

#	ZF No	Description	QPA	Mfr & P/N	Location Ref:
1	1250-0013-00	CONNECTOR, 20MM CELL BATTERY HOLDER, SMT	1	KEystone  1061TR	BAT1
2	1000-0002-00	BATTERY, LITHIUM COIN, 20MM, 195MAH	1	RAYOVAC  BR2032	BAT2 - NOTE THIS PART MUST BE INSTALLED IN THE BAT1 SOCKET
3	8800-0038-03	FAB, MACHZ EVALUATION 1 BOARD	1		ReVISION 3
4	1100-0002-01	CAPACITOR, 0.1UF, 16VDC, $\pm 10\%$ , X7R, MONOLITHIC CERAMIC, SM-0603	93	KEMET  C0603C104K5RAC	C1,49,58,62-69,71-73,76,94-97,110,121,122,128-132,141-145,171-176,185-190,195-208,252,264,271,272,277,286-295,298-307,314-317,320,321,323,324,326,327
5	1100-0005-00	CAPACITOR, 15PF, 50VDC, $\pm 5\%$ , NPO, MONOLITHIC CERAMIC, SM-0603	5	PANASONIC  ECU-V1H150JCV	C56,C57,C319,C322,C325
6	1100-0012-01	CAPACITOR, 10UF, 16VDC, $\pm 20\%$ , SM-B	21	PANASONIC  ECS-T1CX106R	C59,C60,C61,C120,C254,C255,C256,C257,C258,C259,C260,C261,C262,C263,C279,C308,C309,C310,C311,C312,C313
7	1100-0001-00	CAPACITOR, 0.01UF, 50VDC, $\pm 10\%$ , X7R, MONOLITHIC CERAMIC, SM-0603	15	PANASONIC  ECU-V1H103KBV	C74,C98,C99,C118,C119,C209,C210,C211,C212,C213,C214,C265,C269,C270,C318
8	1100-0016-00	CAPACITOR, 220PF, 50V $\pm 10\%$ , SM-0603	27	PANASONIC  ECU-V1H221KBV	C77,C78,C79,C80,C81,C82,C123,C124,C125,C126,C127,C133,C134,C135,C136,C137,C138,C139,C140,C146,C147,C148,C149,C150,C151,C152,C153
9	1100-0032-00	CAPACITOR, 0.001UF, 50VDC, $\pm 10\%$ , X7R, MONOLITHIC CERAMIC, SM-0603	1	KEMET  C0603C102K5RAC	C109
10	1100-0010-01	CAPACITOR, 100UF, 10VDC, $\pm 10\%$ , LOW ESR, SM-D	2	AVX  TPSD107K010R0100	C111,C112

#	ZF No	Description	QPA	Mfr & P/N	Location Ref:
11	1100-0007-00	CAPACITOR, 47PF, 50VDC, $\pm 5\%$ , NPO, MONOLITHIC CERAMIC, SM-0603	4	PANASONIC  ECU-V1H470JCV	C113,C114,C115,C116
12	1100-0038-00	CAPACITOR, 180PF, 50VDC, $\pm 5\%$ , NPO, MONOLITHIC CERAMIC, SM-0603	17	PANASONIC  ECU-V1H181JCV	C154,C155,C156,C157,C158,C159,C160,C161,C162,C163, C164,C165,C166,C167,C168,C169,C170
13	1100-0045-00	CAPACITOR, 2.2UF, 10VDC, $\pm 20\%$ , SM-1206	4	AVX  1206ZC225MAT2A	C242,C244,C250,C253
14	1100-0040-00	CAPACITOR, 470UF, 6.3VDC, $\pm 10\%$ , LOW ESR, SM-E	3	AVX  TPSE477K006R0050	C243,C246,C249
15	1100-0016-01	CAPACITOR, 220UF, 10V $\pm 10\%$ , SM-E	2	AVX  TPSE227K010R0100R	C248,C285
16	1100-0028-00	CAPACITOR, 1.0UF, 16VDC, 20%, TEH, TANTALUM, SM-A	1	PANASONIC  ECS-H1CY105R	C284
17	3150-0002-00	DIODE, BAT54C, 30V, 200MA, DUAL SCHOTTKY, PLASTIC, SOT-23	1	ZETEX  BAT54C	D1
18	1500-0015-00	DIODE, RED, 1206 SMD	2	LUMEX  SML-LX1206IC-TR	D2,D3
19	3150-0020-00	DIODE, BAW56LT1, DUAL GENERAL PURPOSE, SOT23-A	3	MOTOROLA  BAW56LT1	D4,D5,D7
20	1500-0013-01	DIODE, GREEN, 1206 SMD	2	LUMEX  SML-LX1206GC-TR	D6,D8 Note: SILKSCREEN Marking on PCB Fab is Wrong

