ASUS A450CG RF Hardware Trouble Shooting Guide

BD3-WC2

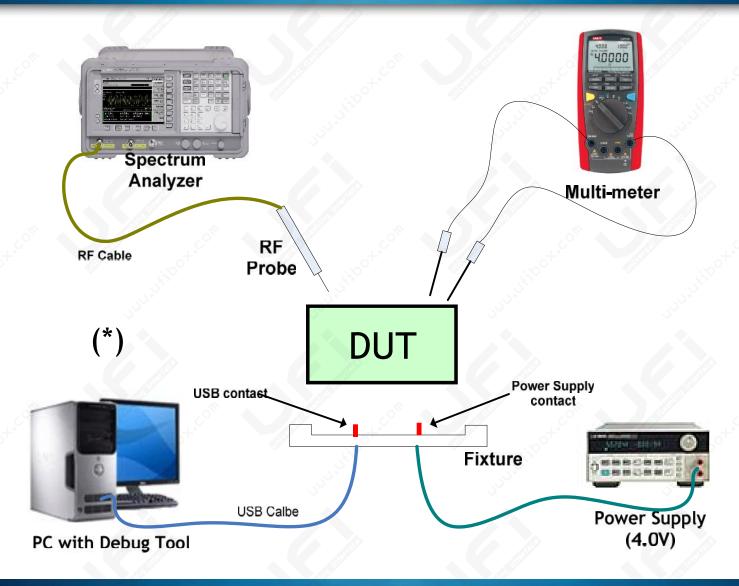


Outline

- Repair and Test Environment (*)
- RF Block Diagram
- Key components location
- RF Tx /Rx Path
 - GSM and WCDMA Tx Path
 - GSM and WCDMA Rx Path
 - WCDMA DRX Path
 - GSM and WCDMA Tx/Rx fail analysis
 - GPS RF Path
- BT/WiFi RF Path
- GPS and BT/WiFi Tx/Rx fail analysis
- FM Rx fail analysis
- Antenna & Spring Location

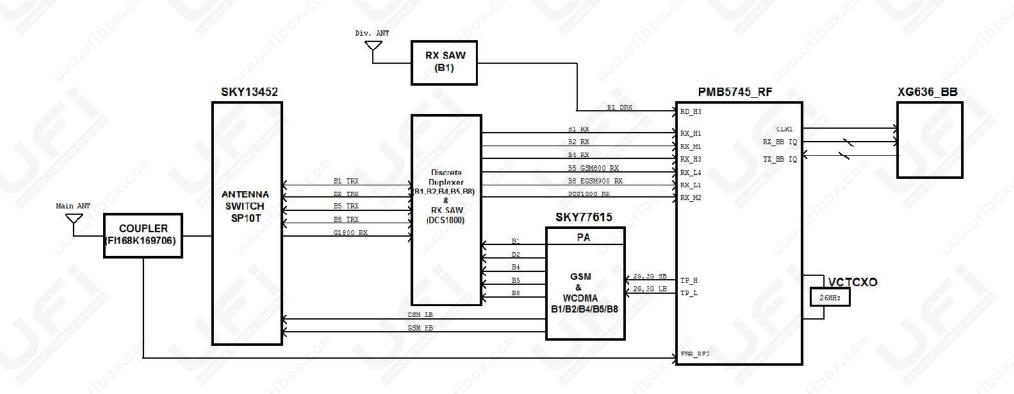


Repair and Test Environment (*)



