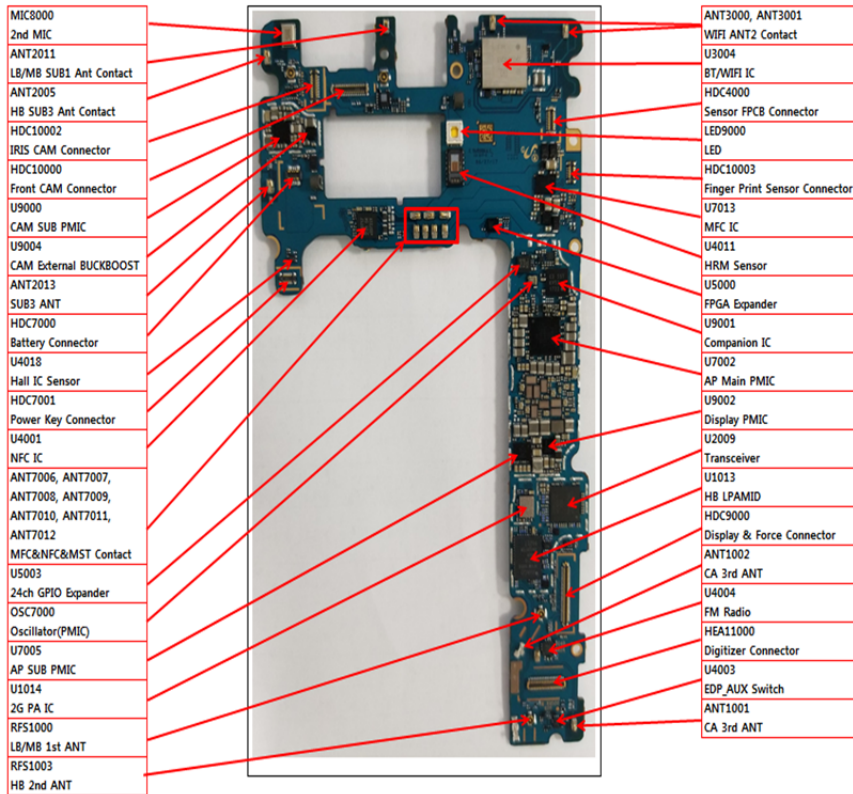


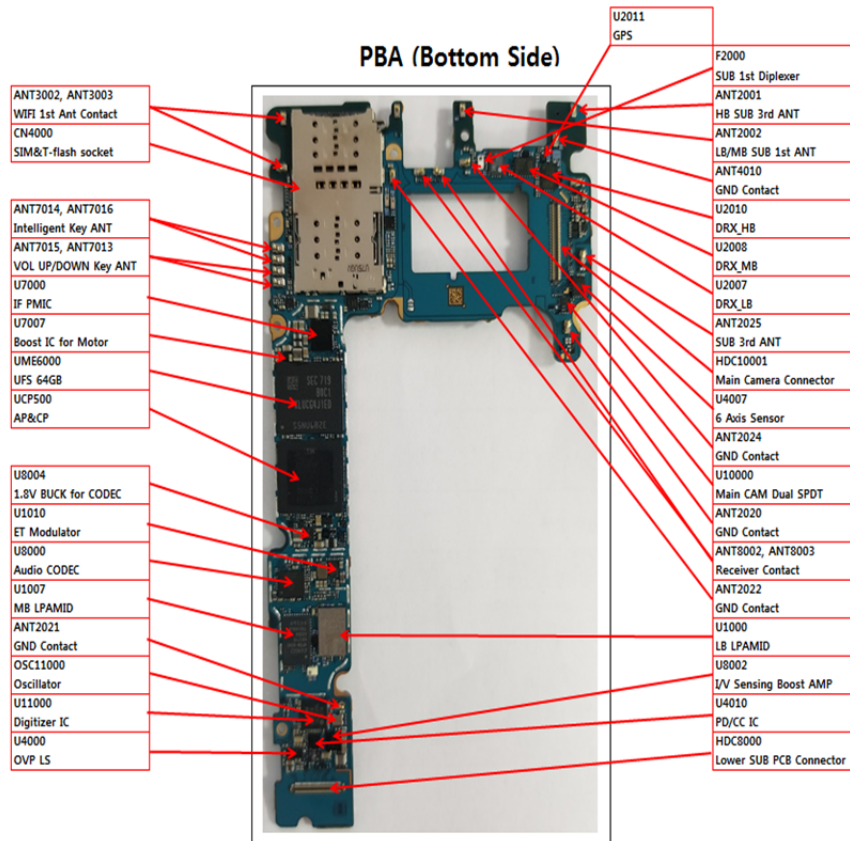
8. Level 3 Repair

8-1. Components Layout

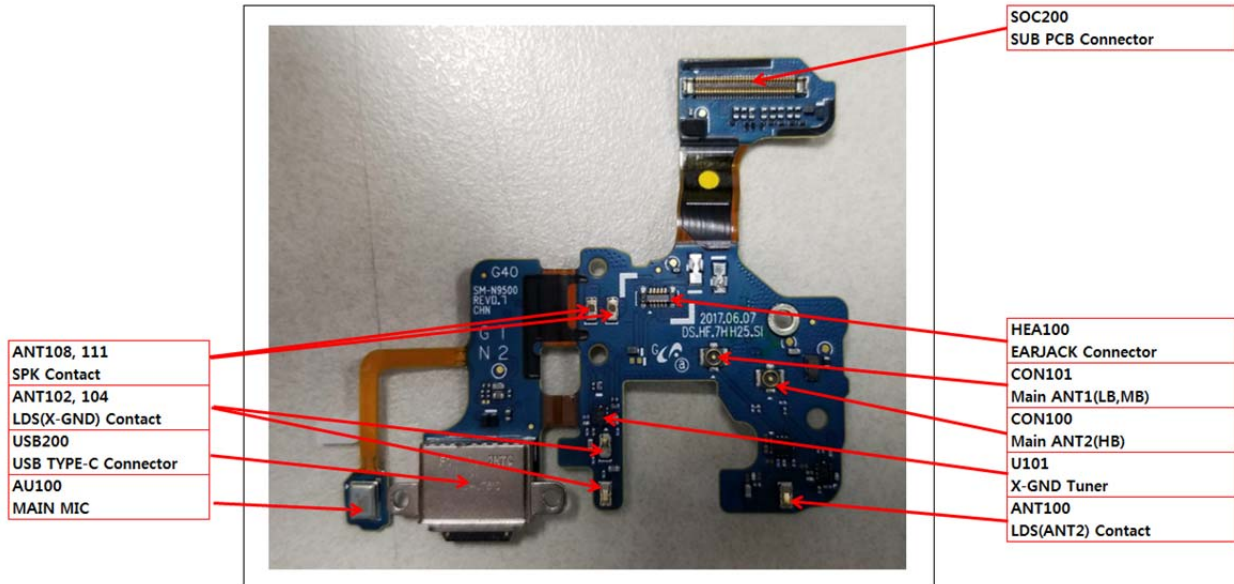
PBA (Top Side)



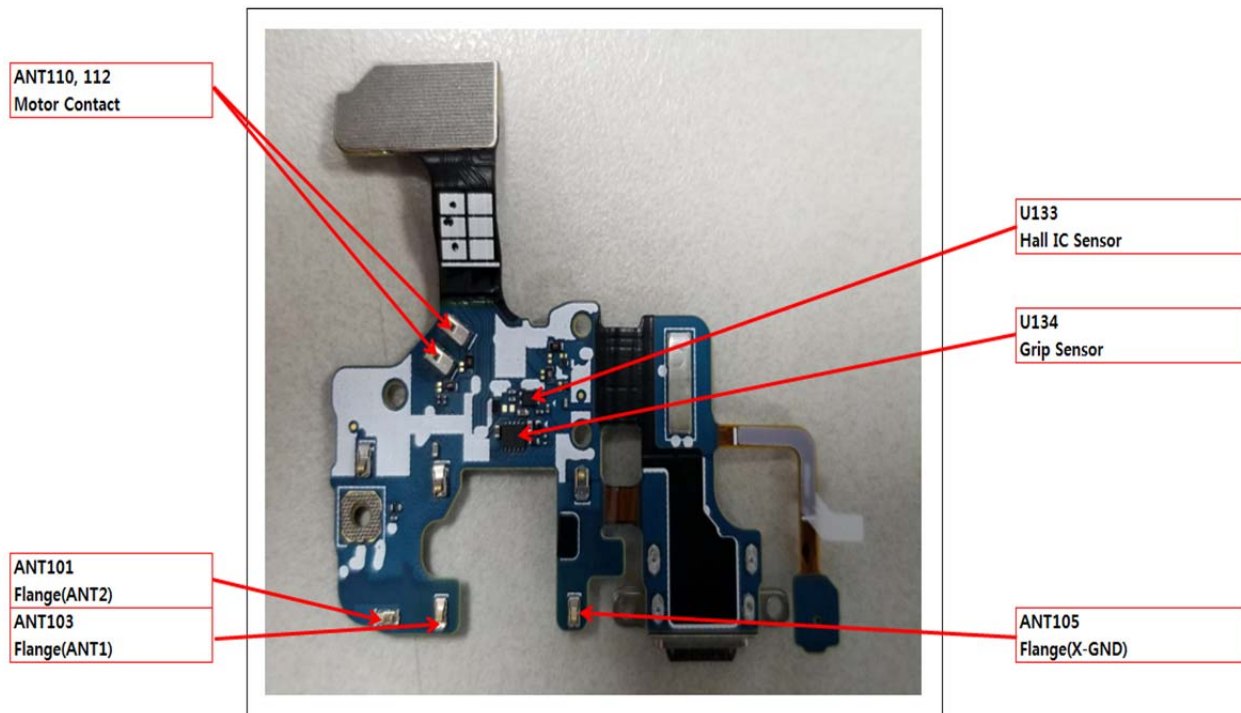
PBA (Bottom Side)



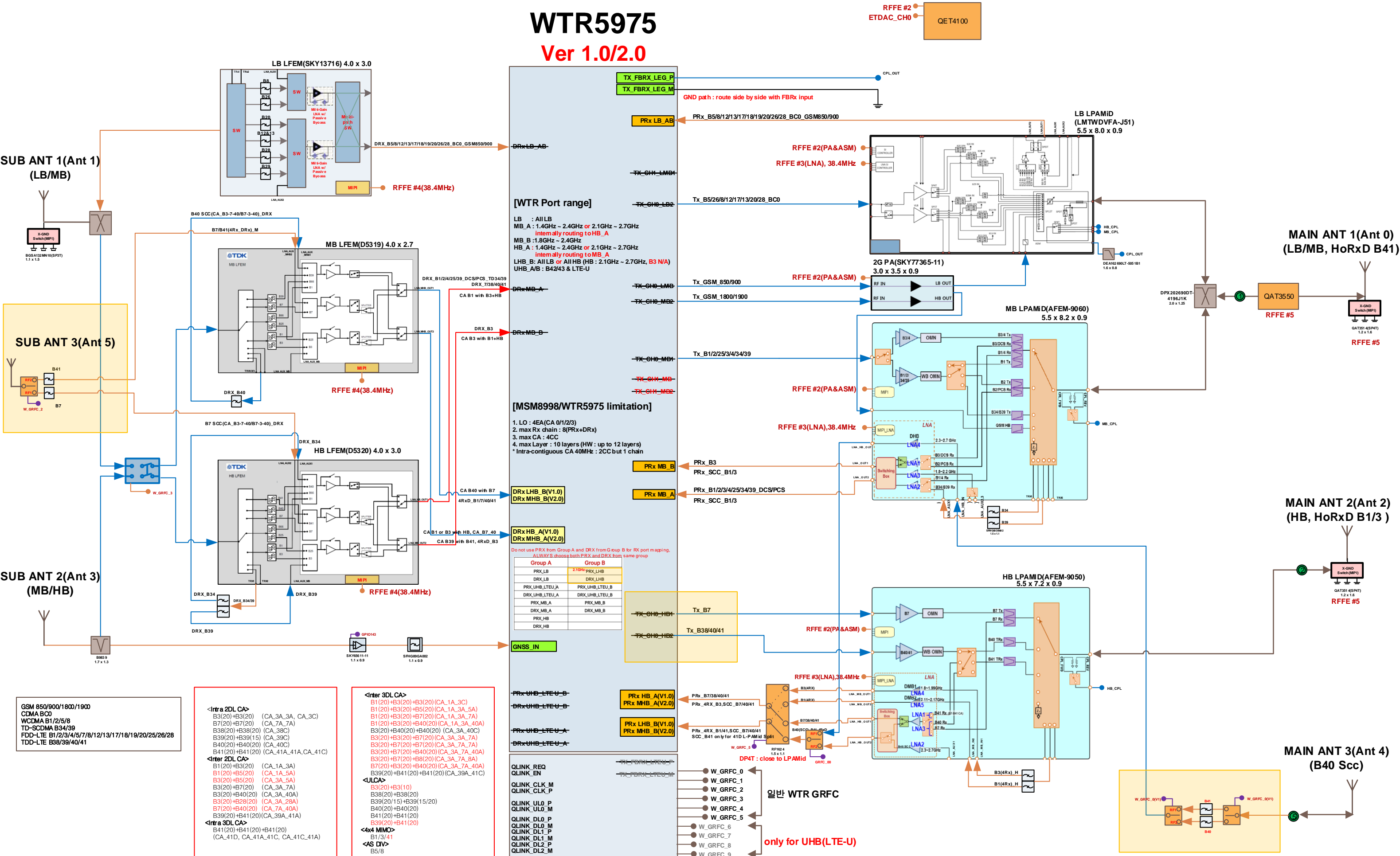
SUB PBA (Top Side)



SUB PBA (Bottom Side)



WTR5975 Ver 1.0/2.0



GSM 850/900/1800/1900
CDMA B0
WCDMA B1/2/5/8
TD-SCDMA B34/39
FDD-LTE B1/2/3/4/5/7/8/12/13/17/18/19/20/25/26/28
TDD-LTE B38/39/40/41

<Intra 2DL CA>
B3(20)+B3(20) (CA_3A_3A, CA_3C)
B7(20)+B7(20) (CA_7A_7A)
B38(20)+B38(20) (CA_38C)
B39(20)+B39(15) (CA_39C)
B40(20)+B40(20) (CA_40C)
B41(20)+B41(20) (CA_41A, 41A, CA_41C)

<Inter 2DL CA>
B1(20)+B3(20) (CA_1A_3A)
B1(20)+B3(20) (CA_1A_5A)
B3(20)+B5(20) (CA_3A_5A)
B3(20)+B7(20) (CA_3A_7A)
B3(20)+B40(20) (CA_3A_40A)
B3(20)+B28(20) (CA_3A_28A)
B7(20)+B40(20) (CA_7A_40A)
B39(20)+B41(20) (CA_39A_41A)

<Intra 3DL CA>
B41(20)+B41(20)+B41(20)
(CA_41D, CA_41A_41C, CA_41C_41A)

<Inter 3DL CA>
B1(20)+B3(20)+B3(20) (CA_1A_3C)
B1(20)+B3(20)+B5(20) (CA_1A_3A_5A)
B1(20)+B3(20)+B7(20) (CA_1A_3A_7A)
B1(20)+B3(20)+B40(20) (CA_1A_3A_40A)
B3(20)+B3(20)+B40(20) (CA_3A_40A)
B3(20)+B3(20)+B7(20) (CA_3A_3A_7A)
B3(20)+B7(20)+B40(20) (CA_3A_7A_40A)
B3(20)+B7(20)+B8(20) (CA_3A_7A_8A)
B7(20)+B3(20)+B40(20) (CA_3A_7A_40A)
B39(20)+B41(20)+B41(20) (CA_39A_41C)

<ULCA>
B3(20)+B3(10)
B38(20)+B38(20)
B39(20/15)+B39(15/20)
B40(20)+B40(20)
B41(20)+B41(20)
B39(20)+B41(20)

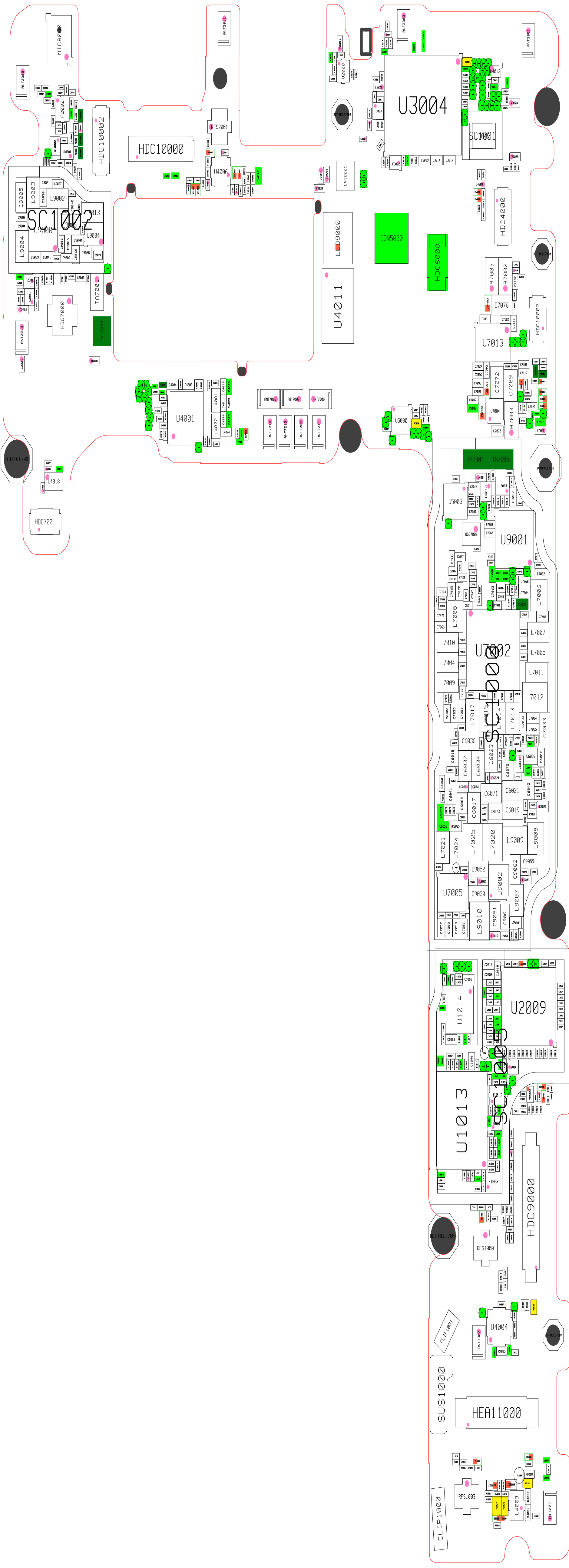
<4x4 MIMO>
B1/3/41
<AS DIV>
B5/8

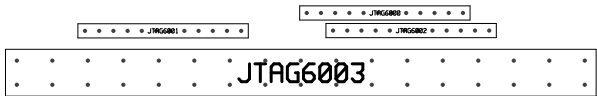
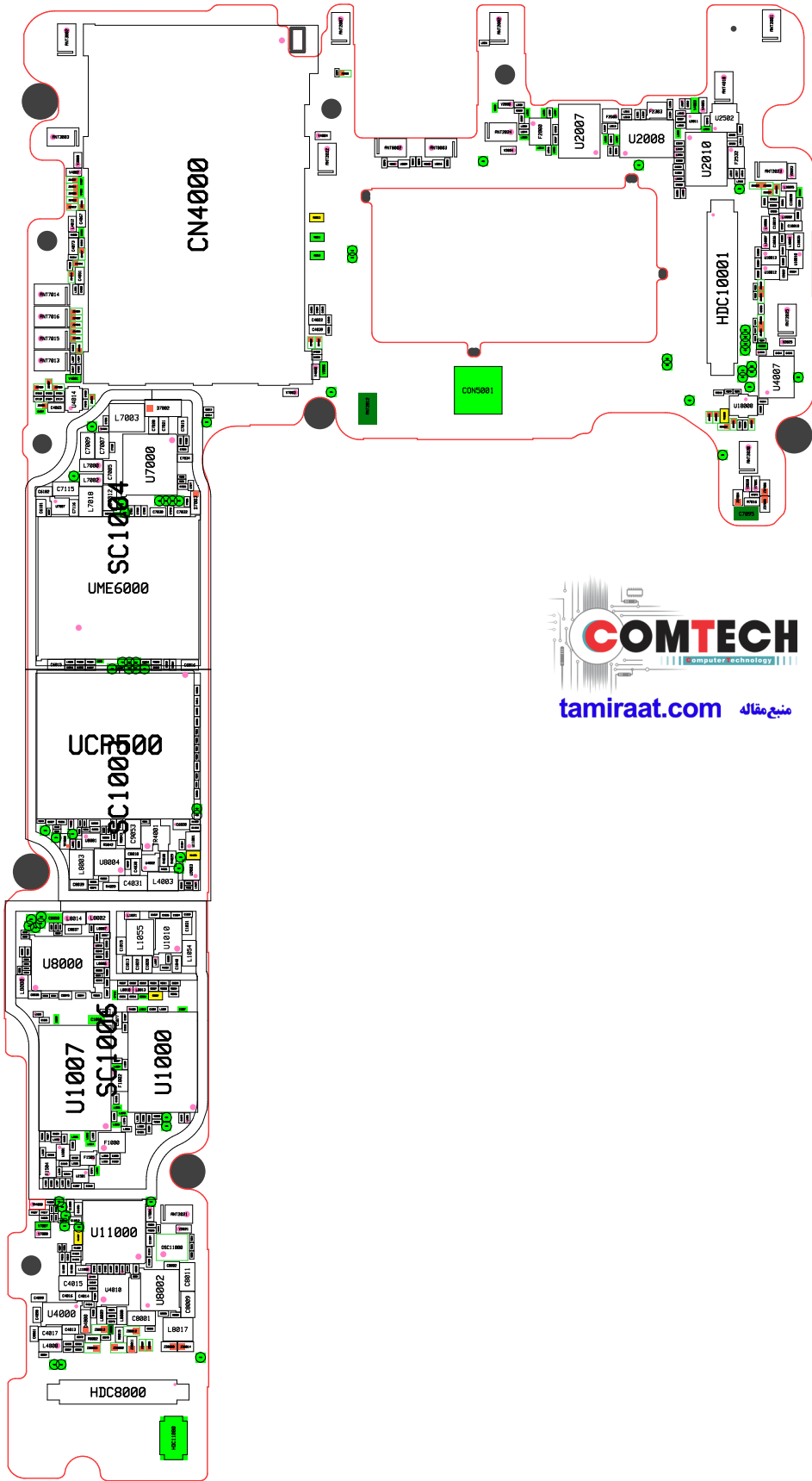
[WTR Port range]
LB : All LB
MB_A : 1.4GHz ~ 2.4GHz or 2.1GHz ~ 2.7GHz
internally routing to HB_A
MB_B : 1.8GHz ~ 2.4GHz
HB_A : 1.4GHz ~ 2.4GHz or 2.1GHz ~ 2.7GHz
internally routing to MB_A
LHB_B : All LB or All HB (HB : 2.1GHz ~ 2.7GHz, B3 N/A)
UHB_A/B : B42/43 & LTE-U

[MSM8998/WTR5975 limitation]
1. LO : 4EA (CA 0/1/2/3)
2. max Rx chain : 8 (PRx+DRx)
3. max CA : 4CC
4. max Layer : 10 layers (HW : up to 12 layers)
* Intra-contiguous CA 40MHz : 2CC but 1 chain

Group A	Group B
PRx_LB	2.1GHz PRx_LHB
DRx_LB	DRx_LHB
PRx_UHB_LTEU_A	PRx_UHB_LTEU_B
DRx_UHB_LTEU_A	DRx_UHB_LTEU_B
PRx_MB_A	PRx_MB_B
DRx_MB_A	DRx_MB_B
PRx_HB	
DRx_HB	

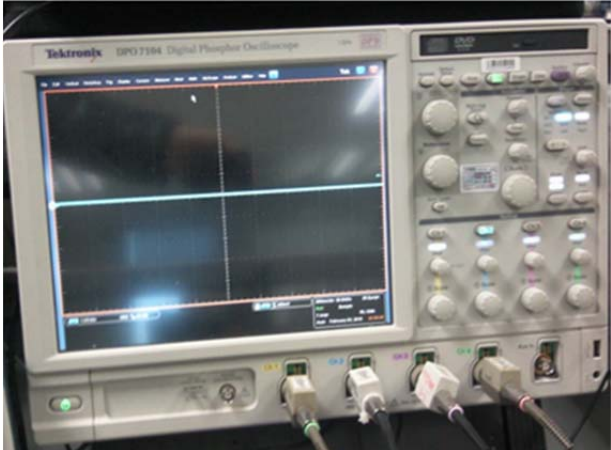


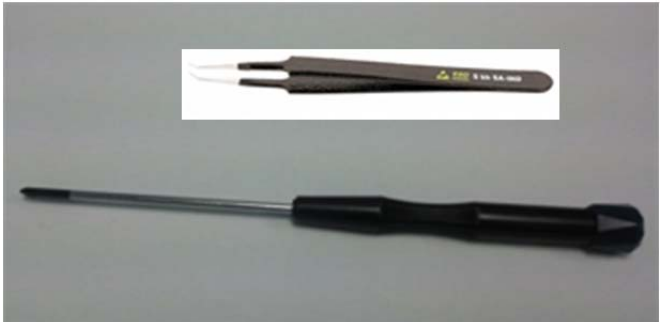
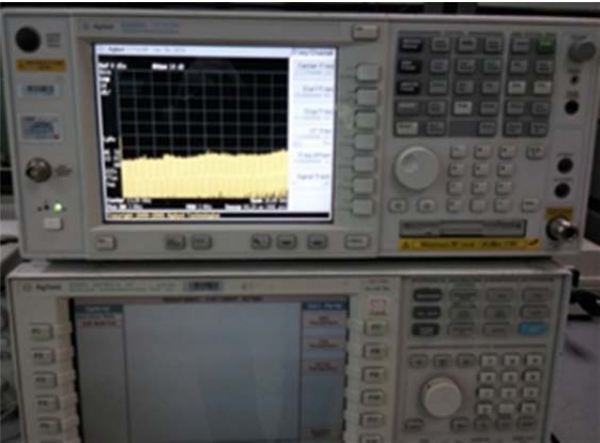