#	ZF No	Description	QPA	Mfr & P/N	Location Ref:
21	<a href="#">2200-0004-00</a>	INDUCTOR, FERRITE CHIP BEAD, FB600, SM-0805	3	MURATA  BLM21A601S	FB1,FB2,FB16
22	<a href="#">2200-0002-00</a>	INDUCTOR, FERRITE CHIP BEAD, 100MHZ-80OM, 300MA,SM-0805	8	MURATA  BLM21A121SPT	FB3,FB4,FB5,FB7,FB11,FB12,FB13,FB14
23	<a href="#">2200-0005-00</a>	INDUCTOR, FERRITE CHIP BEAD, FB90, SM-1206	4	STEWART  M1206K900R	FB6,FB8,FB9,FB10
24	<a href="#">2200-0009-00</a>	INDUCTOR, FERRITE CHIP BEAD, FB80, SM-1206, 3A	1	STEWART  HI1206N800R	FB15
25	<a href="#">1200-0084-00</a>	CONN, HEADER 3 POSN (1X3) STR MALE SMT	7	COMMCON  SM3801-03-G2	JP1,JP2,J2,JP5,JP8,JP9,J27
26	<a href="#">1200-0083-00</a>	CONN, HEADER 6 POSN (2X3) VERTICAL SMT	4	MOLEX  15-91-0060	JP3,JP4,JP6,JP10
27	<a href="#">1200-0089-00</a>	CONN, HEADER 26 POSN (2X13) VERTICAL SMT	2	MOLEX  15-91-0260	JP7,J15
28	<a href="#">1200-0085-00</a>	CONN, HEADER 2 POSN (1X2) STR MALE SMT	1	COMMCON  SM3801-02-G2	J1
29	<a href="#">1200-0098-00</a>	CONN, 120 POSN, SMT PCI CONNECTOR	3	AMP  145098-1	J3,J4,J5
30	<a href="#">1250-0014-00</a>	CONNECTOR, 168 POS, DIMM SOCKET	2	MOLEX  71251-0012	J6,J7

#	ZF No	Description	QPA	Mfr & P/N	Location Ref:
31	1250-0018-00	CONN, 98 POSN, ISA/AT CARD SOCKET, GOLD	2	AMP 655169-3	J9,J8
32	1200-0117-00	CONN, HEADER 50 POSN (2X25) VERTICAL SMT	1	MOLEX 15-91-0500	J10
33			0		
34	1200-0086-00	CONN, HEADER 40 POSN (2X20) VERTICAL SMT	2	MOLEX 15-91-0400	J13,J14
35	1200-0091-00	CONN, USB DUAL STACKED THRU HOLE 8 POSN	1	MOLEX 87525-0001	J16
36	1200-0088-00	CONN, HEADER 34 POSN (2X17) VERTICAL SMT	1	MOLEX 15-91-0340	J17
37	1200-0110-00	CONN, 6 POS PS2 KEYB & MOUSE FEM, TH-17	1	KYCON KMDG-6S/6S-PS4N	J18
38	1200-0123-00	CONN, HEADER STRAIGHT MALE 14 POSN DUAL STRIP (2X7)	1	3M 2314-6121TG	J19
39	1200-0109-00	CONN, ATX 1XDSUB25FM+2XDSUB9M, RA SIP-46	1	KYCON K42-25/9-9-A4N	J20
40	1200-0087-00	CONN, HEADER 10 POSN (2X5) VERTICAL SMT	1	MOLEX 15-91-0100	J21

