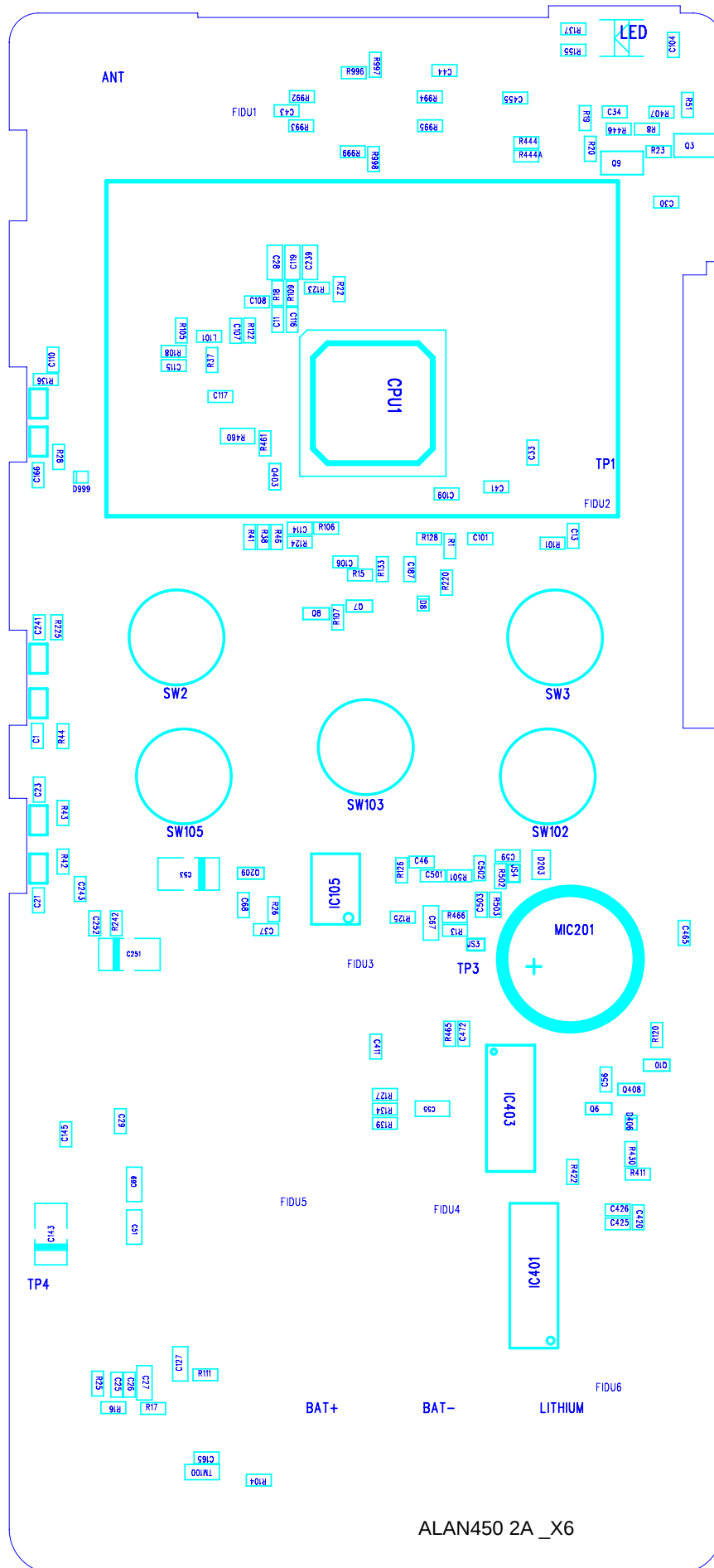
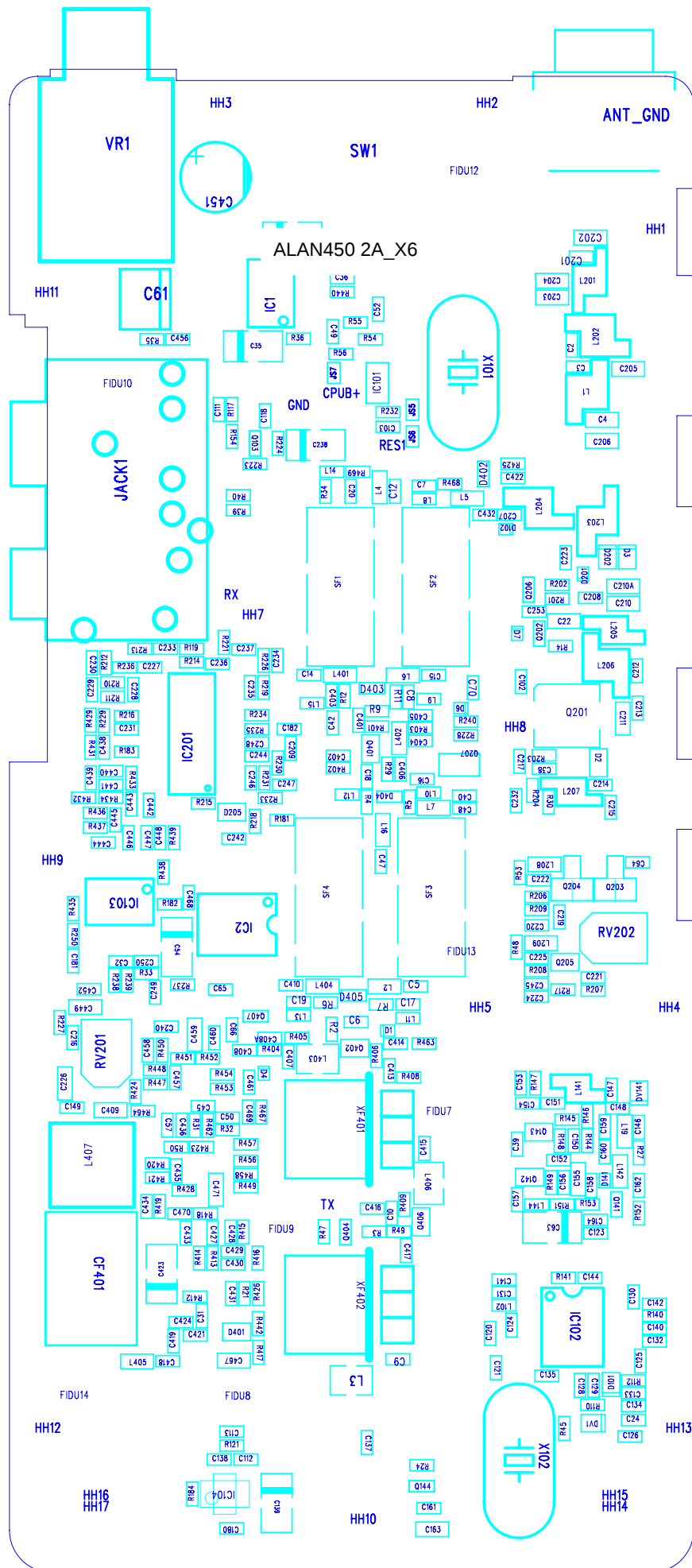
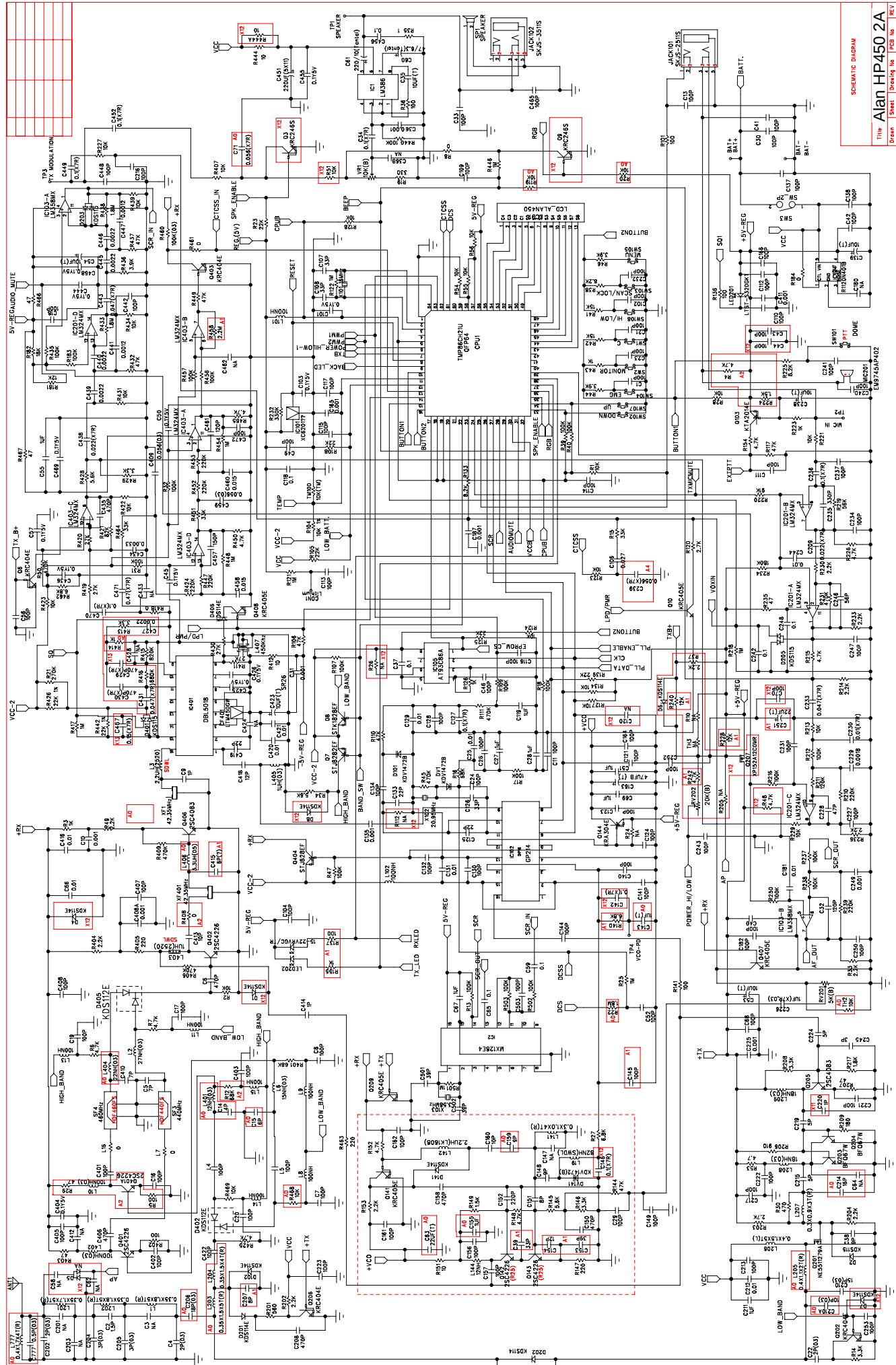








