



Component Replacement

- electrical -



Cedar

J108i, J108a



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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
B2100	Crystal 32.768 kHz	1234-7322	P HA C
B300	Crystal 26.0 MHz 3225	1200-0097	P HA C
B3101	Mic 4.0 Electret	1224-0804	P BGA
C2406	Capacitor Ceramic 1,0 uF +/-10% 25,0 V K	1000-0076	P HA ⇒ 1
C4206	Capacitor Ceramic 1,0 uF +/-10% 25,0 V K	1000-0076	P HA
E3	Shield Can Closed	1236-9150	P BGA
L1200	Ind Chip 2.2 uH 20% K2520	1200-2028	P HA
L2200	Ind WW 4,7 uH 20% 3.0X3.0X1.0	1200-2190	P HA
L2400	Ferrite Bead	1201-5128	P HA ⇒ 2
L2401	Ferrite Bead	1201-5128	P HA ⇒ 2
L2402	Ferrite Bead	1201-5128	P HA ⇒ 2
L3303	Ind Chip 220.0 nH 5% K0402	1000-3370	P HA ⇒ 3
L3104	Filter 0.0 Hz 0402	1001-1223	P HA
L3105	Ferrite B 1.5 kOhm 100.0 mA 0402	1001-1223	P HA ⇒ 4
L3106	Ferrite B 1.5 kOhm 100.0 mA 0402	1001-1223	P HA ⇒ 5
L3107	Ferrite B 1.5 kOhm 100.0 mA 0402	1001-1223	P HA ⇒ 5
L3108	Ferrite B 1.5 kOhm 100.0 mA 0402	1001-1223	P HA
L3109	Ferrite B 1.5 kOhm 100.0 mA 0402	1001-1223	P HA
L4200	Ind WW 4.7 uH +/-20% K3012	1231-7059	P HA ⇒ 6
N1210	IC Lin 16-pin WLP (2x2mm)	1227-3531	P HA
N1211	IC Vreg PLP1820-6	1204-5903	P HA
N1300	ASIC MS WLCSP61 STLC2690 Cut 4.1	1230-5044	P HA ⇒ 7
N200	Mod PA Quad-band	1210-8429	P BGA C
N2200	IC ESD Prot UDFN 6 2x2 mm	1200-6309	P HA
N2208	IC Vreg PLP1820-6	1235-2326	P HA ⇒ 8
N2400	IC IF micro SMD 24 Bump	1216-8174	P HA
N2420	Microcircuit/USB Transceiver and UART MU	1000-0350	P HA
N300	ASIC RF ZELDA HVQFN56	1200-5290	P BGA C
N3100	IC Amplifier 500mA	1203-4594	P HA
N3101	ASIC Tjatte3 CSP20	1000-0198	P HA ⇒ 2
N400	Module PA GSM	1200-0198	P BGA C(Band125)
N420	IC Amp	1200-9360	P HA C
N4200	Trans N-ch FET 1.6x1.6x0.55mm	1235-2707	P HA ⇒ 6
N4301	IC Vreg DFN 1212-6	1226-5618	P HA ⇒ 8
R2441	Resistor 33.0 Ohm +/-1% 50.0 mW K0201	1000-4091	P HA ⇒ 1
R2444	Resistor 33.0 Ohm +/-1% 50.0 mW K0201	1000-4091	P HA ⇒ 1
R3112	Varistor 10.0 MOhm S 50.0 mW 0402	1203-2250	P HA ⇒ 5
S2402	Input Switch	1001-0060	P HA/ST ⇒ 9
S2403	Input Switch	1001-0060	P HA/ST ⇒ 6

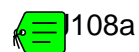
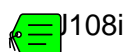


Component Replacement Repair Drawing Electrical/

Position	Component	Part no.	Comments
V2200	Diode	1000-0282	P HA ⇒ 10
V2401	Diode Zener 5.0 V SOT-723	1203-0201	S HA
V2402	Diode Protection 0.7 V SOD-882	1201-2253	P HA ⇒ 3
V2403	Diode Zener 5.0 V SOT-723	1203-0201	S HA
V2409	Diode	1000-0282	P HA ⇒ 11
V2410	Diode	1000-0282	P HA ⇒ 6
V2412	Diode	1000-0282	S HA
V2413	Diode Zener 5.0 V SOT-723	1203-0201	S HA
V2475	Diode Schottky 40.0 V SOD-923	1200-2065	P HA
V3101	Diode	1000-0282	P HA
V3102	Diode Zener 5.0 V SOT-723	1203-0201	P HA
V4203	LED White	1200-2277	S HA
V4204	LED White	1200-2277	S HA
V4205	LED White	1200-2277	S HA
V4206	LED White	1200-2277	S HA
V4207	LED White	1200-2277	S HA
V4208	LED White	1200-2277	S HA
X1200	Conn Coax Plug 6p RF-probe contact	1203-9688	P BGA
X1201	Conn Leaf Spring Antenna conn	1200-2144	P HA ⇒ 12
X1202	Conn Leaf Spring Antenna conn	1200-2144	P HA ⇒ 12
X2200	Battery leaf connector	1201-0774	P BGA
X2201	Conn USB micro B Receptacle 5p	1236-3418	P BGA ⇒ 13
X2401	Card Conn Micro SD	1234-5247	P BGA ⇒ 14
X2403	Conn FPC Receptacle 23p	1234-1552	P BGA ⇒ 1
X2404	Card Conn SIM	1233-6330	P BGA ⇒ 15
X3104	Conn Audio Jack Receptacle 6p	1234-3340	P BGA ⇒ 16
X4300	Camera Socket	1220-0574	P BGA ⇒ 17
Z1300	Filter Cer Ceramic RF Bandpass 2.441 GHz 2,0x1,25x0,8 Multilayer band pass filter	1231-9570	P HA ⇒ 11
Z4200	Filter 400.0 MHz KNA16400 #C W5 1608(1.6	1200-1824	P HA
Z4201	Filter 400.0 MHz KNA16400 #C W5 1608(1.6	1200-1824	P HA
Z4202	Filter 400.0 MHz KNA16400 #C W5 1608(1.6	1200-1824	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

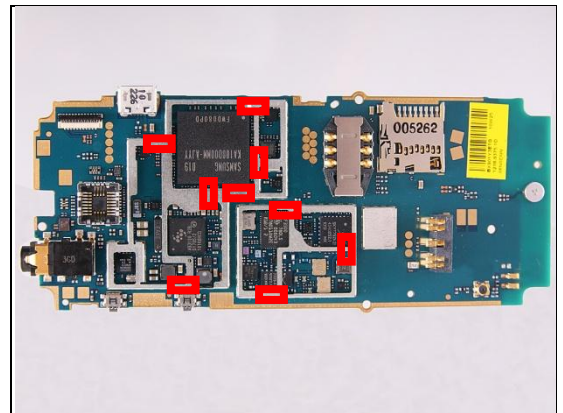
Refer to the Tools Catalogue/Matrix for information about equipment required for PBA repair!

3.1 Shield Can Fence Modifications

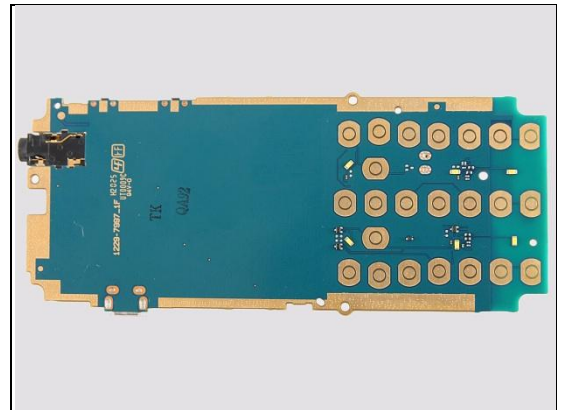
Refer to the pictures below of the primary and secondary sides for repairs that require the Shield Can Fence to be modified:

- 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



Secondary side





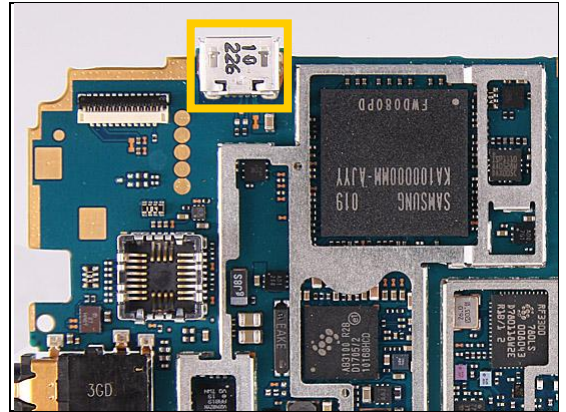
Repair Actions

3.2 Additional Repair Info

1

C2406, R2441, R2444, X2403

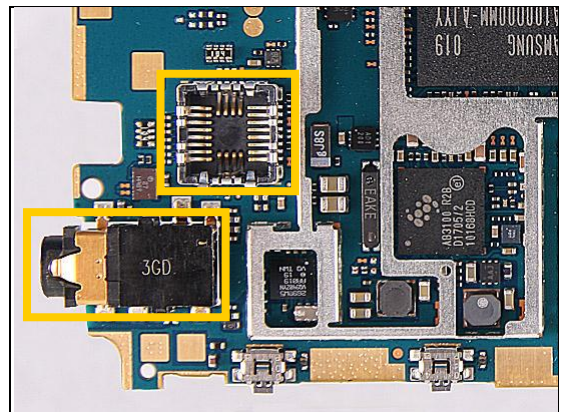
Protect USB connector with capton tape!



2

L2400, L2401, L2402, N3101

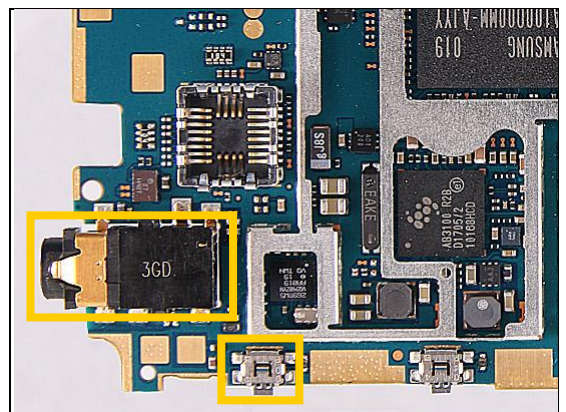
Protect audio jack and camera socket a with capton tape!



3

L3303, V2402

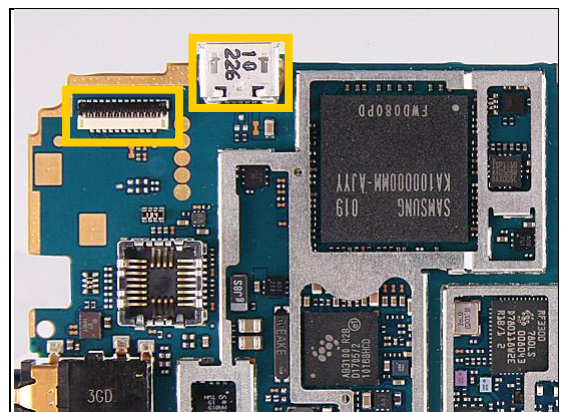
Protect audio jack and input switch with capton tape!



4

L3105

Protect USB connector and ZIF connector with capton tape!



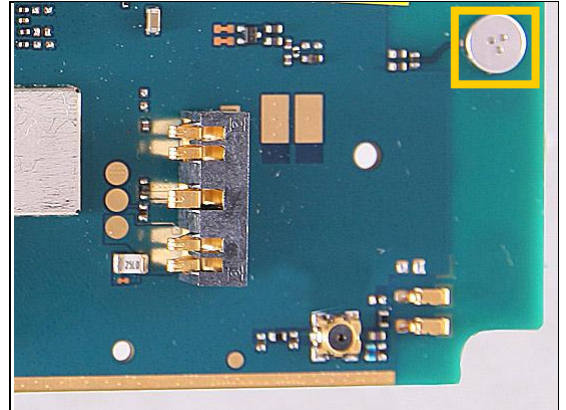


Repair Actions: Additional Repair Info

5

L3106, L3107, R3112

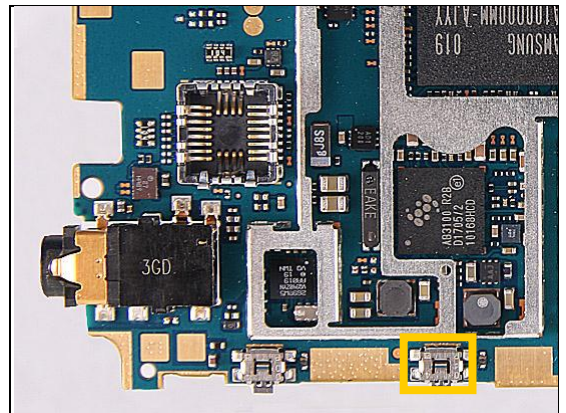
Protect microphone with capton tape!



6

L4200, N4200, S2403, V2410

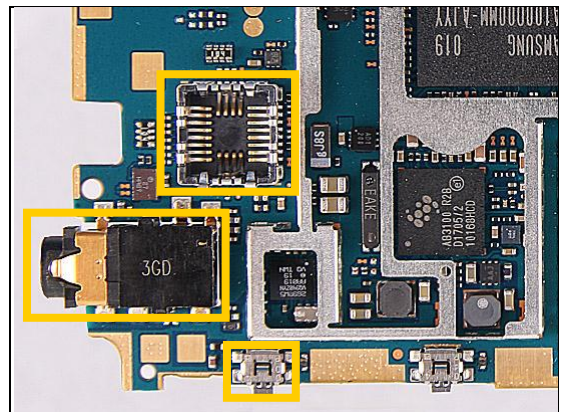
Protect input switch with capton tape!



7

N1300

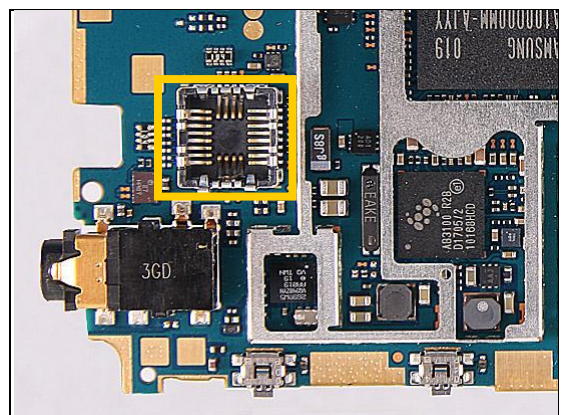
Protect audio jack, camera socket and input switch with capton tape!



8

N2208, N4301

Protect camera socket with capton tape!



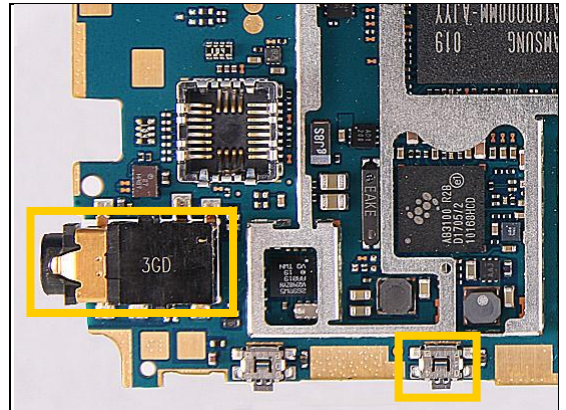


Repair Actions: Additional Repair Info

9

S2402

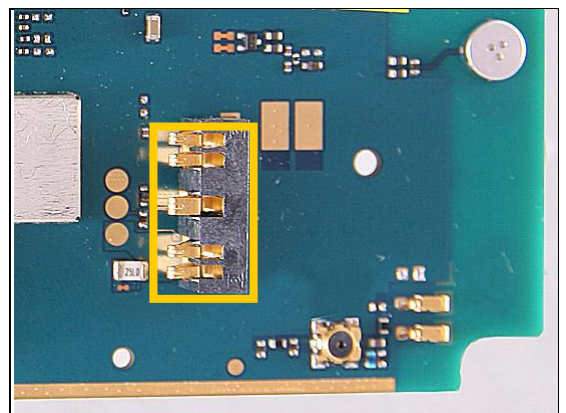
Protect audio jack and input switch with capton tape!



10

V2200

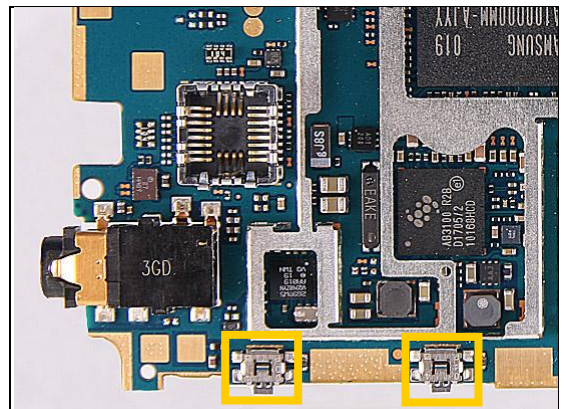
Protect battery connector with capton tape!



11

V2409, Z1300

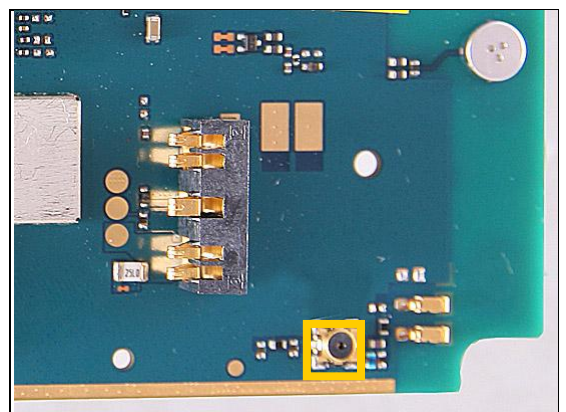
Protect input switches with capton tape!



12

X1201, X1202

Protect coax connector with capton tape!



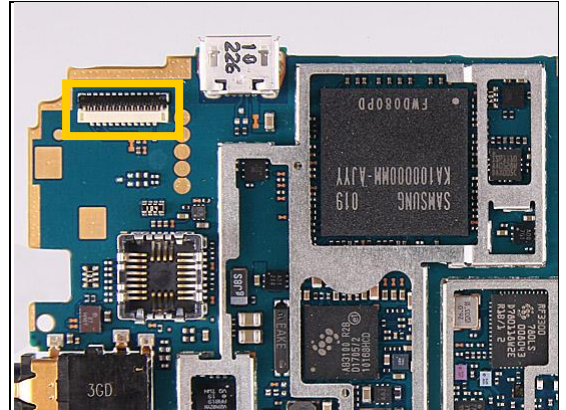


Repair Actions: Additional Repair Info

13

X2201

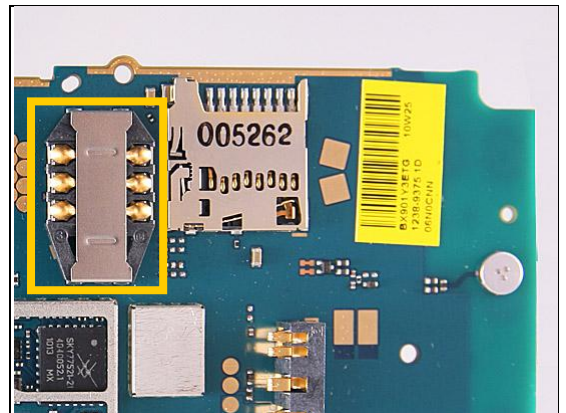
Protect ZIF connector with capton tape!



14

X2401

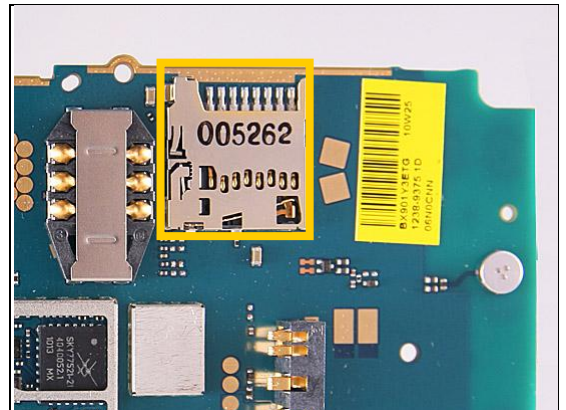
Protect sim connector with capton tape!



15

X2404

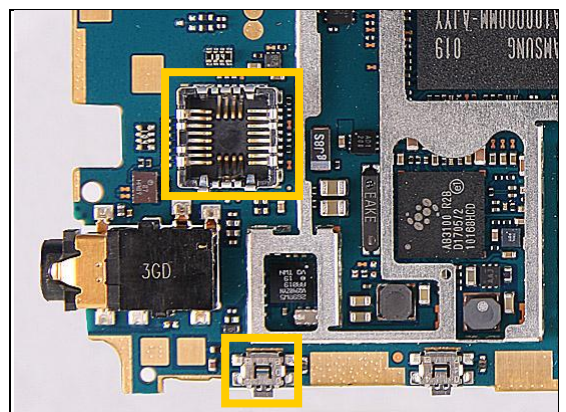
Protect micro SD connector with capton tape!



16

X3104

Protect camera socket and input switch with capton tape!

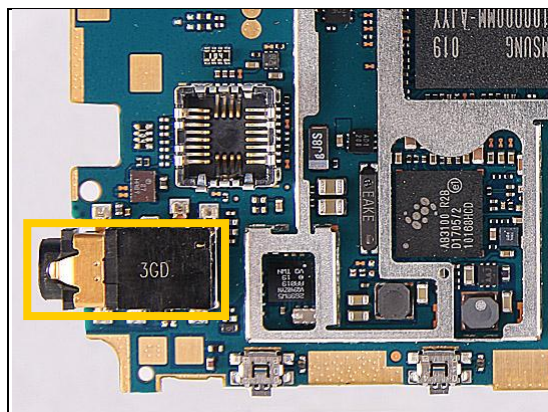


Repair Actions: Additional Repair Info

17

X4300

Protect audio jack with capton tape!





4 Revision History

Rev.	Date	Changes / Comments
1	2010-Sep-24	Initial release
2	2010-Sep-26	Update the description of 1224-0804
3	2010-Sep-26	Update the chapter 2
4	2010-Oct-15	Change REP 621 102/33 to 1000-4091
5	2010-Dec-1	Update the description of 1201-0774, 1201-2253, 1201-5128 and 1203-4594
6	2011-2-21	Change the service level to electrical
7	2011-3-2	Update some comment for calibration