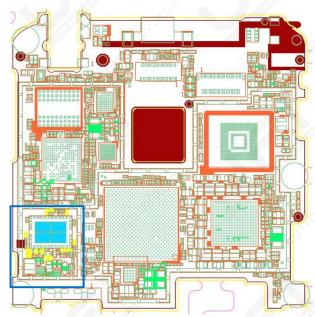


RF Block Diagram — 2G/3G System





A400CG RF Areas Top Side

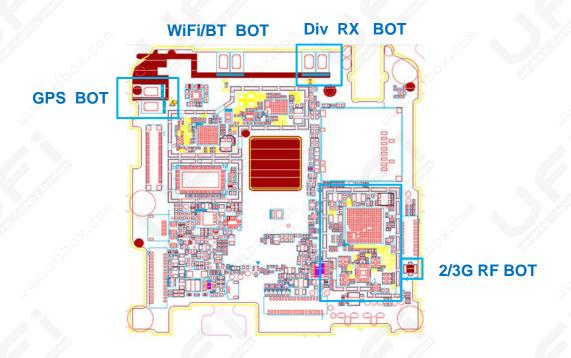


2/3G RF TOP





PF400CG RF Areas Bottom Side





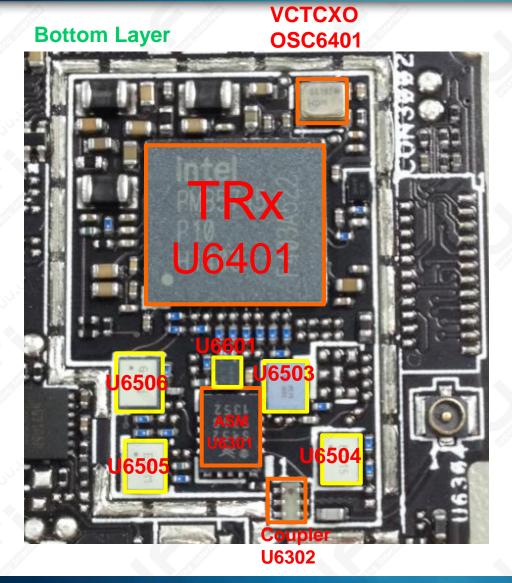


Outline

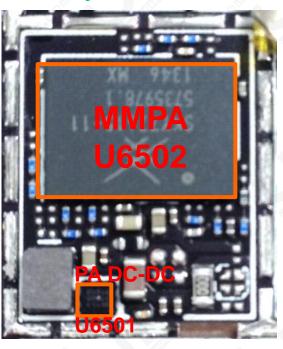
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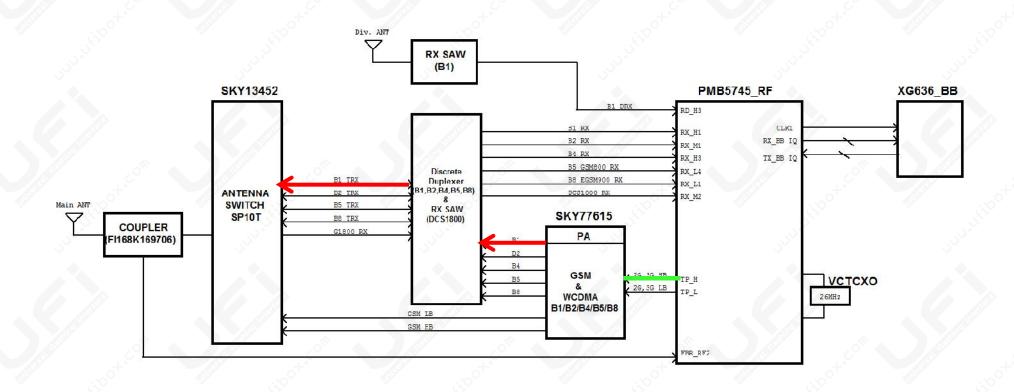
Key Components Location



