

Component Replacement

- electrical -



Xperia™ XA1 Ultra
G3221, G3223

Xperia™ XA1 Ultra Dual SIM
G3212, 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 1310-2131.

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	2 nd MIC	22200000V00	HA+BH ⇨1
J2801	Dual SIMSOCKET SM049-13116A04D JTCONN	C/23040001700	HA+BH or BGA ⇨2
J2801	Single SIMSOCKET SM049-13116A05D JTCONN	C/23040001800	HA+BH or BGA ⇨3
J1401	MEMSOCKET ST11S008V4H JAE	2334000054W	HA+BH or BGA ⇨4
PAD1201	SPR CONN TM007-303 JTCONN	2313000134W	HA+BH ⇨5
PAD1202	SPR CONN TM007-303 JTCONN	2313000134W	HA+BH ⇨5
SPR3001	SPR CONN TM007-303 JTCONN	2313000134W	HA+BH ⇨6
SPR3002	SPR CONN TM007-303 JTCONN	2313000134W	HA+BH ⇨7

Note:

J2801 (Dual SIMSOCKET SM049-13116A04D JTCONN, C/23040001700) only valid for dual SIM products (G3212,G3226)

J2801 (Single SIMSOCKET SM049-13116A05D JTCONN, C/23040001800) only valid for single SIM products (G3221,G3223).

Secondary Side

Position	Component	Part no.	Comments
J1001	BATT CONN	23030000U00	HA+BH ⇨1
FJP2301	COAX CONN C87P101-N0003-H SPEEDTECH	23350000L00	HA+BH ⇨2
FJP2302	COAX CONN C87P101-N0003-H SPEEDTECH	23350000L00	HA+BH ⇨2
SMA2301	COAX CONN C87P101-N0003-H SPEEDTECH	23350000L00	HA+BH ⇨3
D1206	LED	1770000143W	HA+BH ⇨4
ANT2501	SPR CONN TM010-307 JTCONN	2313000105W	HA+BH ⇨5
ANT2502	SPR CONN TM010-307 JTCONN	2303000119W	HA+BH ⇨5
PAD2401	SPR CONN TM010-307 JTCONN	2334000054W	HA+BH ⇨6
PAD2403	SPR CONN TM010-307 JTCONN	2304000158W	HA+BH ⇨6
GP2601	SPR CONN WMS0011-020021 HOSIDEN	2313000105W	HA+BH ⇨7
GP2602	SPR CONN WMS0011-020021 HOSIDEN	2313000105W	HA+BH ⇨7
J1601	BTB CONN ASE5S1610 ATC	2308000216W	HA+BH or BGA ⇨8
J2001	BTB CONN ASE5S3010 ATC	2308000312W	HA+BH or BGA ⇨9
J1901	BTB CONN ASE5S4010 ATC	2308000278W	HA+BH or BGA ⇨10
J1801	BTB CONN BB35-RD34-3A-D8 DDK	23080002J00	HA+BH or BGA ⇨11
J1802	BTB CONN BM20B(0.8)-34DS-0.4V(51) HRS	2308000355W	HA+BH or BGA ⇨12

Note:

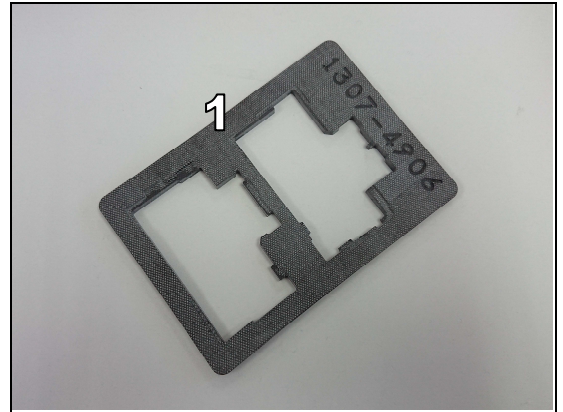
FJP2301 and FJP2302 only valid for G3221,G3223, G3226!

SMA2301 only valid for G3212!

2 Tools

SPECIAL TOOLS

1. 1. PBA Soldering Fixture (1307-4906)



