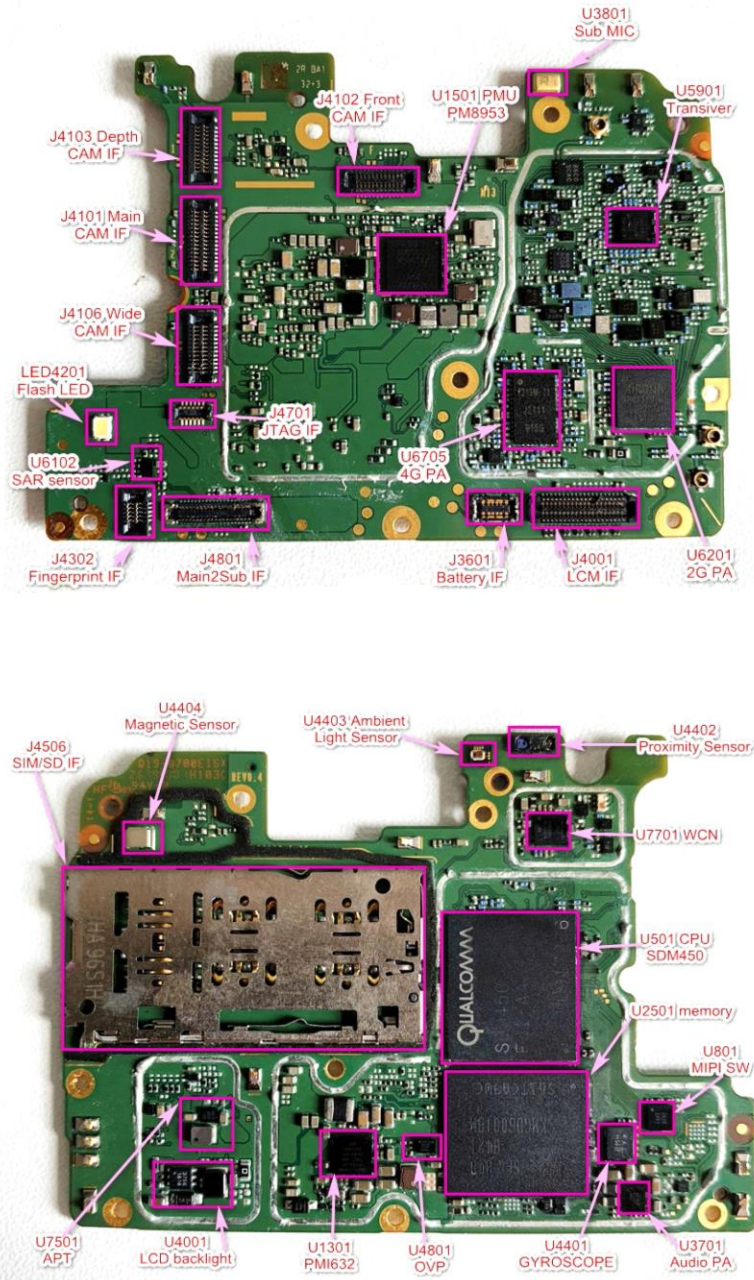
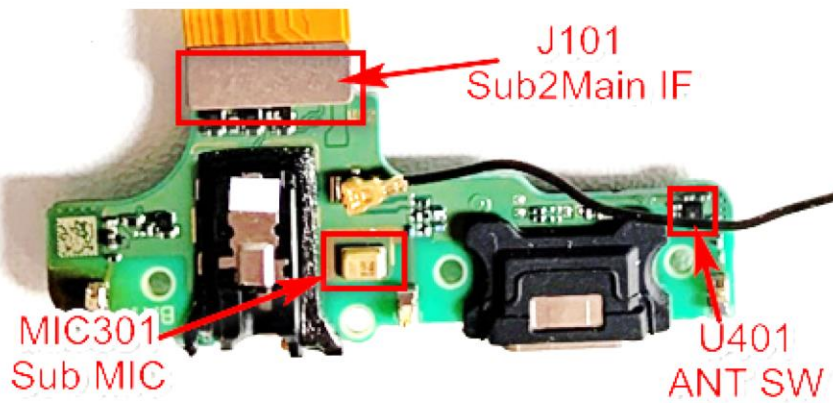
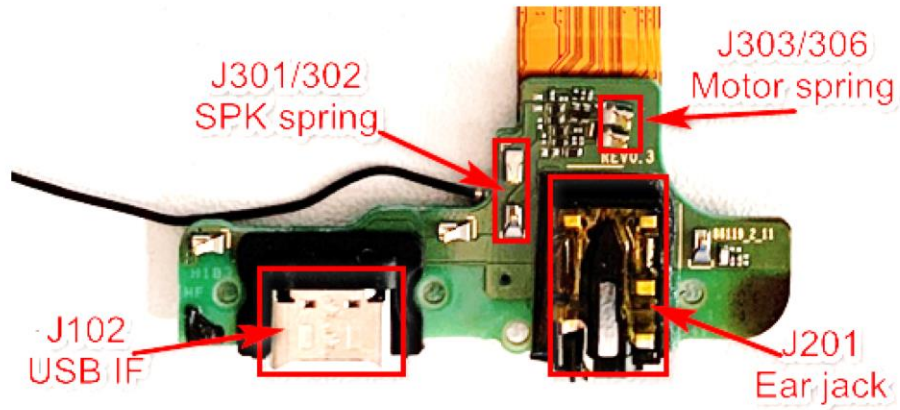

