

Filename:	PMP9563_RevA_BOM.xlsx					
Generated:	2/11/2014					
<b>12V Output Class 4 Active Clamp Forward Converter</b>						
Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer
C18, C24	2	100pF	CAP, CERM, 100pF, 50V, +/-5%, C0G/NP0, 0603	603	C1608C0G1H101J	TDK
C6, C7, C9, C10	4	1000pF	CAP, CERM, 1000pF, 100V, +/-10%, X7R, 0603	603	C1608X7R2A102K	TDK
C23	1	0.01uF	CAP, CERM, 0.01uF, 50V, +/-10%, X7R, 0603	603	C1608X7R1H103K	TDK
C2, C3, C4, C5	4	0.01uF	CAP, CERM, 0.01uF, 100V, +/-10%, X7R, 0603	603	C1608X7R2A103K	TDK
C25	1	0.022uF	CAP, CERM, 0.022uF, 50V, +/-10%, X7R, 0603	603	C1608X7R1H223K	TDK
C27	1	0.1uF	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	603	C1608X7R1H104K	TDK
C29	1	0.1uF	CAP, CERM, 0.1uF, 100V, +/-10%, X7R, 0805	805	C2012X7R2A104K	TDK
C21, C26, C28	3	1uF	CAP, CERM, 1uF, 25V, +/-10%, X7R, 0805	805	C2012X7R1E105K	TDK
C16	1	0.047uF	CAP, CERM, 0.047uF, 250V, +/-10%, X7R, 1206	1206	C3216X7R2E473K	TDK
C14, C15	2	2.2uF	CAP, CERM, 2.2uF, 100V, +/-10%, X7R, 1210	1210	GRM32ER72A225KA35L	MuRata
C19, C20	2	10uF	CAP, CERM, 10uF, 25V, +/-20%, X7R, 1210	1210	C3225X7R1E106M	TDK
C22	1	22uF	CAP, CERM, 22uF, 25V, +/-10%, X7R, 1210	1210	GRM32ER71E226KE15L	MuRata
C1, C8, C11, C12	4	1000pF	CAP, CERM, 1000pF, 2000V, +/-10%, X7R, 1812	1812	1812GC102KA1	AVX
C13	1	22uF	CAP, AL, 22uF, 63V, +/-20%, 1.2 ohm, SMD	SMT Radial E	EEE-FK1J220P	Panasonic
C17	1	100uF	CAP, AL, 100uF, 25V, +/-20%, 0.3 ohm, SMD	SMT Radial F	EEE-FC1E101P	Panasonic
D1, D2, D3, D4, D5, D6, D7, D8, D9	9		Diode, Schottky, 100V, 2A, SMB	SMB	B2100-13-F	Diodes Inc.
D10, D12, D13, D15, D16	5		Diode, Switching, 100V, 0.2A, SOD-123	SOD-123	MMSD4148T1G	ON Semiconductor
D11, D14	2	10V	Diode, Zener, 10V, 500mW, SOD-123	SOD-123	MMSZ5240B-7-F	Diodes Inc.
D17	1		Diode, Schottky, 30V, 0.2A, SOT-23	SOT-23	BAT54S-7-F	Diodes Inc.
D18	1	58V	Diode, TVS, Uni, 58V, 400W, SMA	SMA	SMAJ58A	Diodes Inc.
J1, J2	2		RJ-45, Right Angle, No LED, tab up	16.26x14.54x15.75	1-406541-1	AMP
J3, J4	2		Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH	7.0x8.2x6.5mm	ED555/2DS	OST
J5	1		Header, 100mil, 2x1, Tin plated, TH	Header, 2 PIN, 100mil, Tin	PEC02SAAN	Sullins Connector Solutions
L1, L2, L3, L4	4		4A Ferrite Bead, 100 ohm @ 100MHz, SMD	805	MPZ2012S101A	TDK
L5	1	3.3uH	Inductor, Shielded Drum Core, Ferrite, 3.3uH, 1.73A, 0.03 ohm, SMD	MSS5131	MSS5131-332MLB	Coilcraft
L6	1	22uH	Inductor, Shielded Drum Core, Ferrite, 22uH, 4A, 0.04 ohm, SMD	MSS1278	MSS1278-223MLB	Coilcraft
L7	1	1.5mH	Inductor, Shielded Drum Core, Ferrite, 1.5mH, 0.14A, 4.6 ohm, SMD	LPS6235	LPS6235-155MLB	Coilcraft
Q1	1		MOSFET, P-CH, -150V, -3A, QFN-8	QFN-8	FDMC2523P	Fairchild Semiconductor
Q2	1		MOSFET, N-CH, 150V, 4.1A, SOIC-8	SOIC-8	FDS86242	Fairchild Semiconductor
Q3, Q6	2		MOSFET, N-CH, 100V, SON 5x6mm	SON 5x6mm	CSD19534Q5A	Texas Instruments