TOP Layer

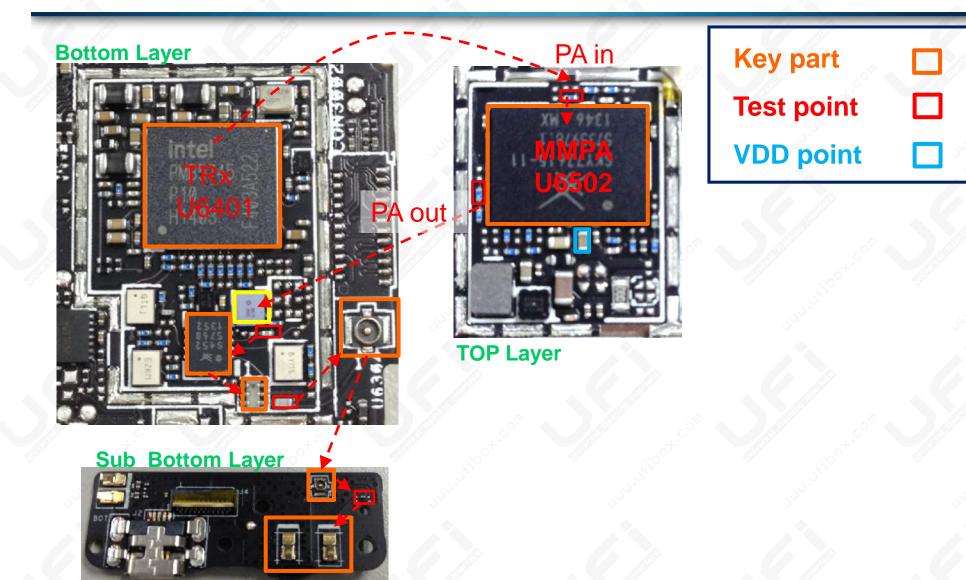


RF Block Diagram — 2G/3G System

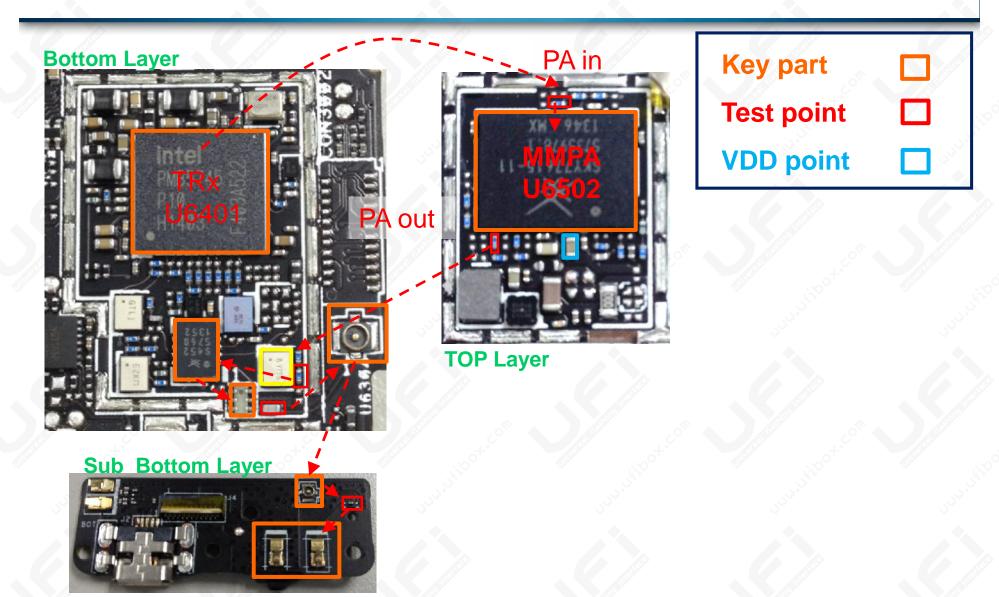




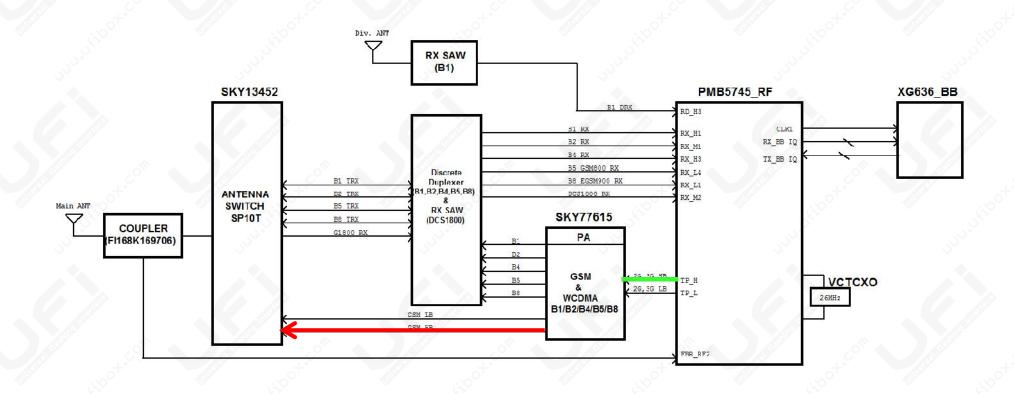
Band1 Tx Path



Band2 Tx Path

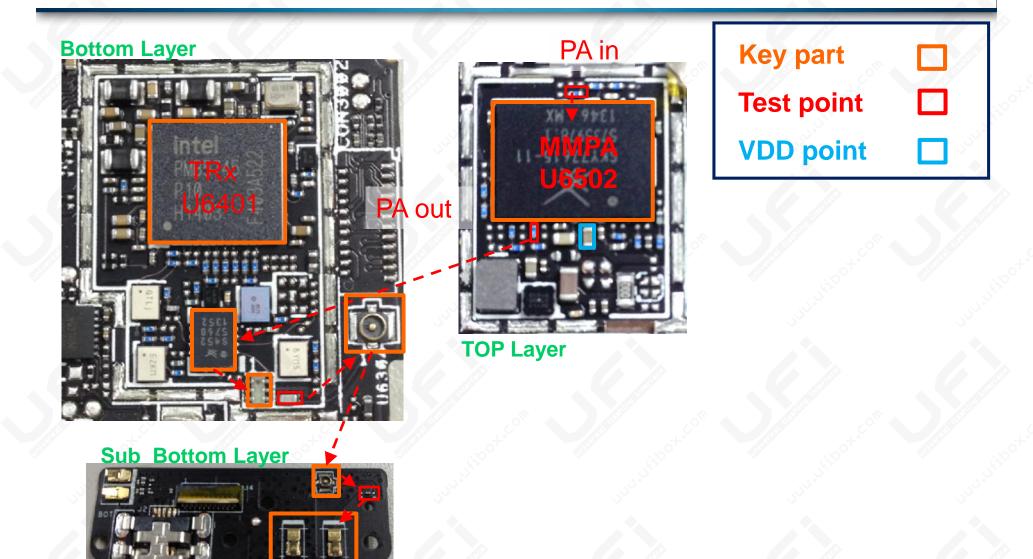


RF Block Diagram — 2G/3G System

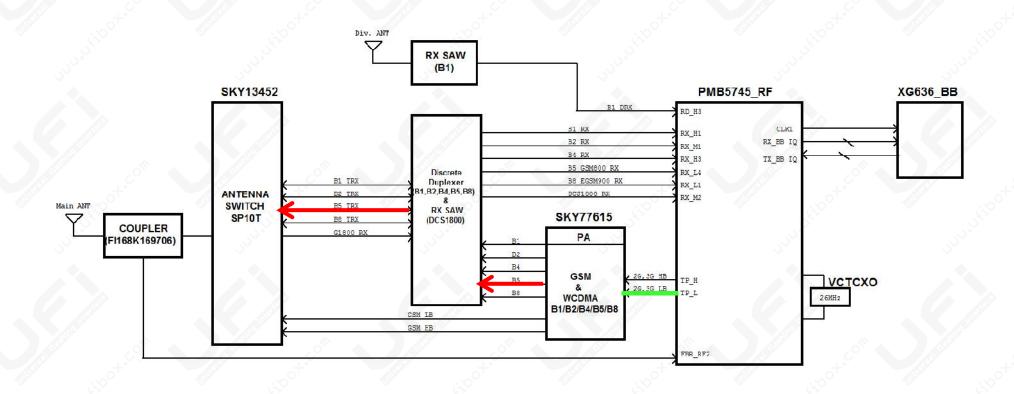




DCS1800/PCS1900 Tx Path

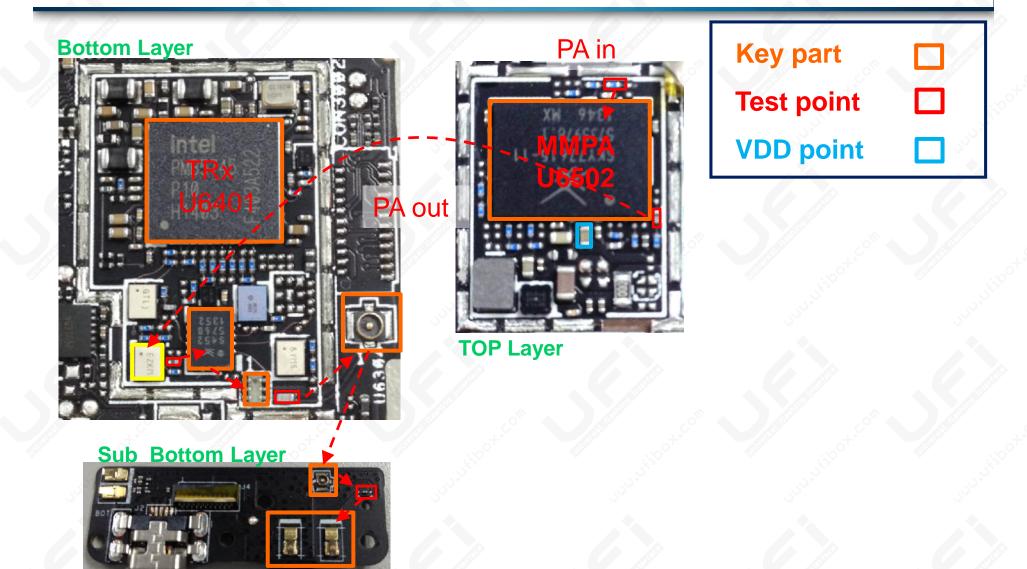


RF Block Diagram — 2G/3G System

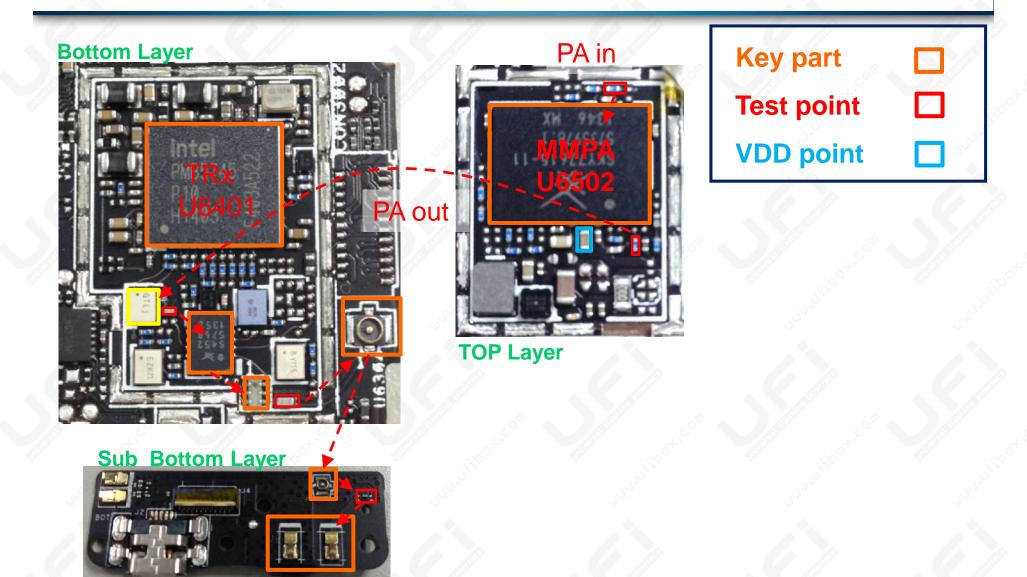




