

Pro Tech Monitoring, Inc.
Revision:C (ECO 556)
PN:MTD 2010

Active ARM based MTD 2000
Release Date: 09/12/06

Item	Qty	P/N	SrcCtl	Title	Detail	Reference(m)	Mfr	Mfr P/N
1	1	11300-0008			Flex circuit		M-Flex	
2	1	17300-0017			Vib Motor 1.3V w/o bracket w/JST Connector		Jin Long Machinery USA	OTL-6SL 1.3v W/O Bracket
3	1	17300-0030			MTD 29dB GPS Antenna		Wise Wave	AGA-G503-N
4	1	18300-0029			MTD FCC Label		Hallmark Name Plate	
5	1	18300-0024			Blank MTD ID Label		Hallmark Name Plate	
6	2	6300-0022			Screw, #4-40 x .187" PFH MSSS		Tropic Fasteners	04C018PEMSSS
7	1	6300-0210			MTD Case Back		Custom Plastic Dev.	
8	1	6300-0211			Card Cage Extrusion		Technical Specialties	
9	1	6300-0212			Chassis		Custom Plastic Dev.	
10	1	6300-0213			Belt Clip		JRM Products Inc.	Modified 2220
11	2	6300-0224			Rubber Keypad		Girard Rubber	
12	1	6300-0233			MTD Charger Contact Tape		RS Hughes	
13	1	6300-0239			MTD Front Housing Assembly		Custom Plastic Dev.	
14	1	6300-0243			GPS Antenna Shield		Par Marketing	
15	2	6300-0251			VHB Tape Shield to Extrusion		RS Hughes	
16	1	6300-0252			VHB Tape Antenna to Shield		RS Hughes	
17	1	6300-0258			MTD Retainer Bar		Middlefield Plastics	
18	2	6300-0259			Nylon Spacer .625 x .187		Tropic Fasteners	13SP017
19	2	6300-0263			Screw #2-56 x .75 PPH MSSS		Tropic Fasteners	02C075PPMSSS
20	2	6300-0264			Screw #2-56 x .875 PPH MSSS		Tropic Fasteners	02C087PPMSSS
21	1	MTD 3030			Processor Board Final Assembly		PTM	
22	1	MTD 4100			Active Back Plane with GPS Assembly		PTM	
23	1	MTD 5100			Battery Pack 3.6v 4.2 aH		EAC	
24	1	MTD 6000			Bracelet Antenna		Mack Tech	
25	1	MTD 8000			Enfora Modem Board		PTM	
26	AR				Gray RTV		Dow Corning	#832 Gray
27	AR				Thread Locker #262		Loctite	Loctite 262
28	AR				UV Cure Polyurethane		Loctite	Loctite 3106
29	AR				Cyanoacrylate Adhesive		Loctite	Loctite 401

Pro Tech Monitoring, Inc.

Revision:C (ECO 521)

PN:MTD 3030

Active Processor Assy

Release Date:09/15/06

Item	Qty	P/N	SrcCtl	Title	Detail	Reference(m)	Mfr	Mfr P/N
1	1	18300-0022			Serial Number Label		RS Hughes	
2	4	6300-0222		HDW	#0 Flat Washer		Tropic Fasteners	MS15795-801
3	4	6300-0223		HDW	#0 x .187" PPH Screw SS		Tropic Fasteners	00F018PPMSSS
4	1	6300-0355			Shield Cover 2.326 x 3.138 x 0.190		Leader Tech	
5	1	6300-0356			Shield Frame 2.286 x 3.098 x 0.192		Leader Tech	
6	1	6300-0359			Shield Cover 1.142 x 1.142 x 0.145		Leader Tech	
7	1	6300-0360			Shield Frame 1.115 x 1.115 x 0.160		Leader Tech	
8	1	9300-0002	S	PS	100X64 PIXEL MINI-GRAPHIC W/BACKLIGHT		Tianma	TM10064ABCWUT
9	1	MTD 3032			Processor PCB Assembly		PTM	

