



# Component Replacement

- electrical -



W705  
W715



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***For general information about electrical repair related issues, refer to  
1220-1336: Generic Repair Manual - electrical***

# 1 Replaceable Components

## EXPLANATION OF ABBREVIATIONS USED IN THE COLUMN 'COMMENTS' BELOW

### COMPONENT LOCATION

**P** = Primary side

**S** = Secondary side

### REPAIR METHOD

**HA** = Hot Air (removal & mounting)

**HA/ST** = Hot Air for removal - Soldering Tool for mounting

**BGA** = BGA Station

**BH** = Bottom heat

### ADDITIONAL INFORMATION

⇒1 (2,3,4, etc.) = Proceed to 'Additional Repair Info' for further instructions in the indicated section(s).

### CALIBRATION

**C** = Calibration of the phone is required after replacing the component

**Calibration to be done by authorized centers only!**

Position	Designation	Part no.	Comments
B1400	Osc TCXO 27,456 MHz <i>Only Applicable for W715</i>	1200-7847	P HA
B2000	SMD Vibrator	1202-9271	S HA/ST ⇒1
B2100	Crystal 32768Hz	RTM501911/2R1A	P HA C
B3100	Microphone	1210-7410	P BGA
B4410	MR Sensor	RYN901920/1	P HA ⇒2
C2214	Capacitor Electrolytic 70.0 mF None 3.3 V	1203-3900	P HA
L2200	Ind WW 4.7 uH K3012	1200-2214	P HA
L2201	120ohm 0603 2A 50mohm Bead	REG70605/15	P HA ⇒3
L2401	Inductor	REG70618/20	S HA ⇒4
L2402	Inductor	REG70618/20	S HA ⇒4
L2403	Inductor	REG70618/20	S HA ⇒4
L2404	Inductor	REG70618/20	S HA ⇒4
L2405	Inductor	REG70618/20	S HA ⇒5
L2406	Ind Chip 0, H	1200-6898	S HA ⇒4
L2408	Inductor	REG70618/20	S HA ⇒5
L2452	220ohm 0603 2A 0.05ohm Bead	REG70605/24	P HA ⇒3
L4200	22uH 20% 3x3x1.2mm 0.375A 0.63ohm	REG7245512/22M	P HA
N1200	Pre-bumped Tiger Band 1,8	1218-1880	P BGA C
N1200	Tiger 1,2,5 <i>Only Applicable for W705</i>	1218-1883	P BGA C
N1210	IC Linear	1203-5870	P HA
N1211	IC Voltage Regulator	1204-5903	P HA
N1300	Bluetooth and RDS FM radio tuner.	1200-9840	S BGA
N1400	A-GPS <i>Only Applicable for W715</i>	1200-0700	P HA
N1410	IC Amp P-TSLP-1-1 <i>Only Applicable for W715</i>	1200-2407	P HA
N1510	Mod Radio WLAN R041D	1200-6173	S HA
N2200	IC Vreg MAX8640, 1.8V	1200-6420	P HA
N2201	IC Vreg PLP1010-4	1201-6465	P HA ⇒6
N2203	IC Voltage Regulator	RYT113997/4	S HA ⇒7
N2204	LDO1.8 V, 200mA, low noise, CS-5	RYT1137816/4	S HA ⇒7
N2300	ASIC Power Management	1203-2790	P HA