일반 WTR GRFC
only for UHB(LTE-U)





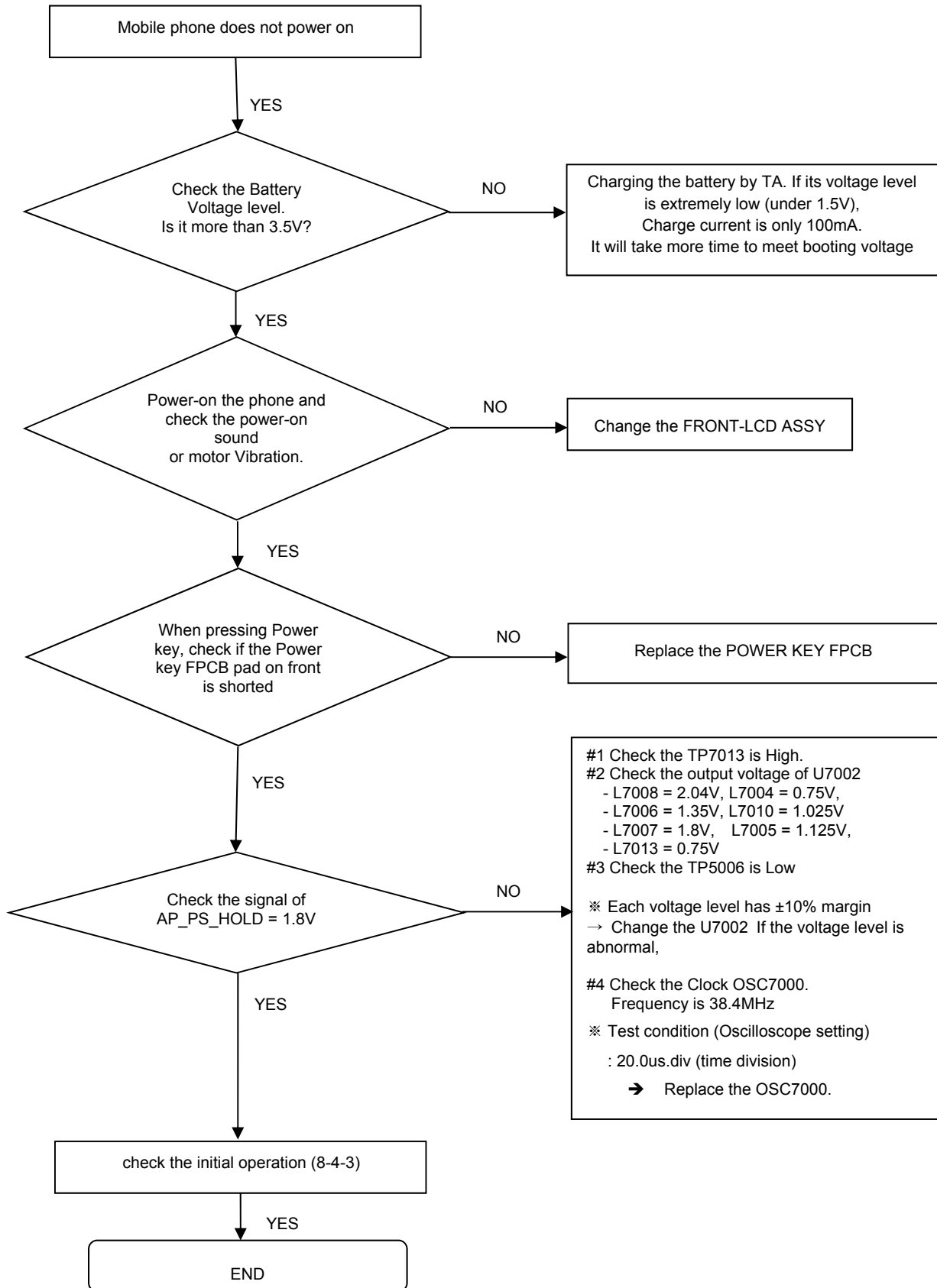
8. Level 3 Repair

8-3. Flow chart of Troubleshooting.