Ref.No	Items	Description	Q'ty	Manufacturer	1st Vendor
Q203	BFQ67W	Transistor Chip	1	Visay	Array
Q204	BFQ67W	Transistor Chip	1	Visay	Array
C2	1.5P	Chip cap 0402 NP0	1	Murata	Asung
C134	100P	Chip cap 0402 NP0	1	Murata	Asung
C24	100P	Chip cap 0402 NP0	1	Murata	Asung
C43	100P	Chip cap 0402 NP0	1	Murata	Asung
C44	100P	Chip cap 0402 NP0	1	Murata	Asung
C70	100P	Chip cap 0402 NP0	1	Murata	Asung
C145	100P	Chip cap 0402 NP0	1	Murata	Asung
C1	100P	Chip cap 0402 NP0	1	Murata	Asung
C102	100P	Chip cap 0402 NP0	1	Murata	Asung
C104	100P	Chip cap 0402 NP0	1	Murata	Asung
C109	100P	Chip cap 0402 NP0	1	Murata	Asung
C11	100P	Chip cap 0402 NP0	1	Murata	Asung
C110	100P	Chip cap 0402 NP0	1	Murata	Asung
C111	100P	Chip cap 0402 NP0	1	Murata	Asung
C112	100P	Chip cap 0402 NP0	1	Murata	Asung
C113	100P	Chip cap 0402 NP0	1	Murata	Asung
C114	100P	Chip cap 0402 NP0	1	Murata	Asung
C115	100P	Chip cap 0402 NP0	1	Murata	Asung
C116	100P	Chip cap 0402 NP0	1	Murata	Asung
C117	100P	Chip cap 0402 NP0	1	Murata	Asung
C121	100P	Chip cap 0402 NP0	1	Murata	Asung
C123	100P	Chip cap 0402 NP0	1	Murata	Asung
C124	100P	Chip cap 0402 NP0	1	Murata	Asung
C128	100P	Chip cap 0402 NP0	1	Murata	Asung
C13	100P	Chip cap 0402 NP0	1	Murata	Asung
C130	100P	Chip cap 0402 NP0	1	Murata	Asung
C132	100P	Chip cap 0402 NP0	1	Murata	Asung
C137	100P	Chip cap 0402 NP0	1	Murata	Asung
C138	100P	Chip cap 0402 NP0	1	Murata	Asung
C141	100P	Chip cap 0402 NP0	1	Murata	Asung
C144	100P	Chip cap 0402 NP0	1	Murata	Asung
C149	100P	Chip cap 0402 NP0	1	Murata	Asung
C156	100P	Chip cap 0402 NP0	1	Murata	Asung
C157	100P	Chip cap 0402 NP0	1	Murata	Asung
C16	100P	Chip cap 0402 NP0	1	Murata	Asung
C161	100P	Chip cap 0402 NP0	1	Murata	Asung
C162	100P	Chip cap 0402 NP0	1	Murata	Asung
C164	100P	Chip cap 0402 NP0	1	Murata	Asung
C166	100P	Chip cap 0402 NP0	1	Murata	Asung
C17	100P	Chip cap 0402 NP0	1	Murata	Asung
C18	100P	Chip cap 0402 NP0	1	Murata	Asung
C182	100P	Chip cap 0402 NP0	1	Murata	Asung
C19	100P	Chip cap 0402 NP0	1	Murata	Asung
C20	100P	Chip cap 0402 NP0	1	Murata	Asung
C21	100P	Chip cap 0402 NP0	1	Murata	Asung
C213	100P	Chip cap 0402 NP0	1	Murata	Asung
C216	100P	Chip cap 0402 NP0	1	Murata	Asung
C217	100P	Chip cap 0402 NP0	1	Murata	Asung
C221	100P	Chip cap 0402 NP0	1	Murata	Asung
C222	100P	Chip cap 0402 NP0	1	Murata	Asung
C223	100P	Chip cap 0402 NP0	1	Murata	Asung
C227	100P	Chip cap 0402 NP0	1	Murata	Asung
C23	100P	Chip cap 0402 NP0	1	Murata	Asung
C231	100P	Chip cap 0402 NP0	1	Murata	Asung
C232	100P	Chip cap 0402 NP0	1	Murata	Asung
C234	100P	Chip cap 0402 NP0	1	Murata	Asung
C237	100P	Chip cap 0402 NP0	1	Murata	Asung
C240	100P	Chip cap 0402 NP0	1	Murata	Asung
C241	100P	Chip cap 0402 NP0	1	Murata	Asung
C243	100P	Chip cap 0402 NP0	1	Murata	Asung
C247	100P	Chip cap 0402 NP0	1	Murata	Asung
C250	100P	Chip cap 0402 NP0	1	Murata	Asung
C252	100P	Chip cap 0402 NP0	1	Murata	Asung
C253	100P	Chip cap 0402 NP0	1	Murata	Asung
C26	100P	Chip cap 0402 NP0	1	Murata	Asung
C29	100P	Chip cap 0402 NP0	1	Murata	Asung
C30	100P	Chip cap 0402 NP0	1	Murata	Asung
C33	100P	Chip cap 0402 NP0	1	Murata	Asung
C40	100P	Chip cap 0402 NP0	1	Murata	Asung
C401	100P	Chip cap 0402 NP0	1	Murata	Asung
C402	100P	Chip cap 0402 NP0	1	Murata	Asung
C403	100P	Chip cap 0402 NP0	1	Murata	Asung
C405	100P	Chip cap 0402 NP0	1	Murata	Asung
C407	100P	Chip cap 0402 NP0	1	Murata	Asung
C408	100P	Chip cap 0402 NP0	1	Murata	Asung
C41	100P	Chip cap 0402 NP0	1	Murata	Asung
C422	100P	Chip cap 0402 NP0	1	Murata	Asung
C442	100P	Chip cap 0402 NP0	1	Murata	Asung
C448	100P	Chip cap 0402 NP0	1	Murata	Asung
C46	100P	Chip cap 0402 NP0	1	Murata	Asung
C465	100P	Chip cap 0402 NP0	1	Murata	Asung
C472	100P	Chip cap 0402 NP0	1	Murata	Asung
C49	100P	Chip cap 0402 NP0	1	Murata	Asung

