


DOCUMENT TITLE: GUARD TRAX 2- BOM DOCUMENT NUMBER: GT-900100 REV 2.4							DATE ISSUED: 2/01/2011 GUARD TRAX II -TOP LEVEL ASSY		
Item #	ASSEMBLY	QTY	REF DES	DESCRIPTION	MANUFACTURER	MANUFACTURER PART #	NT Part Number	cost each	extended price
200	HOUSING ASSY	1		TOP ENCLOSURE REV 2	PGI	GT-700050-2	GT-700050	\$ 3.52	\$ 3.5200
201	HOUSING ASSY	1		BOTTOM ENCLOSURE REV 2	PGI	GT-700051-2	GT-700051	\$ 2.28	\$ 2.2800
202	HOUSING ASSY	1		BATTERY COVER	PGI	GT-700052	GT-700052	\$ 1.58	\$ 1.5800
203	HOUSING ASSY	1		MEMBRANE KEYPAD	PGI	GT-800103	GT-800103	\$ 4.88	\$ 4.8800
237	HOUSING ASSY	1		GPS ANTENNA SLEEVE	Sarantel	BM1100S	NT-260017		
204	HOUSING ASSY	1		SPEAKER FILLTER	GORE	GAW1020613	NT-290002	\$ 1.55	\$ 1.5500
205	HOUSING ASSY	1		MICROPHONE FILTER	Stockwell	GT-700064	GT-700064	\$ 0.15	\$ 0.1500
206	HOUSING ASSY	5		SCREW, 2.5 mm X 6 mm Black Oxide	Small Parts	BCAS-M25456	NT-250016	\$ 0.07	\$ 0.3500
SUB	HOUSING ASSY	0		SCREW, 2.5 mm X 6 mm Black Oxide	McMaster Carr	91239A755	NT-250016		
219	HOUSING ASSY	1		BATTERY SUPPORT TAPE	Stockwell	GT-700063	GT-700063	\$ 0.15	\$ 0.1500
234	HOUSING ASSY	1		SUPPORT BAR, LCD DISPLAY - TOP 0.090"	Stockwell	GT-700067	GT-700067	\$ 0.30	\$ 0.3000
231	HOUSING ASSY	1		SUPPORT BAR, LCD DISPLAY- BOTTOM 0.09"	Stockwell	GT-700068	GT-700060	\$ 0.30	\$ 0.3000
232	HOUSING ASSY	1		RFID SPACER	Stockwell	GT-700061	GT-700061	\$ 0.30	\$ 0.3000
233	HOUSING ASSY	1		DOUBLE SIDED TAPE	3M	3M # 4951	NT-270001	\$ 0.05	\$ 0.0500
208	HOUSING ASSY	1		SIM CARD	KORE		NT-SIM001	\$ 15.42	\$ 15.4200
209	PACKAGING	1		LABEL- VENDER -			GT-700055	\$ 0.05	\$ 0.0540
210	PACKAGING	1		BOX- WHITE, 7 1/2 X 3 1/4 X 7	ULINE S-157		NT-210004	\$ 0.48	\$ 0.4800
217	PACKAGING	1		INSERT	GEORGE SWATEK		NT-210006	\$ 1.67	\$ 1.6700
211	PACKAGING	1		BATTERY LI-ION PO CELL , 2000MAH, 3.7 V	SHENZHEN ENCEL TECH	E634169-04X	NT-951010	\$ 3.82	\$ 3.8200
212	PACKAGING	1		INSTALLATION GUIDE- GT2			GT-400007-2	\$ 0.80	\$ 0.8000
213	PACKAGING	1		USB UNIVERSAL BATTERY CHARGER	Richfield Electronics	TCC-22	NT-951013	\$ 3.30	\$ 3.3000
214	PACKAGING	1		USB A / MICRO USB X 1.5 M CABLE ASSEMBLY	Richfield Electronics	USB A	NT-951014	\$ 0.70	\$ 0.7000