STANDARD TOOLS

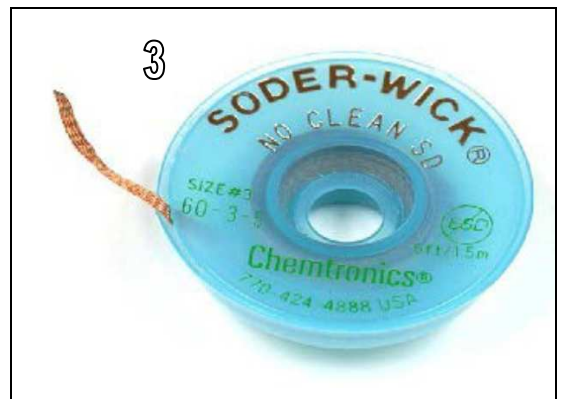
1. Small Convection (Hot Air) Device



2. Soldering Iron



3. Soldering wick



4. Solder-wire



5. Solder-paste



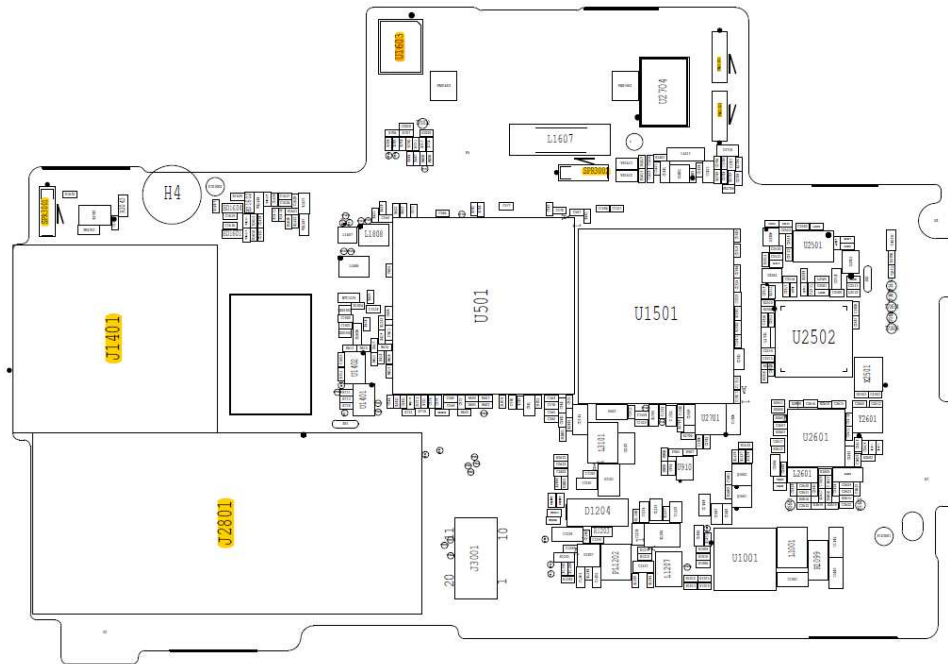
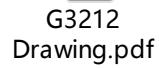
6. Low Static Heat Protection Tape



7. Flux



To access the Component Placing document, double-click the icon below.
Applicable for on-screen viewing only – icon not shown on hard-copies.



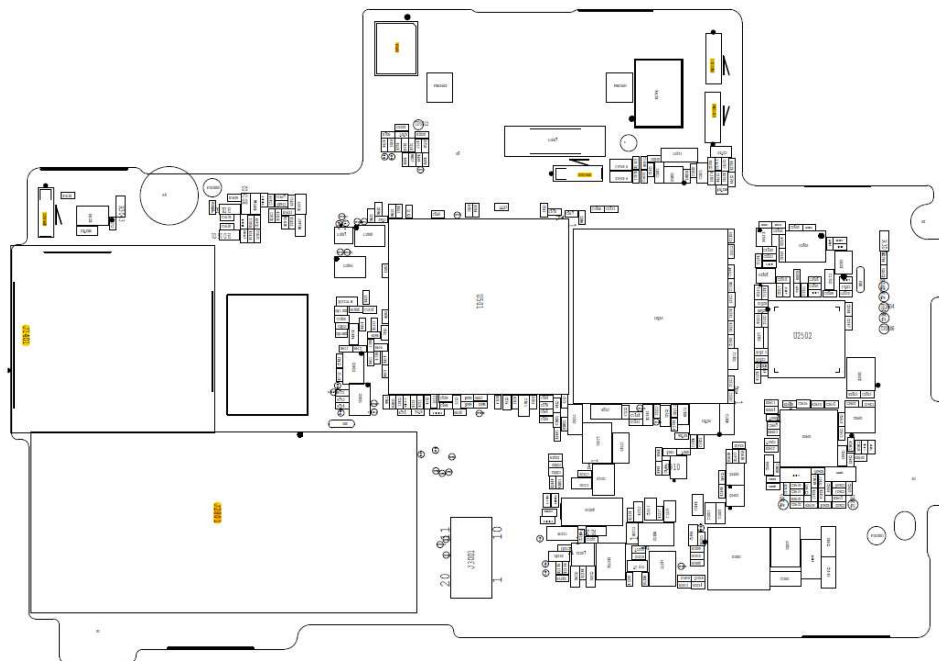
7(18)

Only valid for G3221, G3223, G3226!

To access the Component Placing document, double-click the icon below.
Applicable for on-screen viewing only – icon not shown on hard-copies.