8. Level 3 Repair

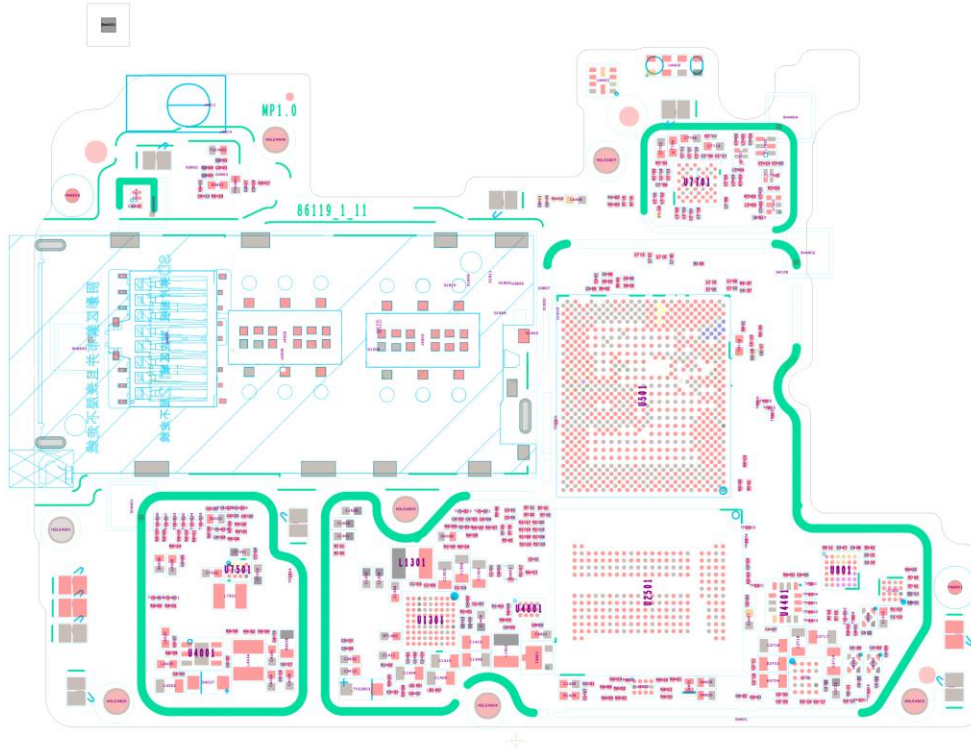
8-1. Components Layout



8. Level 3 Repair



ART FILM - AA



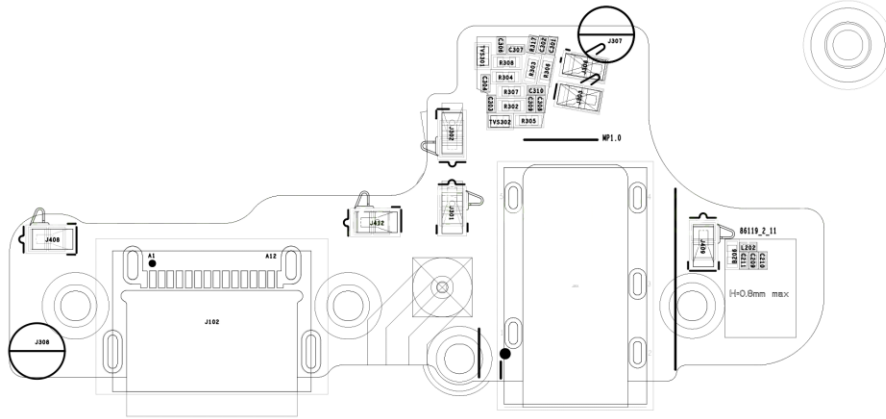
ART FILM - AA

ART FILM - BB



