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PMP22552_Main Board REV A Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
!PCB100	1		PMP22552_Main Board	Any	Printed Circuit Board	
12V, TP101, V+	3	Red	5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
15V, Current PWM, Voltage PWM	3		5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
C100, C101, C102, C103	4	22uF	UPW2D220MPD1TD	Nichicon	CAP, AL, 22 µF, 200 V, +/- 20%, TH	D10xL22mm
C104, C105, C106, C107	4	0.47uF	GRM43DR72E474KW01L	MuRata	CAP, CERM, 0.47 µF, 250 V,+/- 10%, X7R, 1812	1812
C108	1	1uF	GRM55DR72E105KW01L	MuRata	CAP, CERM, 1 uF, 250 V, +/- 10%, X7R, 2220	2220
C109, C110, C111, C112, C113, C114, C116, C117, C118, C119, C120, C133	12	0.22uF	GRM32DR72E224KW01L	MuRata	CAP, CERM, 0.22 uF, 250 V, +/- 10%, X7R, 1210	1210
C115, C146, C148	3	1uF	GRM319R61C105KAA3D	MuRata	CAP, CERM, 1 µF, 16 V, +/- 10%, X5R, 1206	1206
C121	1	100uF	EEUED2D101S	Panasonic	CAP, AL, 100 µF, 200 V, +/- 20%, 0.243706 ohm, TH	18x20
C122, C128, C129, C142, C145	5	47pF	885012005044	Wurth Elektronik	CAP, CERM, 47 pF, 50 V,+/- 5%, C0G/NP0, 0402	0402
C123	1	0.1uF	GRM155R61E104KA87D	MuRata	CAP, CERM, 0.1 µF, 25 V, +/- 10%, X5R, 0402	0402
C124	1	0.1uF	C1206C104K5RACTU	Kemet	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 1206	1206
C126	1	0.1uF	160R07X104KV4T	Johanson Technology	CAP, CERM, 0.1 µF, 16 V,+/- 10%, X5R, 0402	0402
C130, C137, C143	3	0.1uF	LMK105BJ104KV-F	Taiyo Yuden	CAP, CERM, 0.1 µF, 10 V,+/- 10%, X5R, 0402	0402
C131	1	0.1uF	08053C104JAT2A	AVX	CAP, CERM, 0.1 µF, 25 V,+/- 5%, X7R, 0805	0805
C134	1	4.7uF	GRM188C81E475KE11D	MuRata	CAP, CERM, 4.7 µF, 25 V,+/- 10%, X6S, 0603	0603
C136	1	0.47uF	GRM188R61C474KA93D	MuRata	CAP, CERM, 0.47 µF, 16 V,+/- 10%, X5R, 0603	0603
C138	1	0.1uF	0402YC104KAT2A	AVX	CAP, CERM, 0.1 µF, 16 V,+/- 10%, X7R, 0402	0402
C139, C144	2	0.1uF	06035C104KAT2A	AVX	CAP, CERM, 0.1 µF, 50 V,+/- 10%, X7R, 0603	0603
C140	1	22uF	GRM21BC8YA106KE11L	TDK	CAP, CERM, 10 µF, 35 V, +/- 10%, X6S, 0805	0805
C141	1	47pF	GRM1555C1H470JA01D	MuRata	CAP, CERM, 47 pF, 50 V,+/- 5%, C0G/NP0, 0402	0402
C147	1	10uF	ECA1CM100	Panasonic	CAP, AL, 10 µF, 16 V, +/- 20%, TH	5.0mmx11mm
C150	1	100pF	04025A101FAT2A	AVX	CAP, CERM, 100 pF, 50 V,+/- 1%, C0G/NP0, 0402	0402
C151	1	220pF	06031C221KAT2A	AVX	CAP, CERM, 220pF, 100V, +/-10%, X7R, 0603	0603
C199	1	2.2uF	C0603C225K8PACTU	Kemet	CAP, CERM, 2.2 µF, 10 V,+/- 10%, X5R, 0603	0603
D100	1	5.1V	MMSZ5231BS-7-F	Diodes Inc.	Diode, Zener, 5.1 V, 200 mW, SOD-323	SOD-323
D101	1	600V	CVFD20065A	Cree	DIODE SCHKY SIC 650V 20A TO-220	TO-220-2
D104	1	100V	BAT46WJ,115	Nexperia	Diode, Schottky, 100 V, 0.25 A, SOD-323F	SOD-323F
D105	1	30V	BAT54A-7-F	Diodes Inc.	Diode, Schottky, 30 V, 0.2 A, SOT-23	SOT-23
D199	1	100V	1N4148W-7-F	Diodes Inc.	Diode, Ultrafast, 100 V, 0.15 A, SOD-123	SOD-123
J100, J101	2		282856-2	TE Connectivity	Therminal Block, 5 mm, 2-pole, Tin, TH	TH, 2-Leads, Body 10x10mm, Pitch 5mm

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
L100	1		7443641500	Wurth Electronics	Surface Mount Power Inductor, WE-HCF Series, 15 H, 15%, Shielded, 2400 ohm, 30 A	SMT_IND_28MM0_19MM4
MP100	1		CR401-50AE	Ohmite	ALUMINUM HEATSINK 50MM BLK ANODI	PTH_HEATSINK
PGND, SGND, TP102	6	Black	5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
Q100	1		IPP200N25N3GXKSA1	Infineon Technologies	MOSFET, N-CH	TO-220-3
