

## Component Replacement

- electrical -



*Xperia XA1 Plus*

G3412, G3416, G3221, G3223, G3226

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*For general information about electrical repair related issues, refer to 1220-1336: Generic Repair Manual - electrical*

*Baking prior to repair is required, if the board have been exposed to air more than 12 hours from PWB package opening. Too long exposure time increase the level of moisture in PWB and the PWB could delaminate during repair process and result in direct or latent failures and reduce reliability.  
The boards shall be baked in 125°C ±5°C for 4 hours .*

*Test after electrical replacement: refer to Mechanical Test Instruction.*

*All Electrical components are RLC level C.*

*Do not remove shield can lids (RF performance will be damaged).*

*If there is other components right next to replacement component, protect the other components with Kapton tape.*

## 1 Replaceable Components

EXPLANATION OF ABBREVIATIONS USED IN THE COLUMN 'COMMENTS' BELOW

### **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).

## Primary Side

Position	Component	Part no.	Comments
U1603	2nd MIC	22200000V00	HA+BH ⇨1
J2801	Dual SIMSOCKET S113F01-01 XINTAILI	23040001K00	HA+BH or BGA ⇨2
J2801	Single SIMSOCKET S113F01-02 XINTAILI	23040001J00	HA+BH or BGA ⇨3
J1401	MEMSOCKET ST11S008V4H JAE	2334000054W	HA+BH or BGA ⇨4
SPR3001	SPR CONN TM007-303 JTCONN	2313000134W	HA+BH ⇨5
SPR3002	SPR CONN TM007-303 JTCONN	2313000134W	HA+BH ⇨6

### Note:

**J2801 (Dual SIMSOCKET S113F01-01 XINTAILI, 23040001K00) only valid for dual SIM products (G3412, G3416, G3426)**

**J2801 (Single SIMSOCKET S113F01-02 XINTAILI, 23040001J00) only valid for single SIM products (G3421, G3423).**

## Secondary Side

Position	Component	Part no.	Comments
J1001	BATT CONN	23030000U00	HA+BH ⇨1
J2001	BTB CONN ASE5B5010 ATC	23080005V00	HA+BH or BGA ⇨2
J1601	BTB CONN ASE5S1610 ATC	2308000216W	HA+BH or BGA ⇨3
J1802	BTB CONN ASE5S3410 ATC	2308000257W	HA+BH or BGA ⇨4
J1901	BTB CONN ASE5S4010 ATC	2308000278W	HA+BH or BGA ⇨5
J1801	BTB CONN BB35-RD34-3A-D8 DDK	23080002J00	HA+BH or BGA ⇨6
FJP2301	COAX CONN C87P101-N0003-H SPEEDTECH	23350000L00	HA+BH ⇨7
FJP2302	COAX CONN C87P101-N0003-H SPEEDTECH	23350000L00	HA+BH ⇨7
SMA2301	COAX CONN C87P101-N0003-H SPEEDTECH	23350000L00	HA+BH ⇨8
D1206	LED	7652000025W	HA+BH ⇨9
GP2601	SPR CONN 3.1.29.0483 JTCONN	23130003F00	HA+BH ⇨10
GP2602	SPR CONN 3.1.29.0483 JTCONN	23130003F00	HA+BH ⇨10
ANT2501	SPR CONN TM010-307 JTCONN	2313000161W	HA+BH ⇨11
ANT2502	SPR CONN TM010-307 JTCONN	2313000161W	HA+BH ⇨11
PAD2401	SPR CONN TM010-307 JTCONN	2313000161W	HA+BH ⇨12
PAD2402	SPR CONN TM010-307 JTCONN	2313000161W	HA+BH ⇨12
PAD2403	SPR CONN TM010-307 JTCONN	2313000161W	HA+BH ⇨12
SPR3003	SPR CONN TM010-307 JTCONN	2313000161W	HA+BH ⇨13
U2801	Vibrator	C/29300001900	HA+BH or BGA ⇨14

### Note:

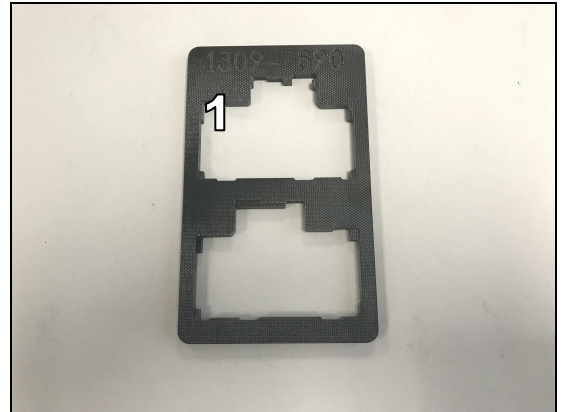
**FJP2301 and FJP2302 only valid for G3421, G3423, G3426!**

**SMA2301 only valid for G3412, G3416!**

## 2 Tools

### SPECIAL TOOLS

1. 1. PBA Soldering Fixture (1309-7890)



