

Filename: PMP1307_BOSCH_REVA_bom.xls

Date: 05/12/2005

PMP1307_BOSCH_REVA BOM

COUNT	RefDes	Description	Size	MFR	Part Number	Value
1	C1	Capacitor, Ceramic, 0.1uF, 16V	603	Std	Std	0.1uF
2	C2	Capacitor, Ceramic, 1uF, 6.3V	603	Std	Std	1uF
3	C3	Capacitor, Ceramic, 100-pF, 50-V, X7R, 15%	603	Std	Std	100pF
1	C4	Capacitor, Ceramic, 3300pF, 50V, X7R or NPO	603	Std	Std	3300pF
1	C5	Capacitor, Ceramic, 1000pF, 50V, X7R or NPO	603	Std	Std	1000pF
1	C6	Capacitor, Ceramic, 6800pF, 50V, X7R	603	Std	Std	6800pF
1	C7	Capacitor, Ceramic, 2200pF, 50V, X7R or NPO	603	Std	Std	2200pF
3	C8	Capacitor, Ceramic, 220pF, 50V, COG, 5%	603	Std	Std	220pF
3	C9	Resistor, Chip, zero-Ohms, 1/16-W, yy%	603	Std	Std	zero ohm jumper
2	C10	Capacitor, Ceramic, 0.1uF, 16V	603	Std	Std	0.1uF
	C11	Capacitor, Ceramic, 0.1uF, 16V	603	Std	Std	0.1uF
1	C12	Capacitor, Aluminum, 150uF, 63V, 0.16 Ohms	0.543 x 0.543	Panasonic	EEVFK1J151Q	150uF
	C13	Capacitor, Ceramic, 1uF, 6.3V	603	Std	Std	1uF
1	C14	Capacitor, Ceramic, 10uF, 6.3V, X5R	805	TDK	C2012X5R0J106KT	10uF
2	C15	Capacitor, Ceramic, open, vv-V, [temp], [tol]	805	muRata	std	open
3	C16	Capacitor, Aluminum, SM, 470-uF ±20%, 10-V, 160mOhm	0.328 x 0.328	Panasonic	EEVFK1A471P	470uF
1	C17	Capacitor, Aluminum, 1000-μF, 10-V, 0.080 ohms	0.457 x 0.406	Panasonic	EEVFK1A102P	1000uF
2	C18	Capacitor, Ceramic, 22-uF, 16-V, X7R	1210	std		22uF
	C19	Capacitor, Ceramic, 22-uF, 16-V, X7R	1210	std		22uF
5	C20	Capacitor, Ceramic, 6800pF, 50-V, X7R	603	std	std	6800p
2	C21	Capacitor, Ceramic, 1uF, 16-V, X7R	603	std	std	1uF
5	C22	Capacitor, Ceramic, 0.1uF, 50-V, X7R	603	std	std	0.1uF
	C23	Capacitor, Ceramic, 100-pF, 50-V, X7R, 15%	603	Std	Std	100pF
	C24	Capacitor, Ceramic, 6800pF, 50-V, X7R	603	std	std	6800p
2	C25	Capacitor, Aluminum, 63V, ±20%, 1.41Arms, 82mOhms	.670 x 0.698 inc	Panasonic	EEVFK1J471M	470uF
	C26	Capacitor, Ceramic, 6800pF, 50-V, X7R	603	std	std	6800p
	C27	Capacitor, Ceramic, 6800pF, 50-V, X7R	603	std	std	6800p
	C28	Capacitor, Ceramic, 220pF, 50V, COG, 5%	603	Std	Std	220pF
	C29	Capacitor, Aluminum, 63V, ±20%, 1.41Arms, 82mOhms	.670 x 0.698 inc	Panasonic	EEVFK1J471M	470uF
	C30	Resistor, Chip, zero-Ohms, 1/16-W, yy%	603	Std	Std	zero ohm jumper
