Sony Ericsson

Component Replacement

- electrical -

R800i, R800a, R800x, R800at, Z1

1246-2438 Rev 1
© Sony Ericsson Mobile Communications AB – Company Internal

CONTENTS

1 Replaceable Components 3
2 Component Placing 6
3 Repair Actions 7
3.1 Shield Can Fence Modifications 7
3.2 Additional Repair Info 8
4 Revision History 17

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

© Sony Ericsson Mobile Communications AB – Company Internal

1 Replaceable Components

EXPLANATION OF ABBREVIATIONS USED IN THE COLUMN 'COMMENTS' BELOW

COMPONENT LOCATION
P = Primary side
S = Secondary side

MOISTURE SENSITIVITY LEVEL
MSLX (X = 1, 2, 2A, 3, 4, 5, 5A or 6)
For more information on moisture sensitivity levels:
Refer to 1220-1336: Generic Repair Manual – electrical, section 'Moisture & Baking'!

REPAIR METHOD
HA = Hot Air (removal & mounting)
ST = Soldering Tool (removal & mounting)
HA/ST = Hot Air for removal - Soldering Tool for mounting
BGA = BGA Station
BH = Bottom Heater

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!

© Sony Ericsson Mobile Communications AB – Company Internal

Position	Component	Part no.	Comments
B5000	Vibrator Bar Analog DC	1204-8172	P BGA ⇨ 1
B5002	IC	1220-4770	S HA ⇨ 20
B5003	IC	1220-4470	S HA
B5500	Microphone	1210-7410	P BGA ⇨ 2
B5501	Microphone	1210-7410	S BGA
C5200	Capacitor 1.0 uF +/-10% 25.0 V K0603	1000-0076	S HA
C5606	Capacitor 1.5 nF +/-10% 50.0 V K0402	1000-6548	S HA
C5613	Capacitor Ceramic 4,7 uF +/-20% 25, V 08	1220-2537	S HA
E1000	Shield Can Closed Drawn Can - RF	1233-5273	S BGA
L3900	Ind WW 2.2 uH	1232-8769	S HA
L3901	Ind Chip 2.2 uH +/- 20% K0805	1234-7293	S HA
L3902	Ind WW 2.2 uH	1232-8769	S HA
L3903	Ind WW 2.2 uH	1232-8769	S HA
L3904	Ind WW 2.2 uH	1232-8769	S HA
L4001	Ind WW 2,2 uH +/-20% K3012	1223-4064	S HA
L5402	Filter	1000-2609	S HA