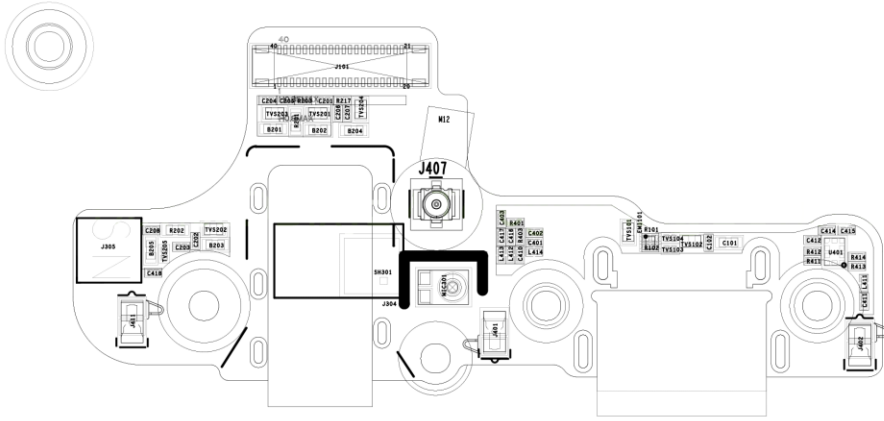
ART FILM - BB

ART FILM - 08_adt



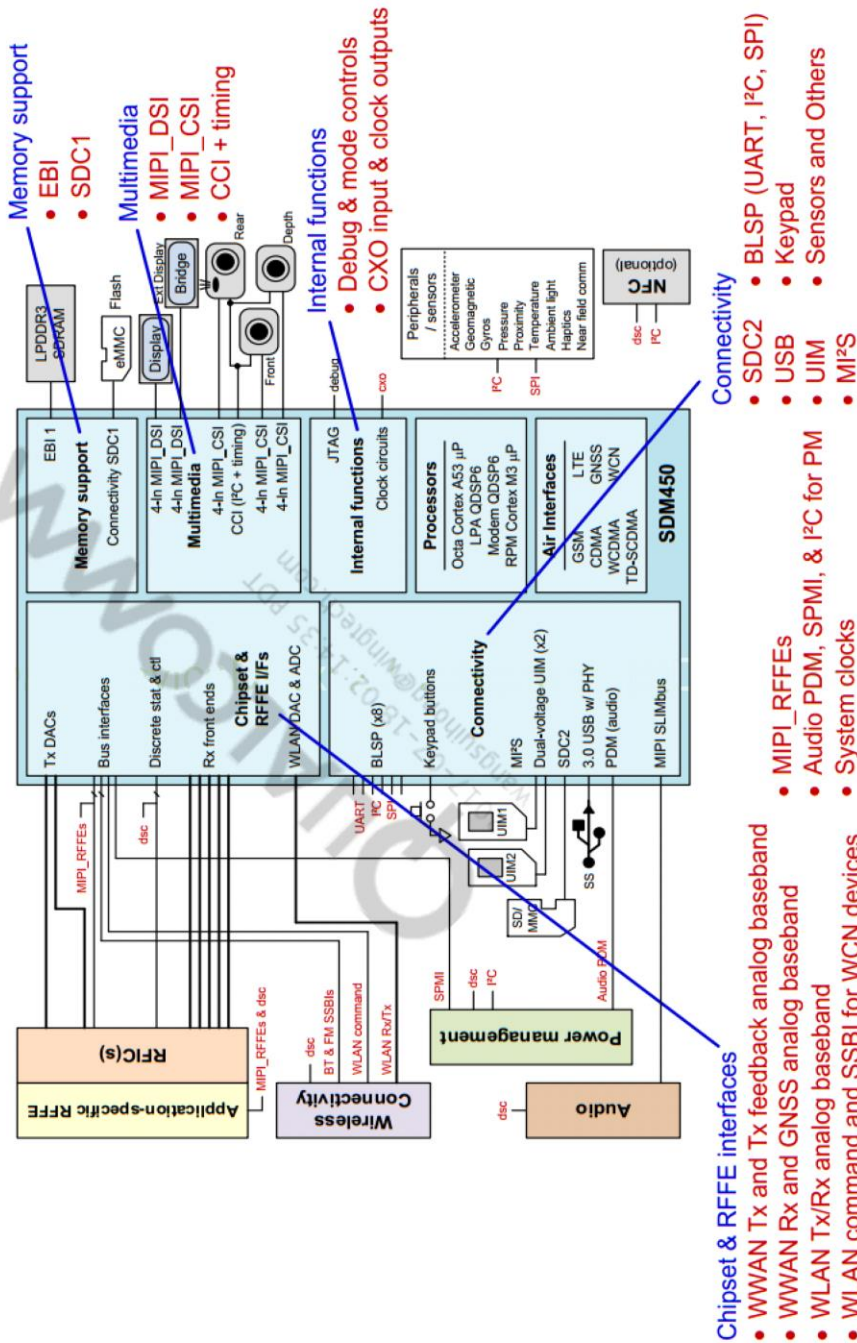
ART FILM - 08_adt

ART FILM - 09_adb



ART FILM - 09_adb

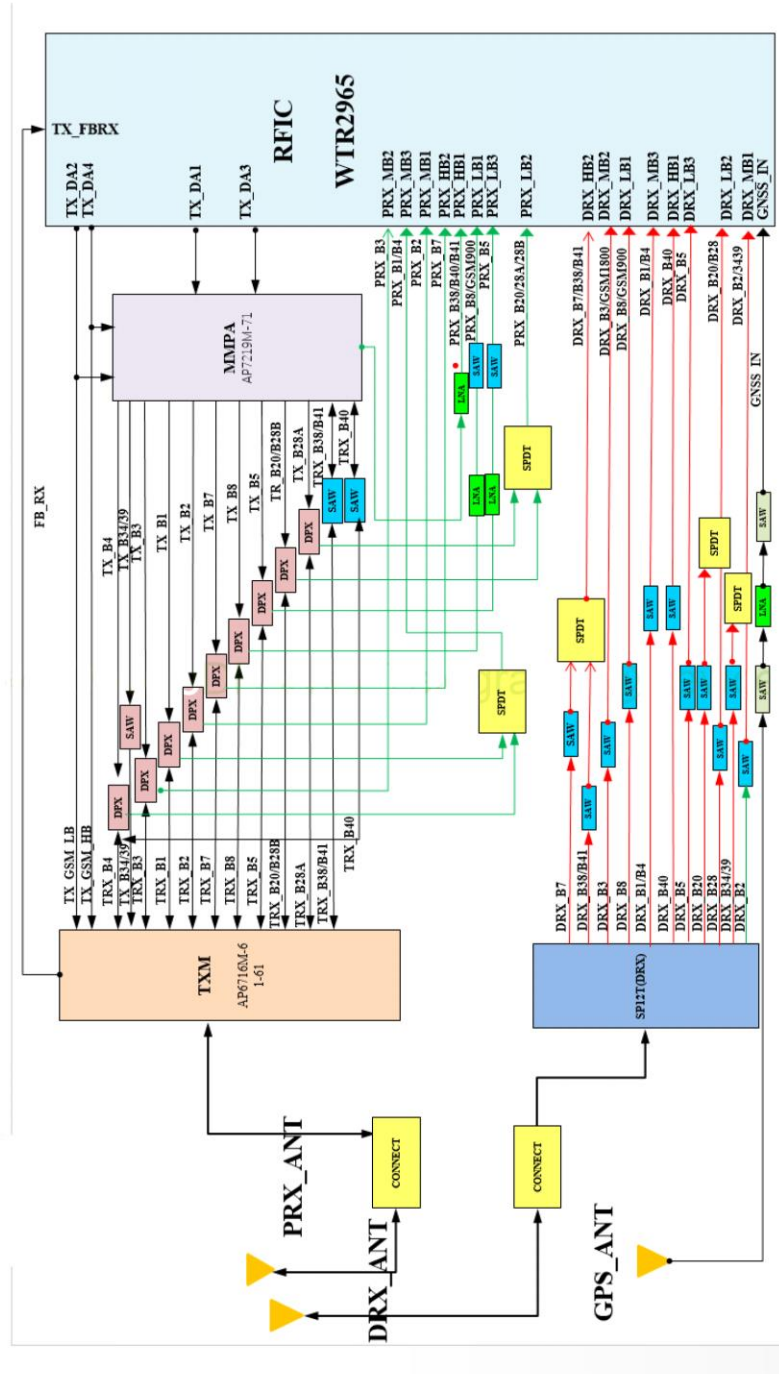