G3221 G3223
G3226 Drawing.pdf



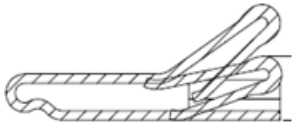
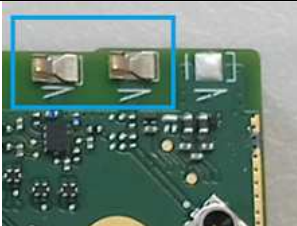
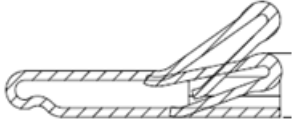
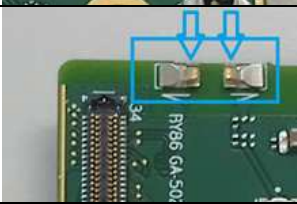
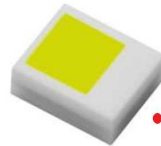
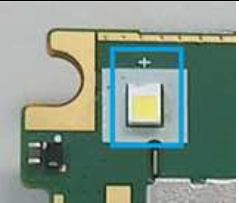
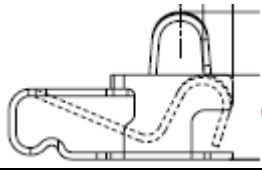
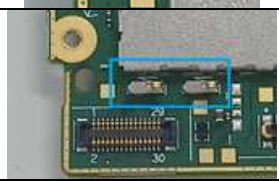
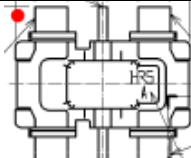
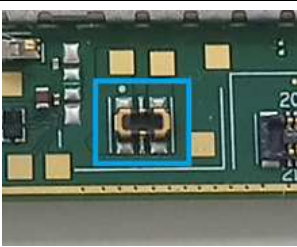
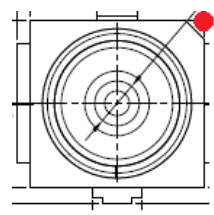

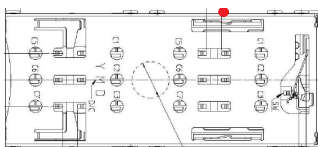
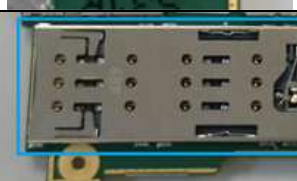
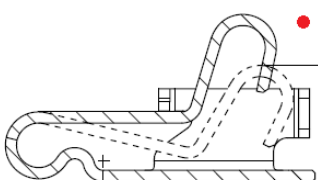
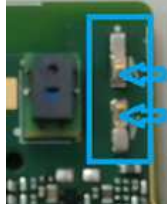
Primary side

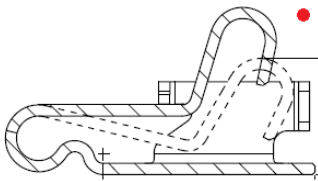

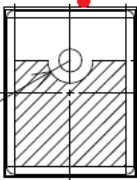

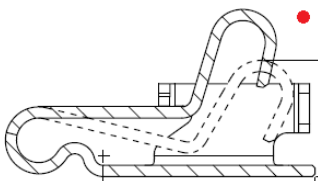
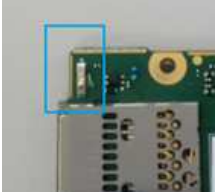
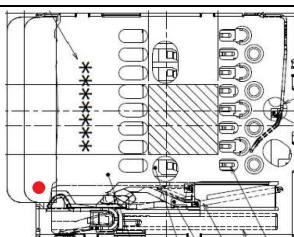
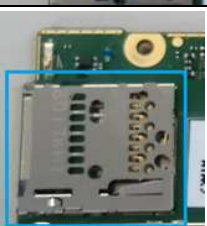
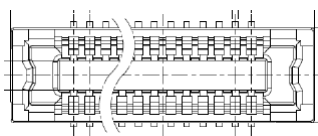
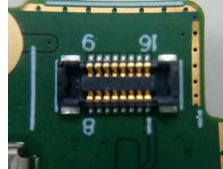
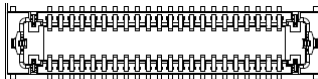
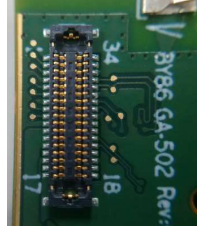
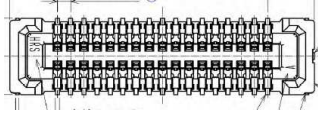
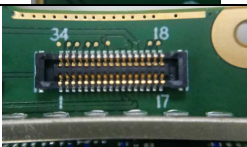
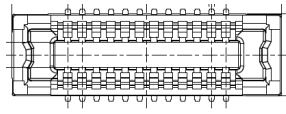

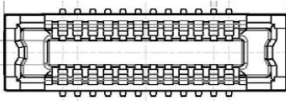
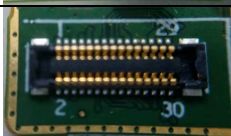


Secondary side

Only valid for G3212!

