



Sony Ericsson

Component Replacement

- electrical -



XPERIA X10 Mini Pro

U20i, U20a,

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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
B8100	Crystal 38.4 MHz	1238-2571	S HA
B2000	Crystal	1000-0036	S HA
B3500	Microphone	1206-4070	S BGA
B5100	Vibrator	1218-9713	P BGA
C1040	Capacitor Ceramic 10,0 uF +/-20% 6,3 V K	1000-0061	S HA
C1306	Capacitor Ceramic 1,0 uF +/-10% 25,0 V K	1000-0076	S HA
C1352	Capacitor Ceramic 10,0 uF +/-20% 6,3 V K	1000-0061	S HA
C1354	1.0uF 10% 0402 6.3V X5R	1000-0051	S HA
C7103	Capacitor Ceramic 1,0 uF +/-10% 25,0 V K	1000-0076	S HA
C8140	Capacitor 2.2 uF +/-20% 6.3 V K0402	1000-6901	S HA
E1003	Shield Can Fence Camera	1231-7774	S BGA
E1004	Shield Can Closed GPS shielding	1231-9338	S BGA
L1000	Ind WW 4.7 uH	1226-6894	S HA
L1001	Ind WW 4.7 uH	1226-6894	S HA
L1002	Ind WW 4.7 uH	1226-6894	S HA
L1003	Ind WW 4.7 uH	1226-6894	S HA
L1004	Ind WW 2,2 uH	1000-3274	S HA
L1350	Ind Chip 1.0 uH	1225-8646	S HA
L3102	Ind Chip 120.0 nH	1236-1090	S HA ⇒1
L3500	Ferrite B 1.5 kOhm 100.0 mA 0402	1001-1223	S HA ⇒2
L3501	Ferrite B 1.5 kOhm 100.0 mA 0402	1001-1223	S HA ⇒2
L3504	Inductor Chip	1203-8594	P HA ⇒3
L3505	Inductor Chip	1203-8594	P HA ⇒3
L3506	Resistor 0.0 Ohm +/-5% NA mW K0402	1000-0179	P HA
L3507	Resistor 0.0 Ohm +/-5% NA mW K0402	1000-0179	P HA
L3600	Inductor	1200-0317	S HA ⇒1
L3601	Inductor	1200-0317	S HA ⇒1
L3602	Inductor	1200-0317	S HA ⇒1
L7100	Inductor	1000-3333	S HA
L8140	Ind Chip 1.5 uH	1218-0127	S HA
L8402	Ind Chip 4,3 nH	1201-2630	S HA
N1000	IC Linear	1224-6892	S HA
N1350	IC 2.2 x 2.4	1230-9642	S HA
N2800	ASIC RF QFN-68 8x8x0.9mm	1229-6139	S BGA C
N2801	RF Antenna QUAD 850/900/1800/1900/UMTS	1223-8454	S HA C
N2803	Radio GSM Tx SAW GSM850/GSM900	1229-0242	S HAC
N2810	Mod PA GSM	1223-8455	S HAC
N2901	Mod PA WCDMA 1920-1980MHz	1227-8690	S HAC
N2904	Mod PA WCDMA 880-915MHz	1227-8743	S HAC
N2904	Mod PA WCDMA 824-849MHz	1227-8745	S HAC
N2905	Mod PA WCDMA 1850-1910MHz	1227-8704	S HAC
N3500	IC Amp	1217-2694	S HA
N3600	ASIC Tjatte3 CSP20	1000-0198	S HA ⇒1
N5200	IC ESD Prot 2.50x1.20x0.50mm	1227-5811	P HA ⇒3
N5400	IC 3-axis Electronic Compass	1224-3098	S HA ⇒4
N7100	IC Driver LED White 12-Bump uSMD	1230-5154	S HA
N7401	IC Vreg PLP1612-4	1202-8519	S HA
N8000	Mod PA WLAN 3.0x3.0x0.5mm	1239-7071	S HA
N8100	Mod Radio Bluetooth + FM YFV, WLAN 5.0 x	1219-6481	S BGA
N8101	IC Vreg	1232-0901	S HA
N8300	IC IF BGA-48	1223-7180	S HA
N8400	IC Amp 3.3(L)x2.1(W)x1.1(H)	1223-7168	S HA Old PBA version
N8401	IC Amp TSLP-7-1(2x1.3x0.4mm)	1218-0656	S HA New PBA version



Component Replacement Repair Drawing Electrical/

Position	Component	Part no.	Comments
R3601	RESISTOR/33kohm 5% 0402 0.063W	1000-4298	S HA ⇒1
S5200	Side push switch	1000-7670	S HA/ST
V1001	Diode Schottky 20V	1200-1637	S HA
V2200	Diode Protection 5.0 V	1220-8901	S HA
V3500	Dual ESD protection diode	1000-0399	S HA ⇒5
V3601	Diode Protection 0.7 V SOD-882	1201-2253	S HA ⇒1
V3602	Trans P-ch FET	1201-9257	S HA ⇒5
V4000	Trans P-ch FET	1202-9494	P HA ⇒6
V7100	Diode	1000-0087	S HA
V7800	LED White 2.04x1.64x0.7mm	1228-6212	P HA
X1020	Conn Leaf Spring	1201-4841	S HA
X1021	Conn Leaf Spring	1201-4841	S HA ⇒4
X1300	Conn Pogopin Plug 5p Pd-free	1200-0331	P BGA ⇒12
X2200	Conn USB micro B Receptacle 5p Splash Pr	1230-1871	P BGA
X2800	Conn Leaf Spring Antenna conn	1200-2144	P HA ⇒7
X2801	Conn Leaf Spring Antenna conn	1200-2144	P HA ⇒7
X2802	Conn Coax Receptacle 0p test switch	1221-6477	P BGA
X2812	Conn Leaf Spring Antenna conn	1200-2144	P HA ⇒7
X3500	Conn Other 0p Contact, Spring	1231-7861	P HA ⇒3
X3501	Conn Other 0p Contact, Spring	1231-7861	P HA ⇒3
X3600	Conn BtB Receptacle 16p	1214-7370	S BGA ⇒5
X4000	Serena – SIM Reader	1200-0767	P BGA ⇒8
X4100	Card Conn Micro SD	1230-3760	S BGA ⇒9
X5100	Conn BtB Receptacle 50p	1200-7715	S BGA ⇒10
X5200	Connector FPC 25p	1200-7390	P BGA
X7300	Conn FPC 33p	1228-3758	S BGA
X8000	Conn Coax Receptacle 0p test switch	1221-6477	P BGA ⇒11
Z2200	Filter 100.0 MHz	1224-6060	S HA
Z7000	Filter 100.0 MHz	1224-6060	S HA ⇒5
Z7001	Filter 100.0 MHz	1224-6060	S HA ⇒5
Z8000	Filter Cer RF 2.45 GHz Bluetooth/W-LAN	1228-7102	S HA ⇒4
Z8400	Filter SAW 1,57 GHz	1207-2628	S HA Old PBA version
Z8400	Filter SAW 1.575 GHz	1211-5714	S HA New PBA version



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

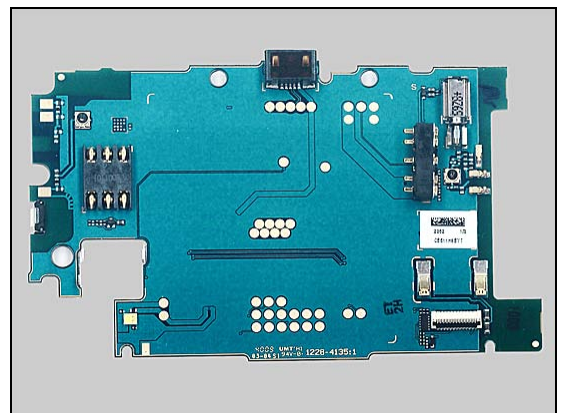
Refer to the Tools Catalogue/Matrix for information about equipment required for PBA repair!

3.1 Shield Can Fence Modifications

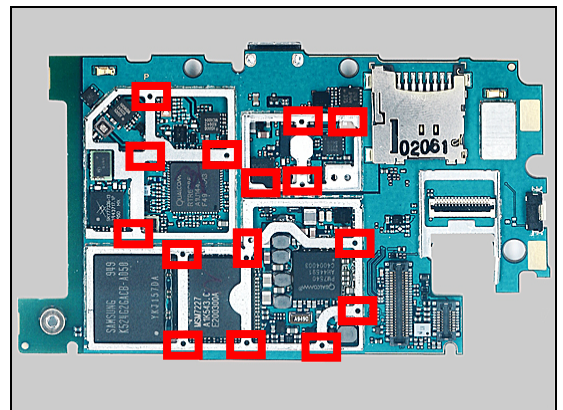
Refer to the pictures below of the primary and secondary sides for repairs that require the Shield Can Fence to be modified:

- 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





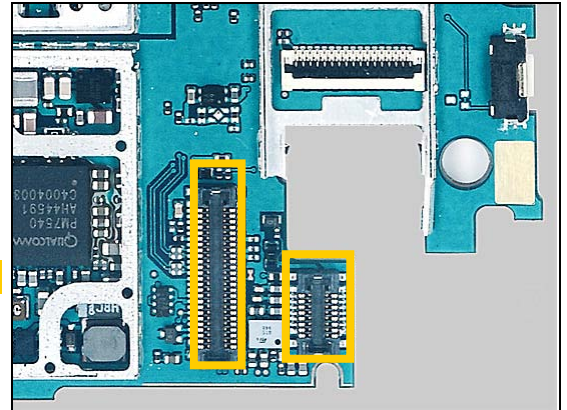
Repair Actions

3.2 Additional Repair Info

1

L3102, L3600, L3601, L3602, N3600, R3601, V3500, V3601

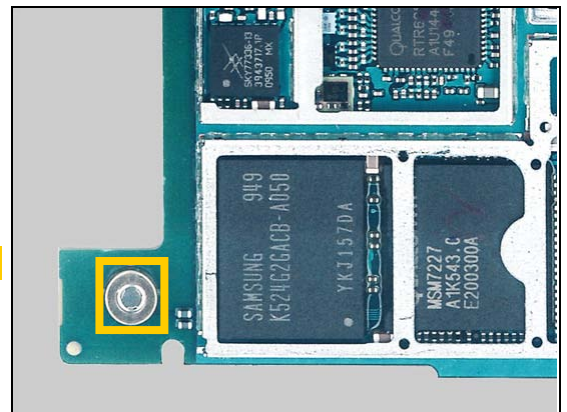
Protect the two BtB connectors with capton tape!



2

L3500, L3501

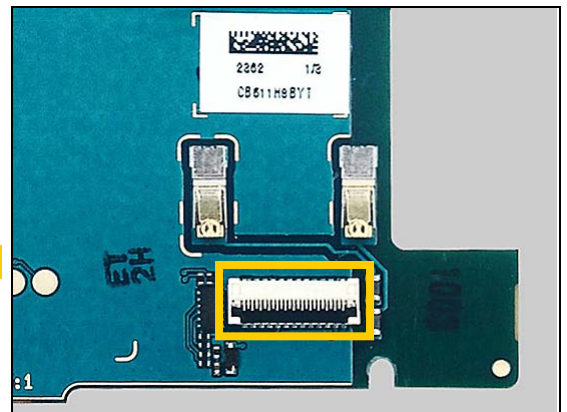
Protect the microphone with capton tape!



3

L3504, L3505, N5200, X3500, X3501

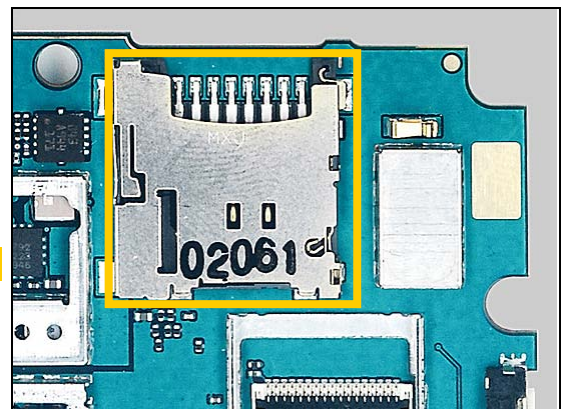
Protect the zif connector with capton tape!



4

N5400, X1021, Z8000

Protect the micro sd holder with capton tape!



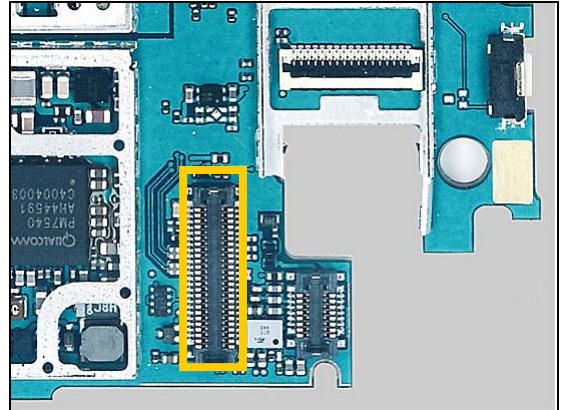


Repair Actions: Additional Repair Info

5

V3500, V3602, Z7000, Z7001

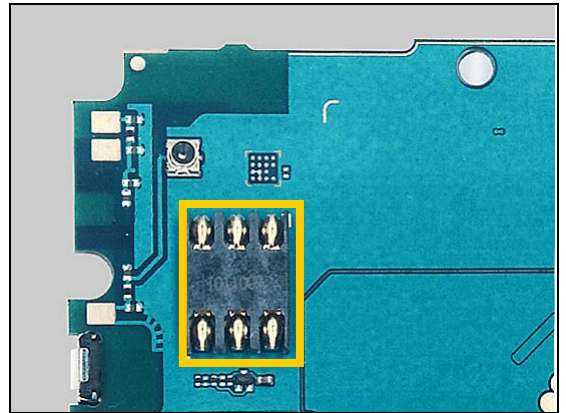
Protect the BtB connector with capton tape!



6

V4000

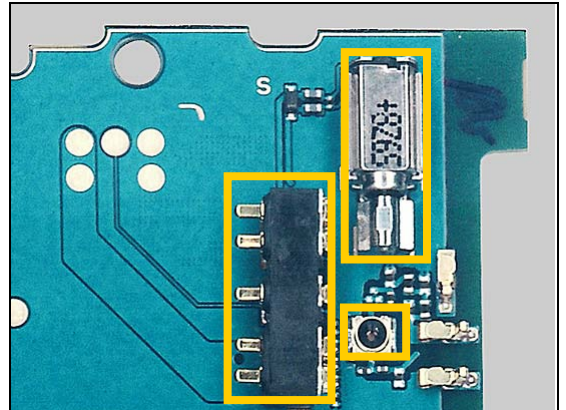
Protect the sim connector with capton tape!



7

X2800, X2801, X2812

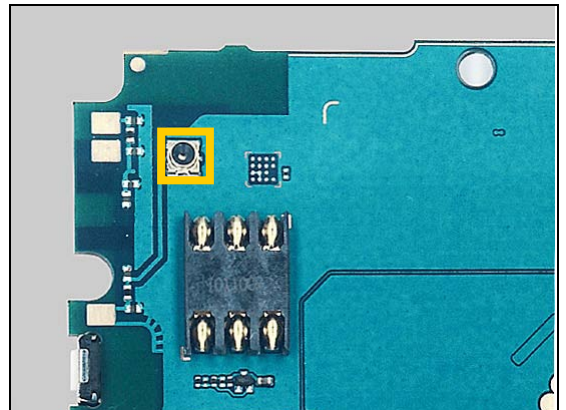
Protect connector, vibrator and battery connector with capton tape!



8

X4000

Protect connector with capton tape!



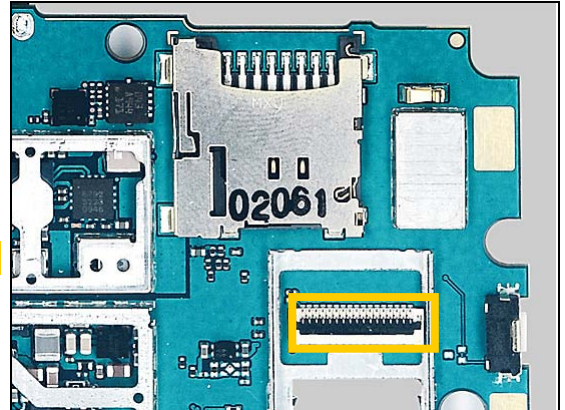


Repair Actions: Additional Repair Info

9

X4100

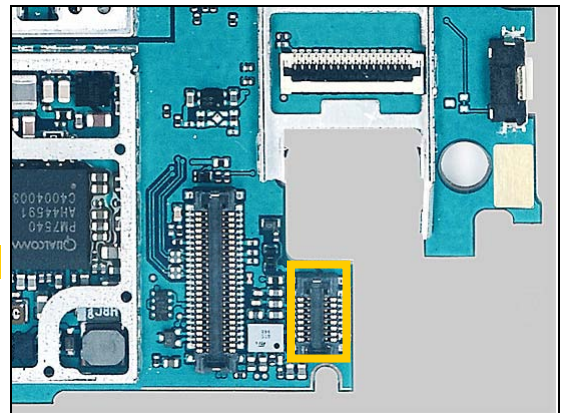
Protect zif connector with capton tape!



10

X5100

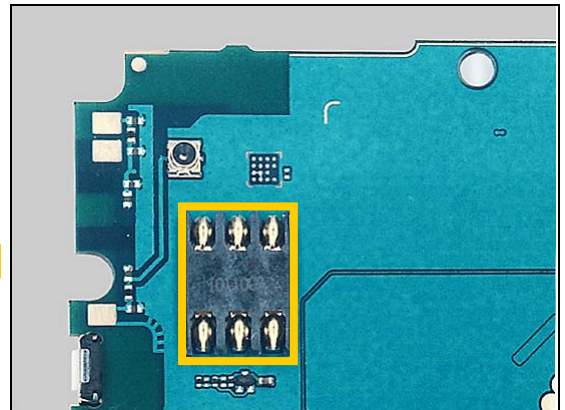
Protect BtB connector with capton tape!



11

X8000

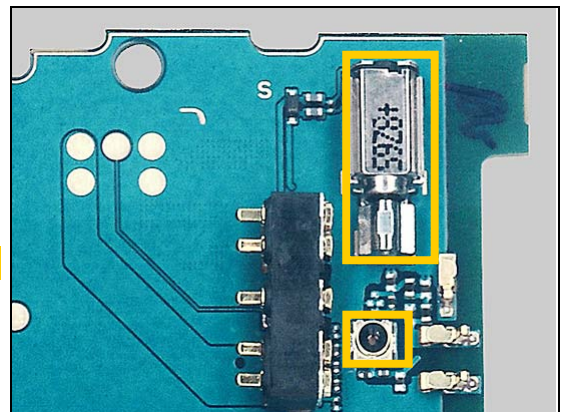
Protect battery connector with capton tape!



12

X1300

Protect connector and vibrator with capton tape!





4 Revision History

Rev.	Date	Changes / Comments
1	2010-Jun-28	Initial release
2	2010-Aug-27	Added B8100 and N8000
3	2010-Aug-30	Added L3506 and L3507
4	2010-Sep-02	Added Mounting Drawing
5	2011-Feb-04	L3506 and L3507 changed from Filter Bead to 0 Ohm resistor
6	2011-Mar-08	Added X1300
7	2011-Sep-19	Added N8401 and Z8400 to new PBA version Added C8140