Component Replacement Repair Drawing Electrical/

Position	Designation	Part no.	Comments
N2401	Transistor	RYN901936/1	P HA
N2411	ASIC Accelerometer	1202-1676	P HA ⇒8
N2420	IC IF ISP1508 ES3 (3.5*3.5*0.8)	1200-1694	P HA
N2421	IC ESD Prot UDFN 6 2x2 mm	1200-6309	P HA ⇒3
N2422	ASIC Baseband	1201-4120	P HA
N3100	IC CS-9	1200-9978	P HA
N3101	Asic	ROP1013074/1R1A	P HA ⇒3
R2449	Resistor 0, Ohm +/-50m 63 mW K0603	REP623001/0	S HA ⇒4
R2451	Resistor 0.0 Ohm +/-5% NA mW K0402	REP622001/0	S HA ⇒4
R2490	Resistor 0, Ohm +/-50m 63 mW K0603	REP623001/0	S HA ⇒4
S2403	Input Switch	RMD10116/9R1A	P HA/ST
S2404	Input Switch Side Push	1206-9606	S HA/ST
S2405	Input Switch	RMD10116/9R1A	P HA/ST
S2406	Input Switch	RMD10116/9R1A	P HA/ST
V2200	Diode	RKZ223911/1	S HA ⇒9
V2202	Transistor	RYN122910/1	P HA
V2415	Diode	1201-8440	P HA ⇒3
V2416	Diode	1201-8440	P HA ⇒3
V2417	TVS Diode 12V 38pF	1200-5130	S HA ⇒5
V2470	Switching Diode	RKZ323916/1	P HA ⇒10
V3101	Zenner Diode, ESD protection, 6.1V	RKZ223922/1	P HA ⇒11
V4203	Trans NPN	1211-3641	P HA
X1000	Conn Leaf Spring	1201-4841	P HA/ST
X1001	ANT GND Connector Leaf Spring 1p	1202-1053	P HA/ST ⇒12
X1002	Conn Leaf Spring	1201-4841	P HA/ST ⇒13
X1003	Conn Leaf Spring	1201-4841	P HA/ST
X1004	ANT GND Connector Leaf Spring 1p	1202-1053	P HA/ST ⇒14
X1005	Conn Leaf Spring	1201-4841	P HA/ST ⇒2
X1200	Connector	1203-9688	P HA/ST ⇒15
X1500	Connector	1203-9688	P HA/ST ⇒3
X2201	Conn Pogopin 5p	1206-2937	S BH/HA
X2401	Conn BtB Receptacle 16p	1214-7370	P HA
X2402	Conn BtB	1200-9864	S HA ⇒16
X2403	Memory Card Conn	RNK87147/2	P BGA
X2405	System connector I/O Receptacle 12p	1205-9723	S HA/ST
X3102	Conn WtB Receptacle 2p	1206-4855	S HA
X4200	Conn BtB Receptacle 70p	1206-2940	P BGA
X4300	Conn Camera Socket 0p	1206-5418	S HA/SI
Z2400	Filter	1201-6833	P HA ⇒3
Z4200	Filter 400.0 MHz KNA16400	REV50146/1	P HA ⇒8
Z4201	Filter 400.0 MHz KNA16400	REV50146/1	P HA ⇒8
Z4202	Filter 400.0 MHz KNA16400	REV50146/1	P HA ⇒8

## 2 Component Placing

To access the Component Placing document for W705, double-click the icons below.



To access the Component Placing document for W715, double-click the icons below.





## 3 Repair Actions

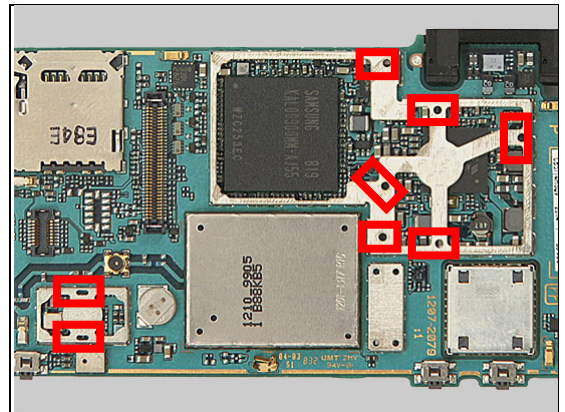
**Refer to the Tools Catalogue and/or Tools Matrix for information about equipment that is required for PBA repair!**

### 3.1 Shield Can Fence Modifications

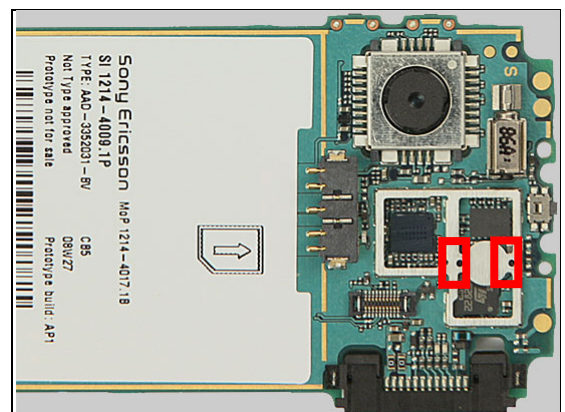
Refer to the pictures below of the primary and secondary sides for repairs that require the Shield Can Fence to be modified:

- the shield can lid has to be removed
- the red symbols show where the frame should be cut to enable rework
- after rework the height of the frame should not be affected
- it should not be visible that rework has been carried out when the lid has been mounted

