

Component List

Source Data: MBCC_EMBV.PrjPCB

Project: MBCC_EMBV.PrjPCB

Variant: None

Revision: B

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#	Quantity	Designator	Comment	Description	Footprint	MFG#/1/Part#	DNP
1	4	C32, C34, C41, C116	10nF	Cernamic-Cap X7R 25V	0402C	AVX: 04023C103KAT2A	
2	69	C1, C5, C6, C7, C12, C13, C14, C15, C16, C17, C18, C19, C20, C27, C31, C33, C35, C36, C37, C40, C42, C43, C44, C45, C46, C47, C48, C49, C53, C54, C55, C56, C57, C58, C61, C62, C63, C65, C66, C67, C69, C73, C75, C76, C77, C80, C82, C84, C91, C93, C94, C98, C99, C100, C101, C102, C104, C105, C106, C107, C108, C109, C151, C152, C153, C158, C163, C168, C169	100nF	Cernamic-Cap X7R 25V	0402C	AVX: 04023C104KAT2A	
3	2	C110, C111	12pF	Cernamic-Cap NP0 50V	0402C	AVX: 04025A120FAT2A	
4	2	C28, C29	33pF	Cernamic-Cap C0G 50V	0402C	AVX: 04025A330JAT2A	
5	2	C50, C51	1uF	Cernamic-Cap X5R 16V	0402C	AVX: 0402YD105KAT2A	
6	13	R13, R14, R19, R20, R63, R79, R83, R93, R94, R95, R110, R111, R121	0R	Resistor	0402R	Vishay: CRCW04020000Z0ED	
7	1	R73	100K	Resistor	0402R	Vishay: CRCW0402100KJNED	
8	7	R8, R9, R10, R23, R24, R96, R99	100R	Resistor	0402R	Vishay: CRCW0402100RJNED	
9	15	R15, R16, R17, R18, R21, R22, R41, R84, R101, R102, R104, R105, R166, R173, R175	10K	Resistor	0402R	Vishay: CRCW040210K0JNED	
10	16	R12, R27, R28, R58, R69, R74, R78, R80, R82, R114, R115, R159, R160, R161, R162, R167	1K	Resistor	0402R	Vishay: CRCW04021K00JNED	
11	1	R122	1M	Resistor	0402R	Vishay: CRCW04021M00JNED	
12	4	R81, R97, R98, R181	22R	Resistor	0402R	Vishay: CRCW040222R0JNED	
13	1	R11	240R	Resistor	0402R	Vishay: CRCW0402240RJNED	
14	1	R103	24K9	Resistor	0402R	Vishay: CRCW040224K9JNED	
15	2	R68, R75	27K	Resistor	0402R	Vishay: CRCW040227K0JNED	
16	1	R154	2K7	Resistor	0402R	Vishay: CRCW04022K70JNED	
17	3	R119, R124, R176	330R	Resistor	0402R	Vishay: CRCW0402330RJNED	
18	18	R44, R45, R46, R47, R48, R49, R50, R51, R52, R53, R54, R55, R56, R57, R61, R62, R64, R65	33R	Resistor	0402R	Vishay: CRCW040233R0JNED	
19	1	R72	390K	Resistor	0402R	Vishay: CRCW0402390KJNED	
20	2	R25, R26	3K3	Resistor	0402R	Vishay: CRCW04023K30JNED	
21	1	R163	470K	Resistor	0402R	Vishay: CRCW0402470KJNED	
22	1	R60	47K	Resistor	0402R	Vishay: CRCW040247K0JNED	
23	4	R112, R113, R116, R117	49K9	Resistor	0402R	Vishay: CRCW040249K9JNED	
24	3	R86, R87, R100	49R9 1%	Resistor	0402R	Vishay: CRCW040249R9FKED	
25	11	R29, R30, R31, R32, R33, R35, R39, R43, R118, R120, R182	4K7	Resistor	0402R	Vishay: CRCW04024K70JNED	
26	1	R123	4K99 1%	Resistor	0402R	Vishay: CRCW04024K99FKED	
27	18	R1, R2, R34, R37, R38, R40, R67, R70, R76, R77, R88, R89, R90, R91, R106, R107, R108, R109	2K	Resistor	0402R	Vishay: CRCW46232K00JNED	
28	2	C117, C120	1nF 100V	Cernamic-Cap X7R 100V	0603C	AVX: 06031C102KAT2A	
29	1	C88	220nF	Cernamic-Cap X7R 25V	0603C	AVX: 06033C224KAT2A	
30	1	C143	100pF	Cernamic-Cap X7R 50V	0603C	AVX: 06035C101KAT2A	
31	1	C142	10nF	Cernamic-Cap X7R 50V	0603C	AVX: 06035C103KAT2A	
32	8	C112, C113, C114, C115, C134, C137, C138, C141	100nF	Cernamic-Cap X7R 50V	0603C	AVX: 06035C104KAT2A	