#	ZF No	Description	QPA	Mfr & P/N	Location Ref:
41	1200-0090-00	CONN, HEADER 4 POSN (1X4) STR MALE SMT	2	COMMCON SM3801-04-G2	J22,J26
42	1200-0104-00	CONN, HEADER 7 POSN (1X7) STR MALE SMT	1	COMMCON SM3801-07-G2	J23
43	1200-0114-00	CONNECTOR, 20 POS, , , DUAL STR MALE W PEGS	1	MOLEX 39-29-9203	J24
44	1200-0096-00	CONN, HEADER 16 POSN (2X8) VERTICAL SMT	1	MOLEX 15-91-0160	J25
45			0		
46			0		
47			0		
48	2600-0019-00	OSCILLATOR, 4.000 MHZ, +/-50PPM, SMD 3.3V	1	CTS REEVES CB3LV-3C-4.0000	OSC1
49	3150-0003-00	TRANSISTOR, MMBT2222ADI, NPN 40V 350 MW, SOT23	2	DIODES MMBT2222ADI	Q1,Q2
50	3080-0023-00	RESISTOR NETWORK, 10 OHM X 4, , 5% SMD	14	CTS 742083100JTR	RP1,RP2,RP3,RP4,RP5,RP6,RP7,RP8,RP9,RP10,RP11, RP12,RP13,RP71

#	ZF No	Description	QPA	Mfr & P/N	Location Ref:
51	3080-0025-00	RESISTOR NETWORK, 10K OHM X 4, , 5% SMD	8	CTS 742083103JTR	RP14,RP16,RP19,RP23,RP25,RP26,RP29,RP32
52	3080-0022-00	RESISTOR NETWORK, 33 OHM X 4, , 5% SMD	16	CTS 742083330JTR	RP15,RP39,RP40,RP41,RP42,RP43,RP44,RP45,RP46,RP47, RP48,RP49,RP50,RP54,RP55,RP58
53	3080-0027-00	RESISTOR NETWORK, 2.7K OHM X 4, , 5% SMD	2	CTS 742083272JTR	RP18,RP17
54	3080-0026-00	RESISTOR NETWORK, 4.7K OHM X 4, , 5% SMD	12	CTS 742083472JTR	RP20,RP21,RP27,RP31,RP33,RP34,RP36,RP51,RP52,RP53, RP56,RP57
55	3080-0031-00	RESISTOR NETWORK, 2.2K OHM X 4, , 5% SMD	4	CTS 742083222JTR	RP22,RP24,RP28,RP30
56			0		
57	3080-0021-00	RESISTOR NETWORK, 330 OHM X 4, , 5% SMD	1	CTS 742083331JTR	RP37
58	3080-0024-00	RESISTOR NETWORK, 1K OHM X 4, , 5% SMD	12	CTS 742083102JTR	RP59,RP60,RP61,RP62,RP63,RP64,RP65,RP66,RP67,RP68, RP69,RP70
59	3000-0012-00	RESISTOR, 10 OHM, 1/16W, 5%, FIXED, THICK FILM, SM-0603	7	PANASONIC ERJ-3GSYJ100	R1,R4,R6,R7,R8,R9,R10
60	3000-0058-00	RESISTOR, 10M OHM, 1/16W, 5%, FIXED, THICK FILM, SM-0603	1	PANASONIC ERJ-3GSYJ106	R2