8. Level 3 Repair



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8. Level 3 Repair

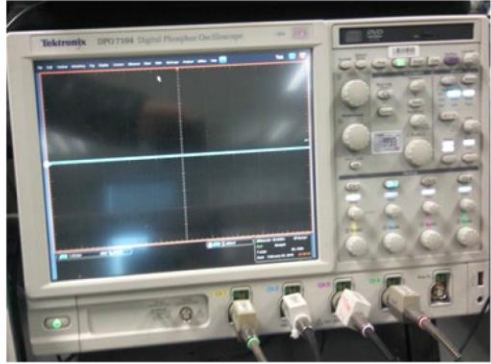


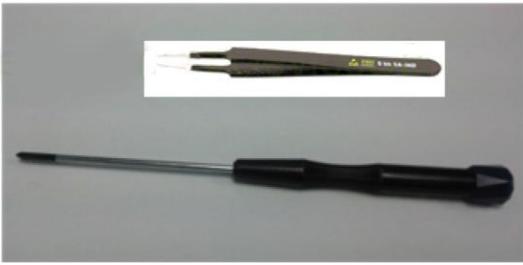
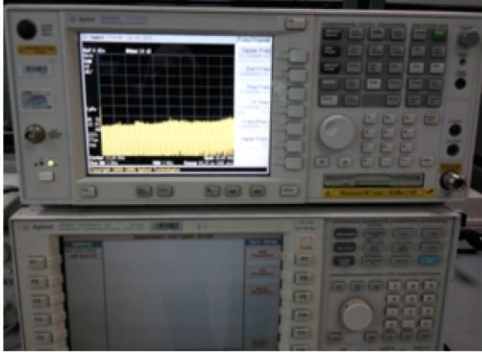