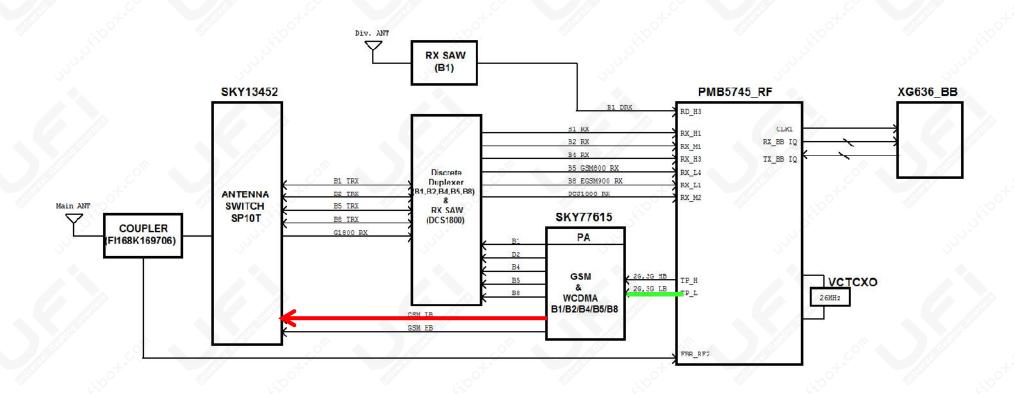
Band5 Tx Path



Band8 Tx Path

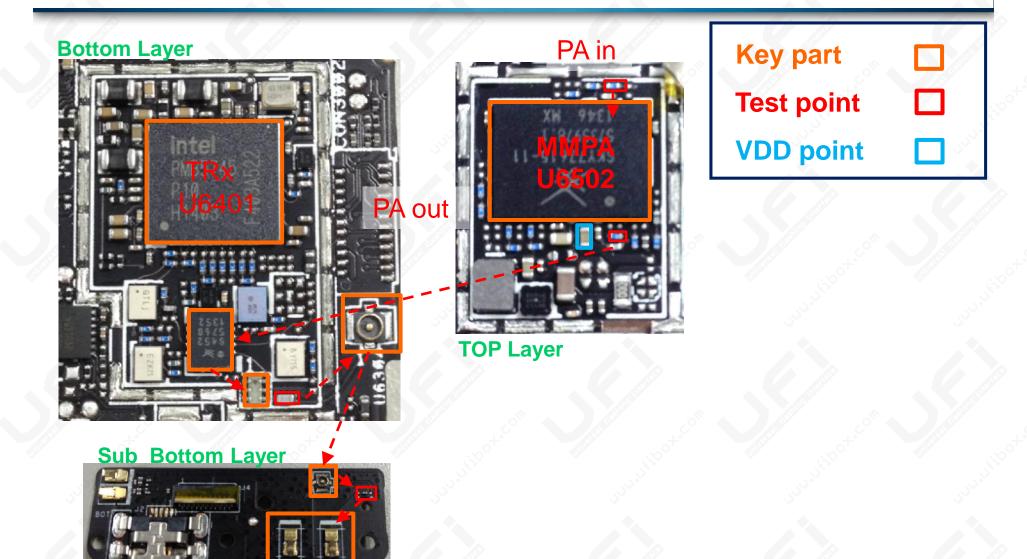


RF Block Diagram — 2G/3G System

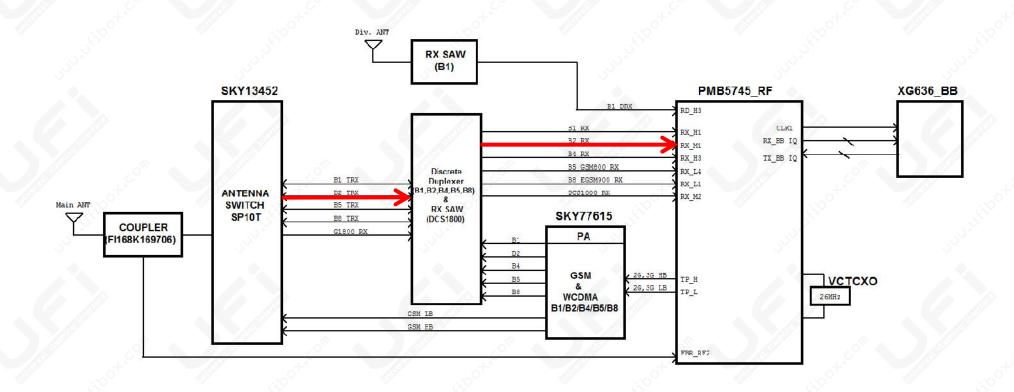




EGSM900/GSM850 Tx Path



RF Block Diagram — 2G/3G System



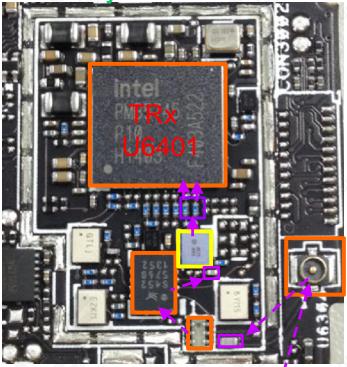
RX: B2 & PCS; B5 & GSM850; B8 & EGSM900



Band1 Rx Path

Key part

Test point



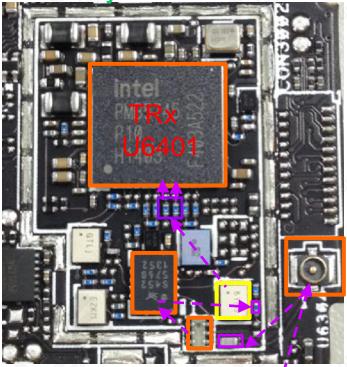




Band2/PCS1900 Rx Path

Key part

Test point