	C31	Capacitor, Ceramic, 0.1uF, 50-V, X7R	603	std	std	0.1uF
	C32	Capacitor, Ceramic, 0.1uF, 50-V, X7R	603	std	std	0.1uF
1	C33	Capacitor, Ceramic, 1-uF, 100V, X7R	1210	std		1uF
4	C34	Capacitor, Aluminum, 1500-μF, 6.3-V, 80mohms	0.457 x 0.406	Panasonic	EEVFK0J152P	1500uF
	C35	Capacitor, Aluminum, 1500-μF, 6.3-V, 80mohms	0.457 x 0.406	Panasonic	EEVFK0J152P	1500uF
	C36	Capacitor, Aluminum, 1500-μF, 6.3-V, 80mohms	0.457 x 0.406	Panasonic	EEVFK0J152P	1500uF

	C37	Capacitor, Aluminum, 1500- μ F, 6.3-V, 80mohms	0.457 x 0.406	Panasonic	EEVFK0J152P	1500uF
7	C38	Capacitor, Ceramic, 22-uF, 16-V, X7R	1210	std		22uF
	C39	Capacitor, Ceramic, 22-uF, 16-V, X7R	1210	std		22uF
	C40	Capacitor, Ceramic, 6800pF, 50-V, X7R	603	std	std	6800p
	C41	Capacitor, Ceramic, 1uF, 16-V, X7R	603	std	std	1uF
	C42	Capacitor, Ceramic, 100-pF, 50-V, X7R, 15%	603	Std	Std	100pF
2	C43	Capacitor, Ceramic, 1500pF, 50-V, X7R or NPO	603	std	std	1500p
1	C44	Capacitor, Ceramic, 3300pF, 50-V, X7R	603	std	std	3300p
	C45	Capacitor, Ceramic, 1500pF, 50-V, X7R or NPO	603	std	std	1500p
	C46	Capacitor, Ceramic, 220pF, 50V, COG, 5%	603	Std	Std	220pF
	C47	Resistor, Chip, zero-Ohms, 1/16-W, yy%	603	Std	Std	zero ohm jumper
	C48	Capacitor, Ceramic, 0.1uF, 50-V, X7R	603	std	std	0.1uF
	C49	Capacitor, Ceramic, 22-uF, 16-V, X7R	1210	std		22uF
	C50	Capacitor, Aluminum, SM, 470-uF \pm 20%, 10-V, 160mOhm	0.328 x 0.328	Panasonic	EEVFK1A471P	470uF
	C51	Capacitor, Aluminum, SM, 470-uF \pm 20%, 10-V, 160mOhm	0.328 x 0.328	Panasonic	EEVFK1A471P	470uF
	C52	Capacitor, Ceramic, 22-uF, 16-V, X7R	1210	std		22uF
	C53	Capacitor, Ceramic, 22-uF, 16-V, X7R	1210	std		22uF
1	C54	Capacitor, Ceramic, 10-uF, 6.3-V, X5R, 10%	805	TDK	C2012X5R0J106KT	10 uF
	C55	Capacitor, Ceramic, 22-uF, 16-V, X7R	1210	std		22uF
2	C56	Capacitor, Ceramic, 33pF, 50-V, NPO	603	std	std	33pF
1	C57	Capacitor, Ceramic, 68pF, 50-V, NPO	603	std	std	68pF
	C58	Capacitor, Ceramic, 33pF, 50-V, NPO	603	std	std	33pF
1	C59	Capacitor, Ceramic, 150pF, 50-V, NPO	603	std	std	150pF
1	C60	Capacitor, Ceramic, 10-uF, 6.3-V, X5R, +/-10%	1206	TDK	C3216X5R0J106KT	10 uF
	C61	Capacitor, Ceramic, 22-uF, 16-V, X7R	1210	std		22uF