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8. Level 3 Repair

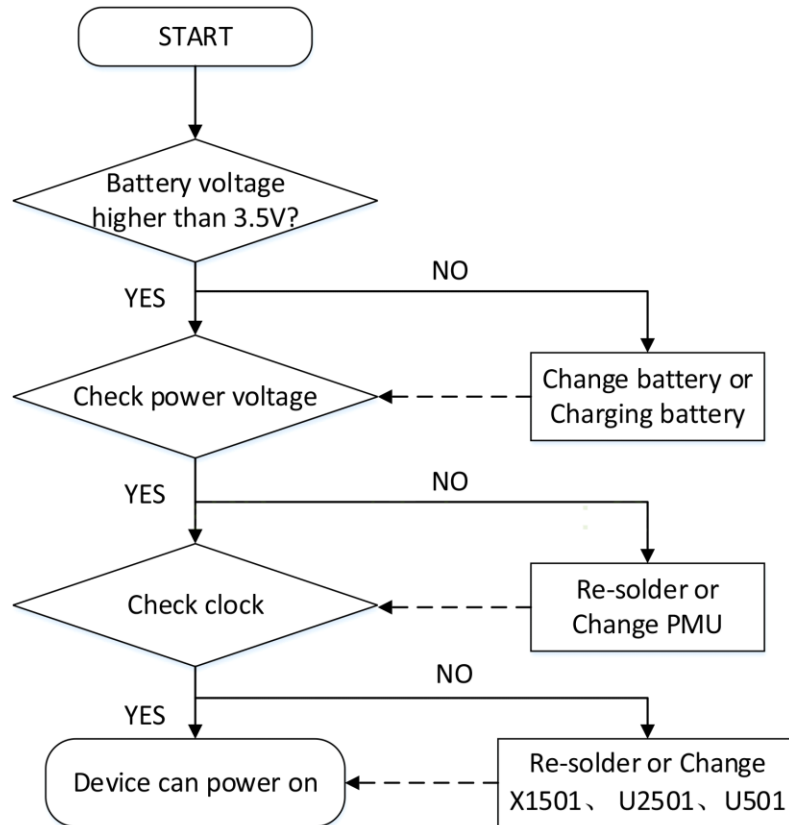
8-3. Flow chart of Troubleshooting.

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

8. Level 3 Repair

8-4-1. Power On

: Checking Power signal (Battery connector, PMU, Clock)



8. Level 3 Repair

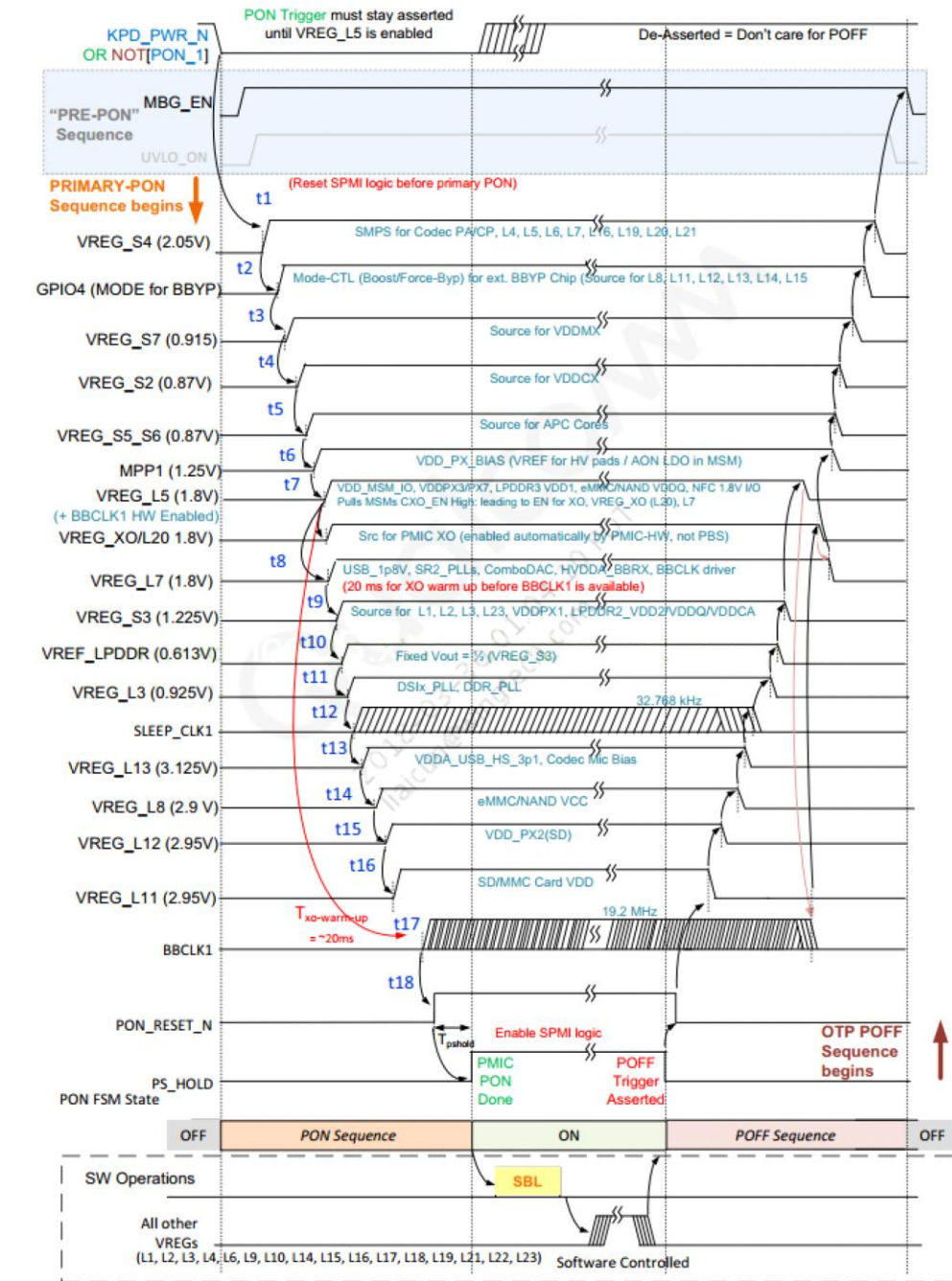
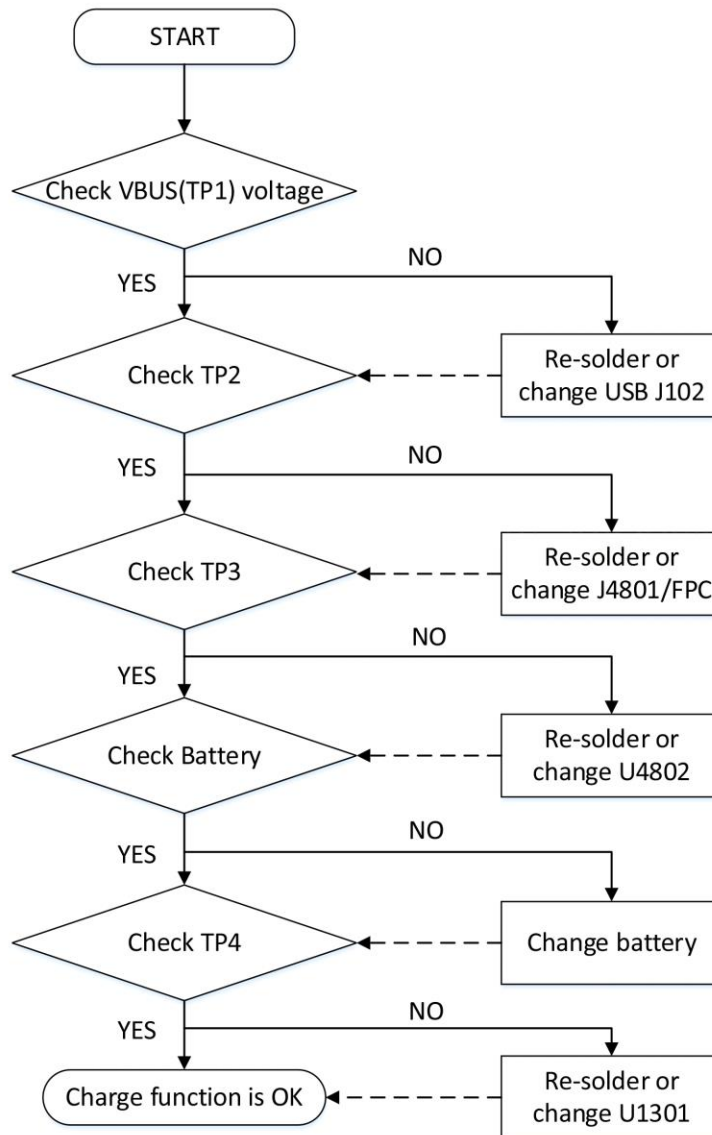