Ref.No	Items	Description	Q'ty	Manufacturer	1st Vendor
C68	100P	Chip cap 0402 NP0	1	Murata	Asung
C7	100P	Chip cap 0402 NP0	1	Murata	Asung
C8	100P	Chip cap 0402 NP0	1	Murata	Asung
C413	10P	Chip cap 0402 NP0	1	Murata	Asung
C160	10P	Chip cap 0402 NP0	1	Murata	Asung
C32	120P	Chip cap 0402 NP0	1	Murata	Asung
C461	120P	Chip cap 0402 NP0	1	Murata	Asung
C154	12P	Chip cap 0402 NP0	1	Murata	Asung
C418	12P	Chip cap 0402 NP0	1	Murata	Asung
C457	150P	Chip cap 0402 NP0	1	Murata	Asung
C214	16P	Chip cap 0402 NP0	1	Murata	Asung
C133	18P	Chip cap 0402 NP0	1	Murata	Asung
C220	1P	Chip cap 0402 NP0	1	Murata	Asung
C414	1P	Chip cap 0402 NP0	1	Murata	Asung
C9	1P	Chip cap 0402 NP0	1	Murata	Asung
C152	220P	Chip cap 0402 NP0	1	Murata	Asung
C125	22P	Chip cap 0402 NP0	1	Murata	Asung
C419	22P	Chip cap 0402 NP0	1	Murata	Asung
C235	330P	Chip cap 0402 NP0	1	Murata	Asung
C126	33P	Chip cap 0402 NP0	1	Murata	Asung
C39	33P	Chip cap 0402 NP0	1	Murata	Asung
C107	33P	Chip cap 0402 NP0	1	Murata	Asung
C108	33P	Chip cap 0402 NP0	1	Murata	Asung
C153	39P	Chip cap 0402 NP0	1	Murata	Asung
C501	39P	Chip cap 0402 NP0	1	Murata	Asung
C502	39P	Chip cap 0402 NP0	1	Murata	Asung
C245	3P	Chip cap 0402 NP0	1	Murata	Asung
C6	470P	Chip cap 0402 NP0	1	Murata	Asung
C228	47P	Chip cap 0402 NP0	1	Murata	Asung
C14	4P	Chip cap 0402 NP0	1	Murata	Asung
C246	56P	Chip cap 0402 NP0	1	Murata	Asung
C215	5P	Chip cap 0402 NP0	1	Murata	Asung
C219	5P	Chip cap 0402 NP0	1	Murata	Asung
C224	5P	Chip cap 0402 NP0	1	Murata	Asung
C415	6P	Chip cap 0402 NP0	1	Murata	Asung
C15	6P	Chip cap 0402 NP0	1	Murata	Asung
C410	7P	Chip cap 0402 NP0	1	Murata	Asung
C5	7P	Chip cap 0402 NP0	1	Murata	Asung
C151	8P	Chip cap 0402 NP0	1	Murata	Asung
C207	8P	Chip cap 0402 NP0	1	Murata	Asung
C148	9P	Chip cap 0402 NP0	1	Murata	Asung
C159	9P	Chip cap 0402 NP0	1	Murata	Asung
C38	9P	Chip cap 0402 NP0	1	Murata	Asung
C10	0.001	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C417	0.001	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C135	0.001	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C165	0.001	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C187	0.001	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C225	0.001	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C249	0.001	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C31	0.001	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C36	0.001	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C408A	0.001	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C411	0.001	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C441	0.0012	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C447	0.0012	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C229	0.0018	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C427	0.0022	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C439	0.0022	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C440	0.0022	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C445	0.0022	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C446	0.0022	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C434	0.0033	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C129	0.01	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C181	0.01	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C212	0.01	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C230	0.01	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C244	0.01	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C25	0.01	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C416	0.01	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C420	0.01	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C421	0.01	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C66	0.01	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C458	0.015	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C460	0.015	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C106	0.018	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C209	0.022	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C438	0.022	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C431	0.047	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C233	0.047	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C443	0.047	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C71	0.056	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C140	0.056	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C470	0.1(X7R)	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C429	470P	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C430	470P	Chip cap 0402 X7R +/-10%	1	Murata	Asung

Ref.No	Items	Description	Q'ty	Manufacturer	1st Vendor
C150	470P	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C158	470P	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C208	470P	Chip cap 0402 X7R +/-10%	1	Murata	Asung
C34	0,1	Chip cap 0402 Y5V	1	Murata	Asung
C101	0,1	Chip cap 0402 Y5V	1	Murata	Asung
C103	0,1	Chip cap 0402 Y5V	1	Murata	Asung
C118	0,1	Chip cap 0402 Y5V	1	Murata	Asung
C236	0,1	Chip cap 0402 Y5V	1	Murata	Asung
C242	0,1	Chip cap 0402 Y5V	1	Murata	Asung
C248	0,1	Chip cap 0402 Y5V	1	Murata	Asung
C37	0,1	Chip cap 0402 Y5V	1	Murata	Asung
C404	0,1	Chip cap 0402 Y5V	1	Murata	Asung
C425	0,1	Chip cap 0402 Y5V	1	Murata	Asung
C426	0,1	Chip cap 0402 Y5V	1	Murata	Asung
C436	0,1	Chip cap 0402 Y5V	1	Murata	Asung
C444	0,1	Chip cap 0402 Y5V	1	Murata	Asung
C45	0,1	Chip cap 0402 Y5V	1	Murata	Asung
C452	0,1	Chip cap 0402 Y5V	1	Murata	Asung
C455	0,1	Chip cap 0402 Y5V	1	Murata	Asung
C456	0,1	Chip cap 0402 Y5V	1	Murata	Asung
C468	0,1	Chip cap 0402 Y5V	1	Murata	Asung
C469	0,1	Chip cap 0402 Y5V	1	Murata	Asung
C50	0,1	Chip cap 0402 Y5V	1	Murata	Asung
C57	0,1	Chip cap 0402 Y5V	1	Murata	Asung
C59	0,1	Chip cap 0402 Y5V	1	Murata	Asung
C65	0,1	Chip cap 0402 Y5V	1	Murata	Asung
C777	0.5P (03)	Chip cap 0603 NP0	1	Murata	Asung
L4	100P	Chip cap 0603 NP0	1	Murata	Asung
L5	100P	Chip cap 0603 NP0	1	Murata	Asung
C210A	10P(03)	Chip cap 0603 NP0	1	Murata	Asung
C210	15P(03)	Chip cap 0603 NP0	1	Murata	Asung
C206	18P(03)	Chip cap 0603 NP0	1	Murata	Asung
C4	2P(03)	Chip cap 0603 NP0	1	Murata	Asung
C202	2P(03)	Chip cap 0603 NP0	1	Murata	Asung
C204	3P(03)	Chip cap 0603 NP0	1	Murata	Asung
C205	3P(03)	Chip cap 0603 NP0	1	Murata	Asung
C127	0.1(X7R)	Chip cap 0603 X7R	1	Murata	Asung
C239	0.056	Chip cap 0603 X7R +/-10%	1	Murata	Asung
C146	0,1	Chip cap 0603 X7R +/-10%	1	Murata	Asung
C409	0.056(X7R)	Chip cap 0603 X7R +/-10%	1	Murata	Asung
C459	0.056(X7R)	Chip cap 0603 X7R +/-10%	1	Murata	Asung
C449	0.1(X7R)	Chip cap 0603 X7R +/-10%	1	Murata	Asung
C467	0.15(X7R)	Chip cap 0603 X7R +/-10%	1	Murata	Asung
C471	0.47	Chip cap 0603 Y5V	1	Murata	Asung
C155	1UF	Chip cap 0603 Y5V	1	Murata	Asung
C131	1UF	Chip cap 0603 Y5V	1	Murata	Asung
C119	1UF	Chip cap 0603 Y5V	1	Murata	Asung
C211	1UF	Chip cap 0603 Y5V	1	Murata	Asung
C226	1UF	Chip cap 0603 Y5V	1	Murata	Asung
C27	1UF	Chip cap 0603 Y5V	1	Murata	Asung
C28	1UF	Chip cap 0603 Y5V	1	Murata	Asung
C51	1UF	Chip cap 0603 Y5V	1	Murata	Asung
C55	1UF	Chip cap 0603 Y5V	1	Murata	Asung
C67	1UF	Chip cap 0603 Y5V	1	Murata	Asung
C69	1UF	Chip cap 0603 Y5V	1	Murata	Asung
L101	100NH	Inductor Chip 0402	1	Murata	Asung
L102	100NH	Inductor Chip 0402	1	Murata	Asung
L11	100NH	Inductor Chip 0402	1	Murata	Asung
L13	100NH	Inductor Chip 0402	1	Murata	Asung
L14	100NH	Inductor Chip 0402	1	Murata	Asung
L15	100NH	Inductor Chip 0402	1	Murata	Asung
L8	100NH	Inductor Chip 0402	1	Murata	Asung
L9	100NH	Inductor Chip 0402	1	Murata	Asung
L144	12NH	Inductor Chip 0402	1	Murata	Asung
TH2	Thermistor 10K	NCP18XH103J03RB	1	Murata	Asung
TM100	Thermistor 10K	NCP18XH103J03RB	1	Murata	Asung
IC101	XC61CN2402MR	2.4Vdc Detector IC	1	Torex	Bluesky
IC104	Torex	IC 5V Regulator	1	Torex	Bluesky
Q207	XP152A12C0MR	MOS-FET	1	Torex	Bluesky
IC105	AT93C86A	IC EEPROM SOP-A package	1	Atmel	Britestone
IC103	AZ358	IC OP	1	BCD	Britestone
IC1	AZ386M	IC SPK	1	AAC	Britestone
SUB PCB1	PCB (ALAN450 KEY_X2)	2-layer	1	Capital	Capital
PCB1	PCB (ALAN450_A0)	4-layer	1	Capital	Capital
VR1	PKW093VS-1 15F A10K	Volume Switch	1	Philconic	Philconic
IC2	FX128E4	IC Scrambler	1	CML	EIL
C143	0.68uF/16V Tantal	Tental 0.68UF 3.2x1.6 T-A Type 16v	1	Kemet	EIL
C251	10uF/16V Tantal	Tental 10UF 3.2x1.6 T-A Type 16v	1	Kemet	EIL
C35	T491A106K006AT	Tental 10UF 3.2x1.6 T-A Type 6.3v	1	Kemet	EIL
C238	T491A106K006AT	Tental 10UF 3.2x1.6 T-A Type 6.3v	1	Kemet	EIL
C423	T491A106K006AT	Tental 10UF 3.2x1.6 T-A Type 6.3v	1	Kemet	EIL
C54	T491A106K006AT	Tental 10UF 3.2x1.6 T-A Type 6.3v	1	Kemet	EIL
C180	10uF/16V Tantal	Tental 10UF T-B Type 16v	1	Kemet	EIL
C61	T491D227K010AT	Tental 220UF T-D or E Type 10v	1	Kemet	EIL
C63	T491A226K006AT	Tental 22UF 3.2x1.6 T-A Type 6.3v	1	Kemet	EIL
C163	T491B476K010AT	Tental 47UF T-B Type 10v	1	Kemet	EIL