	
<p>Oscilloscope</p>	<p>Digital Multimeter</p>
	
<p>Power Supply</p>	<p>+ driver, ESD Safe Tweezer</p>
	
<p>8960 & Spectrum Analyzer</p>	<p>Soldering iron</p>

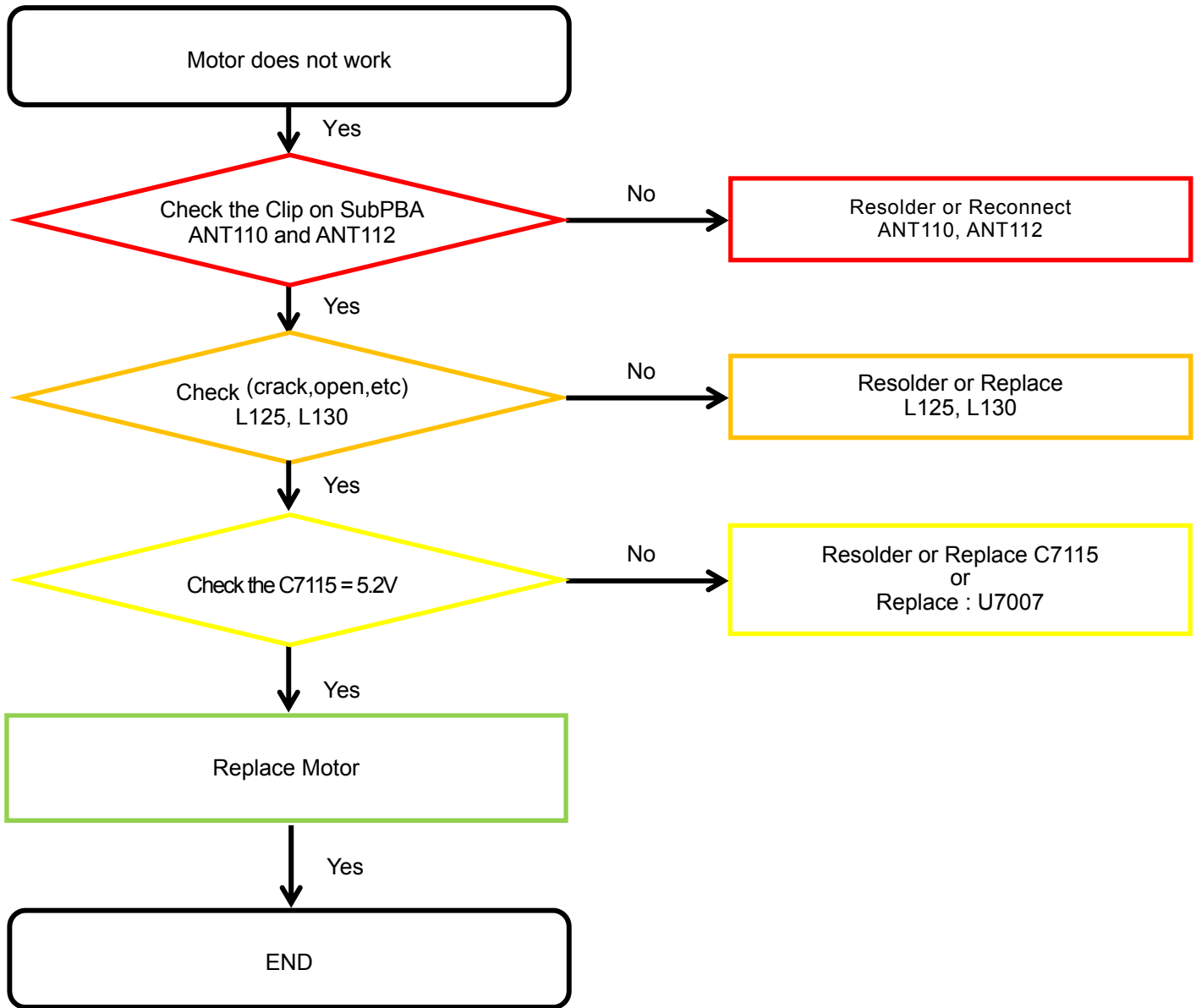
8. Level 3 Repair

8-4-1. Power on



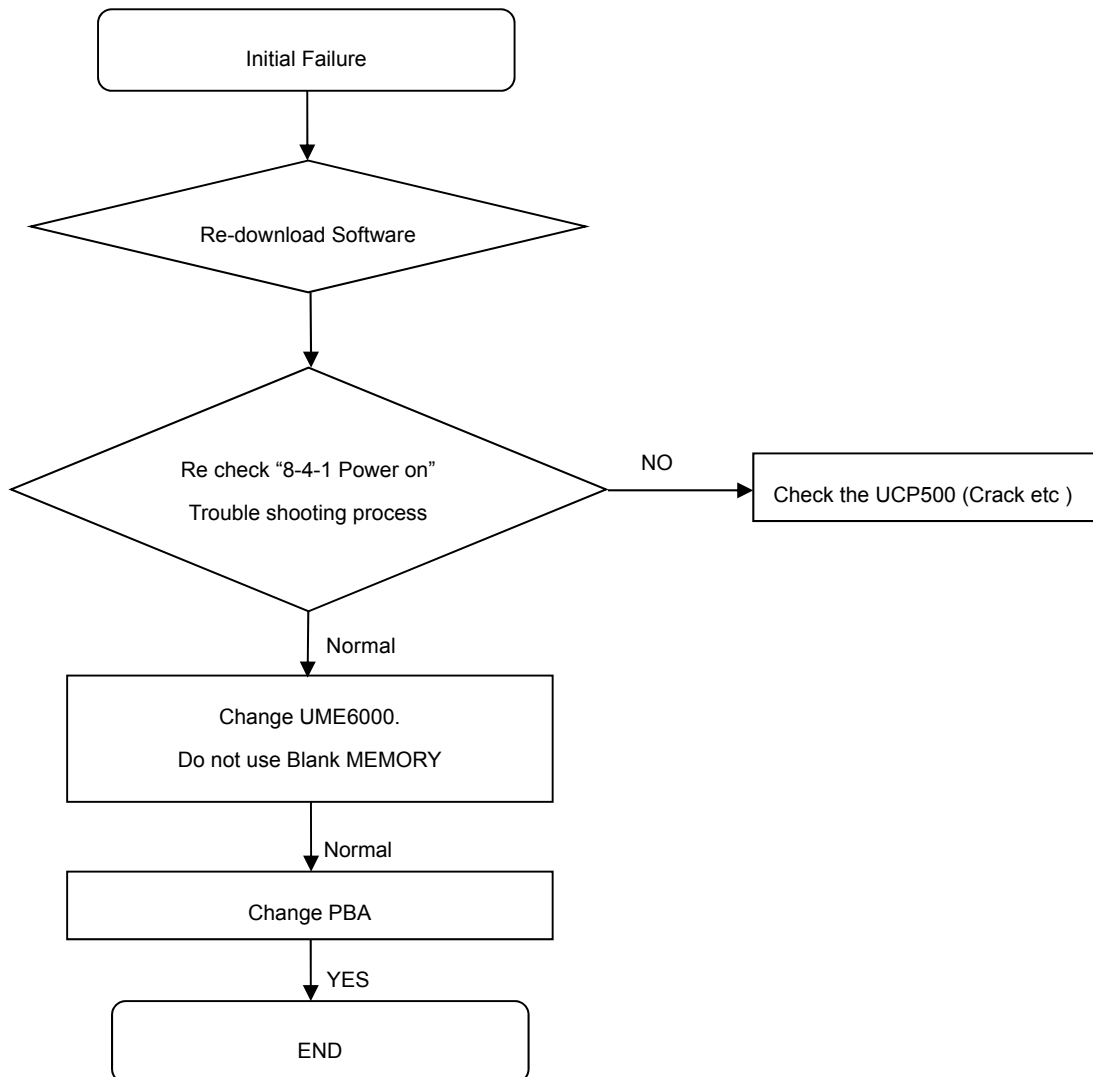
8. Level 3 Repair

8-4-2. Motor



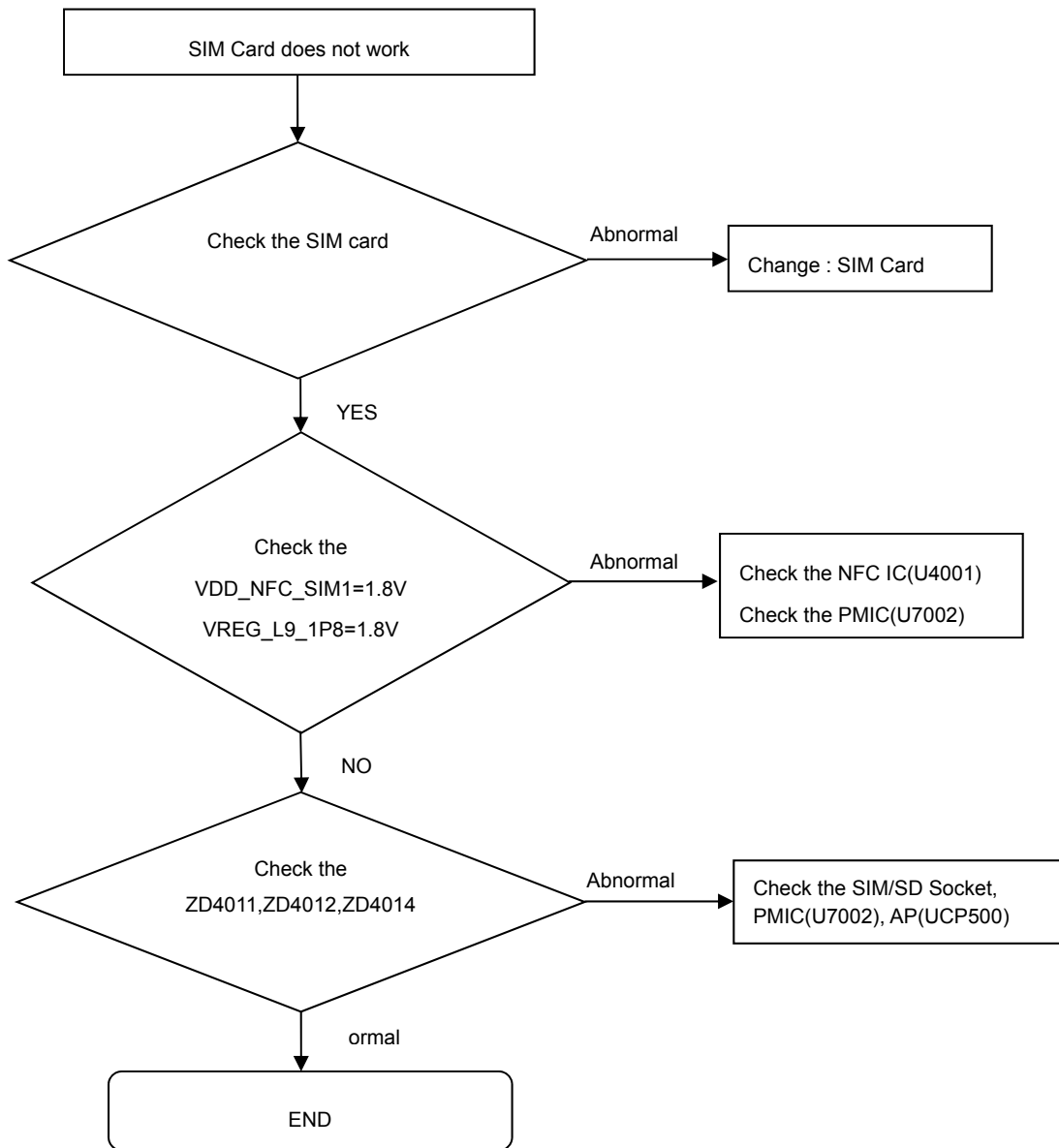
8. Level 3 Repair

8-4-3. initial



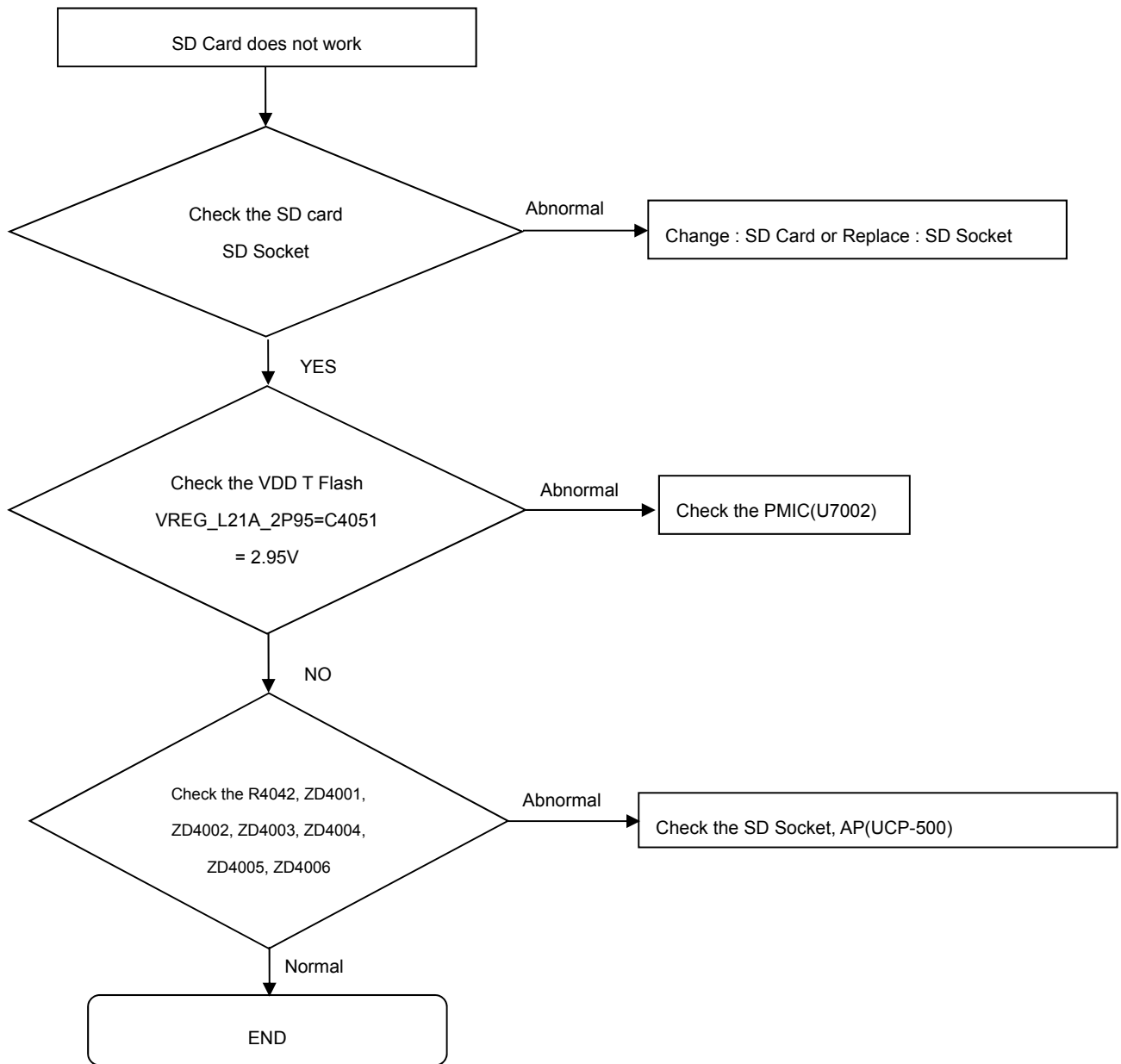
8. Level 3 Repair

8-4-4. SIM PART



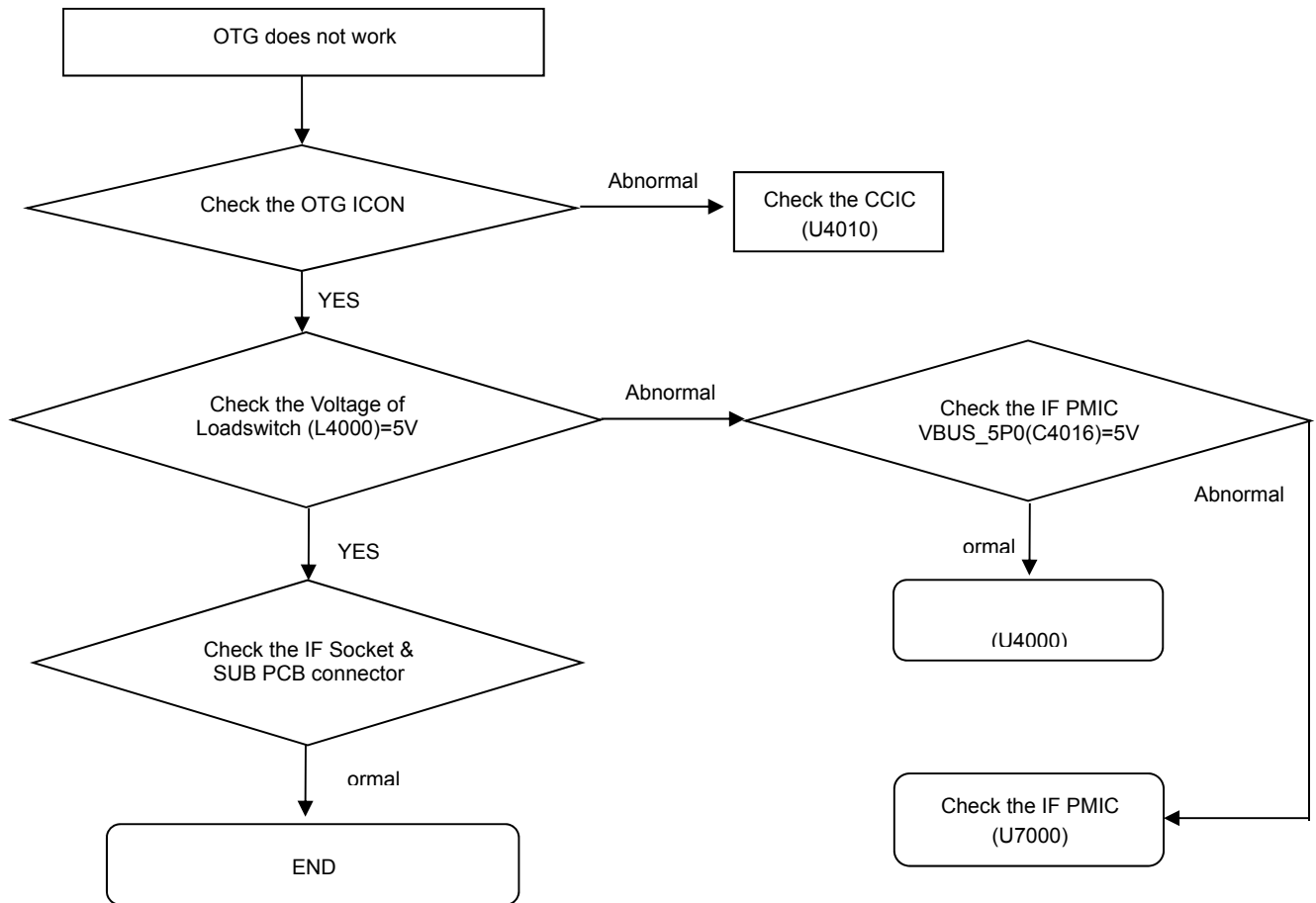
8. Level 3 Repair

8-4-5. SIM/SD PART



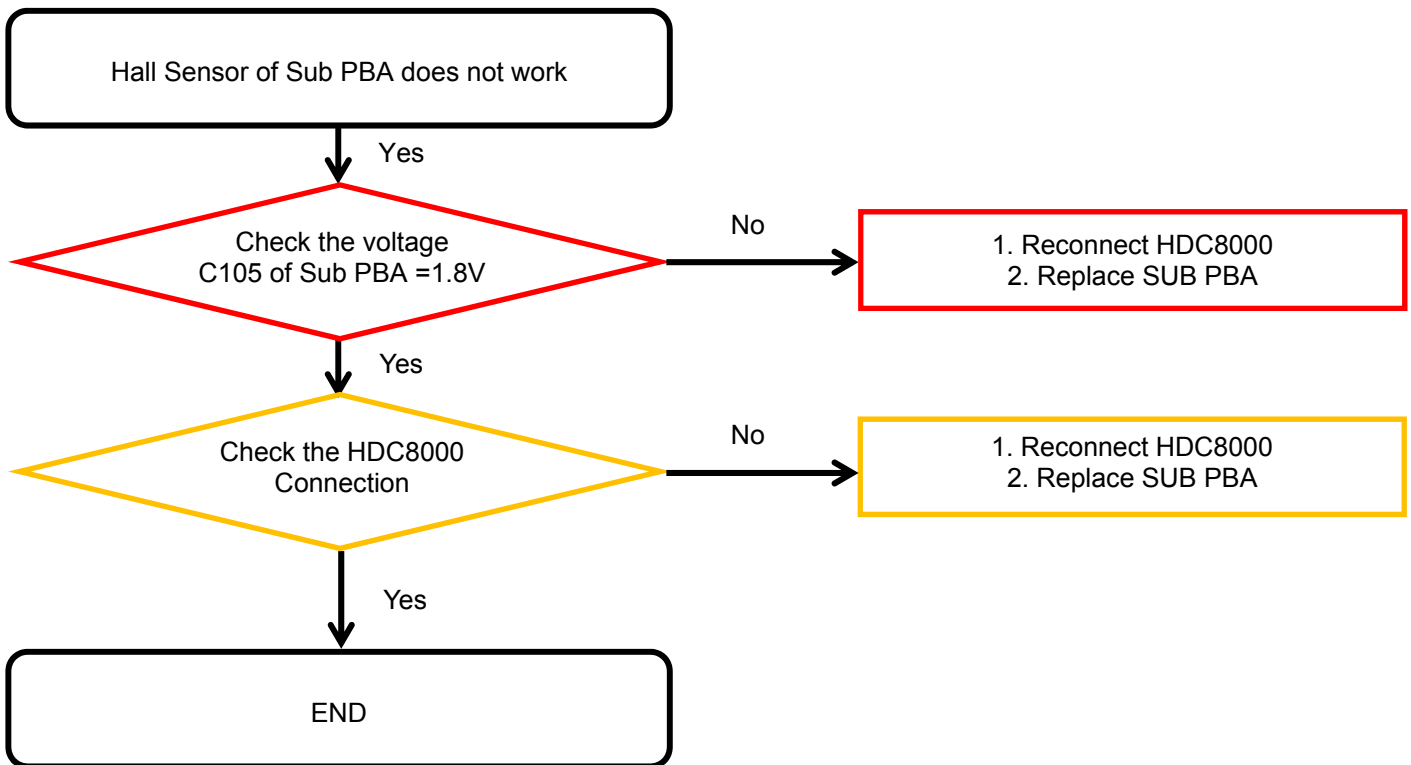
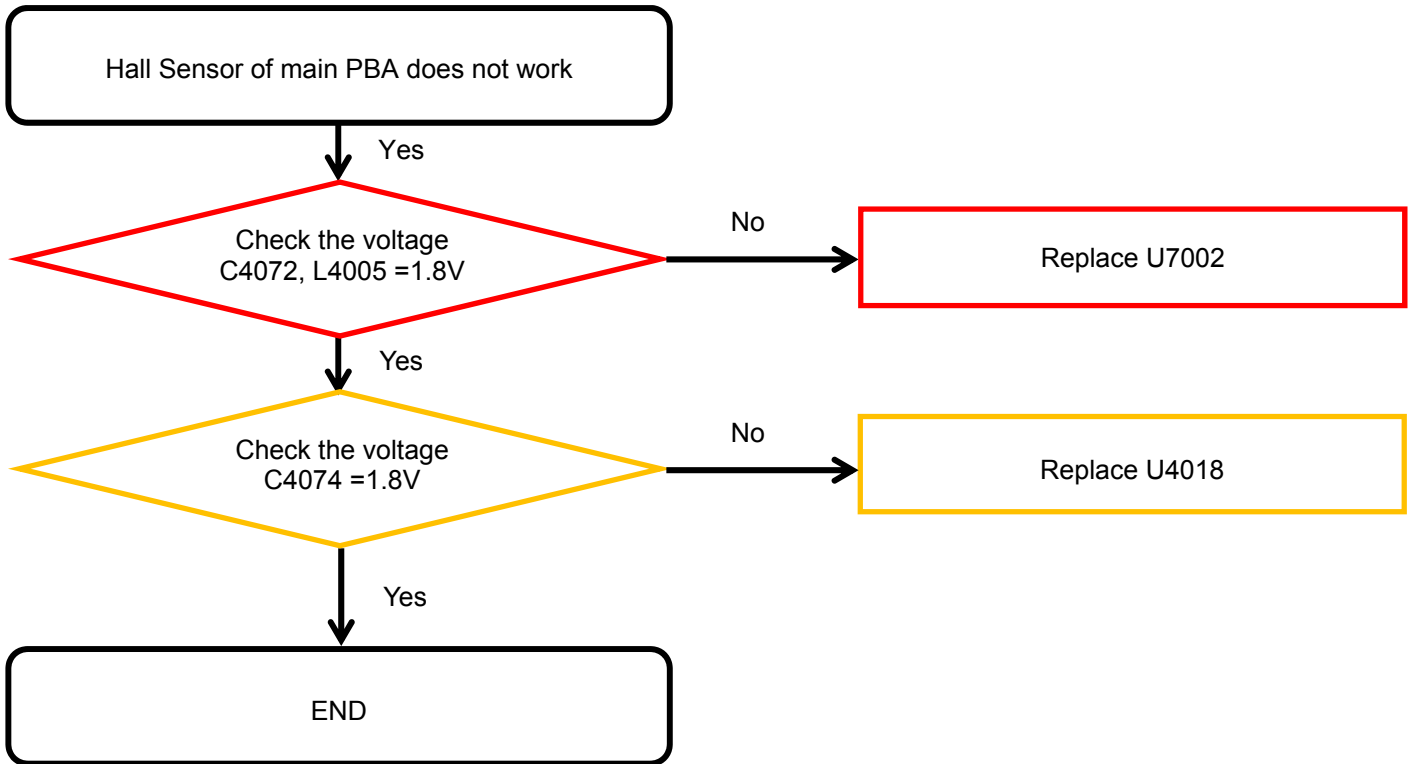
8. Level 3 Repair