**Side A**



**Side B**





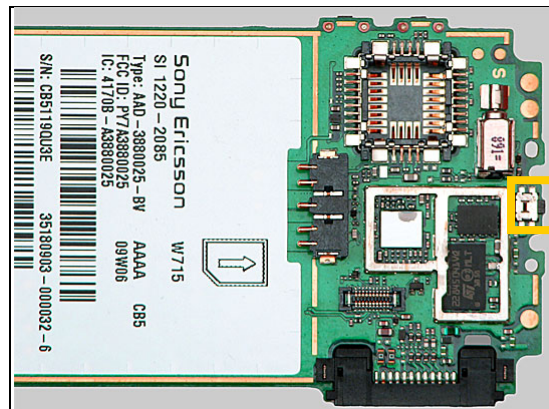
## Repair Actions

### 3.2 Additional Repair Info

1

B2000

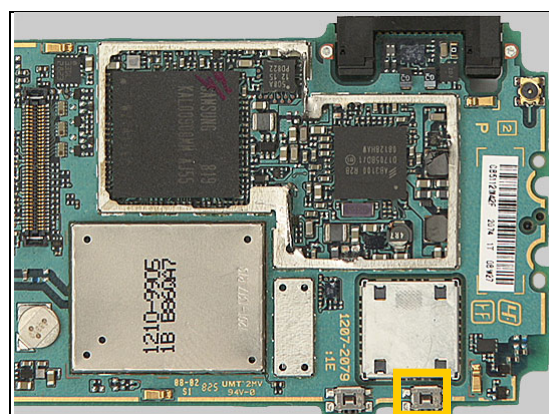
**Protect the switch with capton tape!**



2

B4410, X1005

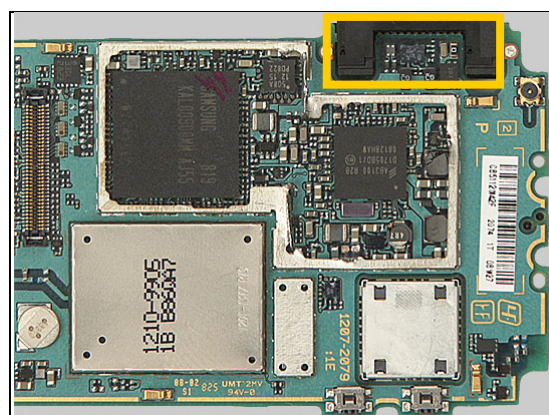
**Protect the switch with capton tape!**



3

L2201, L2452, N2421, N3101, V2415, V2416, X1500, Z2400

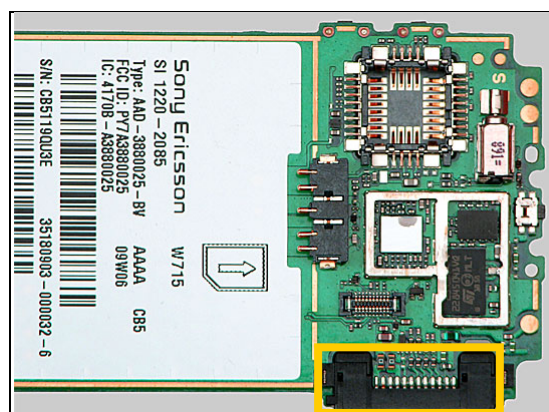
**Protect the system connector with capton tape!**



4

L2401-2404, L2406, R2449, R2451, R2490

**Protect the system connector with capton tape!**

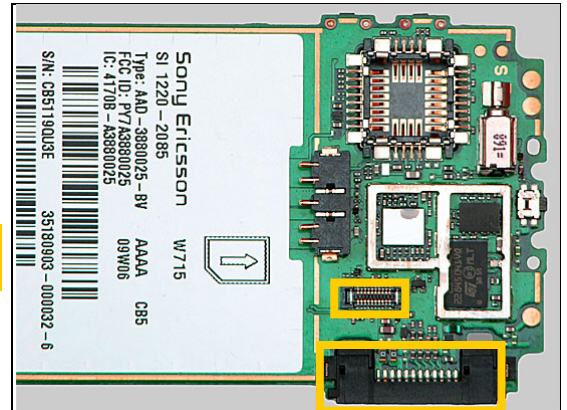


## Repair Actions: Additional Repair Info

5

L2405, L2408, V2417

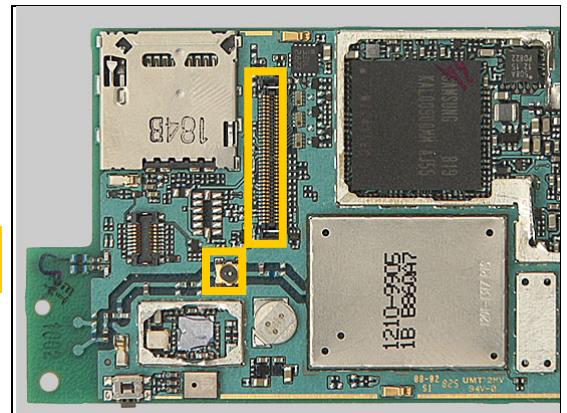
**Protect the BtB connector and system connector with capton tape!**