215	PACKAGING	1		LABEL, GUARD TRAX			GT-700058	\$ 0.20	\$ 0.2000
239	PACKAGING	1		LABEL, IMPORTANT			GT-700066	\$ 0.05	\$ 0.0500
216	PACKAGING	1		LABEL, CODE NUMBERS			GT-700059	\$ 0.05	\$ 0.0500
221	PACKAGING	1		HEX KEY 1.5 mm X 1 3/4 " Long	McMaster Carr	7289A11	NT-951017	\$ 0.05	\$ 0.0500
238	PACKAGING	1		NEOPRENE CASE	BESSTEC	BCB5LB130	NT-951015	\$ 1.68	\$ 1.6800
218	ACCESSORIES	0		RFID TAG - SQUARE	TECH PRINT		NT-951012		\$ -
220	ACCESSORIES	0		RFID TAG - ROUND ON METAL	SAG		NT-951016		\$ -
235	ACCESSORIES			GT2 RUBBER BOOT	PGI		NT-951018		
236	ACCESSORIES			LARGE NEOPRENE CASE	BESSTEC		NT-951019		
							(1K PRICING)	MATERIAL	\$ 43.6840
							300 PCS	LABOR ASSEMBLY	\$ 11.2500
	MAIN PCB ASSY REV 2.4			MAIN PCB ASSY REV 2.4			GT-800100		
1	MAIN PCB ASSY	1	U1	IC BINARY COUNTER 32-BIT 8-USOP	Dallas	DS1371U+	NT-340002	\$ 0.9828	\$ 0.9828
2	MAIN PCB ASSY	1	U2	IC Motion Sensor	SignalQuest	SQ-SEN-200	NT-340013	\$ 1.8050	\$ 1.8050
3	MAIN PCB ASSY	1	U3	IC AVR MCU 128K 8MHZ 3V 64TQFP	Atmel	ATMEGA128L-8AU PROGRAMED REV 04 (FIRMWARE RELEASE 1.9)	GT-800104-4	\$ 8.6900	\$ 8.6900
4	MAIN PCB ASSY	1	U4	IC SRL FLASH 4MBIT	ST MICRO	M25P40-VMN6TP	NT-340005	\$ 1.0300	\$ 1.0300
5	MAIN PCB ASSY	1	U5	IC FTDI FT232RL USB-SRL 28-SSOP	Parallax	FT232RL	NT-340017	\$ 2.6500	\$ 2.6500
6	MAIN PCB ASSY	1	U6	IC CIRCUIT RESET PWR-ON	National	LP3470M5-2.75/NOPB	NT-341008	\$ 0.6000	\$ 0.6000
7	MAIN PCB ASSY	1	U7	IC GSM / GPS QUAD BAND MODEM	TELIT	GE863GPS730-005	NT-310015	\$ 58.7500	\$ 58.7500
8	MAIN PCB ASSY	1	U8	IC REG LDO 300MA 2.8V TSOT23-5	MICREL	MIC5307-3.0YD5	NT-341007	\$ 0.4500	\$ 0.4500
9	MAIN PCB ASSY	1	U9	IC AUDIO MONO PWR AMP 8-MSOP	TI	TPA6211A1DGNR	NT-340010	\$ 0.3400	\$ 0.3400
10	MAIN PCB ASSY	2	U10,U14	IC 3.0V 100MA LDO REG	TI	TPS76930DBVR	NT-340054	\$ 0.3400	\$ 0.6800
11	MAIN PCB ASSY	1	U12	IC MULTIPLEXER DUAL 4CH	Fairchild	MM74HC4052MX	NT-340056	\$ 0.1600	\$ 0.1600
12	MAIN PCB ASSY	1	U13	IC EL Backlighting Low Noise, High Voltage EL	Supertex	HV857LMG-G	NT-340057	\$ 0.8100	\$ 0.8100
13	MAIN PCB ASSY	1	D1	DIODE SCH 100MA	MMC	RB521G-30-TPMSTR	NT-330021		\$ -
14	MAIN PCB ASSY	2	D2, D4	DIODE 400V 0.7A SOD-123	DIODE INC	DFLR1400	NT-330019	\$ 0.0800	\$ 0.1600