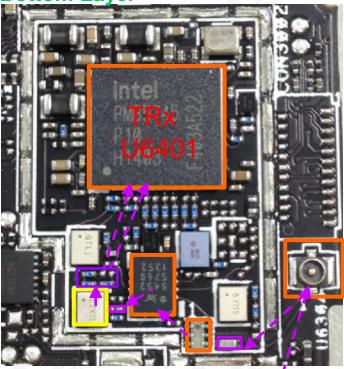




Band5/GSM850 Rx Path

Key part

Test point



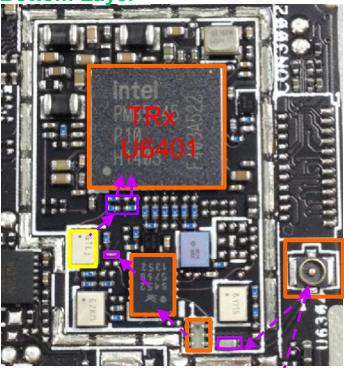




Band8/EGSM900 Rx Path

Key part

Test point



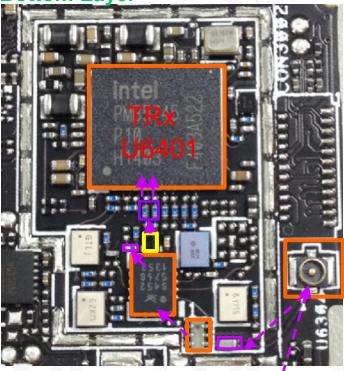




DCS1800 Rx Path

Key part

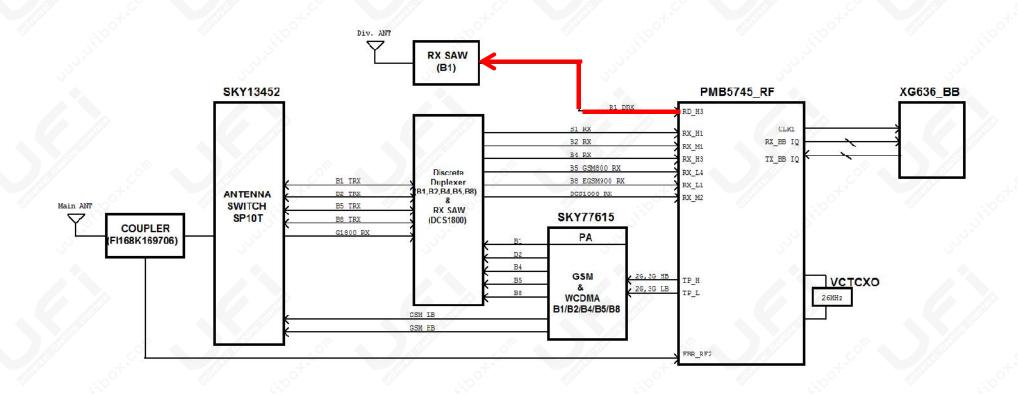
Test point







RF Block Diagram — 2G/3G System

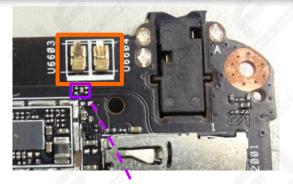


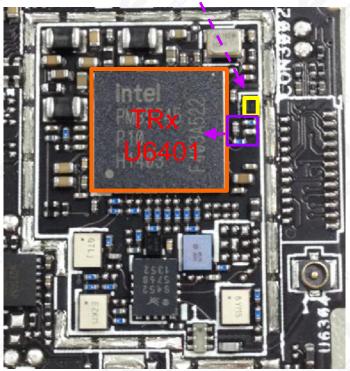


DIV Rx Path

Key part

Test point





GSM and WCDMA BL Tx/Rx fail analysis

Analysis	Action
FBR Fail	1. 確認K站測試環境正常
	2. 目檢零件是否有偏移等SMT問題
	3. 利用原廠Tool檢視Tx Path上的power大小來確認Key parts 是否正常 work
	4. 若為全部路徑都 fail, 更換零件U6304, 重K; 若是單一路徑, 則check單一路徑上的key parts是否有問題
2G Tx Calibration fail	更换 U6502
Tx/Rx 同一個Band fail	1.目檢零件是否有偏移、缺件或者極反等SMT問題
	2. 更換U6503 (Band1 fail) ; U6504 (Band2 fail) ; U6505(Band5 fail) ; U6506(Band8 fail) ; U6601(DCS fail)
Tx power 異常	1. 目檢零件是否有偏移、缺件或者極反等SMT問題
	2. 重K重測
Rx RSSI/RSCP 異常	1. 目檢零件是否有偏移、缺件或者極反等SMT問題
	2. 重K重測