8-4-6. OTG



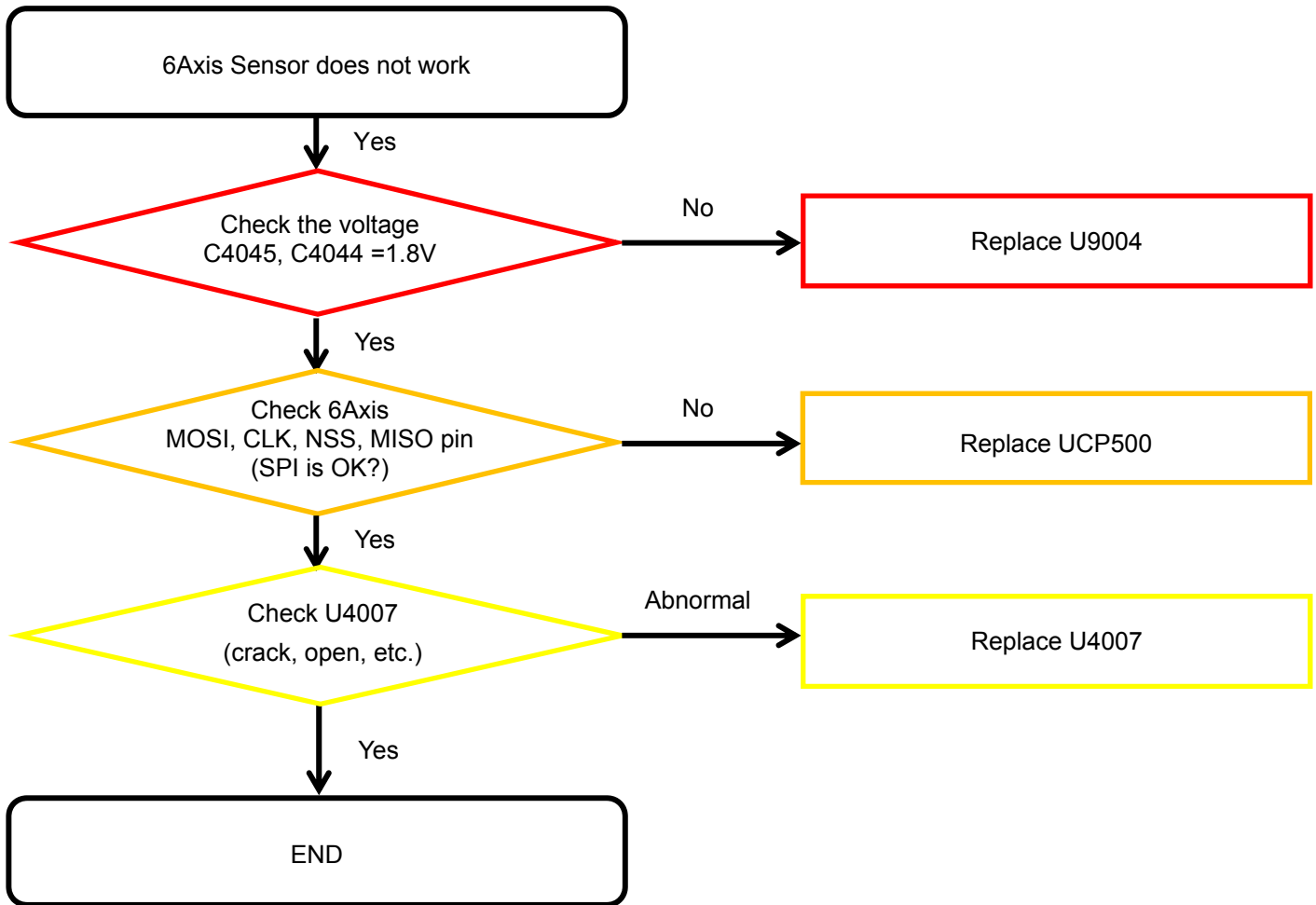
8. Level 3 Repair

8-4-7. Hall IC



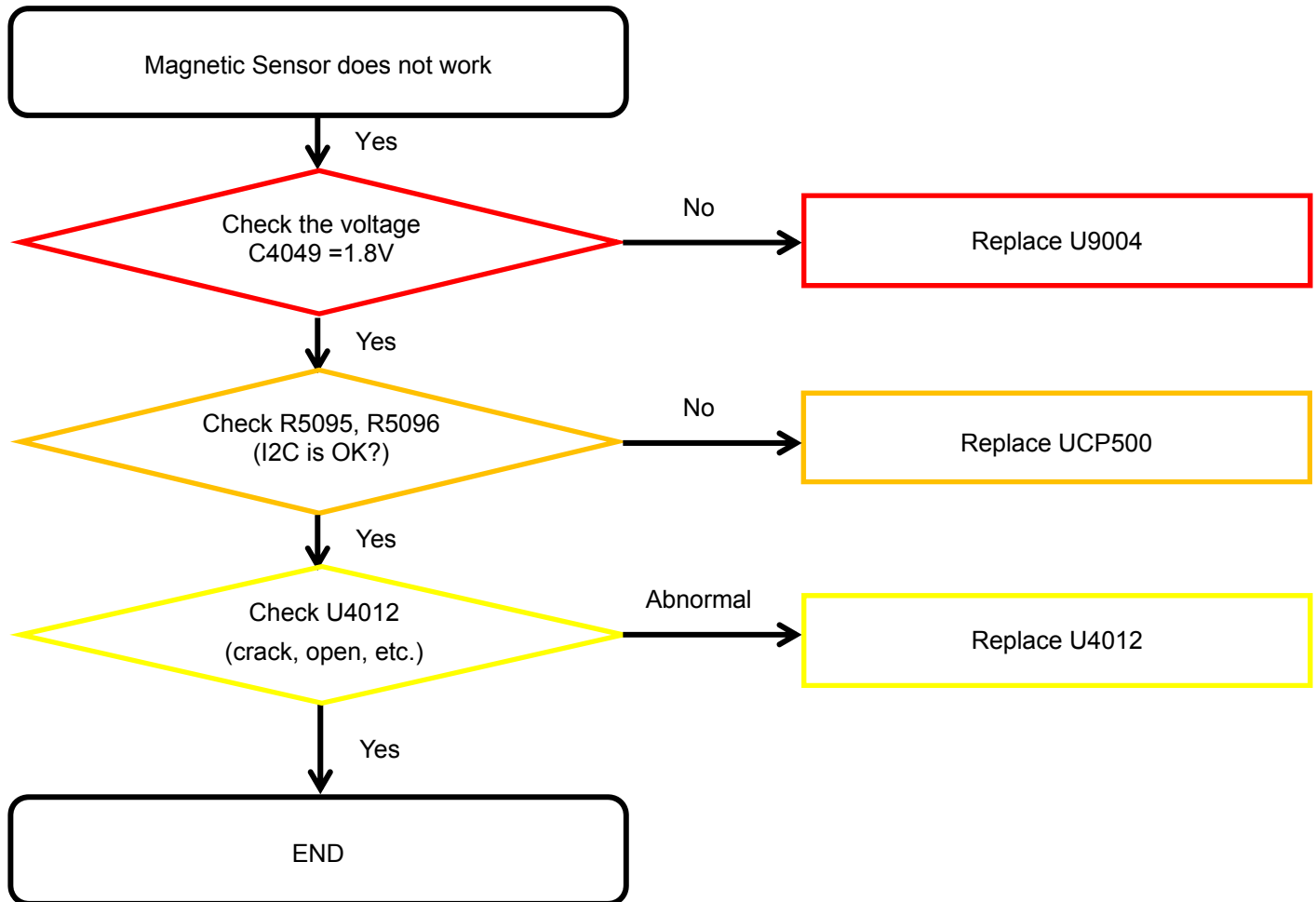
8. Level 3 Repair

8-4-8. 6Axis sensor



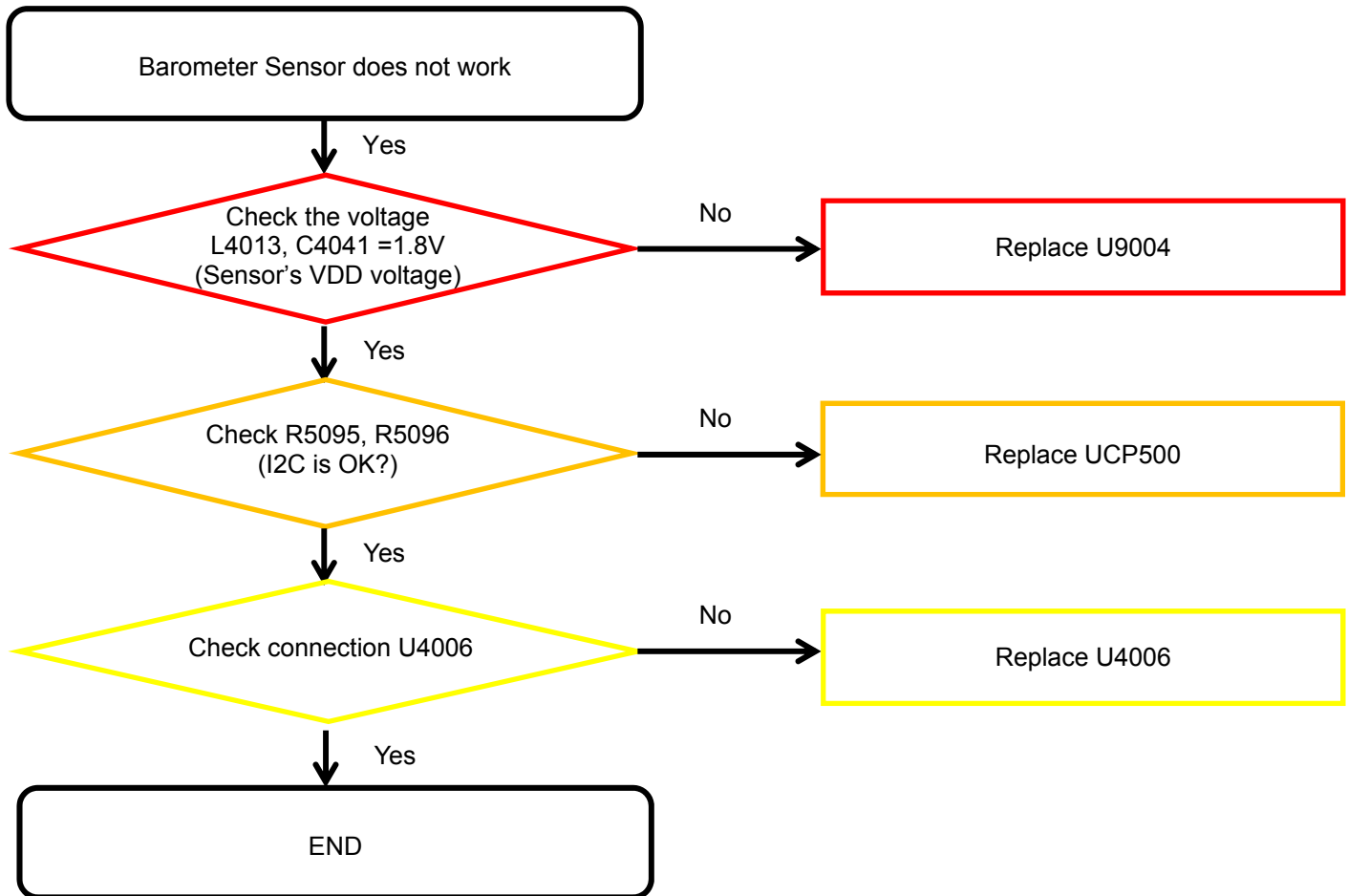
8. Level 3 Repair

8-4-9. Magnetic sensor



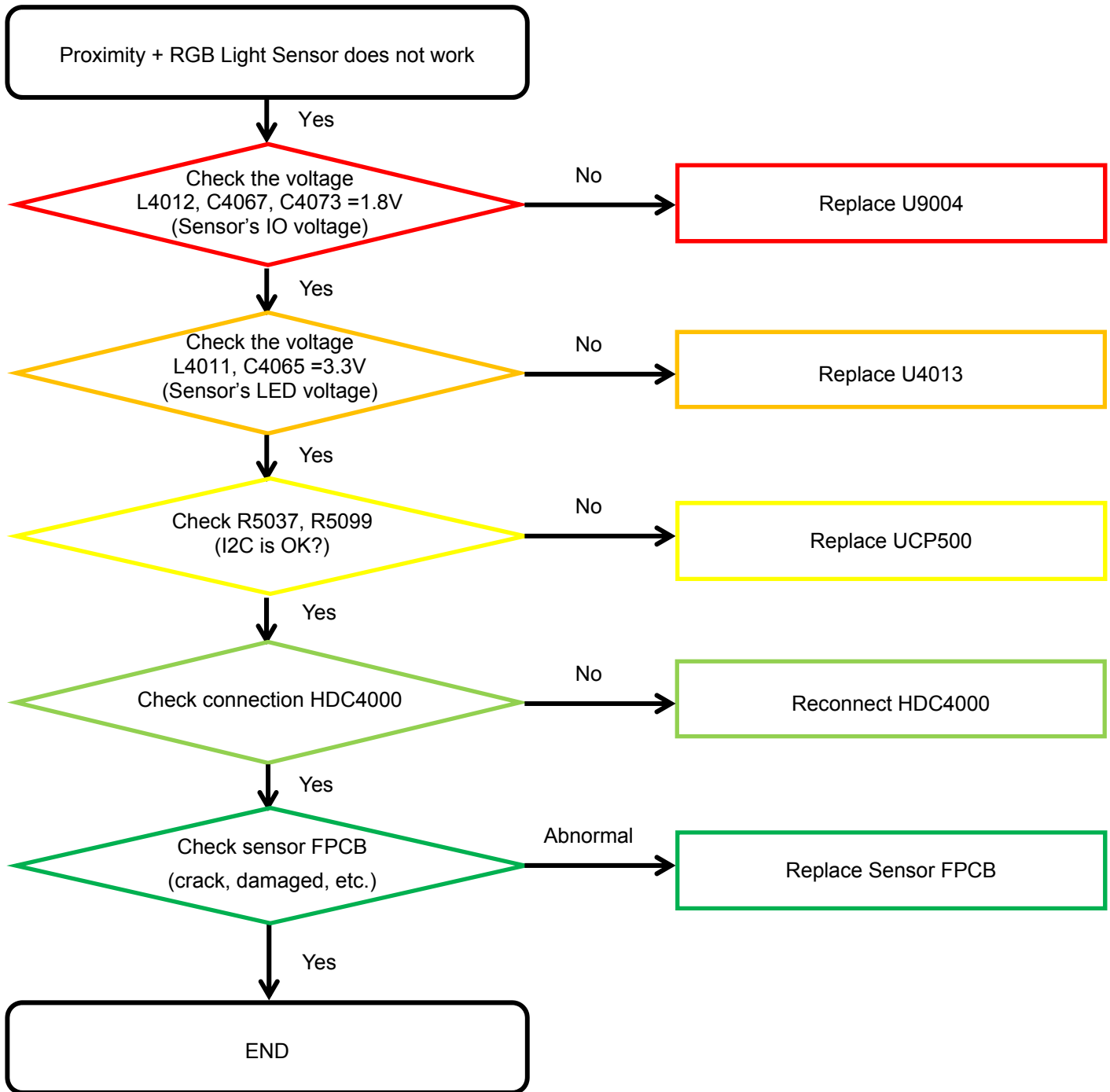
8. Level 3 Repair

8-4-10. Barometer sensor



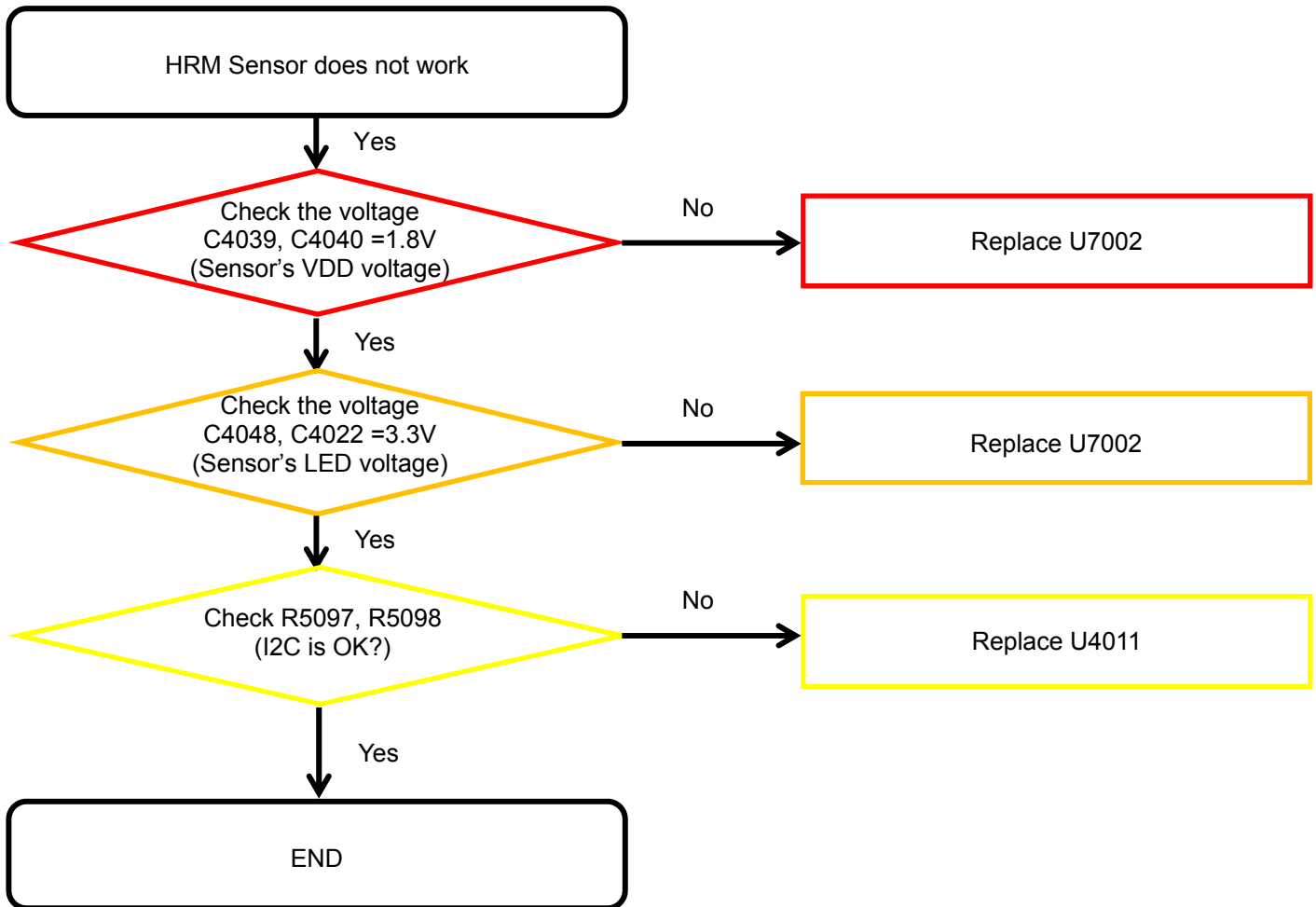
8. Level 3 Repair

8-4-11. Proximity + RGB sensor



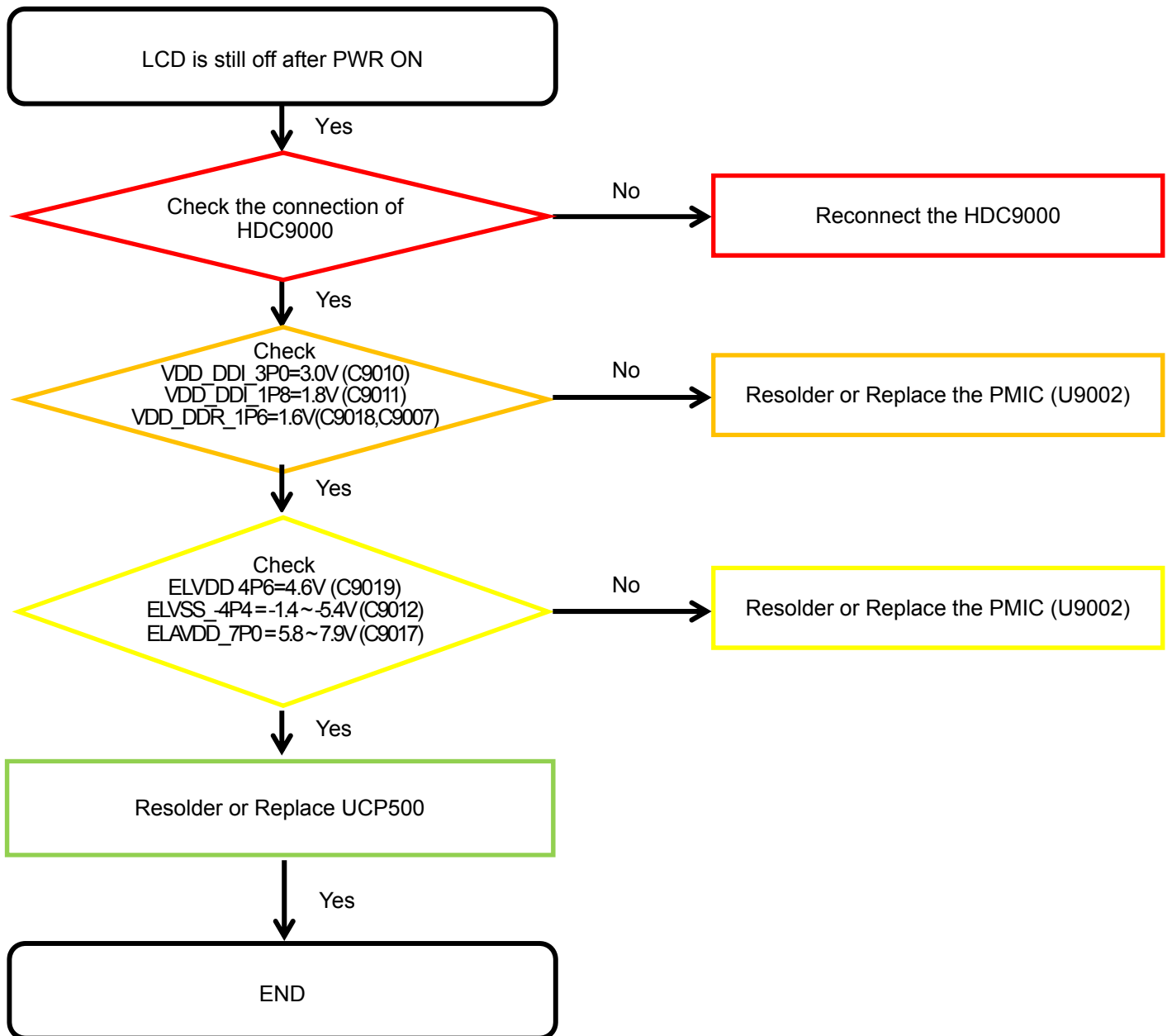
8. Level 3 Repair

8-4-12. HRM sensor



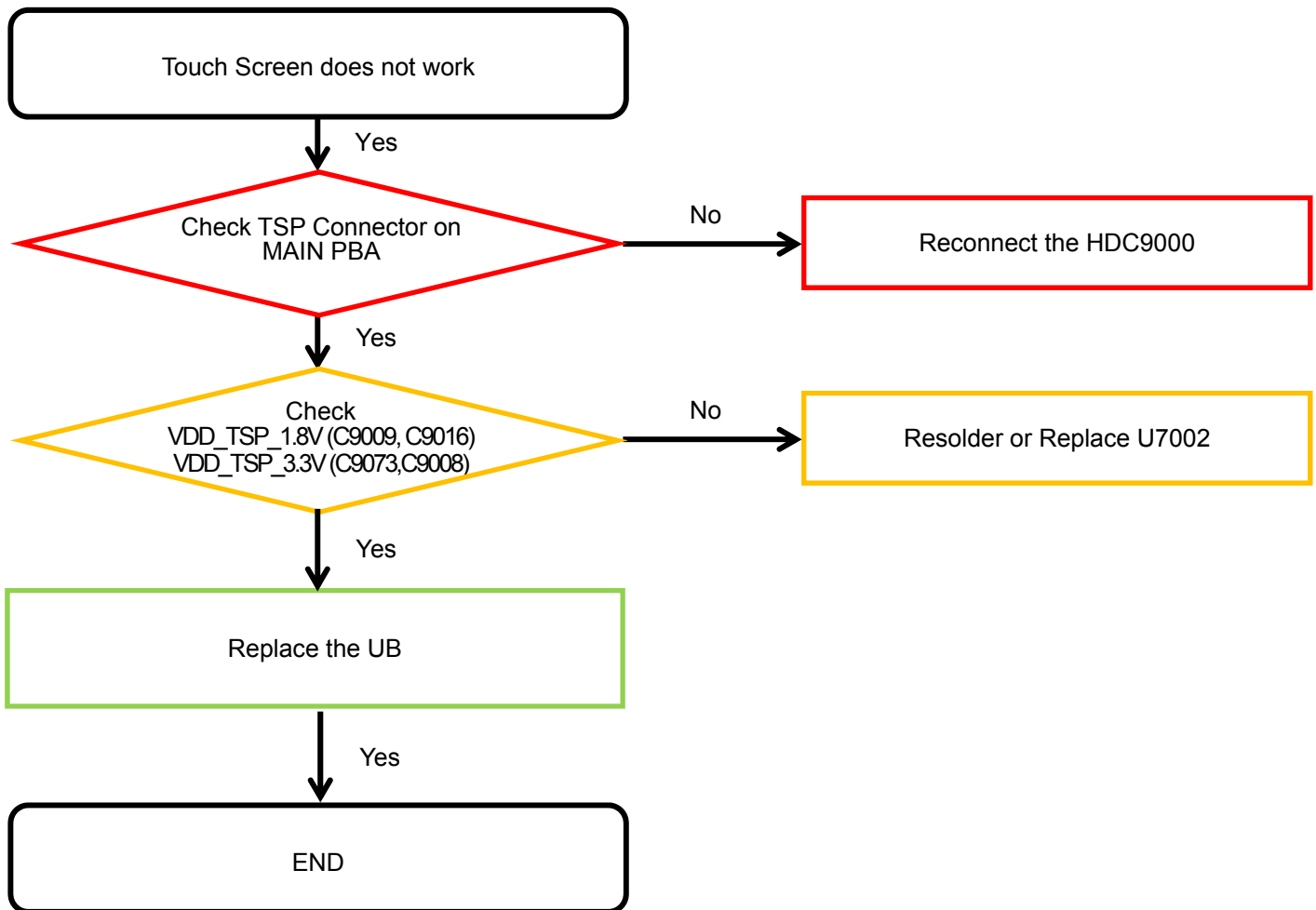
8. Level 3 Repair

8-4-13. Display



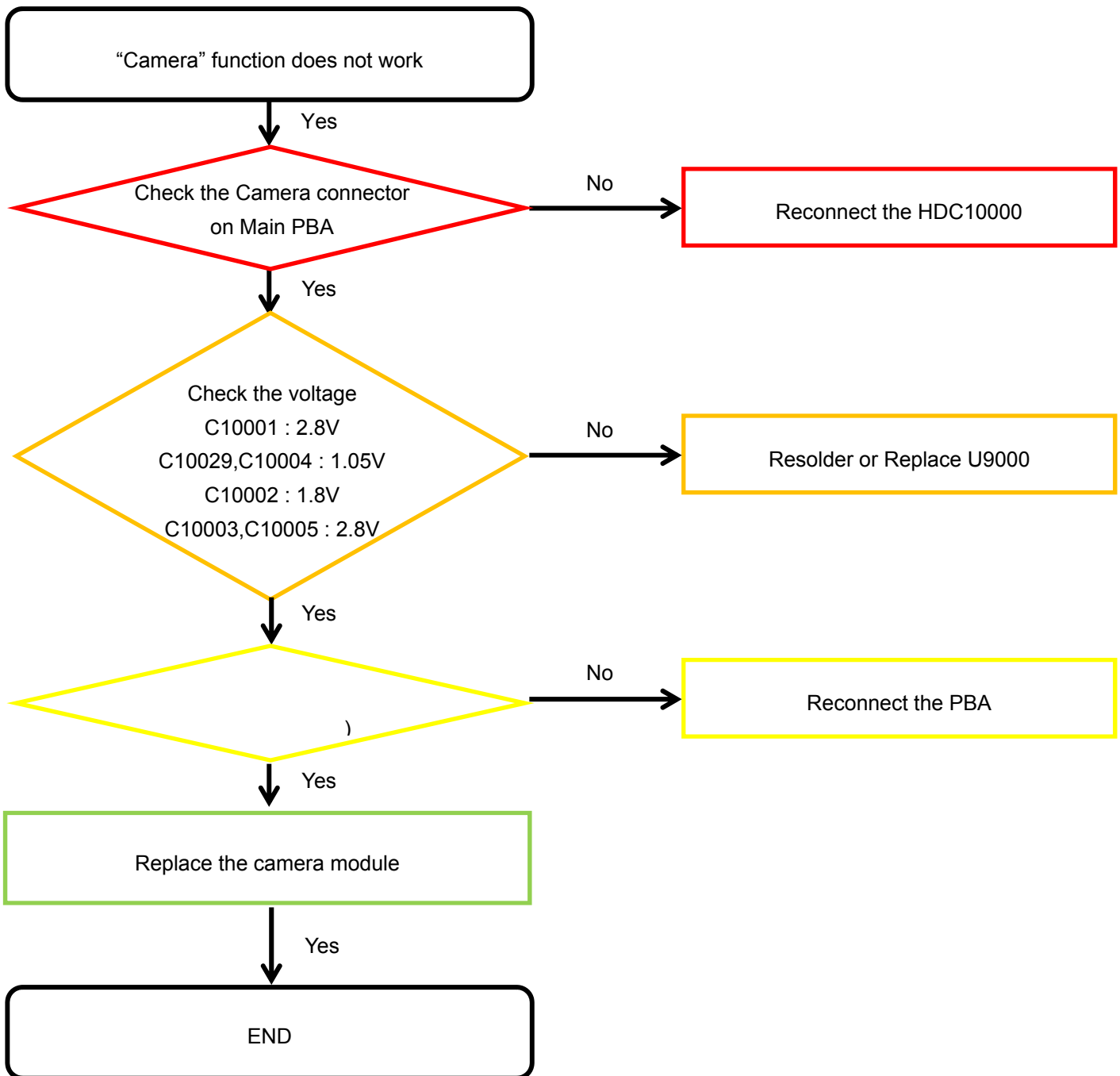