15	MAIN PCB ASSY	1	D3	DIODE SWITCH 200MA 250V	ON SEMI	BAS21LT1G	NT-330020	\$ 0.0100	\$ 0.0100
16	MAIN PCB ASSY	2	Q1, Q4	TRANSISTOR MOSFET N-CH 20V 1.7A SOT-23	ZETEX	ZXM61N02FTC	NT-342008	\$ 0.2400	\$ 0.4800
17	MAIN PCB ASSY	3	Q2,Q3, Q5	TRANSISTOR GP NPN AMP SOT-23	Fairchild	MMBT3904	NT-342009	\$ 0.0100	\$ 0.0300
18	MAIN PCB ASSY	18	C1,C3,C4,C5,C6,C7,C11,C13,C14,C18,C19,C24,C27,C29,C30,C54,C56,,C60	CAP CER .1UF 16V X7R 0402	Murata	GRM155R71C104KA88D	NT-320050	\$ 0.0025	\$ 0.0450

19	MAIN PCB ASSY	2	C38, C39	CAP CER 0.047 Uf x7r 0402	Panasonic - ECG	ECJ-0EF1C473Z	NT-320086	\$	0.0200	\$	0.0400
20	MAIN PCB ASSY	2	C2,C32	CAP CER 10000PF 16V 10% X7R 0402	Murata	GRM155R71C103KA01D	NT-320048	\$	0.0020	\$	0.0040
21	MAIN PCB ASSY	7	C8,C9,C10,C20,C25,C47,C51,	CAP CER 100PF 50V C0G 0402	Kemet	C0402C101J5GACTU	NT-320045	\$	0.0050	\$	0.0350
22	MAIN PCB ASSY	6	C15,C31,C36,C43,C53,C57	CAP CER 4.7UF 6.3V X5R 0603	Taiyo Yuden	JMK107BJ475MA-T	NT-320072	\$	0.0270	\$	0.1620
23	MAIN PCB ASSY	4	C16,C17,C21,C34	CAP CER 22PF 50V C0G 0402	Murata	GRM1555C1H220JZ01D	NT-320043	\$	0.0075	\$	0.0300
24	MAIN PCB ASSY	4	C22,C23,C33,C35	CAP CER 33PF 50V C0G 0402	Murata	GRM1555C1H330JZ01D	NT-320058	\$	0.0075	\$	0.0300
25	MAIN PCB ASSY	1	C26	CAP TANTALUM 100UF 10V 20% SMD	NICHICON	F911A107MNC	NT-320082	\$	0.2700	\$	0.2700
26	MAIN PCB ASSY	2	C28,C37	CAP CER 1000PF 50V X7R 0402	Murata	GCM155R71H102KA37D	NT-320044	\$	0.0034	\$	0.0068
27	MAIN PCB ASSY	2	C40,C41	CAP 2700PF 50V CERAMIC X7R 0402	Murata	ECJ-0EB1H272K	NT-320074	\$	0.0050	\$	0.0100
28	MAIN PCB ASSY	4	C42, C46,C48,C50	CAP CERM 1.0UF 10V X5R 0402	Panasonic	ECJ-0EB1A105M	NT-320049	\$	0.0170	\$	0.0680
29	MAIN PCB ASSY	1	C55	CAP CER 3300PF 100V 10% X7R 0603	Murata	GRM188R72A332KA01D	NT-320075	\$	0.0050	\$	0.0050
30	MAIN PCB ASSY	1	C61	CAP 33 PF 50V CERM CHIP 0805 SMD	Panasonic - ECG	ECJ-2VC1H330J	NT-320085	\$	0.0200	\$	0.0200
31	MAIN PCB ASSY	2	CA1, CA2	CAP ARRAY 220PF 50V NPO 0805	Panasonic - ECG	ECJ-TVC1H221K	NT-320077	\$	0.0800	\$	0.1600
32	MAIN PCB ASSY	1	C12	CAP CER 10000PF 25V 10% X7R 0603	Murata	GRM188R71E103KA01D	NT-320084	\$	0.0030	\$	0.0030
33	MAIN PCB ASSY	1	R1	RESISTOR 4.7M OHM 1/16W 5% 0402	PANASONIC	ERJ-2GEJ475X	NT-350096	\$	0.0025	\$	0.0025