Pro Tech Monitoring, Inc.
Revision: G (ECO 569)
PN:MTD 3032

Processor Board
Release Date: 11/14/06

Item	Qty	P/N	SrcCtl	Title	Detail	Reference(m)	Mfr	Mfr P/N	Sub
1	1	13300-0002		IC	TRANSDUCER, 1.5V, 2KHZ, PTH	SP1	Star	PMX-04B	n
2	1	15300-0043		Res	10.0K ohm, 1%, 0402	R50	any		y
3	9	15300-0081		Res	100.0K ohm, 1%, 0402	R1,6,7,12,23,27,35,38,58(8,24,25)	any		y
4	3	15300-0084		Res	100.0, 1/16w, 1%, 0402	R33,43,57	any		y
5	1	15300-0092		Res	33.2k ohm, 1/16w, 1%, 0402	R52	any		y
6	1	15300-0122		Res	2.74K ohm , 1%, 0402	R49	any		y
7	10	15300-0123		Res	47.5K ohm, 1%, 0402	R3-5,13,15,18,45,46,51,55(17,34)	any		y
8	2	15300-0136		Res	1.0k ohm, 1/16w, 1%, 0402	R47,(R29)	any		y
9	1	15300-0144		Res	47.5 ohm, 1%, 0402	R16	any		y
10	3	15300-0204		Res	475 ohm, 1%, 0402	R2,14,19	any		y
11	2	15300-0248		Res	100K ohm, 0.1%, 0603	R32,36	Venkel	TFCR0603-16W-1003BT	n
12	2	15300-0250		Res	6.8 ohm, 5%, 0603	R10,11	any		y
13	1	15300-0251		Res	39.2K, 0.1%, 1/16w, 0603	R22	Venkel	TFCR0603-16W-3922BT	n
14	1	15300-0255		Res	121K, 0.1%, 1/16w,0603	R26	Venkel	TFCR0603-16W-1213BT	n
15	3	15300-0265		Res	0 Ohm, 5%, 0402	R9,20,21,(59)	any		y
16	1	15300-0275		Res	5.6k ohm, 5%, 0402	R30	any		y
17	2	15300-0279		Res	10 ohm, 5%, 0402	R37,54	any		y
18	1	15300-0282		Res	62K ohm, 5%, 0402	R56	any		y
19	1	15300-0283		Res	68.1K ohm, 0.1%, 0603	R28	Venkel	TFCR0603-16W-6812BT	n
20	1	15300-0284		Res	75K ohm, 1%, 0402	R41	any		y
21	1	15300-0285		Res	182K ohm, 1%, 0402	R39	any		y
22	6	15300-0286		Res	270 ohm, 5%, 0402	R31,40,42,44,48,53	any		y
23	1	16300-0009		Tran	NPN, SOT 23	Q1	Fairchild	MMBT4401	y
24	1	16300-0091		IC	MOTION SENSOR, PTH	S1	Signal Systems Int.	2008-4	n
25	1	16300-0136		IC	MICROPWR LDO REG SOT-23-5, LP2981AIM5-3.3	U7	National	LP2981AIM5-3.3	n
26	1	16300-0142		IC	INV, SINGLE, 7SZ04, SOT23-5	U4	Fairchild	NC7SZ04M5	y
27	1	16300-0143		IC	REG CHARGE PUMP, MAX1759EUB, UMAX10	U17	Maxim	MAX1759EUB+	n
28	1	16300-0152		IC	FET DUAL COMP., SOIC 8, IRF7307	U16	IOR	IRF7307	n
29	1	16300-0160		IC	V1B-MTR, DRVR, SOT23-5	U5	Maxim	MAX1749EUK-T	n
30	1	16300-0161		IC	COMP, LMV931, SC70-5	U14	National	LMV931MG	n
31	1	16300-0162		Sen	TEMP SENSOR, SC70, LM20	U9	National	LM20BIM7	n
32	1	16300-0176		IC	Diode, Dual ESD Protect ESDA6V1L, SOT23	D1	ST Microelectronics	ESDA6V1L	n
33	1	16300-0180		IC	SRAM, 512KX16, TSSOP48, 3V, 55 or 70 NS	U6	Samsung	K6X8016T3B-TF55000	n
34	1	16300-0191		IC	IRDA, TFDU4100-TT3, TOP VIEW, SMT	U3	Vishay	TFDU4100-TT3	n
35	1	16300-0204		IC	RTC, DS1337C,SOIC 16 .300 wide	U2	Dallas	DS1337C	n
36	1	16300-0205		IC	LM4040AIM3-3.0, Precision Volt Ref. SOT-23	U11	National	LM4040AIM3-3.0	n
37	1	16300-0207		IC	PHILIPS, LPC2214FBD144 (LQFP144 Package)	U10	Philips	LPC2214FBD144	n