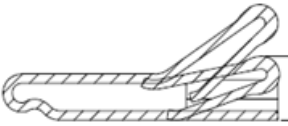
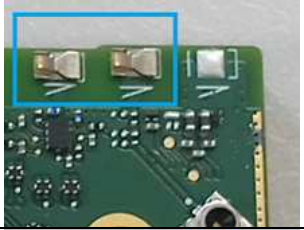
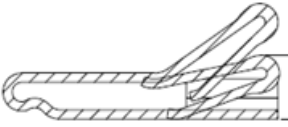
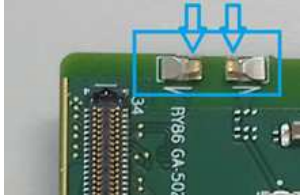
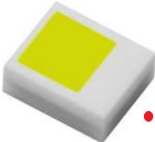
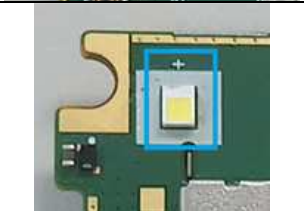
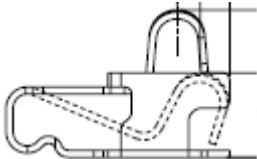
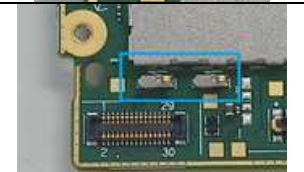
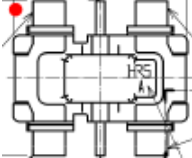
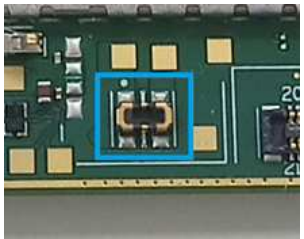
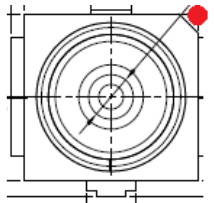
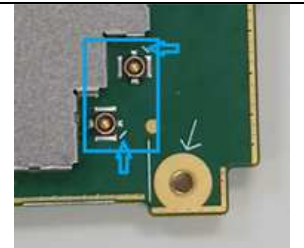
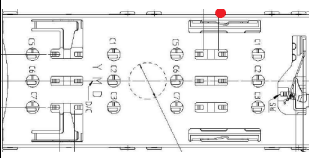
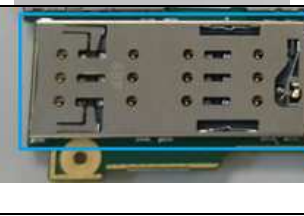
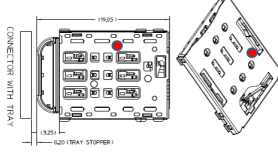

The Component direction is shown by using red or black point.

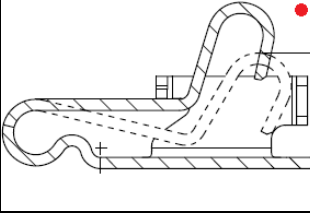
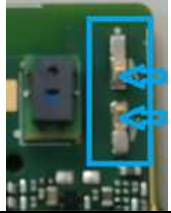
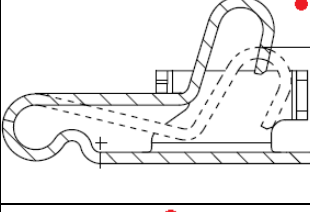

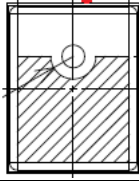

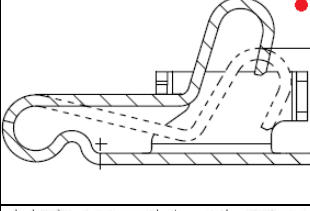
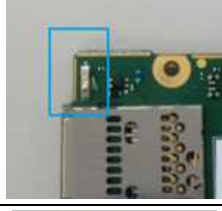
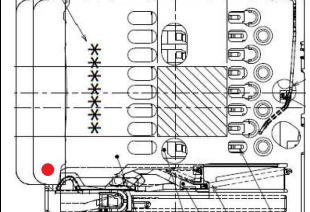
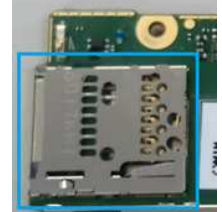
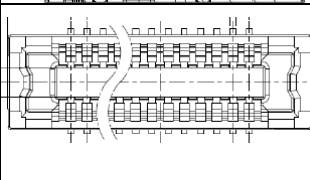
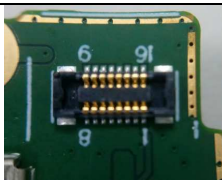
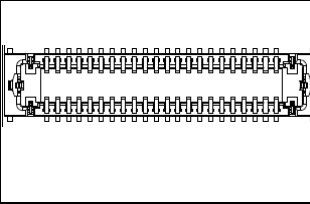