L5403	Filter	1000-2609	S HA
L5503	Filter 0.0 Hz 0402	1200-0317	P HA ⇨ 3
L5504	Filter 0.0 Hz 0402	1200-0317	P HA ⇨ 3
L5505	Filter 0.0 Hz 0402	1200-0317	P HA ⇨ 3
L5506	Filter 0.0 Hz 0402	1200-0317	S HA ⇨ 4
L5507	Filter 0.0 Hz 0402	1200-0317	S HA ⇨ 4
L5508	Filter 0.0 Hz 0402	1200-0317	S HA ⇨ 4
L5600	Ind WW 10, uH	1000-3331	S HA
L5601	Ferrite B 240.0 Ohm 200.0 mA 0201	1000-2593	S HA
N1200	ASIC RF Transceiver 308 NSP	1228-1206	S BGA C CDMA Only
N1200	ASIC RF Transceiver QTR-8200 308-NSP	1228-2273	S BGA C All Band (Not CDMA)
N1600	Mod PA WCDMA 3X3X1 824-849MHz - REX-Q	1238-0476	S HA C For Band 5
N1600	Mod PA WCDMA 3X3X1 880-915MHz	1238-0477	S HA C For Band 8
N1700	Mod PA WCDMA 3X3X1 1920-1980MHz - REX-Q	1238-0469	S HA C All Band (Not CDMA)
N1701	Mod PA WCDMA 3X3X1 1850-1910MHz - REX-Q	1238-0474	S HA C For Band 2
N1800	Mod PA QUAD GSM850/GSM900/DCS/EDGE	1232-2928	S BGA C All Band (Not CDMA)
N1902	RF Antenna Switch GSM & UMTS/CDMA DUAL	1237-2994	S HA C All Band
N2100	IC Amp 1010x0.4	1232-9070	P HA
N2500	Mod BB WLAN 6.57 x 5.62 x 0.55mm	1227-7418	S BGA
N2501	IC Switch 2x2x0.6 mm, 8pin	1239-0547	S HA
N3802	IC Lin TDFN-8	1221-6812	S HA
N3803	IC Lin WDFN6 Protection Interface Circui	1228-1705	S HA
N4003	IC Lin Converter Step Down	1227-6376	S HA
N4400	IC Dri WL-CSP 2x1.5 4x3 balls, 0.5mm pit	1219-2970	S HA
N4401	IC ESD Prot Micro QFN 16L 3,3x1,5mm	1225-4036	S HA ⇨ 5
N4402	IC ESD Prot Micro QFN 16L 3,3x1,5mm	1225-4036	S HA ⇨ 5
N4500	IC Vreg PLP1010-4	1201-6465	S HA
N4700	IC Switch UMLP-28 Dual Row (3.6X2.8mm) I	1228-8877	S HA
N4800	IC ESD Prot 2.50x1.20x0.50mm	1227-5811	S HA
N4801	IC ESD Prot 2.50x1.20x0.50mm	1227-5811	S HA
N4802	IC ESD Prot 2.50x1.20x0.50mm	1227-5811	S HA ⇨ 6
N5200	IC ESD Prot	1227-8675	S HA
N5300	IC Amp CSP-9 Class D Mono	1237-8660	S HA
N5301	IC Amp CSP-9 Class D Mono	1237-8660	S HA

