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## 3/25/2014 10:53:53 AM PMP7453 Rev B Bill Of Materials

B		17.1	Book and all and		D. (1)	
Designator	Quantity	Value	Description CAR Film 0.00 F C20 V 1/400/ TH	PackageReference	PartNumber	Manufacturer
C2	1	0.22uF	CAP, Film, 0.22uF, 630V, +/-10%, TH	B32922_12.5mm	B32922C3224K	EPCOS Inc
C3	1	0.047uF	CAP, CERM, 0.047uF, 630V, +/-10%, X7R, 1210	1210	GRM32DR72J473KW01L	MuRata
C4	11	100uF	CAP, AL, 100uF, 450V, +/-20%, TH	Cap 22x25mm	ESMQ451VSN101MP25S	Nippon Chemi-Con
C5	1	0.022uF	CAP, CERM, 0.022uF, 250V, +/-10%, X7R, 0805	0805	C2012X7R2E223K	TDK
C6, C17, C26, C31	4	0.1uF	CAP, CERM, 50V, +/-10%, X7R, 0603	0603	STD	STD
C7	1	220uF	CAP, AL, 220uF, 35V, +/-20%, 0.087 ohm, TH	Cap 8x15mm	EKY-350ELL221MH15D	Nippon Chemi-Con
C8, C9, C10	3	4.7uF	CAP, CERM, 4.7uF, 50V, +/-10%, X5R, 1206	1206	GRM319R61H475KA12	MuRata
C11, C21, C23, C25, C27	5	1uF	CAP, CERM, 25V, +/-10%, X7R, 0603	0603	STD	STD
C13, C16, C28	3	1000pF	CAP, CERM, 50V, +/-10%, X7R, 0603	0603	STD	STD
C14	1	2200pF	CAP, CERM, 2200pF, 250V, +/-20%, E, Cap, 7x12x9 mm	Cap, 7x12x9 mm	DE1E3KX222MA4BL01	MuRata
C15	1	0.47uF	CAP, CERM, 25V, +/-10%, X7R, 0603	0603	STD	STD
C18	1	220uF	CAP, AL, 220uF, 16V, +/-20%, 0.34 ohm, SMD	6.3x7.7	UUD1C221MCL1GS	Nichicon
C19	1	220pF	CAP, CERM, 50V, +/-10%, X7R, 0603	0603	STD	STD
C20, C29, C30	3	0.01uF	CAP, CERM, 50V, +/-10%, X7R, 0603	0603	STD	STD
C22	1	330pF	CAP, CERM, 50V, +/-10%, X7R, 0603	0603	STD	STD
C24	1	0.047uF	CAP, CERM, 50V, +/-10%, X7R, 0603	0603	STD	STD
D2, D10	2	10V	Diode, Zener, 10V, 500mW, SOD-123	SOD-123	MMSZ5240B-7-F	Diodes Inc.
D3	1	200V	Diode, Ultrafast, 200V, 1A, SMA	SMA	ES1D-13-F	Diodes Inc.
D4	1	75V	Diode, Switching, 75V, 0.3A, SOT-23	SOT-23	BAV99-7-F	Diodes Inc.
D5, D100	2	200V	Diode, Switching, 200V, 0.2A, SOD-123	SOD-123	BAV21W-7-F	Diodes Inc.
D6	1	91V	Diode, Zener, 91V, 500mW, SOD-123	SOD-123	MMSZ5270BT1G	ON Semiconductor
D7	1	30V	Diode, Schottky, 30V, 0.2A, SOT-23	SOT-23	BAT54S-7-F	Diodes Inc.
D8, D9, D11, D12, D13,	7	100V	Diode, Switching, 100V, 0.2A, SOD-123	SOD-123	MMSD4148T1G	ON Semiconductor
D14, D16	,		5.555, 5torning, 1007, 6.21, 505 126	120		o oomioonaactor
D15	1	3.6V	Diode, Zener, 3.6V, 500mW, SOD-123	SOD-123	MMSZ4685-V	Vishay-Semiconductor
F1	1		Fuse, 2A, 250V, TH	TR5 fuse 8.5mm DIA	37212000001	Littelfuse
J1	1		Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH	7.0x8.2x6.5mm	ED555/2DS	On-Shore Technology
L1	1	60.3uH	Inductor, Shielded Drum Core, Ferrite, 60.3uH, 5.1A, 0.0315 ohm, SMD	Inductor, 22.2x12.2x19mm	PA2729.603NL	Pulse Engineering
L2	1	1mH	Inductor, Shielded Drum Core, Ferrite, 40.341, 3.1A, 46.3 ohm, SMD	LPS4414	LPS4414-105MLB	Coilcraft
Q1, Q8	2	0.08V	TRANS NPN 250V 50MA SOT89	SOT-89	BF622,115	NXP
Q1, Q8 Q3, Q10		150V		PG-TDSON-8		
	2		MOSFET, N-CH, 150V, 21A, PG-TDSON-8		BSC520N15NS3 G	Infineon Technologies