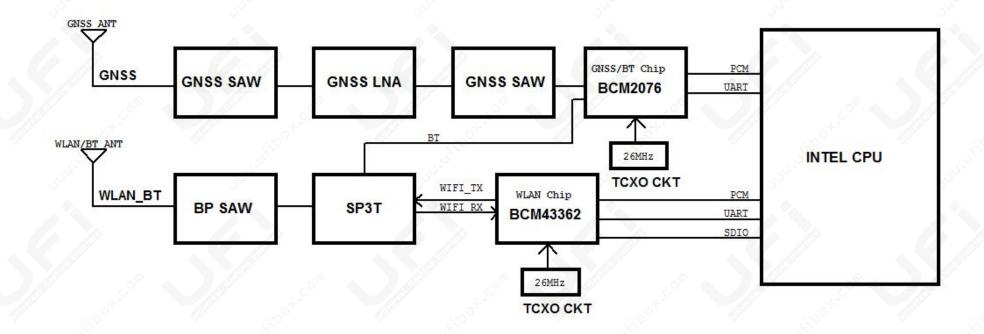


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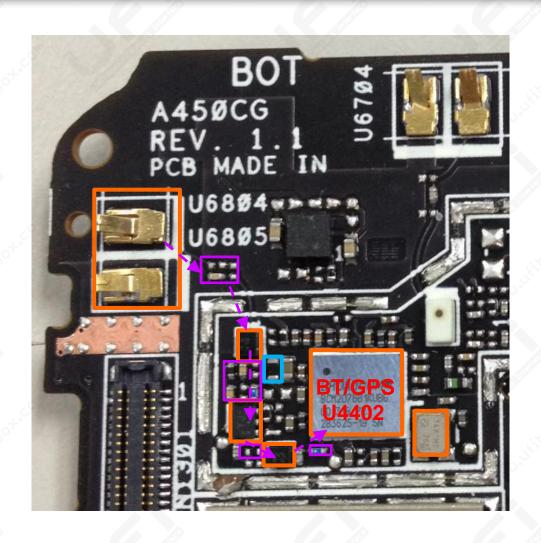


