
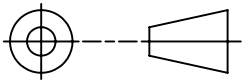


REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVAL
	A	REVISED PER ECN 2406	3/8/10	DB
	B	REVISED PER ECN 2447	3/25/11	KHS

		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		APPROVALS		DATE		 SYSTEM PLANNING CORPORATION 3601 WILSON BOULEVARD * ARLINGTON, VIRGINIA 22201		
		FRACTIONS	TOLERANCES ARE: DECIMALS	ANGLES	DETAILER D BOUDREAU	9/30/09				
		± 1/32	.X ±.1 .XX ±.01 .XXX ±.005	± 1/2°	CHECKER K SPITERY	10/13/09				
		THIRD ANGLE PROJECTION 			DESIGNER R STRAZ	9/30/09				
					SYSTEM ENGINEER R STRAZ	9/30/09				
					MANUFACTURING B WELLS	9/30/09				
203026	-						SIZE A	CAGE CODE 9G490	DWG NO. PL203025	REV. B
NEXT ASSY	USED ON									
APPLICATION		CONTRACT NUMBER -					SCALE 1/1		SHEET CVR SHT	

PARTS LIST

SYSTEM PLANNING CORPORATION
1000 WILSON BLVD
ARLINGTON, VA 22209

PL - 203025-01

CAGE NO.: 9G490

REVISION: B
REV DATE: 03/25/11
LIST DATE: 03/25/11

LIST TITLE: PCB ASSEMBLY, E-SEAL WITH ZIGBEE INTERFACE, GLOBAL TRAK

PAGE: 1 OF 4

ITEM NO	REQ	QTY	U/M	REFERENCE	DESIGNATORS	CAGE NO.	COMPONENT /SUBSTITUTE	COMPONENT DESCRIPTION	MFG ID	MANUFACTURER NAME MANUFACTURER PART NO	SUB ASY
3		0.00	EA				302033	SCHEMATIC, E-SEAL WITH ZIGBEE INTERFACE, GLOBAL TRAK	190033	SYSTEM PLANNING CORP. 302033	N
5		1.00	EA				406309-01	PCB, E-SEAL WITH ZIGBEE INTERFACE, GLOBAL TRAK	190033	SYSTEM PLANNING CORP. 406309-01	N
8		1.00	EA	U1			EM250-RTR(+BTLD*	IC, EM250, WITH BOOTLOADER SOL, QFN-48, ZIGBEE/ 802.15.4	EMBER spcdoc	EMBER EM250-RTR(+BTLDR) SPC DOCUMENT 854673	N
9		1.00	EA	BT1			15-4903-53000	BATTERY, AA, 3.6V, 2.4AH MODEL TL-4903, LITHIUM, W/ POL-TABS	TADIRAN spcdoc	TADIRAN 15-4903-53000 SPC DOCUMENT 853357	N
10		1.00	EA	Y1			ABM3B-24.000MHZ*	IC, CRYSTAL, 24.000MHZ, SMD	ABRACO spcdoc	ABRACON CORPORATION ABM3B-24.000MHZ-D-R60-1WT SPC DOCUMENT 854027	N
11		0.00	EA	(DNI: J2)			FTSH-105-01-F-DV	CONNECTOR, MICRO-HEADER, 10 PIN, FTSH SERIES, .05 PITCH	SAMTEC spcdoc	SAMTEC ELECTRONICS FTSH-105-01-F-DV SPC DOCUMENT 853912	N
12		1.00	EA	J3			PPPC041LGBN-RC	CONNECTOR, FEMALE SOCKET 4 POSITION, R/A, 0.100" PITCH, GOLD	SULLIN spcdoc	SULLINS CONNECTORS PPPC041LGBN-RC SPC DOCUMENT 854594	N
13		0.00	EA	(DNI: J1)			102972-2	CONNECTOR-BREAKAWAY, SINGLEROW, VERTICAL, 2 POSITION	AMP spcdoc	AMP INCORPORATED 102972-2 SPC DOCUMENT 850267	N
14		1.00	EA	DS1			LS L29K-H1J2-1	LED, SURFACE MOUNT CHIP, RED, 630NM, 0603	OSRAM spcdoc	OSRAM LS L29K-H1J2-1 SPC DOCUMENT 854644	N
16		1.00	EA	DS2			LO L29K-J2L1-24	LED, SURFACE MOUNT CHIP, ORANGE, 630NM, 0603	OSRAM	OSRAM LO L29K-J2L1-24	N