	C62	Capacitor, Ceramic, open, vv-V, [temp], [tol]	805	muRata	std	open
	C63	Capacitor, Ceramic, 0.1uF, 50-V, X7R	603	std	std	0.1uF
1	D1	Diode, Zener, 6.8V, 500mW	SOD-123	On Semi	MMSZ5235BT1	6.8V
1	D2	Diode, Schottky, 2-A, 100-V	SMB	Diodes	B2100	B2100
2	D3	Diode, Schottky, 1A, 20V	SMA	Fairchild	SS12	SS12
1	D4	Diode, Switching, 10-mA, 85-V, 350-mW	SOT23	Vishay-Liteon	BAS16	BAS16
1	D5	Diode, Zener, 5.1-V, yy-mA, zz-mW, 5%	SOT23	Motorola	MMBZxxxxBLT1	5.1V
2	D6	Diode, Dual Schottky, 16A, 100-V	D2PAK	IR	16CTQ100S	16CTQ100S
	D7	Diode, Dual Schottky, 16A, 100-V	D2PAK	IR	16CTQ100S	16CTQ100S
	D8	Diode, Schottky, 1A, 20V	SMA	Fairchild	SS12	SS12
1	D9	Diode, Schottky, 2-A, 20-V	SMB	Diodes	B220	B220
2	J1	Terminal Block, 2-pin, 6-A, 3.5mm	0.27 x 0.25""	OST	ED1514	
1	J2	Terminal Block, 4-pin, 6-A, 3.5mm	0.55 x 0.25""	OST	ED1516	
4	J3	Terminal Block, 2-pin, 6-A, 3.5mm	0.27 x 0.25	OST	ED1514	
	J4	Terminal Block, 2-pin, 6-A, 3.5mm	0.27 x 0.25	OST	ED1514	
	J5	Terminal Block, 2-pin, 6-A, 3.5mm	0.27 x 0.25""	OST	ED1514	
	J6	Terminal Block, 2-pin, 6-A, 3.5mm	0.27 x 0.25	OST	ED1514	

	J7	Terminal Block, 2-pin, 6-A, 3.5mm	0.27 x 0.25	OST	ED1514	
8	J8	Header, 2-pin, 100mil spacing, (36-pin strip)	0.100 x 2	Sullins	PTC36SAAN	
	J9	Header, 2-pin, 100mil spacing, (36-pin strip)	0.100 x 2	Sullins	PTC36SAAN	
	J10	Header, 2-pin, 100mil spacing, (36-pin strip)	0.100 x 2	Sullins	PTC36SAAN	
	J11	Header, 2-pin, 100mil spacing, (36-pin strip)	0.100 x 2	Sullins	PTC36SAAN	
	J12	Header, 2-pin, 100mil spacing, (36-pin strip)	0.100 x 2	Sullins	PTC36SAAN	
	J13	Header, 2-pin, 100mil spacing, (36-pin strip)	0.100 x 2	Sullins	PTC36SAAN	
	J14	Header, 2-pin, 100mil spacing, (36-pin strip)	0.100 x 2	Sullins	PTC36SAAN	
	J15	Header, 2-pin, 100mil spacing, (36-pin strip)	0.100 x 2	Sullins	PTC36SAAN	
4	JP1	Header, 3-pin, 100mil spacing, (36-pin strip)	0.100 x 3"	Sullins	PTC36SAAN	
	JP2	Header, 3-pin, 100mil spacing, (36-pin strip)	0.100 x 3"	Sullins	PTC36SAAN	
	JP3	Header, 3-pin, 100mil spacing, (36-pin strip)	0.100 x 3"	Sullins	PTC36SAAN	
	JP4	Header, 3-pin, 100mil spacing, (36-pin strip)	0.100 x 3"	Sullins	PTC36SAAN	