Fig. PM8953 power-on sequence

8. Level 3 Repair

8-4-2. Charging

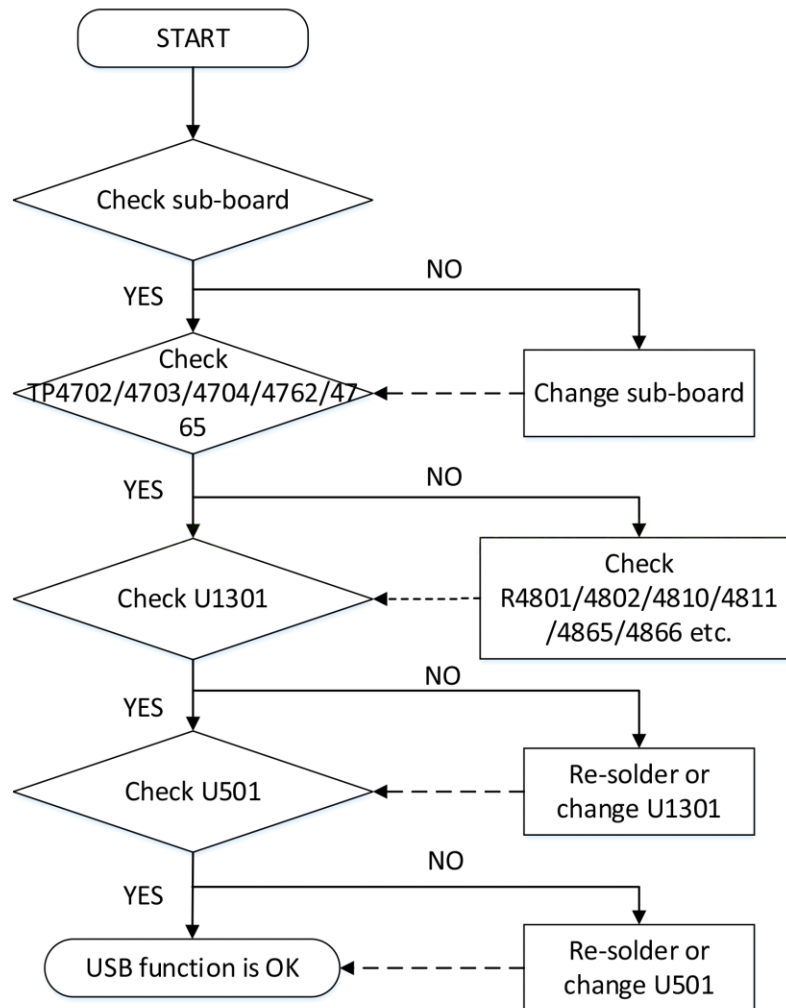
: The charging controlled by PMU chip PMI632 (U1301)