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PAGE: 2 OF 4

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									spcdoc	SPC DOCUMENT 854645	
19	1.00	EA	L3				LQG18HN2N7S00D	INDUCTOR, 2.7NH, +/-0.3 NH, 300mA, 0603 MULTI- LAYER FILM	MURATA	MURATA ERIE LQG18HN2N7S00D	N
									spcdoc	SPC DOCUMENT 853851	
20	1.00	EA	L2				LQG18HN3N3S00D	INDUCTOR, 3.3nH, +/- 0.3 nH, MULTI LAYER FILM, 0603	MURATA	MURATA ERIE LQG18HN3N3S00D	N
									spcdoc	SPC DOCUMENT 851670	
21	1.00	EA	L23				LQP15MN2NOB02	INDUCTOR, 2.0NH, +/-0.1 NH, 220mA, CHIP FILM, 0402	MURATA	MURATA ERIE LQP15MN2NOB02	N
									spcdoc	SPC DOCUMENT 853852	
24	2.00	EA	L1, L4				LQP15MN5N1B02	INDUCTOR, 5.1NH, +/-0.1 NH, 140mA, CHIP FILM, 0402	MURATA	MURATA ERIE LQP15MN5N1B02	N
									spcdoc	SPC DOCUMENT 853849	
27	1.00	EA	CR1				MMBZ5V6AL-7	DIODE, DUAL SURFACE MT, TVS, 3VOLT, 24WATT, SOT-23	DIODES	DIODES, INC. MMBZ5V6AL-7	N
									spcdoc	SPC DOCUMENT 853364	
29	1.00	EA	FB1				BLM15HG102SN1D	BEAD, FERRITE, FILTER CHIP, 1000 OHM, 250mA, 0402	MURATA	MURATA ERIE BLM15HG102SN1D	N
									spcdoc	SPC DOCUMENT 853860	
30	1.00	EA	CR2				FDLL4148	DIODE, SMALL SIGNAL, HI CONDUCTANCE, 100 VOLT, LL-34	FAIRCHILD	FAIRCHILD SEMI CONDUCTOR FDLL4148	N
									spcdoc	SPC DOCUMENT 853363	
31	2.00	EA	R1, R4				ERJ-2GEJ103X	RESISTOR, CHIP, 10K OHM, 5%, 1/16 WATT, 0402 PACK SMD	PANASONIC	PANASONIC ELECTRONICS ERJ-2GEJ103X	N
									spcdoc	SPC DOCUMENT 853853	
32	1.00	EA	R9				ERJ-2GEJ2R7X	RESISTOR, CHIP, 2.7 OHM, 5%, 1/16 WATT, 0402 PACK SMD	PANASONIC	PANASONIC ELECTRONICS ERJ-2GEJ2R7X	N
									spcdoc	SPC DOCUMENT	