34	MAIN PCB ASSY	4	R2,R5,R33,R38	RES 1K OHM 1/16W 1% 0402 SMD	XICON	304-1.0K-RC	NT-350054	\$	0.0050	\$	0.0200
35	MAIN PCB ASSY	15	R4,R6,R7,R14,R15,R20,R21,R23,R25,R29,R43,R31,R32,R11,R36	RES 10.0K OHM 1/16W 1% 0402 SMD	XICON	304-10K-RC	NT-350064	\$	0.0150	\$	0.2250
36	MAIN PCB ASSY	2	R27, R28	RES 3.83K OHM 1/16W 1% 0402 SMD	XICON	304-3.83K-RC	NT-350057	\$	0.0150	\$	0.0300
37	MAIN PCB ASSY	3	R8,R16,R17	RES 2.2K OHM 1/16W 5% 0402 SMD	ROHM	MCR01MZPJ222	NT-350097	\$	0.0037	\$	0.0112
38	MAIN PCB ASSY	3	R9,R18,R19	RES 2.7K OHM 1/16W 5% 0402 SMD	ROHM	MCR01MZPJ272	NT-350098	\$	0.0037	\$	0.0112
39	MAIN PCB ASSY	1	R10	THERMISTOR 10K OHM NTC 0603 SMD	Murata	NCP18XH103J03RC	NT-381001	\$	0.0500	\$	0.0500
40	MAIN PCB ASSY	3	R22,R24,R13	RES 33K OHM 1/16W 5% 0402 SMD	ROHM	MCR01MZPJ333	NT-350099	\$	0.0037	\$	0.0112
41	MAIN PCB ASSY	1	R26	RES 10 OHM 1/16W 1% 0402 SMD	XICON	304-10-RC	NT-350059	\$	0.0050	\$	0.0050
42	MAIN PCB ASSY	1	R34	RES 100 OHM 1/16W 5% 0402 SMD	XICON	304-100-RC	NT-350063	\$	0.0037	\$	0.0037
43	MAIN PCB ASSY	1	R41	RES 47K OHM 1/16W 1% 0402 SMD	VISHAY	CRCW040247K0FKED	NT-350065	\$	0.0150	\$	0.0150
44	MAIN PCB ASSY	1	R42	RES 1M OHM 1/16W 5% 0402 SMD	ROHM	MCR01MZPJ105	NT-350102	\$	0.0037	\$	0.0037
45	MAIN PCB ASSY	2	R44, R45	RES 0.0 OHM 1/16W 5% 0402 SMD	ROHM	MCR01MZPJ000	NT-350068	\$	0.0037	\$	0.0075
46	MAIN PCB ASSY	1	R40	RES 560K OHM 1/16W 1% 0402 SMD	PANASONIC	ERJ-2GEJ564X	NT-350101	\$	0.0037	\$	0.0037
47	MAIN PCB ASSY	1	R35	RES- CHIP 0402 3.92K OHM 1/16W 1% RoHS	KOA Speer	RK73H1ETTP392F	NT-350056	\$	0.0037	\$	0.0037
48	MAIN PCB ASSY	DNP	R12, R30								
49	MAIN PCB ASSY	1	X1	MIC CONDENSER ELECT OMNI -44DB	Projects Unlimited	TOS-1844R-C3310-2-R	NT-340011	\$	1.6500	\$	1.6500
50	MAIN PCB ASSY	1	ANT1	GPS ANT - ACTIVE-HELIX	SARANTEL	1010021 S-TYPE	NT-310010	\$	15.2500	\$	15.2500
51	MAIN PCB ASSY	2	J10,J11	CONN JACK AMC 50 OHMS STR SMD	AMPHENOL	A-1JB	NT-230039	\$	0.3770	\$	0.7540
52	MAIN PCB ASSY	1	JP1	CONN JUMPER AMC PLUG-PLUG 100MM	AMPHENOL	A-1PA-113-100B2	NT-230040	\$	1.7640	\$	1.7640
53	MAIN PCB ASSY	2	L1,L2	FERRITE CHIP 600 OHM 200MA	Murata	BLM18HG601SN1D	NT-325002	\$	0.0400	\$	0.0800