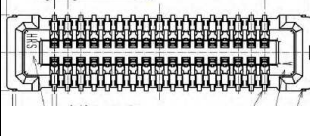

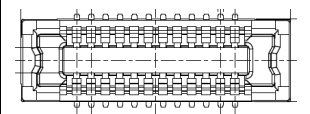

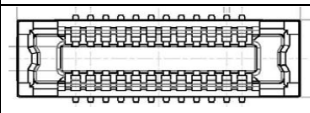

Position	Component direction	PBA drawing	PBA picture
PAD2401 PAD2403	SPR CONN TM010-307 JTCONN		
ANT2501 ANT2502	SPR CONN TM010-307 JTCONN		
D1206	LED		
GP2601 GP2602	SPR CONN WMS0011- 020021 HOSIDEN		
J1001	BATT CONN	 To identify the direction, there is a black block in left side.	
SMA2301	COAX CONN C87P101- N0003-H SPEEDTECH		
J2801	Dual SIMSOCKET SM049- 13116A04D JTCONN		
PAD1201 PAD1202	SPR CONN TM007-303 JTCONN		

SPR3002	SPR CONN TM007-303 JTCONN		
U1603	2 nd MIC		
SPR3001	SPR CONN TM007-303 JTCONN		
J1401	MEMSOCKET ST11S008V4H JAE		
J1601	BTB CONN ASE5S1610 ATC		
J1801	BTB CONN BB35-RD34-3A- D8 DDK		
J1802	BTB CONN BM20B(0.8)- 34DS-0.4V(51) HRS		
J1901	BTB CONN ASE5S4010 ATC		
J2001	BTB CONN ASE5S3010 ATC		

Only valid for G3221, G3223, G3226!

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

Position	Component direction	PBA drawing	PBA picture
PAD2401 PAD2403	SPR CONN TM010-307 JTCONN		
ANT2501 ANT2502	SPR CONN TM010-307 JTCONN		
D1206	LED		
GP2601 GP2602	SPR CONN WMS0011- 020021 HOSIDEN		
J1001	BATT CONN	 To identify the direction, there is a black block in left side.	
FJP2301 FJP2302	COAX CONN C87P101- N0003-H SPEEDTECH		
J2801	Dual SIMSOCKET SM049- 13116A04D JTCONN		
J2801	Single SIMSOCKET SM049- 13116A05D JTCONN		

PAD1201 PAD1202	SPR CONN TM007-303 JTCONN		
SPR3002	SPR CONN TM007-303 JTCONN		
U1603	2 nd MIC		
SPR3001	SPR CONN TM007-303 JTCONN		
J1401	MEMSOCKET ST11S008V4H JAE		
J1601	BTB CONN ASE5S1610 ATC		
J1801	BTB CONN BB35-RD34-3A- D8 DDK		
J1802	BTB CONN BM20B(0.8)- 34DS-0.4V(51) HRS		
J1901	BTB CONN ASE5S4010 ATC		
J2001	BTB CONN ASE5S3010 ATC		

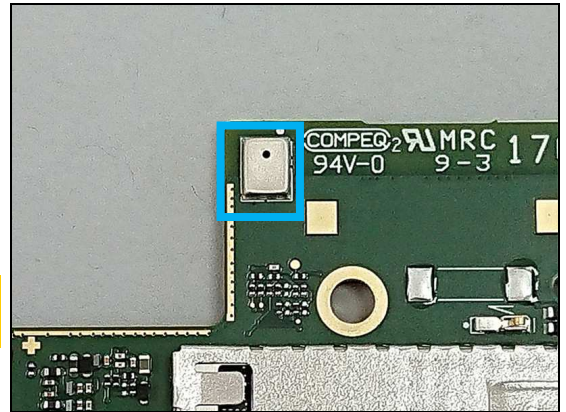
4 Additional Repair info

4.1 Primary Side

1

U1603

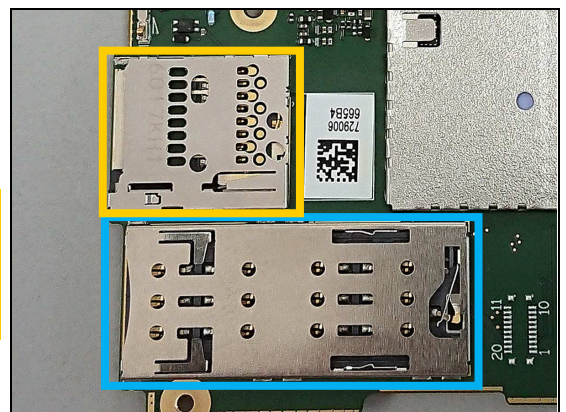
Replace if mechanical damaged.
(2nd MIC not working)



2

J2801

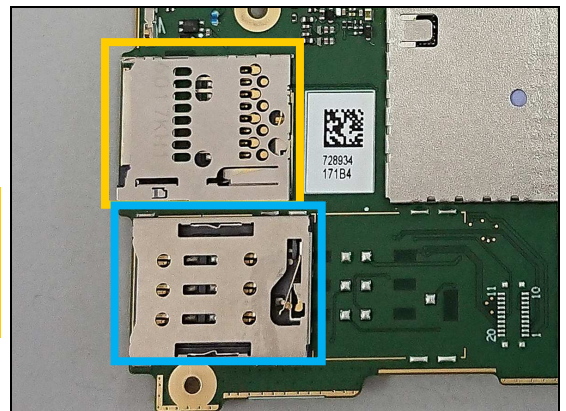
Replace if mechanical damaged.
(No SIM 1 and/or SIM 2 card inserted)
Protect the SD connector with capton tape!
Only valid for G3212,G3226!