Item	Qty	P/N	SrcCtl	Title	Detail	Reference(m)	Mfr	Mfr P/N	Sub
38	1	16300-0208		IC	Reg, 1.8v LDO, SOT23-5	U13	TI	TPS72118DBVT	n
39	1	16300-0209		IC	CPLD, XC2C384-10FT256I,\ BGA	U12	Xilinx	XC2C384-10FT256I	n
40	1	16300-0210		IC	IC, RF FSK Transceiver, LQFP 32	U19	Melexis	TH7122	n
41	1	16300-0211		IC	IC, 100ma LDO Regulator, 3.3v SOT23-5	U15	Burr Brown	REG101NA-3.3/250	n
42	0	16300-0215		IC	Serial FLASH, AT45DB041B-SI, SOIC 8	(U1)	Atmel	AT45DB041B-SI	y
43	1	16300-0217		IC	Multi Volt Super,, MAX6353RVUK-T, SOT23-5	U8	Maxim	MAX6353RVUK-T	n
44	3	3300-0005		Cap	1uF, 16v, 20%, A-Case Tant	C71,112,124	Venkel	TA016TCM105MAR	y
45	14	3300-0027		Cap	.01uF, 10% X7R, 25v, 0402	C20,38,40-42,87,93,101,104,106,114,117,122,126	Venkel	C0402X7R250-103KNE	y
46	7	3300-0058		Cap	100 pF, COG, +5%, 50V, 0402	C116,123,127,134,137,143,147	Venkel	C0402COG500-101JNE	y
47	1	3300-0069		Cap	2.2uF, 10v, 20%, A-Case Tant	C72	Venkel	TA010TCM225MAR	y
48	6	3300-0094		Cap	1000pF, 10% X7R, 25v, 0402	C130,135,138,139,140,142 (110,131)	Venkel	C0402X7R250-102KNE	y
49	3	3300-0095		Cap	10uF, 6.3v, 10%, A-Case Tant	C111,113,128	Venkel	TA006TCM106KAR	y
50	2	3300-0097		Cap	33pF, 5% NPO, 50v, 0402	C78,79	Venkel	C0402COG500-330JNE	y
51	12	3300-0098		Cap	0.1uF, 10% X7R, 16v, 0402	C73,75,91,95,97,103,105,107,108,115,120,146(44)	Venkel	C0402X7R160-104KNE	y
52	1	3300-0099		Cap	2 pF, COG,+0.25 pF, 50V, 0402	C136	Venkel	C0402COG500-2R0CNE	y
53	2	3300-0106		Cap	15uF, 6.3v, 10%, B-Case Tant	C68,84	Venkel	TA006TCM156KBR	y
54	1	3300-0118		Cap	1 pF, COG, +0.25 pF, 50V, 0402	C133	Venkel	C0402COG500-1R0CNE	y
55	33	3300-0119		Cap	470pF, 10% X7R, 50v, 0402	C7,9-19,21,23-25,27-37,39,74,76,80,118,119, (1-6,8,22,26,43)	Venkel	C0402X7R500-471KNE	y
56	1	3300-0120		Cap	6.8uF, 6.3v, 10%, A-Case Tant	C96	Venkel	TA006TCM685KAR	y
57	1	3300-0134		Cap	10pf, COG, +5%, 50v, 0402	C109	Venkel	C0402NPO500-100JNE	y
58	1	3300-0150		Cap	0.33uF, 10% X7R, 10v, 0603	C121	Venkel	C0603X7TR100-334KNE	y
59	8	3300-0151		Cap	0.47uF, 10% X7R, 10v, 0603	C45,49,56,70,82,85,92,98	Venkel	C0603X7TR100-474KNE	y
60	17	3300-0152		Cap	0.0047uF, 10% X7R, 25v, 0402	C46,48,51-55,60,63-66,69,77,86,100,102	Venkel	C0402X7R250-472KNE	y
61	9	3300-0153		Cap	0.047uF, 10% X7R,16v, 0402	C47,50,57,58,59,61,83,89,99	Venkel	C0402X7R160-473KNE	y
62	4	3300-0154		Cap	4.7uF, 20% Y5V, 10v, 0805	C62,81,88,94	Venkel	C0805Y5V100-475MNE	y
63	2	3300-0155		Cap	470uF, 6.3v, 20%, D-Case Tant	C67,90	AVX	TPSD477M006R0200	y
64	1	3300-0156		Cap	2.7 pF, COG,+0.25 pF, 50V, 0402	C141	Venkel	C0402COG500-2R7JNE	y
65	1	3300-0157		Cap	5.6 pF, COG,+0.25 pF, 50V, 0402	C132	Venkel	C0402COG500-5R6JNE	y
66	1	3300-0158		Cap	150 pF, COG, +5%, 50V, 0402	C145	Venkel	C0402COG500-151JNE	y
67	2	3300-0159		Cap	330 pF, COG, +5%, 50V, 0402	C125,144	Venkel	C0402COG500-331JNE	y
68	1	3300-0168		Cap	470pF, 5% COG, 50v, 0402	C129	Venkel	C0402COG500-471JNE	
69	1	4300-0018		Xtal	14.7456MHZ, 18PF, HC49-SMT	Y1	Citizen	HCM49-14.7456MABJTR	n
70	1	4300-0021			Crystal, CDF107F-AO-013	Y2	Toko Certronics	CDF107F-AO-013 JT10.7MCI-A	n
71	1	4300-0022			IC, TCXO, 16Mhz, 3.2x5mm SMT	U18	World Technologies Transko	WTL8352M-16 TX- T30-25LP16.000MHZ	n
72	4	6300-0221		HDW	1/8" Round Swage Standoff .187"		RAF	3001-B-080-B	n