8. Level 3 Repair

8-4-3. USB

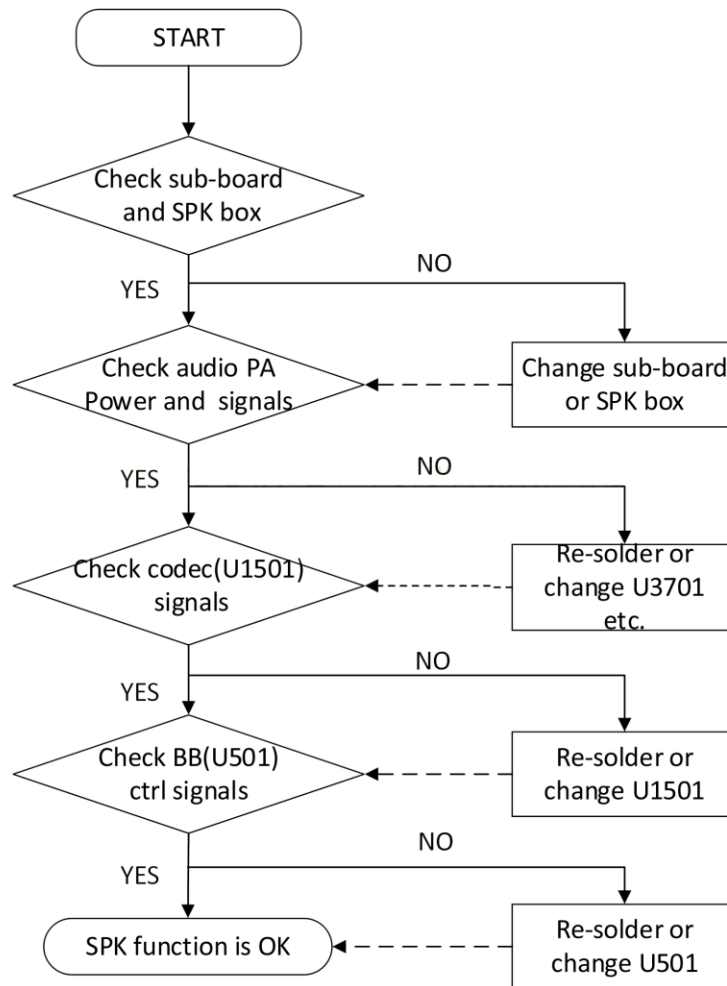
: I/O connector is used as the USB port.



8. Level 3 Repair

8-4-4. Audio_speaker

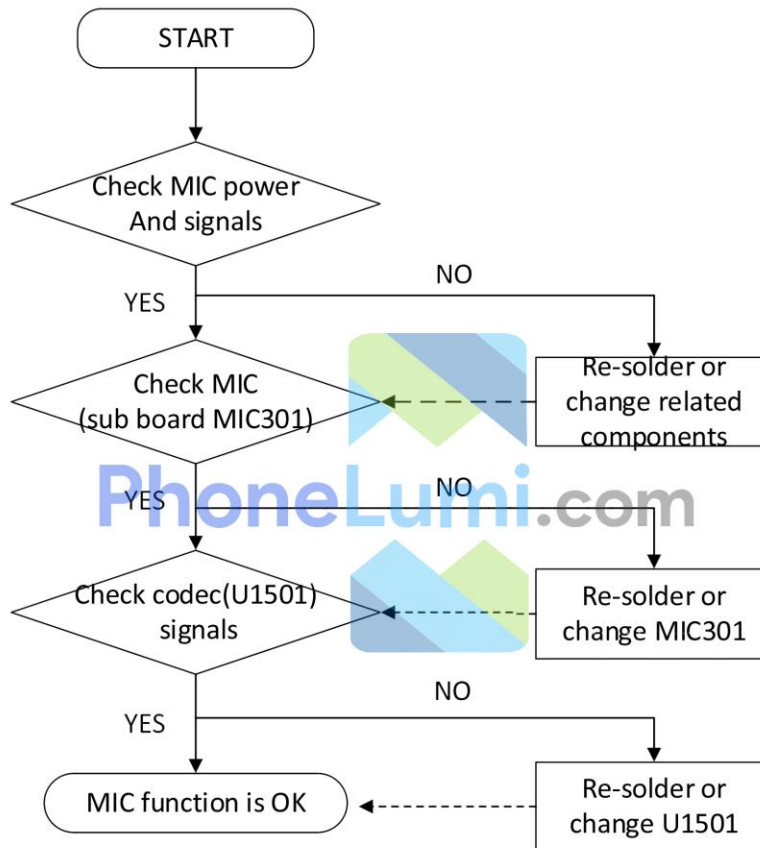
: The Speaker control signals are generated by BBIC SDM450(U0501) and Audio PA AW87329(U3701). The ICs and other related components should be checked.