### STANDARD TOOLS

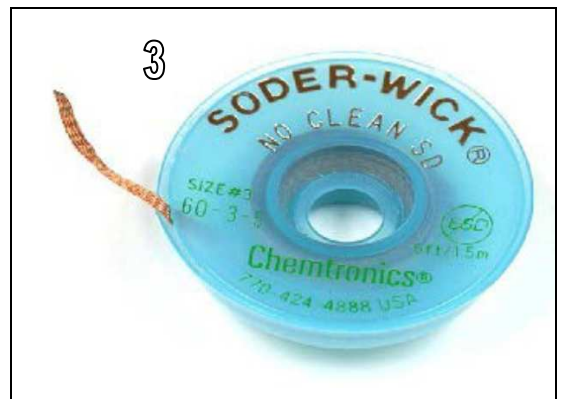
1. Small Convection (Hot Air) Device



2. Soldering Iron



3. Soldering wick



4. Solder-wire



5. Solder-paste



6. Low Static Heat Protection Tape



7. Flux

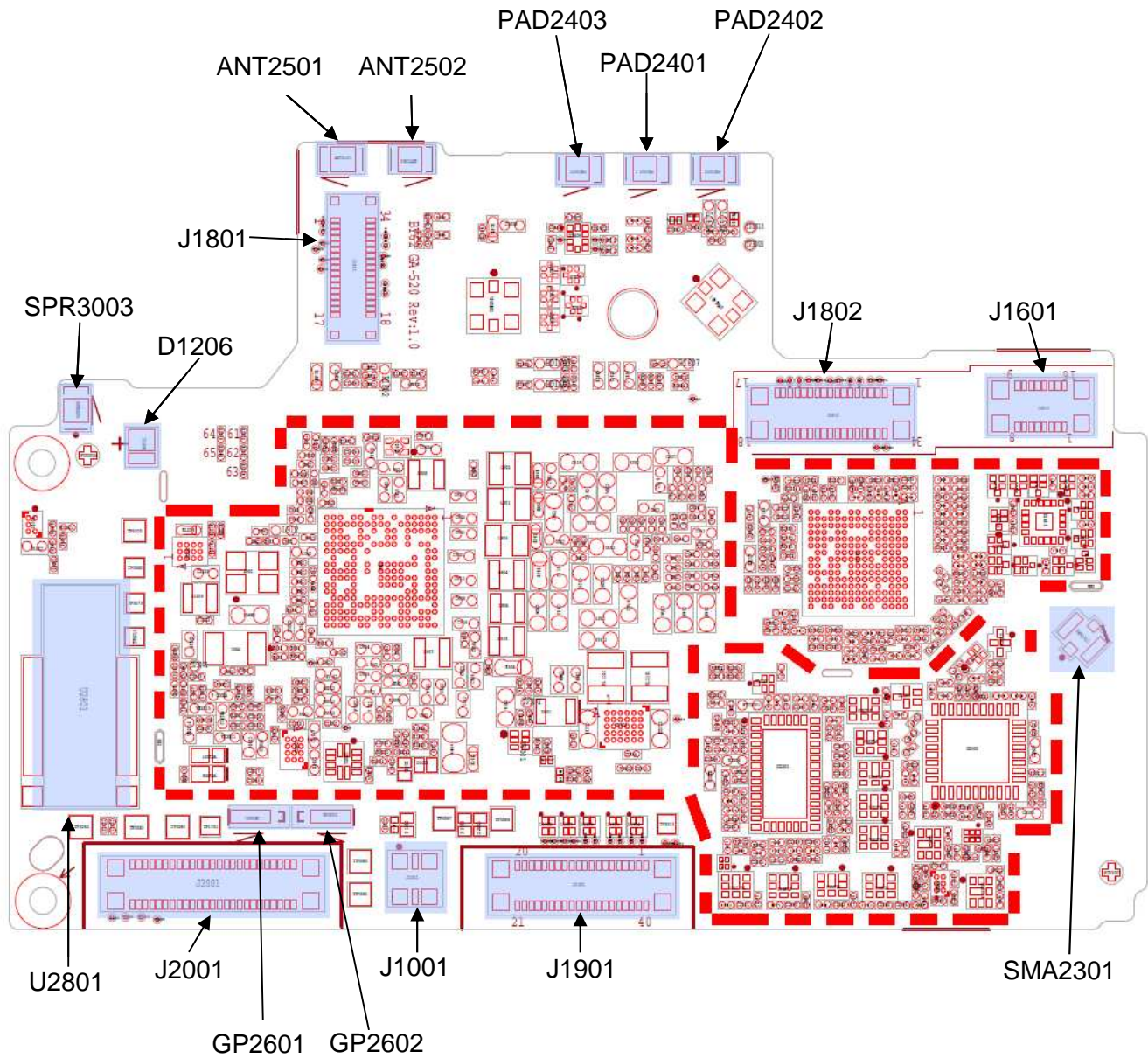


### Primary side



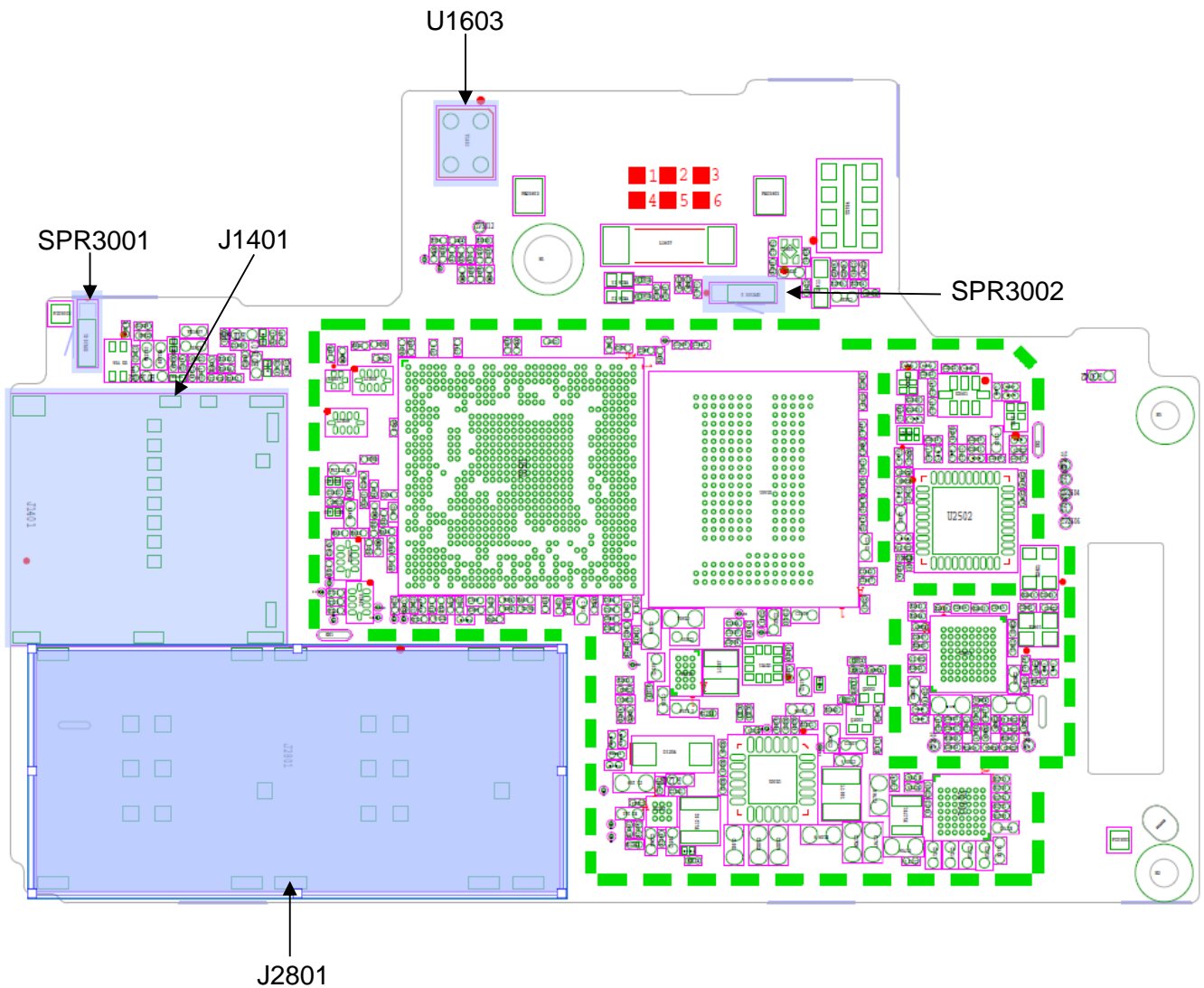


## Secondary side

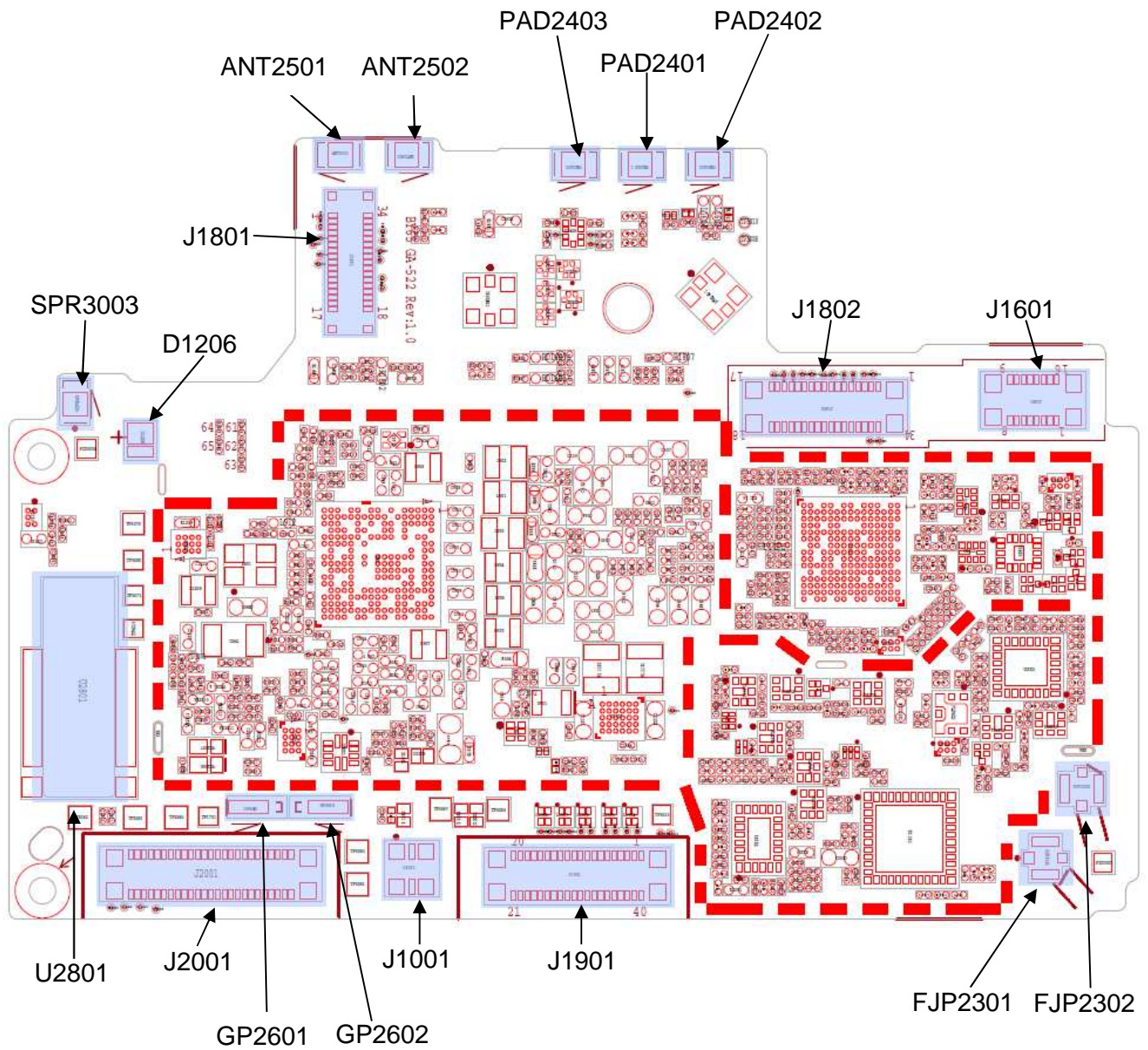




## Primary side

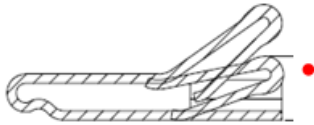