© Sony Ericsson Mobile Communications AB – Company Internal

Position	Component	Part no.	Comments
N5400	ASIC Tjatte3 CSP20	1000-0198	S HA
N5500	IC Amplifier 500mA	1203-4594	S HA ⇨ 6
N5600	IC WL-CSP 6x4 balls	1212-7979	S HA
N5701	MEMS Compass Analog	1228-7182	S HA
S4803	Input Switch	1001-0060	P HA/ST
S4804	Input Switch	1001-0060	P HA/ST
S4805	Input Switch Other TACT SWITCH 3.7 x 3.7	1213-3638	S HA
S4806	Input Switch Other TACT SWITCH 3.7 x 3.7	1213-3638	S HA
S4807	Input Switch	1001-0060	S HA/ST
S4808	Input Switch Side Push/	1245-9546	P HA/ST ⇨ 19
S4809	Input Switch Side Push/	1245-9546	P HA/ST ⇨ 21
S4810	Input Switch Other TACT SWITCH 3.7 x 3.7	1213-3638	S BGA
S5000	Input Switch Other TACT SWITCH	1230-4023	S HA/ST
S5001	Input Switch Other TACT SWITCH	1230-4023	S HA/ST
S5002	Input Switch Other TACT SWITCH	1230-4023	S HA/ST
S5003	Input Switch Other TACT SWITCH	1230-4023	S HA/ST
S5004	Input Switch Other TACT SWITCH	1230-4023	S HA/ST
S5005	Input Switch Other TACT SWITCH	1230-4023	S HA/ST
S5006	Input Switch Other TACT SWITCH	1230-4023	S HA/ST
S5007	Input Switch Other TACT SWITCH	1230-4023	S HA/ST
V3801	ZenerDiode, 5.6V, Pb-free	1001-1864	S HA
V3802	ZenerDiode, 5.6V, Pb-free	1001-1864	S HA
V3803	Trans N-ch FET 1.2X0.8X0.5	1200-2023	S HA
V4400	LED White 2.04x1.64x0.7mm	1228-6212	P BGA ⇨ 7
V4802	LED RED/GREEN/BLUE	1200-1926	S HA/ST ⇨ 8
V5000	Diode Schottky 20.0 V SOD323	1200-1679	P HA ⇨ 9
V5100	Diode Protection 5, V SOD-923	1201-8440	S HA
V5102	Trans P-ch FET WDFN6	1200-1780	S HA
V5300	Diode Zener 5.0 V SOT-723	1203-0201	S HA
V5301	Diode Zener 5.0 V SOT-723	1203-0201	S HA
V5500	Diode Zener 5.0 V SOT-723	1203-0201	S HA
V5600	MOSFET & Schottky Diode	1201-3866	S HA
W2100	Internal Antenna Connector	1000-0308	P HA
X1900	Conn Coax Receptacle 0p test switch	1221-6477	P BGA ⇨ 10
X1901	Conn Pogopin 2p	1233-8058	P BGA ⇨ 11
X2500	Conn Coax Receptacle 0p test switch	1221-6477	P BGA ⇨ 12
X2501	Conn Leaf Spring Receptacle 1p	1200-2144	P HA ⇨ 17
X3801	Conn Pogopin Plug 5p	1226-6294	P BGA ⇨ 13
X4300	Conn BtB Receptacle 64p	1231-1872	S BGA
X4500	Conn BtB Receptacle 30p Hirose DF37B	1216-9089	S BGA
X5000	Conn FPC Receptacle 8p	1232-9797	S BGA
X5100	Card Conn SIM push-pull w/switch	1227-3532	P BGA ⇨ 14
X5101	Connector BtB	1202-0859	P BGA ⇨ 15
X5200	Conn USB micro B Receptacle 5p mid-mount	1232-9759	S BGA
X5401	CONNECTOR/5 POS/FPC	1001-6666	P BGA ⇨ 16
Z2100	Filter 1.575 GHz	1236-2944	S HA
Z2101	Filter SAW 1.575 GHz	1211-5714	P HA
Z2500	Filter Cer RF 2.45 GHz Bluetooth/W-LAN	1228-7102	S HA
Z4300	Filter 100.0 MHz	1224-6060	S HA ⇨ 18
Z4301	Filter 100.0 MHz	1224-6060	S HA ⇨ 18
Z4302	Filter 100.0 MHz	1224-6060	S HA ⇨ 18
Z5200	Filter 100.0 MHz	1224-6060	S HA

© Sony Ericsson Mobile Communications AB – Company Internal

2 Component Placing

To access the Component Placing document, double-click the icon below.
Applicable for on-screen viewing only – icon not shown on hard-copies.

© Sony Ericsson Mobile Communications AB – Company Internal

3 Repair Actions

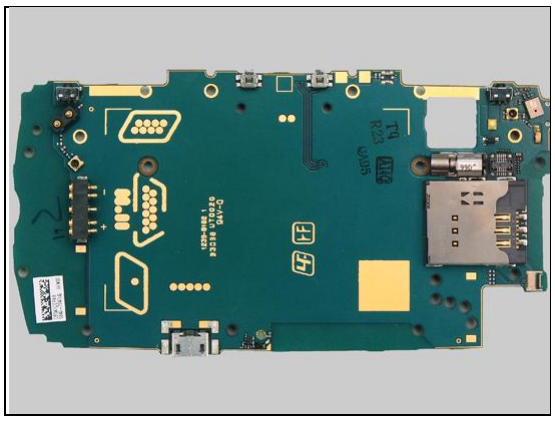
Refer to the Tools Catalogue/Matrix for information about equipment required for PBA repair!

3.1 Shield Can Fence Modifications

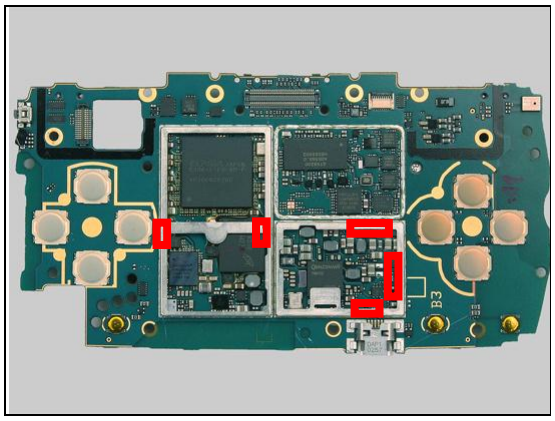
Refer to the pictures below of the primary and secondary sides for repairs that require the Shield Can Fence to be modified:

- 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

Primary side



Secondary side



© Sony Ericsson Mobile Communications AB – Company Internal

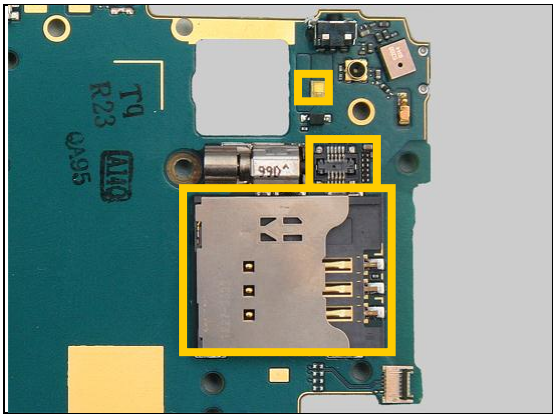
Repair Actions

3.2 Additional Repair Info

1

B5000

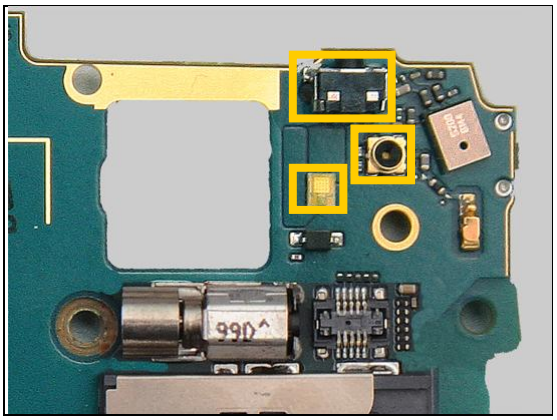
Protect the white LED, the BtB connector and the SIM connector with capton tape!



2

B5500

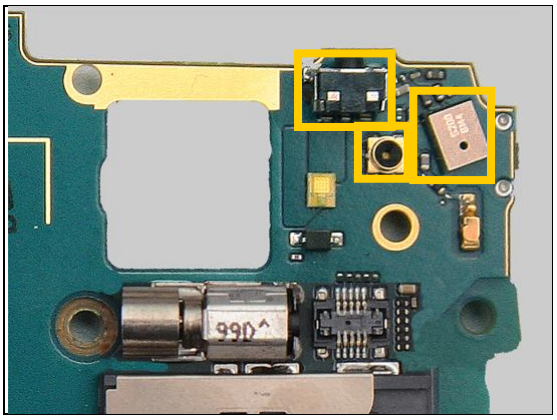
Protect the white LED, the switch connector and the Coax connector with capton tape!



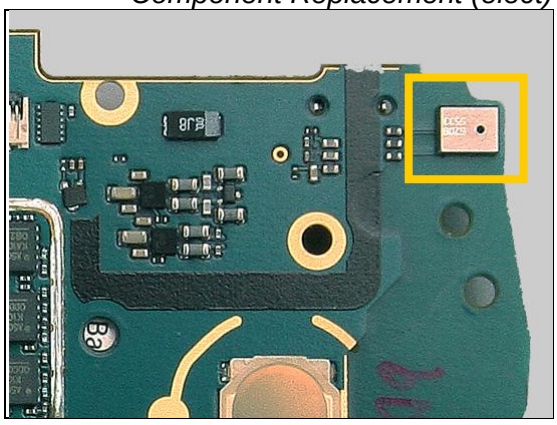
3

L5503, L5504, L5505

Protect the Microphone, the switch connector and the Coax connector with capton tape!



© Sony Ericsson Mobile Communications AB – Company Internal



4

L5506, L5507, L5508

Protect the Microphone with capton tape!

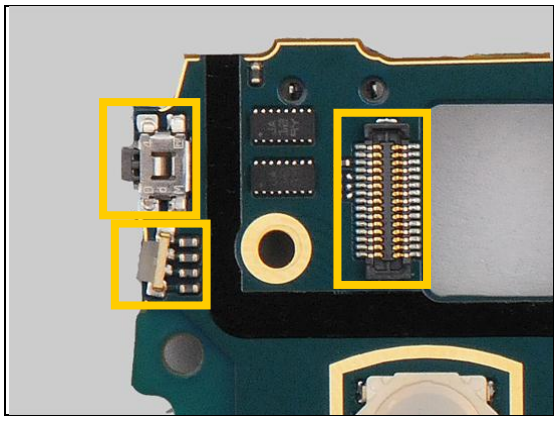
© Sony Ericsson Mobile Communications AB – Company Internal

Repair Actions: Additional Repair Info

5

N4401, N4402

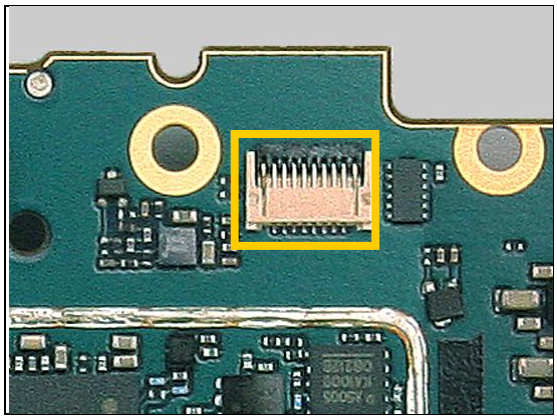
Protect the On/Off key connector, the LED and the BtB connector with capton tape!



6

N4802, N5500

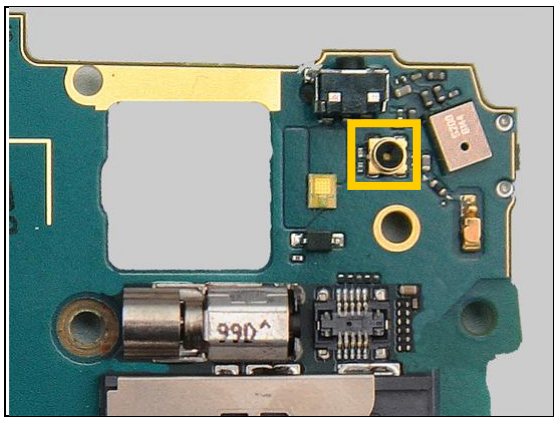
Protect the ZIF connector with capton tape!



7

V4400

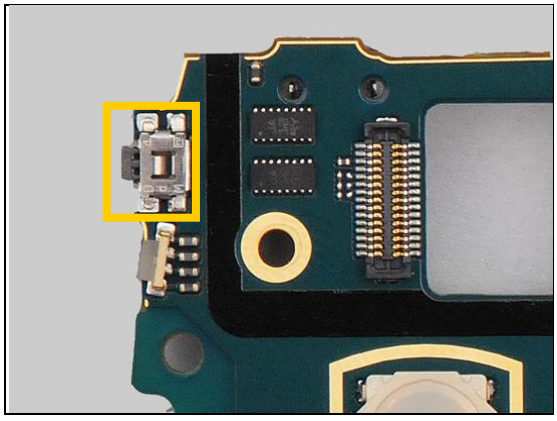
Protect the Coax connector with capton tape!



8

V4802

Protect the On/Off key connector with capton tape!



© Sony Ericsson Mobile Communications AB – Company Internal

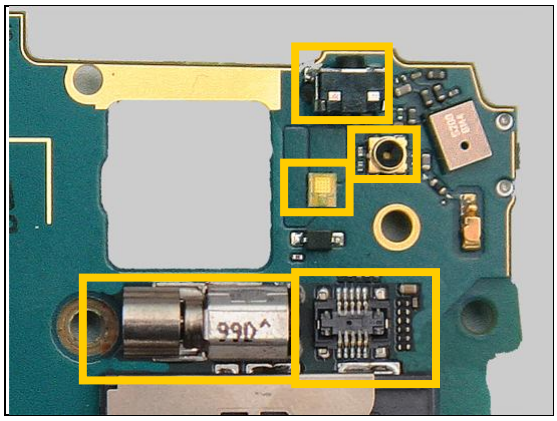
© Sony Ericsson Mobile Communications AB – Company Internal

Repair Actions: Additional Repair Info

9

V5000

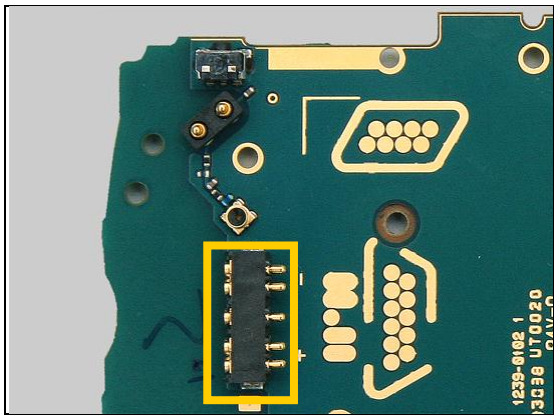
Protect the Vibrator, the BtB connector, the switch connector, the white LED and the switch connector with capton tape!



10

X1900

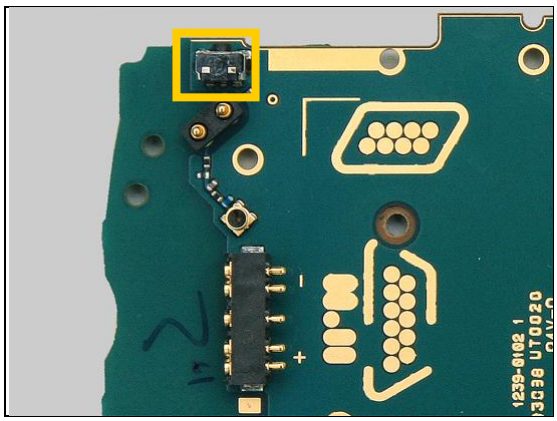
Protect the connector with capton tape!!



11

X1901

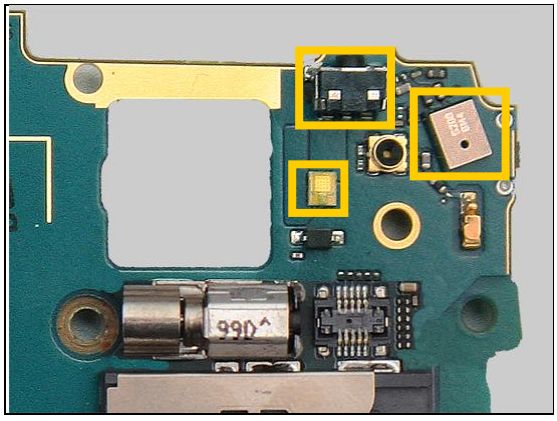
Protect the switch connector with capton tape!



12

X2500

Protect the Microphone, the switch connector and the white LED with capton tape!



