

Filename: PMP5783_REVB_bom.xls

Date: January 27, 2011 Tested

updates in bold red

PMP5783_REVB BOM

COUNT	RefDes	Value	Description
7	C1, C3, C5, C6, C7, C101, C102	33pF	Capacitor, Ceramic, 50V, NPO, 10%
4	C104, C107, C309, C507	2.2uF	Capacitor, Ceramic, 10V, X5R, 10%
1	C109	0.022uF	Capacitor, Ceramic, 50V, X7R, 10%
39	C12, C41, C43, C44, C45, C46, C47, C48, C49, C50, C51, C52, C53, C54, C55, C56, C57, C58, C111, C113, C115, C116, C117, C118, C119, C122, C124, C127, C301, C310, C316, C381, C383, C411, C422, C423, C502, C512, C515	10uF	Capacitor, Ceramic, 6.3V, X5R, 20%
1	C121	DNP	Capacitor, Ceramic, Low Inductance, vvV, [temp], [tol]
2	C13, C14	0.01uF	Capacitor, Ceramic, 50V, X7R, 10%
4	C15, C16, C106, C520	1000pF	Capacitor, Ceramic, 50V, X7R, 15%
9	C18, C20, C24, C27, C120, C123, C408, C409, C420	330uF	Capacitor, Aluminum, SMT, 2V, 6mOhms, 20%
4	C2, C105, C308, C504	0.22uF	Capacitor, Ceramic, 25V, X5R, 20%
22	C22, C23, C25, C26, C28, C29, C40, C42, C110, C112, C114, C303, C304, C313, C314, C401, C402, C403, C414, C415, C508, C511	10uF	Capacitor, Ceramic, 25V, X5R, 20%
4	C305, C312, C419, C506	1000pF	Capacitor, Ceramic, 100V, X7R, 15%
7	C315, C317, C318, C319, C421, C509, C513	330uF	Capacitor, POSCAP, 330uF, 6.3V, 25mOhms, 20%, 7343
2	C324, C325	DNP	Capacitor, Ceramic, 50V, X7R, 15%

4	C34, C35, C322, C323	0.01uF	Capacitor, Ceramic, 50V, X7R, 15%
17	C36, C37, C80, C129, C130, C131, C135, C306, C311, C320, C321, C404, C405, C416, C417, C505, C518	0.1uF	Capacitor, Ceramic, 25V, X7R, 15%
1	C382	22pF	Capacitor, Ceramic, 50V, NPO, 15%
2	C4, C103	3300pF	Capacitor, Ceramic, 50V, X7R, 15%
2	C406, C418 C410, C412, C413,	Open	Capacitor, Ceramic, Low Inductance, vV, [temp], [tol]
4	C424	22uF	Capacitor, Ceramic, 6.3V, X5R, 20%
1	C510	4.7uF	Capacitor, Ceramic, 10V, X5R, 20%
1	C514	DNP	Capacitor, Ceramic, 6.3V, X5R, 20%
1	C8	Not used	Capacitor, Ceramic, 50V, X7R, 20%
10	C9, C10, C11, C19, C21, C38, C39, C108, C132, C307 C91, C92, C145,	1uF	Capacitor, Ceramic, 25V, X5R, 20%
4	C407	1.5nF	Capacitor, Ceramic, 100V, X7R, 15%
4	C991, C992, C993, C994	82uF	Capacitor, OSCON, 25V, 28milliohm, 20%
4	C995, C996, C997, C998	DNP	Capacitor, 25V, 20%
14	D1, D2, D3, D4, D101, D102, D301, D302, D401, D402, D403, D404, D501, D502	MBR0530TxG	Diode, Schottky, 0.5A, 30V
1	D16	BAT54	Diode, Schottky, 200-mA, 30-V
4	D17, D18, D19, D20	RED	Diode, LED, Red Clear, 20mcd
2	D303, D304	DNP	Diode, Schottky, xx-mA, yy-V
3	D9, D10, D14 J1, J15, J16, J17, J90, J91, J92, J93, J94, J95, J96, J111, J114, J116, J120, J160, J161, J162, J163, J164, J165, J166, J306, J307, J308, J401, J404, J405, J503,	GREEN	Diode, LED, Green Clear, 20mcd
30	J505	PEC02SAAN	Header, Male 2-pin, 100mil spacing,
3	J113, J382, J383	PEC03SAAN	Header, Male 3-pin, 100mil spacing,