Ref.No	Items	Description	Q'ty	Manufacturer	1st Vendor
C60	T491B476K010AT	Tental 47UF T-B Type 10V	1	Kemet	EIL
L402	100NH	Inductor Chip 0603	1	Ceratec	Englory
L401	12NH	Inductor Chip 0603	1	Ceratec	Englory
L6	15NH	Inductor Chip 0603	1	Ceratec	Englory
L208	18NH(03)	Inductor Chip 0603	1	Ceratec	Englory
L209	18NH(03)	Inductor Chip 0603	1	Ceratec	Englory
L405	1UH(03)	Inductor Chip 0603	1	Ceratec	Englory
L404	22NH	Inductor Chip 0603	1	Ceratec	Englory
L2	27NH	Inductor Chip 0603	1	Ceratec	Englory
L407	CF450KHz	450KHz IFT 5mm	1	Fine	Fine
L204	0.35X1.5X4T(R)	Inductor Air	1	Fine	Fine
L203	0.35X1.5X5T(R)	Inductor Air	1	Fine	Fine
L201	0.35X1.7X5T(R)	Inductor Air	1	Fine	Fine
L1	0.35X1.8X5T(R)	Inductor Air	1	Fine	Fine
L202	0.35X1.8X5T(R)	Inductor Air	1	Fine	Fine
L207	0.3X0.9X3T(R)	Inductor Air	1	Fine	Fine
L141	0.3X1.0X4T(R)	Inductor Air	1	Fine	Fine
L205	0.4X1.0X2T(R)	Inductor Air	1	Fine	Fine
L206	0.4X1.5X5T(L)	Inductor Air	1	Fine	Fine
L777	0.4X1.7X4T(R)	Inductor Air	1	Fine	Fine
CPU1	JT5BL9 (Die type MTP)	Die form CPU (Same with LXT420)	1	Toshiba	GL
Q201	NE5511279A	FET PA	1	NEC	GL
IC201	S324	IC OP	1	AUK	GL
IC403	S324	IC OP	1	AUK	GL
IC102	GP214D	IC PLL	1	bitlogic	GL
Q404	STJ828EF	MOS-FET	1	AUK	GL
Q7	STJ828EF	MOS-FET	1	AUK	GL
Q8	STK1828EF	MOS-FET	1	AUK	GL
Q401A	2SC4226 (R25)	Transistor Chip	1	NEC	GL
Q142	2SC4226 (R25)	Transistor Chip	1	NEC	GL
Q143	2SC4226 (R25)	Transistor Chip	1	NEC	GL
Q401	2SC4226 (R25)	Transistor Chip	1	NEC	GL
Q402	2SC4226 (R25)	Transistor Chip	1	NEC	GL
LED201	12-21SYGC/TR8	LED Chip (super bright)	1	Hualight	Hualight
LED202	15-22VRVGC/TR	LED Dual	1	Hualight	Hualight
MIC201	C-MIC	EM9745AP402	1	Innovation	Innovation
X103	3.58MHz	Ceramic Resonator SMT (117-ZTA3.58MGF)	1	Interquip	interquip
X101	16MHz X-Tal 49/S	X-TAL 49/S (7C16000182AIAF40Q5)	1	Interquip	Interquip
XF1	42.35MHz X-Tal Filter	X-TAL Filter UM-5	1	Interquip	Interquip
XF401	42.35MHz X-Tal Filter	X-TAL Filter UM-5	1	Interquip	Interquip
Q3	KRC246S	CHIP TRANSISTOR BRT	1	KEC	KEC
Q9	KRC246S	CHIP TRANSISTOR BRT	1	KEC	KEC
D202	KDS114	Diode Chip	1	KEC	KEC
D3	KDS114	Diode Chip	1	KEC	KEC
D1	KDS114E	Diode Chip	1	KEC	KEC
D4	KDS114E	Diode Chip	1	KEC	KEC
D7	KDS114E	Diode Chip	1	KEC	KEC
D8	KDS114E	Diode Chip	1	KEC	KEC
D6	KDS114E	Diode Chip	1	KEC	KEC
D102	KDS114E	Diode Chip	1	KEC	KEC
D141	KDS114E	Diode Chip	1	KEC	KEC
D201	KDS114E	Diode Chip	1	KEC	KEC
D406	KDS114E	Diode Chip	1	KEC	KEC
D2	KDS115 (USM)	Diode Chip	1	KEC	KEC
D203	KDS115 (USM)	Diode Chip	1	KEC	KEC
D205	KDS115 (USM)	Diode Chip	1	KEC	KEC
D401	KDS115 (USM)	Diode Chip	1	KEC	KEC
D101	KDV1472 (Grade B)	Diode Chip	1	KEC	KEC
DV1	KDV1472 (Grade B)	Diode Chip	1	KEC	KEC
DV141	KDV1472 (Grade B)	Diode Chip	1	KEC	KEC
D402	KDS112E	Diode SW	1	KEC	KEC
D405	KDS112E	Diode SW	1	KEC	KEC
Q144	KRA304E	Transistor Chip	1	KEC	KEC
Q202	KRC404E	Transistor Chip	1	KEC	KEC
Q206	KRC404E	Transistor Chip	1	KEC	KEC
Q403	KRC404E	Transistor Chip	1	KEC	KEC
Q6	KRC404E	Transistor Chip	1	KEC	KEC
Q408	KRC405E	Transistor Chip	1	KEC	KEC
Q10	KRC405E	Transistor Chip	1	KEC	KEC
Q141	KRC405E	Transistor Chip	1	KEC	KEC
Q209	KRC405E	Transistor Chip	1	KEC	KEC
Q407	KRC405E	Transistor Chip	1	KEC	KEC
Q103	KTA2014E	Transistor Chip	1	KEC	KEC
C451	220/10(5X11)	Capacitor Elect	1	Koshin	Koshin
SP1	Speaker 12ohm		1	MIC	MIC
JACK101	HSJ1468-01-0109 (Rohs)	Stereo Jack	1	Hosiden	MRT
RV201	10K(B)	Semifixed Resistor 3dia	1	Noble	Noble
RV203	1M(B)	Semifixed Resistor 3dia	1	Noble	Noble
RV202	20K(B)	Semifixed Resistor 3dia	1	Noble	Noble
IC1	CHMC D5018	IC IF	1	Richcreative	Richcreative
Q205	2SC4083	Transistor Chip	1	Rohm	Rohm
Q406	2SC4083	Transistor Chip	1	Rohm	Rohm
R104	10K 1%	Resistor Chip 0402 +/-1%	1	Samsung	Samsung
R426	22K 1%	Resistor Chip 0402 +/-1%	1	Samsung	Samsung
R447	22K 1%	Resistor Chip 0402 +/-1%	1	Samsung	Samsung

Ref.No		Items	Description	Q'ty	Manufacturer	1st Vendor
R408		0	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R461		0	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R35		1	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R888		4.7	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R889		4.7	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R53		4.7	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R444A		10	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R151		10	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R412		10	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R444		10	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R207		47	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R403		47	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R29		47	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R235		47	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R466		47	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R467		47	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R136		100	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R36		100	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R5		100	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R101		100	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R137		100	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R141		100	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R402		100	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R209		180	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R147		220	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R405		220	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R463		220	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R19		330	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R201		560	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R30		680	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R206		910	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R25		1.2M	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R224		1.5K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R149		1.5K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R22		1.5M	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R217		1.8K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R433		1.8M	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R438		1.8M	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R238		100K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R228		100K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R107		100K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R109		100K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R13		100K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R17		100K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R18		100K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R183		100K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R212		100K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R216		100K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R237		100K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R250		100K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R31		100K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R32		100K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R39		100K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R40		100K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R435		100K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R440		100K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R456		100K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R457		100K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R47		100K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R502		100K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R503		100K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R407		10K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R51		10K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R468		10K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R469		10K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R20		10K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R1		10K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R123		10K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R124		10K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R127		10K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R134		10K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R2		10K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R213		10K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R221		10K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R227		10K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R229		10K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R28		10K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R422		10K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R423		10K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R431		10K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R434		10K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R439		10K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R54		10K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R55		10K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R56		10K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R211		120K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung

Ref.No	Items	Description	Q'ty	Manufacturer	1st Vendor
R42	15K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R234	180K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R182	18K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R126	1K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R414	1K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R155	1K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R223	1K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R3	1K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R43	1K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R121	1M	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R122	1M	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R218	1M	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R417	1M	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R446	1M	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R448	1M	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R454	1M	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R501	1M	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R37	2.2K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R49	2.2K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R128	2.2K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R153	2.2K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R202	2.2K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R214	2.2K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R230	2.2K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R233	2.2K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R236	2.2K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R33	2.2K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R404	2.2K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R458	2.2M	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R204	2.4K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R203	2.7K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R120	2.7K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R239	220K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R210	220K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R424	220K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R447	220K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R452	220K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R453	220K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R23	22K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R105	22K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R108	22K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R125	22K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R139	22K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R21	270K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R411	27K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R419	27K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R420	27K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R430	27K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R429	3.3K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R208	3.3K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R413	3.3K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R14	3.3K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R146	3.3K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R436	3.9K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R44	3.9K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R46	3.9K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R232	330K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R240	33K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R451	33K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R464	33K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R215	4.7K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R4	4.7K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R48	4.7K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R6	4.7K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R7	4.7K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R242	4.7K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R148	4.7K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R152	4.7K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R154	4.7K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R226	4.7K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R425	4.7K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R450	4.7K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R465	4.7K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R111	470K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R231	470K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R406	470K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R409	470K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R45	470K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R50	470K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R144	47K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R106	47K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R110	47K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R117	47K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R432	47K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R437	47K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R449	47K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung

Ref.No	Items	Description	Q'ty	Manufacturer	1st Vendor
R15A	56K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R219	56K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R27	6.8K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R140	6.8K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R462	6.8K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R416	680K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R16	68K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R12	68K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R15	68K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R401	68K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R133	8.2K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R119	8.2K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R225	8.2K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R38	8.2K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R415	820K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R421	82K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
R220	91K	Resistor Chip 0402 +/-5%	1	Samsung	Samsung
L16	0	Resistor Chip 0603 +/-5%	1	Samsung	Samsung
L7	0	Resistor Chip 0603 +/-5%	1	Samsung	Samsung
R460	100K(0603)	Resistor Chip 0603 +/-5%	1	Samsung	Samsung
LCD1	KPS-M0951-HQ-0	LCD ALAN450 (STN)	1	Smartgood	Smartgood
L19	SDWL1608C82NJT(f)	0603 SDWL Wirewound Chip inductor 82NH	1	Sunlord	Sunlord
L406	SDFL2012Q3R3K	2012 Ferrite Chip inductor 3.3uH 10%	1	Sunlord	Sunlord
L403	SDWL2520C1R0JT(f)	2520 SDWL Wirewound Chip inductor 1uH	1	Sunlord	Sunlord
L3	SDWL2520C2R2JT(f)	2520 SDWL Wirewound Chip inductor 2.2uH	1	Sunlord	Sunlord
L10	100NH	Inductor Chip 0603	1	Sunlord	Sunlord
L142	2.2UH(03)	Inductor Chip 0603	1	Sunlord	Sunlord
CF401	LTM450GW	Ceramic filter LTM450GW	1	Shoulder	YEL
SF3	440MHz	SAW Filter Semi-SMT	1	Shoulder	YEL
SF4	460MHz	SAW Filter Semi-SMT	1	Shoulder	YEL
X102	20.95MHZ X-tal 2.5ppm 49ATS	R49SDA-020950-FA-16F "A" Grade/"B" Grade	1	Yokotan	Yokotan
C433	N/A				
C450	N/A				
R441	N/A				
C120	N/A				
C147	N/A				
C58	N/A				
C62	N/A				
D5	N/A				
L18	N/A				
R10	N/A				
R112	N/A				
R205	N/A				
R26	N/A				
C64	N/A				
L143	N/A				
D403	N/A				
D404	N/A				
L12	N/A				
R11	N/A				
R9	N/A				
C12	N/A				
C432	N/A				
C47	N/A				
C48	N/A				
R24	N/A				
SF1	N/A				
SF2	N/A				
C142	N/A				
R184	N/A				
C42	N/A				
C22	N/A				
R25A	N/A				

2. HP450 Mechanical BOM

	SHIELD PLATE for VCO can	SPTPE t0.2	1		Bonso
	SCREW	(BH)M2.0 x 5 (Pitch 0.4) SUS(BLACK)	4		Bonso - Gold
	SCREW	(PH)M2.0 x 5 (Pitch 0.4)	8		Bonso - Gold
	E- RING	DIA 1.5	1		Bonso - XCT
GXT300-022	Shaft (Pin) for belt Clip	SPCC	1		Bonso - XCT
	SCREW	(BH)M2.6 x 7 (Pitch 0.45) SUS(BLACK)	1		Bonso - yijing
450-057	TAPE VOLUME	Nitto #5713(t0.33)	1		Chengda
450-049	WASHER SCREW(M2.0)	PC t0.3 (Clack)	3		Chengda
450-050	WASHER SCREW(M2.6)	PC t0.5 (Clack) Soft	2		Chengda
450-048	CUSHION MAIN FRAME	PORON t1.0(SR-S-40P)+Nitto #500	1		Chengda
450-047	DUST CUSHION (LCD)	PORON t1.0(SR-S-40P)+Nitto #500	1		Chengda
	SCREW	(WASHER HEAD DIA 7.0) M2.6 x 8(Pitch 0.45) SUS	2		Chengxinhang
450-036V	ANTENNA	URETHAN+BsBM(Ni PLATE)	1		Fine
450-059	Thermal conductive pad/tape for MAIN FRAME	3M TAPE #9894FR t1.0	1	Khan	GL
450-027	HOME SWITCH(KEY PCB)	4 Points Dome switch 8.0 x 55.5	1	Khan	GL
450-041	HOME SWITCH FUNCTION BUTTON	5 Points Dome switch 37.5 x 19.5	1	Khan	GL
450-042	ANTENNA SPACER	ACETAL(WHITE)	1	Jl tech	GL
450-026	BATTERY TERMINAL(MAIN PCB)	BsBM (GOLD PLATE)	3	Jl tech	GL
GXT300-012	SK-5	D-spring	1	Whain	GL
450-058	GASKET AIR VENT	EP 500 1000(SUMITOMO) 1.3M TAPE	1	Khan	GL

Ref.No	Items	Description	Q'ty	Manufacturer	1st Vendor
G5-032-1	ITALY Warranty card	Wood free paper (No need for UK/Germany shipment)	1		Hung chow
Alan777-032-UK	Warranty card UK	Wood free paper (No need for Germany shipment)	1		Hung chow
	Declaration of conformity(ALAN HP450)		1		Hung chow
	Waste Disposal Instruction inset CARD		1		Hung chow
450-005	COVER SPK/MIC JACK	ABS:Pantone BLACK	1		KWANFUNG
450-006	VOLUME KNOB	ABS:Pantone BLACK	1		KWANFUNG
450-010	LCD BACK LIGHT LENS	ACRYL	1		KWANFUNG
450-011	LCD WINDOW	ACRYL	1		KWANFUNG
450-008A	BELT CLIP(ALAN)	PC:Pantone BLACK	1		KWANFUNG
450-009	HINGE BELT CLIP	PC:Pantone BLACK	1		KWANFUNG
450-004	PTT HOUSING	PC:Pantone BLACK	1		KWANFUNG
450-001	FRONT COVER	PC:Pantone BLACK + Insert 2pcs	1		KWANFUNG
450-044	ANTENNA GROUND RING	BsBM (Ni PLATE)	1		Lead Century
450-024	ANTENNA NUT	BsBM (Ni PLATE)	1		Lead Century
450-023	VOLUME NUT	BsBM (Ni PLATE)	1		Lead Century
450-025	ANTENNA CONNECTOR	BsBM (Ni PLATE) + ACETAL	1		Lead Century
450-032	ANTENNA BRACKET	SPT 0.5t	1		Lead Century
450-031	LCD BRACKET	SPT 0.5t	1		Lead Century
450-039	VCO CAN	SPT 0.2	1		Lead Century
GXT300-021	Spring for BELT CLIP	SUS 304 DIA1.0	1		Lead Century
450-033	BRACKET SPK/MIC JACK	SUS t0.3 (1H)	1		Lead Century
450-056	VOLUME BRACKET	SUS t0.4 (1/2H)	1		Lead Century
450-055	POP LABEL	3M SCOTCH BRAND No. 4187 CLEAR TAPE	1		Longxiang
	FELT	felt DIA 32.3mm (SPEAKER DIA 36.0)	1		Longxiang
450-029	REFLECTIVE SHEET LCD	PE White 0.1t	1		Longxiang
450-070	Warranty card Spanish	Wood free paper (No need for UK/Germany)	1		Longxiang
450-051	TAPE PTT BUTTON	YOUNGWO #156A (t0.11)	1		Longxiang
	Manual(ALAN HP450)		1		Longxiang
450-035	MAIN FRAME	AL	1		Midland
450-028A	PRODUCT LABEL(ALAN)	POLYESTER 0.15t	1		renmei
450-046A	NAME PLATE(ALAN)	PC CLEAR t0.3(EMBOSS)+Nitto #500	1		Risings
450-022	CAP LOCKING	NBR / Pantone Black	1		Tehsheng
450-019	LED LENS	Silicone Rubber / CLEAR	1		Tehsheng
450-018	GASKET MAIN	Silicone Rubber / Pantone 164C(RED)	1		Tehsheng
450-020	GASKET VOLUME	Silicone Rubber / Pantone 164C(RED)	1		Tehsheng
450-040	MIC CUSHION	Silicone Rubber / Pantone 164C(RED)	1		Tehsheng
450-015	FUNCTION BUTTONS	Silicone Rubber / Pantone Black	1		Tehsheng
450-017	GASKET SPK/MIC JACK	Silicone Rubber / Pantone Black	1		Tehsheng
450-021	GASKET TERMINAL(UNIT)	Silicone Rubber / Pantone Black	1		Tehsheng
450-016	PTT BUTTON	Silicone Rubber / Pantone Black	1		Tehsheng
GXM1-045	PE, 300 x 105 x 0.05t(04 in the RECYCLE SYMBOL)	Ploy Bag for unit	1		xiangpeng
450-037	ZEBRA	18.8 x 5.0 x t1.0	1		Youel
450-090	EVA Gift Box	EVA(gift box) + Clamshell Tray	1		Yujin
	Cushion Speaker BKS	Dia. 15.0 x 1.5t	1		CCT
PLOYBAG 80 200	Ploy Bag for BATTERY PACK	PE, 80 x 200 x 0.05t(04 in the RECYCLE SYMBOL)	1		xiongpeng

3. RC450 (Alan450 Charger) BOM

RC450 (ALAN HP450 CHARGER)					
C1	100P	Chip Capacitor 0603 NPO	1	Murata	Asung
C16	100P	Chip Capacitor 0603 NPO	1	Murata	Asung
C17	100P	Chip Capacitor 0603 NPO	1	Murata	Asung
C10	0.1	Chip Capacitor 0603 Y5V	1	Murata	Asung
C11	0.1	Chip Capacitor 0603 Y5V	1	Murata	Asung
C12	0.1	Chip Capacitor 0603 Y5V	1	Murata	Asung
C13	0.1	Chip Capacitor 0603 Y5V	1	Murata	Asung
C14	0.1	Chip Capacitor 0603 Y5V	1	Murata	Asung
C18	0.1	Chip Capacitor 0603 Y5V	1	Murata	Asung
C6	0.1	Chip Capacitor 0603 Y5V	1	Murata	Asung
C8	0.1	Chip Capacitor 0603 Y5V	1	Murata	Asung
C9	0.1	Chip Capacitor 0603 Y5V	1	Murata	Asung
IC2	XC61CN2402MR	2.4Vdc Detector IC	1	Torex	Bluesky
IC1	XC6201P402MR	IC Regulator 4V	1	Torex	Bluesky
PCB	ALAN450_DTC_X6	FR4 2 Layer 1.0T	1	Capital	Capital
CPU1	JT5BU8-XXXX / Flash No. - JT5BL9	IC CPU	1	Toshiba	GL
Q3	KRC405E	Chip transistor BRT	1	KEC	KEC
Q4	KRC405E	Chip transistor BRT	1	KEC	KEC
Q1	KTb1151Y		1	KEC	KEC
Q2	KTb1151Y		1	KEC	KEC
C15	220/10(5X9)	Electrolytic Capacitor	1	Koshin	Koshin
C3	220/10(5X9)	Electrolytic Capacitor	1	Koshin	Koshin
C4	220/10(5X9)	Electrolytic Capacitor	1	Koshin	Koshin
C5	47/10(5X9)	Electrolytic Capacitor	1	Koshin	Koshin
C7	47/10(5X9)	Electrolytic Capacitor	1	Koshin	Koshin
C2	470/16(8X12)	Electrolytic Capacitor	1	Koshin	Koshin
JACK1	DC JACK	5.5mm DC Jack	1	Lead century	Lead century
RV1	1K(B)	Semifixed Resistor 3dia	1	Noble	Noble
R11	100K 1%	Chip Resistor 0603 1%	1	Samsung	open
R13	100K 1%	Chip Resistor 0603 1%	1	Samsung	open
R15	100K 1%	Chip Resistor 0603 1%	1	Samsung	open
R17	100K 1%	Chip Resistor 0603 1%	1	Samsung	open
R3	100K 1%	Chip Resistor 0603 1%	1	Samsung	open

Ref.No	Items	Description	Q'ty	Manufacturer	1st Vendor
R14	22K 1%	Chip Resistor 0603 1%	1	Samsung	open
R16	22K 1%	Chip Resistor 0603 1%	1	Samsung	open
R18	22K 1%	Chip Resistor 0603 1%	1	Samsung	open
R4	22K 1%	Chip Resistor 0603 1%	1	Samsung	open
R6	22K 1%	Chip Resistor 0603 1%	1	Samsung	open
R8	22K 1%	Chip Resistor 0603 1%	1	Samsung	open
R19	470	Chip Resistor 0603 5%	1	Samsung	open
R20	470	Chip Resistor 0603 5%	1	Samsung	open
R10	100K	Chip Resistor 0603 5%	1	Samsung	open
R21	100K	Chip Resistor 0603 5%	1	Samsung	open
R22	100K	Chip Resistor 0603 5%	1	Samsung	open
R23	100K	Chip Resistor 0603 5%	1	Samsung	open
R25	100K	Chip Resistor 0603 5%	1	Samsung	open
R9	100K	Chip Resistor 0603 5%	1	Samsung	open
R26	1K	Chip Resistor 0603 5%	1	Samsung	open
R27	1K	Chip Resistor 0603 5%	1	Samsung	open
R28	1K	Chip Resistor 0603 5%	1	Samsung	open
R29	1K	Chip Resistor 0603 5%	1	Samsung	open
R30	1M	Chip Resistor 0603 5%	1	Samsung	open
R24	4.7K	Chip Resistor 0603 5%	1	Samsung	open
R31	4.7K	Chip Resistor 0603 5%	1	Samsung	open
450C-002	BOTTOM COVER(CHARGER)	ABS:Pantone BLACK	1	Philconic	Philconic
450C-001	TOP COVER(CHARGER)	ABS:Pantone BLACK	1	Philconic	Philconic
450C-004	CHARGER TERMINAL	SUS t0.3 (1H)-Ni PLATE	8	Lead century	Lead century
450C-005	PRODUCT LABEL DESK TOP CHARGER	POLYESTER t0.15	1	renmei	renmei
X1	4 MHz X-tal 49ATS	R49SDA-004000-FA-16-30A	1	Yoketan	Yoketan
D1	1N4004	Axial Rectifier Diode	1		
D2	1N4004	Axial Rectifier Diode	1		
D3	1N4004	Axial Rectifier Diode	1		
D4	1N4004	Axial Rectifier Diode	1		
D5	1N4004	Axial Rectifier Diode	1		
D6	1N4004	Axial Rectifier Diode	1		
R1	0.5 2W	Axial Resistor +/-5% 2W	1		
R2	0.5 2W	Axial Resistor +/-5% 2W	1		
450C-003A	LENS CHARGER INDICATOR(ALAN)	PC CLEAR t0.3(EMBOSS)+Nitto #500	1		
	Screw(2.6 x 8)	Screw	4		
LED1	Dual LED Common Anode		1		
LED2	Dual LED Common Anode		1		
	FOOT		4		