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LIST TITLE: PCB ASSEMBLY, E-SEAL WITH ZIGBEE INTERFACE, GLOBAL TRAK

PAGE: 3 OF 4

ITEM NO	REQ	QTY	U/M	REFERENCE	DESIGNATORS	CAGE NO.	COMPONENT /SUBSTITUTE	COMPONENT DESCRIPTION	MFG ID	MANUFACTURER NAME MANUFACTURER PART NO	SUB ASY
33	1.00	EA	R3				ERJ-3EKF1001V	RESISTOR, 1K OHM, 1/16 WATT, 1%, SMD, 0603,	PANAS spcdoc	853858 PANASONIC ELECTRONICS ERJ-3EKF101V SPC DOCUMENT 851466	N
34	2.00	EA	R5, R7				ERJ-2GEJ1R0X	RESISTOR, CHIP, 1 OHM, 5%, 1/16 WATT, 0402 PACK SMD	PANAS spcdoc	PANASONIC ELECTRONICS ERJ-2GEJ1R0X SPC DOCUMENT 853855	N
35	1.00	EA	R6				ERJ-2GEJ332X	RESISTOR, CHIP, 3.3K OHM 5%, 1/10 WATT, 0402 PACK SMD	PANAS spcdoc	PANASONIC ELECTRONICS ERJ-2GEJ332X SPC DOCUMENT 853856	N
36	1.00	EA	R2				ERJ2GEJ561X	RESISTOR, 560 OHM, 1/16 WATT, 5%, SMD, 0402 PACK	PANAS spcdoc	PANASONIC ELECTRONICS ERJ2GEJ561X SPC DOCUMENT 854854	N
37	1.00	EA	R8				ERJ-2RKF1693X	RESISTOR, CHIP, 169K OHM 1%, 1/16 WATT, 0402 PACK SMD	PANAS spcdoc	PANASONIC ELECTRONICS ERJ-2RKF1693X SPC DOCUMENT 853857	N
38	2.00	EA	R10, R11				ERJ-2GEJ102X	RESISTOR, 1.0K OHM, 1/16 WATT, 5%, SMD, 0402 PACK	PANAS spcdoc	PANASONIC ELECTRONICS ERJ-2GEJ102X SPC DOCUMENT 854008	N
39	1.00	EA	R12				ERJ-6GEYJ104V	RESISTOR, CHIP, 100K OHM 5%, 1/8 WATT, 0805 PACK, SMD	PANAS spcdoc	PANASONIC ELECTRONICS ERJ-6GEYJ104V SPC DOCUMENT 852916	N
40	3.00	EA	C7, C8, C9				GRM155R71C104KA*	CAPACITOR, 0.1UF, 16VOLT +/- 10%, X7R, 0402	MURATA spcdoc	MURATA ERIE GRM155R71C104KA88D SPC DOCUMENT 853843	N
42	3.00	EA	C24, C25, C58				ECJ-0EC1H010C	CAPACITOR, CHIP, 1pF, +/- 0.25pF, 50VOLT, COG, NPO, 0402	PANAS spcdoc	PANASONIC ELECTRONICS ECJ-0EC1H010C SPC DOCUMENT 853848	N