33	1	C145	22nF	Cernamic-Cap X7R 50V	0603C	AVX: 06035C223KAT2A
34	1	C144	470pF	Cernamic-Cap X7R 50V	0603C	AVX: 06035C471KAT2A
35	2	C92, C97	4u7F	Cernamic-Cap X5R 6V3	0603C	AVX: 06036D475KAT2A
36	8	C135, C136, C139, C140, C146, C157, C162, C167	1uF	Cernamic-Cap X7R 16V	0603C	AVX: 0603YC105KAT2A
37	30	C30, C38, C39, C52, C59, C60, C64, C68, C70, C71, C72, C74, C78, C79, C81, C83, C85, C86, C87, C90, C95, C96, C103, C154, C155, C159, C160, C164, C165, C166	10uF	Cernamic-Cap X5R 10V	0603C	AVX: 0603ZD106KAT2A
38	12	FB1, FB2, FB3, FB4, FB5, FB6, FB7, FB8, FB9, FB10, FB11, FB12	Z550@1G 500mA	Z470@100M Z550@1G 500mA 0.21R	0603L	muRata: BLM18EG471SN1
39	1	FB13	120Z 3A	Inductor	0603L	Murata: BLM18SG121TN1
40	1	LED2	BLUE	LED_BLUE	0603LED-B	LTP: LTST-C1907BKT
41	4	LED3, LED4, LED5, LED6	GRN	LED_GREEN	0603LED-G	LTP: LTST-C190GKT
42	2	LED0, LED1	RED	LED_Red	0603LED-R	LTP: LTST-C190CKT
43	5	R127, R128, R132, R133, R158	0R	Resistor	0603R	Vishay: CRCW06030000Z0EA
44	2	R131, R153	100K	Resistor	0603R	Vishay: CRCW0603100KJNEA
45	2	R139, R145	10K	Resistor	0603R	Vishay: CRCW060310K0JNEA
46	2	R130, R137	10R	Resistor	0603R	Vishay: CRCW060310R0JNEA
47	1	R171	120R 1%	Resistor	0603R	Vishay: CRCW0603120RFKEA
48	1	R141	124K 1%	Resistor	0603R	Vishay: CRCW0603124KFKEA
49	1	R151	12K4 1%	Resistor	0603R	Vishay: CRCW060312K4FKEA
50	1	R150	15K 1%	Resistor	0603R	Vishay: CRCW060315K0FKEA
51	1	R156	1K	Resistor	0603R	Vishay: CRCW06031K00JNED
52	1	R138	21K 1%	Resistor	0603R	Vishay: CRCW060321K0FKEA
53	1	R169	220R 1%	Resistor	0603R	Vishay: CRCW0603220RFKEA
54	3	R174, R178, R180	23K7 1%	Resistor	0603R	Vishay: CRCW060323K7FKEA
55	1	R135	24K9 1%	Resistor	0603R	Vishay: CRCW060324K9FKEA
56	1	R134	2K7	Resistor	0603R	Vishay: CRCW06032K70JNEA
57	1	R179	30K1 1%	Resistor	0603R	Vishay: CRCW060330K1FKEA
58	1	R155	30R9 1%	Resistor	0603R	Vishay: CRCW060330R9FKEA
59	1	R136	3K32 1%	Resistor	0603R	Vishay: CRCW06033K32FKEA
60	2	R164, R165	3K92 1%	Resistor	0603R	Vishay: CRCW06033K92FKEA
61	1	R170	430R 1%	Resistor	0603R	Vishay: CRCW0603430RFKEA
62	1	R142	47K	Resistor	0603R	Vishay: CRCW060347K0JNEA
63	1	R152	4K7	Resistor	0603R	Vishay: CRCW06034K70JNEA
64	1	R148	4K75 1%	Resistor	0603R	Vishay: CRCW06034K75FKEA
65	1	R143	510R	Resistor	0603R	Vishay: CRCW0603510RJNEA
66	1	R177	51K1 1%	Resistor	0603R	Vishay: CRCW060351K1FKEA
67	2	R140, R168	680R 1%	Resistor	0603R	Vishay: CRCW0603680RFKEA
68	1	R172	75K 1%	Resistor	0603R	Vishay: CRCW060375K0FKEA
69	1	R92	887R 1%	Resistor	0603R	Vishay: CRCW0603887RFKEA
70	2	C118, C119	1nF 100V	Cernamic-Cap X7R 100V	0805C	AVX: 08051C102KAT2A
71	1	C125	10nF 100V	Cernamic-Cap X7R 100V	0805C	AVX: 08051C103KAT2A
72	1	C122	100nF 100V	Cernamic-Cap X7R 100V	0805C	AVX: 08051C104KAT2A
73	1	C126	1nF	Cernamic-Cap X7R 50V	0805C	AVX: 08055C102KAT2A
74	1	C147	470nF	Cernamic-Cap X7R 50V	0805C	AVX: 08055C474KAT2A
75	6	C128, C129, C130, C131, C132, C133	10uF	Cernamic-Cap X5R 16V	0805C	AVX: 0805YD106KAT2A
76	17	C2, C3, C4, C8, C9, C10, C11, C21, C22, C23, C24, C25, C26, C149, C150, C156, C161	22uF 10V	Cernamic-Cap X5R 10V	0805C	AVX: 0805ZD226MAT2A
77	1	F1	0R	FUSE	0805F	TE: PICOSMDC020S-2 (Alternate - Vishay: CRCW08050000Z0EA)
78	2	FB14, FB15	100Z 4A	Ferrite Bead	0805L	TDK: MPZ2012101A
79	2	R126, R129	10R	Resistor	0805R	Vishay: CRCW080510R0JNEA
80	1	R149	22R	Resistor	0805R	Vishay: CRCW080522R0JNEA
81	1	R125	100K	Resistor	1206R	Vishay: CRCW1206100KJNEA
82	2	R146, R147	0R30 1%	Resistor	1206R	Vishay: RCWE1206R300FKEA
83	2	C123, C124	2u2F 100V	Cernamic-Cap X7R 100V	1210C	AVX: 12101C225KAT2A
84	1	C148	2n2F 2KV	Cernamic-Cap X7R 2KV	1812C	AVX: 1812GC222KAT1A