#	ZF No	Description	QPA	Mfr & P/N	Location Ref:
61	3000-0010-00	RESISTOR, 4.7K OHM, 1/16W, 5%, FIXED, THICK FILM, SM-0603	20	PANASONIC ERJ-3GSYJ472	R3,R31,R32,R33,R34,R35,R36,R37,R38,R39,R40,R60, R105,R106,R107,R111,R112,R122,R130,R131
62	3000-0003-00	RESISTOR, 10K OHM, 1/16W, 5%, FIXED, THICK FILM, SM-0603	20	PANASONIC ERJ-3GSYJ103	R5,R41,R48,R52,R56,R59,R62,R67,R72,R84,R91,R94, R95,R121,R126,R128,R132,R142,R149,R150
63	3000-0008-00	RESISTOR, 33 OHM, 1/16W, 5%, FIXED, THICK FILM, SM-0603	19	PANASONIC ERJ-3GSYJ330	R15,R25,R26,R27,R77,R79,R81,R108,R109,R114,R116, R117,R134,R136,R141,R143-146
64	3000-0009-00	RESISTOR, 330 OHM, 1/16W, 5%, FIXED, THICK FILM, SM-0603	5	PANASONIC ERJ-3GSYJ331	R16,R17,R18,R28,R86
65	3000-0038-01	RESISTOR, 470 OHM, 1/16W, 5%, FIXED, THICK FILM, SM-0603	7	PANASONIC ERJ-3GEYJ471	R19,R20,R21,R29,R63,R74,R110
66			0		
67	3000-0018-00	RESISTOR, 2.7K OHM, 1/16W, 5%, FIXED, THICK FILM, SM-0603	1	PANASONIC ERJ-3GSYJ272	R30
68	3000-0007-00	RESISTOR, 3.3K OHM, 1/16W, 5%, FIXED, THICK FILM, SM-0603	1	PANASONIC ERJ-3GSYJ332	R42
69	3000-0073-00	RESISTOR, 20K OHM, 1/16W, 5%, FIXED, THICK FILM, SM-0603	5	PANASONIC ERJ-3GSYJ203	R43,R45,R49,R53,R57
70			0		

#	ZF No	Description	QPA	Mfr & P/N	Location Ref:
71			0		
72	3000-0001-00	RESISTOR, 1.0K OHM, 1/16W, 5%, FIXED, THICK FILM, SM-0603	14	PANASONIC ERJ-3GSYJ102	R61,R68,R82,R83,R85,R113,R115,R118,R119,R120, R129,R135,R138,R139
73	3000-0005-00	RESISTOR, 22 OHM, 1/16W, 5%, FIXED, THICK FILM, SM-0603	2	PANASONIC ERJ-3GSYJ220	R64,R93
74	3000-0025-01	RESISTOR, 47 OHM, 1/16W, 5%, FIXED, THICK FILM, SM-0603	4	PANASONIC ERJ-3GSY470	R65,R66,R90,R92
75	3000-0059-00	RESISTOR, 82 OHM, 1/16W, 5%, FIXED, THICK FILM, SM-0603	6	PANASONIC ERJ-3GSYJ820	R69,R70,R71,R87,R88,R89
76	3000-0004-00	RESISTOR, 2.2K OHM, 1/16W, 5%, FIXED, THICK FILM, SM-0603	1	PANASONIC ERJ-3GSYJ222	R73
77	3000-0021-00	RESISTOR, 47K OHM, 1/16W, 5%, FIXED, THICK FILM, SM-0603	4	PANASONIC ERJ-3GSYJ473	R75,R76,R78,R80
78	3000-0023-00	RESISTOR, 0OHM, 1/16W, 5%, FIXED, THICK FILM, SM-0603	4	PANASONIC ERJ-3GSYJ000	R96,97,99,100
79			0		
80	3000-0056-00	RESISTOR, 15K OHM, 1/16W, 5%, FIXED, THICK FILM, SM-0603	4	PANASONIC ERJ-3GSYJ153	R101,R102,R103,R104