3

J2801

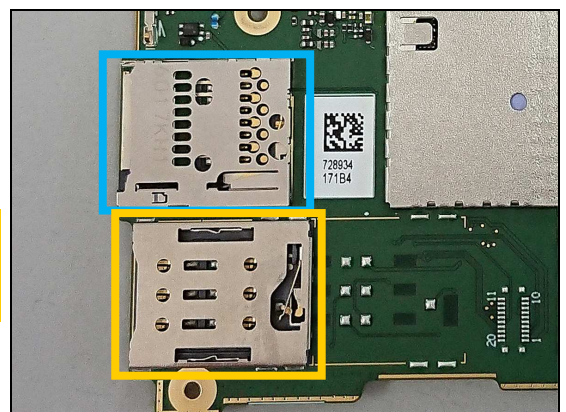
Replace if mechanical damaged.
(No SIM 1 card inserted)
Protect the SD connector with capton tape!
Only valid for G3221,G3223!



4

J1401

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



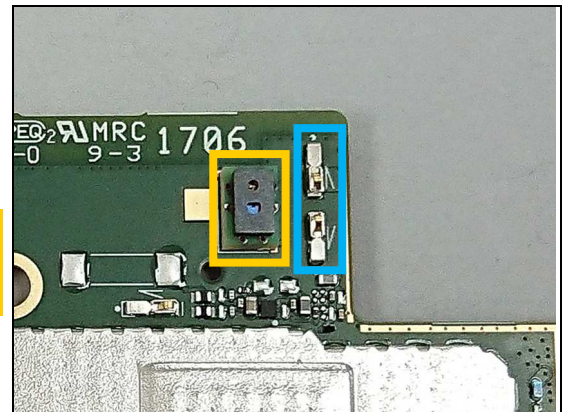
Repair Actions: Additional Repair Info

5

PAD1201, PAD1202

Replace if mechanical damaged (Front flash LED not working)

Protect the proximity/light sensor with capton tape!



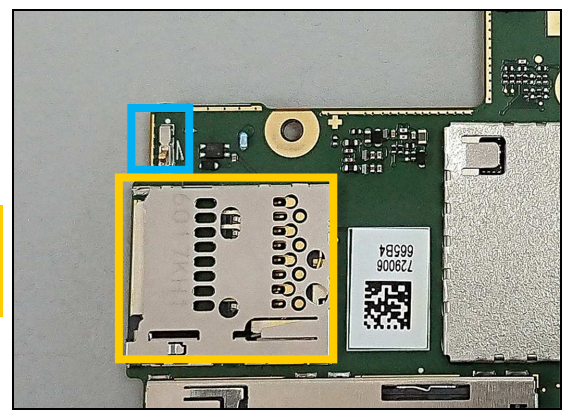
6

SPR3001

Replace if mechanical damaged.

(Bad network, diversity Rx antenna GND)

Protect the SD connector with capton tape!



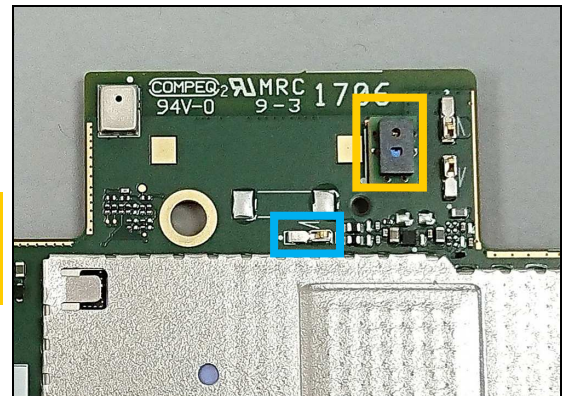
7

SPR3002

Replace if mechanical damaged.

(Bad network, diversity Rx antenna GND)

Protect the proximity/light sensor with capton tape!



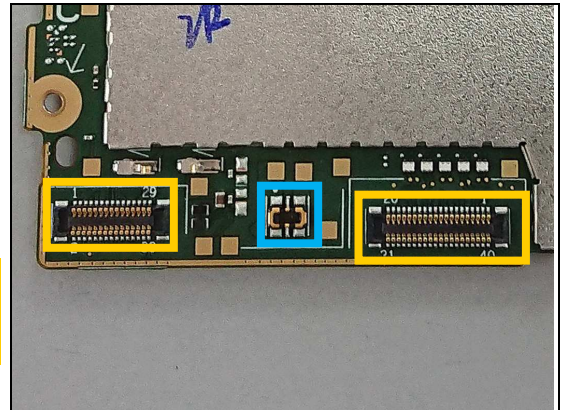
4.2 Secondary Side

1

J1001

Replace if mechanical damaged (Phone dead or power off)

Protect the BtB connectors with capton tape!