6

N2201

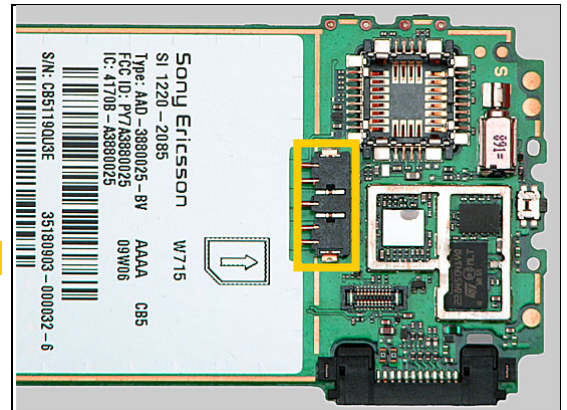
**Protect the coax connector and BtB connector with capton tape!**



7

N2203, N2204

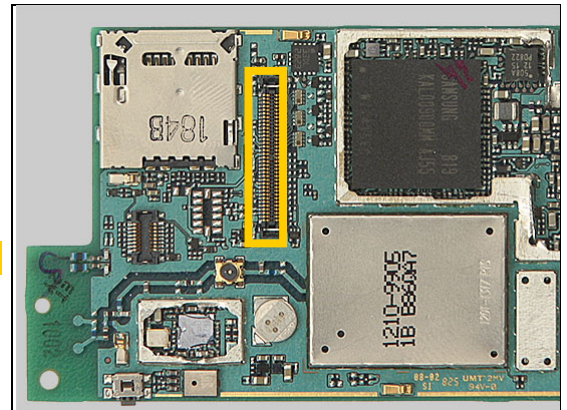
**Protect the battery connector tape!**



8

N2411, Z4200-Z4202

**Protect the BtB connector with capton tape!**





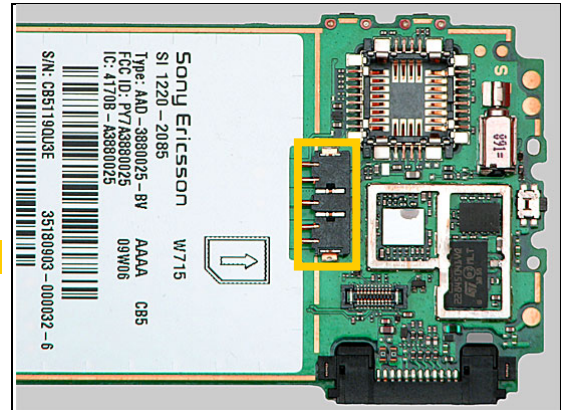


## Repair Actions: Additional Repair Info

9

V2200

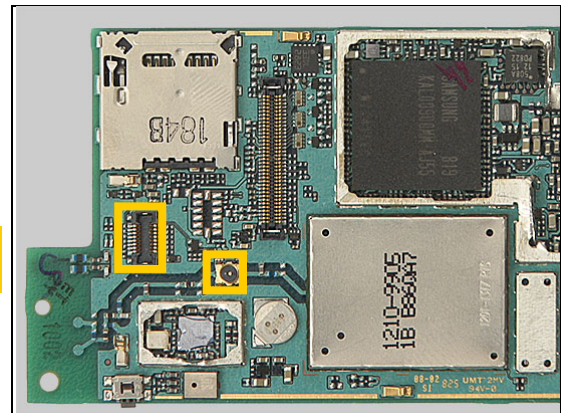
**Protect the battery connector with capton tape!**



10

V2470

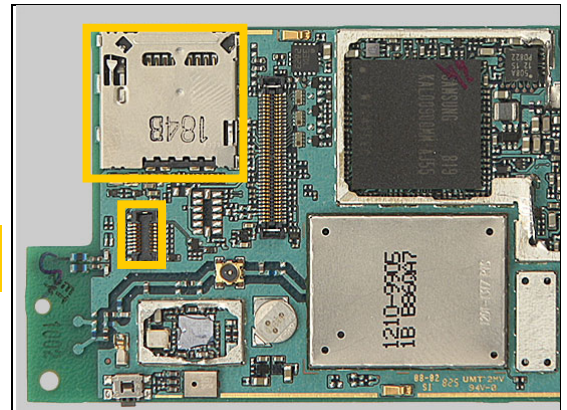
**Protect the BtB connector and coax connector with capton tape!**