Q101	1	40 V	MMBT3904-7-F	Diodes Inc.	Transistor, NPN, 40 V, 0.2 A, SOT-23	SOT-23
Q199	1	40 V	MMBT4403	Fairchild Semiconductor	Transistor, PNP, 40 V, 0.6 A, SOT-23	SOT-23
R100, R101, R102	3	0.006	KRL3264-C-R006-G-T1	Susumu Co Ltd	RES, 0.006, 2%, 1 W, 2512	2512
R103, R104	2	4.75	CRCW04024R75FKED	Vishay-Dale	RES, 4.75, 1%, 0.063 W, 0402	0402
R105, R106, R134	3	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
R107	1	15.0	CRCW120615R0FKEA	Vishay-Dale	RES, 15.0, 1%, 0.25 W, 1206	1206
R108	1	4.99k	CRCW04024K99FKED	Vishay-Dale	RES, 4.99 k, 1%, 0.063 W, 0402	0402
R109, R129	2	39.2k	CRCW040239K2FKED	Vishay-Dale	RES, 39.2 k, 1%, 0.063 W, 0402	0402
R110, R113, R114	3	0.03	PRL1632-R030-F-T1	Susumu Co Ltd	RES, 0.03, 1%, 1 W, 0612	0612
R111	1	39.0k	RC0603FR-0739KL	Yageo America	RES, 39.0 k, 1%, 0.1 W, 0603	0603
R112, R132	2	15.0k	CRCW060315K0FKEA	Vishay-Dale	RES, 15.0 k, 1%, 0.1 W, 0603	0603
R115, R120	2	20.0k	CRCW060320K0FKEA	Vishay-Dale	RES, 20.0 k, 1%, 0.1 W, 0603	0603
R116, R117	2	0	RC0603JR-070RL	Yageo America	RES, 0, 5%, 0.1 W, 0603	0603
R118	1	2.2	CRCW06032R20JNEA	Vishay-Dale	RES, 2.2, 5%, 0.1 W, 0603	0603
R121	1	20.5k	CRCW060320K5FKEA	Vishay-Dale	RES, 20.5 k, 1%, 0.1 W, 0603	0603
R123	1	28.7k	CRCW060328K7FKEA	Vishay-Dale	RES, 28.7 k, 1%, 0.1 W, 0603	0603
R124	1	49.9	RC1206FR-0749R9L	Yageo America	RES, 49.9, 1%, 0.25 W, 1206	1206
R125	1	10.0k	CRCW080510K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.125 W, 0805	0805
R126, R128	2	43.2k	RT0603BRD0743K2L	Yageo America	RES, 43.2 k, 0.1%, 0.1 W, 0603	0603
R127	1	10.0k	CRCW040210K0DHEDP	Vishay-Dale	RES, 10.0 k, 0.5%, 0.063 W, 0402	0402
R130	1	39.0k	ERJ-8ENF3902V	Panasonic	RES, 39.0 k, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
R131	1	4.02k	CRCW08054K02FKEA	Vishay-Dale	RES, 4.02 k, 1%, 0.125 W, 0805	0805
R135	1	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R136	1	4.99k	CR0603-FX-4991ELF	Bourns	RES, 4.99 k, 1%, 0.1 W, 0603	0603
R137	1	1.82k	CRCW06031K82FKEA	Vishay-Dale	RES, 1.82 k, 1%, 0.1 W, 0603	0603
R138	1	3.01k	CRCW06033K01FKEA	Vishay-Dale	RES, 3.01 k, 1%, 0.1 W, 0603	0603
R197, R198	2	1.00Meg	CRCW06031M00FKEA	Vishay-Dale	RES, 1.00 M, 1%, 0.1 W, 0603	0603
R199	1	1.00Meg	CRCW12061M00FKEA	Vishay-Dale	RES, 1.00 M, 1%, 0.25 W, 1206	1206
U100	1		INA180A2IDBV	Texas Instruments	Low- and High-Side Measurement, Multichannel, Voltage Output, Current-Sense Amplifier, DBV0005A (SOT-5)	DBV0005A
U101	1		LM324DR	Texas Instruments	Low Power Quad Operational Amplifier, 14-pin Narrow SOIC	
U102	1		UCC27517DBVR	Texas Instruments	4A/4A Single Channel High-speed Low-side Gate Driver, DBV0005A (SOT-23-5)	DBV0005A
U103	1		UCC28C43DR	Texas Instruments	BiCMOS Low-Power Current Mode PWM Controller, D0008A (SOIC-8)	D0008A
U104	1		VO618A-3	Vishay-Semiconductor	OPTOISOLATOR 5.3KV TRANS 4-DIP	DIP, 4-Leads, Body 6.86x4.83mm, Pitch 2.54mm
C125, C135, C149	0	0.01uF	GRM155R71H103KA88D	MuRata	CAP, CERM, 0.01 µF, 50 V, +/- 10%, X7R, 0402	0402
D102	0	160V	SMCJ160A-TP	Micro Commercial Component	Diode, TVS, Uni, 160 V, 259 Vc, SMC	SMC
D103	0	400V	US1G-13-F	Diodes Inc.	Diode, Ultrafast, 400 V, 1 A, SMA	SMA
R122	0	4.99k	CR0603-FX-4991ELF	Bourns	RES, 4.99 k, 1%, 0.1 W, 0603	0603
R133	0	20.0k	CRCW060320K0FKEA	Vishay-Dale	RES, 20.0 k, 1%, 0.1 W, 0603	0603

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