© Sony Ericsson Mobile Communications AB – Company Internal

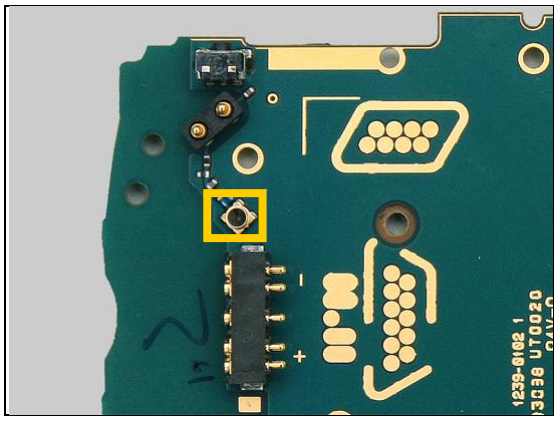
© Sony Ericsson Mobile Communications AB – Company Internal

Repair Actions: Additional Repair Info

13

X3801

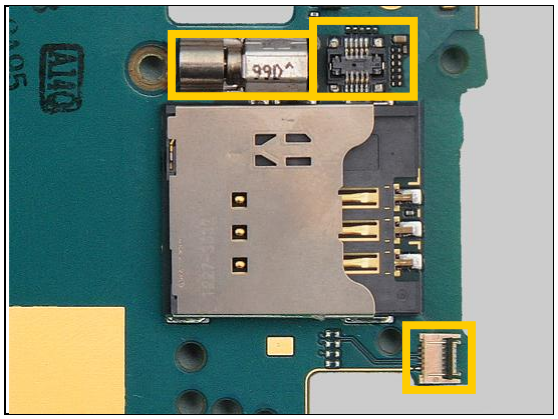
Protect the Coax connector with capton tape!



14

X5100

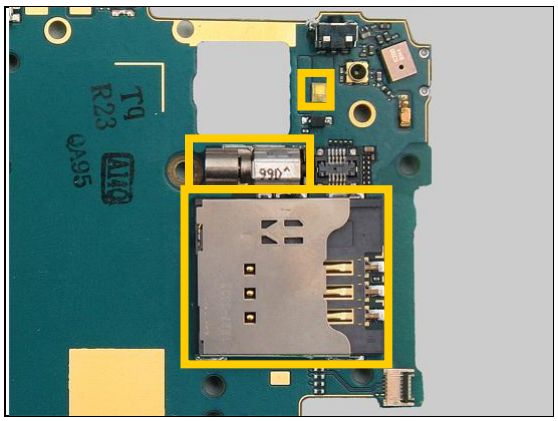
Protect the Vibrator, BtB connector and the ZIF connector with capton tape!



15

X5101

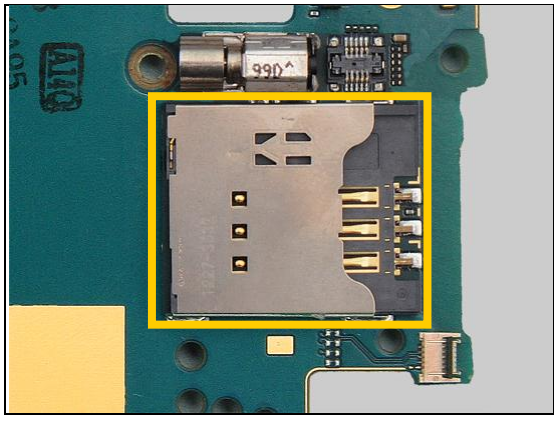
Protect the Vibrator, the white LED and the SIM connector with capton tape!



16

X5401

Protect the SIM connector with capton tape!



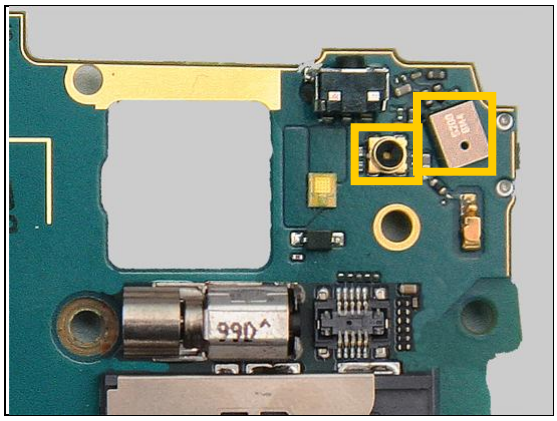
© Sony Ericsson Mobile Communications AB – Company Internal