Q4	1	800V	MOSFET N-CH 800V 3A DPAK	DPAK	STD4NK80ZT4	STMicroelectronics Fairchild Semiconductor
Q5	1	1.6V	Transistor, PNP, 60V, 0.8A, SOT-23	SOT-23	MMBT2907A	
Q6	1	0.4V	Transistor, NPN, 400V, 1A, TO-92	TO-92	PHE13003A,126	NXP Semiconductor
Q9	1	800V	MOSFET N-CH 800V 5.2A D2PAK	DDPAK	STB7NK80ZT4	STMicroelectronics
Q12	1	60V	MOSFET, N-CH, 60V, 0.17A, SOT-23	SOT-23	2N7002-7-F	Diodes Inc.
R1, R13	2	15k	RES, 1%, 0.25W, 1206	1206	STD	STD
R2	1	49.9k	RES, 49.9k ohm, 1%, 0.25W, 1206	1206	CRCW120649K9FKEA	Vishay-Dale
R3, R4, R19, R34, R37	5	10k	RES, 1%, 0.1W, 0603	0603	STD	STD
R5, R6, R9, R10	4	499k	RES, 1%, 0.25W, 1206	1206	STD	STD
R7	1	200k	RES, 1%, 1W, 2512	2512	STD	STD
R8	1	3.3	RES, 1%, 0.1W, 0603	0603	STD	STD
R11	1	51.1	RES, 1%, 0.1W, 0603	0603	STD	STD
R12, R18	2	1MEG	RES, 1%, 0.25W, 1206	1206	STD	STD
R14	1	0.025	RES, 1%, 1W, 2512	2512	STD	STD
R16, R25, R27, R30, R32,	8	1k	RES, 1%, 0.1W, 0603	0603	STD	STD
R36, R41, R43						
R17	1	3.01k	RES, 1%, 0.1W, 0603	0603	STD	STD
R20, R40	2	0	RES, 1%, 0.1W, 0603	0603	STD	STD
R21	1	0.22	RES, 1%, 1W, 2010	2010	STD	STD
R22	1	12.4k	RES, 1%, 0.1W, 0603	0603	STD	STD
R23	1	10	RES, 1%, 0.1W, 0603	0603	STD	STD
R24	1	20k	RES, 1%, 0.1W, 0603	0603	STD	STD
R26	1	84.5k	RES, 1%, 0.1W, 0603	0603	STD	STD
R28	1	30.1k	RES, 1%, 0.1W, 0603	0603	STD	STD
R29	1	110k	RES, 110k ohm, 1%, 0.1W, 0603	0603	RC0603FR-07110KL	Yageo America
R31, R38	2	100k	RES, 1%, 0.1W, 0603	0603	STD	STD
R33	1	2.37k	RES, 1%, 0.1W, 0603	0603	STD	STD
R35	1	6.19k	RES, 1%, 0.1W, 0603	0603	STD	STD
R39	1	3.24k	RES, 1%, 0.1W, 0603	0603	STD	STD
	4	24.9k	RES, 1%, 0.1W, 0603	0603	STD	STD
R42	1				G044052LF	GCI Technologies
T2	1	300uH	Gate Drive Transformer, 300uH, TH Forward Transformer, 700 uH, TH	13.97x13.3x13.97mm 1250x510x1250mil	RLTI-1056	
T? TP1	1	700 uH		Red Multipurpose Testpoint		Renco Electronics
	1	Red	Test Point, Multipurpose, Red, TH		5010	Keystone
TP2	1	Black	Test Point, Multipurpose, Black, TH	Black Multipurpose Testpoint	5011	Keystone
TP3, TP5	2	Red	Test Point, Miniature, Red, TH	Red Miniature Testpoint	5000	Keystone
TP4, TP6	2	Black	Test Point, Miniature, Black, TH	Black Miniature Testpoint	5001	Keystone
U1	1		Advanced Active Clamp PWM Controller with Current-Mode Control, -40 to +125	PW0020A	UCC2897APWR	Texas Instruments
			degC, 20-pin TSSOP (PW), Green (RoHS & no Sb/Br)			
U2, U4	2		OptoCoupler, Phototransitor, 80-160%, SSOP-4	7x2.12x2.6mm	VOS617A-7X001T	Vishay-Semiconductor
U3	1		PRECISION PROGRAMMABLE REFERENCE, DBZ0003A	DBZ0003A	TL431AIDBZ	Texas Instruments
U5	1		DUAL D-TYPE POSITIVE-EDGE-TRIGGERED FLIP-FLOPS WITH CLEAR AND	PW0014A	SN74AHCT74PW	Texas Instruments
			PRESET, PW0014A			
U6			DUAL OPERATIONAL AMPLIFIERS WITH INTERNAL REFERENCE, D0008A	D0008A	TL103WAID	Texas Instruments

Notes:

Unless otherwise noted in the Alternate PartNumber and/or Alternate Manufacturer columns, all parts may be substituted with equivalents.

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