54	MAIN PCB ASSY	1	L3	INDUCTOR 220UH 70MA 1210	Murata	LQH32CN221K23L	NT-325013	\$	0.0850	\$	0.0850
55	MAIN PCB ASSY	1	Y1	CRYSTAL 32.768KHZ 7PF SMD	ABRACON	ABS07-32.768KHZ-7-T	NT-343005	\$	0.5880	\$	0.5880
56	MAIN PCB ASSY	1	Y2	CRYSTAL 7.372800 MHZ SMD 12PF	NDK	NX1255GC-7.372800MHZ	NT-343008	\$	0.5500	\$	0.5500
57	MAIN PCB ASSY	1	V1	CONN HEADER 2POS 2MM GOLD DIP	Hirose	A3C-2P-2DSA	NT-240006	\$	0.1650	\$	0.1650
58	MAIN PCB ASSY	1	FB1	FERRITE CHIP 120 OHM 500MA 0402	Murata	BLM15AG121SN1D	NT-335002	\$	0.0210	\$	0.0210
59	MAIN PCB ASSY	1	LS1	SPEAKER 8 OHM .5W 87DB 15MM SMD	Projects Unlimited	SMS-1508MS-R	NT-340012	\$	2.1000	\$	2.1000
60	MAIN PCB ASSY	1	M1	MOTOR, VIBRATING 3V	Jinlong Machinery	Z6SC0B0060081	NT-315001	\$	1.6500	\$	1.6500
61	MAIN PCB ASSY	1	J15	CONN RCPT 2MM 7POS SGL VERT SMD	Samtec	MMS-107-02-L-SV	NT-230041	\$	2.0663	\$	2.0663
62	MAIN PCB ASSY	1	J4	CONN HEADER 6POS 1.25MM R/A SMD	MOLEX	53261-0671	NT-230042	\$	0.8800	\$	0.8800
63	MAIN PCB ASSY	1	BZ1	SOUND TRANSDUCER	Advanced Acoustics	AX-1003LF	NT-315002	\$	0.5000	\$	0.5000
64	MAIN PCB ASSY	1	LCD1	LCD DISPLAY WITH EL PANEL	Pacific Display	C10925-1	NT-310016	\$	7.0100	\$	7.0100
65	MAIN PCB ASSY	1	J2	CONN RCPT MICRO USB B SMD R/A	Hirose	ZX62-B-5PA(11)	NT-240009	\$	0.3600	\$	0.3600
66	MAIN PCB ASSY	1	J3	CONN HEADER SH 7POS TOP 1MM TIN	JST SALES	BM07B-SRSS-TB(LF)(SN)	NT-240007	\$	0.3768	\$	0.3768
67	MAIN PCB ASSY	1	J6	CONN HEADER ZH SIDE 2POS 1.5MM	JST SALES	S2B-ZR-SM4A-TF(LF)(SN)(P)	NT-240008	\$	0.2086	\$	0.2086
68	MAIN PCB ASSY	1	J8	CONN SMART CARD HINGED 8PIN SMD	C&K	CCM03-3012LFT R102	NT-230020	\$	0.7540	\$	0.7540
68	MAIN PCB ASSY	0	J8	CONN SMART CARD HINGED 8PIN SMD	C&K	CCM03-3004LFT R102 ALTERNATE	NT-230020	\$	0.7540	\$	-
69	MAIN PCB ASSY	1	J9	CONN FPC/FFC 7POS 1MM HORIZ SMD	FCI	SFW7R-6STE1LF	NT-230038	\$	0.2400	\$	0.2400
69	MAIN PCB ASSY	0	J9	CONN FPC/FFC 7POS 1MM HORIZ SMD	FCI	SFW7R-2STE1 ALTERNATE	NT-230038	\$	0.2400		
70	MAIN PCB ASSY	1	S1	SWITCH LIGHT TOUCH 160GF	Panasonic - ECG	EVQ-PQHB55	NT-365001	\$	0.2310	\$	0.2400
71	MAIN PCB ASSY	1	PCB1	GT-600100 MAIN PCB REV C	Imagineering	GT-600100 REV C	GT-600100	\$	19.700	\$	19.7000