#	ZF No	Description	QPA	Mfr & P/N	Location Ref:
81	3000-0049-00	RESISTOR, 510 OHM, 1/16W, 5%, FIXED, THICK FILM, SM-0603	1	PANASONIC ERJ-3GSYJ511	R123
82	3000-0055-00	RESISTOR, 562 OHM, 1/16W, 1%, FIXED, THICK FILM, SM-0603	1	DALE CRCW0603-5620FT	R124
83	3000-0002-00	RESISTOR, 100 OHM, 1/16W, 1%, FIXED, METAL FILM, SM-0603	1	PANASONIC ERJ-3EKF1000	R127
84	3000-0078-00	RESISTOR, 220 OHM, 1/16W, 5%, FIXED, THICK FILM, SM-0603	1	PANASONIC ERJ-3GSYJ221	R133
85	3000-0104-00	RESISTOR, 649 OHM, 1/16W, 1%, FIXED, METAL FILM, SM-0603	1	PANASONIC ERJ-3EKF6490V	R125
86	3000-0094-00	RESISTOR, 24 OHM, 1/16W, 5%, FIXED, THICK FILM, SM-0603	1	PANASONIC ERJ-3GSYJ240	R147
87	3000-0093-00	RESISTOR, 33K OHM, 1/16W, 5%, FIXED, THICK FILM, SM-0603	1	PANASONIC ERJ-3GSYJ333	R148
88	1200-0056-00	CONN, SHUNT	13	ASTRON AT-MJI-B-1-GF	JuMper SETTINGS: JP1 1-2; JP2 2-3; JP3 1-2; JP4 3-5, 4-6; JP5 1-2; JP6 3-5, 4-6; JP7 3-5; JP8 2-3; JP9 1-2; JP10 1-3, 2-4
89	1250-0020-00	CONNECTOR, 44 POS, , PLCC, SMD SOCKET	1	KYCON SMP-44LCC-N	U7
90	1250-0022-00	CONNECTOR, 20 POS, , PLCC, SMD SOCKET	1	MOLEX PCS-020SMU1	U10

#	ZF No	Description	QPA	Mfr & P/N	Location Ref:
91	3200-0002-00	SWI,DIP,4 POS,SMD	1	CTS 219-4MST	S1
92	3200-0001-00	SWI,DIP,8 POS,SMD	2	CTS 219-8MST	S2,S3
93	3200-0003-00	SWI,4MM SQUARE LIGHT TOUCH SMT-4	2	BOURNS 7914G-1-000E	S5,S4
94			0		
95	1200-0082-00	CONNECTOR TEST POINT	3	CONCORD 10-8025-2-03	TP41,TP42,TP43
96	3100-0200-01	IC, MACHZ PCE, VERSION 1.5 / 1.A5	1	ZF LINUX DEVICES MACHZ PCE	U1
97	3100-0167-00	IC, ICS650R-01, CLOCK SYNTHESIZER	1	ICS ICS650R-01	U2
98	3100-0136-00	IC, ICS601M-01, CLOCK MULTIPLIER	1	ICS ICS601M-01	U3
99	3100-0168-00	IC, CY2305SC, 3.3V ZERO DELAY BUFFER	1	CYPRESS CY2305SC-1	U4
100	1250-0015-00	CONNECTOR, 32 POS, , , SMD SOCKET,	2	AMP 8-382424-3	U5,6