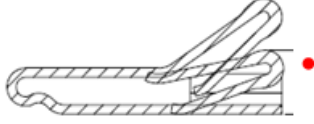
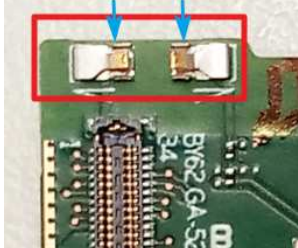
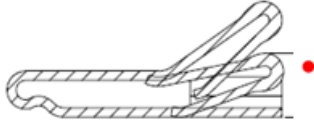
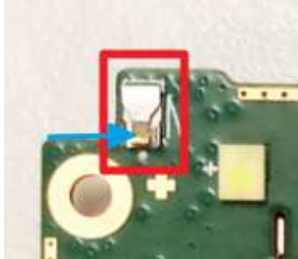
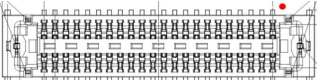
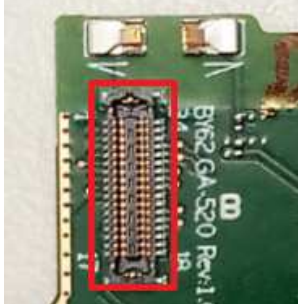
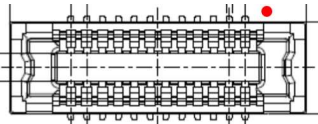
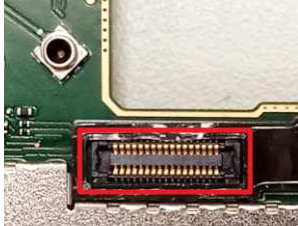
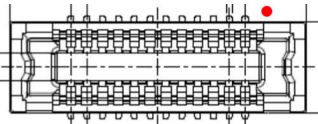
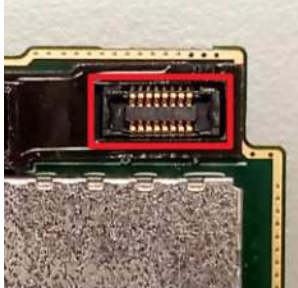


## Secondary side

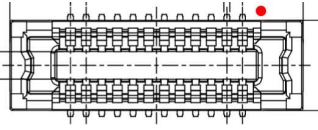
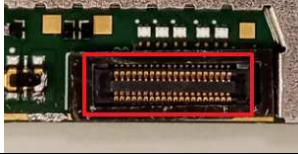
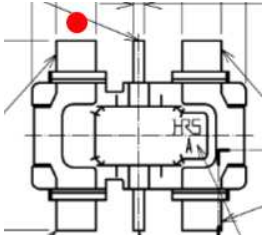
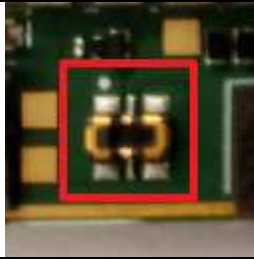
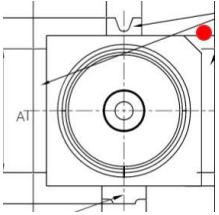
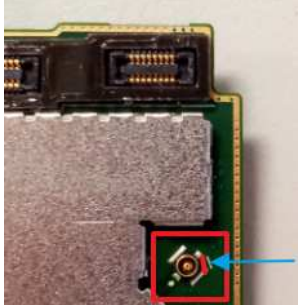
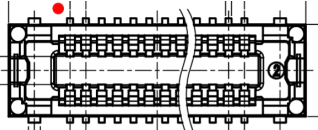
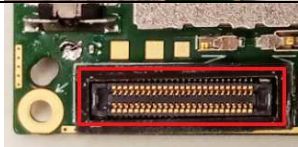
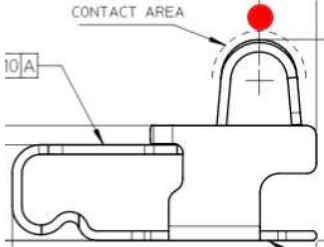
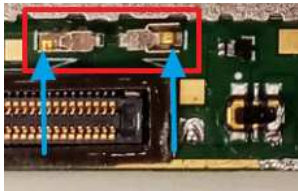
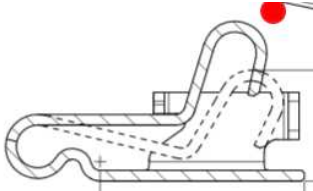
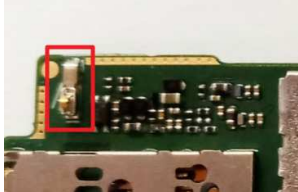
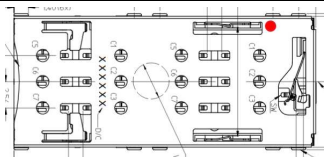
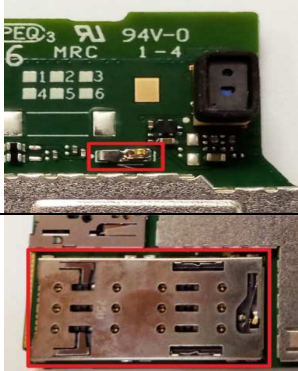


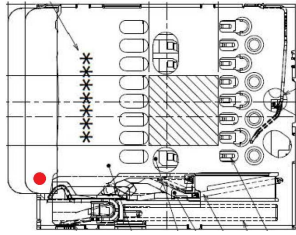
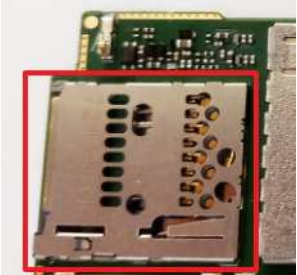
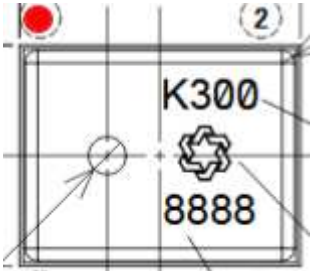
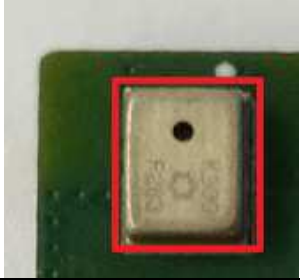
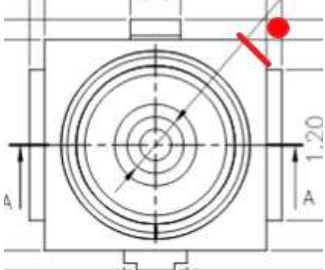
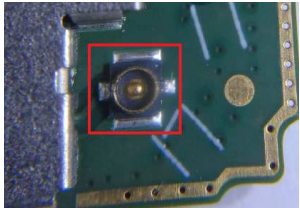
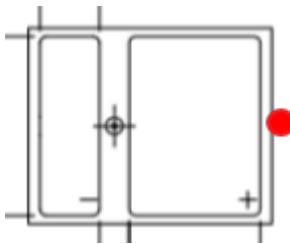
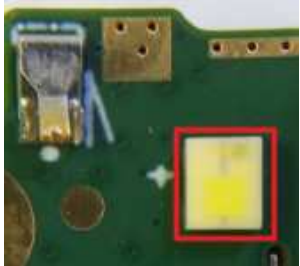
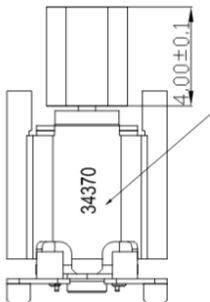

Only valid for G3412, G3416

The Component direction is shown by using red or black point.

Position	PBA drawing	PBA picture
PAD2401 PAD2402 PAD2403		
ANT2501 ANT2502		
SPR3003		
J1801		
J1802		
J1601		

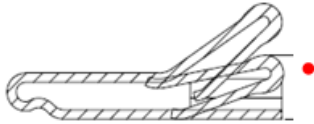

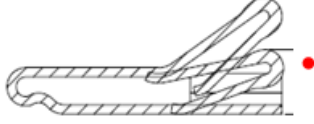
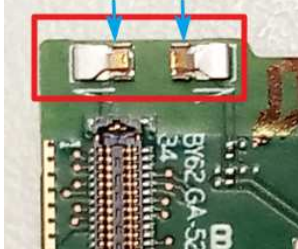
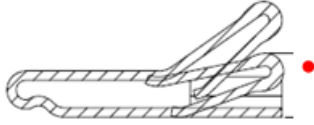
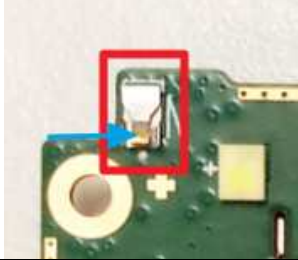
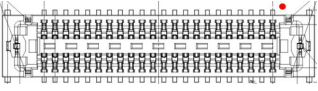
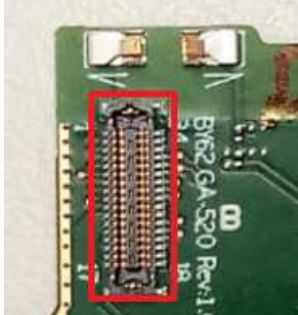
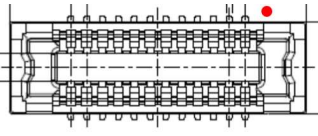
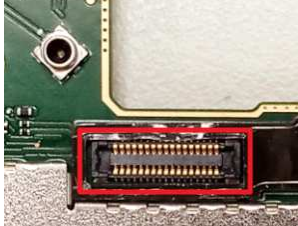
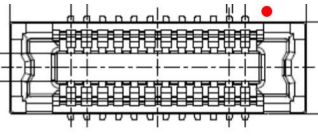
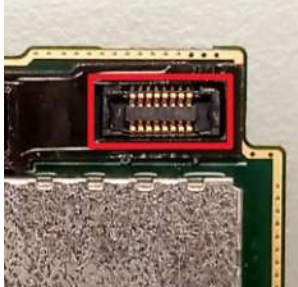


J1901		
J1001		
SMA2301		
J2001		
GP2601 GP2602		
SPR3001 SPR3002		
J2801		

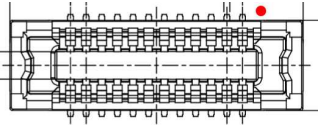
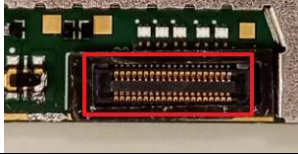
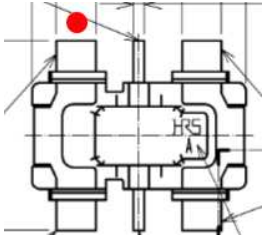
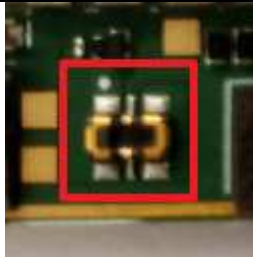
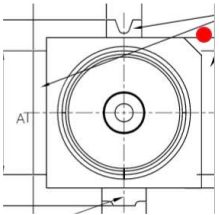
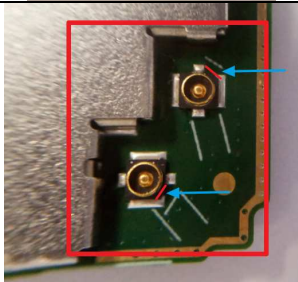
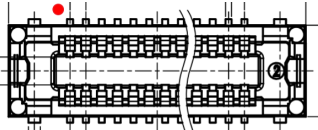
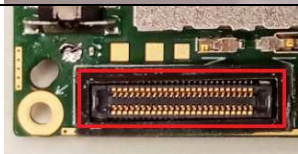
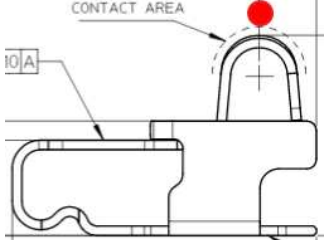
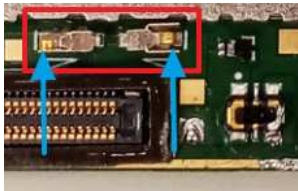
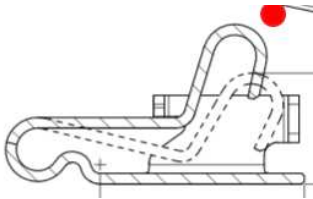
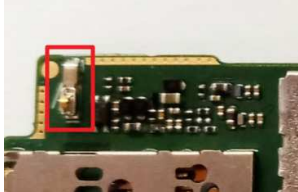

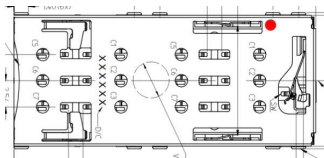
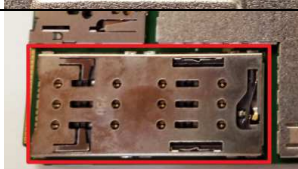
J1401		
U1603		
FJP2301		
D1206		
U2801		

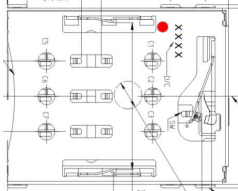
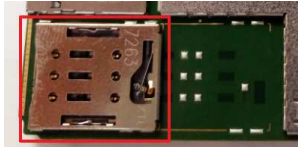
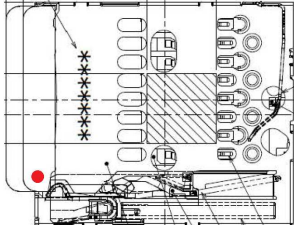

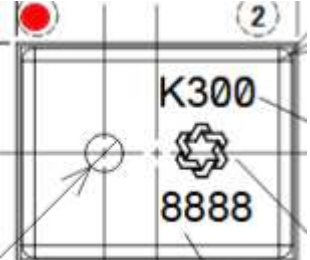
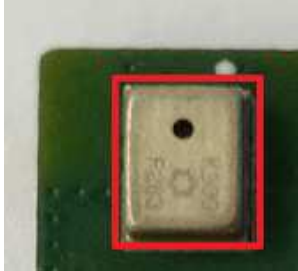
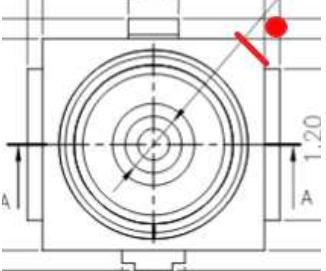
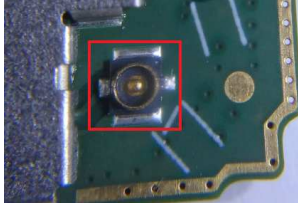
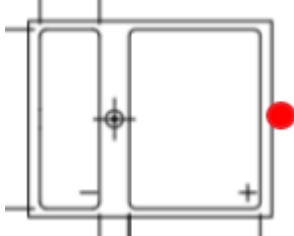
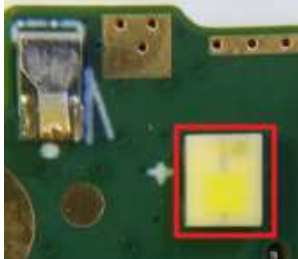
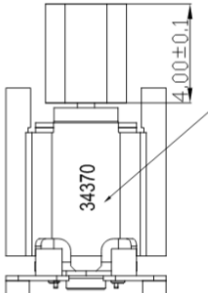
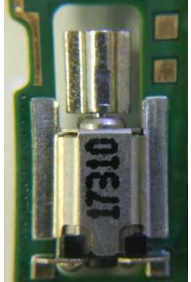
Only valid for G3421, G3423, G3426!

