

# SoundTouch™ Portable


Wi-Fi Music System



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# SAFETY INFORMATION

Parts that have special safety characteristics are identified by the  symbol on schematics or by special notes on the parts list. Use only replacement parts that have critical characteristics recommended by the manufacturer.

**CAUTION:** The Soundtouch™ Portable Wi-Fi Music System contains no user-serviceable parts. To prevent warranty infractions, refer servicing to warranty service stations or factory service.

**WARNING:** Danger of explosion if remote battery is incorrectly replaced. Replace with only Duracell, Eveready, Energizer, Maxell or Toshiba CR2032 or DL2032 3-volt lithium battery.

## PROPRIETARY INFORMATION

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF BOSE CORPORATION WHICH IS BEING FURNISHED ONLY FOR THE PURPOSE OF SERVICING THE IDENTIFIED BOSE PRODUCT BY AN AUTHORIZED BOSE SERVICE CENTER OR OWNER OF THE BOSE PRODUCT, AND SHALL NOT BE REPRODUCED OR USED FOR ANY OTHER PURPOSE.

# SPECIFICATIONS

## Electrical

### **Power Supply Rating:**

Input: 100 - 240VAC 50/60Hz, 600mA  
Output: 20 VDC, 1.25A Max

### **Input Power Rating:**

Voltage: 20 VDC  
Current: 1.25A Max

## Acoustic

### **Drivers:**

4 - 40mm" Drivers  
2 - Passive Radiators

## Physical Description

**Mechanical Specifications:** 6.0"H x 9.84"W x 2.59"D (15.2 cm x 25.0 cm x 6.6 cm)

**Weight:** 3.2 lb. (1.4485 kg)

# ELECTROSTATIC DISCHARGE SENSITIVE (ESDS) DEVICE HANDLING


This unit contains ESDS devices. We recommend the following precautions when repairing, replacing or transporting ESDS devices:

- Perform work at an electrically grounded work station.
- Wear wrist straps that connect to the station or heel straps that connect to conductive floor mats.
- Avoid touching the leads or contacts of ESDS devices or PC boards even if properly grounded. Handle boards by the edges only.
- Transport or store ESDS devices in ESD protective bags, bins, or totes. Do not insert unprotected devices into materials such as plastic, polystyrene foam, clear plastic bags, bubble wrap or plastic trays.

## WARRANTY

The SoundTouch™ Portable Digital Music System electronics is covered by a limited 1-year transferable warranty.

## PART LIST NOTES

1. The individual parts located on the PCBs are listed in the Electrical Part List.
2. This part is referenced for informational purposes only. It is not stocked as a repair part. Refer to the next higher assembly for a replacement part.
3.  This part is critical for safety purposes. Failure to use a substitute replacement with the same safety characteristics as the recommended replacement part might create shock, fire and/or other hazards.

# PRODUCT OVERVIEW

SoundTouch™ Portable is a portable battery powered wireless music system. It is based on SoundLink Mobile acoustics and battery pack, it replaces Bluetooth with Wi-Fi as well as adding six press-and-play presets. SoundTouch Portable can connect to streaming internet content directly from the cloud, can connect to Airplay devices, and can play computer stored music. Wi-Fi and its battery power capabilities make SoundTouch Portable easy to use in and around the home because Wi-Fi is always ready, enabling six press-and-play presets that give one button, instant access to your favorite advanced digital music (ADM).

Features:

- Built-in Wi-Fi
- Six push and play presets that give instant access to any source
- Complete control of all sources through a computer application and the smartphone application
- The same acoustic performance as SoundLink® Mobile
- A remote control and the same small display used on SoundTouch 20 and 30.
- A size and form factor similar to SoundLink Mobile but visually similar to SoundTouch 20 and 30

## REMOTE CONTROL

An infrared remote control is included. It uses the same battery that is used with credit card style remote controls: CR2032.

## SOFTWARE UPGRADES

A thumb drive with a software file can be used to update the SoundTouch Portable. The software file is available on the Technical Services website.

Bose internal website - <http://intranet.bose.com/tsg/>

Bose external website - <http://serviceops.bose.com/>

To update from a thumb drive see page 24.

Software updates are also available on Bose.com once the product is connected to a Wi-Fi network.

## FACTORY DEFAULT

A factory default is required after the repair is complete. Press and hold “volume -” and “preset 1” at the same time for 10 seconds, then release to restore the unit to factory default settings. This will clear all customer router, password and Bose® account information. A slip-sheet must be added to every outgoing repair describing how to connect the product to the router and reconnect to the customers Bose account. The slip sheet will be available to download as a PDF on the Technical Services website.

# PACKAGING PART LIST

## Bose® SoundTouch™ Portable Wi-Fi Music System

Item Number	Description	Part Number	Note
1	AC PRONG, US,120V NON POL, BLK	311544-001	3, ⚠
	AC PRONG, 230V EURO, BLK	311544-011	
	AC PRONG, 230V UK, BLK	311544-021	
	AC PRONG, 230V AUS, BLK	311544-031	
	AC PRONG, CHINA, BLK	311544-041	
2	AC PRONG, 230V KOREA, BLK	311544-051	
	BAG, FOAM, PE, 12.50X9.75X0.08IN, 2IN	367238-0010	
3	CABLE, SIGNAL, USB, MICRO/USB-A, MALE, 36IN	330816-0010	3, ⚠
4	CARTON, 12.19X8.69X6.38IN, WHT	361850-0010	
	CARTON, 12.19X8.69X6.38IN, BLK	369848-0010	
5	CONTACT SHEET, SOUNDTOUCH, US	373202-0010	
	CONTACT SHEET, SOUNDTOUCH, EU	372836-0010	
	CONTACT SHEET, SOUNDTOUCH, AP	372837-0010	
6	GLOBAL WARRANTY CARD, 1 YR	324486-0010	
7	LABEL, WAFER, SEALING, 1.5" DIAMETER, CLEAR	322267-0010	
8	LETTER, COMMITMENT	343108-0010	
9	PACKING, TRAY, PULP, BOT, 12.1X8.5X4.4IN, STP	361849-0010	

Item Number	Description	Part Number	Note
10	PACKING, TRAY, PULP, TOP, 12.1X8.5X2IN, STP	361848-0010	
11	PAD, PACKING, DC, 200B, 10.81X5.75IN, ST, PORT	361852-0010	
12	PWR SUPPLY, EXT, WALL, 20V, 1.25A	355938-0010	3, ⚠
13	QSG, SOUNDTOUCH 30, 20, PORT, AST	727573-0010	3, ⚠
	QSG, SOUNDTOUCH 30, 20, PORT, APAC 1OF2	727930-0010	
14	QSG, SOUNDTOUCH 30, 20, PORT, EUR 1OF2	727927-0010	3, ⚠
	QSG, SOUNDTOUCH 30, 20, PORT, APAC 2OF2	727931-0010	
15	GUIDE, QS, SOUNDTOUCH 30/20, PORT, EU, 2OF2	727927-0010	3, ⚠
16	GUIDE, QS, SOUNDTOUCH 30/20, PORT, EU, 3 OF 4 (replaced by items 14 and 15)	N/A	3, ⚠
17	REMOTE, IR, WHT	355239-1010	
	REMOTE, IR, BLK	355239-0010	
18	SHEET, SAFETY, SOUNDTOUCH 30, 20, PORT	369732-0010	3, ⚠
-	PACKING, PAD, 42.0X48.0, DW 0.028	256676	
-	PACKING, PAD, CORR 47.75X39.75 0.028	274318-001	

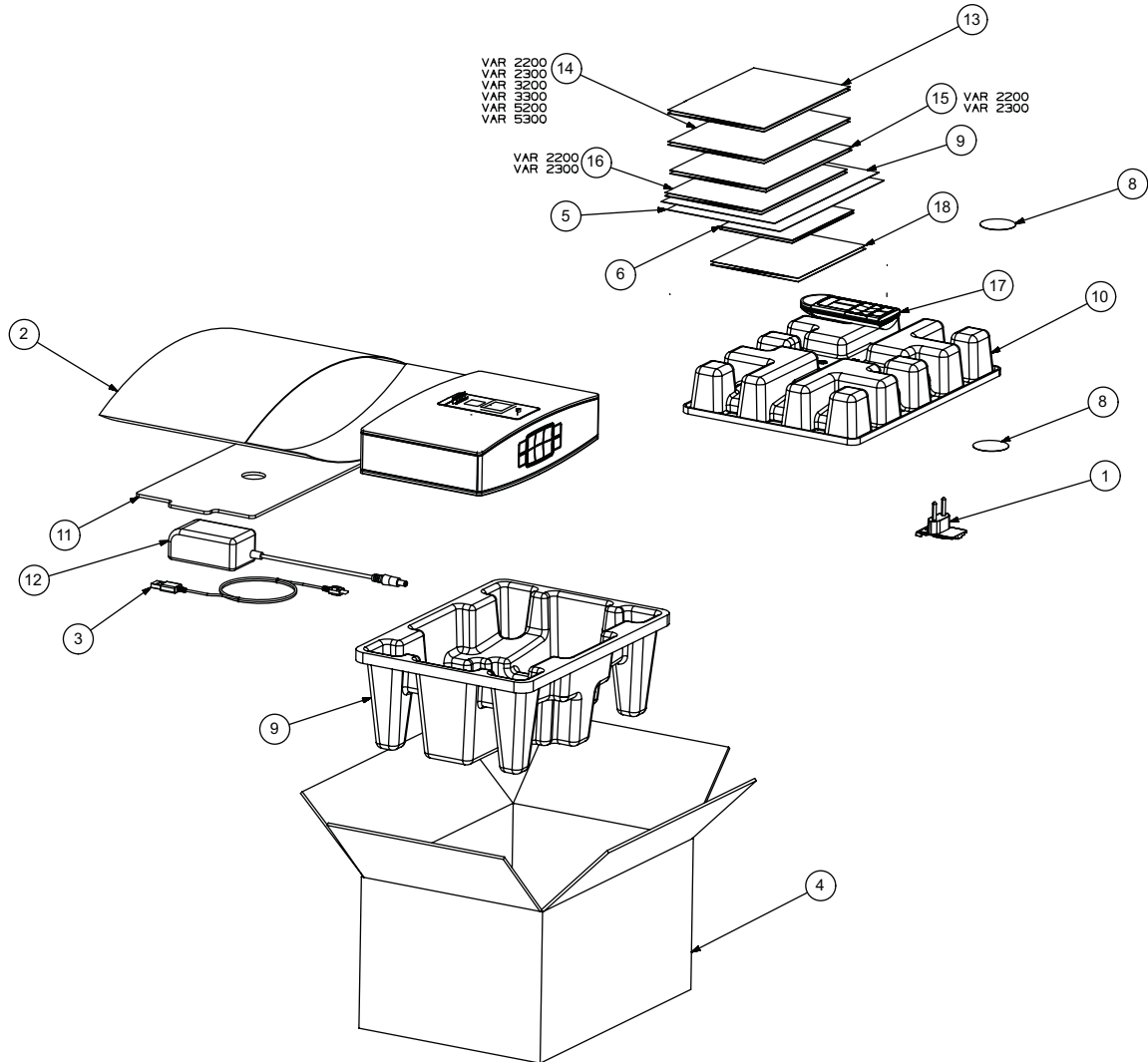


Figure 1. Packaged Exploded View

# SPEAKER ASSEMBLY PART LIST

Bose® SoundTouch™ Portable Wi-Fi Music System

Item Number	Description	Part Number	Note
1	COVER, REAR, GREY COVER, REAR, BLK	355903-0030 355903-0010	3, ⚠
2	SHROUD, EXTERNAL, GREY SHROUD, EXTERNAL, BLK	355904-0030 355904-0010	3, ⚠
3	TAPE, PORON, 1.6MM	374392-0010	
4	FLOCK, EXTERNAL SHROUD, LEFT	374901-0010	
5	TAPE, FOAM, 90X19X3.8mm	370396-0060	
6	PCB ASSY, I/O (bulk pack) PCB ASSY, I/O (single pack)	362487-0010 362487-001S	3, ⚠
7	GASKET, I/O SHROUD	356140-0010	
8	CABLE ASSY, FFC, FOLDED, 31POS	370132-0010	
9	CABLE ASSY, FFC, 0.5mm, 10COND, 40mm	356136-0040	
10	PCB ASSY, BUTTON (bulk pack) PCB ASSY, BUTTON (single pack)	354789-0010 354789-001S	
11	KEYPAD ASSEMBLY, GREY KEYPAD ASSEMBLY, BLK	355698-0030 355698-0010	3, ⚠
12	TOP CAP, WHITE TOP CAP, BLK	355900-0020 355900-0030	3, ⚠
13	HEATSINK (order item 14)	-	
14	SLAB ASSY, SOUNTOUCH, COMMON MODULE	627303-031S or 627303-041S	3, ⚠
15	FRAME, TOP CAP	373798-0010	3, ⚠
16	CABLE ASSY, FFC, 0.5mm, 40COND	361133-0010	3, ⚠
17	GROMMET, FFC, 40 COND	361136-0010	
18	CABLE ASSY, FFC, 0.5MM, SHLD, 12COND, 57mm 1	356135-0057	
19	CABLE ASSY, FFC, 16COND, 135mm	356137-0020	3, ⚠
20	CUSHION, AMP PCB-16 POS CABLE	625919-0010	
21	END CAP, RIGHT, WHITE END CAP, RIGHT, BLK	355902-2020 355902-3020	3, ⚠
22	SCREW, 6-13x.38, PAN, XREC/SQ	288374-006	
23	ENCLOSURE ASSY, BAFFLE (see next page for individual parts list)	357295-0010	3, ⚠
24	SCREW, TAPP, 4-16X.44, PAN, TORX	343757-007	
25	SCREW, SELF TAPPING, M2.5X7mm, WASHER, TORX	357328-0070	

Item Number	Description	Part Number	Note
26	GRILLE, FRONT ASSEMBLY, GREY GRILLE, FRONT ASSEMBLY, BLK	355908-0030 355908-0010	3, ⚠
27	SUBASSY, OLED/LENS (includes the display, display PCB and lens)	627304-001S	3, ⚠
28	LENS, SOUNTOUCH PORTABLE	355906-0010	3, ⚠
29	SHROUD, I/O	373799-0010	3, ⚠
30	STOP, GRILLE	373331-0010	
31	PCB ASSY, AMP (bulk pack) PCB ASSY, AMP (single pack)	362485-0010 362485-001S	3, ⚠
32	FOAM, STRIP	627028-0030	
33	TAPE, FOAM, 83X6X1.6mm	370396-0040	
34	SCREW, TAPP, 4-16X.75, PAN, TORX	343757-012	
35	SCREW, MACH, M5X7MM, CAP, HEX	345989-007	
36	FLOCK, EXTERNAL SHROUD, RIGHT	374902-0010	3, ⚠
37	TAPE, FOAM, 20X10X2.8mm	370396-0070	
38	LABEL, PRODUCT, 2D BARCODE, .5"x. 5"	276533-135	
39	ENCLOSURE, W/INSERTS	357275-0010	3, ⚠
40	PASSIVE RADIATOR, MED STIFFNESS, ASSEMBLED	357789-0050	
41	TAPE, FOAM, 50X12.7X3.2mm	370396-0020	
42	END CAP, LEFT, WHITE END CAP, LEFT, BLK	355902-2010 355902-3010	3, ⚠
43	SCREW, MACH, M3X8MM, PAN, HEX	345988-008	
44	BATTERY PACK, Li-ION, 2600mAH (bulk pack)	359498-0010	3, ⚠
45	FOAM, TAPE	370396-0010	
46	FOOT, RUBBER, 12.5 DIA	301750-002	
47	TAPE, FOAM, 83X6X1.6mm	370396-0040	
48	FOAM, STRIP	627028-0030	
49	TAPE, FOAM, 20X10X2.8mm	370396-0070	
50	FOAM, BAFFLE, 34MM	344271-0034	
-	BATTERY PACK, Li-ION, 2600mAH (single pack, includes Allen Key and installation instructions)	627276-0010	3, ⚠

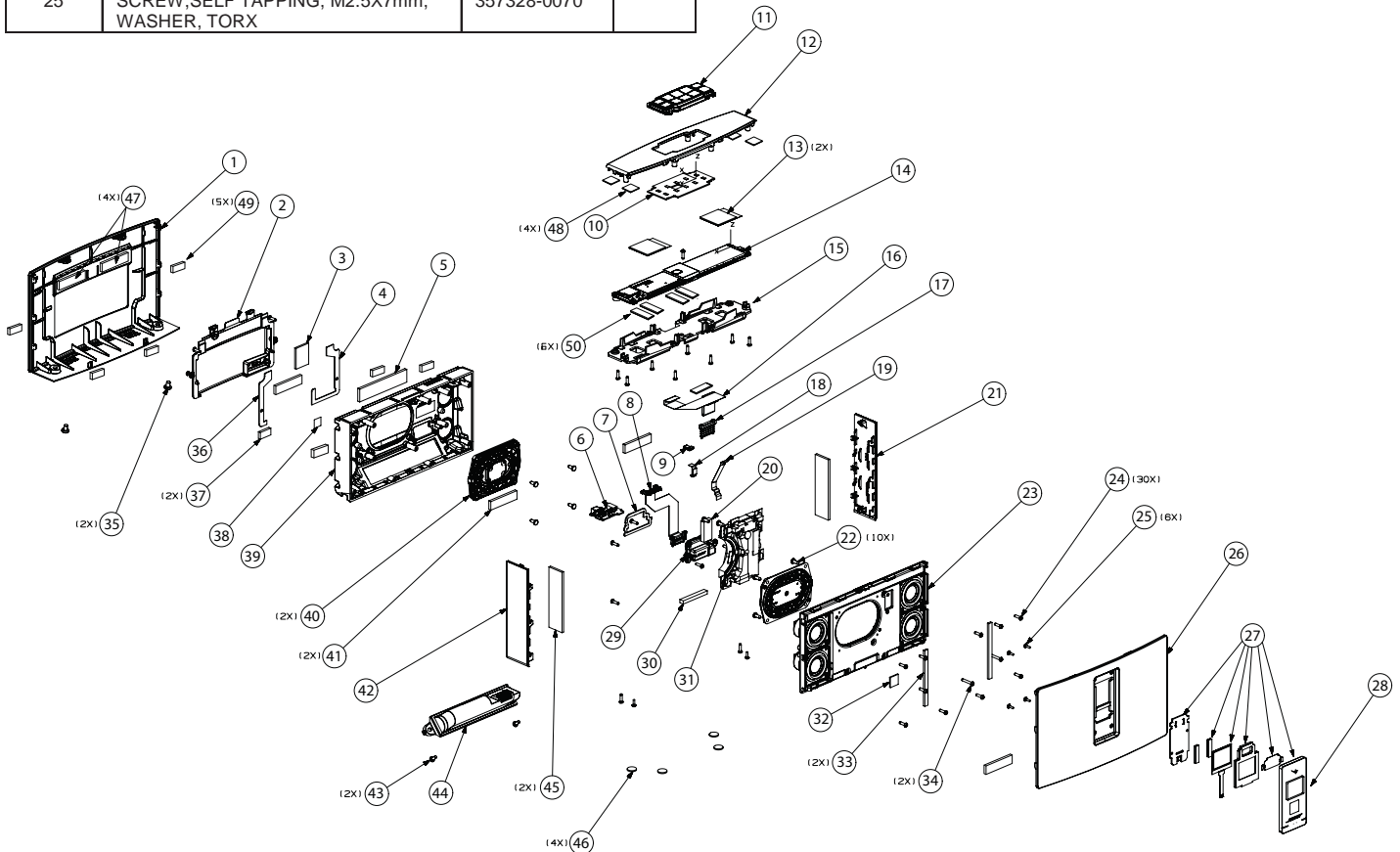


Figure 2. Speaker Assembly Exploded View



# BAFFLE ASSEMBLY PART LIST

Bose® SoundTouch™ Portable Wi-Fi Music System

Item Number	Description	Part Number	Note
1	HARNESS, TRANSDUCER, RIGHT	330061-0100	
2	HARNESS, TRANSDUCER, LEFT	373584-0010	
3	FOAM,BAFFLE, 34MM	344271-0034	3, ⚠
4	FOAM, BAFFLE, BATTERY	343939-0010	3, ⚠
5	BAFFLE, GASKET, MIP	357296-0010	3, ⚠
6	SPKR ASSY, FULL RANGE	357158-0030	3, ⚠
7	SCREW, TAPP, 4-16X.44, PAN, TORX	343757-007	

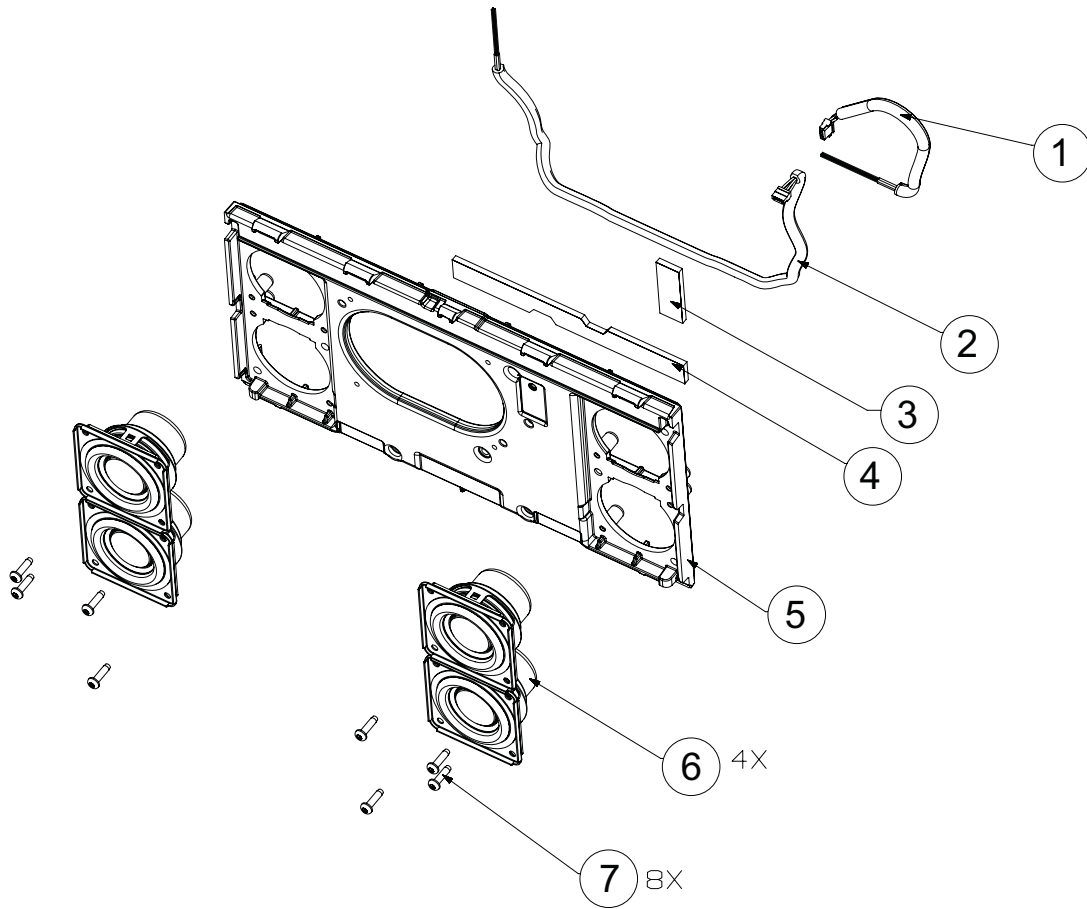


Figure 3. Baffle Assembly Exploded View

# ELECTRICAL PART LIST

## SoundTouch™ Wi-Fi Module PCB Assembly

### Resistors

Reference Designator	Description	Part Number	Note
R13	51 OHM, 0402 ARRAY, 4 5%, 0.063W	354737-510J4	
R14	51 OHM, 0402 ARRAY, 4 5%, 0.063W	354737-510J4	
R15	0 OHM, JUMPER, 0402	280043	
R16	0 OHM, JUMPER, 0402	280043	
R27	220 OHM, 0402 ARRAY, 4 5%, 0.063W	354737-221J4	
R123	121 OHM, 0402, 63mW, 1%	268361-121R	
R124	30.1 OHMS, 0402, 0.063W, 1%	268361-30R1	
R125	5.76K, 0402, 63mW, 1%	268361-5761	
R126	5.76K, 0402, 63mW, 1%	268361-5761	
R127	5.76K, 0402, 63mW, 1%	268361-5761	
R128	187 OHM, 0402, 63mW, 1%	268361-187R	
R129	187 OHM, 0402, 63mW, 1%	268361-187R	
R132	392 OHM, 0402, 63mW, 1%	268361-392R	
R133	51 OHMS, 0402, 0.063W, 1%	268361-51R0	
R134	100 OHM, 0402, 63mW, 1%	268361-1000	
R135	100 OHM, 0402, 63mW, 1%	268361-1000	
R136	100 OHM, 0402, 63mW, 1%	268361-1000	
R137	100 OHM, 0402, 63mW, 1%	268361-1000	
R138	0 OHM, JUMPER, 0402	280043	
R139	0 OHM, JUMPER, 0402	280043	
R140	100 OHM, 0402, 63mW, 1%	268361-1000	
R141	3.01K, 0402, 63mW, 1%	268361-3011	
R142	10.0K, 0402, 63mW, 1%	268361-1002	
R143	10.0K, 0402, 63mW, 1%	268361-1002	
R144	10.0K, 0402, 63mW, 1%	268361-1002	
R146	JUMPER, CHIP, 0603	196042	
R147	JUMPER, CHIP, 0603	196042	
R200	10.0K, 0402, 63mW, 1%	268361-1002	
R201	13.0K, 0402, 63mW, 1%	268361-1302	
R202	6.04K, 0402, 63mW, 1%	268361-6041	
R203	10.0K, 0402, 63mW, 1%	268361-1002	
R204	10.0K, 0402, 63mW, 1%	268361-1002	
R205	2.74K, 0402, 63mW, 1%	268361-2741	
R206	100 OHM, 0402, 63mW, 1%	268361-1000	
R207	1.50K, 0402, 63mW, 1%	268361-1501	
R208	10.0K, 0402, 63mW, 1%	268361-1002	
R209	10.0K, 0402, 63mW, 1%	268361-1002	
R210	10.0K, 0402, 63mW, 1%	268361-1002	
R211	10.0K, 0402, 63mW, 1%	268361-1002	
R212	0 OHM, JUMPER, 0402	280043	
R213	0 OHM, JUMPER, 0402	280043	
R214	10.0K, 0402, 63mW, 1%	268361-1002	
R215	100 OHM, 0402, 63mW, 1%	268361-1000	
R216	100 OHM, 0402, 63mW, 1%	268361-1000	
R217	10.0K, 0402, 63mW, 1%	268361-1002	
R218	10.0K, 0402, 63mW, 1%	268361-1002	
R219	4.75K, 0402, 0.063W, 1%	268361-4751	
R220	10.0K, 0402, 63mW, 1%	268361-1002	
R221	4.75K, 0402, 0.063W, 1%	268361-4751	
R225	100 OHM, 0402, 63mW, 1%	268361-1000	
R229	100 OHM, 0402, 63mW, 1%	268361-1000	
R240	10.0K, 0402, 63mW, 1%	268361-1002	
R242	10.0K, 0402, 63mW, 1%	268361-1002	
R243	10.0K, 0402, 63mW, 1%	268361-1002	
R244	10.0K, 0402, 63mW, 1%	268361-1002	
R245	10.0K, 0402, 63mW, 1%	268361-1002	
R246	0 OHM, JUMPER, 0402	280043	
R247	33 OHM, 0402, 1/16W, 1%	268361-33R0	
R276	10.0K, 0402, 63mW, 1%	268361-1002	
R279	0 OHM, JUMPER, 0402	280043	
R280	0 OHM, 0402 ARRAY, 4 CONVEX, 0.5A	357537-0020	
R281	0 OHM, 0402 ARRAY, 4 CONVEX, 0.5A	357537-0020	
R282	0 OHM, 0402 ARRAY, 4 CONVEX, 0.5A	357537-0020	
R283	0 OHM, 0402 ARRAY, 4 CONVEX, 0.5A	357537-0020	
R284	0 OHM, 0402 ARRAY, 4 CONVEX, 0.5A	357537-0020	
R285	0 OHM, 0402 ARRAY, 4 CONVEX, 0.5A	357537-0020	

### Resistors

Reference Designator	Description	Part Number	Note
R286	0 OHM, 0402 ARRAY, 4 CONVEX, 0.5A	357537-0020	
R287	0 OHM, 0402 ARRAY, 4 CONVEX, 0.5A	357537-0020	
R288	0 OHM, 0402 ARRAY, 4 CONVEX, 0.5A	357537-0020	
R289	0 OHM, 0402 ARRAY, 4 CONVEX, 0.5A	357537-0020	
R290	0 OHM, 0402 ARRAY, 4 CONVEX, 0.5A	357537-0020	
R300	100 OHM, 0402, 63mW, 1%	268361-1000	
R302	1.00K, 0402, 63mW, 1%	268361-1001	
R304	100 OHM, 0402, 63mW, 1%	268361-1000	
R305	100 OHM, 0402, 63mW, 1%	268361-1000	
R307	10.0K, 0402, 63mW, 1%	268361-1002	
R308	10.0K, 0402, 63mW, 1%	268361-1002	
R309	10.0K, 0402, 63mW, 1%	268361-1002	
R311	100 OHM, 0402, 63mW, 1%	268361-1000	
R400	51 OHMS, 0402, 0.063W, 1%	268361-51R0	
R401	51 OHMS, 0402, 0.063W, 1%	268361-51R0	
R402	243 OHM, 0402, 63mW, 1%	268361-2430	
R406	49.9 OHM, 0402, 63mW, 1%	268361-49R9	
R407	51 OHMS, 0402, 0.063W, 1%	268361-51R0	
R408	100 OHM, 0402, 63mW, 1%	268361-1000	
R409	10.0K, 0402, 63mW, 1%	268361-1002	
R413	806 OHM, 0402, 63mw, 1%	268361-806R	
R414	1.00K, 0402, 63mW, 1%	268361-1001	
R415	33 OHM, 0402, 1/16W, 1%	268361-33R0	
R421	51 OHM, 0402 ARRAY, 4 5%, 0.063W	354737-510J4	
R422	51 OHM, 0402 ARRAY, 4 5%, 0.063W	354737-510J4	
R423	51 OHM, 0402 ARRAY, 4 5%, 0.063W	354737-510J4	
R424	51 OHM, 0402 ARRAY, 4 5%, 0.063W	354737-510J4	
R425	51 OHM, 0402 ARRAY, 4 5%, 0.063W	354737-510J4	
R426	51 OHM, 0402 ARRAY, 4 5%, 0.063W	354737-510J4	
R500	100 OHM, 0402, 63mW, 1%	268361-1000	
R501	100 OHM, 0402, 63mW, 1%	268361-1000	
R502	100 OHM, 0402, 63mW, 1%	268361-1000	
R503	10.0K, 0402, 63mW, 1%	268361-1002	
R504	100 OHM, 0402, 63mW, 1%	268361-1000	
R505	100 OHM, 0402, 63mW, 1%	268361-1000	
R506	10.0K, 0402, 63mW, 1%	268361-1002	
R507	5.76K, 0402, 63mW, 1%	268361-5761	
R508	4.75K, 0402, 0.063W, 1%	268361-4751	
R509	100 OHM, 0402, 63mW, 1%	268361-1000	
R510	100 OHM, 0402, 63mW, 1%	268361-1000	
R511	4.53K, 0402, 0.063W, 1%	268361-4531	
R513	10.0K, 0402, 63mW, 1%	268361-1002	
R514	10.0K, 0402, 63mW, 1%	268361-1002	
R515	10.0K, 0402, 63mW, 1%	268361-1002	
R516	100 OHM, 0402, 63mW, 1%	268361-1000	
R517	10.0K, 0402, 63mW, 1%	268361-1002	
R518	100 OHM, 0402, 63mW, 1%	268361-1000	
R519	100 OHM, 0402, 63mW, 1%	268361-1000	
R520	100 OHM, 0402, 63mW, 1%	268361-1000	
R521	100 OHM, 0402, 63mW, 1%	268361-1000	
R522	56.2K, 0402, 63mW, 1%	268361-5622	
R523	100 OHM, 0402, 63mW, 1%	268361-1000	
R524	1.00K, 0402, 63mW, 1%	268361-1001	
R525	10.0K, 0402, 63mW, 1%	268361-1002	
R528	100 OHM, 0402, 63mW, 1%	268361-1000	
R530	100 OHM, 0402, 63mW, 1%	268361-1000	
R531	100 OHM, 0402, 63mW, 1%	268361-1000	
R532	100 OHM, 0402, 63mW, 1%	268361-1000	
R534	10.0K, 0402, 63mW, 1%	268361-1002	
R535	1.00K, 0402, 63mW, 1%	268361-1001	
R537	100 OHM, 0402, 63mW, 1%	268361-1000	
R539	10.0K, 0402, 63mW, 1%	268361-1002	
R540	301 OHM, 0402, 63mW, 1%	268361-3010	
R541	301 OHM, 0402, 63mW, 1%	268361-3010	
R544	100 OHM, 0402, 63mW, 1%	268361-1000	

# ELECTRICAL PART LIST

SoundTouch™ Wi-Fi Module PCB Assembly

Resistors (continued)

Resistors (continued)

Reference Designator	Description	Part Number	Note
R546	100 OHM, 0402, 63mW, 1%	268361-1000	
R547	100 OHM, 0402, 63mW, 1%	268361-1000	
R548	100 OHM, 0402, 63mW, 1%	268361-1000	
R549	56.2K, 0402, 63mW, 1%	268361-5622	
R550	56.2K, 0402, 63mW, 1%	268361-5622	
R551	100 OHM, 0402, 63mW, 1%	268361-1000	
R552	100 OHM, 0402, 63mW, 1%	268361-1000	
R553	56.2K, 0402, 63mW, 1%	268361-5622	
R554	56.2K, 0402, 63mW, 1%	268361-5622	
R555	1.50K, 0402, 63mW, 1%	268361-1501	
R560	56.2K, 0402, 63mW, 1%	268361-5622	
R561	56.2K, 0402, 63mW, 1%	268361-5622	
R562	100 OHM, 0402, 63mW, 1%	268361-1000	
R564	100 OHM, 0402, 63mW, 1%	268361-1000	
R565	100 OHM, 0402, 63mW, 1%	268361-1000	
R566	100 OHM, 0402, 63mW, 1%	268361-1000	
R600	4.53K, 0402, 0.063W, 1%	268361-4531	
R601	10.0K, 0402, 63mW, 1%	268361-1002	
R602	4.53K, 0402, 0.063W, 1%	268361-4531	
R603	340 OHM, 0402, 63mW, 1%	268361-3400	
R604	340 OHM, 0402, 63mW, 1%	268361-3400	
R606	100 OHM, 0402, 63mW, 1%	268361-1000	
R607	10.0K, 0402, 63mW, 1%	268361-1002	
R608	10.0K, 0402, 63mW, 1%	268361-1002	
R609	10.0K, 0402, 63mW, 1%	268361-1002	
R610	10.0K, 0402, 63mW, 1%	268361-1002	
R611	100 OHM, 0402, 63mW, 1%	268361-1000	
R612	100 OHM, 0402, 63mW, 1%	268361-1000	
R613	100 OHM, 0402, 63mW, 1%	268361-1000	
R614	100 OHM, 0402, 63mW, 1%	268361-1000	
R615	10.0K, 0402, 63mW, 1%	268361-1002	
R616	100 OHM, 0402, 63mW, 1%	268361-1000	
R617	100 OHM, 0402, 63mW, 1%	268361-1000	
R618	1.00K, 0402, 63mW, 1%	268361-1001	
R619	10.0K, 0402, 63mW, 1%	268361-1002	
R620	10.0K, 0402, 63mW, 1%	268361-1002	
R622	100 OHM, 0402, 63mW, 1%	268361-1000	
R657	100 OHM, 0402, 63mW, 1%	268361-1000	
R661	3.32K, 0402, 63mW, 1%	268361-3321	
R662	3.32K, 0402, 63mW, 1%	268361-3321	
R665	10.0K, 0402, 63mW, 1%	268361-1002	
R667	10.0K, 0402, 63mW, 1%	268361-1002	
R668	100 OHM, 0402, 63mW, 1%	268361-1000	
R669	100 OHM, 0402, 63mW, 1%	268361-1000	
R674	100 OHM, 0402, 63mW, 1%	268361-1000	
R675	100 OHM, 0402, 63mW, 1%	268361-1000	
R676	100 OHM, 0402, 63mW, 1%	268361-1000	
R688	100 OHM, 0402, 63mW, 1%	268361-1000	
R700	10.0K, 0402, 63mW, 1%	268361-1002	
R701	10.0K, 0402, 63mW, 1%	268361-1002	
R702	10.0K, 0402, 63mW, 1%	268361-1002	
R800	10.0K, 0402, 63mW, 1%	268361-1002	
R801	10.0K, 0402, 63mW, 1%	268361-1002	
R802	10.0K, 0402, 63mW, 1%	268361-1002	
R1000	3.32K, 0402, 63mW, 1%	268361-3321	
R1001	3.32K, 0402, 63mW, 1%	268361-3321	
R1002	49.9 OHM, 0402, 63mW, 1%	268361-49R9	
R1003	56.2K, 0402, 63mW, 1%	268361-5622	
R1004	100 OHM, 0402, 63mW, 1%	268361-1000	
R1005	100 OHM, 0402, 63mW, 1%	268361-1000	
R1006	100 OHM, 0402, 63mW, 1%	268361-1000	
R1007	100 OHM, 0402, 63mW, 1%	268361-1000	
R1008	100 OHM, 0402, 63mW, 1%	268361-1000	
R1009	100 OHM, 0402, 63mW, 1%	268361-1000	
R1010	100 OHM, 0402, 63mW, 1%	268361-1000	
R1011	100 OHM, 0402, 63mW, 1%	268361-1000	
R1014	100 OHM, 0402, 63mW, 1%	268361-1000	
R1015	100 OHM, 0402, 63mW, 1%	268361-1000	
R1016	100 OHM, 0402, 63mW, 1%	268361-1000	
R1100	3.32K, 0402, 63mW, 1%	268361-3321	
R1101	3.32K, 0402, 63mW, 1%	268361-3321	
R1102	100K, 0402, 63mW, 1%	268361-1003	
R1103	100K, 0402, 63mW, 1%	268361-1003	
R1104	1.0M, 0402, 63mW, 1%	268361-1004	
R1105	1.0M, 0402, 63mW, 1%	268361-1004	
R1106	1.0M, 0402, 63mW, 1%	268361-1004	
R1107	100K, 0402, 63mW, 1%	268361-1003	

Reference Designator	Description	Part Number	Note
R1108	100K, 0402, 63mW, 1%	268361-1003	
R1111	4.7 OHMS, 0402, 0.063W, 1%	268361-4R70	
R1112	1.00K, 0805, 1/10W, 5%	133626-1025	
R1113	499 OHM, 0805, .125W, 1%	133625-4990	
R1114	4.7 OHMS, 0402, 0.063W, 1%	268361-4R70	
R1115	4.7 OHMS, 0402, 0.063W, 1%	268361-4R70	
R1201	100 OHM, 0402, 63mW, 1%	268361-1000	
R1202	100 OHM, 0402, 63mW, 1%	268361-1000	
R1206	100 OHM, 0402, 63mW, 1%	268361-1000	
R1207	100 OHM, 0402, 63mW, 1%	268361-1000	
R1208	100 OHM, 0402, 63mW, 1%	268361-1000	
R1210	100 OHM, 0402, 63mW, 1%	268361-1000	
R1300	10.0K, 0402, 63mW, 1%	268361-1002	
R1301	0 OHM, JUMPER, 0402	280043	
R1303	100K, 0402, 63mW, 1%	268361-1003	
R1304	100K, 0402, 63mW, 1%	268361-1003	
R1306	215K, 0402, 0.063W, 1%	268361-2153	
R1307	100K, 0402, 63mW, 1%	268361-1003	
R1308	24.0K, 0402, 63mW, 1%	268361-2402	
R1309	10.0K, 0402, 63mW, 1%	268361-1002	
R1310	10.0 OHM, 0402, 63mW, 1%	268361-10R0	
R1313	100K, 0402, 63mW, 1%	268361-1003	
R1314	100K, 0402, 63mW, 1%	268361-1003	
R1315	348K, 0402, 63mW, 1%	268361-3483	
R1316	100K, 0402, 63mW, 1%	268361-1003	
R1317	1 OHM, 0402, 0.063W, 1%	268361-1R00	
R1318	8.25K, 0402, 0.063W, 1%	268361-8251	
R1500	1.50K, 0402, 63mW, 1%	268361-1501	
R1501	51 OHMS, 0402, 0.063W, 1%	268361-51R0	
R1502	51 OHMS, 0402, 0.063W, 1%	268361-51R0	
R1503	1.50K, 0402, 63mW, 1%	268361-1501	
R1504	49.9 OHM, 0805, .125W, 1%	133625-49R9	
R1505	51 OHMS, 0402, 0.063W, 1%	268361-51R0	
R1506	49.9 OHM, 0805, .125W, 1%	133625-49R9	
R1507	274 OHM, 0402, 63mW, 1%	268361-2740	
R1508	274 OHM, 0402, 63mW, 1%	268361-2740	
R1509	75 OHM, 0402, 63mW, 1%	268361-75R0	
R1510	75 OHM, 0402, 63mW, 1%	268361-75R0	
R1539	100 OHM, 0402, 63mW, 1%	268361-1000	
R1540	100 OHM, 0402, 63mW, 1%	268361-1000	
R1541	100 OHM, 0402, 63mW, 1%	268361-1000	
R1542	100 OHM, 0402, 63mW, 1%	268361-1000	
R1548	100 OHM, 0402, 63mW, 1%	268361-1000	
R1549	100 OHM, 0402, 63mW, 1%	268361-1000	
R1550	100 OHM, 0402, 63mW, 1%	268361-1000	
R1553	12.1K, 0402, 63mW, 1%	268361-1212	
R1555	100 OHM, 0402, 63mW, 1%	268361-1000	
R1556	4.75K, 0402, 0.063W, 1%	268361-4751	
R1557	4.75K, 0402, 0.063W, 1%	268361-4751	
R1558	49.9 OHM, 0805, .125W, 1%	133625-49R9	
R1559	49.9 OHM, 0805, .125W, 1%	133625-49R9	
R1561	4.75K, 0402, 0.063W, 1%	268361-4751	
R1562	4.75K, 0402, 0.063W, 1%	268361-4751	
R1564	4.75K, 0402, 0.063W, 1%	268361-4751	
R1566	4.75K, 0402, 0.063W, 1%	268361-4751	
R6100	100 OHM, 0402, 63mW, 1%	268361-1000	
R6102	100 OHM, 0402, 63mW, 1%	268361-1000	
R6103	100 OHM, 0402, 63mW, 1%	268361-1000	
R6111	249K, 0402, 0.063W, 1%	268361-2493	

# ELECTRICAL PART LIST

SoundTouch™ Wi-Fi Module PCB Assembly

Capacitors (continued)

Capacitors (continued)

Reference Designator	Description	Part Number	Note
C160	6800pF, X7R, 0402, 16V, 10%	293702-682	
C161	6800pF, X7R, 0402, 16V, 10%	293702-682	
C162	6800pF, X7R, 0402, 16V, 10%	293702-682	
C164	470pF, COG, 0402, 5%, 50V	268364-471	
C165	0.22uF, X5R, 0402, 10V, 10%	342199-224	
C167	0.22uF, X5R, 0402, 10V, 10%	342199-224	
C168	10uF, X5R, 0805, 10V, 10%	354809-106K	
C169	100pF, COG, 0402, 5%, 50V	268364-101	
C171	100pF, COG, 0402, 5%, 50V	268364-101	
C172	0.22uF, X5R, 0402, 10V, 10%	342199-224	
C173	0.22uF, X5R, 0402, 10V, 10%	342199-224	
C174	6800pF, X7R, 0402, 16V, 10%	293702-682	
C175	6800pF, X7R, 0402, 16V, 10%	293702-682	
C177	6800pF, X7R, 0402, 16V, 10%	293702-682	
C178	6800pF, X7R, 0402, 16V, 10%	293702-682	
C181	6800pF, X7R, 0402, 16V, 10%	293702-682	
C182	6800pF, X7R, 0402, 16V, 10%	293702-682	
C183	6800pF, X7R, 0402, 16V, 10%	293702-682	
C184	6800pF, X7R, 0402, 16V, 10%	293702-682	
C185	6800pF, X7R, 0402, 16V, 10%	293702-682	
C186	6800pF, X7R, 0402, 16V, 10%	293702-682	
C187	3.3pF, COG, 0402, 50V, +/-0.25pF	317398-3R3CH	
C188	22pF, COG, 0402, 50V, 5%	268364-220	
C189	47pF, COG, 0402, 50V, 5%	268364-470	
C190	1.8pF, +/-0.1pF, COG, 0402, 50V	317398-1R8BH	
C191	10pF, COG, 0402, 5%, 50V	268364-100	
C192	1000pF, X7R, 0402, 16V, 10%	293702-102	
C193	1000pF, X7R, 0402, 16V, 10%	293702-102	
C194	47pF, COG, 0402, 50V, 5%	268364-470	
C195	18pF, COG, 0402, 5%, 50V	268364-180	
C196	15pF, COG, 0402, 5%, 50V	268364-150	
C197	15pF, COG, 0402, 5%, 50V	268364-150	
C198	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C199	47pF, COG, 0402, 50V, 5%	268364-470	
C200	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C201	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C202	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C203	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C204	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C205	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C206	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C207	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C208	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C209	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C210	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C211	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C212	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C213	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C215	0.1uF, X7R, 0603, 16V, 10%	257154-104K16	
C220	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C222	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C223	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C224	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C225	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C226	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C227	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C233	0.22uF, X5R, 0402, 10V, 10%	342199-224	
C300	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C301	0.1uF, X7R, 0603, 16V, 10%	257154-104K16	
C302	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C303	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C304	0.1uF, X7R, 0603, 10%, 50V	191470-104	
C305	0.1uF, X7R, 0603, 10%, 50V	191470-104	
C307	470pF, X7R, 0402, 50V, 5%	268366-471	
C308	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C309	470pF, X7R, 0402, 50V, 5%	268366-471	
C310	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C311	1uF, X7R, 0603, 16V, 10%	257154-105K16	
C312	470pF, X7R, 0402, 50V, 5%	268366-471	
C314	1500pF, X7R, 0402, 16V, 10%	293702-152	
C315	0.1uF, X7R, 0402, 16V, 10%	293702-104	

Reference Designator	Description	Part Number	Note
C317	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C318	1500pF, X7R, 0402, 16V, 10%	293702-152	
C319	22uF, X5R, 0805, 6.3V, 20%	273592-226JM	
C320	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C321	22uF, X5R, 0805, 6.3V, 20%	273592-226JM	
C323	1500pF, X7R, 0402, 16V, 10%	293702-152	
C324	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C326	1500pF, X7R, 0402, 16V, 10%	293702-152	
C328	1500pF, X7R, 0402, 16V, 10%	293702-152	
C330	1500pF, X7R, 0402, 16V, 10%	293702-152	
C332	1500pF, X7R, 0402, 16V, 10%	293702-152	
C334	1500pF, X7R, 0402, 16V, 10%	293702-152	
C335	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C338	1500pF, X7R, 0402, 16V, 10%	293702-152	
C340	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C341	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C342	1500pF, X7R, 0402, 16V, 10%	293702-152	
C343	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C344	1500pF, X7R, 0402, 16V, 10%	293702-152	
C346	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C347	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C348	1500pF, X7R, 0402, 16V, 10%	293702-152	
C349	1500pF, X7R, 0402, 16V, 10%	293702-152	
C352	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C353	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C354	1500pF, X7R, 0402, 16V, 10%	293702-152	
C355	1500pF, X7R, 0402, 16V, 10%	293702-152	
C357	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C358	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C359	1500pF, X7R, 0402, 16V, 10%	293702-152	
C361	1500pF, X7R, 0402, 16V, 10%	293702-152	
C363	1500pF, X7R, 0402, 16V, 10%	293702-152	
C364	1500pF, X7R, 0402, 16V, 10%	293702-152	
C367	1500pF, X7R, 0402, 16V, 10%	293702-152	
C368	1500pF, X7R, 0402, 16V, 10%	293702-152	
C370	1500pF, X7R, 0402, 16V, 10%	293702-152	
C371	1500pF, X7R, 0402, 16V, 10%	293702-152	
C373	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C374	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C376	470pF, X7R, 0402, 50V, 5%	268366-471	
C377	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C378	470pF, X7R, 0402, 50V, 5%	268366-471	
C379	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C380	0.1uF, X7R, 0603, 16V, 10%	257154-104K16	
C381	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C382	0.1uF, X7R, 0603, 16V, 10%	257154-104K16	
C383	22uF, X5R, 0805, 6.3V, 20%	273592-226JM	
C384	22uF, X5R, 0805, 6.3V, 20%	273592-226JM	
C385	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C386	0.1uF, X7R, 0603, 16V, 10%	257154-104K16	
C400	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C401	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C402	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C403	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C404	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C405	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C406	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C407	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C408	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C409	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C410	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C411	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C412	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C413	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C414	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C415	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C416	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C417	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C418	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C419	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C420	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C421	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C422	0.1uF, X7R, 0402, 16V, 10%	293702-104	



# ELECTRICAL PART LIST

SoundTouch™ Wi-Fi Module PCB Assembly

Capacitors (continued)

Capacitors (continued)

Reference Designator	Description	Part Number	Note
C423	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C424	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C425	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C426	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C427	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C428	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C429	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C430	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C431	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C432	22uF, X5R, 0805, 6.3V, 20%	273592-226JM	
C433	22uF, X5R, 0805, 6.3V, 20%	273592-226JM	
C434	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C435	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C500	0.1uF, X7R, 0603, 10%, .50V	191470-104	
C501	100pF, COG, 0402, 5%, 50V	268364-101	
C502	100pF, COG, 0402, 5%, 50V	268364-101	
C503	100pF, COG, 0402, 5%, 50V	268364-101	
C504	0.1uF, X5R, 0402, 16V, 10%	313771-104C	
C505	100pF, COG, 0402, 5%, 50V	268364-101	
C506	0.1uF, X5R, 0402, 16V, 10%	313771-104C	
C507	15nF, X7R, 0402, 16V, 5%	296732-153	
C508	15nF, X7R, 0402, 16V, 5%	296732-153	
C509	100pF, COG, 0402, 5%, 50V	268364-101	
C510	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C511	100pF, COG, 0402, 5%, 50V	268364-101	
C512	100pF, COG, 0402, 5%, 50V	268364-101	
C513	100pF, COG, 0402, 5%, 50V	268364-101	
C514	100pF, COG, 0402, 5%, 50V	268364-101	
C515	1000pF, COG, 0402, 5%, 50V	268364-102	
C516	100pF, COG, 0402, 5%, 50V	268364-101	
C517	100pF, COG, 0402, 5%, 50V	268364-101	
C518	0.1uF, X5R, 0402, 16V, 10%	313771-104C	
C519	0.1uF, X5R, 0402, 16V, 10%	313771-104C	
C521	1000pF, COG, 0402, 5%, 50V	268364-102	
C600	100pF, COG, 0402, 5%, 50V	268364-101	
C601	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C602	100pF, COG, 0402, 5%, 50V	268364-101	
C603	100pF, COG, 0402, 5%, 50V	268364-101	
C604	100pF, COG, 0402, 5%, 50V	268364-101	
C607	100pF, COG, 0402, 5%, 50V	268364-101	
C700	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C701	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C702	10nF, X7R, 0402, 25V, 5%	268367-103	
C703	10nF, X7R, 0402, 25V, 5%	268367-103	
C704	10nF, X7R, 0402, 25V, 5%	268367-103	
C705	10nF, X7R, 0402, 25V, 5%	268367-103	
C706	100pF, COG, 0402, 5%, 50V	268364-101	
C707	100pF, COG, 0402, 5%, 50V	268364-101	
C708	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C709	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C710	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C711	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C712	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C713	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C714	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C715	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C716	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C717	1000pF, COG, 0402, 5%, 50V	268364-102	
C718	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C719	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C720	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C721	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C746	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C748	10nF, X7R, 0402, 25V, 5%	268367-103	
C749	10nF, X7R, 0402, 25V, 5%	268367-103	
C750	10nF, X7R, 0402, 25V, 5%	268367-103	
C751	10nF, X7R, 0402, 25V, 5%	268367-103	
C752	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C768	10nF, X7R, 0402, 25V, 5%	268367-103	
C769	10nF, X7R, 0402, 25V, 5%	268367-103	
C771	10nF, X7R, 0402, 25V, 5%	268367-103	
C772	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C773	10nF, X7R, 0402, 25V, 5%	268367-103	
C774	10nF, X7R, 0402, 25V, 5%	268367-103	
C775	10nF, X7R, 0402, 25V, 5%	268367-103	
C776	10nF, X7R, 0402, 25V, 5%	268367-103	

Reference Designator	Description	Part Number	Note
C777	10nF, X7R, 0402, 25V, 5%	268367-103	
C778	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C779	10nF, X7R, 0402, 25V, 5%	268367-103	
C780	10nF, X7R, 0402, 25V, 5%	268367-103	
C781	10nF, X7R, 0402, 25V, 5%	268367-103	
C782	10nF, X7R, 0402, 25V, 5%	268367-103	
C783	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C784	10nF, X7R, 0402, 25V, 5%	268367-103	
C785	10nF, X7R, 0402, 25V, 5%	268367-103	
C786	10nF, X7R, 0402, 25V, 5%	268367-103	
C787	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C788	10nF, X7R, 0402, 25V, 5%	268367-103	
C789	10nF, X7R, 0402, 25V, 5%	268367-103	
C790	10nF, X7R, 0402, 25V, 5%	268367-103	
C791	10nF, X7R, 0402, 25V, 5%	268367-103	
C792	10nF, X7R, 0402, 25V, 5%	268367-103	
C793	10nF, X7R, 0402, 25V, 5%	268367-103	
C794	10nF, X7R, 0402, 25V, 5%	268367-103	
C795	10nF, X7R, 0402, 25V, 5%	268367-103	
C796	10nF, X7R, 0402, 25V, 5%	268367-103	
C797	10nF, X7R, 0402, 25V, 5%	268367-103	
C798	10nF, X7R, 0402, 25V, 5%	268367-103	
C799	10nF, X7R, 0402, 25V, 5%	268367-103	
C900	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C901	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C902	0.01uF, X7R, 0402, 16V, 10%	293702-103	
C1003	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C1006	3.3uF, X5R, 0603, 20%, 6.3V	313766-335J	
C1007	3.3uF, X5R, 0603, 20%, 6.3V	313766-335J	
C1009	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C1011	12pF, COG, 0402, 5%, 50V	268364-120	
C1012	15pF, COG, 0402, 5%, 50V	268364-150	
C1013	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C1014	220pF, COG, 0402, 5%, 50V	268364-221	
C1015	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C1016	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C1017	1000pF, X7R, 0402, 16V, 10%	293702-102	
C1018	1000pF, X7R, 0402, 16V, 10%	293702-102	
C1019	1000pF, X7R, 0402, 16V, 10%	293702-102	
C1020	1000pF, X7R, 0402, 16V, 10%	293702-102	
C1021	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C1022	220pF, COG, 0402, 5%, 50V	268364-221	
C1023	220pF, COG, 0402, 5%, 50V	268364-221	
C1024	0.1uF, X7R, 0402, 16V, 10%	293702-104	
C1025	47pF, COG, 0402, 50V, 5%	268364-470	
C1026	1uF, X5R, 0402, 10%, 10V	313771-105A	
C1027	47pF, COG, 0402, 50V, 5%	268364-470	
C1028	1000pF, COG, 0402, 5%, 50V	268364-102	
C1029	100pF, COG, 0402, 5%, 50V	268364-101	
C1030	100pF, COG, 0402, 5%, 50V	268364-101	
C1031	100pF, COG, 0402, 5%, 50V	268364-101	
C1032	100pF, COG, 0402, 5%, 50V	268364-101	
C1100	3.3uF, X5R, 0603, 20%, 6.3V	313766-335J	
C1101	470pF, X7R, 0402, 50V, 5%	268366-471	
C1102	470pF, X7R, 0402, 50V, 5%	268366-471	
C1103	22pF, COG, 0402, 50V, 5%	268364-220	
C1104	150pF, X7R, 0402, 16V, 10%	293702-151	
C1105	0.1uF, X7R, 0603, 10%, .50V	191470-104	
C1107	150pF, X7R, 0402, 16V, 10%	293702-151	
C1108	150pF, X7R, 0402, 16V, 10%	293702-151	
C1109	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C1110	150pF, X7R, 0402, 16V, 10%	293702-151	
C1111	150pF, X7R, 0402, 16V, 10%	293702-151	
C1112	0.1uF, X7R, 0603, 10%, .50V	191470-104	
C1113	150pF, X7R, 0402, 16V, 10%	293702-151	
C1114	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C1115	1000pF, COG, 0402, 5%, 50V	268364-102	
C1116	1000pF, COG, 0402, 5%, 50V	268364-102	
C1117	3.3uF, X5R, 0603, 20%, 6.3V	313766-335J	
C1200	100pF, COG, 0402, 5%, 50V	268364-101	
C1201	1000pF, COG, 0402, 5%, 50V	268364-102	
C1202	100pF, COG, 0402, 5%, 50V	268364-101	
C1203	100pF, COG, 0402, 5%, 50V	268364-101	
C1204	100pF, COG, 0402, 5%, 50V	268364-101	
C1205	100pF, COG, 0402, 5%, 50V	268364-101	
C1206	100pF, COG, 0402, 5%, 50V	268364-101	

# ELECTRICAL PART LIST

SoundTouch™ Wi-Fi Module PCB Assembly

## Capacitors (continued)

Reference Designator	Description	Part Number	Note
C1230	100pF, COG, 0402, 5%, 50V	268364-101	
C1231	100pF, COG, 0402, 5%, 50V	268364-101	
C1232	100pF, COG, 0402, 5%, 50V	268364-101	
C1233	100pF, COG, 0402, 5%, 50V	268364-101	
C1234	100pF, COG, 0402, 5%, 50V	268364-101	
C1235	100pF, COG, 0402, 5%, 50V	268364-101	
C1236	1000pF, COG, 0402, 5%, 50V	268364-102	
C1237	1000pF, COG, 0402, 5%, 50V	268364-102	
C1300	100nF, X7R, 0402, 16V, 5%	296732-104	
C1301	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C1302	4.7uF, X5R, 0402, 20%, 4V	313771-475GM	
C1303	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C1304	4.7uF, X5R, 0402, 20%, 4V	313771-475GM	
C1305	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C1306	4.7uF, X5R, 0402, 20%, 4V	313771-475GM	
C1307	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C1308	4.7uF, X5R, 0402, 20%, 4V	313771-475GM	
C1309	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C1310	4.7uF, X5R, 0402, 20%, 4V	313771-475GM	
C1311	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C1312	4.7uF, X5R, 0402, 20%, 4V	313771-475GM	
C1313	2.2uF, X5R, 0402, 6.3V, 20%	329485-225M	
C1314	2.2uF, X5R, 0402, 6.3V, 20%	329485-225M	
C1315	2.2uF, X5R, 0402, 6.3V, 20%	329485-225M	
C1316	2.2uF, X5R, 0402, 6.3V, 20%	329485-225M	
C1317	2.2uF, X5R, 0402, 6.3V, 20%	329485-225M	
C1318	4.7uF, CER, 1210, X7R, 25V	291431-475	
C1319	0.1uF, X7R, 0603, 10%, 50V	304991-104	
C1320	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C1321	2.2uF, X5R, 0402, 6.3V, 20%	329485-225M	
C1322	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C1323	2.2uF, X5R, 0402, 6.3V, 20%	329485-225M	
C1324	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C1325	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C1326	2.2uF, X5R, 0402, 6.3V, 20%	329485-225M	
C1328	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C1329	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C1330	10uF, X5R, 0603, 6.3V, 20%	313766-106J	
C1331	100nF, X7R, 0402, 16V, 5%	296732-104	
C1332	100nF, X7R, 0402, 16V, 5%	296732-104	
C1333	1uF, X5R, 0402, 10%, 10V	313771-105A	
C1335	1000pF, X7R, 0402, 16V, 10%	293702-102	
C1336	1000pF, X7R, 0402, 16V, 10%	293702-102	
C1337	1000pF, X7R, 0402, 16V, 10%	293702-102	
C1338	1000pF, X7R, 0402, 16V, 10%	293702-102	
C1339	1000pF, X7R, 0402, 16V, 10%	293702-102	
C1340	1000pF, X7R, 0402, 16V, 10%	293702-102	
C1500	1000pF, COG, 0402, 5%, 50V	268364-102	
C1501	1000pF, COG, 0402, 5%, 50V	268364-102	
C1502	100pF, COG, 0402, 5%, 50V	268364-101	
C1503	1000pF, COG, 0402, 5%, 50V	268364-102	
C1508	0.1uF, X7r, 0603, 10%, 50V	191470-104	
C1509	0.1uF, X7r, 0603, 10%, 50V	191470-104	
C1510	470pF, X7R, 0402, 50V, 5%	268366-471	
C1511	4.7uF, X5R, 0603, 10V, 20%	313766-475A	
C1512	1uF, 0805, X7R, 10%, 25V	181264-105	
C1513	0.1uF, X7r, 0603, 10%, 50V	191470-104	
C1514	0.1uF, X7r, 0603, 10%, 50V	191470-104	
C1515	10uF, 1206, X7R, 10V, 10%	260361-1062	
C1516	0.1uF, X7R, 0603, 10%, 50V	191470-104	
C1517	1.0nF, 0603, COG, SMD, 25V, 5%	268368-102	
C1518	1.0nF, 0603, COG, SMD, 25V, 5%	268368-102	
C1519	1000pF, X7R, 1206, 2000V, 20%	359294-102M	
C7100	10nF, X7R, 0402, 25V, 5%	268367-103	
C7101	10nF, X7R, 0402, 25V, 5%	268367-103	
C7102	10nF, X7R, 0402, 25V, 5%	268367-103	
C7103	10nF, X7R, 0402, 25V, 5%	268367-103	
C7104	10nF, X7R, 0402, 25V, 5%	268367-103	
C7105	10nF, X7R, 0402, 25V, 5%	268367-103	
C7106	10nF, X7R, 0402, 25V, 5%	268367-103	

## Capacitors (continued)

Reference Designator	Description	Part Number	Note
C7107	10nF, X7R, 0402, 25V, 5%	268367-103	
C7108	10nF, X7R, 0402, 25V, 5%	268367-103	
C7109	10nF, X7R, 0402, 25V, 5%	268367-103	
C7110	10nF, X7R, 0402, 25V, 5%	268367-103	
C7111	10nF, X7R, 0402, 25V, 5%	268367-103	
C7112	10nF, X7R, 0402, 25V, 5%	268367-103	
C7113	10nF, X7R, 0402, 25V, 5%	268367-103	

## Inductors

Reference Designator	Description	Part Number	Note
FB300	BEAD, FERRITE, 0805, 1.5A, 330OHM	267539-331	
FB301	120 OHM, FERRITE BEAD, CHIP, 0603	259925-121	
FB302	FERRITE BEAD, CHIP, 0603, 120 OHM	259925-121	
FB303	120 OHM, FERRITE BEAD, CHIP, 0603	259925-121	
FB304	120 OHM, FERRITE BEAD, CHIP, 0603	259925-121	
FB305	120 OHM, FERRITE BEAD, CHIP, 0603	259925-121	
FB306	FERRITE BEAD, CHIP, 0603, 120 OHM	259925-121	
FB307	BEAD, FERRITE, 0805, 1.5A, 330OHM	267539-331	
FB900	120 OHM, BEAD, FERRITE, 0402, 0.3A	324216-121B	
FB1100	120 OHM, BEAD, FERRITE, 0402, 0.3A	324216-121B	
FB1101	120 OHM, BEAD, FERRITE, 0402, 0.3A	324216-121B	
FB1102	BEAD, FERRITE, 0402, 120 OHM, 0.3A	324216-121B	
FB1103	BEAD, FERRITE, 0402, 120 OHM, 0.3A	324216-121B	
FB1104	120 OHM, BEAD, FERRITE, 0402, 0.3A	324216-121B	
FB1106	BEAD, FERRITE, 0402, 120 OHM, 0.3A	324216-121B	
FB1107	BEAD, FERRITE, 0402, 120 OHM, 0.3A	324216-121B	
FB1202	120 OHM, FERRITE BEAD, CHIP, 0603	259925-121	
FB1203	FERRITE BEAD, CHIP, 0603, 120 OHM	259925-121	
FB1300	120 OHM, FERRITE BEAD, 1206	326348-121	
FB1502	FERRITE BEAD, CHIP, 0603, 120 OHM	259925-121	
FB1503	BEAD, FERRITE, 0805, 1.5A, 330OHM	267539-331	
L18	120 OHMS, FERRITE, BEAD, 0603, BLM18P	302257-121	
L22	HI FREQ, 0402, 125C, 4.7nH	354810-4R7S	
L24	HI FREQ, 0402, 125C, 1.8nH	354810-1R8S	
L38	0 OHM, JUMPER, 0402	280043	
L1200	0504, 90 OHMS, 150mA, C- MODE	324381-090D	
L1300	POWER, 2520, 125C, 20%, 4.7uH	348739-4R7M	
L1301	POWER, 2520, 125C, 20%, 2.2uH	348739-2R2M	
L1302	POWER, 2520, 125C, 20%, 2.2uH	348739-2R2M	
L1303	POWER, 2520, 125C, 20%, 2.2uH	348739-2R2M	
L1304	POWER, 2520, 125C, 20%, 2.2uH	348739-2R2M	
L1305	POWER, 2520, 125C, 20%, 2.2uH	348739-2R2M	
L1306	POWER, 2520, 125C, 20%, 2.2uH	348739-2R2M	

# ELECTRICAL PART LIST

## SoundTouch™ Wi-Fi Module PCB Assembly

### Diodes

Reference Designator	Description	Part Number	Note
D500	SOT-23, BAV 99	147239	
D501	SOT-23, BAV 99	147239	
D502	SOT-23, BAV 99	147239	
D601	SOT-23, BAV 99	147239	
D1000	SOT-23, BAV 99	147239	
D1001	SOT-23, BAV 99	147239	
D1101	SWITCHING, 100V, BAV99, SOT363	319113-001	
D1200	SOT-23, BAV 99	147239	
D1201	SOT-23, BAV 99	147239	
D1300	SCHTKY, SC70, 30V, SINGLE	268381-001	
D1301	SCHOTTKY, DUAL, SERIES, 20V, SOT-23	342827-0010	
D1302	SCHTKY, SC70, 30V, SINGLE	268381-001	
DS601	DUAL, LED, RED, GRN, CM, ANOD	316292-001	
VR1100	DIODE, TVS, ESD, 24VDC, 0603	352782-0010	
VR1101	DIODE, TVS, ESD, 24VDC, 0603	352782-0010	
VR1102	DIODE, TVS, ESD, 24VDC, 0603	352782-0010	

### Transistors

Reference Designator	Description	Part Number	Note
Q1300	MOSFET, N-CHAN, 2N7002, SOT523	309607-001	
Q500	BPLR, N, 40V, 200mA, SOT23	146819	
Q501	MOSFET, P-CH, 3.8A, 30V, SOT-23	348008-0010	
Q600	BPLR, P, 40V, 200mA, SOT23	148596	
Q601	N, MFET, 2.5V, SOT-23	252043	
Q602	BPLR, P, 40V, 200mA, SOT23	148596	

### Integrated Circuits

Reference Designator	Description	Part Number	Note
U5	POWER AMP, 2.4GHz, SST12LP15A, 16VQFN	353372-0010	
U7	RF TRANSCEIVER, 2.4GHz, T6201C, QFN48	353400-0010	
U8	FILTER, BALUN, 2.4GHz, HHM1711D1, 0603-6	353392-0010	
U22	FILTER, BANDPASS, 0603-4, 2.4GHz	353361-0010	
U23	FILTER, BANDPASS, 0603-4, 2.4GHz	353361-0010	
U28	ANALOG SW, 6GHz, DPDT, HWS410, 12QFN	353365-0010	
U100	IC, SoC, MEDIA PROC, DM870A, 320LFBGA	354024-0010	
U100A	PAD, THERMAL, CONDUCTIVE	371259-0010	
U200	MEM, FLASH, NOR, 3.6V, 70nS, 64Mb, 64LFBGA	N/A	
U203	MEM, SDRAM, 3.3V, 167MHz, 128Mb, VFBGA54	353272-0082	
U203A	PAD, THERMAL, CONDUCTIVE	371259-0010	
U301	CODEC, AUDIO, W/DSP, 32b, 192kHz, 40WQFN	353341-0010	
U401	MEM, SDRAM, DDR3, 64Mbx16, 1.25nS, 96FBGA	N/A	
U401A	PAD, THERMAL, CONDUCTIVE	371259-0010	
U402	MEM, FLASH, NAND, 1.8V, 2GbX8, 63VFBGA	344693-0020	
U500	SOC, ARM A8, 105C, 1.1V, 600MHz, 324PBGA	369713-0040	
U500A	PAD, THERMAL, CONDUCTIVE	371259-0010	
U501	AUTHC, COPROCESSOR, APPLE, 2.0C	351292-0010	
U502	BUFFER, NON-INV, SINGLE, 74VHC1G125, SC70	347398-0010	
U503	V LEVEL, TRANSLATOR, CONFIG, SOT-23	326120-0010	
U602	IC, SCHMITT TRIGGER, INVERT,5V	310791-001	
U604	IC, INVERTER, DUAL, 50mA, 5V	280293-001	
U700	IC, LINEAR REG, TPS51200, DDR TERMINATION	319515-001	
U1000	IC, SoC, BLUETOOTH, 2.4GHz, CC2540F256, 40QFN	N/A	

### Integrated Circuits (continued)

Reference Designator	Description	Part Number	Note
U1101	DAC, 192kHz, 24Bit, 2ch, AK4384	299344-001	
U1105	STEREO ADC, 24-Bit, 192kHz	307160-001	
U1200	Inverter, Dual, 50mA, 5V	280293-001	
U1300	PWR MNGMT, Li-ION, TPS650250, 32QFN	347568-0010	
U1302	VOLT REG, SW, ADJ, DC-DC, TPS65910, 48QFN	354002-0010	
U1304	IC, LOGIC, SCHMITT INV, DUAL, 74LVC2G14, SC70	310351-002	
U1500	ETHERNET, PHYSICAL, LAN, TxRx, 24-QFN	353306-0010	

### Miscellaneous

Reference Designator	Description	Part Number	Note
J900	CONN., RF, COAXIAL, WITH SWITCH	316679-001	
J1200	CONN, FFC, 0.5mm, S ENTRY, 10POS, IVRY	349234-0010	
J1201	CONN, FFC, 0.5mm, S ENTRY, 31POS, W/SHIELD	310623-031	
J1202	CONN, FFC, 0.5mm, SMT, S ENTRY, 12 POS, IVRY	349234-0012	
J1203	CONN, FFC, 0.5mm, S ENTRY, 40 POS	310573-040	
CON3	CONN., RF, COAXIAL, WITH SWITCH	316679-001	
CON4	CONN., RF, COAXIAL, WITH SWITCH	316679-001	
FL1000	FILTER, CERAMIC, BAND PASS, 2.45GHz, 0603-6	354643-0010	
SHLD1	SHIELD, RF MODULE, TOP FRAME	353966-0010	
SHLD1-TOP	SHIELD, RF MODULE, TOP COVER	353965-0010	
SHLD2-BOT	SHIELD, RF MODULE, BOTTOM COVER	353967-0010	
SHLD300	SHIELD, FENCE, DSP	355254-0010	
SHLD300-TOP	SHIELD, COVER, DSP	355249-0010	
SHLD301-BOT	SHIELD, COVER, DSP	355249-0010	
SHLD400	SHIELD, FENCE, BT, TOP	355262-0010	
SHLD400-TOP	SHEILD, COVER, BT, TOP	355261-0010	
SHLD401-BOT	SHIELD, COVER, BT, BOTTOM	355257-0010	
W1	47pF, COG, 0402, 50V, 5%	268364-470	
W1000	0 OHM, JUMPER, 0402	280043	
W1001	0 OHM, JUMPER, 0402	280043	
W1003	0 OHM, JUMPER, 0402	280043	
W1004	0 OHM, JUMPER, 0402	280043	
W1103	0 OHM, JUMPER, 0402	280043	
W1104	0 OHM, JUMPER, 0402	280043	
W1105	0 OHM, JUMPER, 0402	280043	
W1300	0 OHM, JUMPER, 0402	280043	
W1301	0 OHM, JUMPER, 0402	280043	
W1302	0 OHM, JUMPER, 0402	280043	
W1303	0 OHM, JUMPER, 0402	280043	
W1304	0 OHM, JUMPER, 0402	280043	
W1305	0 OHM, JUMPER, 0402	280043	
W1306	0 OHM, JUMPER, 0402	280043	
W1307	0 OHM, JUMPER, 0402	280043	
W1308	0 OHM, JUMPER, 0402	280043	
W1309	0 OHM, JUMPER, 0402	280043	
W1310	0 OHM, JUMPER, 0402	280043	
W1312	0 OHM, JUMPER, 0402	280043	
W1313	0 OHM, JUMPER, 0402	280043	
W1315	0 OHM, JUMPER, 0402	280043	
W1316	JUMPER, CHIP, 0603	196042	
W1317	JUMPER, CHIP, 0603	196042	
W1319	0 OHM, JUMPER, 0402	280043	
W1320	0 OHM, JUMPER, 0402	280043	
W1321	0 OHM, JUMPER, 0402	280043	
W1322	0 OHM, JUMPER, 0402	280043	
W1500	0 OHM, JUMPER, 0402	280043	
W2	47pF, COG, 0402, 50V, 5%	268364-470	
W503	0 OHM, JUMPER, 0402	280043	



# ELECTRICAL PART LIST

## Amp PCB Assembly

### Resistors

Reference Designator	Description	Part Number	Note
R200	499K, 0402, 63MW, 1%	268361-4993	
R201	78.7K, 0402, 63MW, 1%	268361-7872	
R202	499K, 0402, 63MW, 1%	268361-4993	
R203	100K, 0402, 63MW, 1%	268361-1003	
R204	100K, 0402, 63MW, 1%	268361-1003	
R205	4.53K, 0402, 0.063W, 1%	268361-4531	
R206	10K, 0402, 63MW, 1%	268361-1002	
R207	10K, 0603, .1W, .1%	325009-1002	
R208	4.12K, 0603, .1W, .1%	325009-4121	
R209	100 OHM, 0805, .125W, 1%	133625-1000	
R210	33 OHM, 0402, 1/16W, 1%	268361-33R0	
R211	49.9 OHM, 0402, 63MW, 1%	268361-49R9	
R213	.03 OHMS, 1210, 0.5W, 5%	318356-300J	
R214	10K, 0402, 63MW, 1%	268361-1002	
R215	100K, 0402, 63MW, 1%	268361-1003	
R216	1K, 0402, 63MW, 1%	268361-1001	
R300	2K, 0402, 63MW, 1%	268361-2001	
R301	2K, 0402, 63MW, 1%	268361-2001	
R302	2K, 0402, 63MW, 1%	268361-2001	
R303	2K, 0402, 63MW, 1%	268361-2001	
R304	3K, THERMISTOR, B4500, 0603, 5%	316463-3001	
R305	22.1K, 0402, 63MW, 1%	268361-2212	
R306	22.1K, 0402, 63MW, 1%	268361-2212	
R307	100K, 0402, 63MW, 1%	268361-1003	
R308	1K, 0402, 63MW, 1%	268361-1001	
R309	1K, 0402, 63MW, 1%	268361-1001	
R310	1K, 0402, 63MW, 1%	268361-1001	
R311	1K, 0402, 63MW, 1%	268361-1001	
R314	10 OHM, 0402, 63MW, 1%	268361-10R0	
R315	10 OHM, 0402, 63MW, 1%	268361-10R0	
R316	49.9 OHM, 0805, .125W, 1%	133625-49R9	
R317	49.9 OHM, 0805, .125W, 1%	133625-49R9	
R318	49.9 OHM, 0805, .125W, 1%	133625-49R9	
R319	49.9 OHM, 0805, .125W, 1%	133625-49R9	
R320	10K, 0402, 63MW, 1%	268361-1002	
R321	1.58K, 0402, 63MW, 1%	268361-1581	
R322	100K, 0402, 63MW, 1%	268361-1003	
R323	49.9K, 0402, 63MW, 1%	268361-4992	
R400	100K, 0805, .125W, 1%	133625-1003	
R401	15K, 0805, .125W, 1%	133625-1502	
R403	100K, 0805, .125W, 1%	133625-1003	
R404	10K, 0805, .125W, 1%	133625-1002	
R405	49.9 OHM, 0805, .125W, 1%	133625-49R9	
R406	49.9 OHM, 0805, .125W, 1%	133625-49R9	
R407	10K, 0402, 63MW, 1%	268361-1002	
R408	40.2K, 0402, 63MW, 1%	268361-4022	
R500	121K, 0402, 63MW, 1%	268361-1213	
R501	200K, 0402, 63MW, 1%	268361-2003	
R502	118K, 0402, 63MW, 1%	268361-1183	
R503	33.2K, 0402, 1/16W, 1%	268361-3322	
R504	232K, 0402, 0.063W, 1%	268361-2323	
R505	43.2K, 0402, 63MW, 1%	268361-4322	
R506	5.11K, 0402, 63MW, 1%	268361-5111	
R507	0 OHM, JUMPER, 0402	280043	
R508	10K, 0402, 63MW, 1%	268361-1002	
R509	1K, 0402, 63MW, 1%	268361-1001	
R512	41.2K, 0402, 0.063W, 1%	268361-4122	

### Capacitors

Reference Designator	Description	Part Number	Note
C200	10nF, X7R, 0402, 50V, 5%	268366-103	
C201	10nF, X7R, 0402, 50V, 5%	268366-103	
C204	.1uF, X7R, 0603, 10%, 50V	304991-104	
C205	1uF, X5R, 0402, 6.3V, 10%	313771-105J	
C207	100pF, COG, 0402, 50V, 5%	268364-101	
C208	.1uF, X7R, 0603, 50V, 10%	191470-104	
C209	.1uF, X7R, 0603, 10%, 50V	304991-104	
C210	.1uF, X7R, 0603, 10%, 50V	304991-104	
C211	1uF, X5R, 0603, 10V, 10%	278992-105	
C212	2.2uF, X7R, 1206, FLEX TERM, 50V, 10%	308754-225	

### Capacitors (continued).

Reference Designator	Description	Part Number	Note
C213	.1uF, X7R, 0603, 50V, 10%	191470-104	
C214	2200pF, X7R, 0603, 50V,	191470-222	
C216	100uF, EL, SMD, 105C, 35V, 20%	306245-101EE	
C217	10uF, EL, SMD, 105, 35V, 20%	306245-100EB	
C218	.1uF, X7R, 0603, 10%, 50V	304991-104	
C219	.1uF, X7R, 0603, 10%, 50V	304991-104	
C221	.1uF, X7R, 0603, 10%, 50V	304991-104	
C300	1nF, X7R, 0402, 50V, 5%	268366-102	
C301	1nF, X7R, 0402, 50V, 5%	268366-102	
C302	1nF, X7R, 0402, 50V, 5%	268366-102	
C303	1nF, X7R, 0402, 50V, 5%	268366-102	
C304	1nF, X7R, 0402, 50V, 5%	268366-102	
C305	1nF, X7R, 0402, 50V, 5%	268366-102	
C306	.22uF, 1206, X7R, LD, 25V, 10%	306105-224	
C307	.22uF, 1206, X7R, LD, 25V, 10%	306105-224	
C308	.22uF, 1206, X7R, LD, 25V, 10%	306105-224	
C309	.22uF, 1206, X7R, LD, 25V, 10%	306105-224	
C310	1uF, X5R, 0603, 10V, 10%	278992-105	
C311	1uF, X5R, 0603, 10V, 10%	278992-105	
C312	1uF, X7R, 0603, 16V, 10%	257154-105K16	
C313	1uF, X7R, 0603, 16V, 10%	257154-105K16	
C314	2.2 nF, X7R, 0402, 50V, 5%	268367-222	
C315	3.3nF, X7R, 0402, 25V, 5%	268367-332	
C316	2.2 nF, X7R, 0402, 50V, 5%	268367-222	
C317	3.3nF, X7R, 0402, 25V, 5%	268367-332	
C318	.1uF, X7R, 0603, 10%, 50V	304991-104	
C319	.47uF, 0805, X7R, 50V, 10%	133623-474	
C320	.1uF, X7R, 0603, 10%, 50V	304991-104	
C321	.47uF, 0805, X7R, 50V, 10%	133623-474	
C322	.1uF, X7R, 0603, 10%, 50V	304991-104	
C323	.47uF, 0805, X7R, 50V, 10%	133623-474	
C324	.1uF, X7R, 0603, 10%, 50V	304991-104	
C325	.47uF, 0805, X7R, 50V, 10%	133623-474	
C326	.1uF, X7R, 0603, 10%, 50V	304991-104	
C327	.1uF, X7R, 0603, 10%, 50V	304991-104	
C328	.1uF, X7R, 0603, 10%, 50V	304991-104	
C329	.1uF, X7R, 0603, 10%, 50V	304991-104	
C330	1uF, X7R, 1206, OPEN, 16V, 10%	283163-105	
C331	1uF, X7R, 1206, OPEN, 16V, 10%	283163-105	
C332	1uF, X7R, 1206, OPEN, 16V, 10%	283163-105	
C333	2.2 nF, X7R, 0402, 50V, 5%	268366-222	
C334	1uF, X7R, 1206, OPEN, 16V, 10%	283163-105	
C335	2.2 nF, X7R, 0402, 50V, 5%	268366-222	
C336	2.2 nF, X7R, 0402, 50V, 5%	268366-222	
C337	2200pF, COG, 0402, 25V, 5%	328166-222	
C338	2.2 nF, X7R, 0402, 50V, 5%	268366-222	
C339	2200pF, COG, 0402, 25V, 5%	328166-222	
C340	1000pF, COG, 0402, 50V, 5%	268364-102	
C341	680uF, EL, SMD, 105, 16V, 20%	306169-681CJ	
C342	1000pF, COG, 0402, 50V, 5%	268364-102	
C343	1000pF, COG, 0402, 50V, 5%	268364-102	
C344	2200pF, COG, 0402, 25V, 5%	328166-222	
C345	1000pF, COG, 0402, 50V, 5%	268364-102	
C346	680uF, EL, SMD, 105, 16V, 20%	306169-681CJ	
C347	1nF, X7R, 0402, 50V, 5%	268366-102	
C348	1uF, 1206, X7R, LD, 25V, 10%	306105-105	
C349	1uF, 1206, X7R, LD, 25V, 10%	306105-105	
C350	100pF, COG, 0402, 50V, 5%	268364-101	
C351	100pF, COG, 0402, 50V, 5%	268364-101	
C352	100pF, COG, 0402, 50V, 5%	268364-101	
C353	100pF, COG, 0402, 50V, 5%	268364-101	
C354	2200pF, COG, 0402, 25V, 5%	328166-222	
C400	1uF, 0805, X7R, 50V, 10%	286499-104	
C401	1000pF, 0603, X7R, 50V, 10%	191470-102	
C402	1000pF, 0603, X7R, 50V, 10%	191470-102	
C403	.1uF, X7R, 0402, 16V, 10%	293702-104	
C500	2.2uF, X7R, 1206, FLEX TERM, 50V, 10%	308754-225	
C501	100pF, COG, 0402, 50V, 5%	268364-101	
C502	.01uF, 0603, X7R, 50V, 10%	304991-103	
C503	4.7uF, X5R, 0603, 10V, 20%	313766-475A	
C504	.1uF, X7R, 0402, 16V, 10%	293702-104	
C505	100pF, COG, 0402, 50V, 5%	268364-101	



# ELECTRICAL PART LIST

Amp PCB Assembly

## Capacitors (continued)

Reference Designator	Description	Part Number	Note
C507	1uF, X5R, 0402, 10V, 10%	313771-105A	
C508	470pF, X7R, 0402, 50V, 5%	268366-471	
C509	100pF, COG, 0402, 50V, 5%	268364-101	
C513	100uF, EL, SMT, 105C, 10V, 20%	359890-101A	
C514	100uF, EL, SMD, 105C, 35V, 20%	306245-101EE	
C515	1uF, X5R, 0402, 10V, 10%	313771-105A	
C516	1nF, X7R, 0402, 50V, 5%	268366-102	
C517	1uF, X5R, 0402, 10V, 10%	313771-105A	
C558	100pF, COG, 0402, 50V, 5%	268364-101	

## Inductors

Reference Designator	Description	Part Number	Note
L200	22uH, 2.5A, 10mm, SMT, 20%	266922-220	
L302	200uH, COMMON MODE, SMT	360703-0010	
L303	200uH, COMMON MODE, SMT	360703-0010	
L501	15uH, SMT, 6.3X6.3mm, 2.5A, 20%	353718-150M	
L502	120OHM, 1206	326348-121	




## Diodes

Reference Designator	Description	Part Number	Note
D200	SCHTKY, SC70, 30V, SINGLE	268381-001	
D201	SCHTKY, SC70, 30V, SINGLE	268381-001	
D202	SCHTKY, SC70, 30V, SINGLE	268381-001	
D203	SCHTKY, SC70, 30V, SINGLE	268381-001	
D400	SOT-23, BAV 99	147239	

## Transistors

Reference Designator	Description	Part Number	Note
Q200	MFET, N-CH, 0.3A, 60V, SOT-23	356154-0010	
Q201	MOSFET, P-CH, 3.8A, 30V, SOT-23	348008-0010	
Q202	MOSFET, P-CH, 3.8A, 30V, SOT-23	348008-0010	
Q203	MOSFET, P-CH, 3.8A, 30V, SOT-23	348008-0010	
Q300	DUAL MFET, N/P, 20V, 0.43/0.54A	326923-0010	
Q400	MFET, SOT23-6, P-CH, 60V, 3A	275417	
Q401	BPLR, P, 40V, 200mA, SOT23	148596	
Q402	MFET, SOT23-6, P-CH, 60V, 3A	275417	
Q500	MFET, N-CH, 0.3A, 60V, SOT-23	356154-0010	
Q502	MFET, N-CH, 8.5A, 30V, 6QFN	356053-0010	

## Integrated Circuits

Reference Designator	Description	Part Number	Note
U200	BATTERY CHARGER, 24V, BQ24753A	327294-0010	3, 
U201	MFET, N-CH, DUAL, 3A, 50V, 8SO	289259-001	
U300	PWR AMP, 15W, CLASS D, 26V	327287-0010	3, 
U301	PWR AMP, 15W, CLASS D, 26V	327287-0010	3, 
U400	EEPROM, 256X8 BITS	252864-002	
U500	VREG, SW, 2.5A, 5V, 2.2MHz, ISL85403,20QFN	354533-0020	
U516	O/V PROTECT, 7.20V, NCP367, 8DFN	355357-0040	

## Miscellaneous

Reference Designator	Description	Part Number	Note
J200	CONN, HEADER, R/A, 5-P, 2MM PITCH, BATTERY	330282-0054	
J300	CONN, HEADER, 4POS, 1.25mm, MALE, WHITE	330701-0004	
J301	CONN, HEADER, 5POS, 1.25mm, MALE, WHITE	330701-0005	
J400	CONN, FFC, 0.5mm, T ENTRY, 16POS,WHT	269863-016	
J401	CONN, FFC, 0.5mm, T ENTRY, 40POS, WHT	269863-040	
VR354	100pF, VARISTOR, 0603, 26V, 0.1J	374737-260C	
VR355	100pF, VARISTOR, 0603, 26V, 0.1J	374737-260C	
VR356	100pF, VARISTOR, 0603, 26V, 0.1J	374737-260C	
VR357	100pF, VARISTOR, 0603, 26V, 0.1J	374737-260C	
W400	0 OHM, JUMPER, 0402	280043	
ZR400	100 OHM, ZENER, 22V	307428-22	

# ELECTRICAL PART LIST

I/O PCB Assembly

## Resistors

Reference Designator	Description	Part Number	Note
R600	20.0K, 0402, 63MW, 1%	268361-2002	
R601	20.0K, 0402, 63MW, 1%	268361-2002	
R614	10.0K, 0402, 63MW, 1%	268361-1002	
R617	100K, 0402, 63MW, 1%	268361-1003	
R619	100K, 0402, 63MW, 1%	268361-1003	
R624	243K, 0402, 63MW, 1%	268361-2433	
VR600	TVS, ESD, 24VDC, 0603	352782-0010	
VR601	TVS, ESD, 24VDC, 0603	352782-0010	
VR602	TVS, ESD, 24VDC, 0603	352782-0010	
VR603	TVS, ESD, 24VDC, 0603	352782-0010	
VR604	TVS, ESD, 24VDC, 0603	352782-0010	

## Capacitors

Reference Designator	Description	Part Number	Note
C600	10uF, X5R, 0805, 25V, 10%	273592-106E	
C601	1uF, X7R, 0603, 16V, 10%	257154-105K16	

## Diodes

Reference Designator	Description	Part Number	Note
D600	SOT-23, BAV 99	147239	
ZR615	ZEN, 6.2V, SOT-23, 225MW, 5%	135247-5234	

## Transistors

Reference Designator	Description	Part Number	Note
Q602	MOSFET, P-CH, 3.8A, 30V, SOT-23	348008-0010	
Q620	MFET, N-CH, SOT-23, 0.3A, 60V	356154-0010	

## Integrated Circuits

Reference Designator	Description	Part Number	Note
U602	O/V PROTECT, 5.85V, NCP367, 8DFN	355357-0010	

## Miscellaneous

Reference Designator	Description	Part Number	Note
J600	CONN, USB, MICRO AB, S ENTRY, BLK, GOLD	354388-0010	
J601	CONN, FFC, 0.5mm, T ENTRY, 16POS, WHT	269863-016	
J602	CONN, PHONE, 3.5MM, FEMALE, 7POS, BLK	330462-0010	
J603	CONN, DC, 2POS, 2.8mm, 5A, 16V, BLK	343559-0020	
J604	CONN, FFC, 0.5mm, T ENTRY, 31POS, BLK	353979-0031	

# ELECTRICAL PART LIST

## Button PCB Assembly

### Resistors

Reference Designator	Description	Part Number	Note
R300	JUMPER,CHIP,1206	124896	

### Miscellaneous

Reference Designator	Description	Part Number	Note
J300	CONN, FFC, 0.5mm, S ENTRY, 10POS, IVRY	349234-0010	

# DISASSEMBLY PROCEDURE

## 1. Grill removal



1.1 Remove the two screws located on the bottom of the product using a standard 2.5mm allen key. Bose® part number 349601-0025.



1.2 Push the rear cover down and lift upward to release.



1.3 Remove the two screws securing the grille assembly.



1.4 Push the grille assembly down and lift upward to release. Then remove the cable from the Wi-Fi Module to the display board connector J200.

**! Important Note:** Take ESD precautions when connecting or disconnecting the OLED display. Refer to page 5 for ESD precautions.

**Important Note:** The display assembly must be replaced with the display assembly listed in the main part list. There are different OLEDs that need to match the display PCB. The display assembly listed in the main part list uses a matched OLED and display PCB.

## 2. End Cap Removal



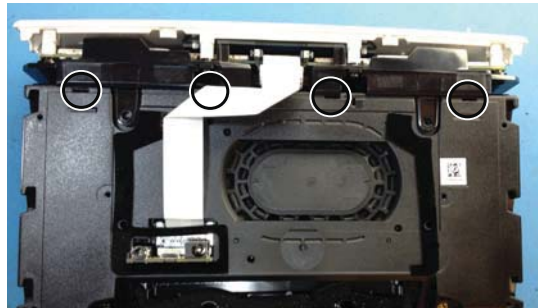
2.1 Remove the two screws holding the end caps to the enclosure.

2.2 Push each end cap down to release the hooks holding them in place.

## 3. Rear Cover and Top Cap Removal

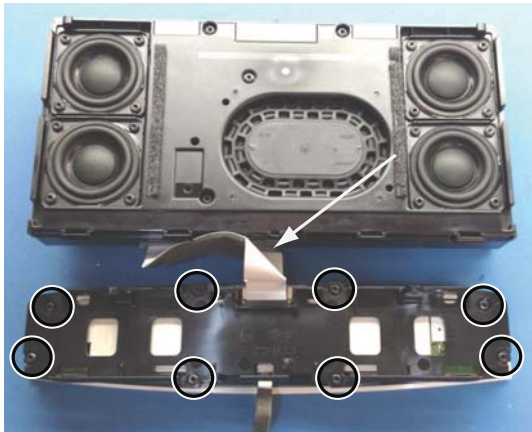


3.1 Remove the three screws holding the rear cover. Then remove the two screws holding the top cap.



# DISASSEMBLY PROCEDURE CONTINUED

## 4. Wi-Fi Module



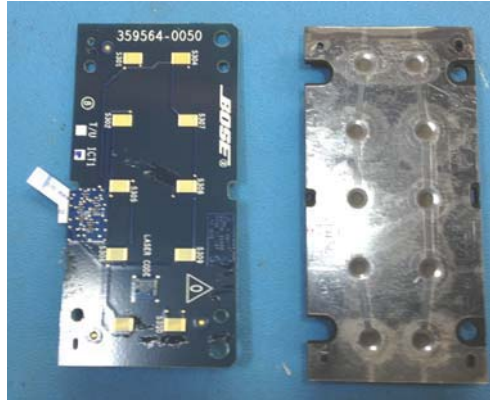
**4.1** Disconnect the two cables that connect to the Wi-Fi module. J1201 and J1202.

**4.2** Remove the eight screws holding the Wi-Fi Module to the top cap.



**4.3** Remove the single screw holding the Wi-Fi Module to the top cap frame.

## 5. Key Pad and Button Board disassembly



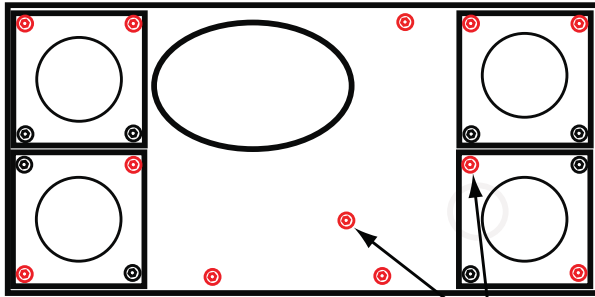
**5.1** The key pad and the button board are attached by PSA (Pressure Sensitive Adhesive). When replacing the button board, replace both parts.

Key pad part number - 355698-0030

Button PCB part number - 354789-001S

# DISASSEMBLY PROCEDURE CONTINUED

## 6. Acoustic Enclosure Disassembly



- ⊙ Screw needs to be removed For Disassembly
- Screw does not need to be removed For Disassembly

Longer Screws

**6.1** To disassemble the acoustic enclosure, it is not necessary to remove all 20 screws. Remove only the 12 screws shown in red above.

**Note:** Two of the screws shown with arrows are twice the length of the other screws. Ensure they are placed back in to the original locations.



**6.2** Carefully separate the front and rear enclosures and pull them apart to gain access to the internal parts. It is important to not damage the existing MIP (mold in place) gasket.



**6.3** Disconnect the cable from the Amplifier board to separate the front and rear enclosure.

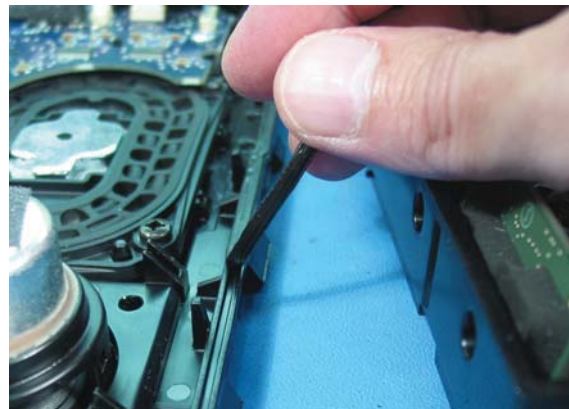
## 7. Removing and replacing the MIP (Mold In Place) gasket

The SoundTouch™ Mobile system uses a MIP (Mold In Place) gasket that acoustically seals the front and rear enclosure assemblies. See below.

This MIP gasket cannot be recreated by the service group. If the gasket is damaged, it will need to be fully removed and replaced with gasket strips. These strips are similar to double sided tape.

**Note:** The gasket only needs to be replaced if damaged or it can no longer acoustically seal the front and rear enclosures.

349600-001S - Gasket Strips, Service Kit

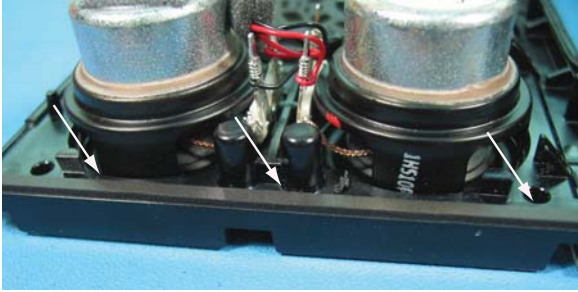


**7.1** Remove the existing MIP gasket if damaged by separating it from the enclosure.



# DISASSEMBLY PROCEDURE CONTINUED

## Acoustic Enclosure disassembly (continued)

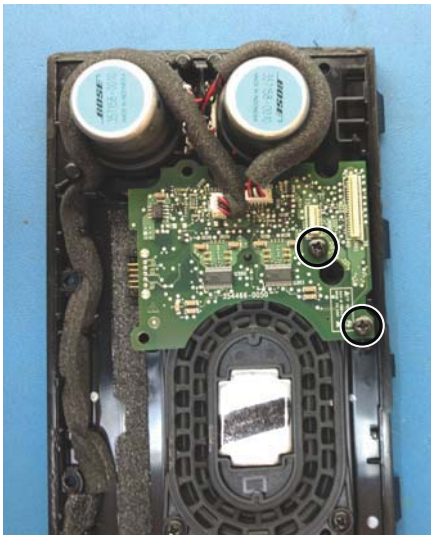


**7.1** Use the gasket strip kit (part number 349600-001S) to replace the gasket. See above.

Make sure the gasket strips are not placed beyond the outside of the assembly. This would result in a cosmetic defect.

Once the system is fully assembled, an air leak test must be performed to confirm the acoustic seal is correct.

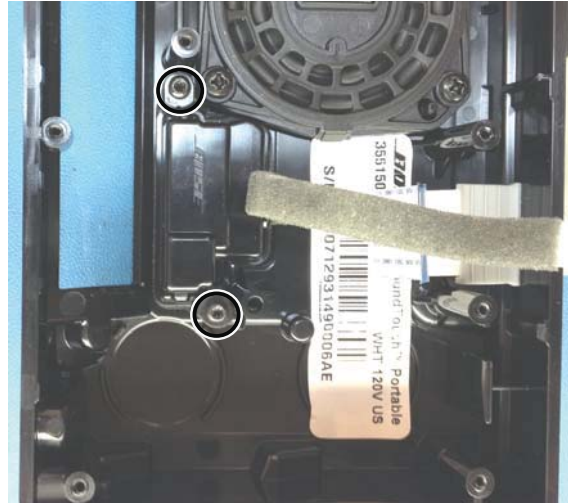
## 8. Amplifier PCB Removal



**8.1** Remove the two cables connecting the four driver assemblies.

**8.2** Remove the two screws holding the Amplifier board to the front enclosure.

## 9. I/O PCB Removal



**9.1** Remove the two screws securing the I/O PCB.

# TEST PROCEDURES

## SoundTouch™ Portable Digital Music System Functional Tests

### Equipment Required

Audio Signal Generator

#### Notes:

1. Begin the test with the volume set to zero.
2. Confirm the Audio Signal Generator output is set to zero volts before connecting.

### 1. Air Leak Test

**1.1** Connect the audio signal generator to the mini jack AUX input on the back of Sound-Touch Portable

**1.2** Set the signal generator output to:

- A. Voltage = 0V
- B. Frequency = 80Hz +/- 10%

**1.3** Press the power button on the Sound-Touch Portable, and select AUX input. Press and hold the volume plus button for 15 seconds, this should set the system to max volume.

**1.4** Set the Signal generator output to:  
A. Input Voltage = 0.06 Vrms +/- 10%  
B. Frequency = 80Hz +/- 5Hz

**1.5** Listen for air leaks around all the cabinet seams, joints, and wire harness through-holes.

**PASS** if no audible air leaks can be heard at a distance of less than 1ft (0.3M) from any exterior surface of the enclosure.

**FAIL** if any air leaks can be heard at a distance less than 1ft (0.3M) from any exterior surface of the enclosure.

### 2. Left / Right Driver Test

**2.1** Apply an input signal to the SoundTouch left channel only. Set the generator as in step 1.4 except set the frequency to 800Hz and confirm that only the left driver plays.

**2.2** Reduce the generator output to zero volts

**2.3** Repeat step 3.1 for the right channel.

**2.4** Reduce the input signal to zero volts and reconnect the right channel.

### 3. Frequency Sweep Test

**3.1** Set audio signal generator to:  
A. Voltage = 0.120 Vrms  $\pm$ 10%  
B. Sweep range = 70Hz - 3KHz  $\pm$ 10%

**3.2** Execute the sweep for a minimum of 3 seconds up and 3 seconds down.

**3.3** Listen for any extraneous noises such as buzzes, rattles, ticks, and distortion.

**PASS** if no noise can be heard at a distance of less than 1ft (0.3M).

**FAIL** if any noise can be heard at a distance less than 1ft (0.3M).

**3.4** Reduce the input signal to zero volts.



# SOFTWARE UPDATES

## SoundTouch™ Portable Digital Music Software Update using a USB flash drive

This procedure describes using a thumb drive to update the SoundTouch Portable software. The software file is available on the Technical Services website.

Bose internal site: <http://intranet.bose.com/tsg/>  
Bose external site: <http://serviceops.bose.com/>

Software updates can also be done with a key press once the product is connected to the internet via a Wi-Fi network. To update using the Wi-Fi network, press and hold “volume -” and “preset 4”.

### Equipment Required

1. USB Flash Drive
2. USB A Female to Micro B Male Adapter

### 1. USB Flash Drive

**1.1** Download the latest version of software from the Technical Services Website.

**1.2** Place the software on a USB flash drive.

**1.3** Connect the USB flash drive to the Micro USB A connector on the back of the system using the adapter cable described above.



**1.4** Press and hold the AUX button for 12 to 14 seconds to reset the system.

**1.5** Within a second of releasing the AUX button to reset the product, press and hold the “Volume -” and “preset 1” until the hand with a lineshow is on display.



The hand will continue to be displayed until the software update is complete. The product will then reboot and start up normally.

**1.6** Press and hold “volume -” and “preset 5” to see the system information. Scroll through the menu using the volume - and + buttons to confirm the software has been updated. Bose Application Firmware under the SoundTouch Information shows the systems software version.

### 4. SoundTouch Information

#### 4.2 Bose Application Firmware

# TAP COMMAND SET UP

## SoundTouch™ Portable Digital Music System TAP command set up

### Equipment Required

#### Hardware

Computer w/serial port  
 RS232 to TTL converter  
 Lifestyle® ETAP Cable, P/N 264565  
 Soundlink® ETAP adapter P/N 347062-0005

#### Software

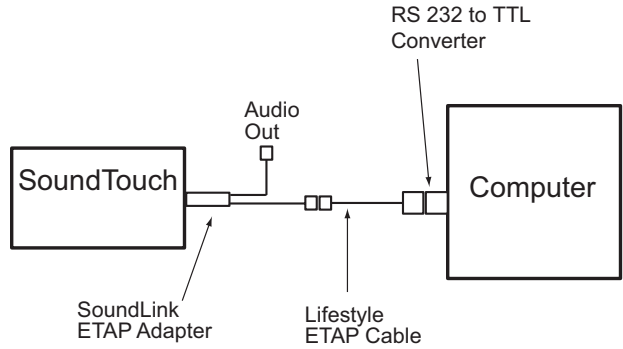
TeraTerm terminal emulator  
 (Download at <http://sourceforge.jp/projects/ttssh2/>)

**Notes:** TAP commands are sent to the SoundTouch Portable system by connecting a PC to the AUX IN connector.

An ETAP cable, ETAP Cable adapter and RS232 to TTL Converter are required for this communication. Both ETAP cables are available from Bose® (see part numbers above). The RS232 to TTL Converter is made by B+B electronics, model number 232LPTTL. It can be purchased online at <http://www.bb-elec.com>.

TAP commands are needed for the following procedures:

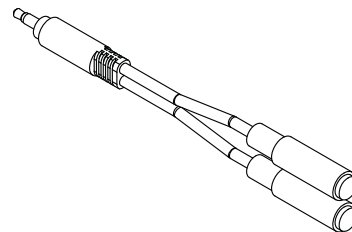
- A. Wi-Fi Link Test
- B. Serial Number Programing
- C. Setting Wi-Fi Country Code



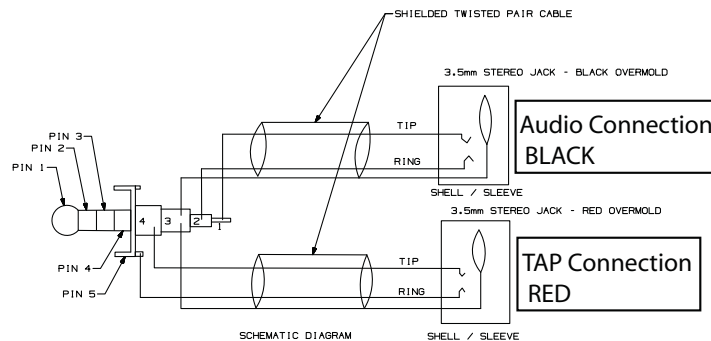
**ETAP Block Diagram**



**B+B Electronics model 232LPTTL RS232 to TTL converter**



**Drawing of Soundlink ETAP Cable Adapter**



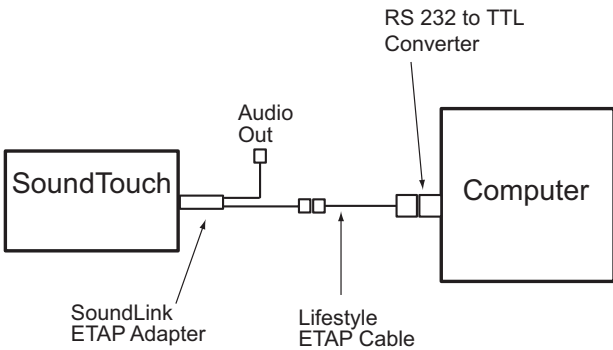
**Schematic Drawing of Sounklink ETAP Cable**

# TAP COMMAND SET UP (CONTINUED)

## 1. Tera Term Terminal USB set up

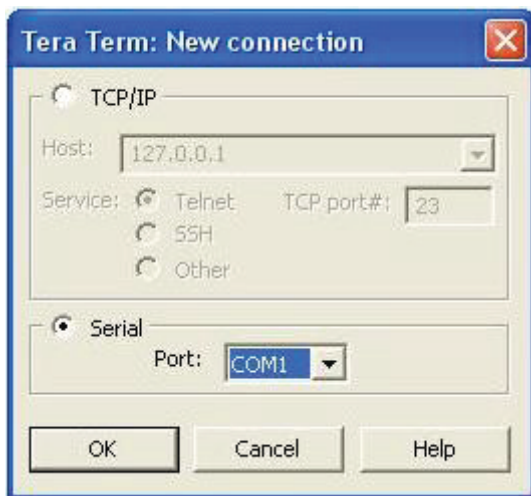
Tera Term is a terminal emulator and can be downloaded at <http://sourceforge.jp/projects/ttssh2/>. It is the interface used to send commands to the SoundTouch™ Portable product.

1.1 Connect the SoundTouch as shown in the diagram below.

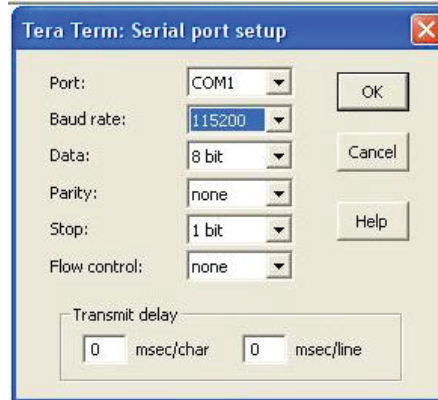
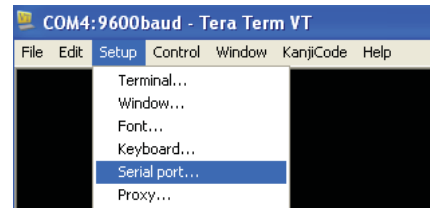


## 2. Teraterm set up

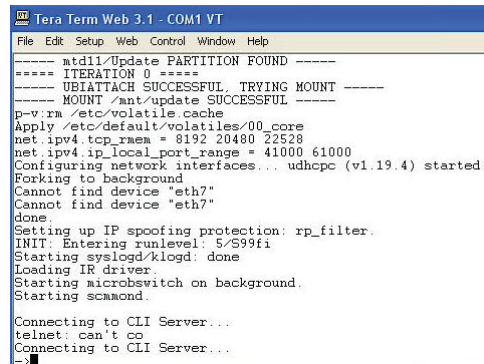
2.1 Launch a Tera Term terminal window and select serial communication and as shown below.



2.2 Select setup, then serial port to set the baud rate to 115,200 data to 8 bit, parity to none, stop to 1 bit and flow control to none.



2.3 Press and hold the AUX button on the SoundTouch Portable when power is applied for 12-15 seconds. The product will boot, and the Tera Term window will display the boot information.



# WI-FI TEST PROCEDURE

## 1. Wi-Fi Functional Test Set Up

This test uses TAP commands to connect the product to a Wi-Fi network and stream audio from a Bose® URL. The Bose SoundTouch™ application can be used in place of this test.

**Note:** Do not download the audio file from the test URL.

Determine the security type for your router and select the appropriate TAP command for Connecting to a Wi-Fi Router. (WEP, WPA, or no security)

Refer to pages 24-25, TAP Command Setup

## 2. Connecting to a Wi-Fi Router

**2.1** Enter the following TAP command for your router security type setting. Do not enter parentheses.

### 2.1.1 WEP Security Type

airplay wep profile (SSID) (Password)

### 2.1.2 WPA Security Type

airplay wpa profile (SSID) (tkip or aes) (Password)

### 2.1.3 No Security

airplay Wi-Fi profile (SSID)

**2.2** Wait for the Wi-Fi indicator on the

product's display to turn solid white. This may take up to a minute. If the indicator does not turn white, enter the TAP command again.

## 3. Testing the Wi-Fi Module.

**3.1** Enter the following TAP commands.

```
sys configuration DemoAudioURL http://worldwide.bose.com/downloads/assets/audio/take5.mp3
```

```
sys configuration DemoNetworkEnabled true
```

```
demo enter
```

**3.4** The song "Take 5" should play. Listen for clean undistorted audio.

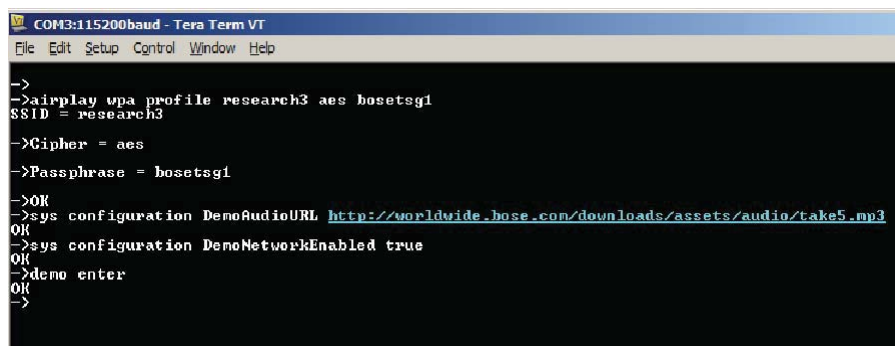
**3.5** Enter the following TAP command to exit the Wi-Fi test.

```
demo exit
```

**Note:** A Tera-Term macro that includes these TAP commands is available for download on the product's repair information page. Place the macro file in the same folder as your Tera-Term program. Open Tera-Term, select Control, Macro, wifi\_test.ttl. Once the macro runs, follow the prompts.

## 4. Factory Reset.

**4.1** Factory default the system by sending the "sys factorydefault" command or press "volume -" and "preset 1".



```
COM3:115200baud - Tera Term VT
File Edit Setup Control Window Help
->
->airplay wpa profile research3 aes bosetsg1
SSID = research3
->Cipher = aes
->Passphrase = bosetsg1
->OK
->sys configuration DemoAudioURL http://worldwide.bose.com/downloads/assets/audio/take5.mp3
OK
->sys configuration DemoNetworkEnabled true
OK
->demo enter
OK
->
```

# FUNCTIONAL TEST PROCEDURES

## SoundTouch™ Portable Digital Music System Miscellaneous Tests

### 1. IR Remote Test

1.1 Confirm power is applied.

1.2 Press each button on the remote control confirming the display reacts to each button press.

### 2. Keypad Button Test

2.1 Confirm power is applied to the SoundTouch Portable.

2.2 Press each button the SoundTouch Portable keypad confirming the display reacts to each button press.

### 3. Micro USB Port Functional Test

3.1 Connect the SoundTouch Portable to a computer as shown in the TAP command set up documented on pages 25 and 26.

3.2 Type the command "local\_services on" and <enter>. Then press CTRL-C on the keyboard. Then send the command "e" and <enter>. A command line taigan login: should be displayed on the computer.

3.3 Type the command root and <enter>. This will cause the command line to change to root@taigan:root#.

3.4 Connect a USB thumb drive into the USB port located on the back of the product.

3.5 Type the command "lsusb".

3.6 Verify the USB memory stick lights up and the name of the USB memory stick is visible.

3.7 Send the command "rm /mnt/nv/local\_services" and <enter>.

3.8 Send the command "exit" and <enter>. This will return to the TAP interface (CLI) and a TAP command line "->" should be shown.

# BATTERY TEST

## SoundTouch™ Portable Battery Test

Connect the SoundTouch Portable to a computer as shown in the TAP command set up procedure on pages 24 and 25.

**Note:** The battery must meet the following requirements:

1. Time Since Production: < 30 months
2. Battery Capacity: > 78%
3. Voltage Balance: < 70mV
4. Number of Cycles < 100
5. Charge Current: between 0.90 and 1.25 amps
6. Charge Current Wi-Fi Module: between -0.27 and -0.38 amps

The battery tests are run by sending TAP commands from a PC to the SoundTouch system. All battery tests with the exception of the "Charge Current Wi-Fi Module" should be done with power applied.

### 1.0 Time Since Production

**1.1** The four digit DOM listed within the serial number printed on the battery (not on the system) can be used to determine the batteries age. If the battery is more than 30 months old, it should be replaced.

Serial Number Example -  
059752Z31382392AE

The first 6 characters identify the product code - 059752.

Characters 8 to 11 identify the DOM -  
3138 = the 313th day of 2013.

**1.1** The TAP command "ba 5" can also be used to determine the date of manufacture.

Enter "ba 5". The results will look similar to:

Battery build date: raw=17074, 05/18/2013

## 2.0 Battery Capacity

**2.1** Connect power to the SoundTouch Portable.

**2.2** Enter "ba = 24".

The results are returned in hex, convert this to decimal.

Passing is a returned value greater than 2000, which is approximately 78% of the nominal battery capacity.

Example -

->ba = 24  
Register 24: 2362

## 3.0 Charge Current

**3.1** Enter "ba 2".

The results will look similar to:

Battery current: 1.039 A

Verify the result is between 0.90 and 1.25 A.

**Note:** If the Battery is above 90% charged, the charge current test is not valid. Ensure the battery is not charged above 90% before performing this test by entering the "ba 8" command.

Battery test continued on next page

# BATTERY TEST CONTINUED

## SoundTouch™ Portable Battery Test Continued

### 4.0 Number of Cycles

4.1 Enter "ba = 23"

Example:

->ba = 23

Register 23: 3

Number of Cycles = 3

Verify the results are lower than 100 cycles.

### 5.0 Voltage Balance

5.1 Unplug the power cord.

5.2 To calculate V Balance, three cell voltages need to be collected.

Issue the following TAP commands and write down the results.

"ba = 61" - Cell One

"ba = 62" - Cell Two

"ba = 63" - Cell Three

The results are returned in decimal.

Example -

->ba = 62

4061

4061 = 4.061V

Compare the three results. If the difference between the three voltage results is more than 70mV, the battery should be replaced.

### 6.0 Charge Current Wi-Fi Module

6.1 Remove power cord from the product so it is running on battery power.

6.2 Enter "ba 2"

The results will look similar to:

Battery current: -0.325 A

Verify the result is between  
. -0.27 and -0.38 A.

**Note:** If the Battery is above 90% charged, the charge current test is not valid. Ensure the battery is not charged above 90% before performing this test by entering the "ba 0" command.



# SERIAL NUMBER AND COUNTRY CODE PROGRAMING

Perform both of these procedures any time the Wi-Fi Module is replaced.

Download two macros from the Sound-Touch™ product's repair information page located on <http://serviceops.bose.com>. Place these macros in the Tera Term program folder.

```
set_serial_number.ttl  
set_country_code.ttl
```

## 1. Setting the Serial Number

**1.1** Connect the SoundTouch to a computer as shown in the TAP command set up procedure on pages 24 and 25.

**1.2** Within Tera Term, select Control then Macro and Select the file - "set\_serial\_number.ttl"

**1.3** Follow the prompts.

**Note:** The serial number can be read by pressing the Volume - button and the number 5 at the same time for 5 seconds for system information. Use the Volume - and + button to toggle through system information.

## 2. Setting the Country Code

**2.1** Connect the SoundTouch Portable to a computer as shown in the TAP command set up procedure on pages 24 and 25.

**2.2** Within Tera Term, select Control then Macro and Select the file - "set\_country\_code.ttl"

**2.4** Follow the prompts.

**Note:** Selecting us sets the Wi-Fi module to the US standard channels 1-11. Selecting eu sets the Wi-Fi module to EU standard channels 1-13

## 3. Reading the Country Code.

**3.1** Type the command "local\_services on" and <enter>. Then press CTRL-C on the keyboard. Then type "e" and <enter>. The command line taigan\_login: should be displayed on the computer.

**3.2** Type the command "root" and <enter>. The command line should be root@taigan:root#.

**3.3** Enter "cat /var/tmp/mfgdata.xml". The country code is displayed within the response.

```
<calElt kind="Bluetooth_Clock_Trim">8</calElt>  
</calData>  
<countryCode>US</countryCode>  
<bcopersistentSettings>  
<setting name="GTx0">ffffffffffffffff</setting:  
<setting name="GTx1">ffffffffffffffff</setting:  
<setting name="GTx2">ffffffffffffffff</setting:
```

**3.4** Return to CLI prompt by entering the command "rm /mnt/nv/local\_services" and <enter>.

**3.5** Enter the command "exit" and <enter>. This will return to the TAP interface (CLI) and a TAP command line "->" should be shown.



# TAP COMMANDS

**Helpful TAP Commands (see prior test procedures for detailed instructions)**

## 1. Connect to Router

### 1.1 No security

“airplay wifi profile [network\_name]” connects to a network w/ no security

### 1.2 WPA security

“airplay wpa profile [network\_name] [security] [passphrase]” for WPA where security is TKIP or AES

### 1.3 WEP security

“airplay wep profile [network\_name] [key]” for WEP security

## 2. Play Song from Demo URL

### 2.1 View Current system configuration

“getpdo CurrentSystemConfiguration” will print out the current values

### 2.2 Enter location of demo URL

“sys configuration DemoAudioURL <http://worldwide.bose.com/downloads/assets/audio/take5.mp3>”

### 2.3 Enable Demo

“sys configuration DemoNetworkEnabled true”

### 2.4 Enter Demo mode

“demo enter”

### 2.5 Exit Demo Mode

“demo exit” or “sys reboot”

## 3. Enter Manufacturing mode

**3.1** During the first few seconds of the boot process, hold shift and press “U” repeatedly until “U-Boot#” prompt is displayed.

**3.2** At the U-Boot# prompt, enter TAP command “setenv variant\_mode mfg”

**3.3** Enter TAP command “boot” to reboot unit into manufacturing mode.

## 4. Set Country Code

The Wi-Fi module can be set to EU or US standard, which determines which Wi-Fi channels are used. All countries outside the US are set to the EU Code. EU ch 1-13, US ch 1-11.

### 4.1 Enter Manufacturing Mode (Procedure 3)

**4.2** At the “->” prompt, enter TAP command “d dm870 cc (EU or US).”

**4.3** Enter TAP command “d reset” to reboot into normal mode.

## 5. Check Country Code

**5.1** Type the command “local\_services on” and <enter>. Then press CTRL-C on the keyboard. Then type “e” and <enter>. The command line taigan login: should be displayed on the computer.

**5.2** Enter TAP command “root” and <enter>. The command line should be root@taigan:root#.

**5.3** Enter “cat /var/tmp/mfgdata.xml” without the quotes. The country code is displayed in the first line of the response.

**5.4** Return to CLI prompt by entering the command “rm /mnt/nv/local\_services” and <enter>.

**5.5** Enter the command “exit” and <enter>. This will return to the TAP interface (CLI) and a TAP command line “->” should be shown.

## 6. Set Serial Number

### 6.1 Enter Manufacturing Mode (Procedure 3)

**6.2** At the “->” prompt, enter TAP command “d serial 1 XXXXXXXXXXXXXXXXXXXX”. Where X equals a serial number digit.

**6.3** Enter TAP command “d reset” to reboot into normal mode.

# TAP COMMANDS CONTINUED

## 7. Software Version

### 7.1 "sys ver"

The unit will reply with something similar to the following, significant digits are bold:

```
BoseApp version: 2.1.12.12569.366803  
epdbuild.rel_2.x.hepdswbld05.2013-09-  
12T18:23:09
```

## 8. Display Test (OLED)

8.1 Enter TAP command 'local\_services on'

8.2 Press Control C and then type 'e' and then enter.

8.3 At the taigan login, enter TAP command 'root'.

8.4 Enter TAP command 'cd /opt/Bose'

8.5 At the root@Taigan:Bose prompt, enter the following TAP commands to display different sections of the display.

```
cat oled_pattern_left_bar.raw > /dev/fb
```

```
cat oled_pattern_center_bar.raw > /dev/fb
```

```
cat oled_pattern_right_bar.raw > /dev/fb
```

```
cat oled_pattern_cols.raw > /dev/fb
```

```
cat oled_pattern_rows.raw > /dev/fb
```

```
cat oled_pattern_outline.raw > /dev/fb
```

8.6 To return unit to normal mode, Enter TAP command 'rm /mnt/nv/local\_services'  
Enter TAP command 'sys reboot'

## 9. Factory Default

9.1 Enter TAP command 'sys factorydefault'

# BACK DOOR KEY PRESSES

## 1. System Information

**1.1** Press and hold the Volume (-) minus and Preset 5 to bring up System Information. Use the Volume (-) minus and plus to toggle through the items.

1. MAC address
  - 1.1 Ethernet MAC address
  - 1.2 Wi-Fi MAC address
2. Network Information
  - 2.1 Connection Type
  - 2.2 IP Address
  - 2.3 SSID
  - 2.4 RSSI (Received Signal Strength), rates Wi-Fi signal received strength
3. System Information
  - 3.1 Component ID
  - 3.2 System Serial number
  - 3.3 Component ID (Wi-Fi)
  - 3.4 Wi-Fi Module Serial Number
  - 3.5 Wi-Fi Module Firmware
4. SoundTouch Information
  - 4.1 Wi-Fi Module Serial Number
  - 4.2 Bose Application Firmware
5. SoundTouch Controller Information
  - 5.1 Connected:yes/no
6. Battery Information
  - 6.1 Serial Number
  - 6.2 Firmware
  - 6.3 Manufacturer
  - 6.4 Build Date

## 2. Factory Default

**2.** Press and hold the Volume (-) minus and Preset 1. The system will return to factory default settings and reboot. The TAP command "sys factorydefault will also

## 3. Software Update

**3.1** Press and hold the Volume (-) minus and Preset 4 to initiate a software update.

**3.1.1** The unit will load the software update over Wi-Fi.

**3.1.2** To update the software with a thumb drive, freset the system with the AUX button. Then press and hold Volume (-) minus and Preset 4 within a second of the reset to initiate a software update. See page 25 for detailed instructions.

## 4. Alternate Setup (connect unit to Wi-Fi network)

**4.1** Press and hold the Volume (-) minus and Preset 2 to initiate alternate setup mode.

**4.2** Connect a smartphone, iOS device, or Wi-Fi enabled PC to the unit's Bose® Soundtouch Wi-Fi network.

**4.3** The units Wi-Fi setup page IP address will be shown on the unit's display. Enter the IP address into smart phone browser and follow the directions on the page.

## 5. Disable/Enable Networking

**5.1** Press and hold the Volume (-) minus and Preset 3 to enable or disable networking.

## 6. Product Reset

**6.1** Press and hold AUX button for 12-15 seconds.

# SHIP MODE

## SoundTouch™ Portable Ship Mode

Ship Mode is required any time the product will be placed in a shipping carton. Because the battery is normally active, buttons can be accidentally pressed while placing the product in the carton or as it moves around during shipping. Ship mode deactivates the product, and will not wake up until a power supply is attached.

### 1. Entering Ship Mode

**1.1** Connect the SoundTouch Portable to a computer as shown in the TAP command set up documented on pages 24 and 25.

A prompt (->) should appear within the Tera Term window when boot up is complete.

**1.2** Remove power from the SoundTouch Portable. Power must be removed prior to typing the TAP command in the next step.

**1.3** Type TAP command "ba s" then press enter. Once the command is entered, the system will be in ship mode and will not "wake up" until power is reapplied.

**1.4** Confirm the system does not respond to any button presses.

**Note:** For products that have the potential of staying in ship mode for an extended period of time - make sure the battery charge level is between 30 and 70%.

# SERVICE MANUAL REVISION HISTORY

<b>Date</b>	<b>Revision Level</b>	<b>Description of Change</b>	<b>Change Driven By</b>	<b>Pages Affected</b>
10/2013	00	Document released at revision 00	Service Manual release	All
12/2013	01	WiFi Module part number change from 627303-001S to 627303-031S  Power applied when testing the battery was added to the battery test.	Software change  Correction	8  31
4/2014	02	Black/grey parts added.	New product color available	7, 8
6/2014	03	WiFi Module part number change from 627303-001S to 627303-031S	Software change	8
11/5/2014	04	New sulfur free drivers added	Service Bulletin B1 mandates replacement of these drivers on product built prior to DOM 4062	9

SPECIFICATIONS AND FEATURES SUBJECT TO CHANGE WITHOUT NOTICE

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