#	ZF No	Description	QPA	Mfr & P/N	Location Ref:
101	3100-0132-00	IC, 32KX16 FLASH MEMORY PLCC44	0	ATMEL AT49F516-55JC	
102	3100-0059-00	IC, AM29F016B, 2 MB X 8 FLASH MEMORY, PLASTIC, 120NS	1	AMD AM29F016B-120E4C	U8
103	3100-0174-00	IC, LM3526, DUAL USB POWER CONTROL SWITCH, SOIC-8	1	NATIONAL LM3526M-H	U9
104			0		U10
105	3100-0082-00	IC, LT1537, , , 5V RS232 3/DRIVER 5/RCEIVER TRANSCEIVER, PLASTIC, SSOP-28	2	LINEAR TECHNOLOGY LT1537CG	U11,U12
106	3100-0130-00	IC, TIL311, HEX DISP WITH LOGIC, DIP14	2	TEXAS INSTRUMENTS TIL311	U14,U13
107	3100-0068-01	IC,XILINX CPLD, XC95144XL-TQ100, TQ100, 3.3V CORE	1	XILINX XC95144XL-10TQ100C	U15
108	1500-0019-00	DISPLAY, HDSPU111, RED, , LED, , 7 SEGMENT	6	HEWLETT-PACKARD HDSP-U111	U16,U17,U18,U19,U20,U21
109	3100-0133-00	IC,LM317EMP 3-TERM ADJUST REGULATOR, SOT-223	1	NATIONAL SEMI LM317EMP	U22
110	3100-0134-00	IC, 74HCT74, DUAL D FLIP-FLOP, SO-14	1	FAIRCHILD MM74HCT74M	U23

#	ZF No	Description	QPA	Mfr & P/N	Location Ref:
111	3100-0104-00	IC, LP3470, CMOS VOLT SUPERVISOR 2.93V, SOT23	1	NATIONAL  LP3470M5-2.93	U24
112	2600-0007-01	OSCILLATOR, 14.31818MHZ, ±50PPM, MA506	1	EPSON  MA506 14.31818M-G3	Y1
113	2600-0002-00	CRYSTAL, 32.768KHZ, , ±20PPM, SMT, QUARTZ CRYSTAL, MC-405	1	EPSON  MC-405-32.768K-A2	Y2
9990	2740-0014-00	LABEL, SERIAL NUMBER, .75" X .25"	1	CURRENT CM  .75" X .25" ADHESIVE LABEL	Serial # Label installed at CM
9999		REFERENCE ITEM: REVISION HISTORY	0		

#ZF No

### Description

QPAMfr & P/NLocation Ref:

### Revision History:

Revision X.1 3/8/00 KPR. Initial release.

Revision X.2 3/13/00 KPR. Updated BOM per revision dated 3/10/00.

4/18/00 Added Jumper settings per Bobby M. KPR.

**Revision A.0** 5/5/00 ECO#234. Production release. Line #3 Change P/N to 8800-0038-02 and updated to rev 2. Line #6 change qty fm 22 to 21. New line #16 inserted to add 1100-0028-00, all subsequent line numbers incremented by 1. Line #38 change P/N fm 1200-0137-00 to 1200-0123-00. Line #63 change qty fm 19 to 18. Line #65 change qty fm 6 to 7. Line #83 change qty fm 2 to 1. Line# 103 change P/N fm 3100-0097-00 to 3100-0174-00.

**Revision A.1** 5/9/00 ECO#234. KPR. Update to production release. Line #3 change P/N fm 8800-0038-02 to 8800-0038-03, now revision 3 fab. Line #7 change qty fm 13 to 15. Line #16 corrected ref location fm C248 to C284. Line #26 change qty fm 3 to 4. Line #62 change qty fm 18 to 20. Line #88 change qty fm 11 to 13.

**Revision A.2** 6/2700 Document correction only. KPR Line #63 change qty fm 18 to 19 (add R136).

**Revision A.3** 7/19/00 Documentation correction only. KPR Line #15 Part description corrected. Line #20 added note regarding silkscreen error. Line #72 change qty fm 15 to 14 (delete R110). Line #89 corrected reference location. Line #90 corrected reference location.

**Revision B.0** 11/2/00 ECO #248 CD Change line 101 from qty 1 to qty 0.

**Revision C.0** ECO #255 12/28/00 CD. Add line 9990, serial number label installed by the CM; Chg item 82 from qty 2 to qty 1, removing R125; add item 85, a 649 ohm resistor at location R125.

**Revision D.0** ECO #259 1/4/01 CD. Chg item 96 from 3100-0200-00 to 3100-0200-01, the 1.5 MachZ chip.

#	ZF No	Description	QPA	Mfr & P/N	Location Ref:
---	-------	-------------	-----	-----------	---------------

---

Rework Instructions: