



Sony Ericsson

Component Replacement

- electrical -



*MK16i, MK16a,
Xperia™ Pro*



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	13

*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 Additional Soldering Process/

Position	Component	Part no.	Comments
B5100	Vibrator	1242-1349	P BGA ⇒1
C1303	Capacitor Ceramic 4.7 uF +/-20% 6.3 V 04	1227-7181	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 ⇒2
C7603	Capacitor Ceramic 4.7 uF +/-20% 25.0 V 08	1220-2537	P HA
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 WW 2.2 uH	1232-8769	P HA
L1004	Ind WW 2.2 uH	1232-8769	P HA
L1300	Ind Chip 1.0 uH	1225-8646	P HA
L2400	Ind WW 2.2 uH	1232-8769	S HA ⇒3
L3100	Ind Chip 0, H	1200-6898	P HA
L3500	Ferrite B 1.8 kOhm	1237-6064	P HA ⇒4
L3501	Ferrite B 1.8 kOhm	1237-6064	P HA ⇒5
L3502	Ferrite B 1.8 kOhm	1237-6064	P HA ⇒5
L3602	Ferrite B 1.8 kOhm	1237-6064	P HA ⇒6
L3603	Ferrite B 1.8 kOhm	1237-6064	P HA ⇒6
L3604	Ferrite B 1.8 kOhm	1237-6064	P HA ⇒6
L7600	Ind WW 10, uH	1000-3331	P HA
L7610	Ind Chip 0, H	1200-6898	P HA
L7801	Ind WW 1, uH 30% VLS252012T_2.5x2	1208-8270	P HA
N1302	IC Linear Fuel Guage	1237-9687	P HA ⇒7
N1303	ASIC PM Charger with OTG	1237-3321	P HA
N1310	IC Vreg R1154x	1245-5261	P HA
N2200	IC ESD Prot	1227-8675	S HA ⇒1
N2800	ASIC RF Transceiver QTR-8200 308-NSP	1228-2273	S BGA C
N2801	Mod PA QUAD GSM850/GSM900/DCS/EDGE	1232-2928	S BGA C
N2900	Mod PA WCDMA 824-849 MHz	1237-1770	P HA C For Band125
N2900	Mod PA WCDMA 880-915 MHz	1237-1771	P HA C For Band18
N2902	Mod PA WCDMA 1850-1910 MHz	1237-1768	P HA C For Band125
N2903	Mod PA WCDMA 1920-1980 MHz	1237-1765	P HA C For All Bands
N3501	IC Amplifier 500mA	1203-4594	P HA ⇒8
N5400	MEMS Compass Analog	1228-7182	P HA
N6507	IC ESD Prot CSP-9-0.4 (1.2*1.2*0,605 mm)	1216-2989	P HA ⇒9
N8100	Mod Radio WLAN/BT/FM	1237-3816	S BGA
N8101	Mod PA WLAN 3.0x3.0x0.5mm	1239-7071	S HA
N8400	IC Amp	1218-0656	P HA ⇒8
R3608	Resistor 10.0 Ohm +/-1% 50.0 mW K0201	1000-0381	P HA ⇒6
R3609	Resistor 10.0 Ohm +/-1% 50.0 mW K0201	1000-0381	P HA ⇒6
R9859	Inductor Chip	1203-8594	P HA ⇒8
R9860	Inductor Chip	1203-8594	P HA ⇒8
V3100	Diode Protection 0.7 V SOD-882	1201-2253	P HA
V3500	Diode Zener 5.0 V SOT-723	1203-0201	P HA ⇒4
V5107	LED Red/Green/Blue	1230-2194	S HA/ST ⇒11
V7601	Trans N-ch FET 1.6x1.6x0.55mm	1235-2707	P HA
V9801	Zener Diode, 5.6V, Pb-free	1001-1864	P HA ⇒7
V9815	Zener Diode, 5.6V, Pb-free	1001-1864	P HA ⇒7
V9830	IC Switch	1244-3833	P HA ⇒7
X1300	Conn Pogopin Plug 5p	1243-4575	S BGA
X2200	Connector Micro USB	1242-6545	S BGA
X2801	Conn Coax Receptacle 0p test switch	1221-6477	P BGA ⇒12
X2802	Conn Other	1001-0637	S BGA



Component Replacement Repair Drawing Additional Soldering Process/

Position	Component	Part no.	Comments
X4100	Connector Micro SD	1243-3658	P BGA ⇒13
X5200	Conn BtB Receptacle 34p Panasonic A4S	1224-9689	P BGA ⇒14
X6501	Conn HDMI Receptacle 19p D-type, midmoun	1236-4208	S BGA ⇒15
X7301	Conn Other Receptacle 24p	1210-3896	S BGA
X8401	Conn Other Receptacle 24p	1210-3896	P BGA ⇒16
X8402	Conn Pogopin Receptacle 1p Barrel-less	1241-4428	P BGA
X8403	Conn Pogopin Receptacle 1p Barrel-less	1241-4428	P BGA
X8404	Conn Leaf Spring	1201-4841	S HA
X8406	Conn Leaf Spring	1201-4841	S HA
X8407	Conn Leaf Spring	1201-4841	S HA ⇒15
X8409	Conn Leaf Spring	1201-4841	S HA
X9802	LCM Connector	1200-2288	S BGA
X9803	Connector	1205-2016	P BGA ⇒17
Z2200	Filter Ceramic 100.0 MHz	1235-3014	P HA ⇒2
Z7300	Filter 150.0 MHz	1221-4986	S HA ⇒3
Z7301	Filter 150.0 MHz	1221-4986	S HA ⇒3
Z7302	Filter 150.0 MHz	1221-4986	S HA ⇒3
Z8001	Filter SAW 2,4 GHz 1.35*1.05*0.5	1217-3397	S HA
Z8401	Filter SAW 1,57 GHz	1207-2628	P HA
Z9800	Filter Ceramic 100.0 MHz	1235-3014	S HA ⇒3
Z9801	Filter Ceramic 100.0 MHz	1235-3014	S HA ⇒3
Z9802	Filter Ceramic 100.0 MHz	1235-3014	S HA ⇒3
Z9803	Filter Ceramic 100.0 MHz	1235-3014	S HA ⇒18
Z9804	Filter Ceramic 100.0 MHz	1235-3014	S HA ⇒18
Z9805	Filter Ceramic 100.0 MHz	1235-3014	S HA ⇒18



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

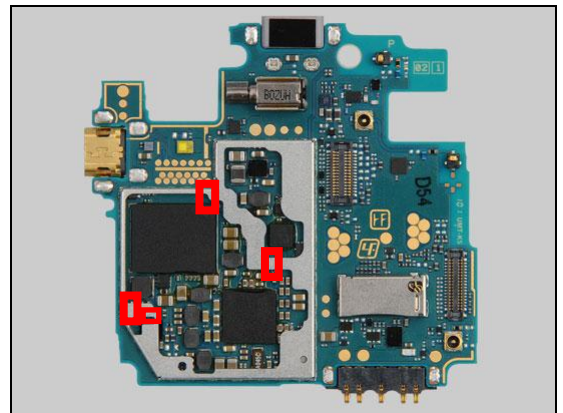
Refer to the Tools Catalogue/Matrix for information about equipment required for PBA repair!

3.1 Shield Can Fence Modifications

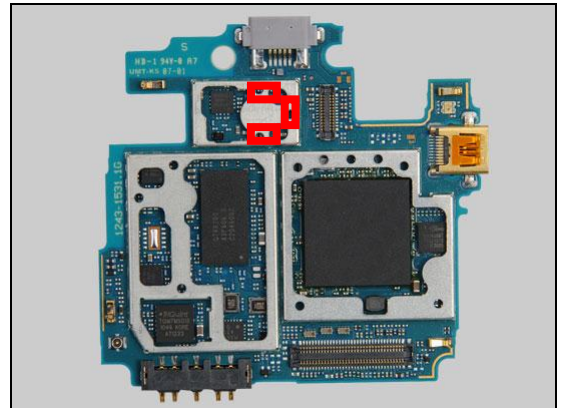
Refer to the pictures below of the primary and secondary sides for repairs that require the Shield Can Fence to be modified:

- 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





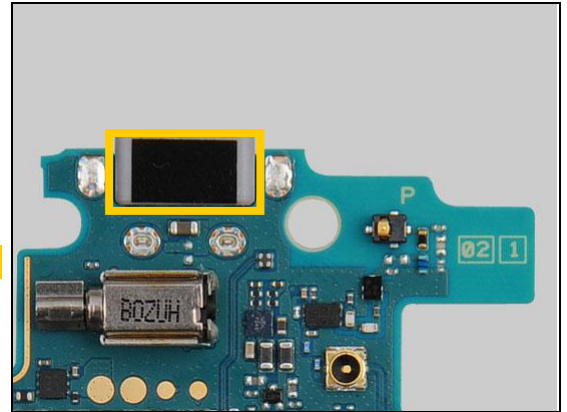
Repair Actions

3.2 Additional Repair Info

1

B5100, N2200

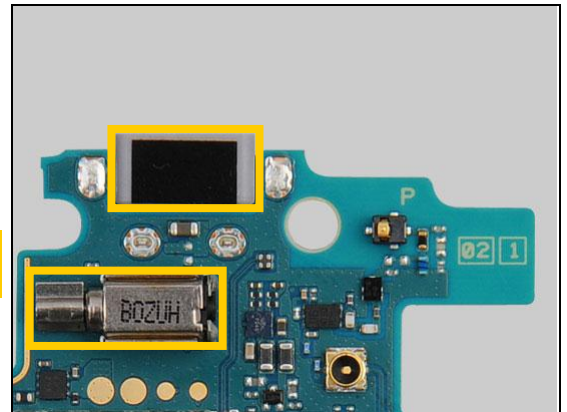
Protect the Micro USB connector with capton tape!



2

C2200, Z2200

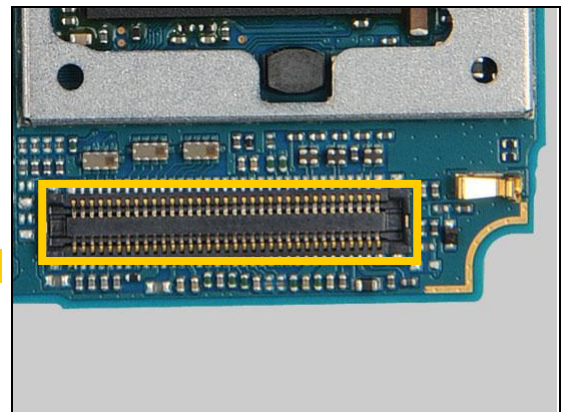
Protect the Micro USB connector and the Vibrator with capton tape!



3

L2400, Z7300, Z7301, Z7302, Z9800, Z9801, Z9802

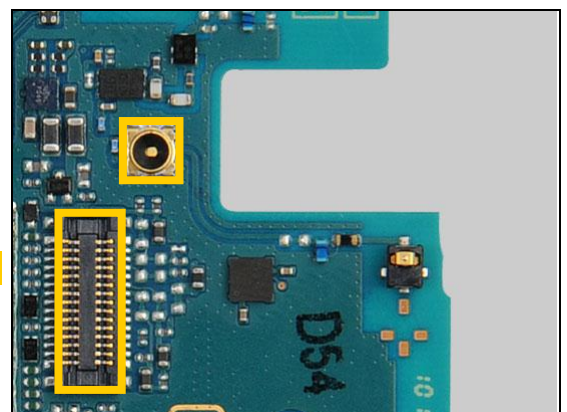
Protect the connector with capton tape!



4

L3500, V3500

Protect the two connectors with capton tape!



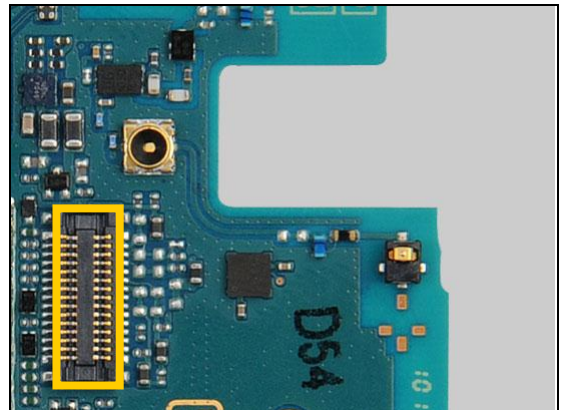


Repair Actions: Additional Repair Info

5

L3501, L3502

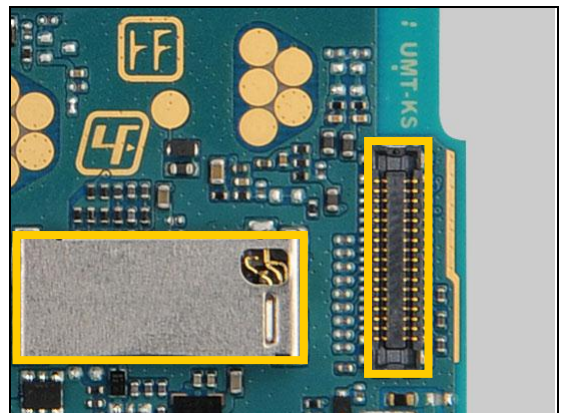
Protect the connector with capton tape!



6

L3602, L3603, L3604, R3608, R3609

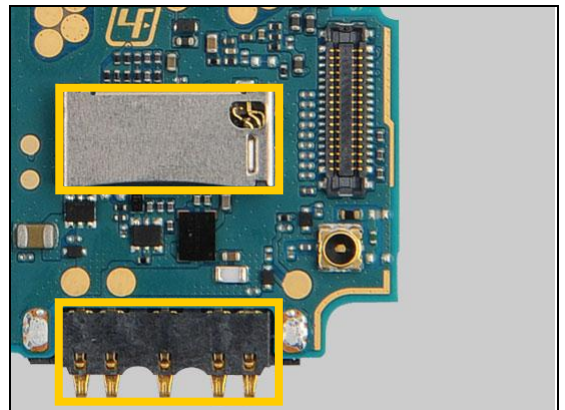
Protect the Micro SD connector and the connector with capton tape!



7

N1302, V9815, V9830

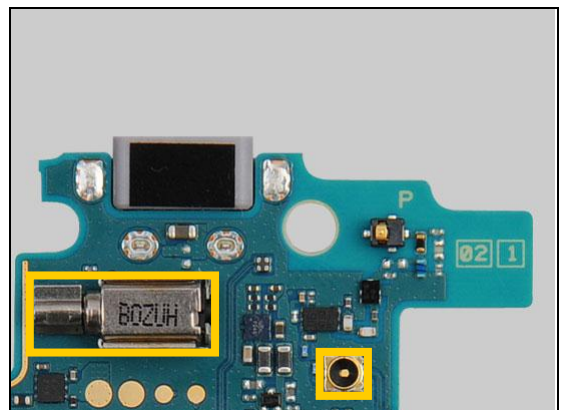
Protect the Micro SD connector and the Pogopin connector with capton tape!



8

N3501, N8400, R9859, R9860

Protect the connector and the Vibrator with capton tape!



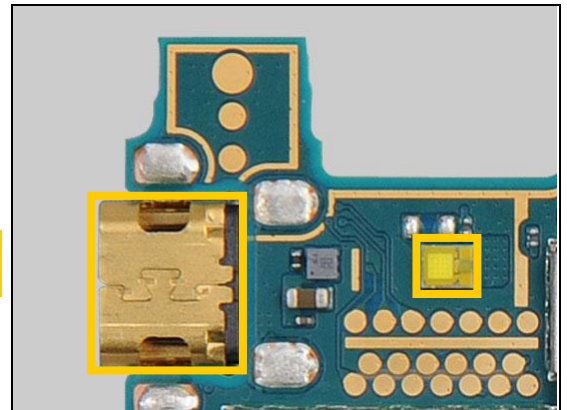


Repair Actions: Additional Repair Info

9

N6507

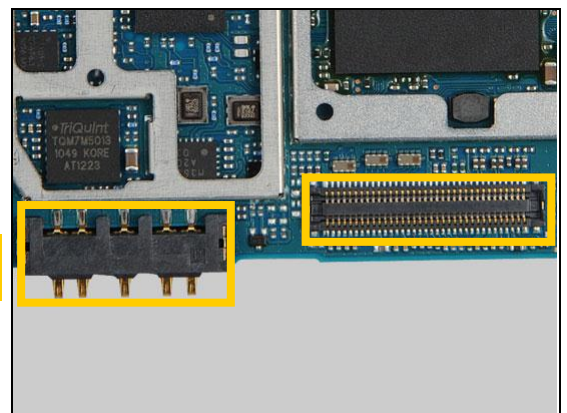
Protect the HDMI connector and the LED with capton tape!



10

V3502

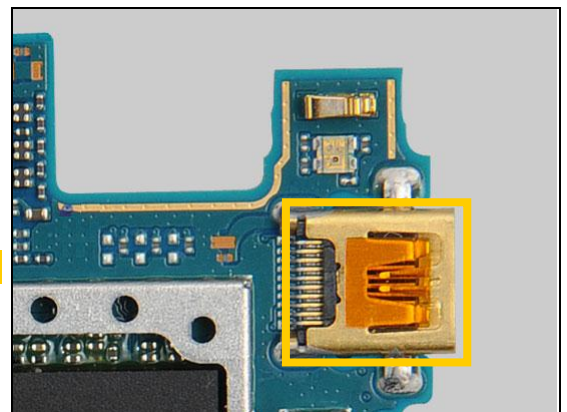
Protect the Pogopin connector and the connector with capton tape!



11

V5107

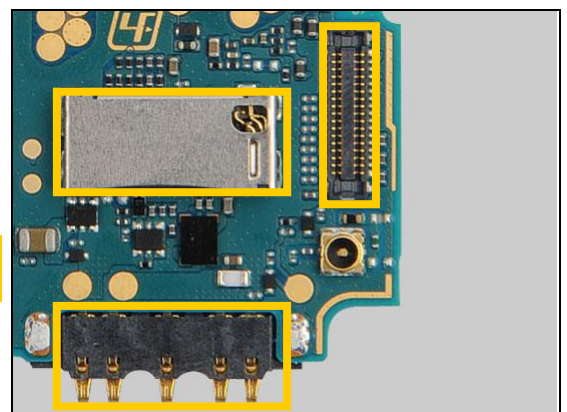
Protect the HDMI connector with capton tape!



12

X2801

Protect the connector, the Pogopin connector and the Micro SD connector with capton tape!



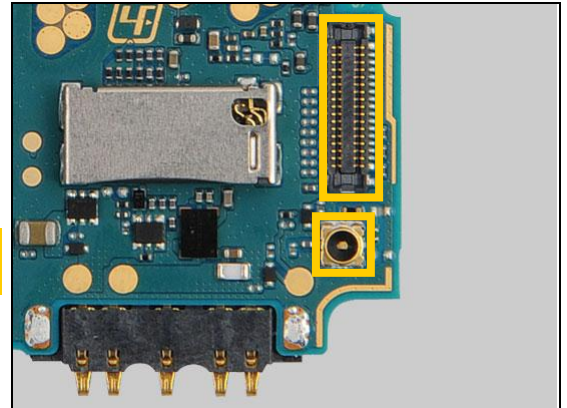


Repair Actions: Additional Repair Info

13

X4100

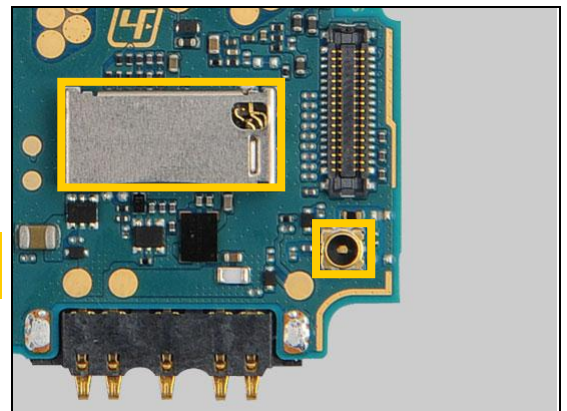
Protect the connector and the Coax connector with capton tape!



14

X5200

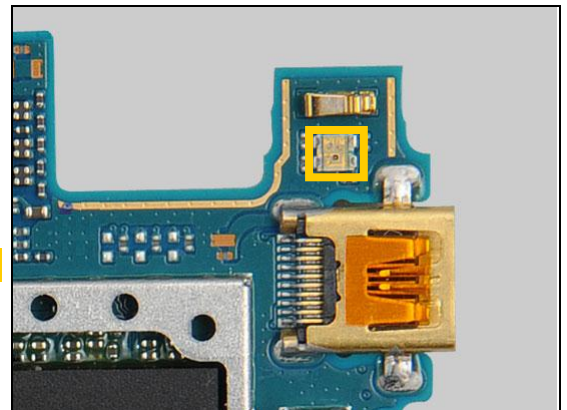
Protect the Coax connector and the Micro SD connector with capton tape!



15

X6501

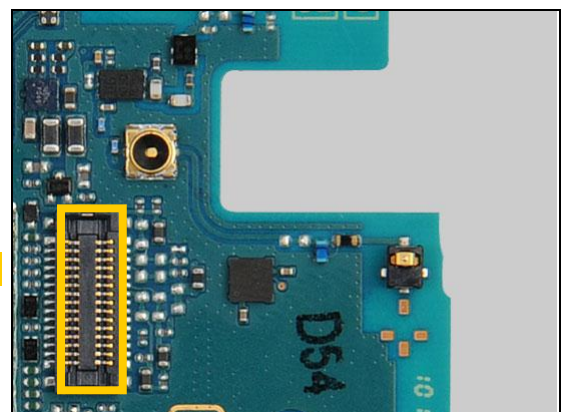
Protect the LED with capton tape!



16

X8401

Protect the connector with capton tape!



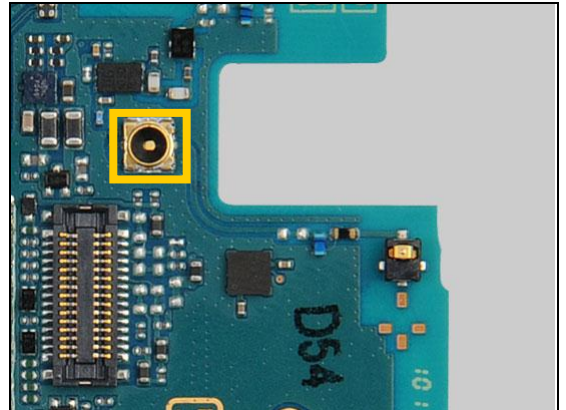


Repair Actions: Additional Repair Info

17

X9803

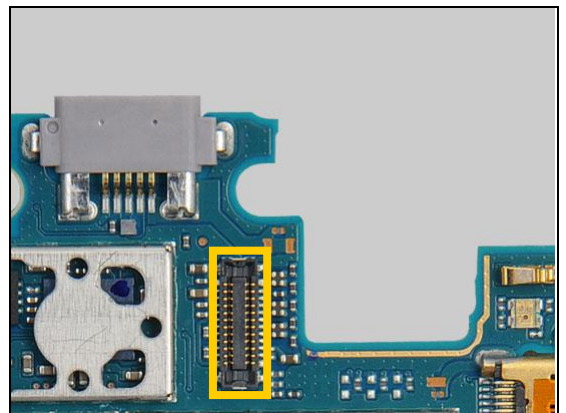
Protect the connector with capton tape!



18

Z9803, Z9804, Z9805

Protect the connector with capton tape!





4 Revision History

Rev.	Date	Changes / Comments
1	2011-Aug-08	Released
2	2011-Aug-11	Text Update
3	2011-Aug-18	N2900, N2903 Added
4	2011-Sep-09	1234-5250 & 1000-0399 Removed
5	2011-Dec-02	L1005 Removed, V9801 Added