2	L1	Inductor, SMT, 47-uH, 1.6-A, 140-milliohm	0.51x0.37	Coilcraft	DO3316P-473	47uHy
1	L2	Inductor, SMT, 100-uH, 1.2-Arms, 2.5Asat, 220-milliohm	0.51x0.37	Coilcraft	DO3340P-104	100uHy
2	L3	Inductor, SMT, 22-uH, 3.5-A, 47-milliohm	0.73x0.60	Coilcraft	DO5022P-223	22uHy
	L4	Inductor, SMT, 22-uH, 3.5-A, 47-milliohm	0.73x0.60	Coilcraft	DO5022P-223	22uHy
1	L5	Inductor, SMT, 100-uH, 1.2-A, 280-milliohm	0.51x0.37	Coilcraft	DO3316P-104	100uHy
	L6	Inductor, SMT, 47-uH, 1.6-A, 140-milliohm	0.51x0.37	Coilcraft	DO3316P-473	47uHy
1	L7	Inductor, SMT, 10-uH, 64-milliohms, ±20%	0.248 X 0.236	TOKO	A920CY-100M	10 uH
1	L8	Inductor, SM Toroid, 6.2-uH, 1.8-A, 45-milliohms	0.224"	Sumida	CDRH5D28-6R2	6.2 uH
3	Q1	Bipolar, NPN, 40-V, yy-mA, zz-W	SOT23	ON SEMI	MMBT3904	3904
2	Q2	TRANSISTOR, NPN, 80V, 500mA, 225mW	SOT-23	On Semi	MMBTA06LT1	MMBTA06LT1
1	Q3	MOSFET, Nch, 100V, 0.17A, 6 Ohm	SOT23	Fairchild	BSS123	BSS123
	Q4	TRANSISTOR, NPN, 80V, 500mA, 225mW	SOT-23	On Semi	MMBTA06LT1	MMBTA06LT1
1	Q5	Bipolar, NPN, 40-V, 200-mA, 330-mW	SOT23	Zetex		FMMT3904TA
1	Q6	Bipolar, PNP, 150V, 500mA	SOT23		MMBT5401LT1	MMBT5401
1	Q7	MOSFET, P-ch, 60V, 3.1A, 150-milliohm	SO8	Vishay	Si9407AEY	Si9407AEY
1	Q8	Bipolar, PNP, SOT23	SOT23	On Semi	MMBT3906LT1	MMBT3906
1	Q9	MOSFET, N-ch, 20-V, 3.2-A, 100-milliohm	Micro6	IR	IRLMS1902	IRLMS1902
	Q10	Bipolar, NPN, 40-V, yy-mA, zz-W	SOT23	ON SEMI	MMBT3904	3904
2	Q11	Bipolar, NPN, 80-V, 500-mA, 330-mW	SOT23	Zetex		FMMTA06TA
	Q12	Bipolar, NPN, 80-V, 500-mA, 330-mW	SOT23	Zetex		FMMTA06TA
2	Q13	Bipolar, NPN, 30-V, 1 A, 500-mW	SOT23	Zetex		FMMT489TA
2	Q14	Bipolar, PNP, 100V, 1A	SOT23	Zetex	FMMT593TA	FMMT593TA
	Q15	Bipolar, NPN, 30-V, 1 A, 500-mW	SOT23	Zetex		FMMT489TA
	Q16	Bipolar, PNP, 100V, 1A	SOT23	Zetex	FMMT593TA	FMMT593TA
2	Q17	MOSFET, P-ch, -60-V, -12.6-A, 19-milliOhms	SO8	STD		Si7461DP
	Q18	MOSFET, P-ch, -60-V, -12.6-A, 19-milliOhms	SO8	STD		Si7461DP
	Q19	Bipolar, NPN, 40-V, yy-mA, zz-W	SOT23	ON SEMI	MMBT3904	3904
2	Q20	Transistor, NPN SOT-89	0.126 X 0.250	ZETEX	FCT1149A	FCT1149A
	Q21	Transistor, NPN SOT-89	0.126 X 0.250	ZETEX	FCT1149A	FCT1149A

1	R1	Resistor, Chip, 113K-Ohms, 1/16-W, 1%	603	Std	Std	113K
1	R2	Resistor, Chip, 200K-Ohms, 1/16-W, 1%	603	Std	Std	200K