Repair Actions: Additional Repair Info

17

X2501

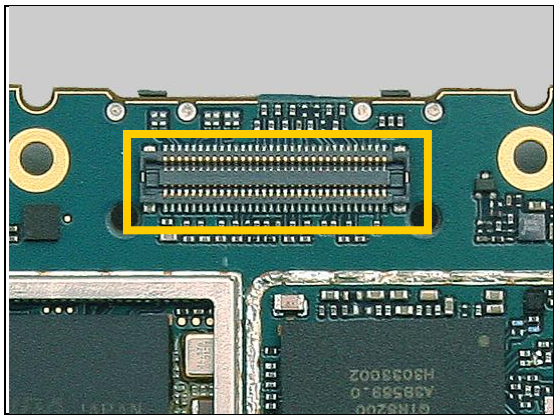
Protect the Microphone and the Coax connector with capton tape!



18

Z4300, Z4301, Z4302

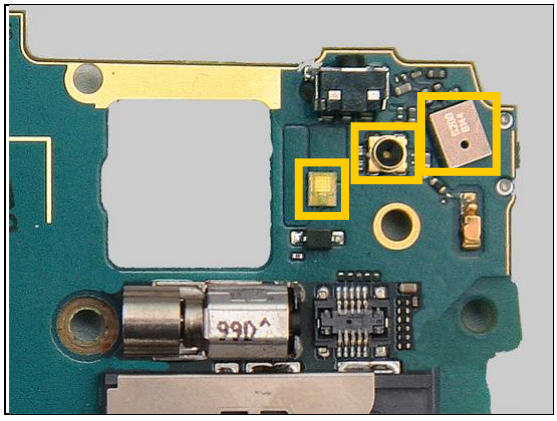
Protect the BtB connector with capton tape!



19

B5500, V4400, X2500

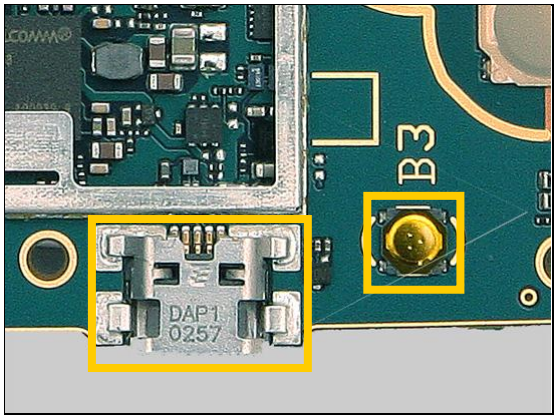
Protect the LED white, Microphone and the Coax connector with capton tape!



20

S4805, X5200

Protect the USB connector and the input switch with capton tape!



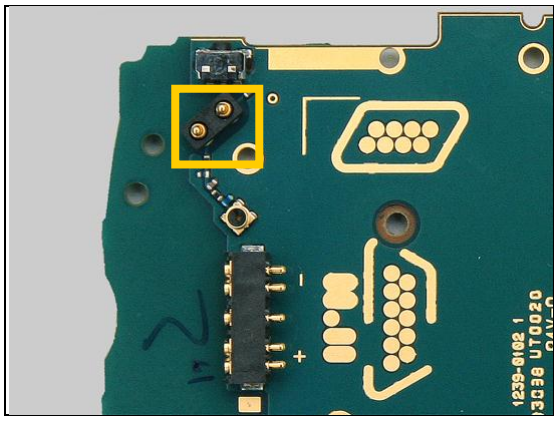
© Sony Ericsson Mobile Communications AB – Company Internal

Repair Actions: Additional Repair Info

21

X1901

Protect the connector with capton tape!



© Sony Ericsson Mobile Communications AB – Company Internal

4 Revision History

Rev.	Date	Changes / Comments
1	2011-Mar-24	Initial release

© Sony Ericsson Mobile Communications AB – Company Internal