11

V3101

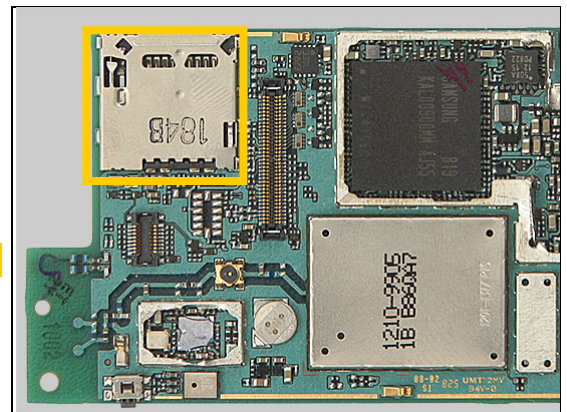
**Protect the memory card holder and BtB connector with capton tape!**



12

X1001

**Protect the memory card holder with capton tape!**



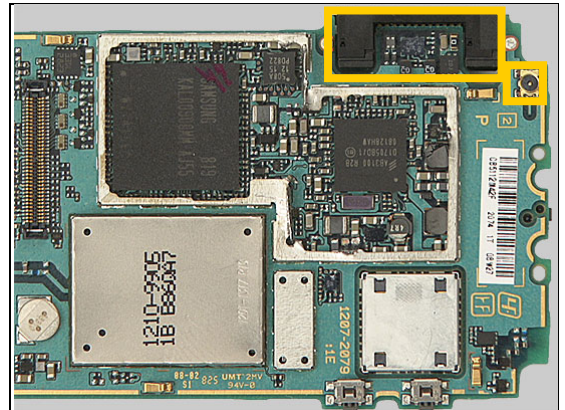


## Repair Actions: Additional Repair Info

13

X1002

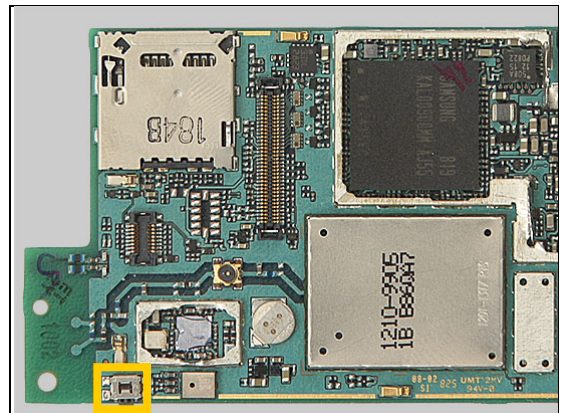
**Protect the system connector and the coax connector with capton tape!**



14

X1004

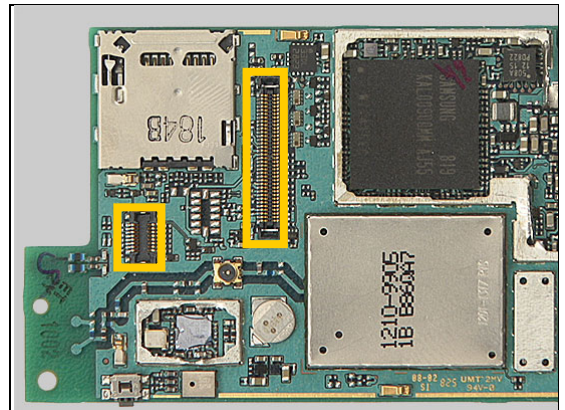
**Protect the switch with capton tape!**



15

X1200

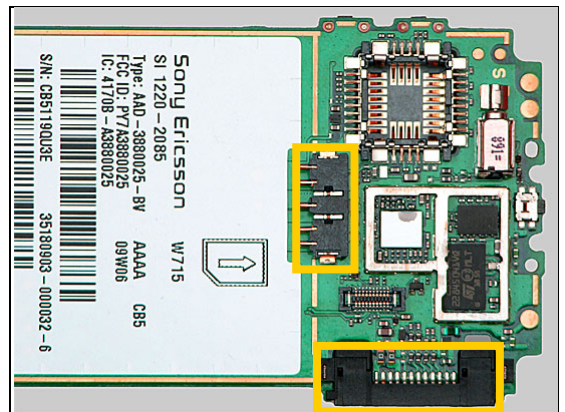
**Protect the two BtB connectors with capton tape!**



16

X2402

**Protect the battery connector and system connector with capton tape!**





## 4 Revision History

Rev.	Date	Changes / Comments
1	2009-Feb-25	Initial release
2	2009-Jun-09	L2452 added
3	2009-Jun-10	Added Component Placing for W705 and W715