



Sony Ericsson

Component Replacement

- electrical -



Sony Ericsson Live with Walkman

WT19a, WT19i

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 | 15 |

***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

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!



| Position | Component | Part no. | Comments |
|----------|--|-----------|-------------------|
| B3501 | Mic 4.0 Electret | 1224-0804 | P BGA |
| B5100 | Vibrator | 1218-9713 | S BGA ⇒1 |
| C1312C | Capacitor 100.0 nF | 1000-6848 | P HA |
| C1317 | Capacitor 1.0 uF +/-10% 25.0 V K0603 | 1000-0076 | P HA |
| C2200 | Capacitor 1.0 uF +/-10% 25.0 V K0603 | 1000-0076 | P HA |
| C7603 | Capacitor Ceramic 4.7 uF | 1200-1678 | P HA ⇒2 |
| E1004 | Shielding Can WLAN | 1243-0607 | P BGA ⇒3 |
| E1005 | Shielding Can GPS | 1243-0608 | P BGA ⇒4 |
| L1000 | Ind WW 2.2 uH | 1232-8769 | P HA |
| L1001 | Ind WW 2.2 uH | 1232-8769 | P HA |
| L1002 | Ind WW 2.2 uH | 1232-8769 | P HA |
| L1003 | Ind Chip 4,7 uH 20% | 1204-8878 | P HA |
| L1004 | Ind WW 2.2 uH | 1232-8769 | P HA |
| L1300C | Ind Chip 1.0 uH | 1225-8646 | P HA ⇒5 |
| L2400C | Ind WW 2.2 uH | 1232-8769 | P HA |
| L3100 | Ind Chip 120.0 nH | 1236-1090 | S HA ⇒6 |
| L3501 | Inductor Chip | 1203-8594 | S HA ⇒7 |
| L3502 | Inductor Chip | 1203-8594 | S HA ⇒7 |
| L3503 | Ferrite B 1.8 kOhm | 1237-6064 | P HA |
| L3504 | Ferrite B 1.8 kOhm | 1237-6064 | P HA |
| L3505 | Inductor Chip | 1203-8594 | P HA |
| L3506 | Inductor Chip | 1203-8594 | P HA |
| L3507 | Filter 0.0 Hz 0402 | 1001-1223 | P HA |
| L3508 | Filter 0.0 Hz 0402 | 1001-1223 | P HA |
| L3509 | Filter 0.0 Hz 0402 | 1001-1223 | S HA ⇒7 |
| L3510 | Filter 0.0 Hz 0402 | 1001-1223 | S HA ⇒7 |
| L3511 | Filter 0.0 Hz 0402 | 1001-1223 | S HA |
| L3512 | Filter 0.0 Hz 0402 | 1001-1223 | S HA |
| L3600 | Filter | 1000-2609 | S HA ⇒8 |
| L3601 | Filter | 1000-2609 | S HA ⇒8 |
| L3602 | Ferrite B 1.8 kOhm | 1237-6064 | S HA ⇒8 |
| L3603 | Ferrite B 1.8 kOhm | 1237-6064 | S HA ⇒8 |
| L3604 | Ferrite B 1.8 kOhm | 1237-6064 | S HA ⇒8 |
| L7600 | Ind WW 10, uH | 1000-3331 | P HA ⇒2 |
| L7610 | Inductor Chip | 1000-0360 | P HA ⇒9 |
| L7801 | Ind Chip 1.0 uH +/-20% K2520 | 1201-5637 | S HA ⇒10 |
| L8100 | Ind Chip 1.5 uH 20% K2520 | 1212-9925 | P HA |
| N1302C | IC Linear Fuel Guage | 1237-9687 | P HA |
| N1303C | ASIC PM Charger with OTG | 1237-3321 | P HA |
| N1602 | IC Vreg R1154x | 1245-5261 | P HA |
| N2200 | IC ESD Prot | 1227-8675 | P HA ⇒11 |
| N2401C | IC Lin Converter Step Down | 1227-6376 | P HA |
| N2800 | ASIC RF Transceiver QTR-8200 308-NSP | 1228-2273 | P BGA |
| N2801C | Mod PA QUAD GSM850/GSM900/DCS/EDGE | 1232-2928 | P BGA C |
| N2803C | RF Antenna Switch GSM & UMTS/CDMA Dual | 1237-2994 | P HA C |
| N2900 | Mod PA WCDMA 824-849 MHz | 1237-1770 | P HA C For Band 5 |
| N2900 | Mod PA WCDMA 880-915 MHz | 1237-1771 | P HA C For Band 8 |
| N2902 | Mod PA WCDMA 1850-1910 MHz | 1237-1768 | P HA C For Band 2 |
| N2903 | Mod PA WCDMA 1920-1980 MHz | 1237-1765 | P HA C For Band 1 |
| N3501 | IC Amplifier 500mA | 1203-4594 | P HA |
| N3502 | IC Amplifier 500mA | 1203-4594 | P HA |
| N3600 | ASIC Tjatte3 CSP20 | 1000-0198 | S HA ⇒8 |
| N5300 | IC ESD Protection | 1227-5811 | P HA ⇒12 |
| N5401 | MEMS Compass Analog | 1228-7182 | P HA ⇒13 |



Component Replacement (elect)

| Position | Component | Part no. | Comments |
|----------|-------------------------------------|-----------|-------------|
| N7600 | IC WL-CSP 6x4 balls | 1212-7979 | P HA ⇒14 |
| N8100 | Mod Radio WLAN/BT/FM | 1237-3816 | P BGA |
| N8101 | Mod PA WLAN 3.0x3.0x0.5mm | 1239-7071 | P HA |
| N8102 | IC Vreg | 1232-0901 | P HA |
| N8401 | IC Amp | 1218-0656 | P HA |
| S110 | Side push switch | 1000-7670 | P HA/ST ⇒15 |
| S111 | Side push switch | 1000-7670 | P HA/ST ⇒16 |
| S112 | Switch | 1242-0913 | P HA/ST ⇒17 |
| S113 | Side Switch(volume key, power key) | 1001-0060 | S HA/ST ⇒18 |
| S52 | Side Switch(volume key, power key) | 1001-0060 | S HA/ST ⇒19 |
| V1700 | Diode | 1000-0282 | P HA ⇒5 |
| V1701 | Diode | 1000-0282 | P HA ⇒5 |
| V3100 | Diode Protection 0.7 V SOD-882 | 1201-2253 | S HA ⇒6 |
| V3500 | Diode Zener 5.0 V SOT-723 | 1203-0201 | S HA ⇒7 |
| V3502 | Diode Zener 5.0 V SOT-723 | 1203-0201 | P HA |
| V3511 | Dual ESD protection diode | 1000-0399 | P HA |
| V4000 | Dual ESD protection diode | 1000-0399 | S HA ⇒7 |
| V4001 | Dual ESD protection diode | 1000-0399 | S HA ⇒7 |
| V4100 | IC Switch | 1244-3833 | S HA ⇒20 |
| V7601 | Trans N-ch FET 1.6x1.6x0.55mm | 1235-2707 | P HA ⇒2 |
| V7602 | LED Orange | 1203-4719 | S HA/ST ⇒21 |
| V7603 | LED Orange | 1203-4719 | S HA/ST ⇒22 |
| V8101 | Transistor | 1244-3833 | S HA ⇒23 |
| X1300 | Connector Battery 5p | 1232-1629 | S BGA ⇒23 |
| X2200 | Connector Micro USB | 1242-6545 | P BGA |
| X2801 | Conn Coax Receptacle 0p test switch | 1221-6477 | S BGA ⇒23 |
| X4000 | Conn SIM Card | 1200-9596 | S BGA ⇒24 |
| X4101 | Card Conn Micro SD | 1238-3821 | S BGA ⇒25 |
| X7100 | Conn FPC Receptacle 23p | 1234-1552 | P BGA ⇒12 |
| X7302 | Conn Other Receptacle 24p | 1210-3896 | P BGA ⇒26 |
| X7600 | ZIF Connector 17p | 1222-3534 | P BGA |
| X8401 | Conn Coax Receptacle 0p test switch | 1221-6477 | S BGA ⇒27 |
| X8420 | Conn Leaf Spring Receptacle 1p | 1200-2144 | S HA ⇒20 |
| X8421 | Conn Leaf Spring Receptacle 1p | 1200-2144 | S HA ⇒20 |
| X8422 | Conn Leaf Spring Receptacle 1p | 1200-2144 | S HA |
| X8423 | Conn Leaf Spring Receptacle 1p | 1200-2144 | S HA |
| Z2200 | Filter Ceramic 100.0 MHz | 1235-3014 | P HA ⇒11 |
| Z2800C | Filter 0.0 | 1236-7960 | P HA |
| Z7800 | Filter | 1235-3014 | P HA ⇒17 |
| Z7801 | Filter | 1235-3014 | P HA ⇒17 |
| Z8001 | Filter SAW 2,4 GHz 1.35*1.05*0.5 | 1217-3397 | P HA ⇒28 |
| Z8401 | Filter SAW 1,57 GHz | 1207-2628 | P HA |
| Z8403C | Filter 1.575 GHz | 1236-2944 | P HA |

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.





3 Repair Actions

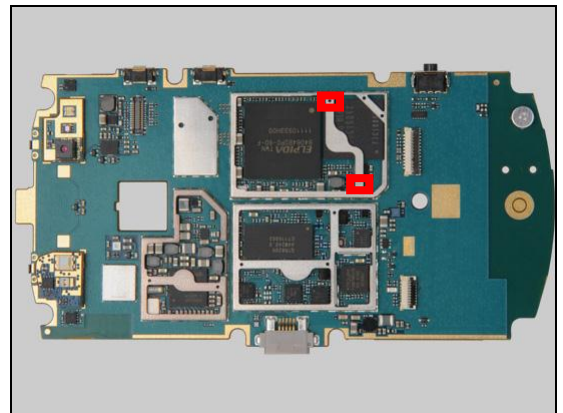
Refer to the Tools Catalogue/Matrix for information about equipment required for PBA repair!

3.1 Shield Can Fence Modifications

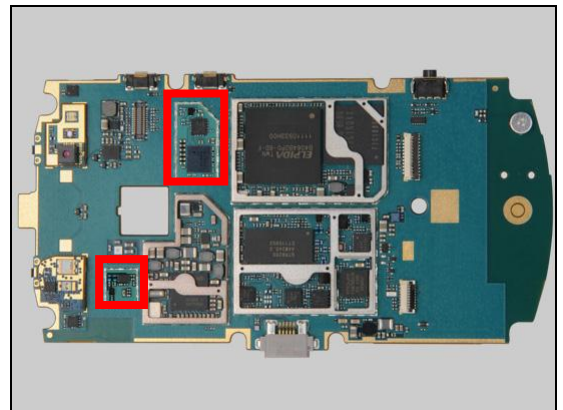
Refer to the pictures below of the primary and secondary sides for repairs that require the Shield Can Fence to be modified:

- 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

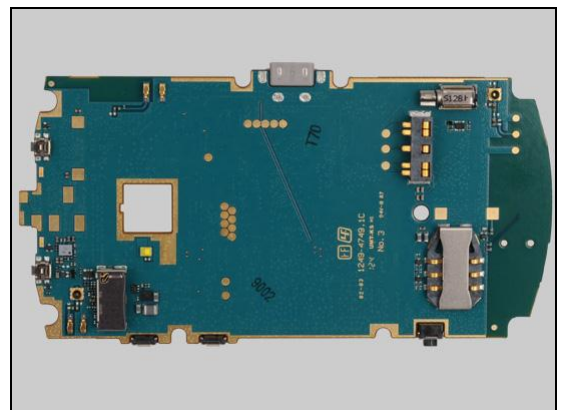
Primary side



*Primary side
(Without two Shielding Cans)*



Secondary side





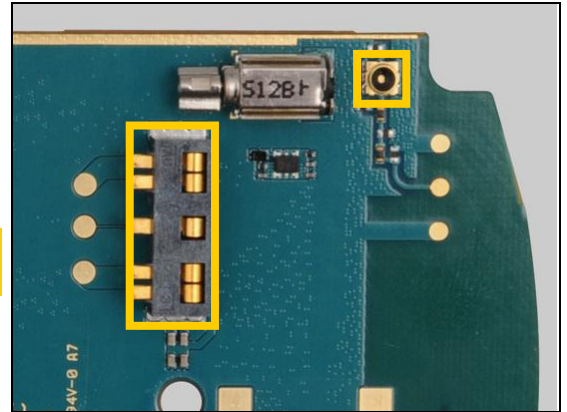
Repair Actions

3.2 Additional Repair Info

1

B5100

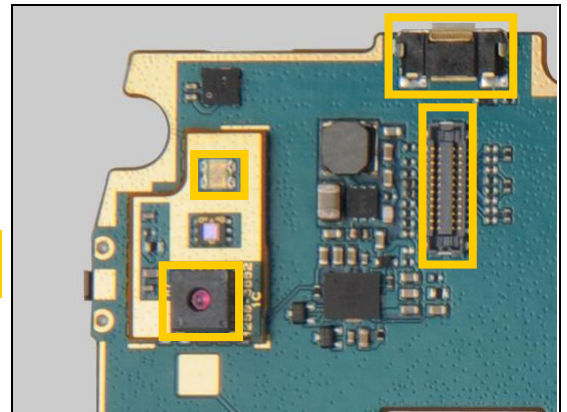
Protect the Battery connector and the Coax connector with capton tape!



2

C7603, L7600, V7601

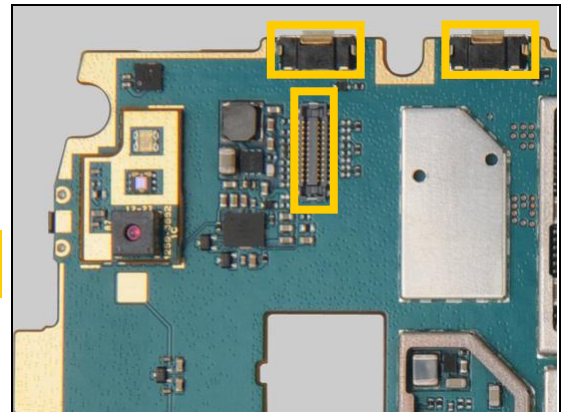
Protect the Side Push Switch, the LED, the Camera and the connector with capton tape!



3

E1004

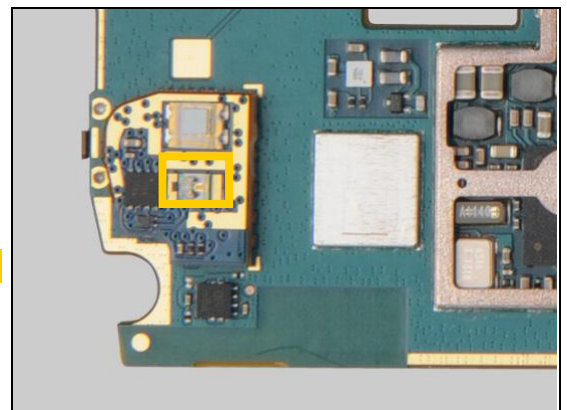
Protect the two Side Push Switches and the connector with capton tape!



4

E1005

Protect the LED with capton tape!



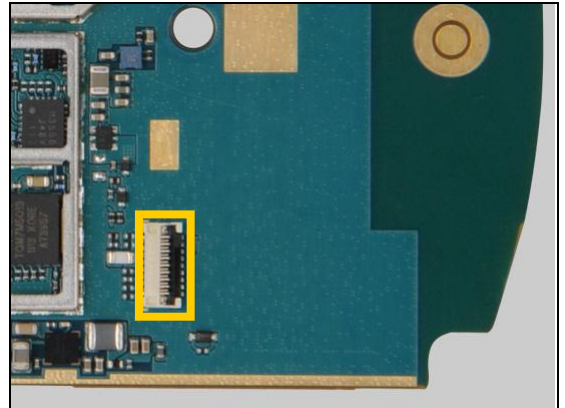


Repair Actions: Additional Repair Info

5

L1300C, V1700, V1701

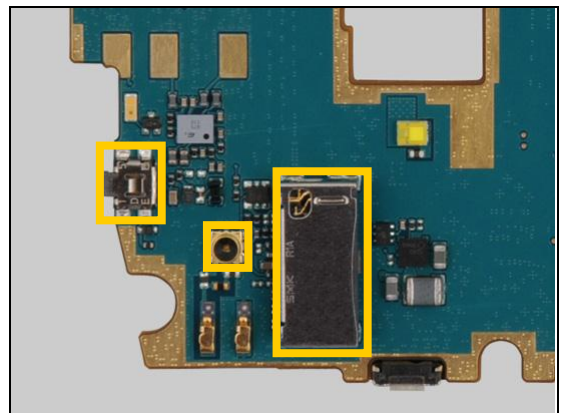
Protect the ZIF connector with capton tape!



6

L3100, V3100

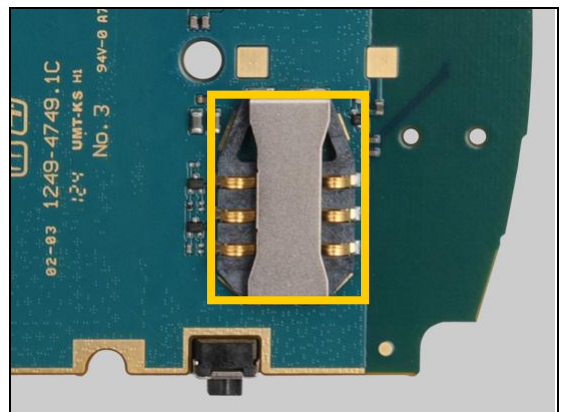
Protect the Coax connector, the Micro SD connector and the Side Switch with capton tape!



7

L3501, L3502, L3509, L3510, V3500, V4000, V4001

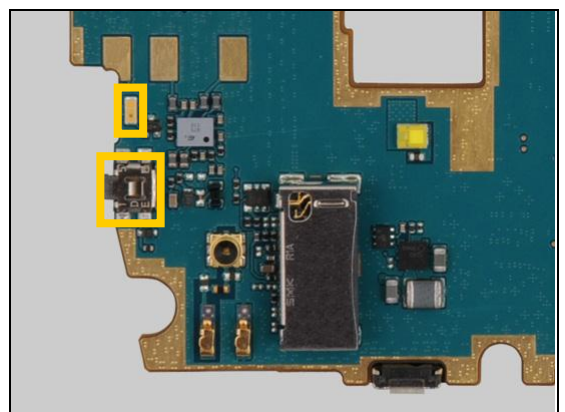
Protect the SIM connector with capton tape!



8

L3600, L3601, L3602, L3603, L3604, N3600

Protect the Side Switch and the LED with capton tape!

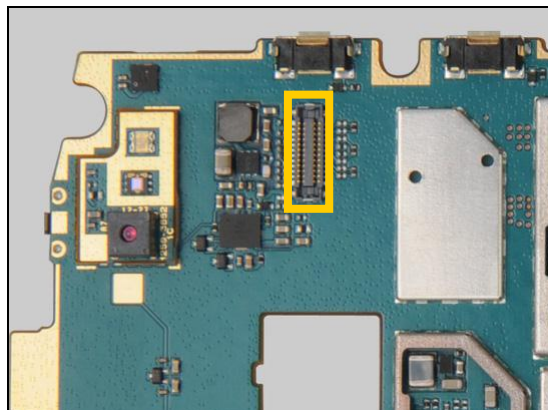


Repair Actions: Additional Repair Info

9

L7610

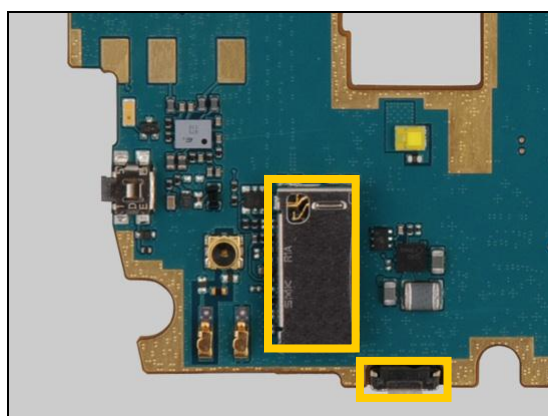
Protect the connector with capton tape!



10

L7801

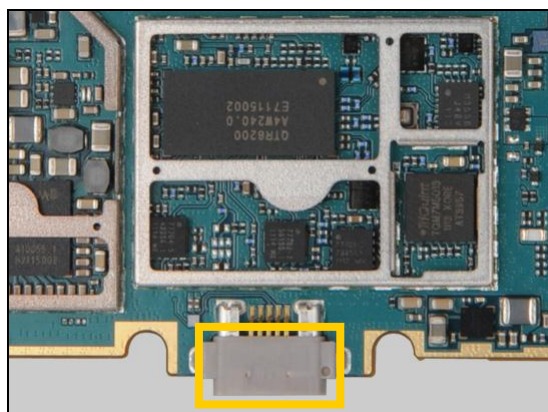
Protect the Micro SD connector and the Side Push Switch with capton tape!



11

N2200, Z2200

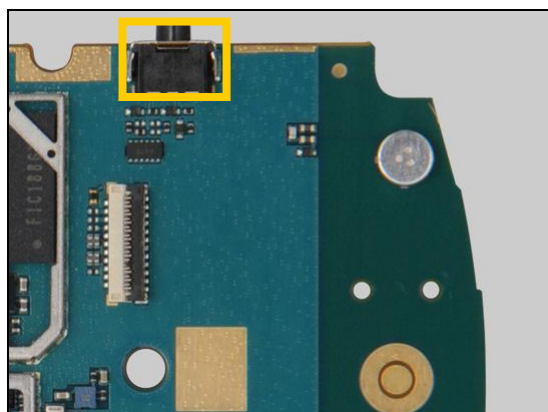
Protect Micro USB connector with capton tape!



12

N5300, X7100

Protect the Switch with capton tape!

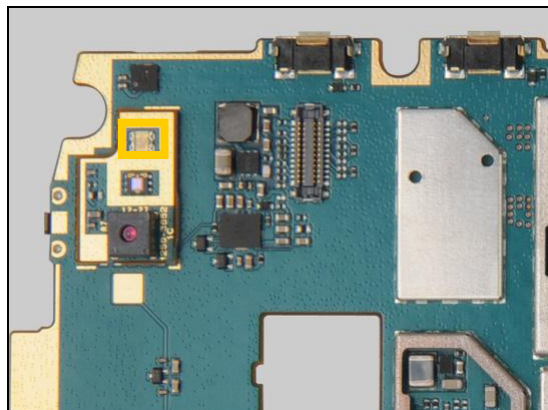


Repair Actions: Additional Repair Info

13

N5401

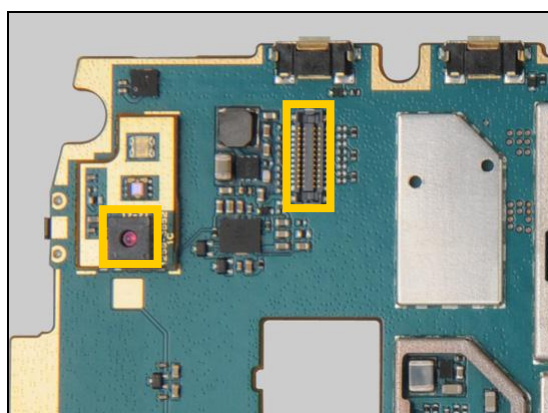
Protect the LED with capton tape!



14

N7600

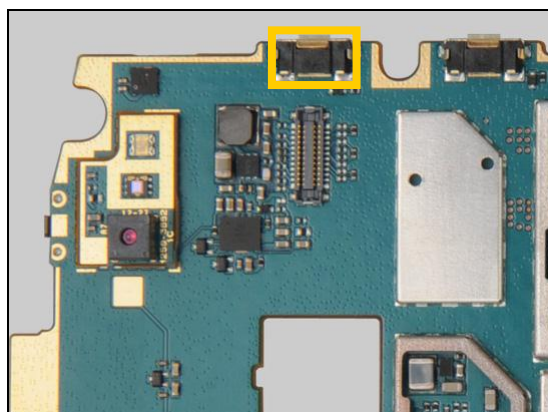
Protect the connector and the camera with capton tape!



15

S110

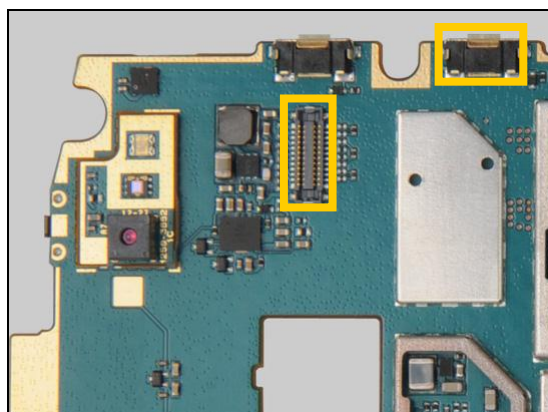
Protect the Side Push Switch with capton tape!



16

S111

Protect the connector and the Side Push Switch with capton tape!

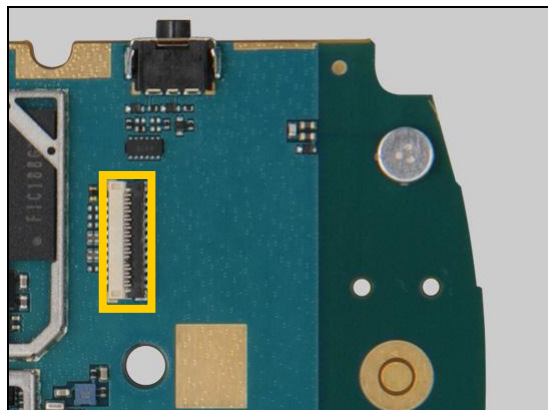


Repair Actions: Additional Repair Info

17

S112, Z7800, Z7801

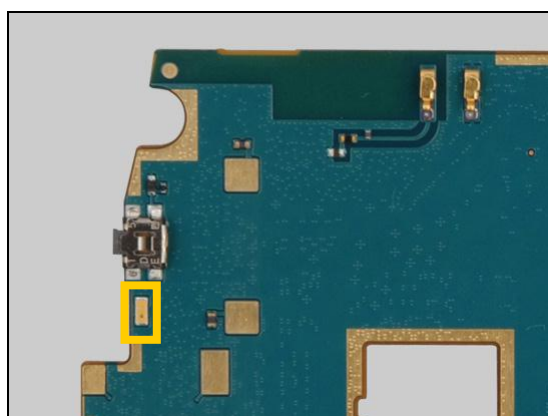
Protect the ZIF connector with capton tape!



18

S113

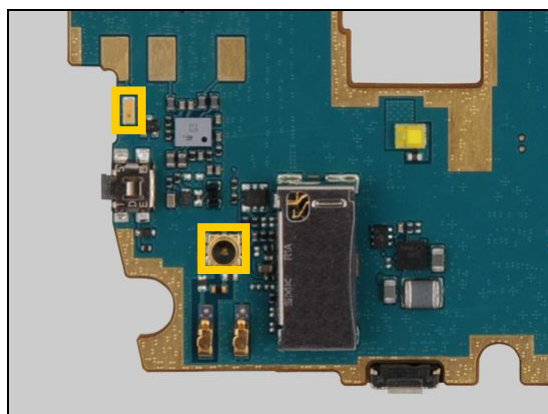
Protect the LED with capton tape!



19

S52

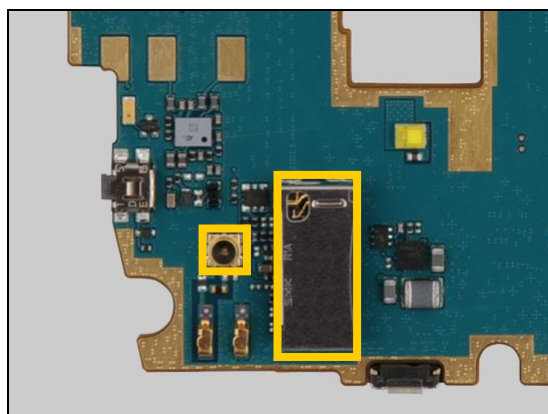
Protect the LED and the Coax connector with capton tape!



20

V4100, X8420, X8421

Protect the Micro SD connector and the Coax connector with capton tape!



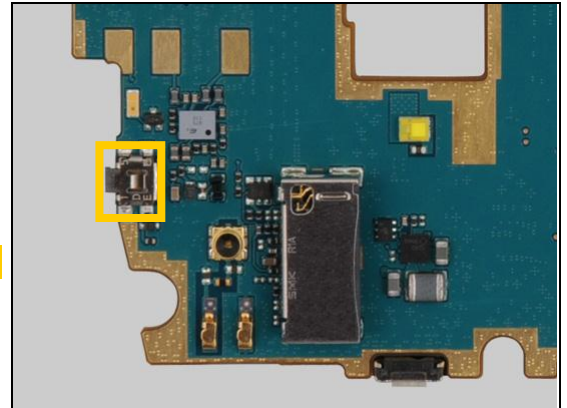


Repair Actions: Additional Repair Info

21

V7602

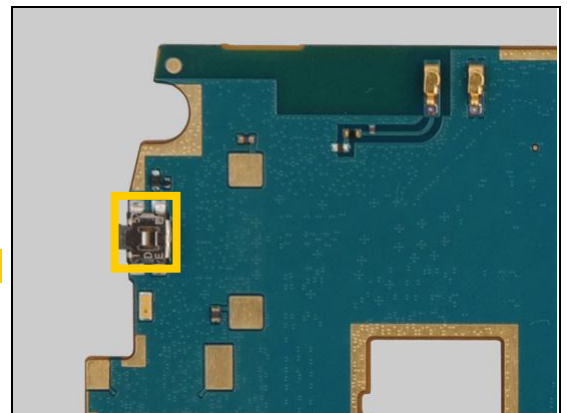
Protect the Side Switch with capton tape!



22

V7603

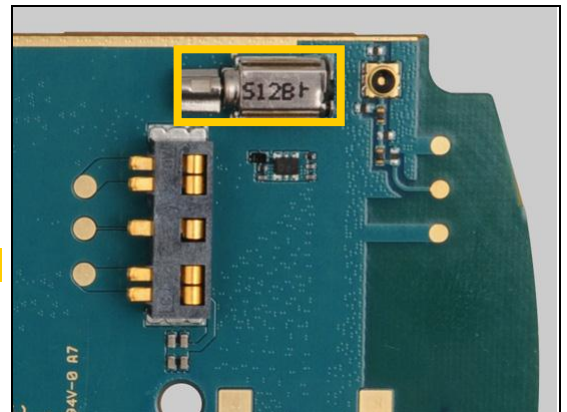
Protect the Side Switch with capton tape!



23

V8101, X1300, X2801

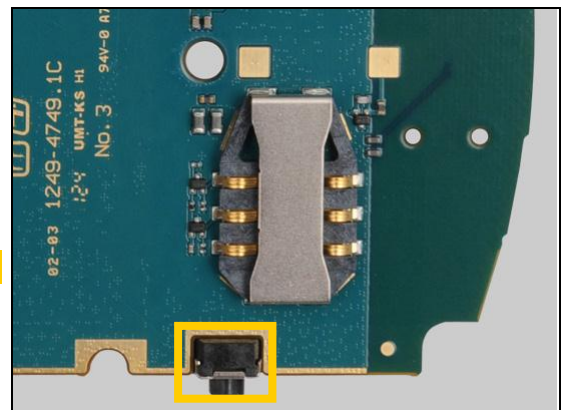
Protect the Vibrator with capton tape!



24

X4000

Protect the Switch with capton tape!

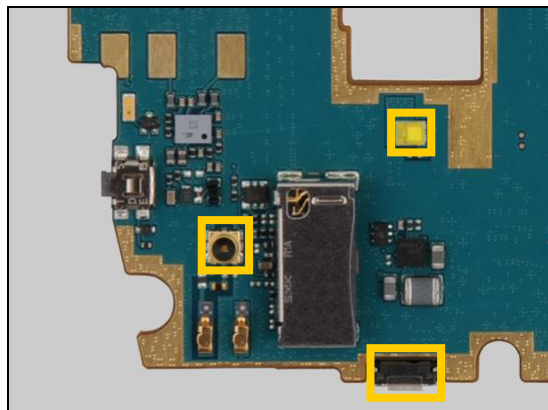


Repair Actions: Additional Repair Info

25

X4101

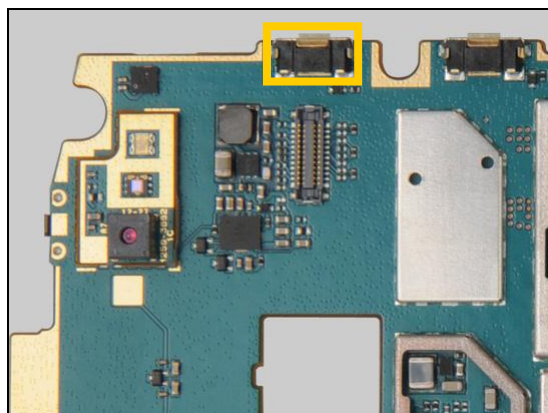
Protect the Coax connector, the LED and the Side Push Switch with capton tape!



26

X7302

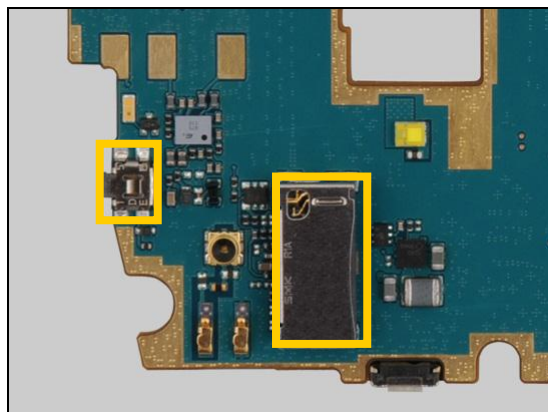
Protect the Side Push Switch with capton tape!



27

X8401

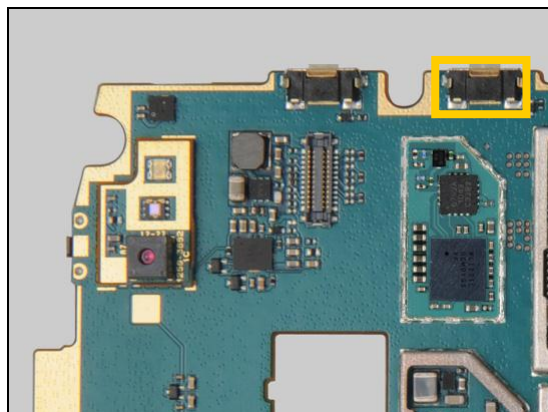
Protect the Side Switch and the Micro SD connector with capton tape!



28

Z8001

Protect the Side Push Switch with capton tape!





4 Revision History

| Rev. | Date | Changes / Comments |
|------|-------------|--------------------|
| 1 | 2011-Sep-26 | Initial release |