4. Swivel Holster ass'y

ALAN HP450 Swivel Holster ass'y					
450-008A	BELT CLIP(ALAN)	PC:Pantone BLACK	1		Bonso
	ø1.5	E-ring	1		Bonso - XCT
GXT300-022	Shaft (Pin) for belt Clip	SPCC	1		Bonso - XCT
	Screw	FH T2.0 x 6.0 SUS	3		Chengxinhang
BR777-053	Cover for hinge (BR777)	ABS, Black	1		KWANFUNG
Alan450HST-052	Hinge for Alan HP450	PC, Black	1		KWANFUNG
Alan450HST-050	Holster for Alan HP450	PC, Black	1		KWANFUNG
BR777-056	Locker Pin for belt clip (BR777)	BSBM, Ni-plate	1		Lead Century
BR777-055	Coil Spring for belt clip (BR777)	SUS 304 Dia 0.5mm	1		Lead Century
GXT300-021	Spring for BELT CLIP	SUS 304 DIA1.0	1		Lead Century

5. Sub material

	*Silicone GREASE (SHIN-ETSU)		1		Bonso
	*Silicone 1 COMPONENT RTV (SHIN-ETSU)		1		Bonso

6. BP4511 (1100mAh)

BP4511 (Ni-MH Battery Pack : 1100mAh)					
	Ni-MH Battery(1100mAh) w/ protection circuit	6 pcs	1		Grawpow
450-058	GASKET AIR VENT	FP-500-1000(SUMITOMO) + 3M TAPE	1	Khan	GL
450-007	BUTTON BATTERY	ACETAL:Pantone BLACK	1		Kwanfung
450-003	FRONT BATTERY COVER	PC:Pantone BLACK	1		Kwanfung
450-002N	REAR BATTERY COVER (SMALL)	PC:Pantone BLACK	1		Kwanfung
450-012	TERMINAL CHARGE(BATTERY PACK)	BsBM (GOLD PLATE)	6		Lead Century
450-034	BATTERY HOLDER	SUS t0.4(1H)	1		Lead Century
450-014	TAPE FRONT BATTERY	3M #F-9469 PC(t0.13)	1		Longxiang
450-013	TAPE REAR BATTERY	3M #F-9469 PC(t0.13)	1		Longxiang
450-054AN	BATTERY LABEL (ALAN Ni-MH 1100mAh)	POLYESTER t0.15	1		Ren mei
P/N:9999-006000-00	White Wire	LEAD WIRE WHITE 60M/M UL1007 AWG26	1		Bonso
P/N:9999-006033-00	Blk Wire	LEAD WIRE BLACK 60M/M UL1007 AWG26	1		Bonso
450-060	DATE CODE LABEL	POLYESTER t0.15	1		Bonso
450-BPCB	PCB BATTERY PACK	FR-4 t0.6	2		Bonso

7. EVA gift box for 1100mAh

450-092N	SLEEVE	PP t0.5 , Transparent(Milky)	1		
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8. BP4522 (2200mAh)

BP4522 (Li-ion Battery Pack : 2200mAh)					
450-007	BUTTON BATTERY	ACETAL:Pantone BLACK	1		Kwanfung
450-003	FRONT BATTERY COVER	PC:Pantone BLACK	1		Kwanfung

Ref.No	Items	Description	Q'ty	Manufacturer	1st Vendor
450-012	TERMINAL CHARGE(BATTERY PACK)	BsBM (GOLD PLATE)	6		Lead Century
450-034	BATTERY HOLDER	SUS t0.4(1H)	1		Lead Century
450-054AL	BATTERY LABEL (ALAN Li-ion 2000mAh)	POLYESTER t0.15	1		Renmei
450-014	TAPE FRONT BATTERY	3M #F-9469 PC(t0.13)	1		Longxiang
450-013	TAPE REAR BATTERY	3M #F-9469 PC(t0.13)	1		Longxiang
450-BPCB	PCB BATTERY PACK	FR-4 t0.6	2		
	Li-ion Battery (2200mAh) w/ protection circuit	2 pcs	1	JM Tech	GL
P/N:9999-006000-00	White Wire	LEAD WIRE WHITE 60M/M UL1007 AWG24	1		Bonso
P/N:9990-006033-00	Blk Wire	LEAD WIRE BLACK 60M/M UL1007 AWG24	1		Bonso
450-060	DATE CODE LABEL	POLYESTER t0.15	1		Bonso
			1		

9. EVA gift box for 2200mAh					
450-092L	SLEEVE	PP t0.5 , Transparent(Milky)	1		

Consiged item for Alan450

	Adaptor (R04832-VE)	10V/ 3000mA (S036BP0950300)	1		Tenpao
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Accessory BOM

BP4511 (Ni-MH Battery 1100mAh in a box)

	BP4511	BP4511 (Ni-MH Battery Pack : 1100mAh)	1		Bonso - Grepow
BP4511-003	Out carton Box For Battery pack (Stamping)	DW1(7.0t)	0,02		Hungchow
450BA-001	GIFT BOX for Battery pack	SW1(2.0t) with White artpaper	1		Hungchow
450BA-054AN	LABEL for GIFT BOX of Battery pack(Ni-MH)	Wood Free Paper (BP4511)	1		Renmei
PLOYBAG 80 200	Ploy Bag for BATTERY PACK	PE, 80 x 200 x 0.05t(04 in the RECYCLE SYMBOL	1		xiongpeng

BP4522 (Li-ion Battery 2200mAh in a box)

BP4511-003	Out carton Box For Battery pack (Stamping)	DW1(7.0t)	0,02		Hungchow
450BA-001	GIFT BOX for Battery pack	SW1(2.0t) with White artpaper	1		Hungchow
	BP4522	Li-ion Battery Pack : 2200mAh	1	JM Tech	Bonso - GL
450BA-054AL	LABEL for GIFT BOX of Battery pack(Li-ion)	Wood Free Paper (BP4522)	1		Renmei
PLOYBAG 80 200	Ploy Bag for BATTERY PACK	PE, 80 x 200 x 0.05t(04 in the RECYCLE SYMBOL	1		xiongpeng

RC450 (ALAN HP450 CHARGER - Product label must be 450C-005S instead of 450C-005)

	RC450	Alan450 Charger	1		Bonso
RC450-003	Outer carton Box	DW1(7.0t)	0,05		hungchow
RC450-001	GIFT BOX for Charger	SW1(2.0t) with White artpaper	1		hungchow
	Manual(RC450)		1		hungchow
PLOYBAG150 300	Ploy Bag for charger	PE, 150 x 300 x 0.05t(04 in the RECYCLE SYMBOL	1		