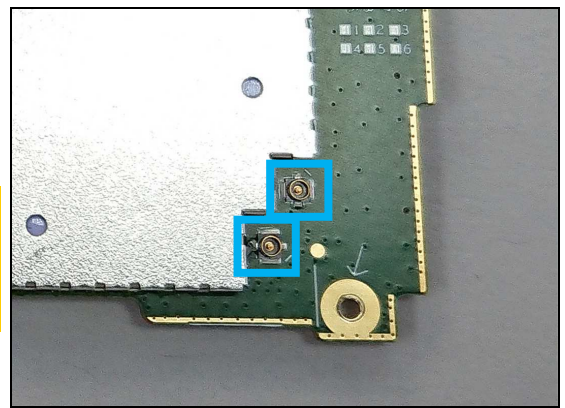
2

FJP2301, FJP2302

Replace if mechanical damaged (Bad network, Main antenna)

Protect the RF connector with capton tape!

Only valid for G3221, G3223, G3226!

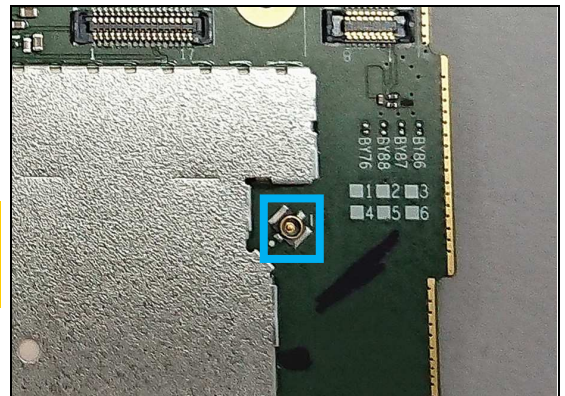


3

SMA2301

Replace if mechanical damaged (Bad network, Main antenna)

Only valid for G3212!

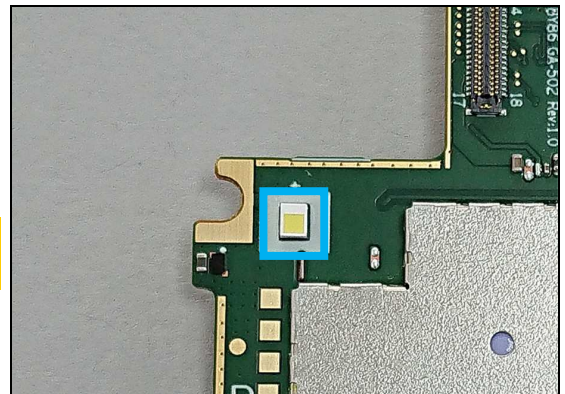


4

D1206

Replace if Flash LED not working.

Protect the BtB connector with capton tape!



Repair Actions: Additional Repair Info

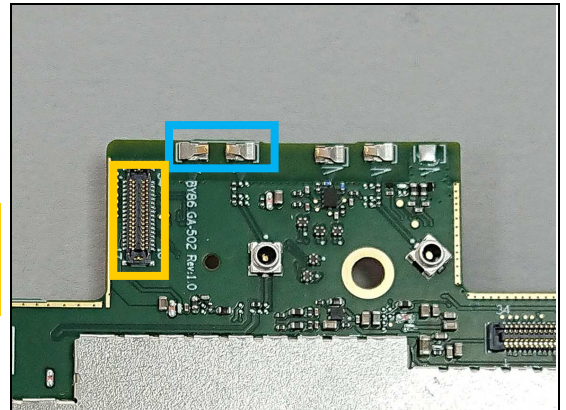
5

ANT2501, ANT2502

Replace if mechanical damaged.

(No or bad WLAN/ BT/ GPS)

Protect the BtB connectors with capton tape!

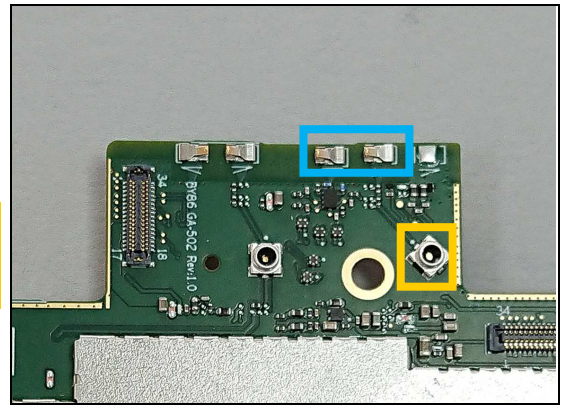


6

PAD2401, PAD2403

Replace if mechanical damaged (Bad network, diversity Rx antenna)

Protect the RF connector with capton tape!

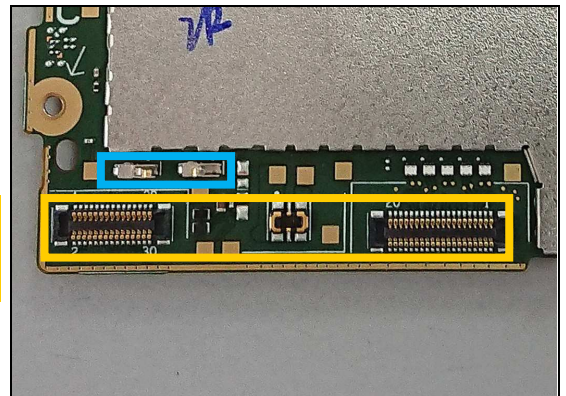


7

GP2601, GP2602

Replace if mechanical damaged (No or bad NFC)

Protect the Battery and BtB connectors with capton tape!