RF Block Diagram — GPS/BT/WiFi

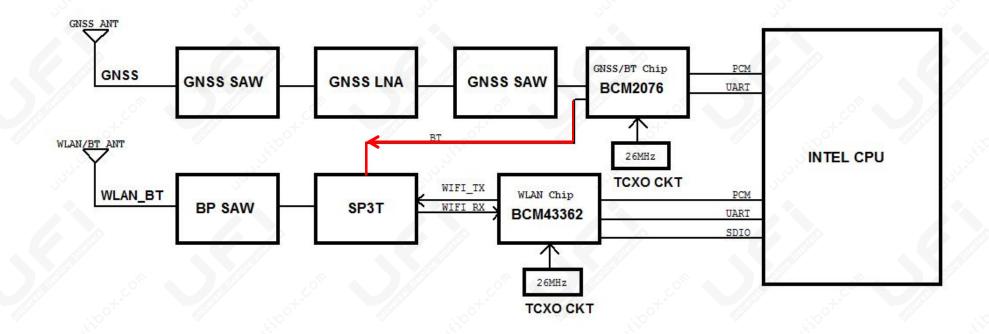




GPS Rx Path

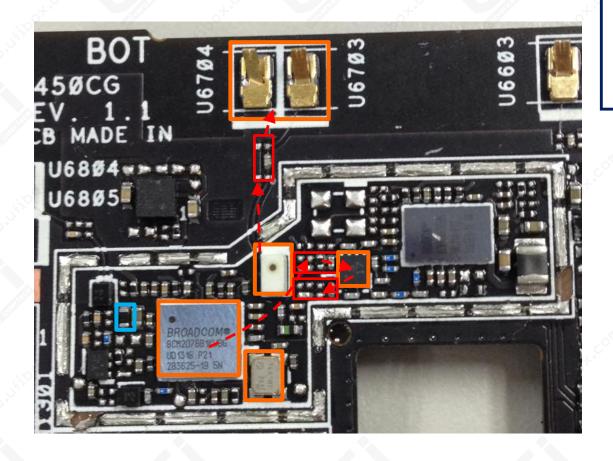


RF Block Diagram — GPS/BT/WiFi

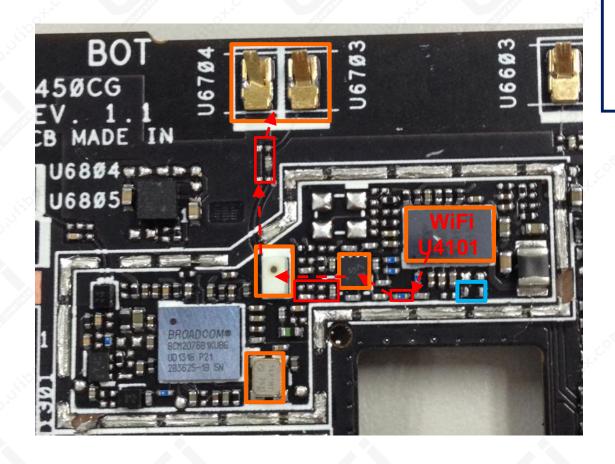




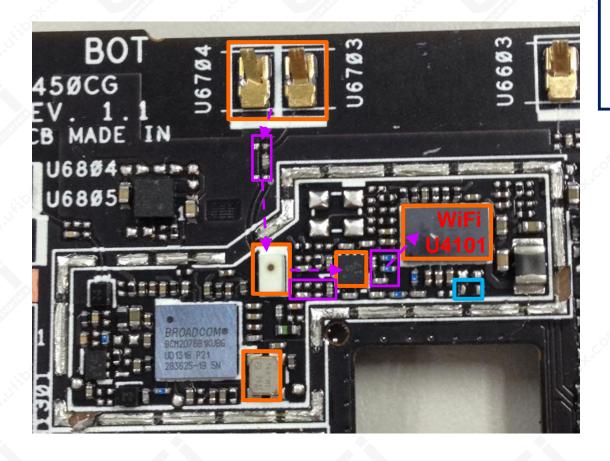
BT RF Path



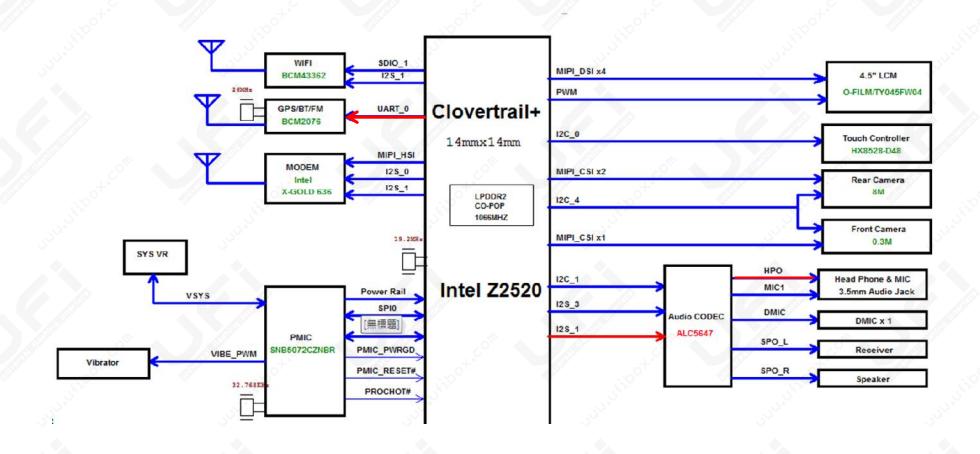
WiFi TX RF Path



WiFi RX RF Path

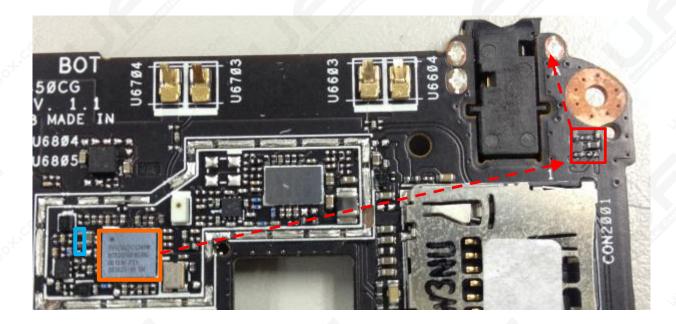


RF Block Diagram —FM





FM RF Path



GPS and BT/WiFi BL Tx/Rx fail analysis

Analysis	Action	
TM: T: T/D D 目光	1.確認測試站測試環境正常	
	2.目檢零件是否有偏移、缺件、反向等SMT問題	
WiFi Tx/Rx Power 異常	3.利用X-ray檢查是否有Pin腳沾黏或吃錫不良問題	
	4.重新放置U4101	
+	1.確認測試站測試環境正常	+
DT D 田光	2.目檢零件是否有偏移、缺件、反向等SMT問題	
BT Power 異常	3.利用X-ray檢查是否有Pin腳沾黏或吃錫不良問題	
	4.重新放置U4402	
	1.確認測試站測試環境正常	
and on EM	2.目檢零件是否有偏移、缺件、反向等SMT問題	
GPS CN 異常	3.利用X-ray檢查是否有Pin腳沾黏或吃錫不良問題	+.
	4.重新放置U6801、U6802、U6803	
FM訊號 異常	1.目檢零件是否有偏移、缺件、反向等SMT問題	
1.141年11分段 共由	2.利用X-ray檢查是否有Pin腳沾黏或吃錫不良問題	



Antenna & Spring Location







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