8. Level 3 Repair

8-4-14. TSP



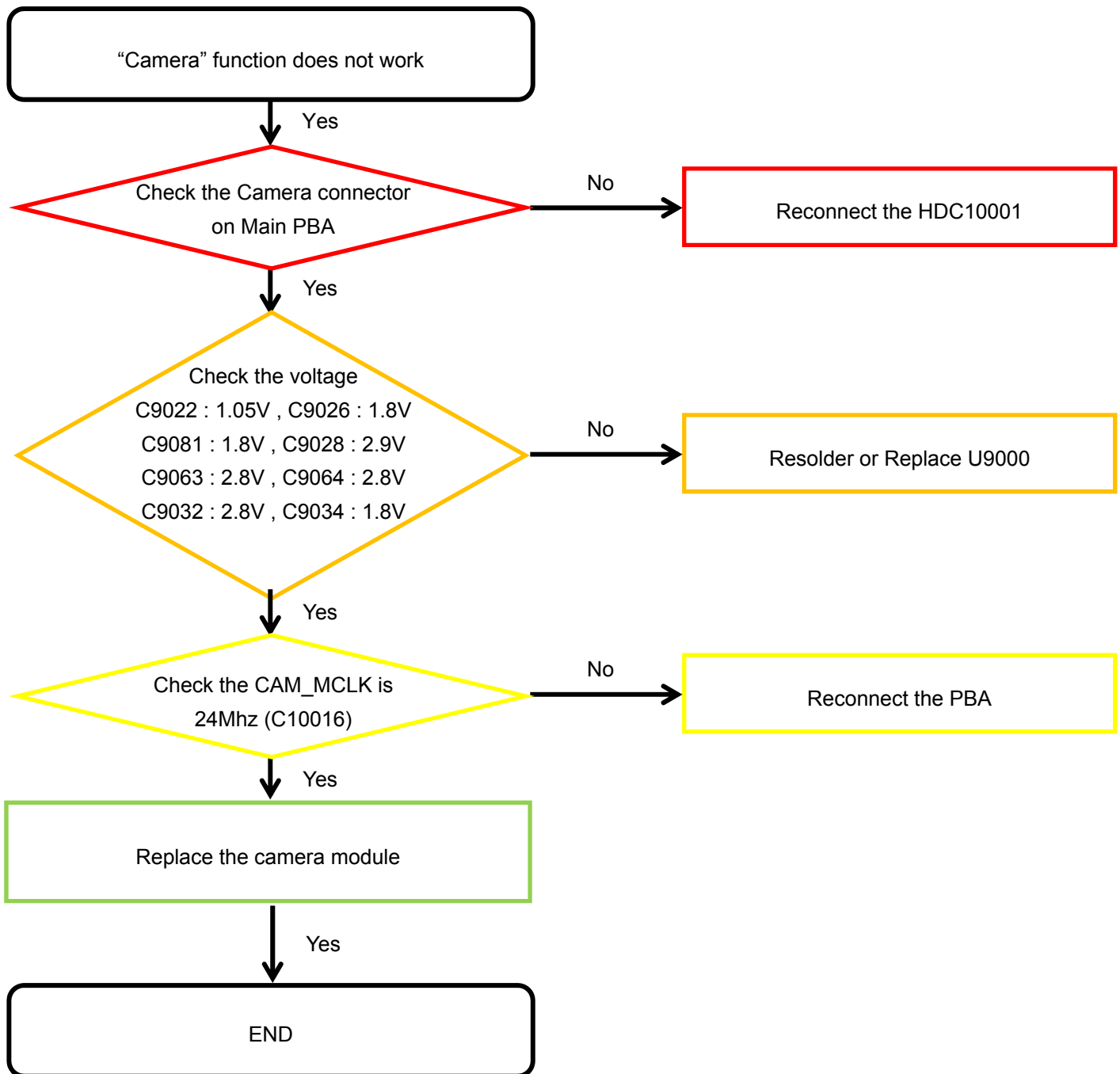
8. Level 3 Repair

8-4-15. VT CAMERA



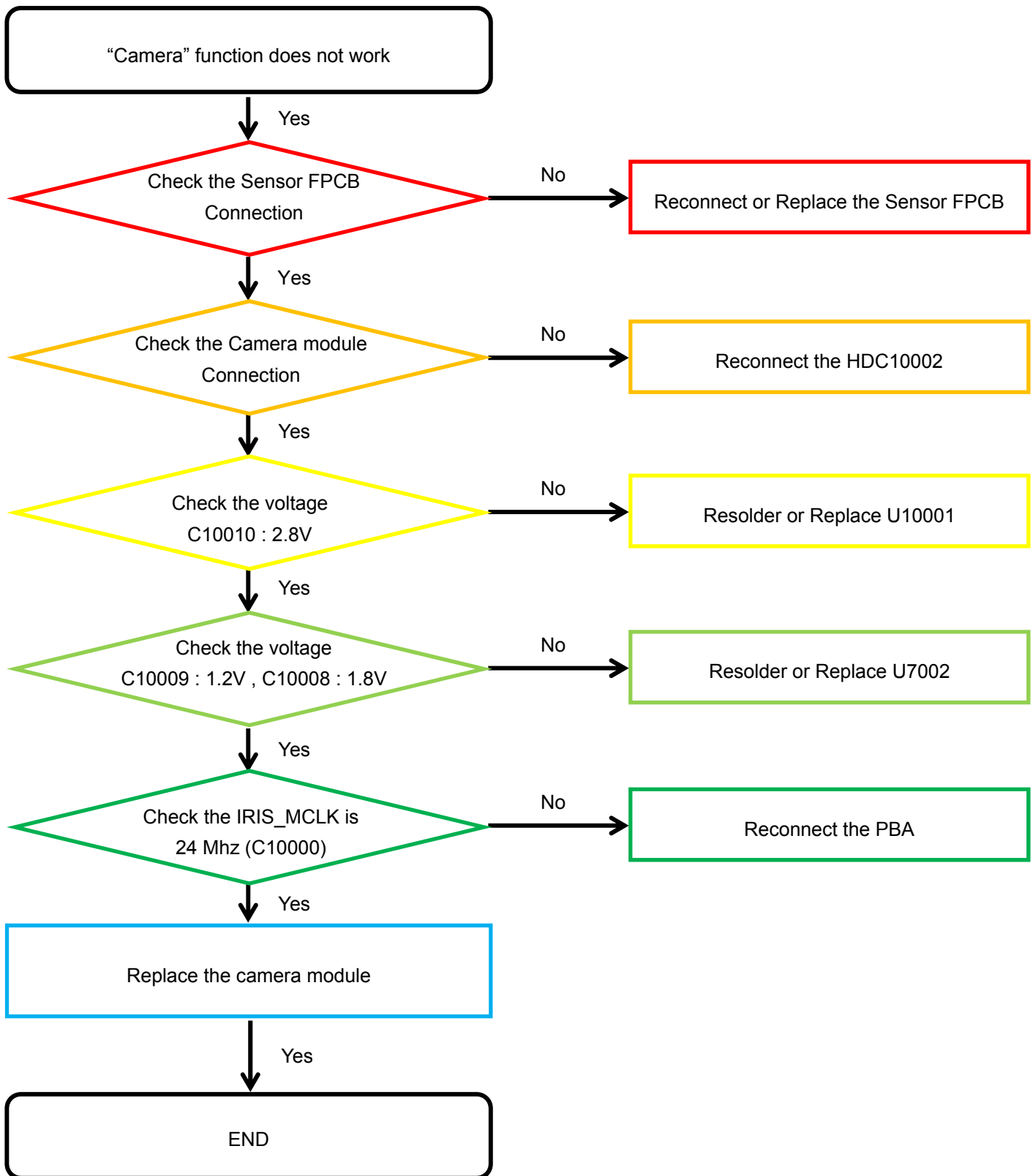
8. Level 3 Repair

8-4-16. 12M CAMERA



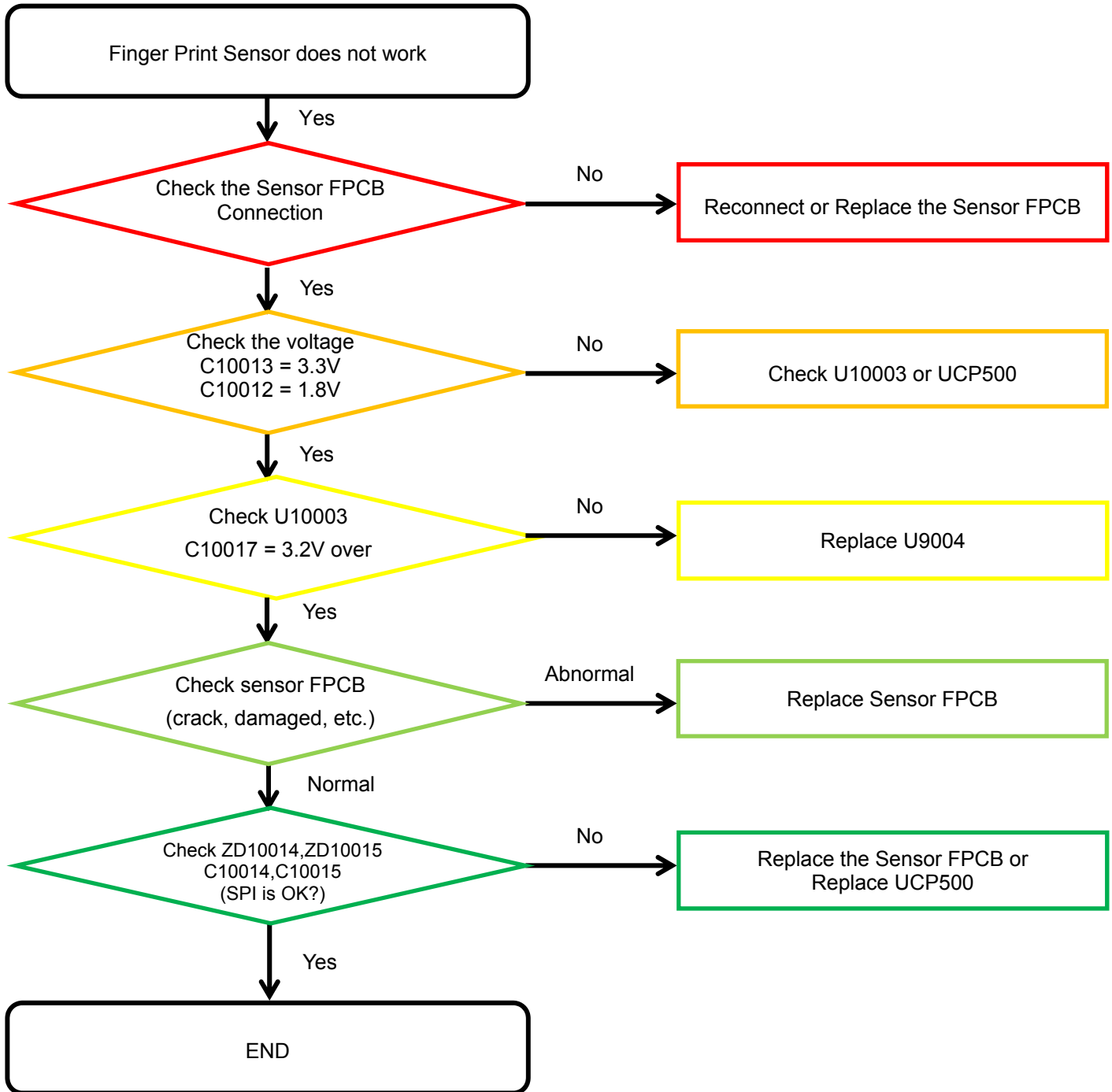
8. Level 3 Repair

8-4-17. IRIS CAMERA



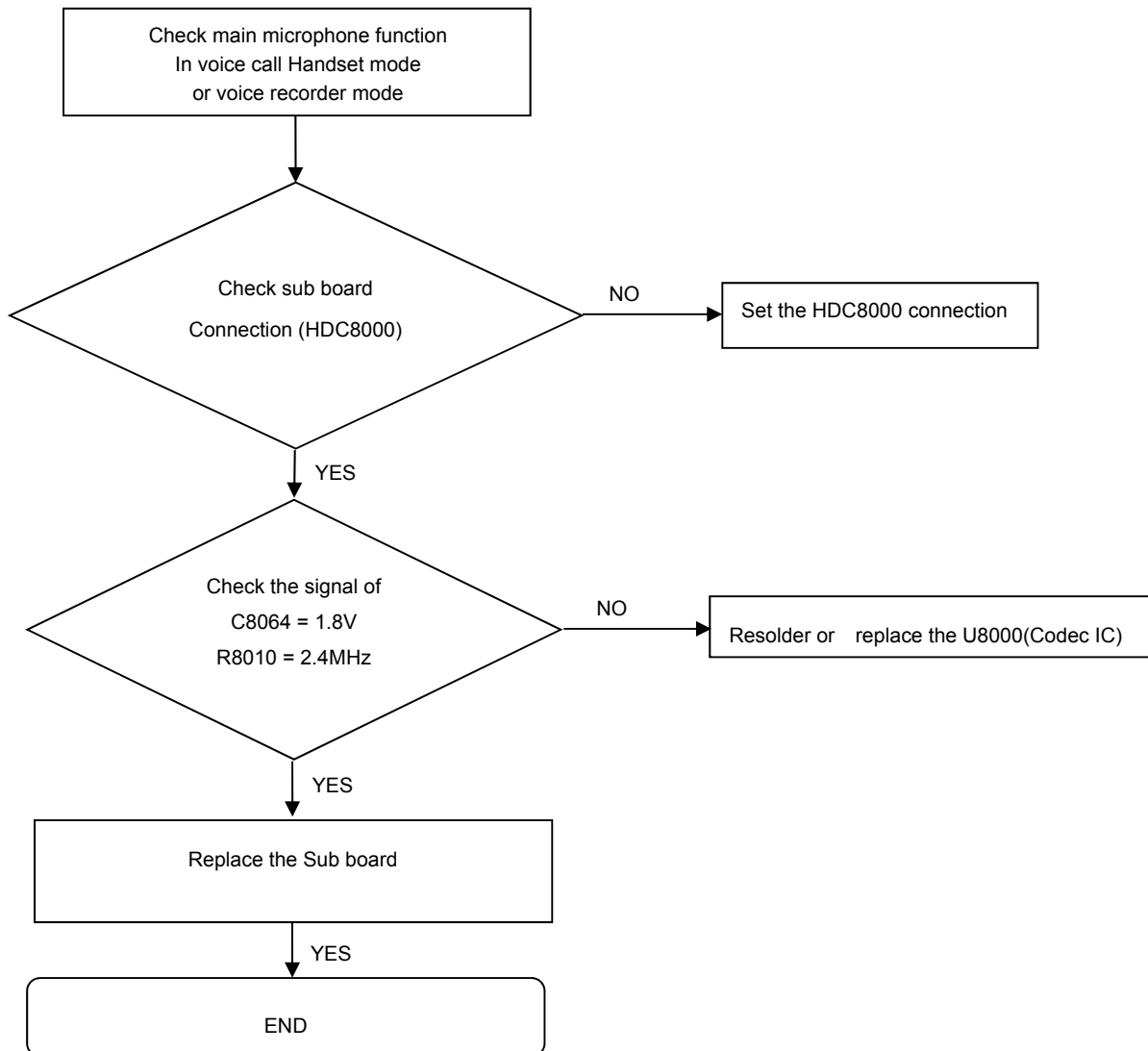
8. Level 3 Repair

8-4-18. Finger Print



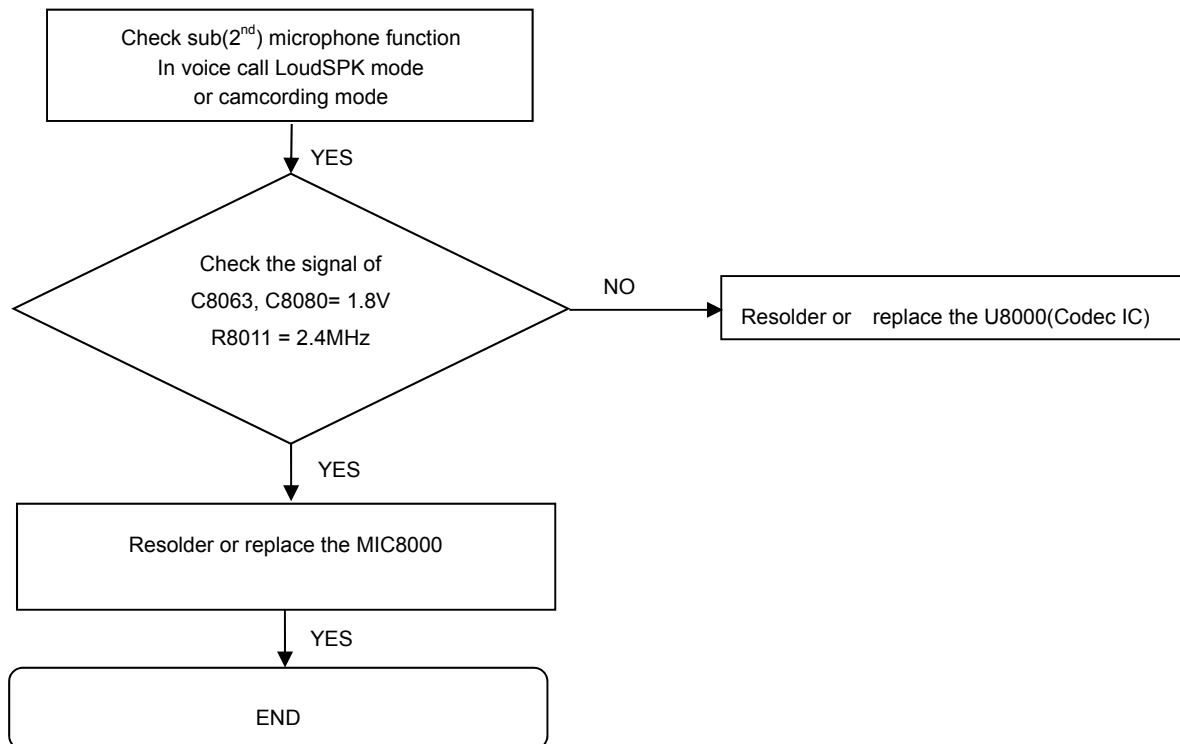
8. Level 3 Repair

8-4-19-1. Main MIC



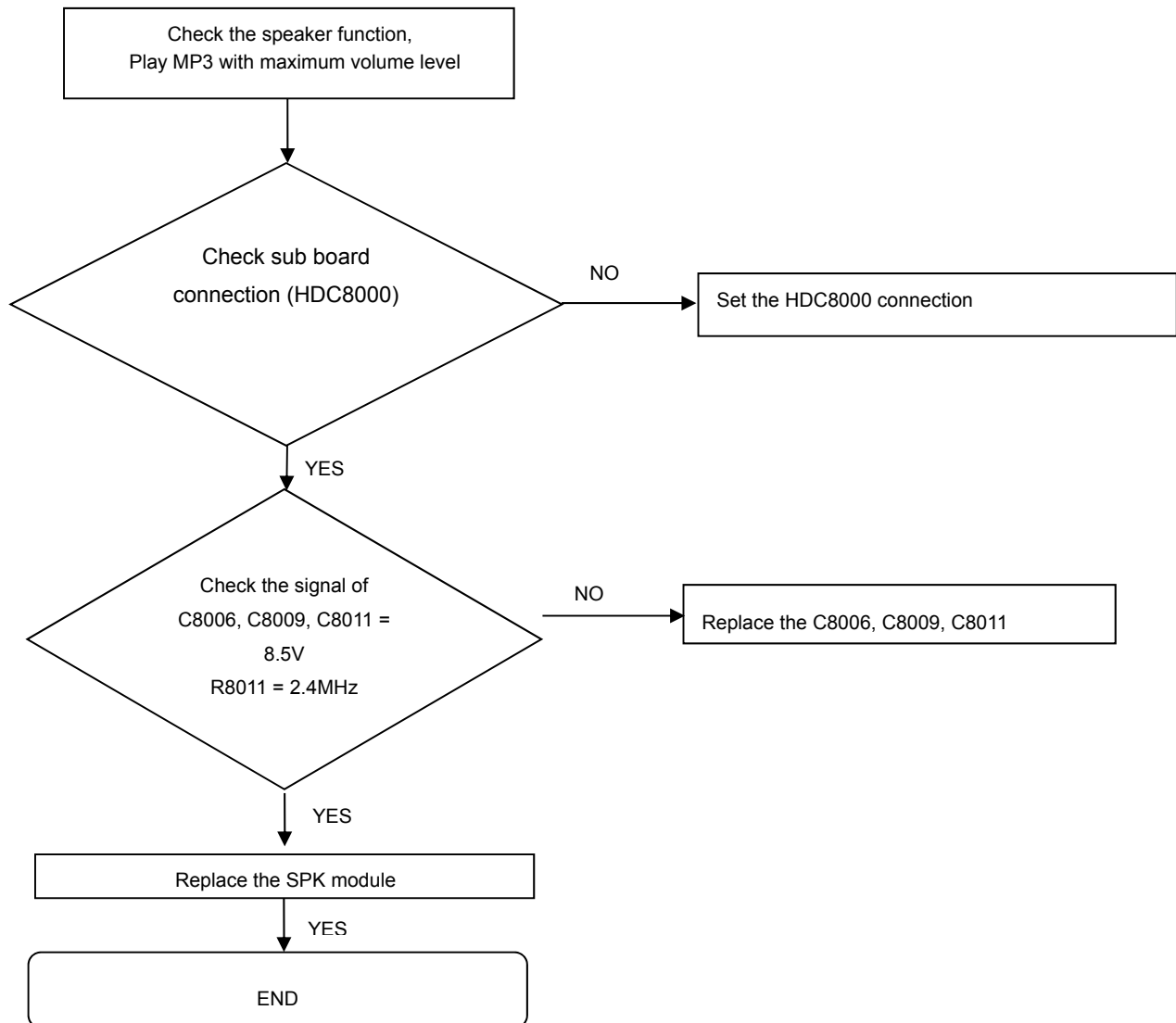
8. Level 3 Repair

8-4-19-2. Sub(2nd) MIC



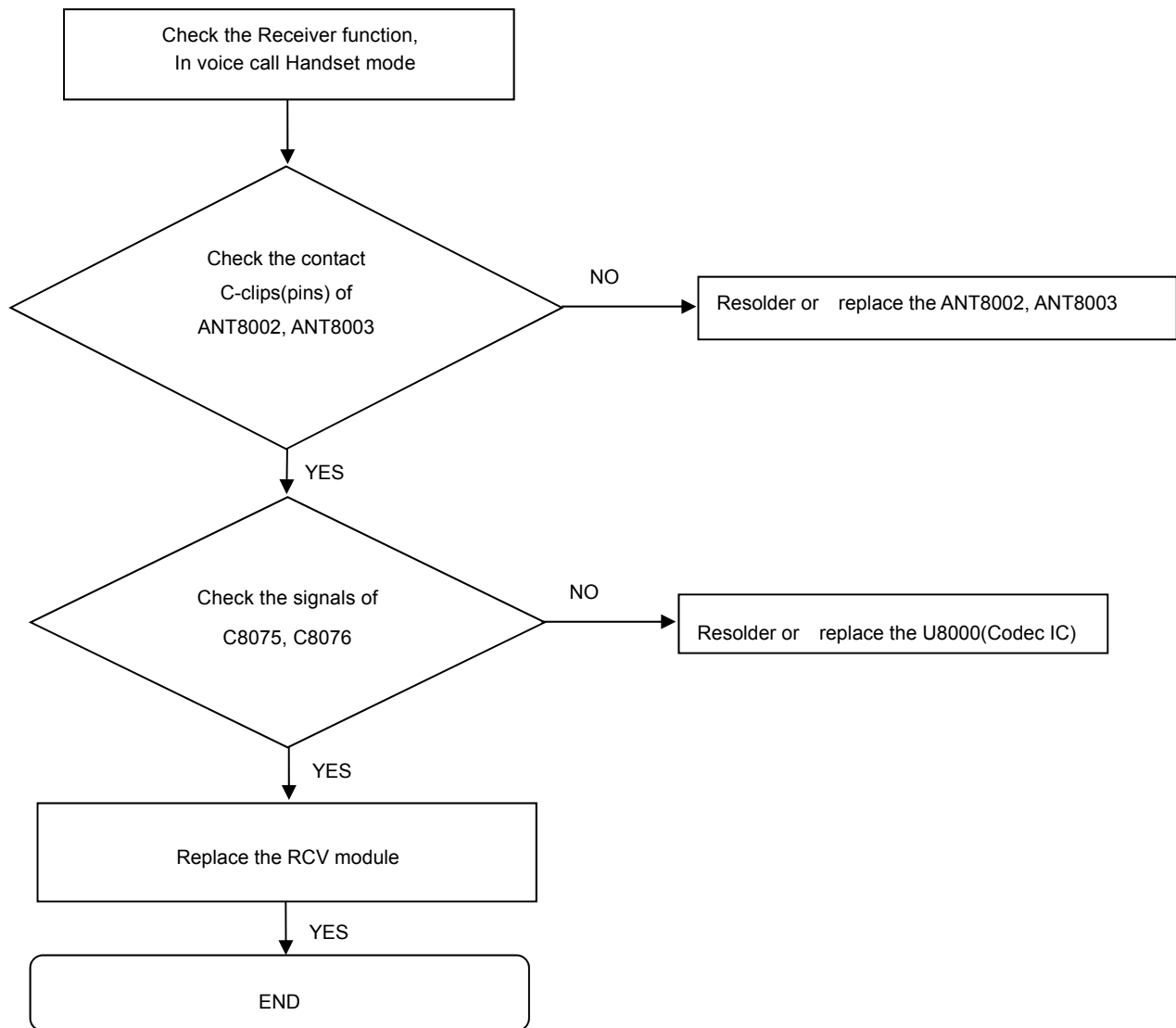
8. Level 3 Repair

8-4-20. Speaker part