85	2	CON4, CON5	STEREO-JACK-X2	STEREO-JACK 3.5mm Stack x2	AUDIO_3.5MM_STEREO_X2	Kycon: STX-4235-3-3-N	
86	1	C121	33uF 100V	E-Cap Alum 8mm 100V	CAP-E-D8	Panasonic: EEU-FC2A330L	
87	1	C127	330uF 16V	E-Cap Alum 8mm 16V	CAP-E-D8	Panasonic: EEU-FM1C331B	
88	1	Y1	28.6363MHz	Crystal 2Pin	CRYSTAL_2P_5032	Abrakon: ABM3-28.6363MHz-B2T	
89	1	Y2	25.00MHz +/-50ppm	Crystal 4Pin	CRYSTAL_4P_3225	MMD: T12FC1-25.000MHZ-T	
90	1	SW1	DIP-SW-4	DIP SW 4P	DIP_SW-4-2.54-SMD	TE: 1825058-7 (ADE04S04)	
91	1	T2	B82804A	Gate Drive Transformer	EP5	EPCOS: B82804A0354A110	
92	1	U10	PM8803	POE+ PWM controller	HTSSOP-20	ST: PM8803TR	
93	1	L2	0u33H 10A	Power Inductor	L_5X5	KEMET: MPLCG0530LR33	
94	1	L1	10uH 3.5A	Power Inductor	L_6.47X6.47	Vishay: IHLP-2525CZER100M11	
95	2	L3, L4	2u5H 6.2A	Power Inductor 12x12	L_SRR1206	Bourns: SRR1206-2R5ML	
96	1	U8	ADAU1761	SigmaDSP Stereo 96KHz 24bit Audio Codec	LFCSP_VQ-32	ADI: ADAU1761BCPZ	
97	1	U7	ADV7511	225MHz HDMI Transmitter with ARC	LQFP-100	ADI: ADV7511KSTZ	
98	1	U6	ADV7611	HDMI Receiver 165MHz	LQFP-EP-64	ADI: ADV7611BSWZ-P	
99	2	U11, U13	FOD817A	Phototransistor Optocouplers	MDIP-4L	Fairchild: FOD817AS	
100	2	CON2, CON3	Micro HDMI	Micro HDMI	MICRO-HDMI-MOLEX-046765-1001	Molex: 0467651001	
101	2	JX1, JX2	MicroZed	MicroZed SOM Carrier Footprint	MicroZedSOM	FCI: 61083-101400LF	
102	1	CON8	MONO JACK	DC JACK	MONO-DC	CUI: PJ-002BH	
103	1	X1	12MHz	OSC 3.3V SMD	OSC_3225	FOX: FXO-HC335R-12.00 (766-12.00)	
104	1	T1	PA2328NL	POE Plus Magnetics	PAXXXXNL	Pulse: PA2328NL	
105	1	CON1	PCIE-4X-R	PCIE-4X PROPRIETARY	PCIE-064-02-X-D-RA	Samtec: PCIE-064-02-X-D-RA	
106	3	JC, JD, JY	PMOD_2X6_F	PMOD 2X6 2.54mm Female	PMOD_2X6_SAMTEC-SSW-106-02-F-D-RA	SAMTEC: SSW-106-02-T-D-RA	
107	1	Q7	STL65N3LLH5	MOSFET-N	POWERFLAT_5X6	ST: STL65N3LLH5	
108	1	REG3	LDFMPT	LDO 0.5A	PPAK-5	ST: LDFMPT-TR	
109	1	U9	88E1512	10/100/1000 Mbps Energy Efficient Ethernet Transceiver /w SFP	QFN-56	Marvell: 88E1512-XX-NNP21000	
110	1	J5	0826-1X1T-GH-F	RJ45 /w Magnetic POE+, 1x1, 10/100/1000, LEDs	RJ45-0826-1X1T-GH-F	BEL: 0826-1X1T-GH-F	
111	6	TP1, TP8, TP9, TP10, TP11, TP12	SIP-1	1P 2.54mm Header	SIP-1	TE: 5-146280-1	
112	1	J4	SIP-2	2P 2.54mm Header	SIP-2	TE: 5-146280-2	