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PAGE: 4 OF 4

ITEM NO	REQ	QTY	U/M	REFERENCE	DESIGNATORS	CAGE NO.	COMPONENT /SUBSTITUTE	COMPONENT DESCRIPTION	MFG ID	MANUFACTURER NAME MANUFACTURER PART NO	SUB ASY
43	10.00	EA		C1, C3, C10, C12, C13, C14, C15, C16, C17, C32			GRM155R71E103KA*	CAPACITOR, 10 NF, +/-10% 25 VOLT, X7R, 0402	MURATA spcdoc	MURATA ERIE GRM155R71E103KA01D SPC DOCUMENT 853840	N
45	1.00	EA		C23			GRM1555C1H1R8CZ*	CAPACITOR, 1.8PF, 50VOLT +/- 0.25PF, COG, X7R, 0402	MURATA spcdoc	MURATA ERIE GRM1555C1H1R8CZ01D SPC DOCUMENT 853847	N
46	1.00	EA		C11			GRM1555C1H8RODZ*	CAPACITOR, 8PF, 50VOLT +/- 0.5PF, COG, NPO, 0402	MURATA spcdoc	MURATA ERIE GRM1555C1H8RODZ01D SPC DOCUMENT 853844	N
47	2.00	EA		C4, C5			GRM1555C1H270JZ*	CAPACITOR, 27PF, 50VOLT +/- 5%, COG, 0402	MURATA spcdoc	MURATA ERIE GRM1555C1H270JZ01D SPC DOCUMENT 853841	N
49	2.00	EA		C22, C26			GRM1555C1HR75CZ*	CAPACITOR, 0.75PF, 50VOLT +/- 0.25PF, COG, NPO, 0402	MURATA spcdoc	MURATA ERIE GRM1555C1HR75CZ01D SPC DOCUMENT TBD	N
50	1.00	EA		C6			T491A106K010AT	CAPACITOR, TANTALUM, 10uF, +/- 10%, 10 VOLT, 3216 SIZEA	KEMET spcdoc	KEMET ELECTRONICS T491A106K010AT SPC DOCUMENT 853842	N
55	0.00	EA					EC-2216GRAY	SCOTCH-WELD EPOXY ADHESIVE, GRAY, 1:1MIX, 43 MIL	3M spcdoc	3M MANUFACTURING EC-2216GRAY SPC DOCUMENT 855312	N
60	0.00	EA					HUMI SEAL1B73	ACRYLIC CONFORMAL COATING	CHASE spcdoc	CHASE SPECIALITY COATINGS HUMI SEAL1B73 SPC DOCUMENT 855314	N
61	0.00	EA					862-150ML	SOLDER MASK, PEELABLE	ALLIED MGCHEM spcdoc	ALLIED ELECTRONICS, INC. 661-0430 MG CHEMICALS 862-150ML SPC DOCUMENT 853475	N

TOTAL NO PAGES: 4

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3

2

1

NOTES:

1. ASSEMBLE IN ACCORDANCE WITH SPC WORKMANSHIP OR IPC-610 CLASS 2 STANDARDS.
2. SERIAL NUMBER AND PRINTED CIRCUIT BOARD ASSEMBLY REVISION TO BE MARKED ON PCB. SERIAL NUMBERS TO BE ASSIGNED BY Q.A. OR IN THE CASE OF OUT OF HOUSE BUILD, SPC WILL PROVIDE SERIAL NUMBERS TO BE USED BY CM.
3. PRIOR TO BATTERY ASSEMBLY, PRODUCTION TEST IS TO BE COMPLETED IN ACCORDANCE WITH PRODUCTION TEST PROCEDURE, DOCUMENT: 713025.
4. PRIOR TO INSTALLATION, TEST BATTERY VOLTAGE LEVELS WITH MULTIMETER. THE BATTERY VOLTAGE SHALL BE NO LESS THAN 3.63 VOLTS.
5. BATTERY ASSEMBLY PROCESS:
 - 1) CLEAN UNDERSIDE OF PCB WHERE BATTERY WILL MOUNT AND BATTERY SURFACES WITH ALCOHOL.
 - 2) APPLY EPOXY (ITEM 110) TO PCB WHERE BATTERY WILL COME INTO CONTACT WITH PCB (REF DETAIL).
 - 3) SOLDER BATTERY TERMINALS TO PCB WHILE THE EPOXY IS STILL WET AND WHILE HOLDING THE THE BATTERY AGAINST THE PCB SURFACE.
6. CONFORMAL COAT FINISHED PCB ASSEMBLY:
 - 1) USING SOLDER MASK (ITEM 61) COVER E1 AND E2 PADS, BOTH SIDES OF PCB ASSEMBLY.
 - 2) DIP OR SPRAY BOARD ASSEMBLY IN CONFORMAL COATING (ITEM 60).
 - 3) LET DRY FOR 24 HOURS AT RT OR FOR 90 MIN AT 76C.
 - 4) REMOVE SOLDER MASK FROM E1 AND E2.

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVAL
	A	REVISED PER ECN 2406	3/8/10	DB
	B	REVISED PER ECN 2447	3/25/11	KHS