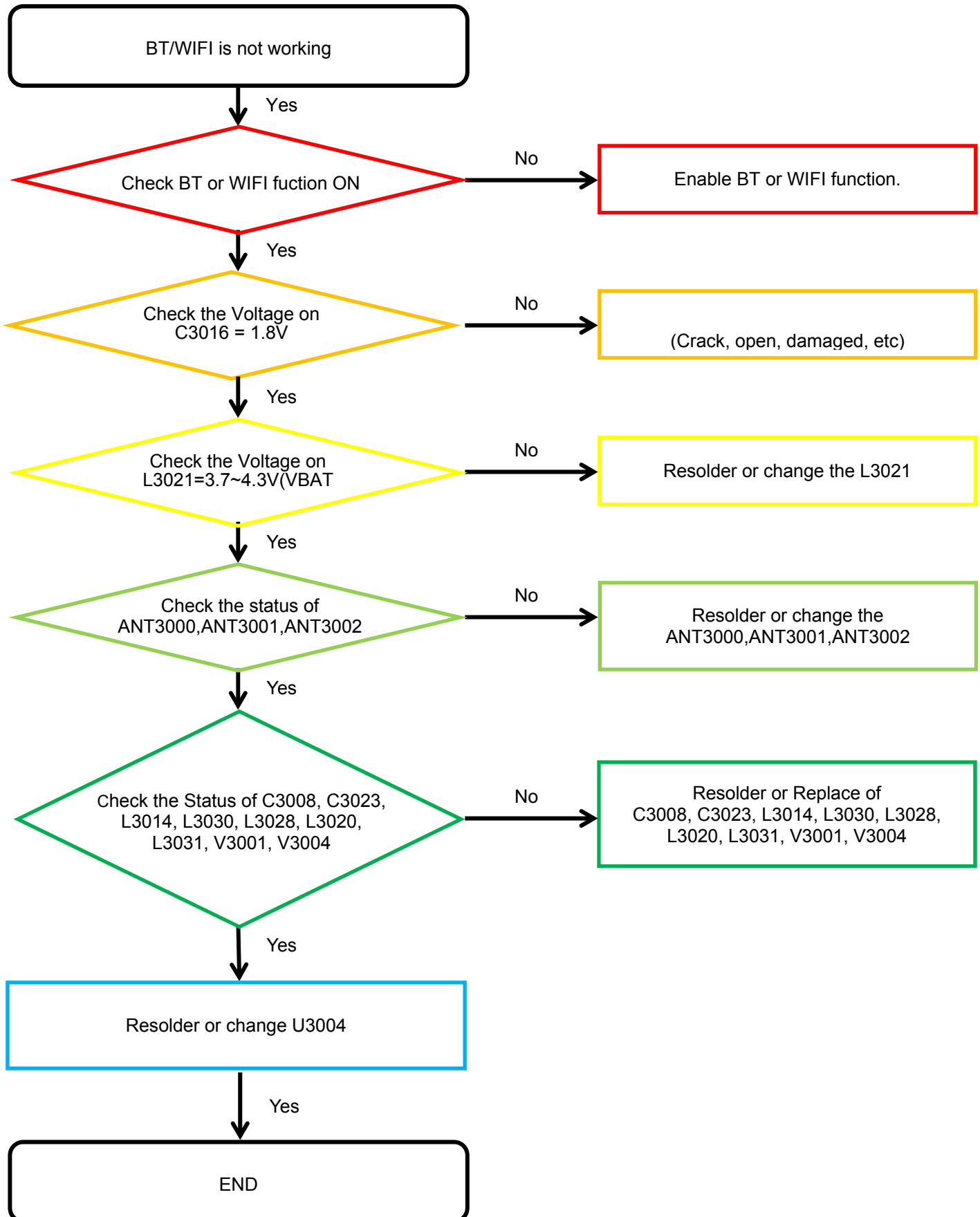
8. Level 3 Repair

8-4-21. Receiver part



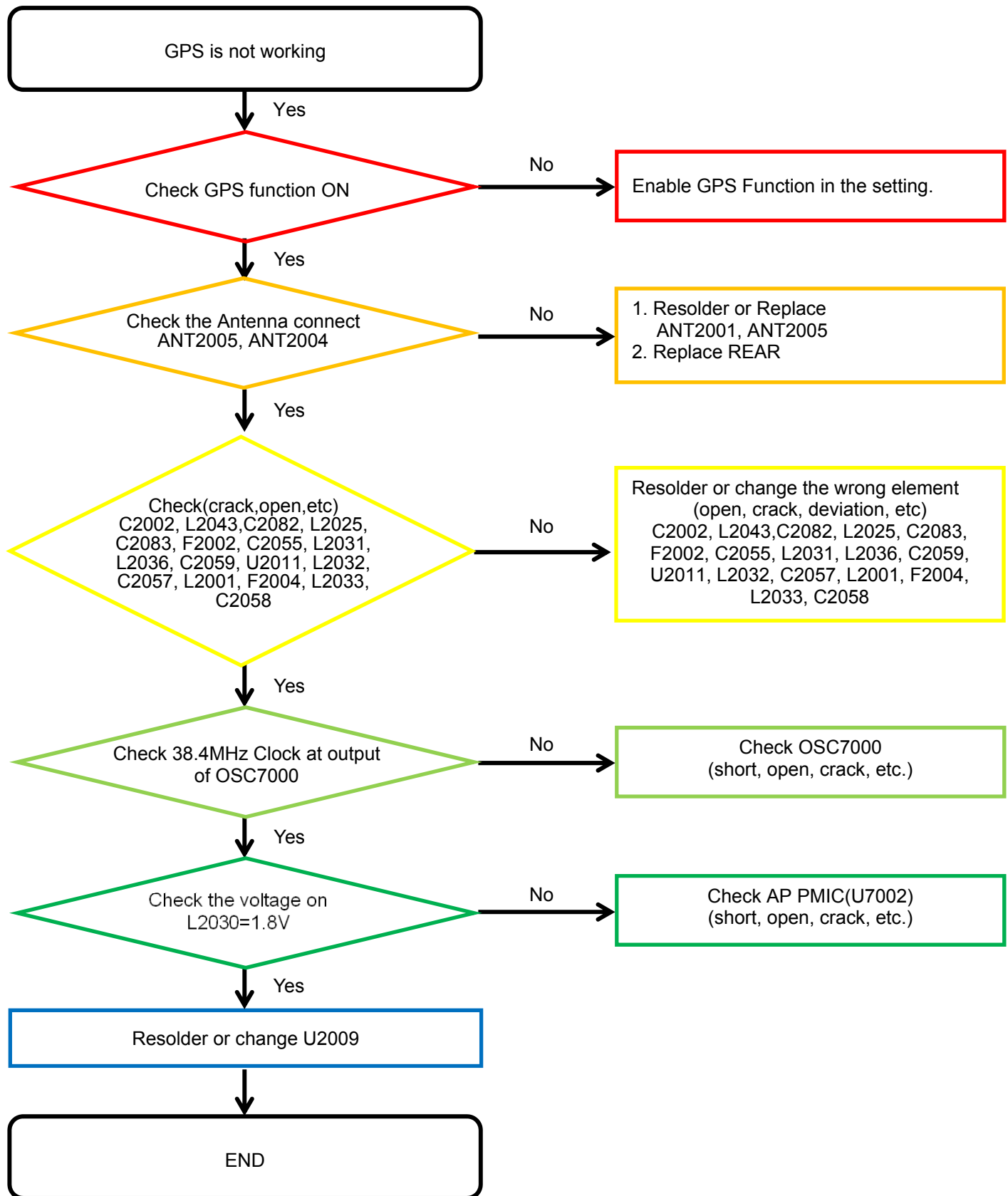
8. Level 3 Repair

8-4-22. BT/WIFI



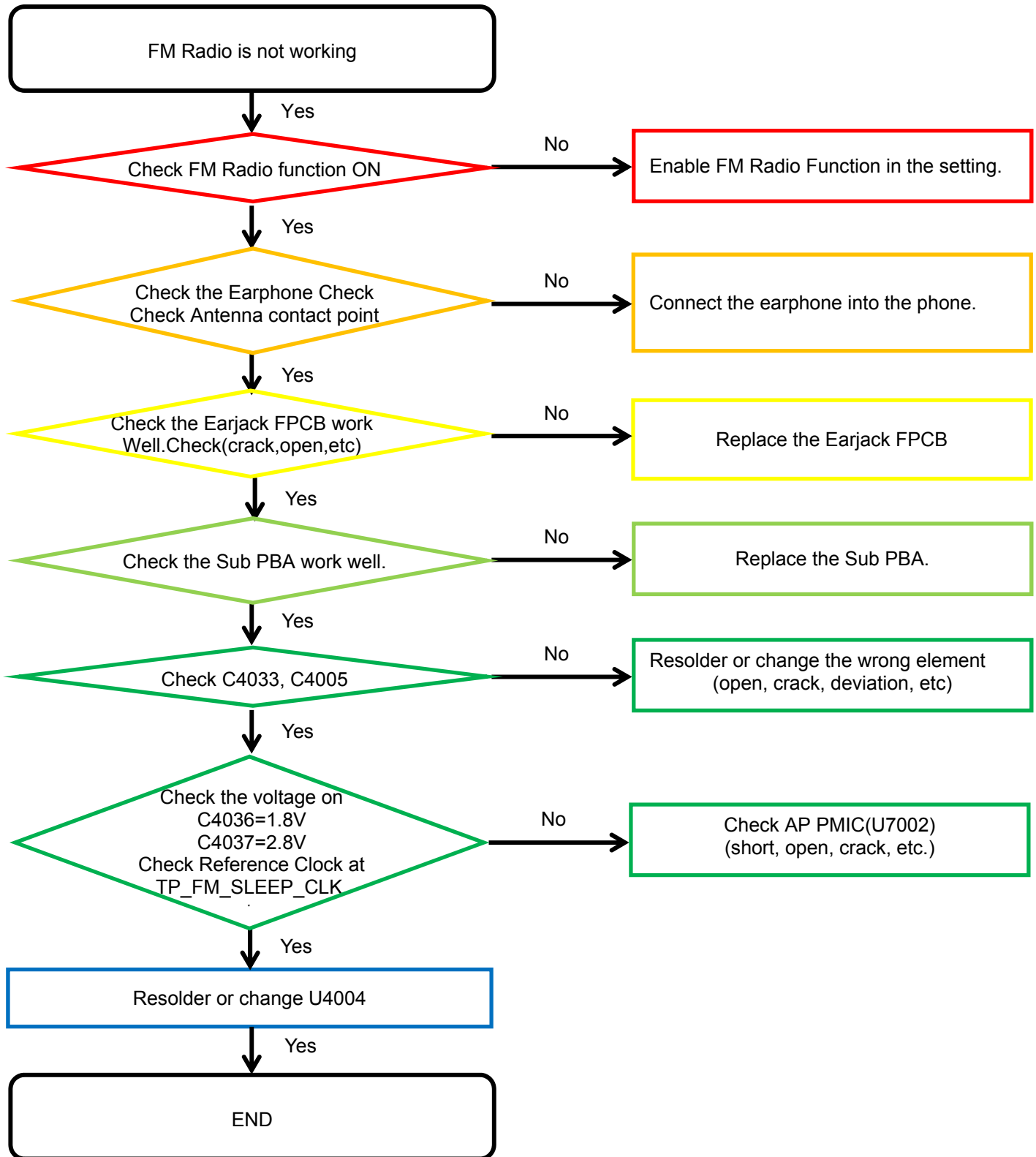
8. Level 3 Repair

8-4-23. GPS



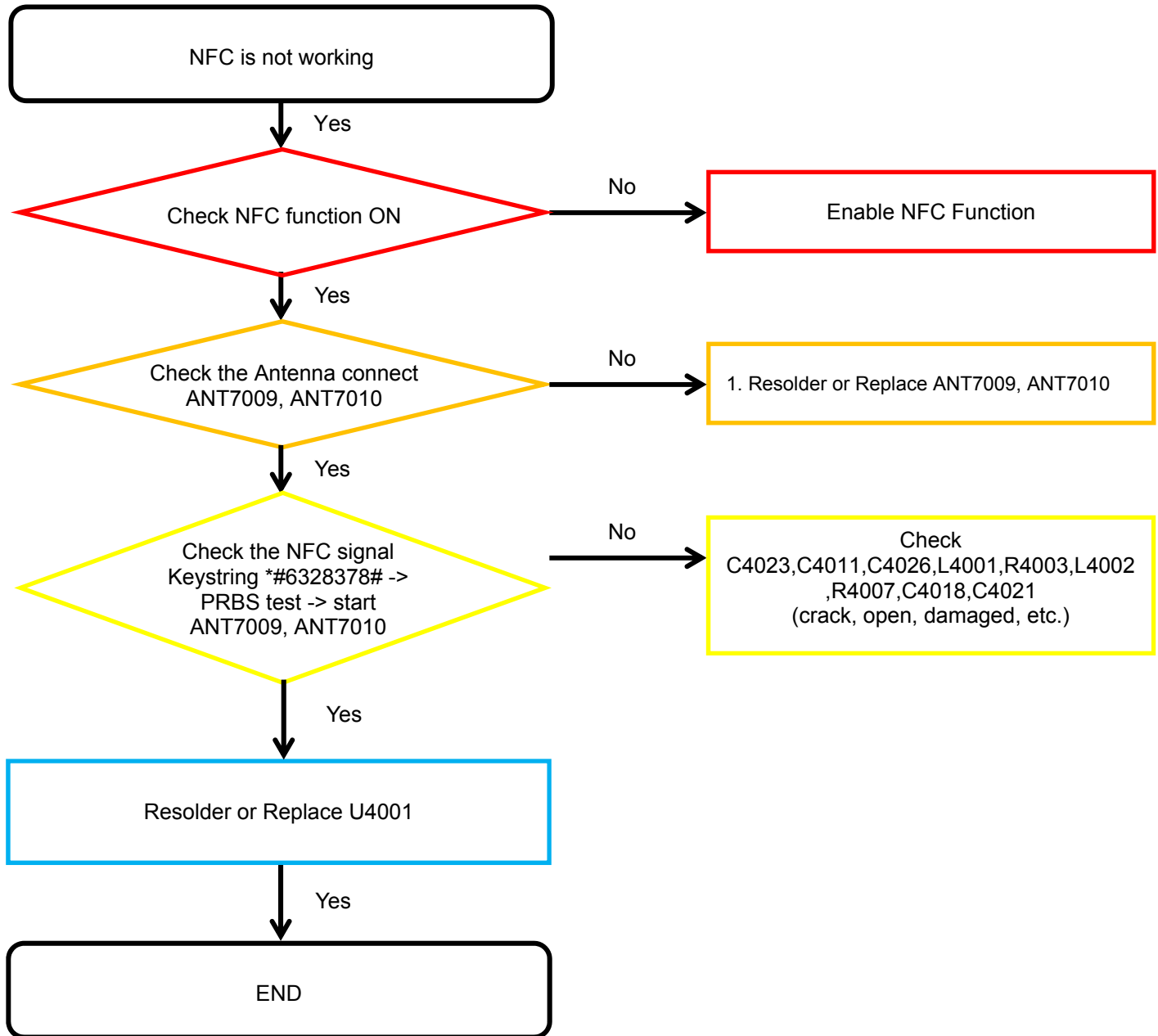
8. Level 3 Repair

8-4-24. FM Radio



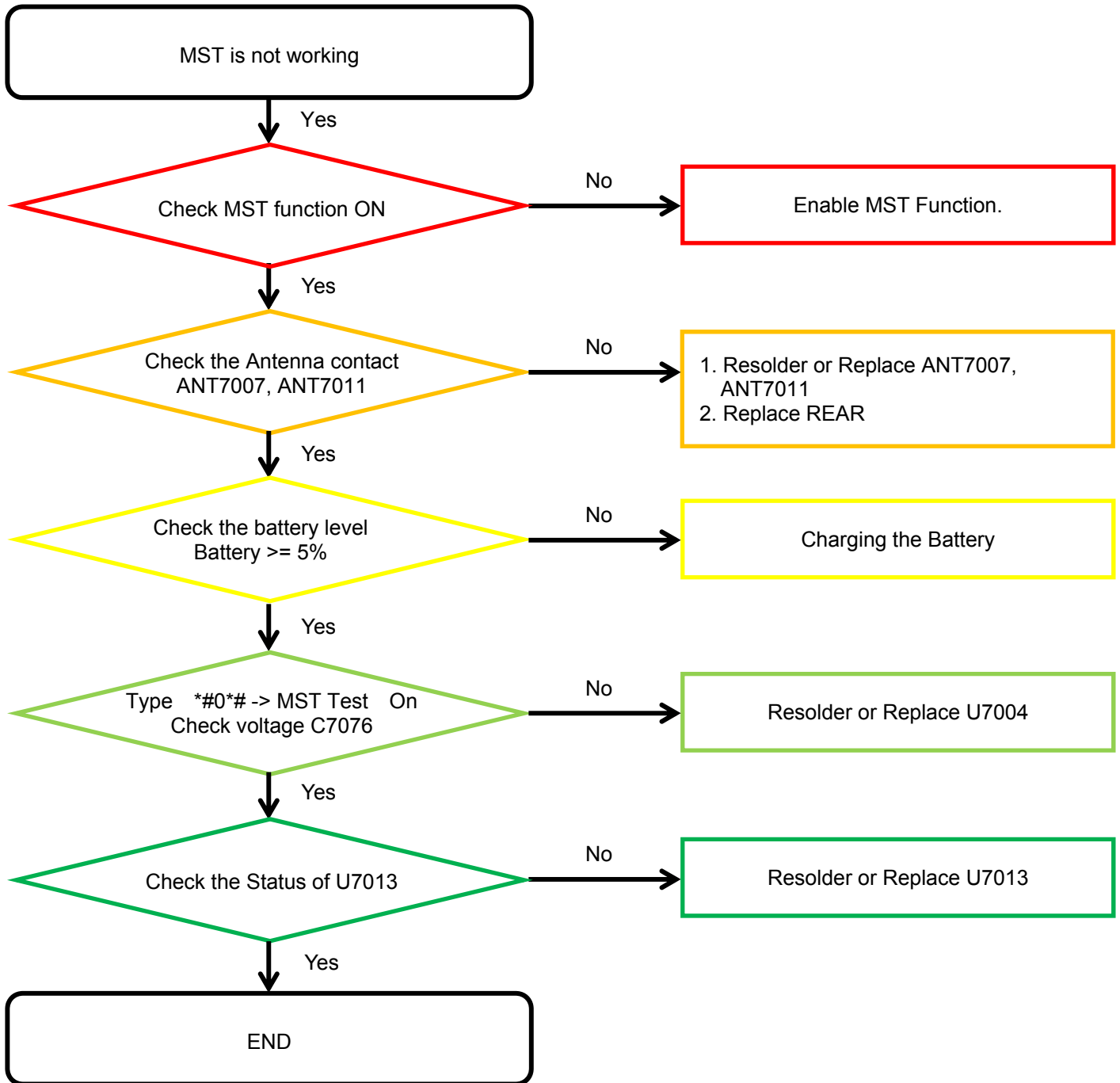
8. Level 3 Repair

8-4-26. NFC



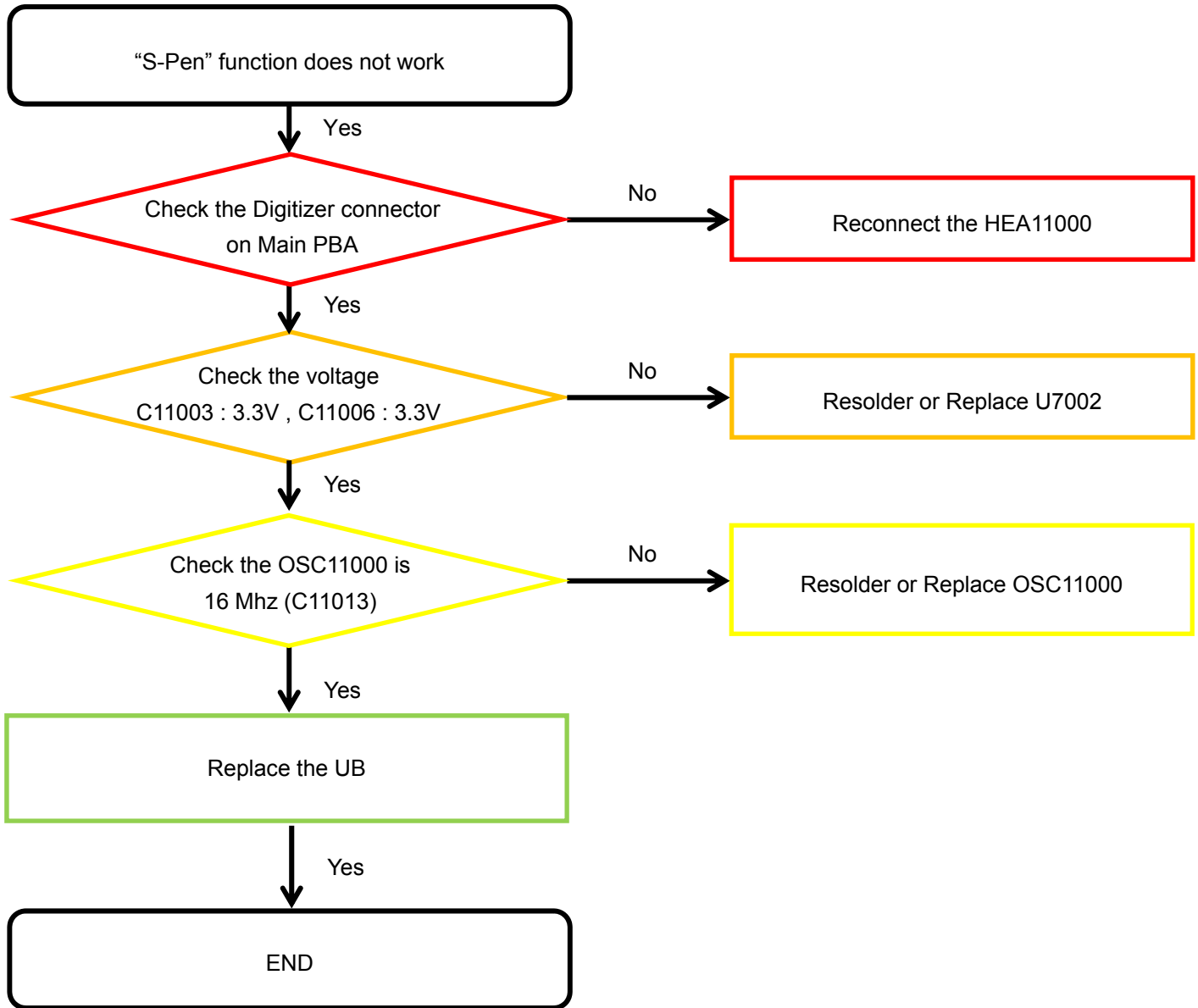
8. Level 3 Repair

8-4-27. MST



8. Level 3 Repair

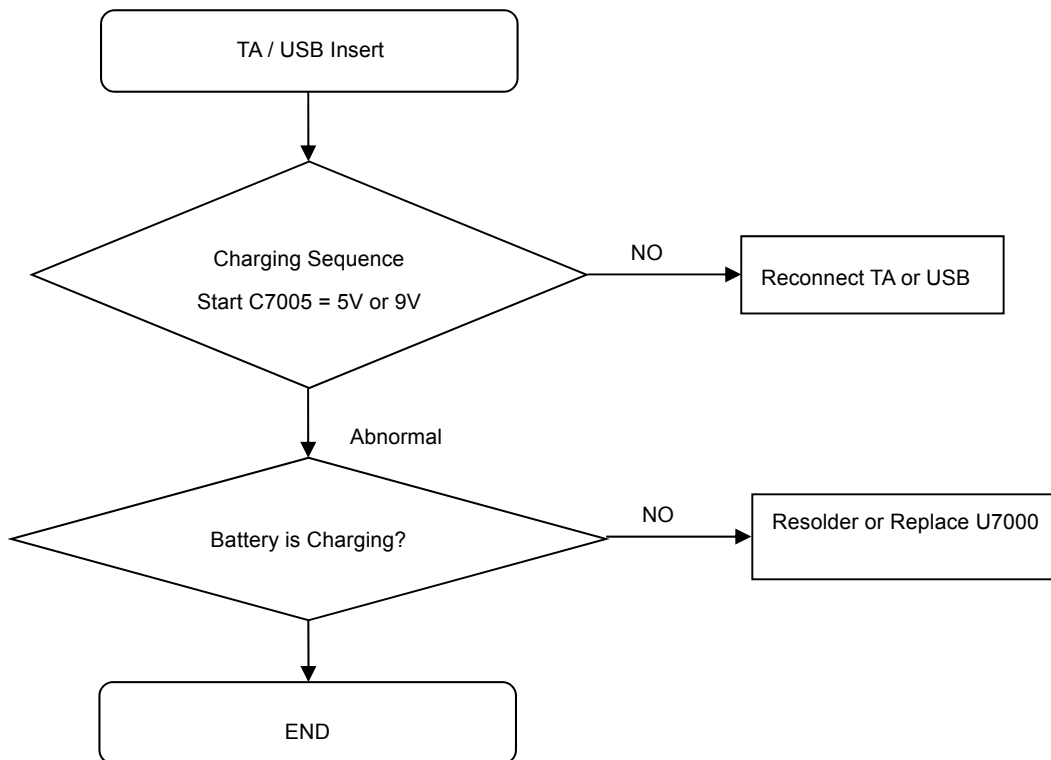
8-4-28. SPEN



8. Level 3 Repair

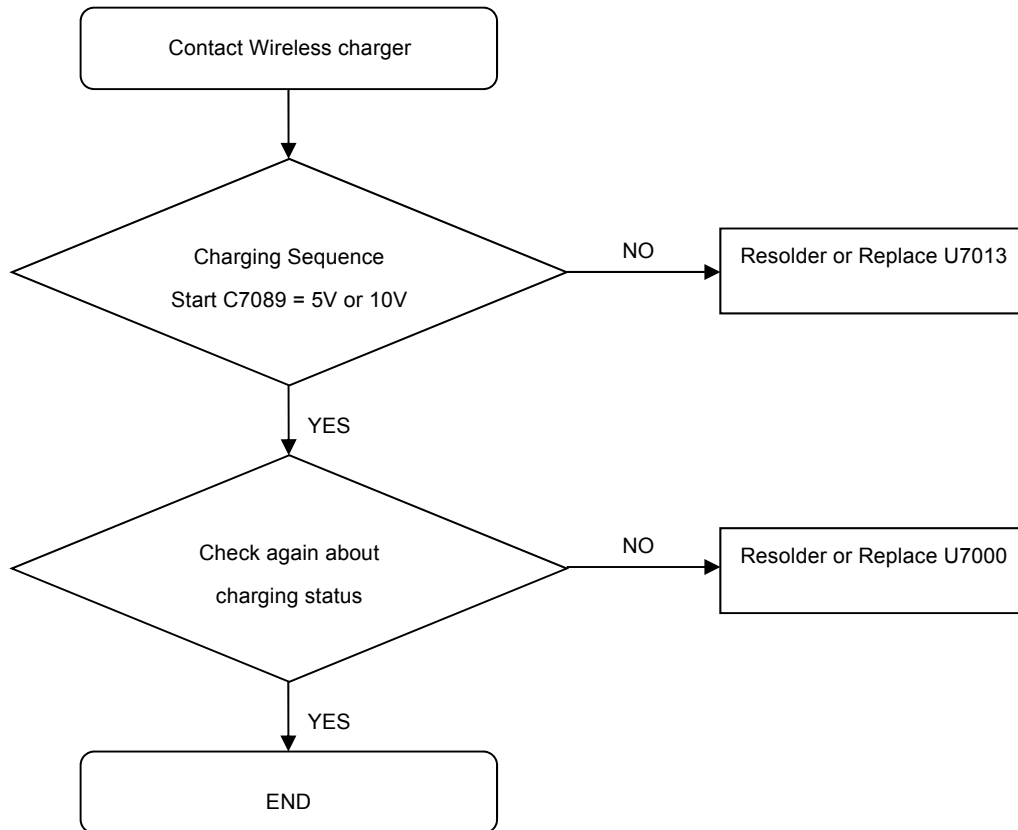
8-4-29. Charging Part

Wire Charging (Normal, Fast)