113	1	J2	SIP-3	3P 2.54mm Header	SIP-3	TE: 5-146280-3	
114	1	D8	SMAJ58A	Schottky Diodes 4A 58V	SMA	ST: SMAJ58A	
115	9	D4, D5, D6, D7, D9, D10, D11, D12, D13	STPS2H100A	Schottky Diodes 2A 100V	SMA	ST: STPS2H100A	
116	1	Q9	SI4848DY	MOSFET-N 150V 3.7A	SO-8-MOSFET-SINGLE	Vishay: SI4848DY-T1-E3	
117	1	D25	1A 30V	Schottky 1A 30V	SOD-123	OnSemi: MBR130LSFT1G	
118	1	D3	1N4148	Diodes	SOD-123	OnSemi: MMSD4148T1G	
119	6	D14, D15, D16, D17, D18, D19	BAT46J	Schottky Diodes	SOD-323	ST: BAT46JFILM	
120	2	U2, U3	11AA02E48	EEPROM 2K UNI/O SOT-23	SOT-23	Microchip: 11AA02E48T-I/TT	
121	5	D20, D21, D22, D23, D24	BAT54LT1G	Schottky Diodes Vf=0.35V@10mA Vr=30V	SOT-23/TO-236	OnSemi: BAT54LT1G	
122	11	Q1, Q2, Q3, Q4, Q5, Q6, Q12, Q13, Q14, Q15, Q16	BSS138	MOSFET-N	SOT-23/TO-236-MOSFET	OnSemi: BSS138LT1G	
123	1	Q11	BSS84	MOSFET-P 50V 120mA	SOT-23/TO-236-MOSFET	OnSemi: BSS84LT1G	
124	1	Q10	3904	Transistor NPN	SOT-23/TO-236-TRANSISTOR	ONSemi: MMBT3904LT3G	
125	1	Q8	3906	Transistor PNP	SOT-23/TO-236-TRANSISTOR	ONSemi: MMBT3906LT1G	
126	1	U12	TS431A	Precision Programmable Reference Vref=1.24	SOT-23-5	ST: TS431AILT	
127	2	D1, D2	BAV99	Dual Series Switching Diodes	SOT-323/SC-70	OnSemi: BAV99WT1G	
128	1	SW2	Switch Single Pole	Switch - Single Pole 6A@28VDC	SW-C&K1101	C&K: 1103-M2-S3-C-Q-E-2	
129	2	BTN0, BTN1	BTN	Switch Tactile 6mm Black	SW-TACTILE-4	TE: 1825910-6 (FSM4JH)	
130	2	BTN2, BTN3	BTN_RED	Switch Tactile 6mm Red	SW-TACTILE-4	TE: 1825910-7 (FSM4JAH)	
131	1	U4	TCA9548APW	8 Ch I2C Switch	TSSOP-24	TI: TCA9548APWR	
132	1	U5	PCA9534DGV	I2C TO 8 I/Os Expander	TVSOP-16	TI: PCA9534DGV	
133	1	U1	SN74AVC4T245	4CH Dual Supply Bus Transceiver	TVSOP-16	TI: SN74AVC4T245DGV	
134	2	REG1, REG2	ST1S32	DC-DC 5Vin 4A	VDFPN-8	ST: ST1S32PUR	
135	1	J1	XILINX JTAG 2mm	Xilinx JTAG 2mm SMT	XILINX_JTAG_2MM_SMT	Molex: 87832-1420	
136	2	JH1, JH2	Jumper	Shunt Jumper 100mil		3M: 969102-0000-DA	DNP
137	3	R66, R71, R183	0R	Resistor	0402R	Vishay: CRCW04020000Z0ED	DNP
138	2	R36, R42	4K7	Resistor	0402R	Vishay: CRCW04024K70JNED	DNP
139	7	R3, R4, R5, R6, R7, R59, R85	DNP	Resistor	0402R	Vishay: CRCW0402xxxxJNED	DNP
140	1	R157	35R7 1%	Resistor	0603R	Vishay: CRCW060335R7FKEA	DNP
141	1	R144	TBD	Resistor	0603R	Vishay: CRCW0603xxxxFKEA	DNP