1	R3	Resistor, Chip, 499 Ohms, 1/16W, 5%	603	Std	Std	499
6	R4	Resistor, Chip, 20K-Ohms, 1/16-W, 1%	603	Std	Std	20K
13	R5	Resistor, Chip, 10K Ohms, 1/16-W, 1%	603	Std	Std	10K
3	R6	Resistor, Chip, 1K-Ohms, 1/16-W, yy%	603	Std	Std	1K
5	R7	Resistor, Chip, 51.1 Ohms, 1/16-W, 1%	603	Std	Std	51.1
3	R8	Resistor, Chip, 49.9K Ohms, 1/16-W, 1%	603	Std	Std	49.9K
	R9	Resistor, Chip, 10K Ohms, 1/16-W, 1%	603	Std	Std	10K
	R10	Resistor, Chip, 20K-Ohms, 1/16-W, 1%	603	Std	Std	20K
	R11	Resistor, Chip, 20K-Ohms, 1/16-W, 1%	603	Std	Std	20K
3	R12	Resistor, Chip, 49.9-Ohms, 1/16-W, 1%	603	Std	Std	49.9
1	R13	Resistor, Chip, 57.6K-Ohms, 1/16-W, 1%	603	Std	Std	57.6K
	R14	Resistor, Chip, 10K Ohms, 1/16-W, 1%	603	Std	Std	10K
	R15	Resistor, Chip, 49.9K Ohms, 1/16-W, 1%	603	Std	Std	49.9K
1	R16	Resistor, Chip, 44.2K Ohms, 1/16-W, 1%	603	Std	Std	44.2K
	R17	Resistor, Chip, 49.9K Ohms, 1/16-W, 1%	603	Std	Std	49.9K
	R18	Resistor, Chip, 10K Ohms, 1/16-W, 1%	603	Std	Std	10K
	R19	Resistor, Chip, 51.1 Ohms, 1/16-W, 1%	603	Std	Std	51.1
1	R20	Resistor, Chip, 13K Ohms, 0.25W, 5%	1206	Std	Std	13K
	R21	Resistor, Chip, 20K-Ohms, 1/16-W, 1%	603	Std	Std	20K
1	R22	Resistor, Chip, 750K-Ohms, 1/16-W, 1%	603	Std	Std	750K
3	R23	Resistor, Chip, 301 Ohms, 1/16W, 5%	603	Std	Std	301
1	R25	Resistor, Chip, 442 Ohms, 1/16W, 5%	603	Std	Std	442
1	R26	Resistor, Chip, 1K-Ohms, 1/10-W, yy%	805	Std	Std	1.0K
	R27	Resistor, Chip, 20K-Ohms, 1/16-W, 1%	603	Std	Std	20K
	R28	Resistor, Chip, 301 Ohms, 1/16W, 5%	603	Std	Std	301
	R29	Resistor, Chip, 301 Ohms, 1/16W, 5%	603	Std	Std	301
5	R30	Resistor, Chip, 16.5K-Ohms, 1/16-W, 1%	603	Std	Std	16.5K
	R31	Resistor, Chip, 10K Ohms, 1/16-W, 1%	603	Std	Std	10K
	R32	Resistor, Chip, 1K-Ohms, 1/16-W, yy%	603	Std	Std	1K
	R33	Resistor, Chip, 49.9-Ohms, 1/16-W, 1%	603	Std	Std	49.9
	R34	Resistor, Chip, 10K Ohms, 1/16-W, 1%	603	Std	Std	10K
	R35	Resistor, Chip, 16.5K-Ohms, 1/16-W, 1%	603	Std	Std	16.5K
	R36	Resistor, Chip, 10K Ohms, 1/16-W, 1%	603	Std	Std	10K
2	R37	Resistor, Chip, 17.8K-Ohms, 1/16-W, 1%	603	Std	Std	17.8K
	R38	Resistor, Chip, 10K Ohms, 1/16-W, 1%	603	Std	Std	10K
1	R39	Resistor, Chip, 5.49K-Ohms, 1/16-W, 1%	603	Std	Std	5.49K