7	J121, J301, J309, J381, J406, J502, J504	ED120/2DS	Terminal Block, 2-pin, 15-A, 5.1mm
6	J2, J3, J99, J117, J402, J403	OSTT7022150	Terminal Block, 2-pin, 32-A, 9.5mm
6	J6, J9, J12, J104, J107, J110	PEC04DAAN	Header, Male 2x4-pin, 100mil spacing
4	L1, L2, L101, L401	0.56uH	Inductor, SMT, 27.5A, 1.7milliohm
2	L301, L302	1.5uH	Inductor, SMT, 18A, 4.2milliohm
1	L381	2.2uH	Inductor, SMT, 1.5A, 110milliohm
2	L402, L501	0.68uHy	Inductor, SMT, 0.68uH, 15.5A, 0.0055 Ohms
8	Q1, Q2, Q101, Q301, Q302, Q401, Q402, Q501	CSD86350Q5D	MOSFET, Dual N-Chan, TBD-V, TBD-A
2	Q10, Q13	BSS123	MOSFET, Nch, 100V, 0.17A, 6 Ohm
5	Q15, Q16, Q17, Q18, Q104	CSD16407Q5	MOSFET, NChan, 25V, 31A, 2.5 milliOhm
1	Q9	BSS83P	MOSFET, Pch, -60V, -0.33A, 2 Ohm
15	R1, R2, R15, R16, R62, R63, R64, R65, R106, R107, R188, R401, R404, R415, R511	10	Resistor, Chip, 1/16W, 5%
3	R11, R12, R127	121k	Resistor, Chip, 1/16W, 1%
1	R112	23.7k	Resistor, Chip, 1/16W, 1%
1	R116	3.09k	Resistor, Chip, 1/16W, 1%
3	R13, R14, R128	43.2k	Resistor, Chip, 1/16W, 1%
2	R142, R314	1k	Resistor, Chip, 1/16W, 1%
4	R146, R147, R148, R149	0.015	Resistor, Power, Metal Film, 2W, ± 1%
6	R17, R20, R21, R24, R104, R105	475	Resistor, Chip, 1/16W, 1%
1	R3	16.9k	Resistor, Chip, 1/16W, 1%
4	R301, R311, R420, R506	1.5	Resistor, Chip, 1/2W, 5%
1	R304	59k	Resistor, Chip, 1/16W, 1%
2	R305, R306	15k	Resistor, Chip, 1/16W, 1%
1	R307	34k	Resistor, Chip, 1/16W, 1%
2	R310, R328	4.7	Resistor, Chip, 1/16W, 5%
1	R313	499	Resistor, Chip, 1/16W, 1%
2	R315, R510	200k	Resistor, Chip, 1/16W, 1%

	R33, R34, R35, R36, R37, R52, R53, R59, R60, R61, R81, R82, R90, R91, R92, R93, R94, R95, R96, R130, R131, R132, R133, R136, R138, R139, R160, R161, R162, R163, R164, R165, R166, R312, R316, R317, R319, R320, R321, R322, R323, R324, R327, R403, R411, R414, R421, R501,		
50	R503, R509	10k	Resistor, Chip, 1/16W, 1%
0	R318, R326 , R330	open	Resistor, Chip, 1/16W, 1%
1	R331	DNP	Resistor, Chip, 1/16W, 1%
1	R381	365k	Resistor, Chip, 1/16W, 1%
1	R382	182k	Resistor, Chip, 1/16W, 1%
3	R39, R42, R50	182	Resistor, Chip, 1/16W, 1%
1	R4	8.45k	Resistor, Chip, 1/16W, 1%
2	R40, R135	3.3	Resistor, Chip, 1/16W, 5%
1	R405	36.5k	Resistor, Chip, 1/16W, 1%
1	R407	475k	Resistor, Chip, 1/16W, 1%
1	R409	69.8k	Resistor, Chip, 1/16W, 1%
2	R410, R419	4.99k	Resistor, Chip, 1/16W, 1%
1	R416	21k	Resistor, Chip, 1/16W, 1%
2	R49, R119	90.9k	Resistor, Chip, 1/16W, 1%
3	R5, R113, R508	2k	Resistor, Chip, 1/16W, 1%
1	R505	21k	Resistor, Chip, 1/16W, 1%
1	R54	162k	Resistor, Chip, 1/16W, 1%
2	R57, R141	8.06k	Resistor, Chip, 1/16W, 1%
	R58, R402, R413, R418, R502	100k	Resistor, Chip, 1/16W, 1%
1	R6	Not used	Resistor, Chip, 1/10W, 1%
	R66, R67, R69, R70, R71, R72, R73, R74	0.05	Resistor, Chip, 1W, 5%
8	R68	0.005	Resistor, Chip, 1W, 5%
1	R7, R8, R123, R137, R302, R309, R325, R329, R504, R516	0	Resistor, Chip, 1/16W, 5%
10	R75, R76, R176, R177, R406, R412, R417, R507, R515	1	Resistor, Chip, 1/16W, 5%
9	R77, R78, R79, R80	331	Resistor, Chip, 1/16W, 1%
4	R83, R84, R155, R408	1	Resistor, Chip, 1/2W, 5%