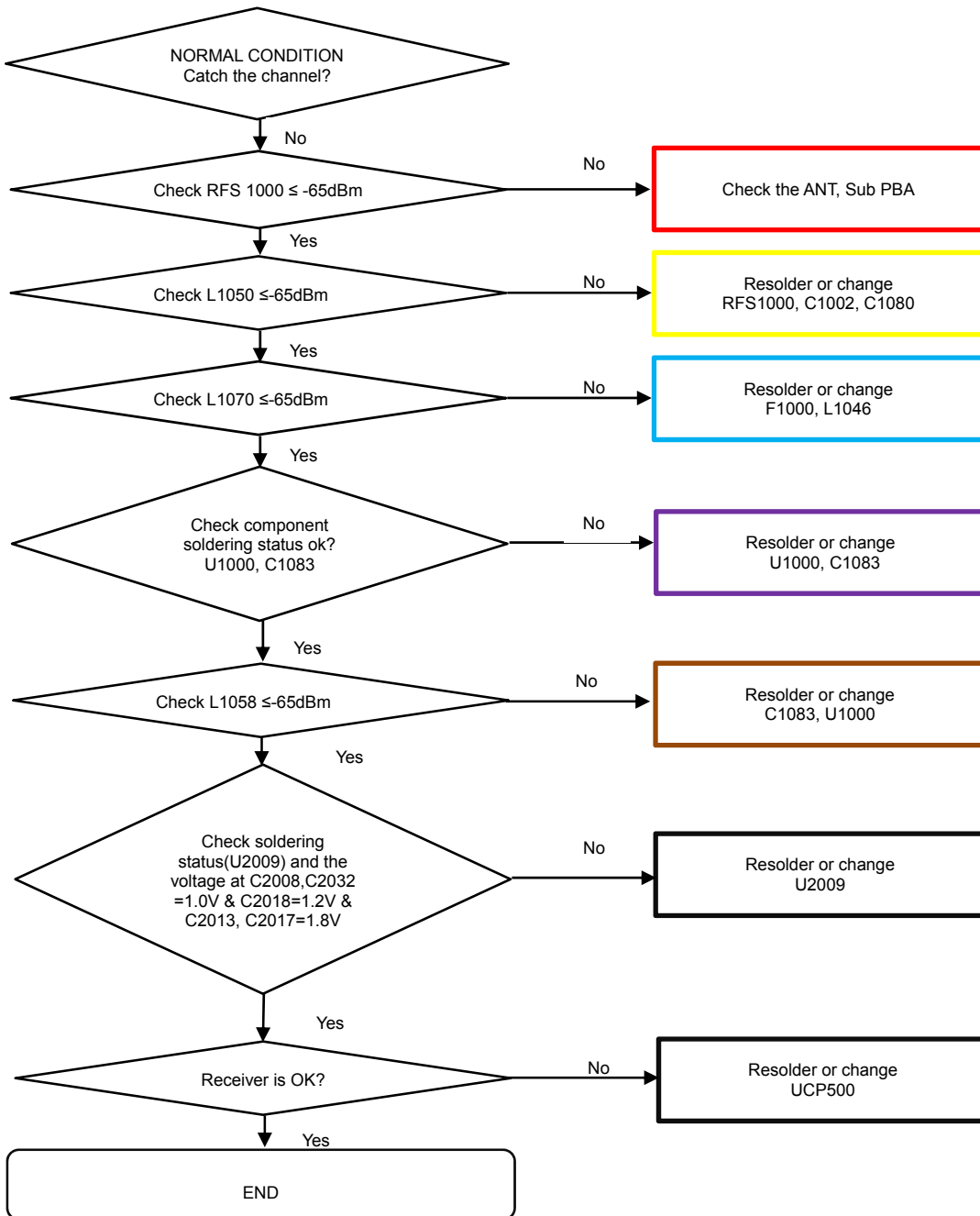
8. Level 3 Repair

Wireless Charging



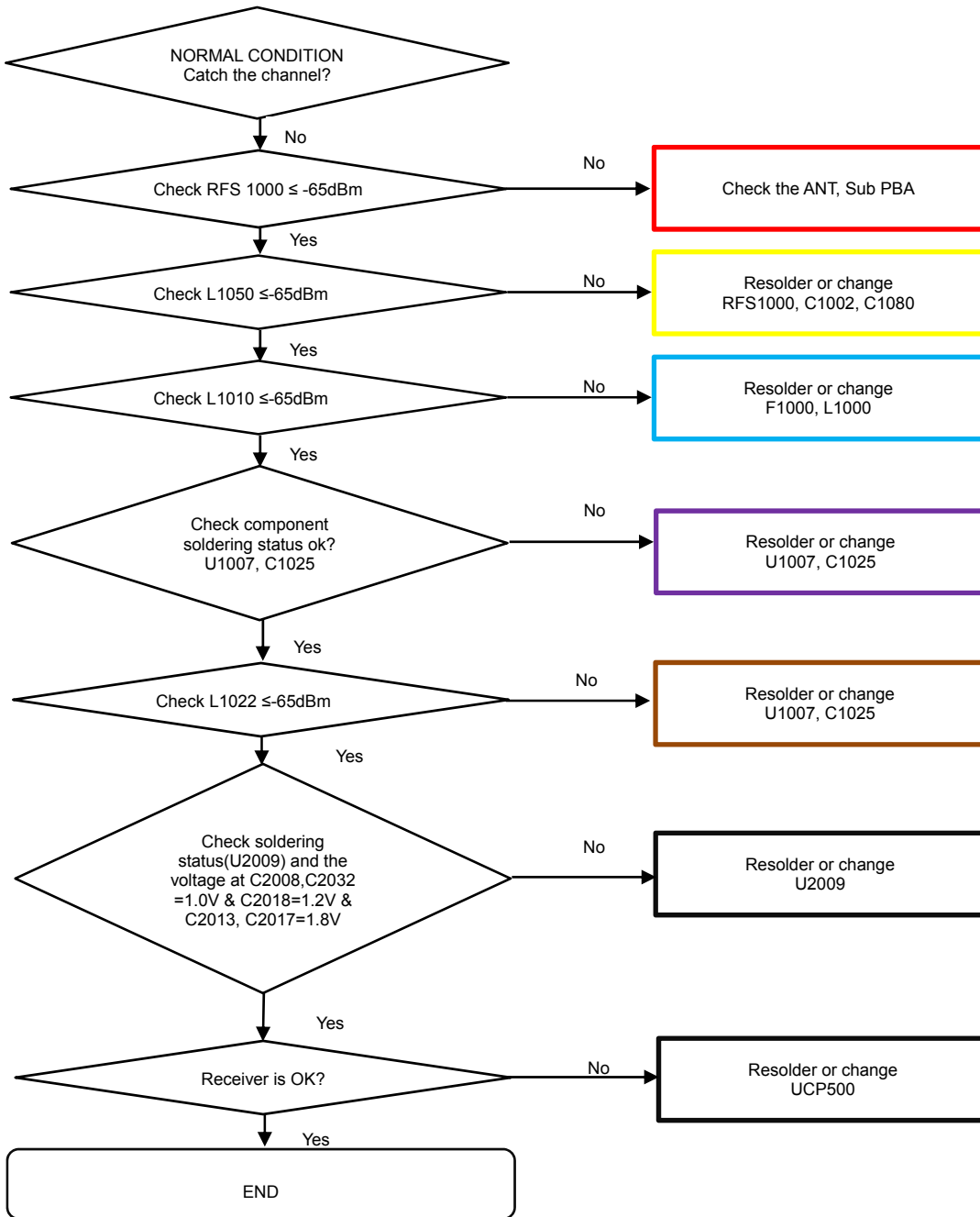
8. Level 3 Repair

8-4-30. GSM 850/900, CDMA BC0, WCDMA B5/8, LTE B5/8/12/13/17/18/19/20/26/28 RX



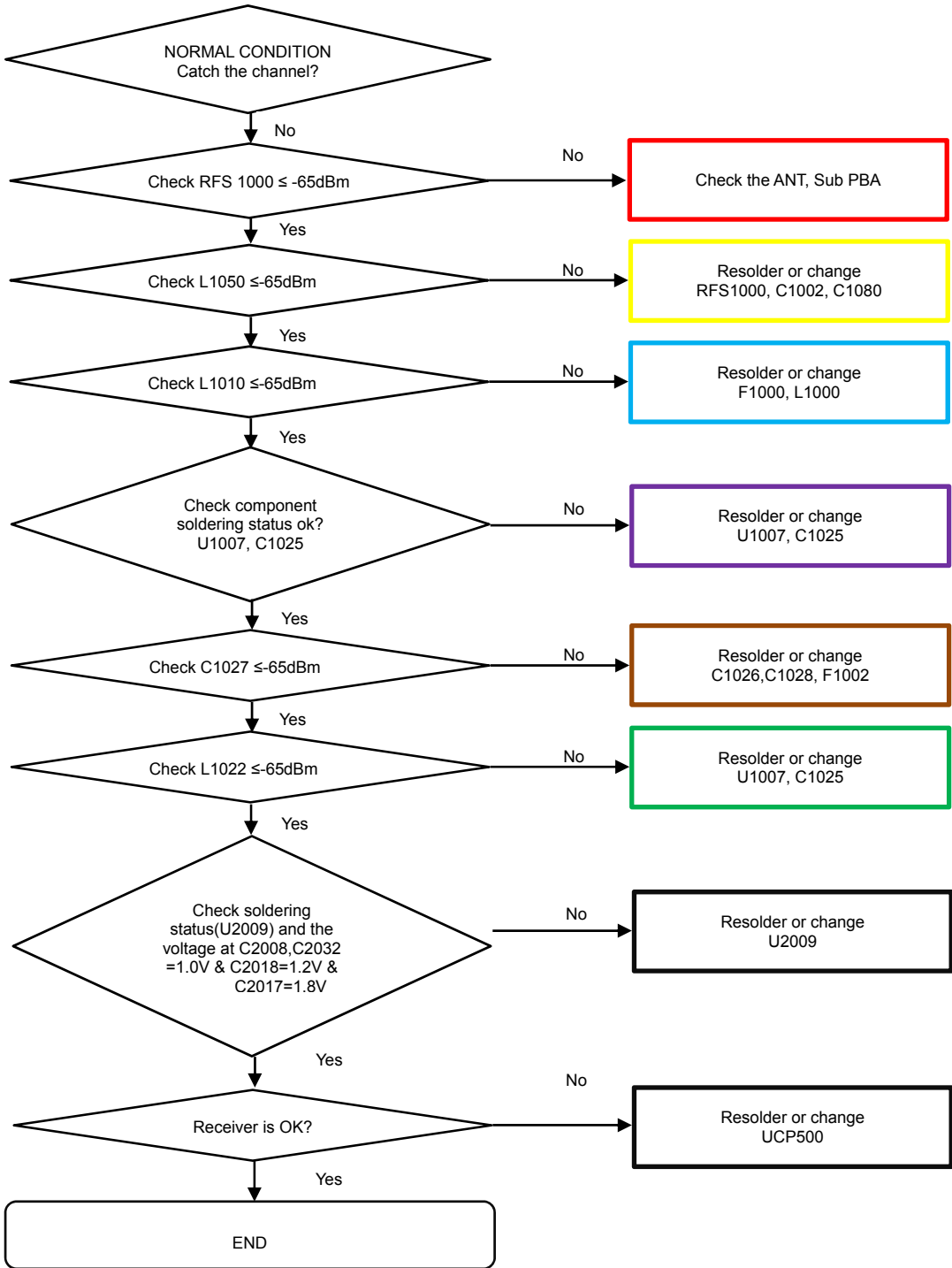
8. Level 3 Repair

8-4-31. GSM 1800/1900, WCDMA B1/2, LTE B1/2/4/25 RX



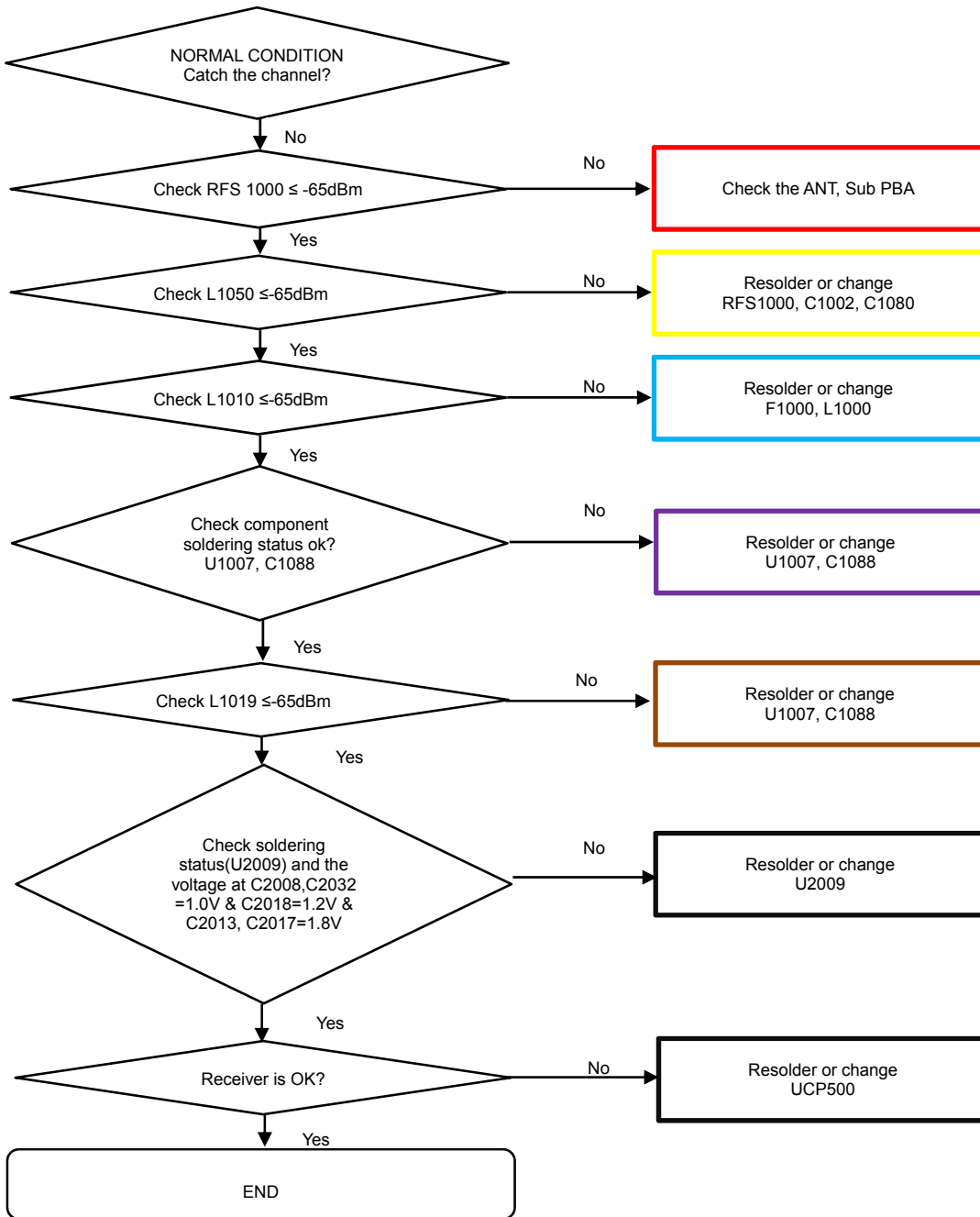
8. Level 3 Repair

8-4-32. TDSCDMA B34/39 LTE B34/39 RX



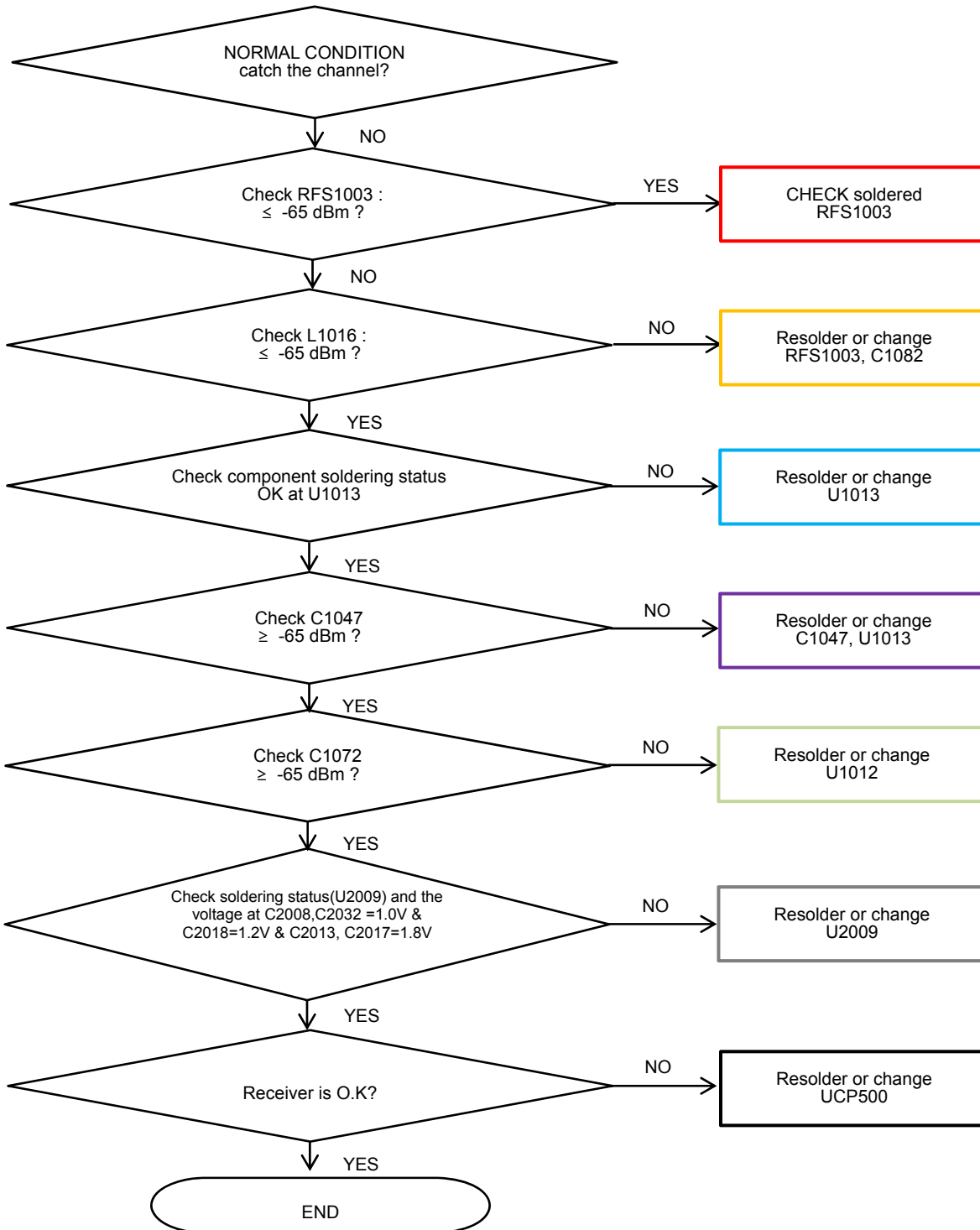
8. Level 3 Repair

8-4-33. LTE B3 RX



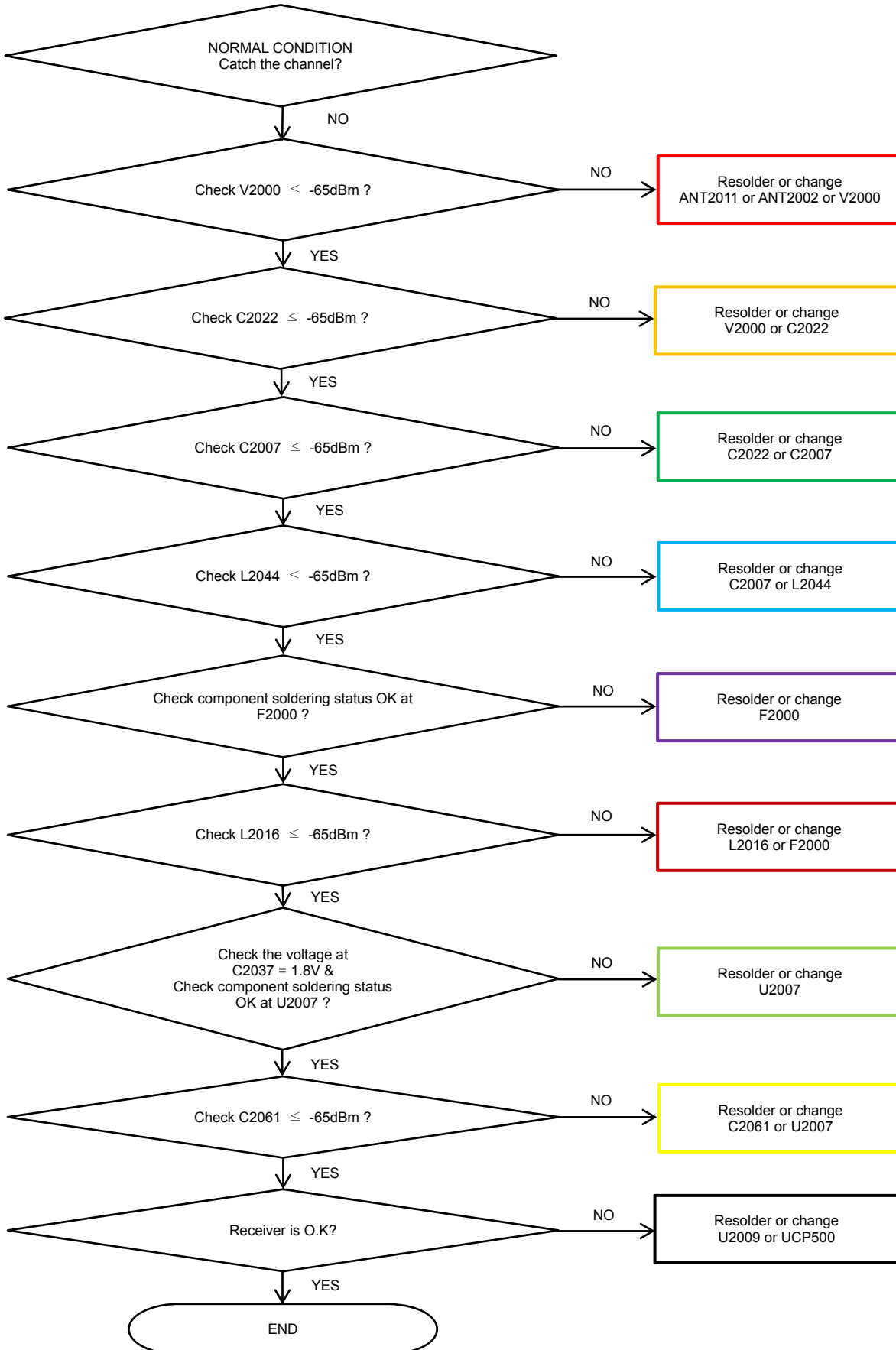
8. Level 3 Repair

8-4-33. LTE B7/38/40/41 RX



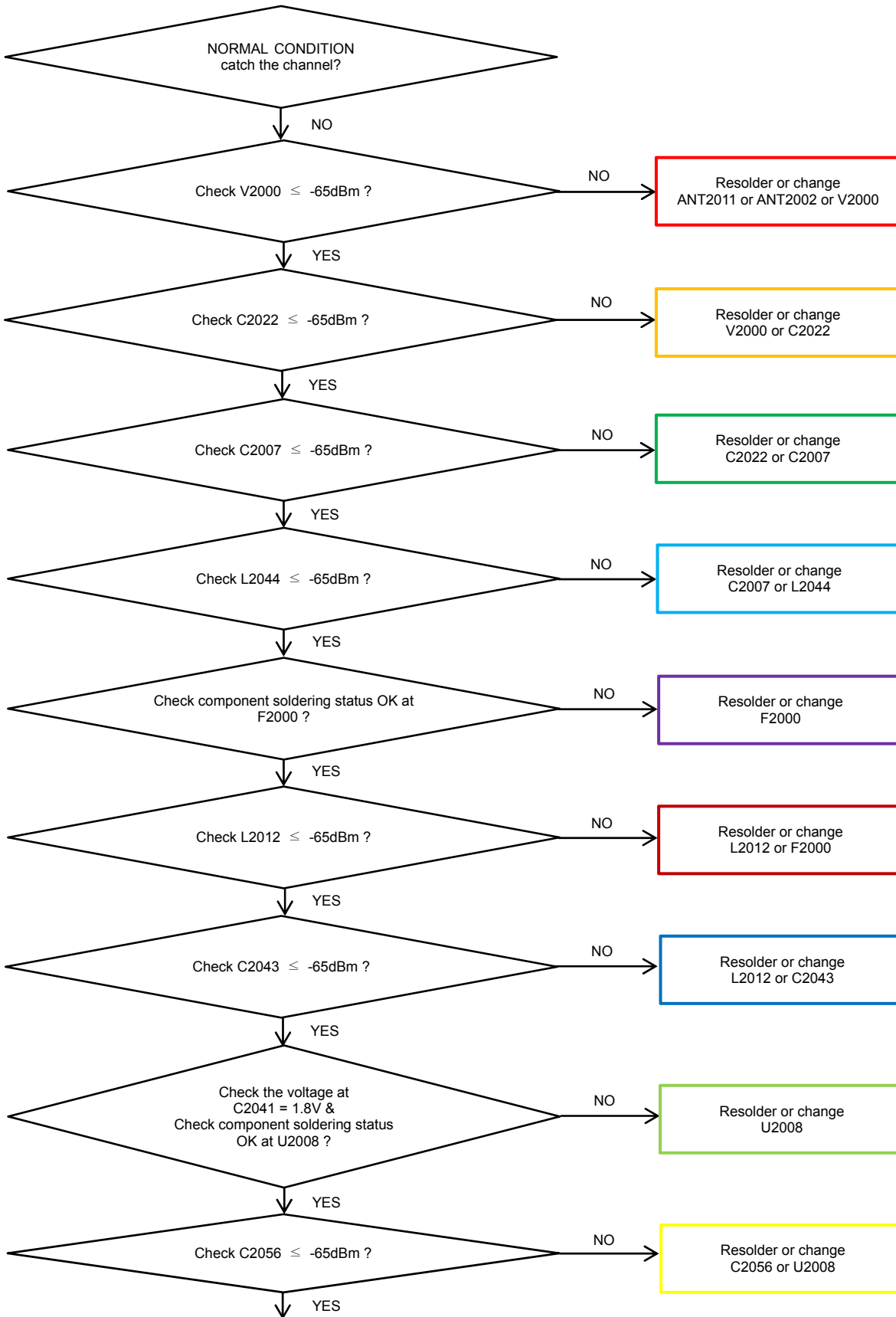
8. Level 3 Repair

8-4-35. CDMA BC0, GSM 850/900, WCDMA B5/8, LTE B5/8/12/13/17/18/19/20/26/28 DRX

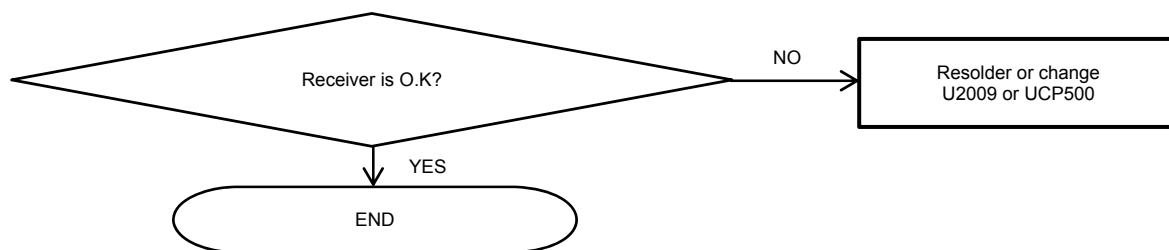


8. Level 3 Repair

8-4-36. LTE B39 DRX

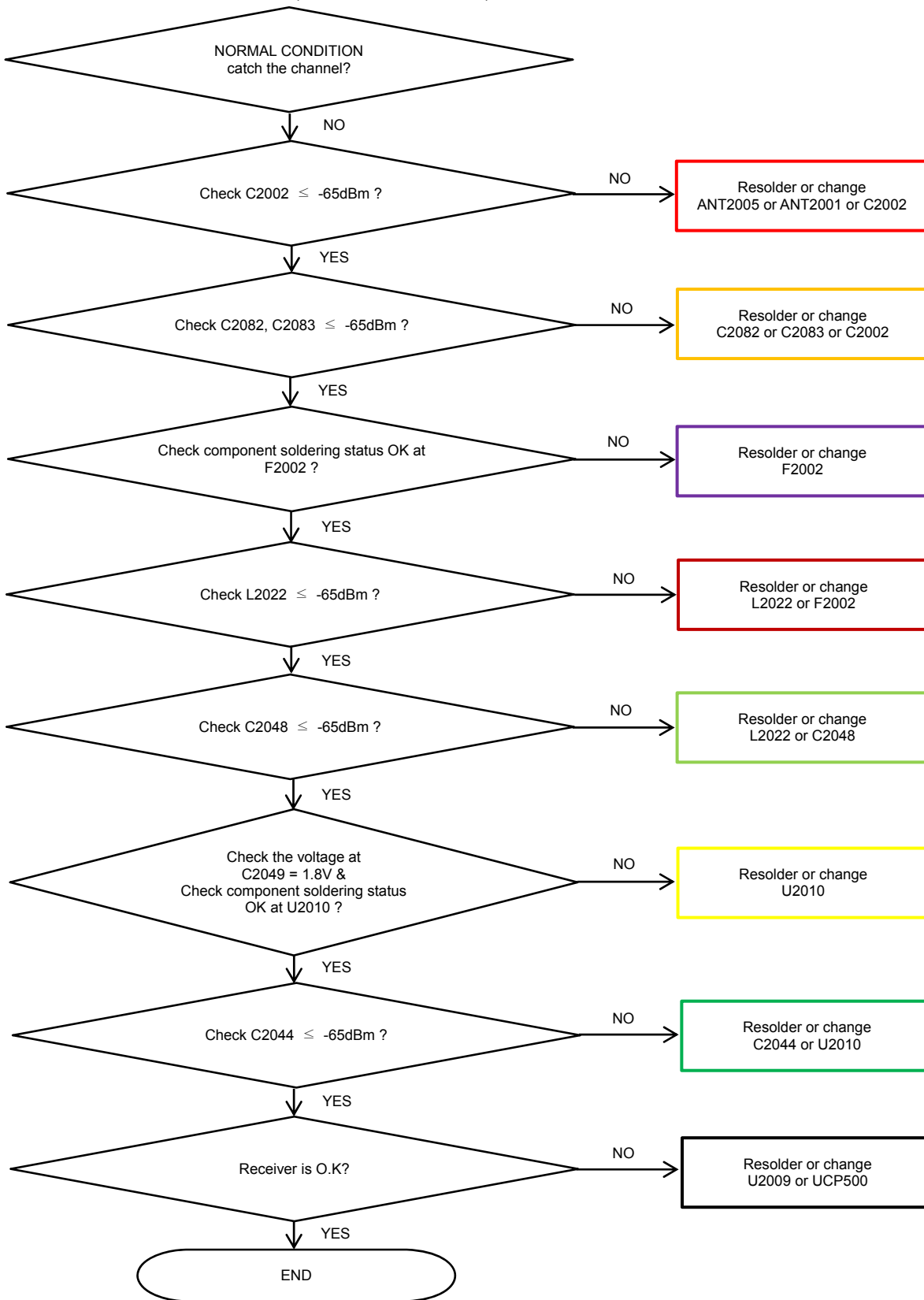


8. Level 3 Repair



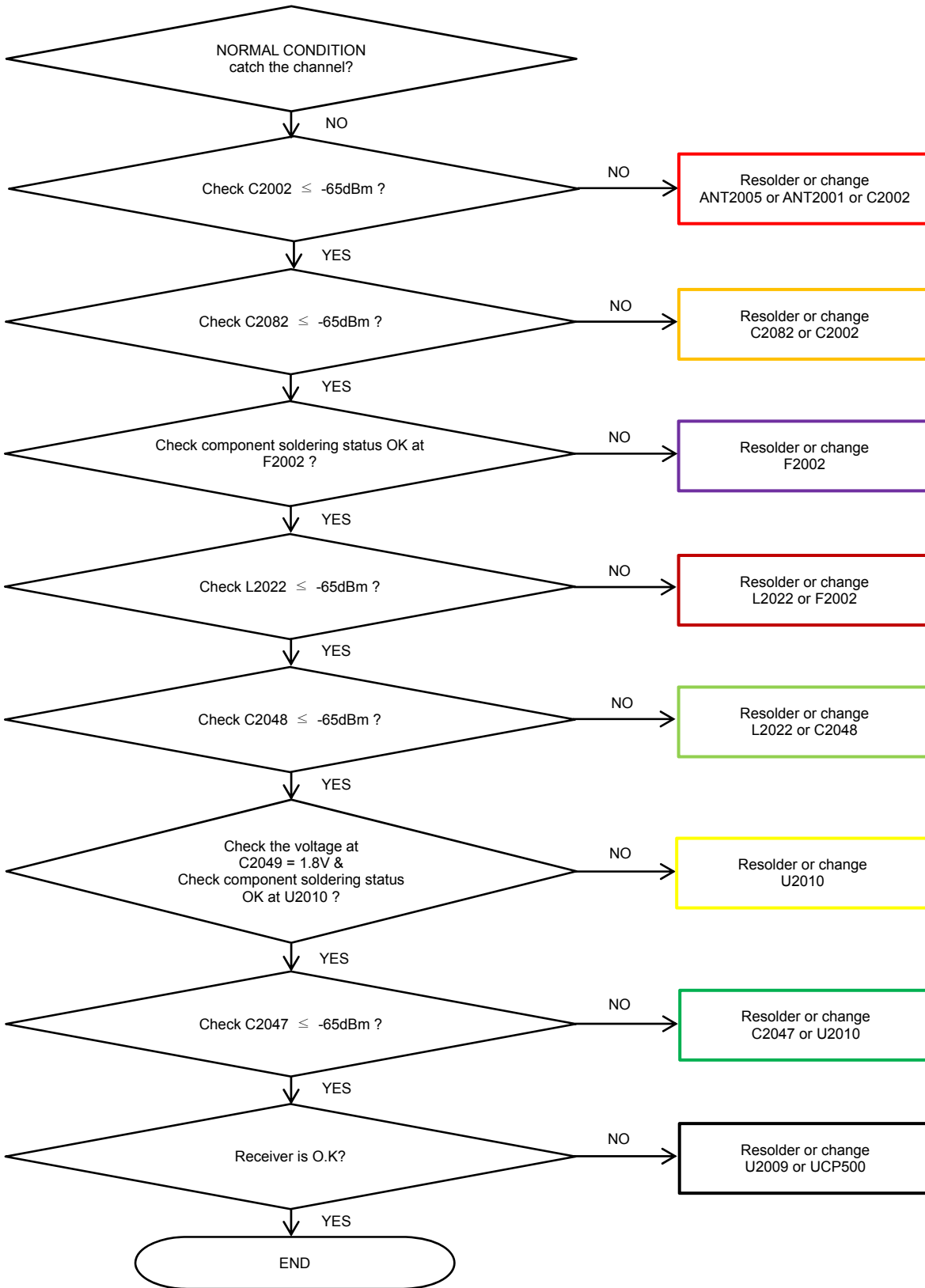
8. Level 3 Repair

8-4-37. GSM1800/1900, WCDMA B1/2, LTE B1/2/4/7/25/38/40/41 DRX



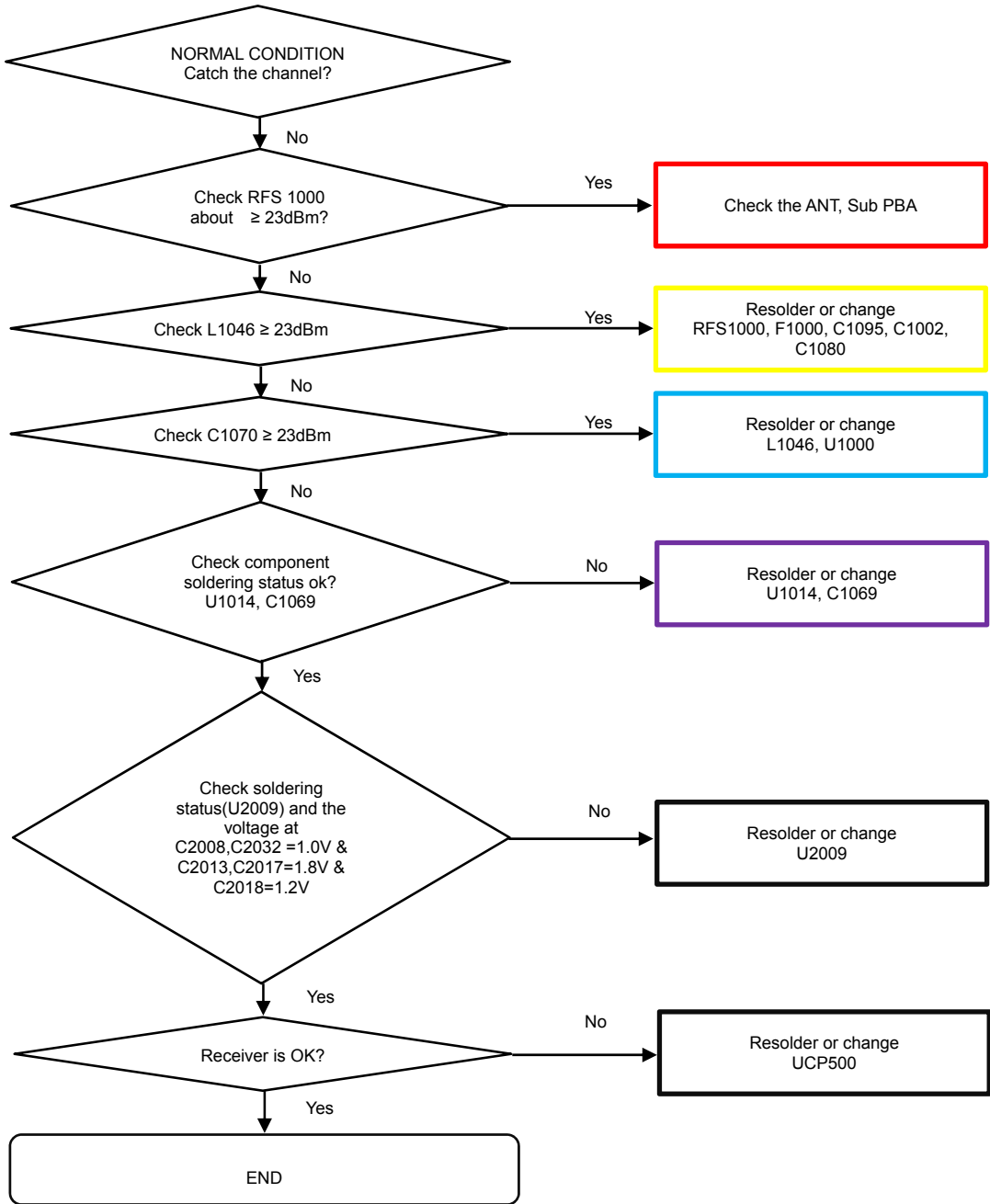
8. Level 3 Repair

8-4-38. LTE B3 DRX



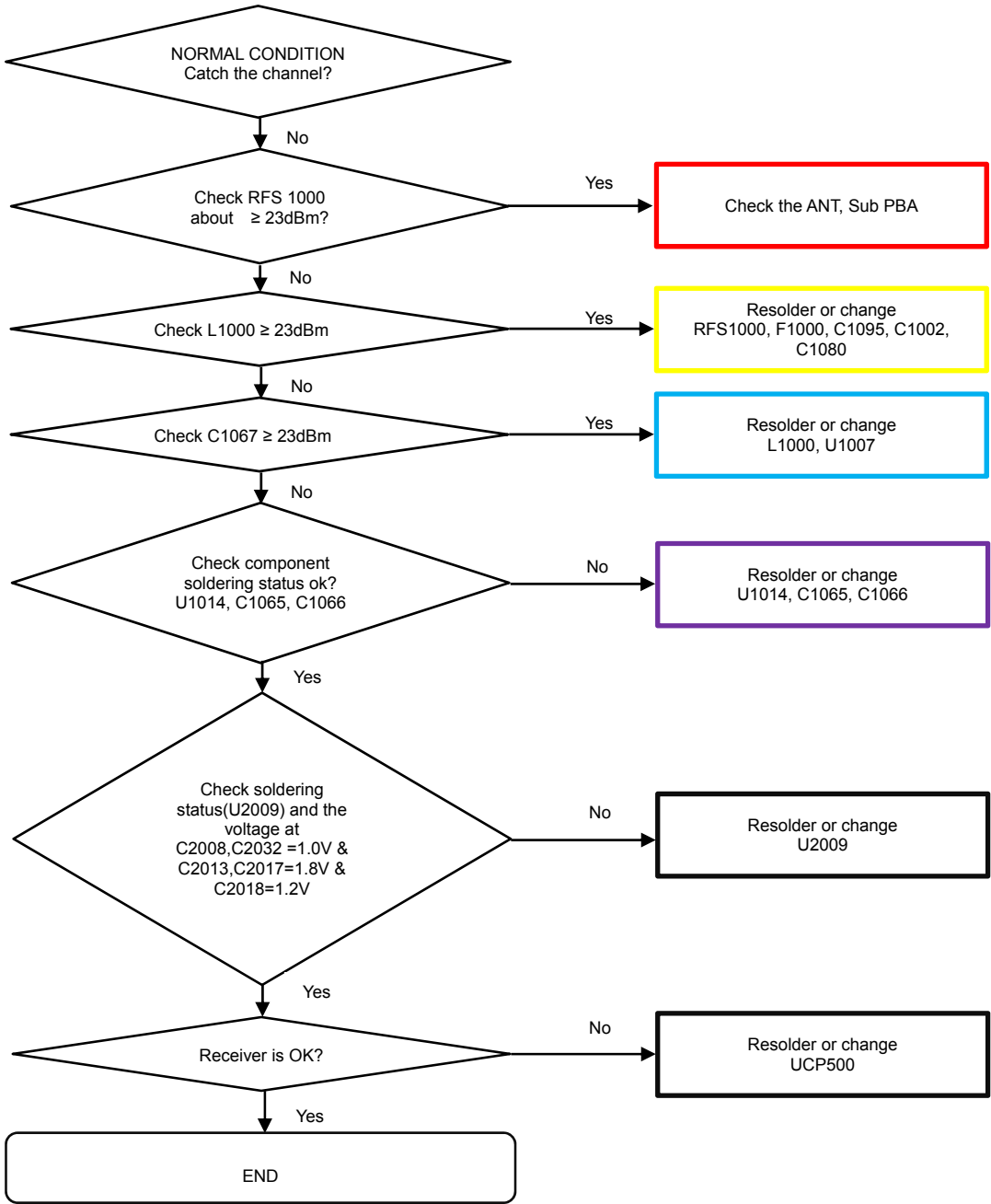
8. Level 3 Repair

8-4-39. GSM 850/900 TX



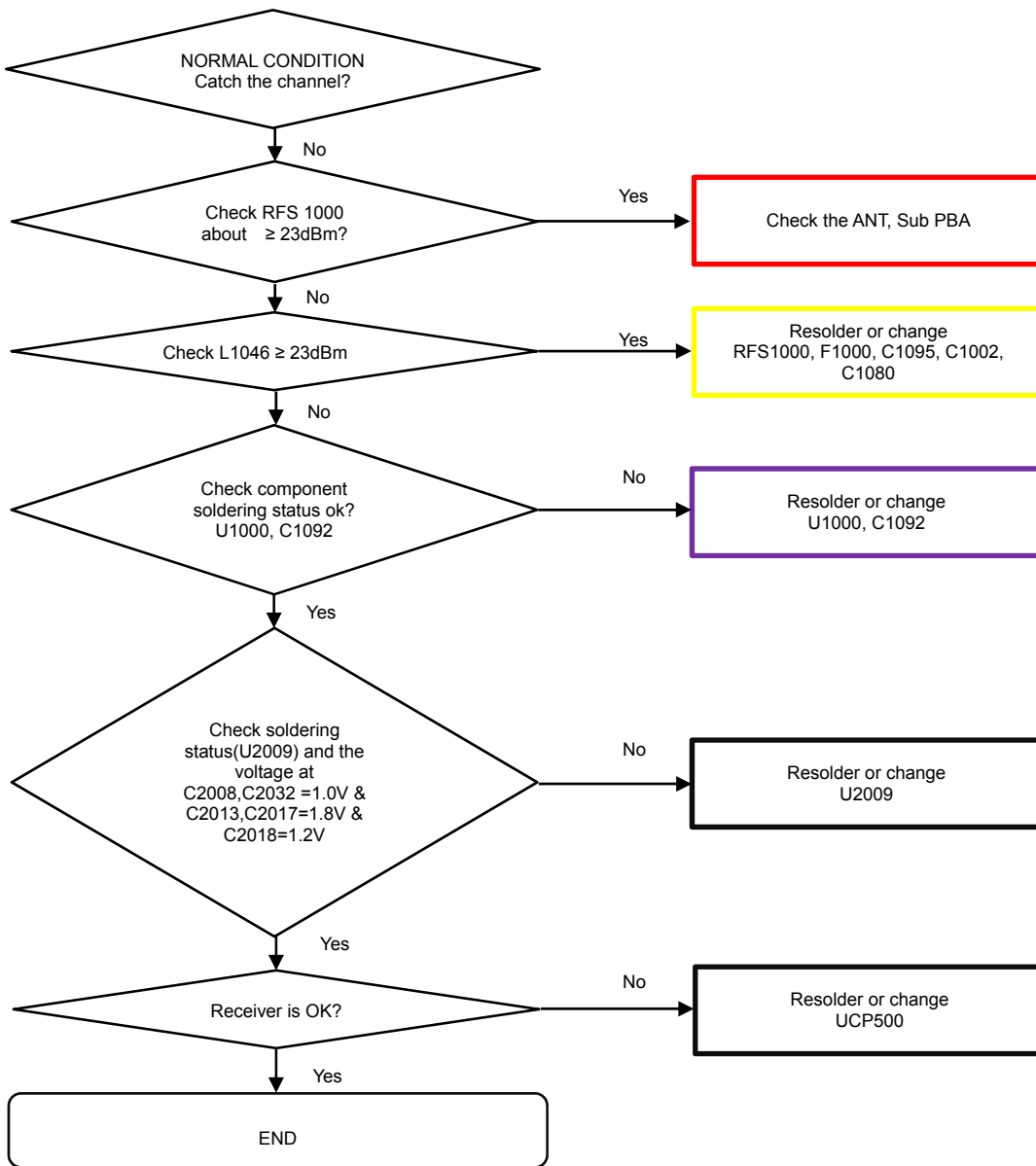
8. Level 3 Repair

8-4-40. GSM 1800/1900 TX



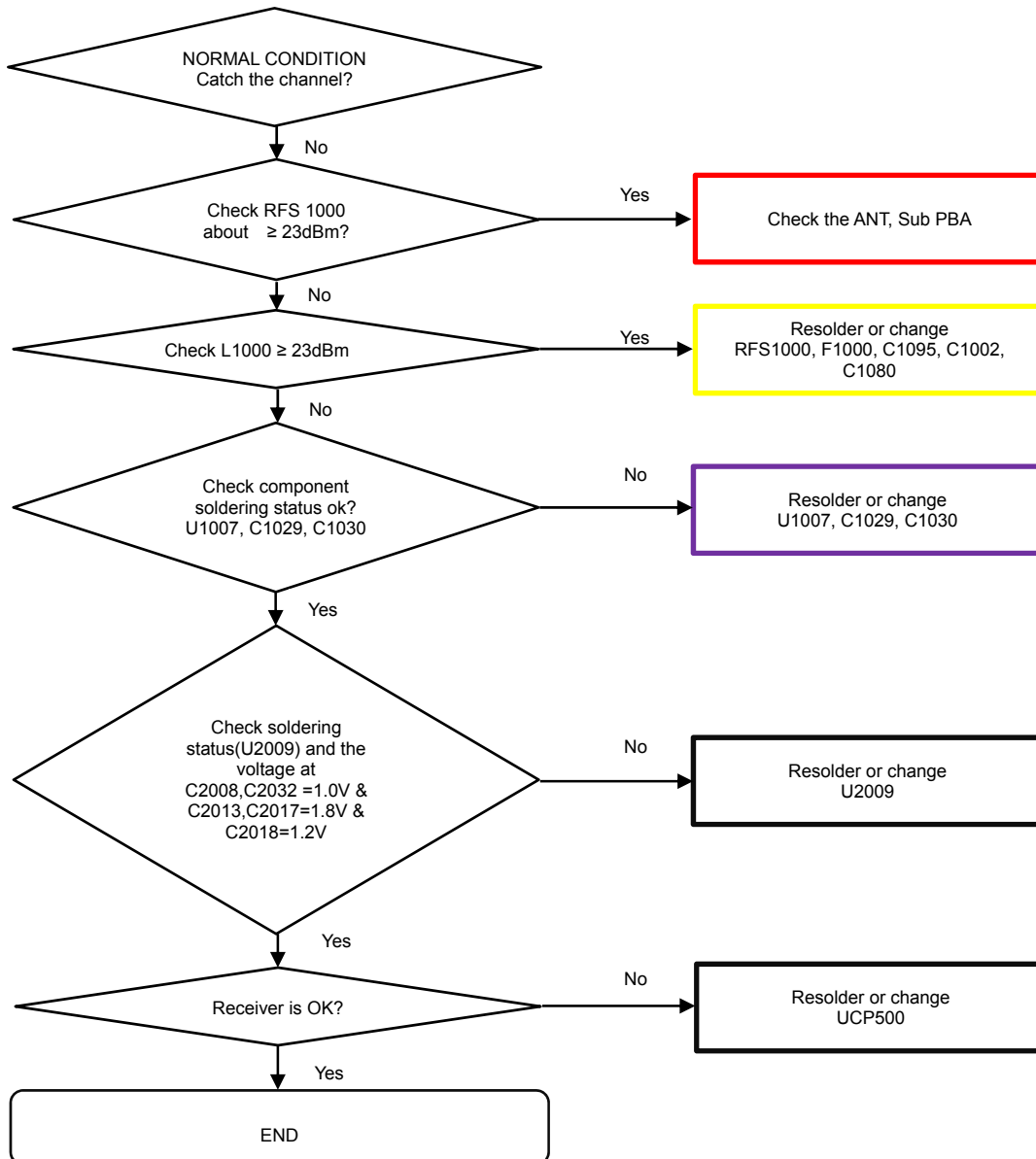
8. Level 3 Repair

8-4-41. CDMA BC0, WCDMA B5/8, LTE5/8/12/13/17/18/19/20/26/28 TX



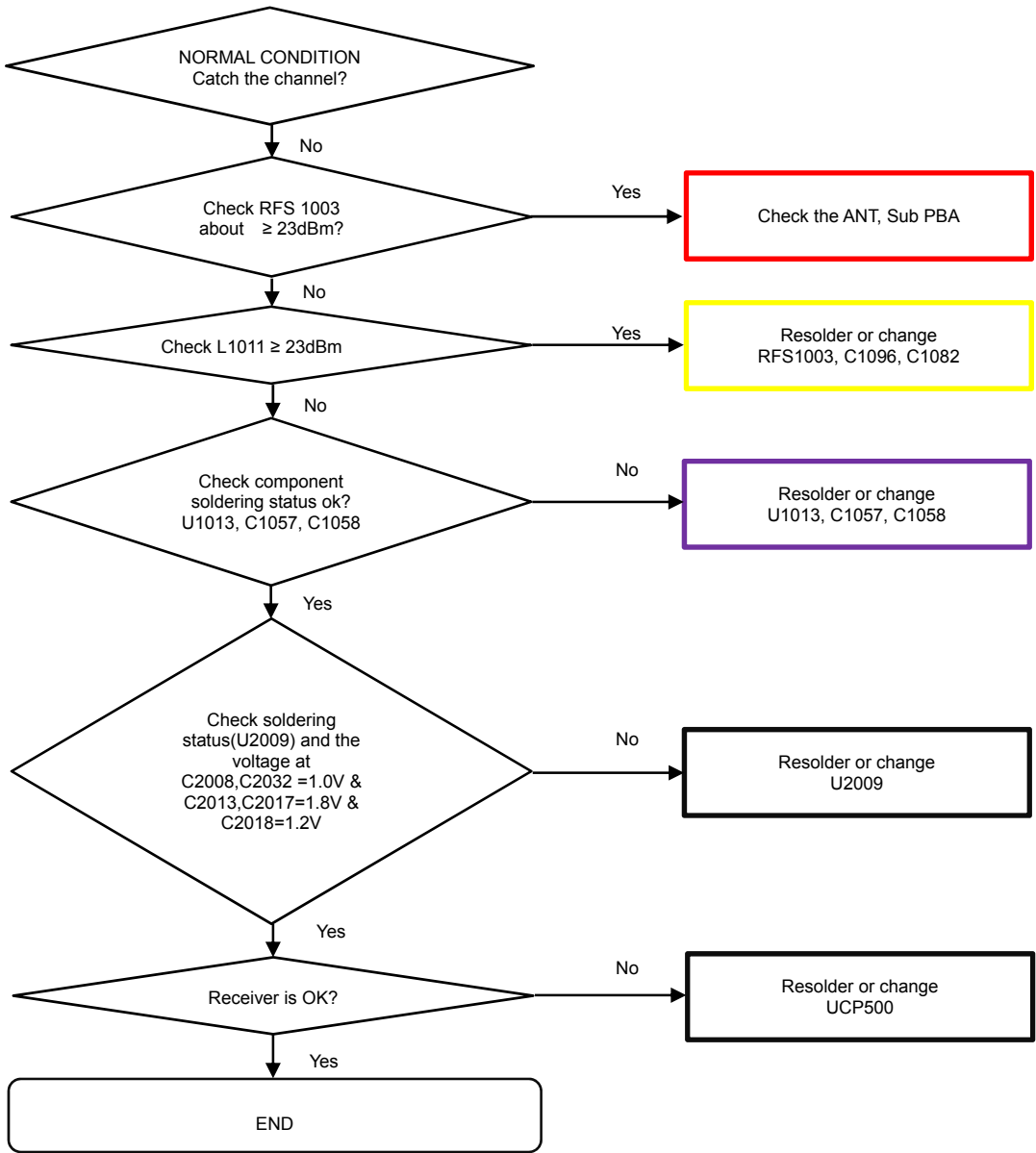
8. Level 3 Repair

8-4-42. TDSCDMA B34/39, WCDMA B1/2, LTE B1/2/3/4/25/34/39 TX



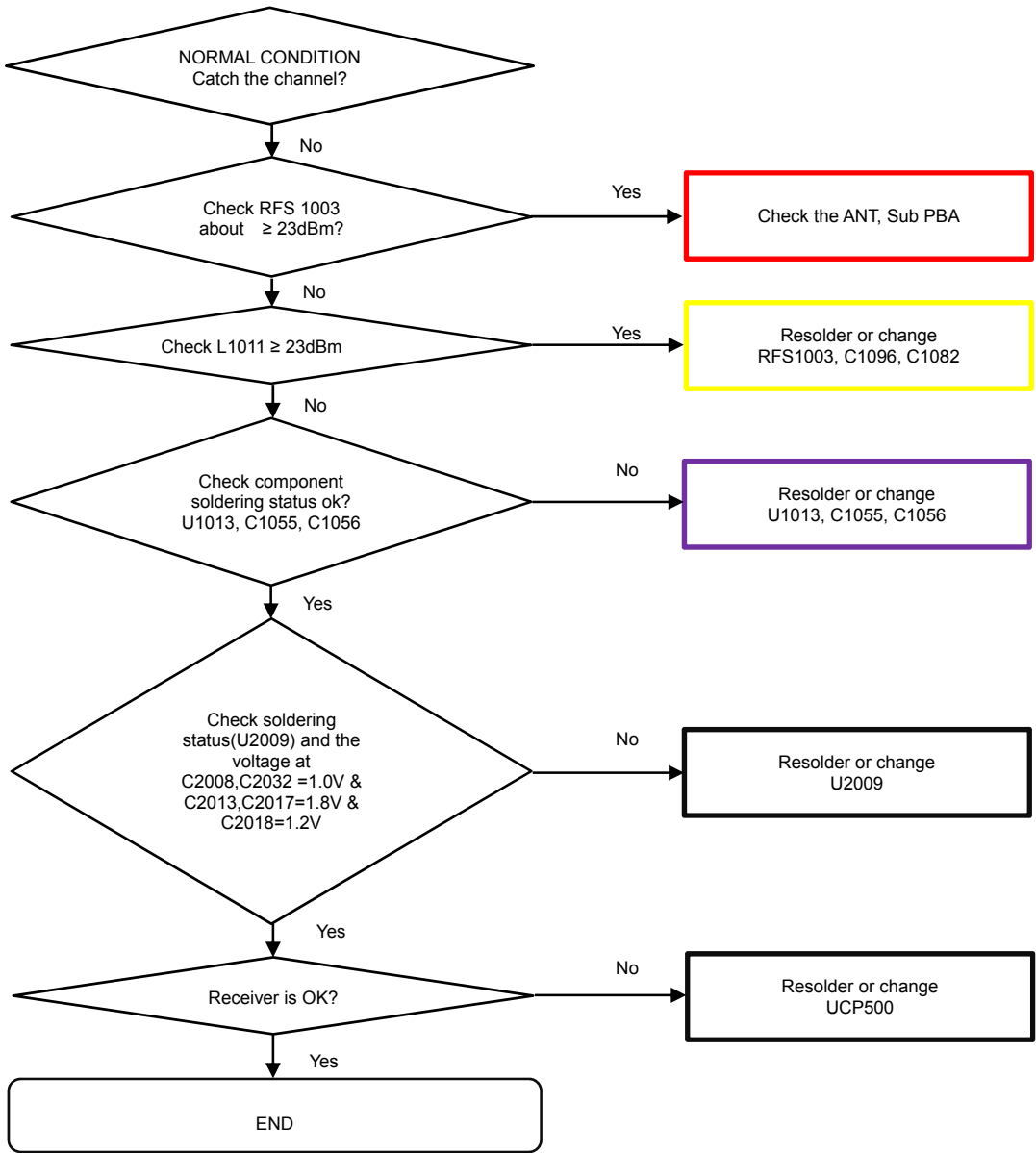
8. Level 3 Repair

8-4-43. LTE B38/40/41 TX



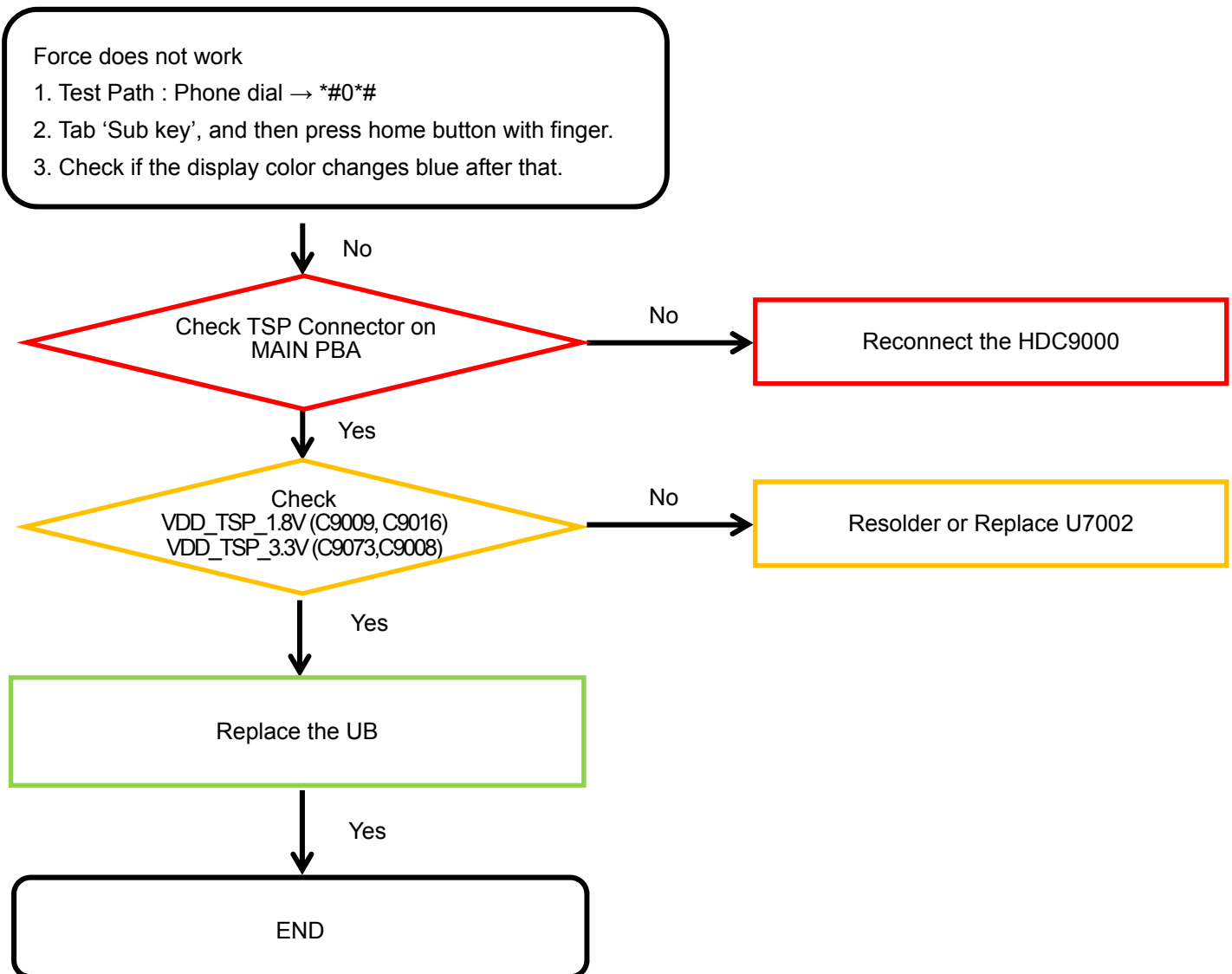
8. Level 3 Repair

8-4-44. LTE B7 TX



8. Level 3 Repair

8-4-46. Force Touch



8. Level 3 Repair

8-4-47. Dex Station