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer
Q4, Q5	2		Transistor, NPN, 100V, 1A, SOT-89	SOT-89	FCX493TA	Diodes Inc.
R16	1	0	RES, 0 ohm, 5%, 0.1W, 0603	603	ERJ-3GEY0R00V	Panasonic
R10, R11	2	4.7	RES, 4.7 ohm, 5%, 0.1W, 0603	603	CRCW06034R70JNEA	Vishay-Dale
R27	1	63.4	RES, 63.4 ohm, 1%, 0.1W, 0603	603	CRCW060363R4FKEA	Vishay-Dale
R1, R2, R3, R4, R5, R6, R7, R8	8	75	RES, 75.0 ohm, 1%, 0.1W, 0603	603	CRCW060375R0FKEA	Vishay-Dale
R19	1	499	RES, 499 ohm, 1%, 0.1W, 0603	603	CRCW0603499RFKEA	Vishay-Dale
R23	1	1.00k	RES, 1.00k ohm, 1%, 0.1W, 0603	603	CRCW06031K00FKEA	Vishay-Dale
R17, R20	2	2.00k	RES, 2.00k ohm, 1%, 0.1W, 0603	603	CRCW06032K00FKEA	Vishay-Dale
R13	1	2.49k	RES, 2.49k ohm, 1%, 0.1W, 0603	603	CRCW06032K49FKEA	Vishay-Dale
R25	1	2.61k	RES, 2.61k ohm, 1%, 0.1W, 0603	603	CRCW06032K61FKEA	Vishay-Dale
R29	1	4.64k	RES, 4.64k ohm, 1%, 0.1W, 0603	603	CRCW06034K64FKEA	Vishay-Dale
R12, R18, R21	3	10.0k	RES, 10.0k ohm, 1%, 0.1W, 0603	603	CRCW060310K0FKEA	Vishay-Dale
R26, R32	2	24.9k	RES, 24.9k ohm, 1%, 0.1W, 0603	603	CRCW060324K9FKEA	Vishay-Dale
R28	1	40.2k	RES, 40.2k ohm, 1%, 0.1W, 0603	603	CRCW060340K2FKEA	Vishay-Dale
R31	1	69.8k	RES, 69.8k ohm, 1%, 0.1W, 0603	603	CRCW060369K8FKEA	Vishay-Dale
R22, R24, R30	3	100k	RES, 100k ohm, 1%, 0.1W, 0603	603	CRCW0603100KFKEA	Vishay-Dale
R9, R14	2	2.0k	RES, 2.0k ohm, 5%, 0.25W, 1206	1206	CRCW12062K00JNEA	Vishay-Dale
R15	1	0.1	RES, 0.1 ohm, 1%, 0.5W, 2010	2010	ERJ-L1DKF10CU	Panasonic
T1	1		Transformer, PoE+, SMT	Transformer, SOIC-24 Wide	749022016	Würth Elektronik eiSos
	0	ALT T1	Transformer, PoE+, SMT	Transformer, SOIC-24 Wide	H6096FNL	Pulse Engineering
T2	1		Transformer, 105.5 uH, SMT	17.53x12.45x13.44 mm	PA4065NL	Pulse Engineering
TP1	1		Test Point, Multipurpose, White, TH	White Multipurpose Testpoint	5012	Keystone
U2	1		Optocoupler, 3.75kV RMS, SMT	Mini Flat Package	HMHA2801A	Fairchild Semiconductor
U4	1		Photocoupler, 300-600% CTR, SMT	4.4x2.6x3.6mm	PC357N4J000F	Sharp Microelectronics
U1	1		High Power/High Efficiency PoE Interface and DC/DC Controller, PWP0020B	PWP0020B	TPS23754PWP	Texas Instruments
U3	1		PRECISION PROGRAMMABLE REFERENCE, DBV0005A	DBV0005A	TL431AIDBV	Texas Instruments

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