142	4	FM1, FM2, FM3, FM4	Fiducial Mark	Fiducial Mark	Fiducial_Mark	N/A	DNP
143	6	M1, M2, M3, M4, M6, M7	MTH	Mounting Hole	MTG_3.2mm-1		DNP
144	5	TP3, TP4, TP5, TP6, TP7	SIP-1	1P 2.54mm Header	SIP-1	TE: 5-146280-1	DNP
145	1	J3	5-146280-2	2P 2.54mm Header	SIP-2	TE: 5-146280-2	DNP
146	2	J6, J7	DNP	2P 2.54mm Header	SIP-2	TE: 5-146280-2	DNP
147	2	C89, C170	220uF 6V3	Oxi-Cap 220uF 6V3 LESR	TAN-D	AVX: NOSD227M006R0045	DNP
148	42	TP13, TP14, TP15, TP16, TP17, TP18, TP19, TP20, TP21, TP22, TP23, TP24, TP25, TP26, TP27, TP28, TP29, TP30, TP31, TP32, TP33, TP34, TP35, TP36, TP37, TP38, TP39, TP40, TP41, TP42, TP43, TP44, TP45, TP46, TP47, TP48, TP49, TP50, TP51, TP52, TP53, TP55	Test Point	Test Point	TP_PAD_0.5		DNP
149	2	TP2, TP54	Test Point	Test Point	TP_PAD_0.8		DNP
150	1	M5	Tripod Mount	Tripod Mount Right Angle	TRIPOD_MOUNT_R		DNP
Approved by							