



Sony Ericsson

Component Replacement

- electrical -



Xperia™ X10 mini

E10i, E10a

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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

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!



Component Replacement Repair Drawing Electrical/

Position	Component	Part no.	Comments
B2000	Crystal	1000-0036	P HA
B3500	Microphone	1206-4070	P BGA ⇒9
B5100	Vibrator	1218-9713	S BGA
B8100	Crystal 38.4 MHz	1238-2571	P HA
C1040	Capacitor Ceramic 10,0 uF +/-20% 6,3 V K	1000-0061	P HA
C1306	Capacitor Ceramic 1,0 uF +/-10% 25,0 V K	1000-0076	S HA ⇒1
C7103	Capacitor Ceramic 1,0 uF +/-10% 25,0 V K	1000-0076	P HA
C8140	Capacitor 2.2 uF +/-20% 6.3 V K0402	1000-6901	P HA
E1003	Shield Can Fence Camera	1227-4476	S HA/ST + BH or BGA
L1000	Ind WW 4.7 uH	1226-6894	P HA
L1001	Ind WW 4.7 uH	1226-6894	P HA
L1002	Ind WW 4.7 uH	1226-6894	P HA
L1003	Ind WW 4.7 uH	1226-6894	P HA
L1004	Ind WW 2,2 uH	1000-3274	P HA
L1350	Ind Chip 1.0 uH	1225-8646	P HA
L3102	Ind Chip 120.0 nH	1236-1090	S HA ⇒3
L3503	Ferrite B 600, Ohm 400, mA 0603	1203-8594	S HA
L3504	Ferrite B 600, Ohm 400, mA 0603	1203-8594	S HA
L3600	Inductor	1200-0317	S HA ⇒3
L3601	Inductor	1200-0317	S HA ⇒3
L3602	Inductor	1200-0317	S HA ⇒3
L7100	Inductor	1000-3333	P HA
L8140	Ind Chip 1.5 uH	1218-0127	P HA
L8402	Ind Chip 4,3 nH	1201-2630	P HA ⇒8
N1000	IC Linear	1224-6892	P HA
N2800	ASIC RF QFN-68 8x8x0.9mm	1229-6139	P BGA C
N2801	RF Antenna QUAD 850/900/1800/1900/UMTS	1223-8454	P HA + BH or BGA C
N2803	Radio GSM Tx SAW GSM850/GSM900	1229-0242	P HA C
N2810	Mod PA GSM	1223-8455	P HA + BH or BGA C
N2901	Mod PA WCDMA 1920-1980MHz	1227-8690	P HA C [for band 1]
N2904	Mod PA WCDMA 880-915MHz	1227-8743	P HA C [for band 8]
N2904	Mod PA WCDMA 824-849MHz	1227-8745	P HA C [for band 5]
N2905	Mod PA WCDMA 1850-1910MHz	1227-8704	P HA C [for band 2]
N3500	IC Amp	1217-2694	P HA
N3600	ASIC Tjatte3 CSP20	1000-0198	S HA ⇒3
N5290	IC IF 8 TDFN	1233-5237	P HA ⇒4
N5401	IC 3-axis Electronic Compass	1224-3098	P HA
N5500	IC 8-pin QFN	1217-4125	P HA
N5600/A	Light Sensor	1000-7567	P HA ⇒6
N5600/B	Diode	1223-2957	P HA ⇒6
N5600/C	LED	1223-3002	P HA ⇒6
N7100	IC Driver LED White 12-Bump uSMD	1230-5154	P HA
N7401	IC Vreg PLP1612-4	1202-8519	P HA
N8000	Mod PA WLAN 3.0 x 3.0 x 0.45mm	1222-5645	P HA
N8100	Mod Radio Bluetooth + FM YFV, WLAN 5.0 x	1219-6481	P BGA
N8101	IC Vreg	1232-0901	P HA
N8300	IC IF BGA-48	1223-7180	P HA
N8400	IC Amp 3.3(L)x2.1(W)x1.1(H)	1223-7168	P HA ⇒8
S5200	Input Switch	1001-0060	P HA/ST + BH
S5201	Side push switch	1000-7670	P HA/ST + BH
S5202	Side push switch	1000-7670	P HA/ST + BH
S5203	Input Switch side push dual	1228-3973	P HA/ST + BH



Component Replacement Repair Drawing Electrical/

Position	Component	Part no.	Comments
V1001	Diode Schottky 20V	1200-1637	P HA
V2200	Diode Protection 5.0 V	1220-8901	S HA ⇒5
V3500	Dual ESD protection diode	1000-0399	S HA
V3501	Dual ESD protection diode 6V	1001-0730	S HA
V3602	Trans P-ch FET	1201-9257	S HA ⇒3
V4000	Trans P-ch FET	1202-9494	S HA ⇒5
V5101	LED Red/Green/Blue	1230-2194	P HA
V7100	Diode	1000-0087	P HA
X1000	Conn Leaf Spring 1p	1202-1053	P HA
X1001	Conn Leaf Spring 1p	1202-1053	P HA
X1002	Conn Leaf Spring 1p	1202-1053	P HA
X1003	Conn Leaf Spring Antenna conn	1200-2144	S HA
X1004	Conn Leaf Spring Antenna conn	1200-2144	S HA ⇒3
X1300	Conn WtB 3p Battery	1228-9700	S BGA
X2200	Conn USB micro B 0p front dip	1224-0652	S BGA
X2800	Conn Leaf Spring Antenna conn	1200-2144	S HA
X2801	Conn Leaf Spring Antenna conn	1200-2144	S HA
X2802	Conn Coax Plug 6p RF-probe contact	1203-9688	S HA/ST + BH or BGA
X3502	Clip Earspekaer contact	1227-6756	S HA/ST + BH ⇒10
X3503	Clip Earspekaer contact	1227-6756	S HA/ST + BH ⇒10
X3600	Conn I/O 7p 3.5mm AVP	1228-2974	S BGA
X4000	Conn BtB 10 pin	1200-5197	S BGA
X4100	Card Conn Micro SD	1230-6456	S BGA
X5300	Conn BtB 10 pin	1200-5197	S BGA
X7000	Connector ZIF 19p	1221-2068	P BGA
X7300	Conn FPC 33p	1228-3758	S BGA
X8000	Conn Coax Plug 6p RF-probe contact	1203-9688	S HA/ST + BH or BGA
X8001	Conn Leaf Spring Antenna conn	1200-2144	S HA ⇒7
X8400	Conn Leaf Spring Antenna conn	1200-2144	P HA ⇒8
Z2200	Filter 100.0 MHz	1224-6060	S HA
Z7000	Filter 100.0 MHz	1224-6060	P HA ⇒2
Z7001	Filter 100.0 MHz	1224-6060	P HA ⇒2
Z8000	Filter Cer RF 2.45 GHz Bluetooth/W-LAN	1228-7102	P HA
Z8400	Filter SAW 1,57 GHz	1207-2628	P HA ⇒8



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

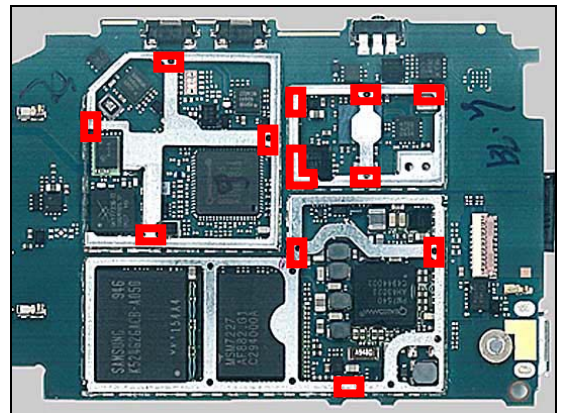
Refer to the Tools Catalogue/Matrix for information about equipment required for PBA repair!

3.1 Shield Can Fence Modifications

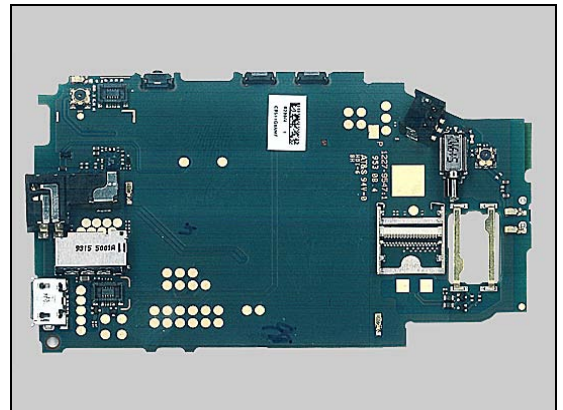
Refer to the pictures below of the primary and secondary sides for repairs that require the Shield Can Fence to be modified:

- 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



Secondary side





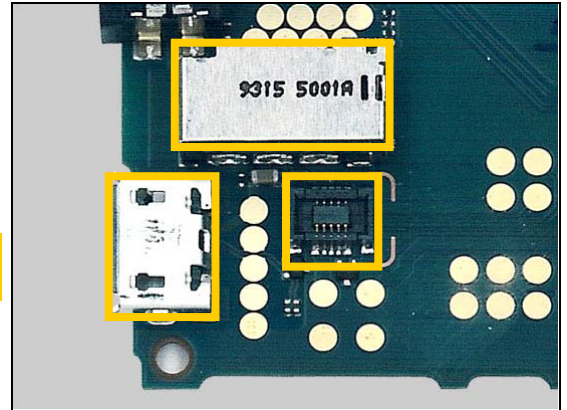
Repair Actions

3.2 Additional Repair Info

1

C1306

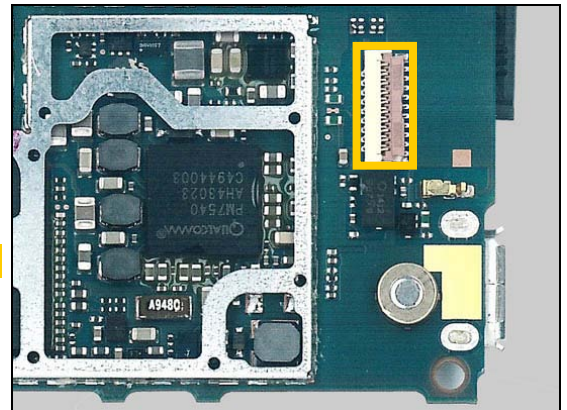
Protect the BtB connector, USB connector and memory card connector with capton tape!



2

Z7000, Z7001

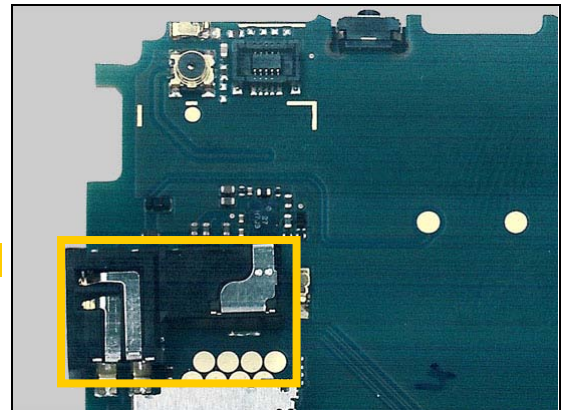
Protect the ZIF connector with capton tape!



3

L3102, L3600, L3601, L3602, N3600, V3602, X1004

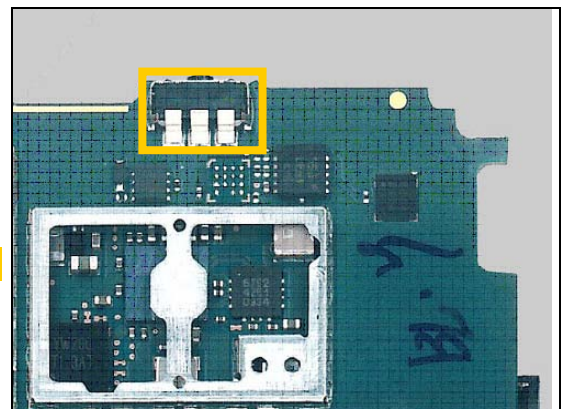
Protect the AVP connector with capton tape!



4

N5290

Protect the switch connector with capton tape!



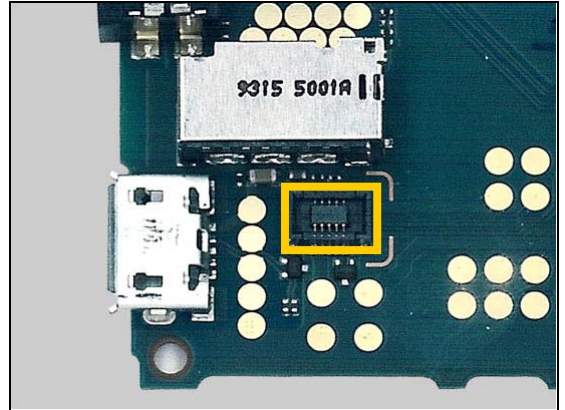


Repair Actions: Additional Repair Info

5

V2200, V4000

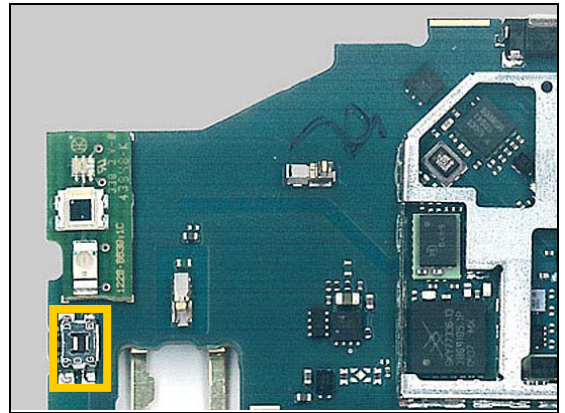
Protect the BtB connector with capton tape!



6

N5600/A, N5600/B, N5600/C

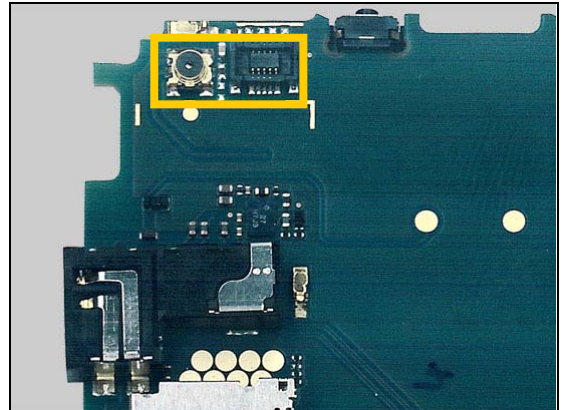
Protect the On/Off key with capton tape!



7

X8001

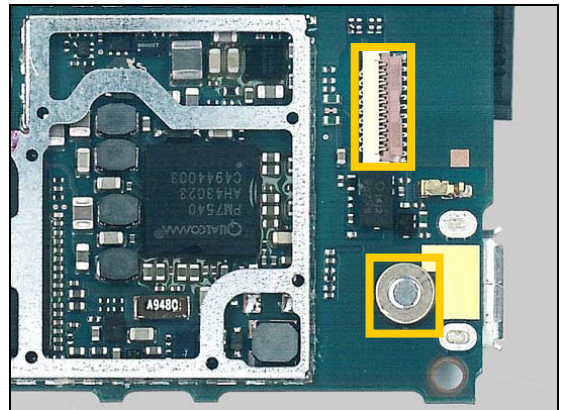
Protect the BtB connector, RF-probe connector with capton tape!



8

L8402, N8400, X8400, Z8400

Protect the microphone and ZIF connector with capton tape!

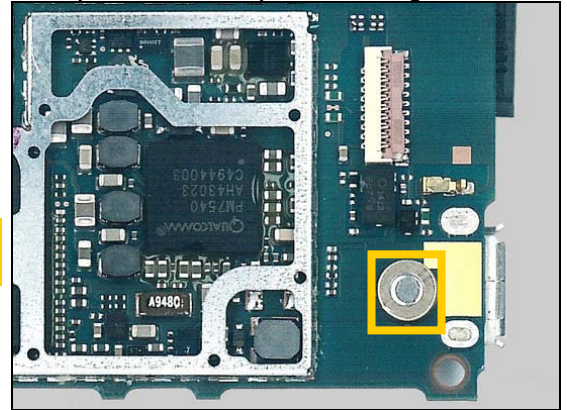




9

B3500

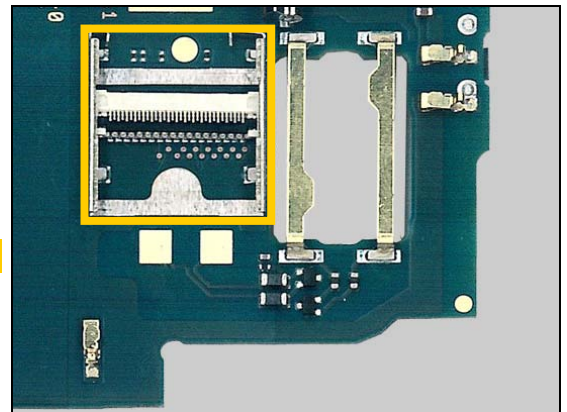
Protect the microphone with capton tape when the microphone is remounted!



10

X3502, X3503

Protect the FPC Connector with capton tape!





4 Revision History

Rev.	Date	Changes / Comments
1	2010-May-24	Initial release
2	2010-July-21	Added components with calibration Adjustments for repair methods
3	2010-Sep-24	Added L3503 and L3504
4	2011-Jan-05	Corrected frequency bands for 1227-8704 and 1227-8745
5	2011-Sep-20	Added C8140