	R40	Resistor, Chip, 17.8K-Ohms, 1/16-W, 1%	603	Std	Std	17.8K
	R41	Resistor, Chip, 10K Ohms, 1/16-W, 1%	603	Std	Std	10K
2	R42	Resistor, Chip, 261-Ohms, 1/10-W, yy%	805	Std	Std	261
	R43	Resistor, Chip, 261-Ohms, 1/10-W, yy%	805	Std	Std	261

1	R44	Resistor, Chip, 10K-Ohms, 1/8W, 1%	1206	Vishay	CRCW1206-xxxx-F	10K
2	R45	Resistor, Chip, 590-Ohms, 1/10-W, yy%	805	Std	Std	590
	R46	Resistor, Chip, 590-Ohms, 1/10-W, yy%	805	Std	Std	590
	R47	Resistor, Chip, 16.5K-Ohms, 1/16-W, 1%	603	Std	Std	16.5K
	R48	Resistor, Chip, 16.5K-Ohms, 1/16-W, 1%	603	Std	Std	16.5K
	R49	Resistor, Chip, 1K-Ohms, 1/16-W, yy%	603	Std	Std	1K
	R50	Resistor, Chip, 10K Ohms, 1/16-W, 1%	603	Std	Std	10K
	R51	Resistor, Chip, 49.9-Ohms, 1/16-W, 1%	603	Std	Std	49.9
	R52	Resistor, Chip, 16.5K-Ohms, 1/16-W, 1%	603	Std	Std	16.5K
	R53	Resistor, Chip, 10K Ohms, 1/16-W, 1%	603	Std	Std	10K
1	R54	Resistor, Chip, 100K-Ohms, 1/16-W, 1%	603	Std	Std	100K
	R55	Resistor, Chip, 10K Ohms, 1/16-W, 1%	603	Std	Std	10K
1	R56	Resistor, Chip, 59K-Ohms, 1/16-W, 1%	603	Std	Std	59K
1	R57	Resistor, Chip, 150K Ohms, 1/16-W, 1%	603	Std	Std	150K
1	R58	Resistor, Chip, 1K-Ohms, 1/16-W, 1%	603	Std	Std	1K
	R59	Resistor, Chip, 10K Ohms, 1/16-W, 1%	603	Std	Std	10K
2	R60	Resistor, Chip, 100-Ohms, 1/16-W, 1%	603	Std	Std	100
2	R61	Resistor, Chip, 49.9-Ohms, 1/10-W, 1%	805	Std	Std	49.9
	R62	Resistor, Chip, 100-Ohms, 1/16-W, 1%	603	Std	Std	100
	R63	Resistor, Chip, 49.9-Ohms, 1/10-W, 1%	805	Std	Std	49.9
2	R64	Resistor, Chip, 523K-Ohms, 1/16-W, 1%	603	Vishay	CRCW0603-xxxx-F	523K
1	R65	Resistor, Chip, 237K-Ohms, 1/16-W, 1%	603	Vishay	CRCW0603-xxxx-F	237K
	R66	Resistor, Chip, 523K-Ohms, 1/16-W, 1%	603	Vishay	CRCW0603-xxxx-F	523K
1	R67	Resistor, Chip, 130K-Ohms, 1/16-W, 1%	603	Vishay	CRCW0603-xxxx-F	130K
1	R68	Resistor, Chip, 0-Ohms, 1/16-W, 1%	603	Std	Std	0
2	R69	Resistor, Chip, open-Ohms, 1/10-W, yy%	805	Std	Std	open
	R70	Resistor, Chip, open-Ohms, 1/10-W, yy%	805	Std	Std	open
1	R71	Resistor, Chip, 0 Ohms, 1/16-W, 1%	603	Std	Std	0
	R72	Resistor, Chip, 51.1 Ohms, 1/16-W, 1%	603	Std	Std	51.1
	R73	Resistor, Chip, 51.1 Ohms, 1/16-W, 1%	603	Std	Std	51.1