							(1K PRICING)		MAIN PCB COST	\$	135.91
									LABOR (300 pcs)	\$	19.95

	RFID PCB ASSY REV 2.3	1		GT2 RFID PCB ASSEMBLY REV 2.3		GT-800101	GT-800101		\$ -
101	RFID PCB ASSY	1	PCB1	PCB, GT2 RFID PCB REV C	Imagineering	GT-600101 REV C	GT-600101	\$ 1.2500	\$ 1.2500
102	RFID PCB ASSY	3	C1, C7, C8	CAP-Cer X7R 0603 0.1uF 16V 10% RoHS	Panasonic	EJC-1VB1C104K	NT-320078	\$ 0.0040	\$ 0.0120
103	RFID PCB ASSY	3	R2,R3, R4	RES - Chip 0603 100 OHM 1/10W 5% RoHS	Yageo America	RC0603FR-07100RL	NT-350033	\$ 0.0012	\$ 0.0036
104	RFID PCB ASSY	2	C4, C5	CAP- Cer X5R 0603 1uF 16V 10%	Kemet	0603YD105KAT2A	NT-320006	\$ 0.0360	\$ 0.0720
105	RFID PCB ASSY	1	FB1	FERRITE CHIP 120 OHM 800MA 080	TDK	MMZ2012Y121B	NT-335003	\$ 0.0085	\$ 0.0085
106	RFID PCB ASSY	1	R1	RES - Chip 0603 150 OHM 1/10W 5% RoHS	Yageo America	RC0603JR-07150RL	NT-350004	\$ 0.0010	\$ 0.0010
107	RFID PCB ASSY	1	Y1	XSTAL- 32.768kHz SMT	Citizen	CM519 32.768	NT-343007	\$ 0.8000	\$ 0.8000
108	RFID PCB ASSY	1	JP1	CONN HEADER 7POS .2mm	SAM TEC	TMM-107-03-L-S	NT-230043	\$ 0.2300	\$ 0.2300
116	RFID PCB ASSY	1	JP2	CONN HEADER, DE-BUG PROGRAM	Molex	53307-1071	NT-230037	\$ 0.5000	\$ 0.5000
109	RFID PCB ASSY	1	U1	IC- Mixed signal microcontroller	Texas Instrument	MSP430F2132IPW	NT-340058	\$ 1.7500	\$ 1.7500
110	RFID PCB ASSY	1	U2	IC, RFID Module	JOGTEK	TM-001(JOGTEK)	NT-340059	\$ 16.0000	\$ 16.0000
111	RFID PCB ASSY	1	C6	CAP CER COG 0402 100pF 50V 5% RoHS	Murata	GRM1555C1H101GZ01D	NT-320081	\$ 0.0050	\$ 0.0050
112	RFID PCB ASSY	1	C9	CAP CER COG 0402 33pF 50V 5% RoHS	Murata	GRM1555C1H330GZ01D	NT-320058	\$ 0.0019	\$ 0.0019
113	RFID PCB ASSY	1	R5	RES- CHIP 0402 6.8K OHM 1/16W 1% RoHS	Vishay	CRCW04026K80FKED	NT-350103	\$ 0.0050	\$ 0.0050
114	RFID PCB ASSY	1	L2	CAP CER COG 0402 5.6pF 50V +-0.05pF RoHS	Murata	GRM1555C1H5R6DZ01D	NT-320080	\$ 0.0110	\$ 0.0110
115	RFID PCB ASSY	DNP	D1,C2,C3,L1,R6	LED SML-LX0603GW-TR	Lumex	SML-LX0603GW-TR	NT-370008		\$ -
							(1K PRICING)	RFID MTL COST	\$ 20.65
								LABOR (300 pcs)	\$ 8.40

GUARD TRAX II ESTIMATED COST AT RIDGE MFG		
TOTAL MATERIAL COST		\$ 200.25
TOTAL LABOR - RIDGE (300 pcs)		\$ 39.60
TEST - RIDGE (EST)		\$ 4.50
PACKING / SHIPPING		\$ 3.00
TOTAL COST -		\$ 247.35