The Component direction is shown by using red or black point.

Position	PBA drawing	PBA picture
PAD2401 PAD2402 PAD2403		
ANT2501 ANT2502		
SPR3003		
J1801		
J1802		
J1601		



J1901		
J1001		
FJP2301 FJP2302		
J2001		
GP2601 GP2602		
SPR3001 SPR3002		 
J2801		

J2801		
J1401		
U1603		
FJP2301		
D1206		
U2801		

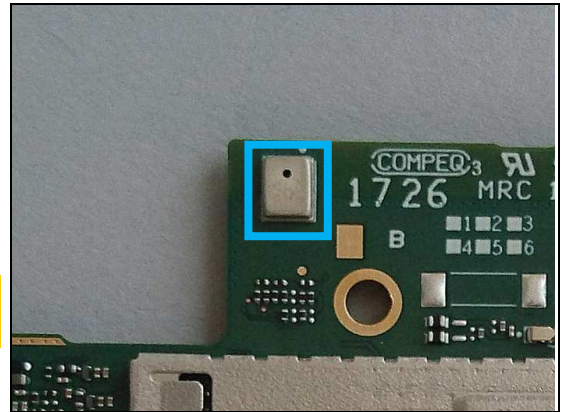
## 4 Additional Repair info

### 4.1 Primary Side

1

U1603

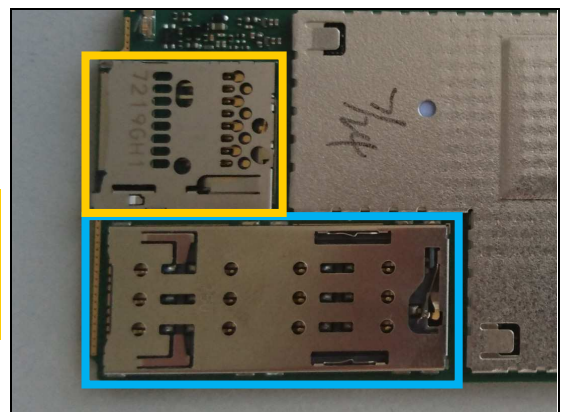
**Replace if mechanical damaged.**  
**(2<sup>nd</sup> MIC not working)**



2

J2801

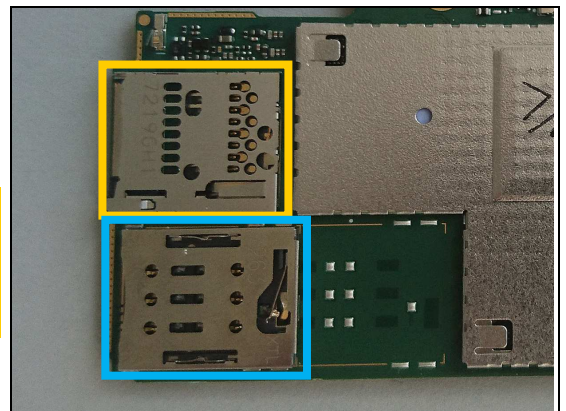
**Replace if mechanical damaged.**  
**(No SIM 1 and/or SIM 2 card inserted )**  
**Protect the SD connector with capton tape!**  
**Only valid for G3412,G3416,G3426!**



3

J2801

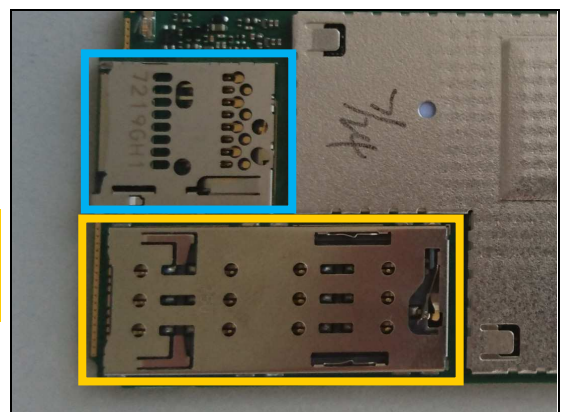
**Replace if mechanical damaged.**  
**(No SIM 1 card inserted )**  
**Protect the SD connector with capton tape!**  
**Only valid for G3221,G3223!**



4

J1401

**Replace if mechanical damaged.**  
**(No SD card inserted)**  
**Protect the SIM connector with capton tape!**



## Repair Actions: Additional Repair Info

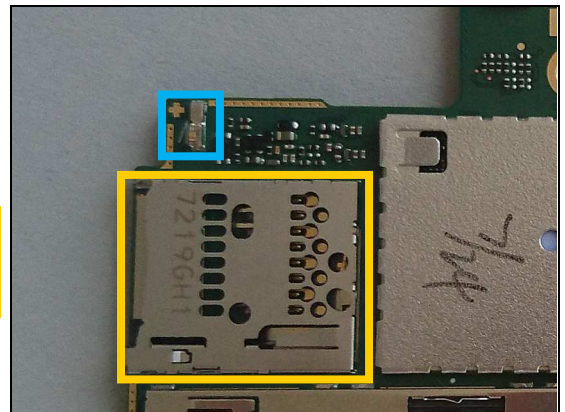
5

SPR3001

*Replace if mechanical damaged.*

*(Bad network, diversity Rx antenna GND)*

*Protect the SD connector with capton tape!*



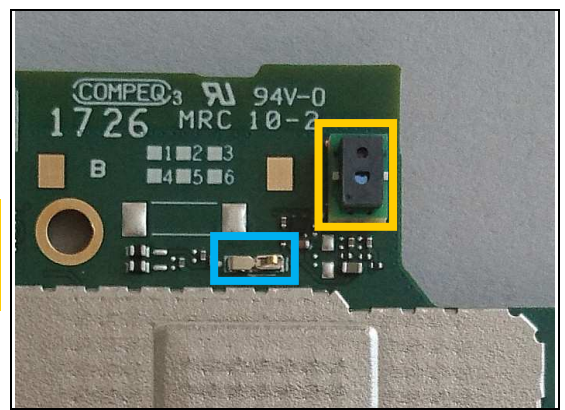
6

SPR3002

*Replace if mechanical damaged.*

*(Bad network, diversity Rx antenna GND)*

*Protect the proximity/light sensor with capton tape!*





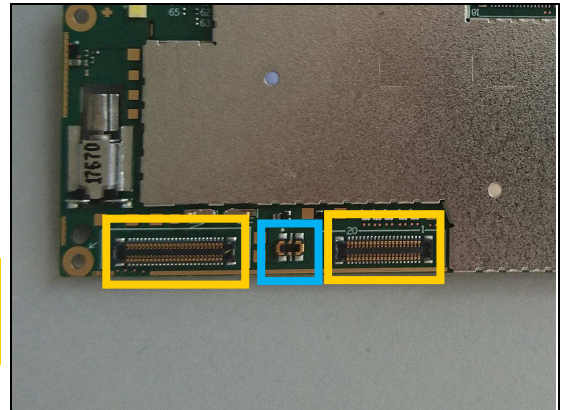
### 4.2 Secondary Side

1

J1001

**Replace if mechanical damaged (Phone dead or power off)**

**Protect the BtB connectors with capton tape!**

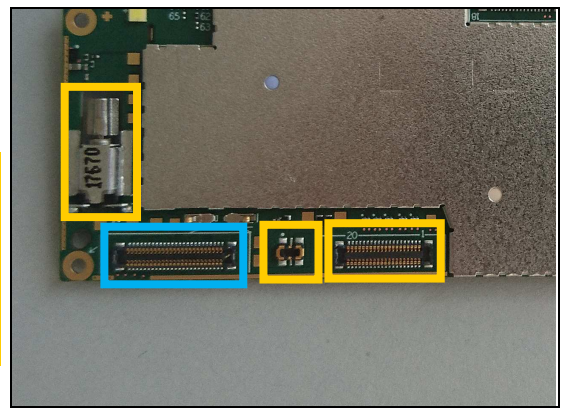


2

J2001

**Replace if mechanical damaged (Cannot Charge/ USB data transfer error / Main mic not working / Loudspeaker no sound / Keys not working properly / Finger print not working and related symptom)**

**Protect the Vibrator, Battery and BtB connectors with capton tape!**

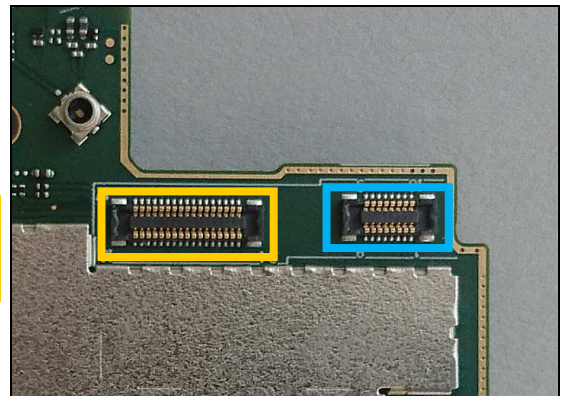


3

J1601

**Replace if mechanical damaged (No sound from headset / No FM radio)**

**Protect the BtB connectors with capton tape!**

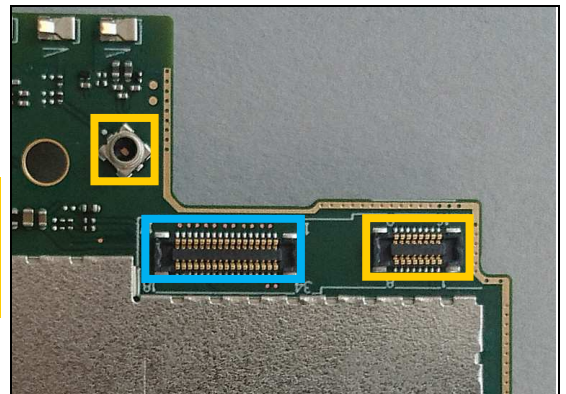


4

J1802

**Replace if mechanical damaged (Front camera not working properly)**

**Protect the RF switches and BtB connectors with capton tape!**



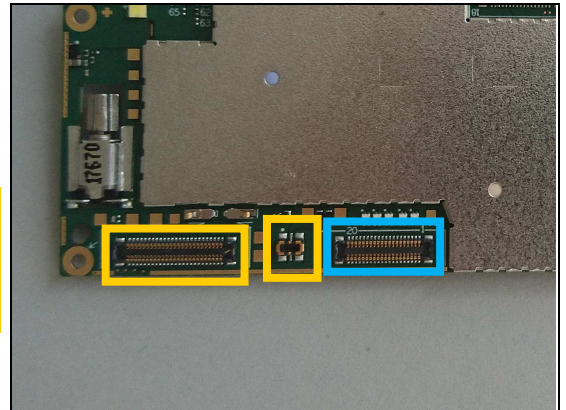
## Repair Actions: Additional Repair Info

5

J1901

**Replace if mechanical damaged (Display abnormal or touch panel related symptom)**

**Protect the Battery and BtB connectors with capton tape!**

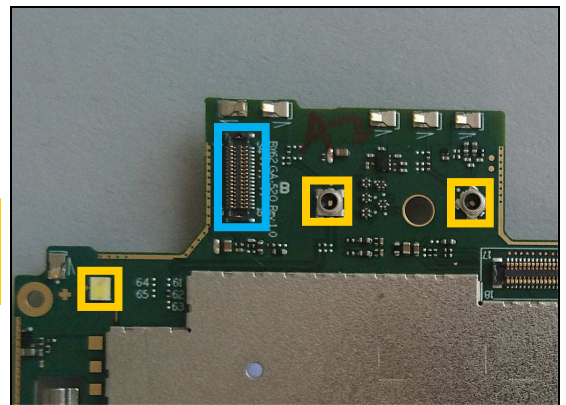


6

J1801

**Replace if mechanical damaged (Main camera not working properly)**

**Protect the LED and RF switches with capton tape!**



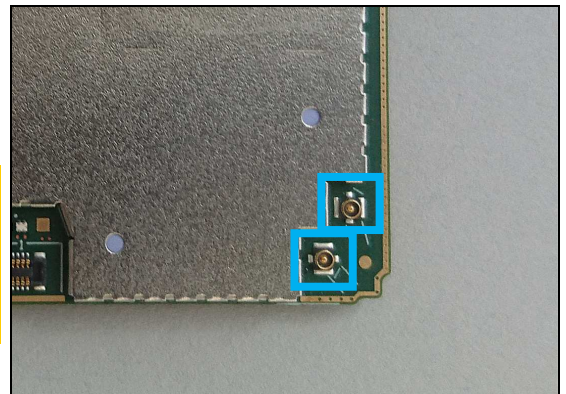
7

FJP2301, FJP2302

**Replace if mechanical damaged (Bad network, Main antenna)**

**Protect the other RF connector with capton tape if only replace one of them!**

**Only valid for G3421,G3423, G3426!**

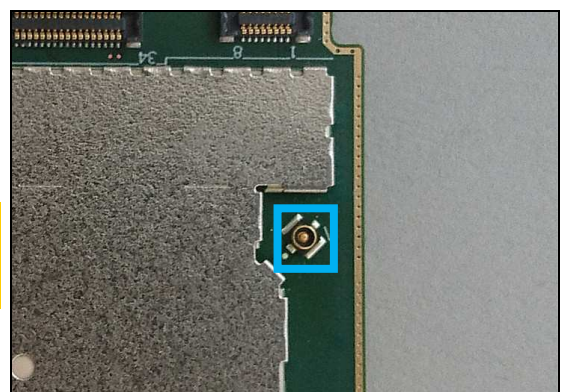


8

SMA2301

**Replace if mechanical damaged (Bad network, Main antenna)**

**Only valid for G3412,G3416!**



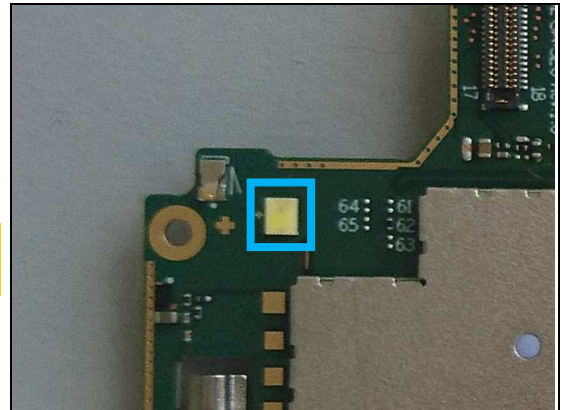


## Repair Actions: Additional Repair Info

9

D1206

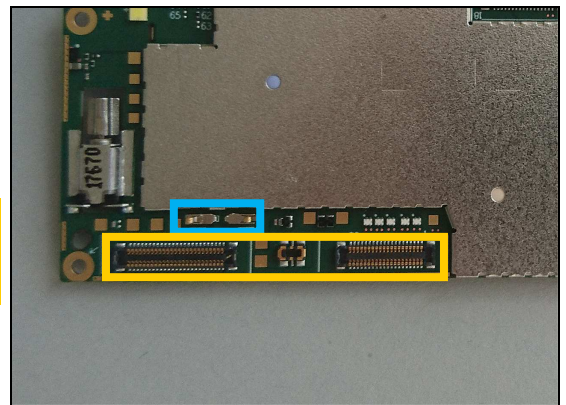
**Replace if Flash LED not working.  
Protect the BtB connector with capton tape!**



10

GP2601, GP2602

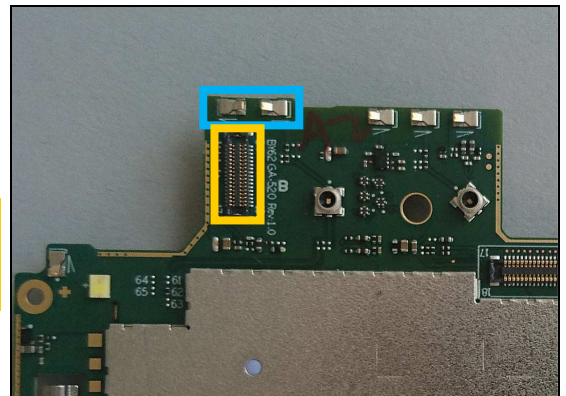
**Replace if mechanical damaged (No or bad NFC)  
Protect the Battery and BtB connectors with capton tape!**



11

ANT2501, ANT2502

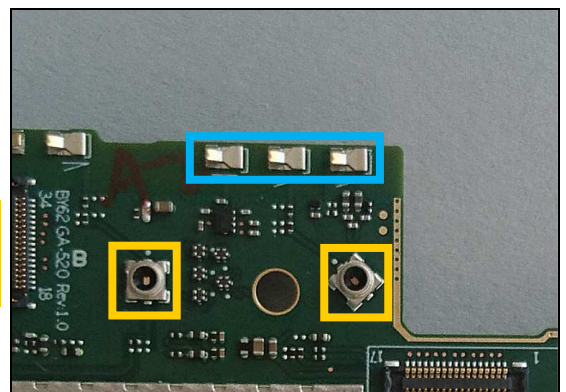
**Replace if mechanical damaged.  
(No or bad WLAN/ BT/ GPS)  
Protect the BtB connectors with capton tape!**



12

PAD2401, PAD2402, PAD2403

**Replace if mechanical damaged (Bad network, diversity  
Rx antenna)  
Protect the RF connector with capton tape!**

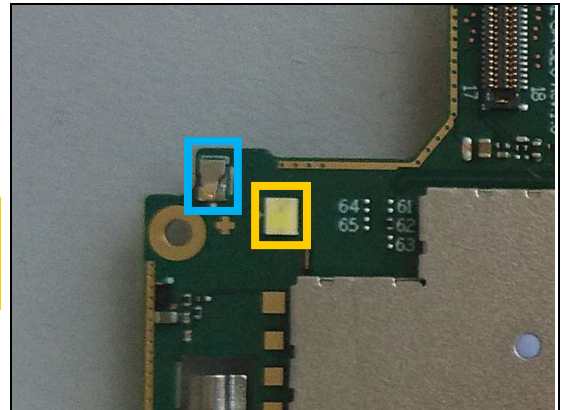


## Repair Actions: Additional Repair Info

**13**

**SPR3002**

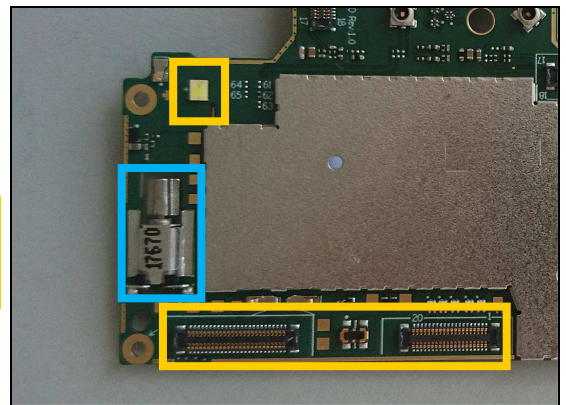
***Replace if mechanical damaged.  
(Bad network, diversity Rx antenna GND)  
Protect the LED with capton tape!***



**14**

**U2801**

***Replace if mechanical damaged.  
(No or bad vibration)  
Protect the LED and BtB connectors with capton tape!***



## 5 Revision History

Rev.	Date	Changes / Comments
1	2017-Sept-22	Initial release