, C59, C60, C61, C62	11	0.1uF	0603C104KAZA	AVX	CAP, CERMA, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
17	C41, C75, C83, C85	4	1uF	CGA5E1X7R1E105K050AC	TDK	CAP, CERMA, 1 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
18	C51, C58, C70, C71, C81, C82, C83, C108, C104, C107, C108	11	2200pF	06M15SR7H422KA370	Murata	CAP, CERMA, 2200 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
19	C73, C86, C97	3	0.01uF	CGA5B3X7R1H103K0505BB	TDK	CAP, CERMA, 0.01 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
20	D1	1	Red	LTST-C180CKT	Lite-On	LED, Red, SMD	Red LED 1.6x0.8x0.8mm
21	D2	1	Green	LTST-C180CKT	Lite-On	LED, Green, SMD	Green LED 1.6x0.8x0.8mm
22	D3	1	40V	NFPC125S1T5	ON Semiconductor	Diode, TVS, Bi-24 V, SOT-23	SOT23
23	D4, D5	2	80V	F5V34M4F	Fairchild Semiconductor	Diode, Schottky, 40 V, 3 A, AEC-Q107, SMD	SMD
24	D6, D7, D8, D9	4	100V	MS10S100	Infineon Technologies	Diode, Schottky, 30 V, 3 A, Surface Mount, DSO-103	DSO103
25	D10	1	0.1V	LDPMCH208A_7B	Bohm	Diode, Zener, 4.7 V, 100 mW, AEC-Q107, SMD	SMD
26	J1, J2, J3	3		MS-3142S68	Hansen	Receptacle, 1.27mm, 60, Gull with 10 tail, SMT	Receptacle, 1.27mm, 60, SMT
27	J4, J5	2		0.10		TERMINAL BLOCK W/ PC BOARD, 11	1.27mm, 11 pins
28	J6, J17	2		FILE-107-01-G1-DV	Samtec	Receptacle, 1.27mm, 7x2, Gull, SMT	Receptacle, 1.27mm, 7x2, SMT
29	J7, J11, J13	3		CLP-103-10-G-0	Samtec	Receptacle, 1.27mm, 3x2, Gull, SMT	Receptacle, 1.27mm, 3x2, SMT
30	J8	1		HE5CR-160-D1-L-DV-A-B	Samtec	C2000 connector/CARD-120HSEC connector, SMT	C2000 pin numbering, SMT
31	J9	1		HE5CR-150-D1-L-DV-A	Samtec	C2000 connector/CARD-120HSEC 160 pin pitch connector, SMT	C2000 pin numbering, SMT
32	J12, J20	2		FILE-106-01-G1-DV-A	Samtec	Receptacle, 1.27mm, 6x2, Gull, SMT	Receptacle, 1.27mm, 6x2, SMT
33	J14, J15, J16	3		734151471	Moran	MINI-CK JACK, 50 Ohm, Gull, TH	MINI-CK JACK, Gull, TH
34	J18	1		PRPC055SRAM71HC	Salora Connector Solutions	Header, 2.54mm, 5x1, Gull, 45A, TH	Header, 2.54mm, 5x1, Gull
35	L1	1	500 uhm	SLM55A5012ND	Malaga	Ferrite Bead, 500 ohm @ 100 MHz, 0.5 A, 0402	0402
36	L3	1	0.43uH	W-02027	Cyntrac	SPHF Coils Inductor	PFC INDUCTOR_34 0402-19mmx0.5
37	SL1	1	TH-14-423-10	Shen		Thermal Transfer Printable Labels, 0.552" W x 0.207" H, 10,000 per roll	P-23 Label 0.552 x 0.207 inch
38	R1, R16, R18, R117, R120, R121, R122, R123, R124, R126, R127, R128	12	0	RM-C1JPE	Kanaya	RES, 0, 0%, 1 W, AEC-Q200 Grade 0, 2512	2512
39	R2, R3	2	10k	CRCW1206100K0JNEA	Vishay Dale	RES, 10 k, 0%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
40	R4, R5, R6, R79	4	0.01k	CR0505000000000000	Vishay Dale	RES, 0.01 k, 0.1%, 0.05 W, AEC-Q200 Grade 0, 0402	0402
41	R11, R17, R22	3	0.01k	BMF-P08MT0800	Stackpole Electronics Inc	RES, 0, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
42	R14, R50, R61, R61, R65, R66, R70, R87, R94, R100, R103, R108, R124, R136, R138, R137	16	0.01k	RC-0402-10TFC002	KCK Japan	RES, 0.01 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
43	R19, R21	2	50.0k	CRCW060300504FNEA	Vishay Dale	RES, 50.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
44	R20, R33, R77, R119	4	0	RM-C1J26TOR00	Stackpole Electronics	0D x0.25W 1206 Thick Film Chip Resistor AEC-Q200 compliant	1206
45	R24, R31, R32, R102	1	1.00Mhm	CRCW0603100M0FNEA	Vishay Dale	RES, 1.00 M, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
46	R24, R32, R102, R102	4	1.00k	CR0505000000000000	Stackpole Electronics	RES, 1.00 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
47	R24, R31, R67, R67, R68, R114	6	1.00k	CRCW0602100M0FNEA	Vishay Dale	RES, 1.00 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
48	R27, R44, R47, R52, R62, R73, R74, R76, R112, R113	10	10	RM-C1J40Z1Y0R0	Stackpole Electronics Inc	RES, 10.0, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