3	R9, R10, R126 RT1, RT2, RT3,	24.9k	Resistor, Chip, 1/16W, 1%
5	RT101, RT102	150k	NTC Thermistor, 150K, 5%, 0603
1	S1	EG1218	Switch, SPDT, Slide, PC-mount, Through hole, 30V, 0.2A
1	S2 SH1, SH2, SH3, SH4, SH5, SH101,	76SB04T	Switch, 4-pole DIP, Raised Rocker
8	SH102, SH103 SH301, SH302,		Short jumper
4	SH303, SH304 TP1, TP15, TP18, TP101, TP103, TP105, TP106, TP108, TP110, TP113, TP114, TP117, TP301, TP303, TP306, TP308, TP310, TP311, TP312, TP381, TP401, TP402, TP404, TP406, TP408, TP501, TP503,	SH301	Short jumper
28	TP504 TP16, TP17, TP33, TP111, TP112, TP302, TP304, TP309, TP382, TP405, TP409,	5000	Test Point, Red, Thru Hole Color Keyed
13	TP502, TP505 TP2, TP3, TP4, TP5, TP6, TP9, TP10, TP24, TP25, TP26, TP27, TP28, TP29, TP30, TP31, TP32, TP102,	5001	Test Point, Black, Thru Hole Color Keyed
18	TP104	5002	Test Point, White, Thru Hole Color Keyed
2	TP34, TP134 TP7, TP8, TP109, TP305, TP307, TP383, TP403,	131-4244-00	Adaptor, 3.5-mm probe clip (or 131-5031-00)
9	TP407, TP510	5015	Test Point, SMT
1	U1	TPS51621RHA	IC, 2-Phase IMVP-6.5Vcore Controller
1	U101	TPS51611RHB	IC, Single Phase IMVP-6.5 VCORE
1	U103	TPS2828DBV	IC, MOSFET Driver, Inverting, No regulator
1	U104	TLC555D	IC, Timer, Low-Power CMOS
1	U3	TLC555CD	IC, Timer, Low-Power CMOS
1	U301	TPS51220ARSNx	IC, Fixed Freq. 99% Duty Cycle, Notebook System Power Con
1	U381	TPS62290DRV	IC, 2.25MHz 1A Step-Down Converter
1	U4	SN74HC08D	IC, Quadruple 2-Input Positive-And gates
2	U401, U402	TPS51218DSC	IC, Single Synchronous Step-Down Controller
2	U5, U6	UCC37324DR	IC, Dual 4-A High Speed Low-Side Power MOSFET Drivers

1 U501

TPS51216RUK IC, Complete DDR2, DDR3 and DDR3L

- Notes:
1. These assemblies are ESD sensitive, ESD precautions shall be observed.
 2. These assemblies must be clean and free from flux and all contaminants.
Use of no clean flux is not acceptable.
 3. These assemblies must comply with workmanship standards IPC-A-610 Class 2.
 4. Ref designators marked with an asterisk (***) cannot be substituted.
All other components can be substituted with equivalent MFG's components.