Consiged item for Alan450

	Adaptor (R04832-VE)	10V/ 3000mA (S036BP0950300)	1		Tenpao
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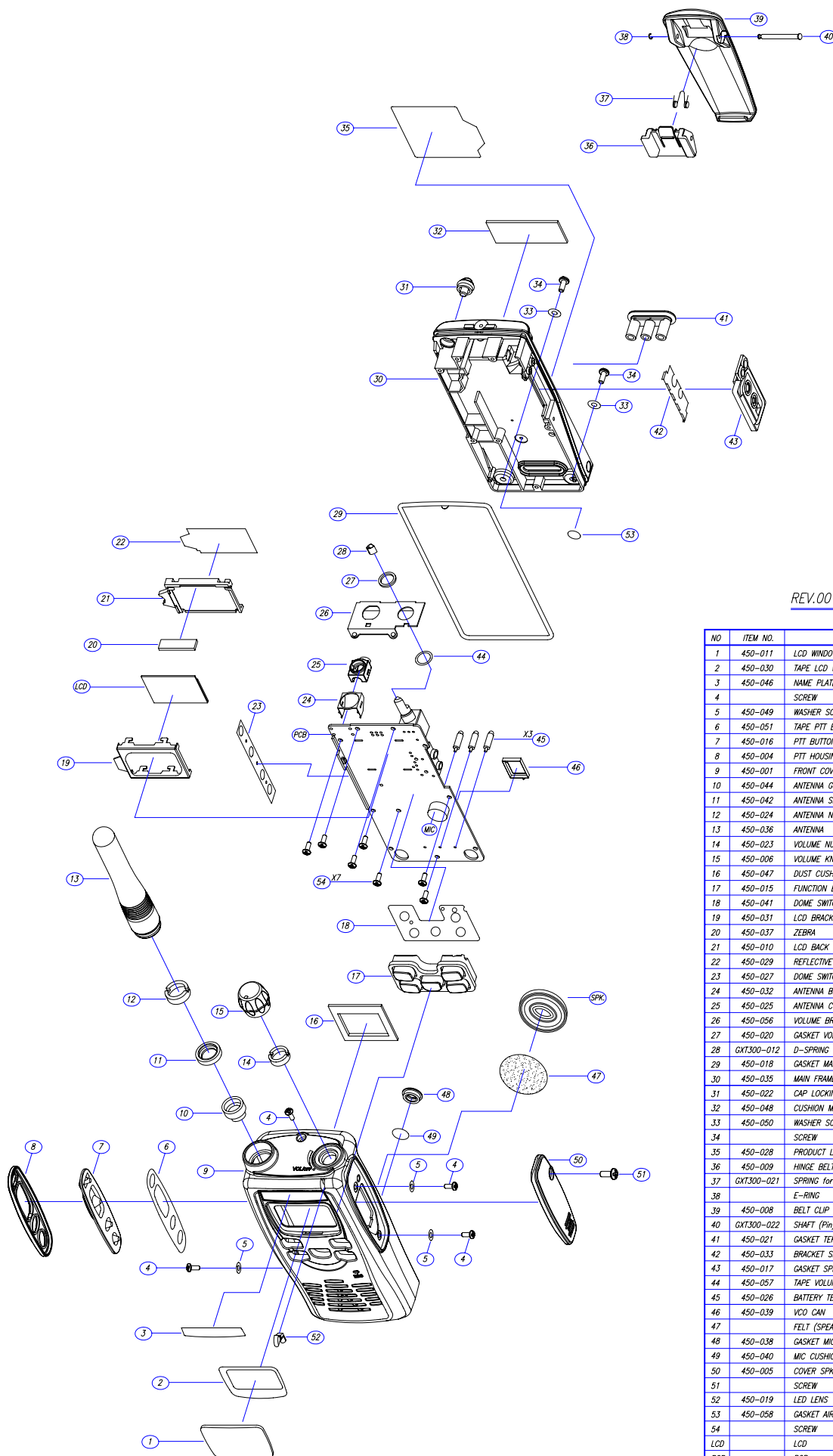
PRG450 (ALAN HP450 PROGRAM KIT)

C1	27P	Capacitor Chip NP0 0603	1	Murata	Asung
C15	10UF(Tantal)	10UF/6.3V 3.2x1.6 T-A Type	1	Kemet	EIL
C2	27P	Capacitor Chip NP0 0603	1	Murata	Asung
C3	0.033	Capacitor Chip X7R 0603	1	Murata	Asung
C4	0.1(X7R)	Capacitor Chip X7R 0603	1	Murata	Asung
C5	0.1(X7R)	Capacitor Chip X7R 0603	1	Murata	Asung
C6	0.1(X7R)	Capacitor Chip X7R 0603	1	Murata	Asung
C7	0.1(X7R)	Capacitor Chip X7R 0603	1	Murata	Asung
C8	0.1(X7R)	Capacitor Chip X7R 0603	1	Murata	Asung
C9	0.1(X7R)	Capacitor Chip X7R 0603	1	Murata	Asung
IC1	FT232BL	USB UART (USB Serial) IC	1		
L1	10UH(05)	Inductor Chip 0805	1	Sunlord	Sunlord
Q1	KRC404E	Transistor Chip	1	KEC	KEC
Q2	KRA304E	Transistor Chip	1	KEC	KEC
R1	1M(03)	Resistor Chip 0603 +/-5%	1	Philcomp	Proan
R2	22(03)	Resistor Chip 0603 +/-5%	1	Philcomp	Proan
R3	22(03)	Resistor Chip 0603 +/-5%	1	Philcomp	Proan
R4	1.5K(03)	Resistor Chip 0603 +/-5%	1	Philcomp	Proan
R5	470(03)	Resistor Chip 0603 +/-5%	1	Philcomp	Proan
R6	10K(03)	Resistor Chip 0603 +/-5%	1	Philcomp	Proan
R9	10K(03)	Resistor Chip 0603 +/-5%	1	Philcomp	Proan
X1	6MHz Xtal		1	Yoketan	Yoketan
	USB A Male Connector(AM B43-02)		1		
	Program CD	Installation CD	1		
	Program CD Envelope		1		

Ref.No	Items	Description	Q'ty	Manufacturer	1st Vendor
	Manual(PRG450)		1		hungchow
450PK-002	PROGRAM KIT BOTTOM COVER	ABS:Pantone BLACK	1		KWANFUNG
450PK-001	PROGRAM KIT TOP COVER	ABS:Pantone BLACK	1		KWANFUNG
PRG450-054A	LABEL for Program Kit	Wood Free Paper (PRG450)	1		renmei
PLOYBAG 80 200	Ploy Bag for BATTERY PACK	PE, 80 x 200 x 0.05t(04 in the RECYCLE SYMBOL	1		xiongpeng
PCB	USB_PCProg_X1	4-layer	1		Capital
	Screw BH T2.0 x 7 (Ni plate)	Screw	2		
	PROGRAM KIT Wire Ass'y		1		

ALAN HP450 2A EXPLODED VIEW

(2006. 07. 21.)



REV.00 (ISSUED Jun. 30, 2006)

NO	ITEM NO.	DESCRIPTION	Q'TY	REV.	REMARK
1	450-011	LCD WINDOW	1		
2	450-030	TAPE LCD WINDOW	1		
3	450-046	NAME PLATE	1		
4		SCREW	4		(B)(M2.0X5)(pitch:0.4)SUS(Black)
5	450-049	WASHER SCREW (M2.0)	3		PC 10.3 (Black)
6	450-051	TAPE PTT BUTTON	1		
7	450-016	PTT BUTTON	1		
8	450-004	PTT HOUSING	1		
9	450-001	FRONT COVER	1		
10	450-044	ANTENNA GROUND RING	1		
11	450-042	ANTENNA SPACER	1		
12	450-024	ANTENNA NUT	1		
13	450-038	ANTENNA	1		
14	450-023	VOLUME NUT	1		
15	450-006	VOLUME KNOB	1		
16	450-047	DUST CUSHION (LCD)	1		
17	450-015	FUNCTION BUTTON	1		
18	450-041	DOME SWITCH (FUNCTION BUTTON)	1		
19	450-031	LCD BRACKET	1		
20	450-037	ZEBRA	1		
21	450-010	LCD BACK LIGHT LENS	1		
22	450-029	REFLECTIVE SHEET LCD	1		
23	450-027	DOME SWITCH (KEY PCB)	1		
24	450-032	ANTENNA BRACKET	1		
25	450-025	ANTENNA CONNECTOR	1		
26	450-056	VOLUME BRACKET	1		
27	450-020	GASKET VOLUME	1		
28	GXT300-012	D-SPRING	1		
29	450-018	GASKET MAIN	1		
30	450-035	MAIN FRAME	1		
31	450-022	CAP LOCKING	1		
32	450-048	CUSHION MAIN FRAME	1		
33	450-050	WASHER SCREW (M2.6)	2		PC 10.3 (Black)
34		SCREW	2		(WASHER HEAD DIA 7.0) M2.6X6(pitch:0.4)SUS
35	450-028	PRODUCT LABEL	1		
36	450-009	HINGE BELT CLIP	1		
37	GXT300-021	SPRING for BELT CLIP	1		
38		E-RING	1		DIA 1.5
39	450-008	BELT CLIP	1		
40	GXT300-022	SHAFT (Pin) for belt CLIP	1		
41	450-021	GASKET TERMINAL (UNIT)	1		
42	450-033	BRACKET SPK/MIC JACK	1		
43	450-017	GASKET SPK/MIC JACK	1		
44	450-057	TAPE VOLUME	1		
45	450-026	BATTERY TERMINAL (MAIN PCB)	3		
46	450-039	VCO CAN	1		
47		FELT (SPEAKER DIA 36.0)	1		
48	450-038	GASKET MIC	1		
49	450-040	MIC CUSHION	1		
50	450-005	COVER SPK/MIC JACK	1		
51		SCREW	1		(B)(M2.6X6)(pitch:0.4)SUS(Black)
52	450-019	LED LENS	1		
53	450-058	GASKET AIR VENT	1		
54		SCREW	7		(P)(M2.0X5)(pitch:0.4)
LCD		LCD	1		
PCB		PCB	1		
MIC		MIC	1		
SPK		SPEAKER	1		