49	R58, R59, R10	3	10k	CRCW1206100M0FNEA	Vishay Dale	RES, 10.0 k, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
50	R59, R10, R10	3	10k	CRCW0603000000000000	Vishay Dale	RES, 10.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
51	R59, R10, R10, R10, R11, R10, R131	7	100	CRCW0402100M0FNEA	Vishay Dale	RES, 100, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
52	R64	1	0.01k	CRCW0603100M0FNEA	Vishay Dale	RES, 0.01 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0603	0603
53	R41, R44, R45, R104, R105, R106	6	0.01k	ELU-BNF840V	Paracoil	RES, 0.01 k, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
54	R46, R48, R51, R52, R54, R55, R70, R71, R85, R86, R107	11	0	CRCW0402000000000000	Vishay Dale	RES, 0, 0%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
55	R56, R108	2	0.01k	CRCW1206000000000000	Vishay Dale	RES, 0.01 k, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
56	R56, R59, R60, R76, R109, R116	6	0.01k	CR0505000000000000	Vishay Dale	RES, 0.01 k, 1%, 0.05 W, AEC-Q200 Grade 0, 0402	0402
57	R57	1	0.01k	CRCW0603000000000000	Vishay Dale	RES, 0.01 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0603	0603
58	R59, R59	2	0.01k	CR0505000000000000	Vishay Dale	RES, 0.01 k, 1%, 0.05 W, AEC-Q200 Grade 0, 0402	0402
59	R59, R111	2	0.01k	CRCW0402000000000000	Vishay Dale	RES, 0.01 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
60	R59	1	0.01k	CRCW0603000000000000	Vishay Dale	RES, 0.01 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0603	0603
61	R59	1	1.00k	CRCW0402100M0FNEA	Vishay Dale	RES, 100 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
62	T1	1	0.5mA	CT50201100B3	Calsonic	Current Sense Transformer, 0.5 mV, 25A Typ, 40 A, AEC-Q200 Grade 1, SMT	Current Sense Transformer SMT
63	T2	1	VF-25320		Cyntrac	PFC TRANSFORMER	PFC TRANSFORMER 7.3MMx1.1MMx0.5
64	U1, U2	2		TMX1330G07-VY01	Texas Instruments	5-V, Bidirectional 8:1, 1-Channel and 4:1, 2-Channel Multiplexers with Current Injection Control, DVI/VIO/SEA (DS02-23-7494-48)	DVI/VIO/SEA
65	U3	1		UC1845A242V-TB03	Texas Instruments	Low-Power, Fast-Response, 24V, 0.1A, 100kHz, 100ns, 100ns, 100ns	DS02-23-7494-48
66	U4	1		SN74AHC1G000C0VY01	Texas Instruments	Automotive Cmos Single 2-Input Positive-AND Gate, DS090005A (DS090005A)	DS090005A
67	U5	1		TLV3602BVR01	Texas Instruments	Automotive 50-MHz single-supply operational amplifier with rail-to-rail input and output	DS02-23-7494-48
68	U6	1		TMCS1133BQ0V0R	Texas Instruments	TMCS1133BQ0V0R	DS02-23-7494-48
69	U7	1		INA250A4JDDFR01	Texas Instruments	AEC-Q100, 5-V to 110-V, bidirectional, 1.1-MHz 8-V/µs ultrahigh-speed current sense amplifier	DS02-23-7494-48
70	U9	1		AMC311QDWR01	Texas Instruments	Automotive, 0.6-V to 2.7-V input, precision reformed isolated amplifier with integrated DC/DC converter 16-SOIC-48 to 125	DS02-23-7494-48
71	U10	1		INA250A4JDDFR01	Texas Instruments	Automotive, 36-V Prop. Gain, Bi-Directional, Zero-Drift, High-Speed	DS090005A
72	U11, U13	2		TLV00125BQV01	Texas Instruments	Automotive, single-channel, 5.5-V/1-MHz rail-to-rail input and output	DS02-23-7494-48
73	U12	1		AMC311QDWR01	Texas Instruments	Operational amplifier 5-SOT-23-48 to 125	DS02-23-7494-48
74	U14	1		SN74AHC00PWR0201	Texas Instruments	Automotive 2-V input, reformed isolated amplifier with high CMTI for	DS090005A
75	U10	0		18-009-213R171	NotCom	C2000 128-PIN FEMALE RIA SOLDER TH	0.50x0.8 PIN
76	U2	0	100uH	ACT458-101-2P-TL003	EDX	Inductor, Ferrite, 100 uH, 0.15 A, 2 ohm, SMD	SMD, 4 Leads, Body 4.2 x 3.7 mm
77	R4, R5, R6, R7	0	000k	CRCW1206100K0JNEA	Vishay Dale	RES, 100 k, 0%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
78	R10, R12, R13, R61, R66	0	0	CRCW0402000000000000	Vishay Dale	RES, 0, 0%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
79	R16, R26, R116, R129, R130, R131	0	0	RM-C1JPE	Kanaya	RES, 0, 0%, 1 W, AEC-Q200 Grade 0, 2512	2512