	R74	Resistor, Chip, 51.1 Ohms, 1/16-W, 1%	603	Std	Std	51.1
	R24*21	Resistor, Chip, 20K-Ohms, 1/16-W, 1%	603	Std	Std	20K
1	R75*66	Resistor, Chip, 1K-Ohms, 1/10-W, yy%	805	Std	Std	1K
18	TP1	Test Point, Red, 1mm	0.038"	Farnell	240-345	
	TP2	Test Point, Red, 1mm	0.038"	Farnell	240-345	
	TP3	Test Point, Red, 1mm	0.038"	Farnell	240-345	
	TP4	Test Point, Red, 1mm	0.038"	Farnell	240-345	
	TP5	Test Point, Red, 1mm	0.038"	Farnell	240-345	
	TP6	Test Point, Red, 1mm	0.038"	Farnell	240-345	
	TP7	Test Point, Red, 1mm	0.038"	Farnell	240-345	
3	TP8	Test Point, Black, 1mm	0.038"	Farnell	240-333	
	TP9	Test Point, Black, 1mm	0.038"	Farnell	240-333	

	TP10	Test Point, Red, 1mm	0.038"	Farnell	240-345	
	TP11	Test Point, Red, 1mm	0.038"	Farnell	240-345	
	TP12	Test Point, Black, 1mm	0.038"	Farnell	240-333	
2	TP13	Test Point, Red, Thru Hole Compact Style	0.125 x 0.125	Keystone	5005	5005
	TP14	Test Point, Red, Thru Hole Compact Style	0.125 x 0.125	Keystone	5005	5005
	TP15	Test Point, Red, 1mm	0.038"	Farnell	240-345	
	TP16	Test Point, Red, 1mm	0.038"	Farnell	240-345	
	TP17	Test Point, Red, 1mm	0.038"	Farnell	240-345	
	TP18	Test Point, Red, 1mm	0.038"	Farnell	240-345	
	TP19	Test Point, Red, 1mm	0.038"	Farnell	240-345	
	TP20	Test Point, Red, 1mm	0.038"	Farnell	240-345	
	TP21	Test Point, Red, 1mm	0.038"	Farnell	240-345	
	TP22	Test Point, Red, 1mm	0.038"	Farnell	240-345	
	TP23	Test Point, Red, 1mm	0.038"	Farnell	240-345	
1	U1	IC, Shunt Regulator, 1.24-V ref, 6-V, 10-mA, 1%	SOT23-5	TI	TLV431ACDBVR	TLV431ACDBVR
1	U2	IC, Dual Channel PWM Controller	SO16	TI	TL1451AQD	TL1451AQD
1	U3	IC, Dual Differential Comparators, 2-36 Vin	SO-8	TI	LM393D	LM393D
2	U4	IC, Dual Channel PWM Controller w/Open-Collector Outputs	NS16	TI	TL1451ACNS	TL1451ACNS
1	U5	IC, Shunt Regulator, 1.24-V ref, 6-V, 10-mA, 1%	SOT23-5	TI	TLV431ACDBV5	TLV431ACDBV5
	U6	IC, Dual Channel PWM Controller w/Open-Collector Outputs	NS16	TI	TL1451ACNS	TL1451ACNS
1	U7	IC,D C-DC Converter, Adj V, 600mA	DGS10	TI	TPS62020DGQ	TPS62020DGQ
1	U8	IC, DC-DC Converter, Adj V, 1.2A	DGS10	TI	TPS62040DGQ	TPS62040DGQ

- 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.

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