Pro Tech Monitoring, Inc.
Revision: G (ECO 569)
PN:MTD 3032

Processor Board
Release Date: 11/14/06

Item	Qty	P/N	SrcCtl	Title	Detail	Reference(m)	Mfr	Mfr P/N	Sub
73	4	6300-0307		PWB	PROCESSOR BOARD, 6L, 3.440X2.448				
74	1	6300-0362			3/16" Kapton Dot, Solder Mask		Brady RS Hughes	CMKC-187 6628-20-49118	y
75	29	7300-0021		FBD	FERRITE BEAD, 120OHM, 0603	FB1,5-15, 20,22,24-34 (2-4,16-19,21,23)	Murata	BLM11A121SPT	n
76	1	7300-0029			Filter, Bandpass, SAW, 418 MHz	FL2	World Technologies	KSF418AC1	n
77	1	7300-0033		Ind	Inductor, 27 nH, +2%	L3	Coilcraft	0603CS-27NXGBC	n
78	1	7300-0042		Ind	Inductor, 82 nH, +2%	L2	Coilcraft	0603CS-82NXGBC	n
79	1	7300-0049		Ind	Inductor, 15nH, 10%	L1	Coilcraft	0603CS-15NXKBC	n
80	1	7300-0055			Filter, Ceramic 10.7MHz, 3pin PTH	FL1	Murata	SFVLA10M7MF00-B0	n
81	1	7300-0056		Ind	Inductor, 43 nH, +2%	L4	Coilcraft	0603CS-43NXGBC	n
82	1	7300-0058		Ind	Inductor, 390nH, 5%, 0603	L5	Coilcraft	0603CS-R39XJLW	
83	1	8300-0040		CON	Connector, RF MMCX	J4	Huber-Suhner	82 MMCX-S50-0-2	y
84	1	8300-0042		CON	HDR, 2X22, STR, 1MM	J1	Samtec	MW-22-03-G-D-095-065	n
85	1	8300-0050		CON	RECP, 2X20 RA PCB 2MM	J3	SAMTEC	MMS-120-01-L-DH	n
86	1	8300-0069		CON	REC, 6, FPC, STR, 1MM	J2	Framatome	SFW6R-3ST	y

Pro Tech Monitoring, Inc.

Revision: C

PN:MTD 8000

Enfora Modem Bd

Release Date: 02/17/06

Item	Qty	P/N	SrcCtl	Title	Detail	Reference(m)	Mfr	Mfr P/N	Sub
1	2	15300-0003		Res	100K ohm, 1%, 0603	R1,2,(13,14)	any		yes
2	2	15300-0149		Res	0 ohm, 0603	R15,16	any		yes
3	1	15300-0245		Res	4.7K ohm, 5%, 0603	R11	any		yes
4	0	16300-0136		IC	MICROPWR LDO REG SOT-23-5, LP2981AIM5-3.3	(U2)	National	LP2981AIM5-3.3	no
5	1	16300-0212		Tran	2N7002-7 N-Channel Mosfet, SOT23	Q2	Diodes Inc.	2N7002-7	yes
6	1	16300-0213		Tran	IRF7416, P-Channel Hexfet, SOIC8	Q4	International Rect	IRF7416	yes
7	1	17300-0022			Enfora Modem		Enfora	GSM0108-00	no
8	1	18300-0022			Serial Number Label		RS Hughes		
9	0	3300-0044		Cap	470pF, 50v, 10%, 0603	(C16)	Venkel	C06032X7R500-471KNE	
10	0	3300-0106		Cap	15uF,6.3v, 10%, B size, Tant	(C17)	Venkel	TA006TCM153KBR	
11	2	3300-0107		Cap	0.1uF, 10% X7R, 16v, 0603	C2,3	Venkel	C0603X7TR160-104KNE	yes
12	2	3300-0155		Cap	470uF, 6.3v, 20%, Low ESR, D-Case Tant	C1,4	AVX	TPSD477M006R0200	yes
13	1	6300-0323			PCB		Axon		
14	A/R	6300-0329			Kapton Tape				
15	1	8300-0052		Con	2 x 10 Rt Ang PTH Connector	J1	Samtec	MMS-110-01-L-DH	no
16	1	8300-0084		Con	0.5mm, 60 pos. dual row, SMT	J2	Molex	52974-0604	no
17	1	8300-0085		Con	SIM card socket	J3	Hirose	ID1A-6S-2.54SF	no
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