Size	Part Number	MFR
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0603 GRM39yyyxxxKvvv muRata

0603 Std Std

0603 Std Std

0805 Std Std

0603 GRM39yyyxxxKvvv muRata

0603 Std Std

0603 Std Std

7343(D) EEFSX0D331XE Panasonic

0603 Std Std

1210 Std Std

0805 std std

7343 6TPE330ML Sanyo

0603 GRM39yyyxxxKvvv muRata

0603 GRM39yyyxxxKvvv muRata

0603 GRM39yyyxxxKvvv muRata
0603 Std Std
0603 GRM39yyyxxxKvvv muRata
0603 GRM39yyyxxxKvvv muRata

0805 std std
0603 std std
0805 Std Std
0603 Std Std

0603 Std Std

0805 std std

10.3mm (F12) 25SVPD82M Sanyo

0.394 inch OPEN Sanyo

SOD-123 MBR0530TxG On Semi
SOT23 BAT54-V-GS08 Vishay-Liteon

0.079 X 0.049 LTST-C170CKT Lite On
SMC STD STD
0.079 X 0.049 LTST-C170CKT Lite On

0.100 inch x 2 PEC02SAAN Sullins
0.100 inch x 3 PEC03SAAN Sullins

0.40 x 0.35 incl	ED120/2DS	OST
0.75 x 0.49 incl	OSTT7022150	OST
0.20 x 0.40 inc	PEC04DAAN	Sullins
	IHLP4040DZERR	
	56M01	Vishay
0.400 x 0.453 ir	ETQP4LR56WFC	Panasonic
0.400 x 0.453 ir	PCMC104T-1R5M1	Susumu
0.118 x 0.118 ir	LPS3015-222ML	Coilcraft
0.255 x 0.270	MPT730-R68M1	Delta

QFN-8 POWER	CSD86350Q5D	TI
SOT23	BSS123	Fairchild

QFN5X6mm	CSD16407Q5	TI(Ciclon)
SOT23	BSS83P	Infineon

0603	CRCW0603-xxx-J	Vishay
0603	CRCW0603-xxxx-F	Vishay
0603	CRCW0603-xxxx-F	Vishay
0603	std	std
0603	CRCW0603-xxxx-F	Vishay
0603	CRCW0603-xxxx-F	Vishay

3008	RL7520W-T-xx-F	Susumu
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0603	CRCW0603-xxxx-F	Vishay
0603	CRCW0603-xxxx-F	Vishay

1210	STD	STD
0603	CRCW0603-xxxx-F	Vishay
0603	CRCW0603-xxxx-F	Vishay
0603	CRCW0603-xxxx-F	Vishay
0603	CRCW0603-xxx-J	Vishay
0603	CRCW0603-xxxx-F	Vishay
0603	CRCW0603-xxxx-F	Vishay

0603	CRCW0603-xxxx-F	Vishay
0603	CRCW0603-xxxx-F	Vishay
0603	CRCW0603-xxxx-F	Vishay
0603	Std	Std
0603	Std	Std
0603	CRCW0603-xxxx-F	Vishay
0603	CRCW0603-xxxx-F	Vishay
0603	Std	Std
0603	CRCW0603-xxxx-F	Vishay
0603	CRCW0603-xxxx-F	Vishay
0603	std	std
0603	std	std
0603	CRCW0603-xxxx-F	Vishay
0603	CRCW0603-xxxx-F	Vishay
0603	CRCW0603-xxxx-F	Vishay
0603	CRCW0603-xxxx-F	Vishay
0603	CRCW0603-xxxx-F	Vishay
0603	CRCW0603-xxxx-F	Vishay
0603	CRCW0603-xxxx-F	Vishay
0603	CRCW0603-xxxx-F	Vishay
0603	Std	Std
0603	Std	Std
2512	Std	Std
2512	Std	Std
0603	CRCW0603-xxx-J	Vishay
0603	CRCW0603-xxx-J	Vishay
0603	CRCW0603-xxxx-F	Vishay
2010	Std	Std

0603	CRCW0603-xxxx-F	Vishay
0603	ERTJ1VV154J	Panasonic-ECG
0.457 x 0.157 in	EG1218	E-Switch
0.38 x 0.40 in	76SB04T	Grayhill

0.100 x 0.100 in	5000	Keystone
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0.100 x 0.100 in	5001	Keystone
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0.100 x 0.100 in	5002	Keystone
0.200 inch	131-4244-00	Tektronix

0.105 x 0.040 in	5015	Keystone
QFN-40	TPS51621RHA	TI
QFN-32	TPS51611RHB	TI
SOT23-5	TPS2828DBV	TI
SO8	TLC555D	TI
SO8	TLC555CD	TI
QFN-32	TPS51220ARSNx	TI
SON-6[DRV]	TPS62290DRV	TI
SO14	SN74HC08D	TI
DSC-10	TPS51218DSC	TI
SO-8	UCC37324DR	TI

QFN

TPS51216RUK TI

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