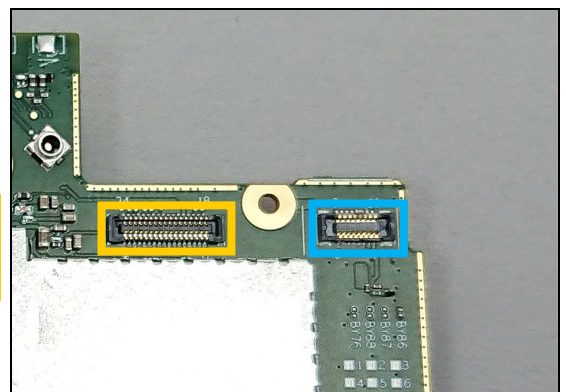


8

J1601

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

Protect the BtB connectors with capton tape!



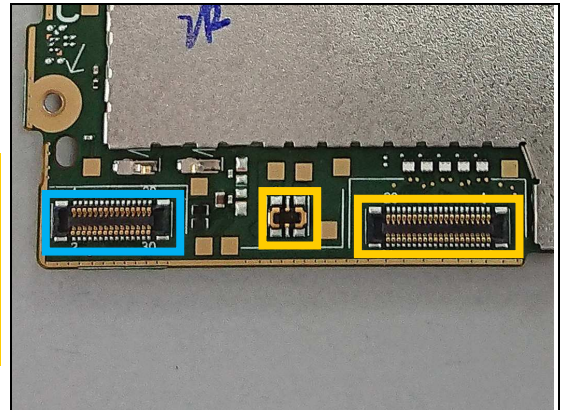
Repair Actions: Additional Repair Info

9

J2001

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

Protect the Battery and BtB connectors with capton tape!

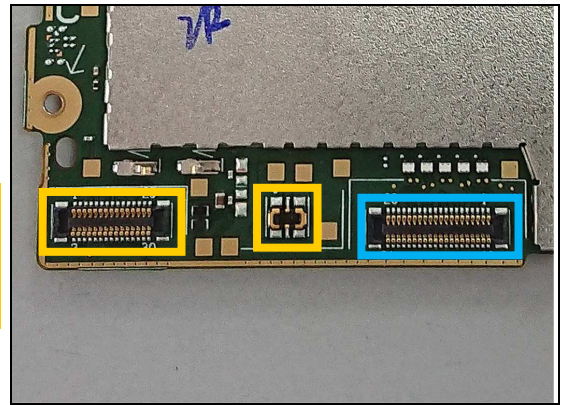


10

J1901

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

Protect the Battery and BtB connectors with capton tape!

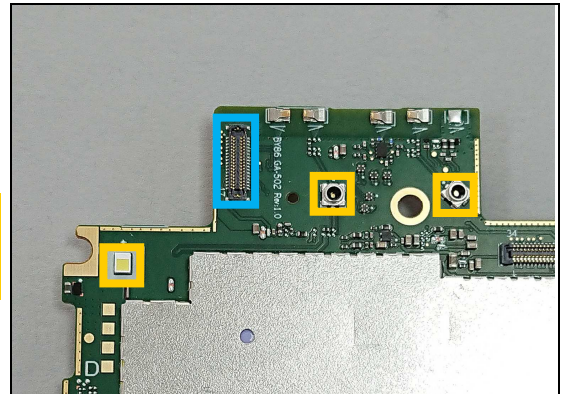


11

J1801

Replace if mechanical damaged (Main camera not working properly)

Protect the LED and RF switches with capton tape!

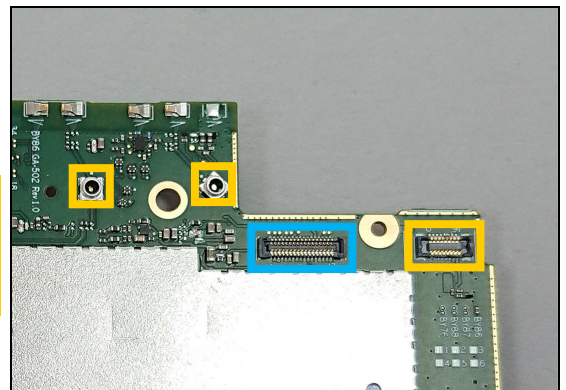


12

J1802

Replace if mechanical damaged (Front camera not working properly)

Protect the RF switches and BtB connectors with capton tape!



5 Revision History

Rev.	Date	Changes / Comments
1	2017-Apr-28	Initial release
2	2017-May-08	Updated general notes on page 2. Added below parts and their instructions 2308000216W 2308000312W 2308000278W 23080002J00 2308000355W