8. Level 3 Repair

8-4-5. Audio_Main MIC

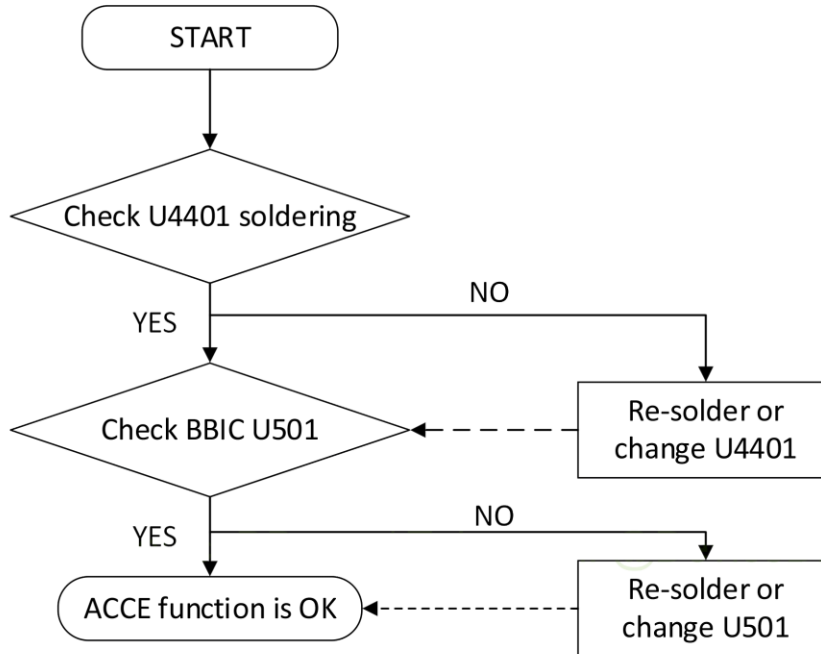
: The MIC control signals are generated by PMU chip PM8953 (U1501), the PMIC, the MIC and other related components should be checked.



8. Level 3 Repair

8-4-6. Accelerometer sensor

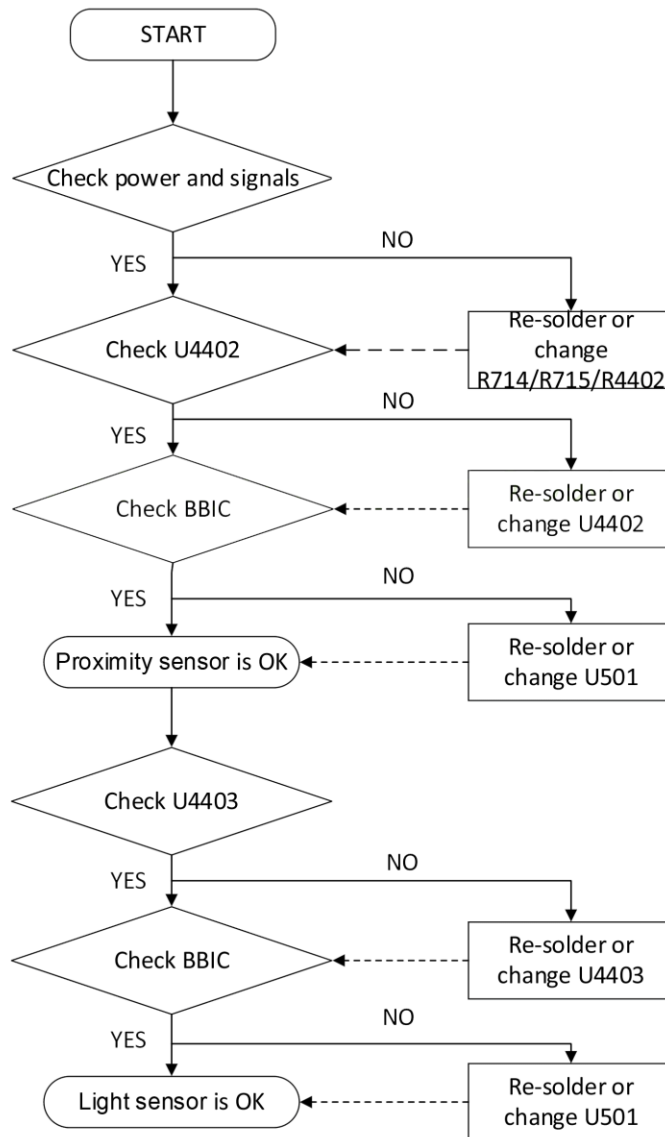
: The 3G-Accelerometer sensor is calibrated by using SW algorithm.



8. Level 3 Repair

8-4-7. Proximity and light sensor

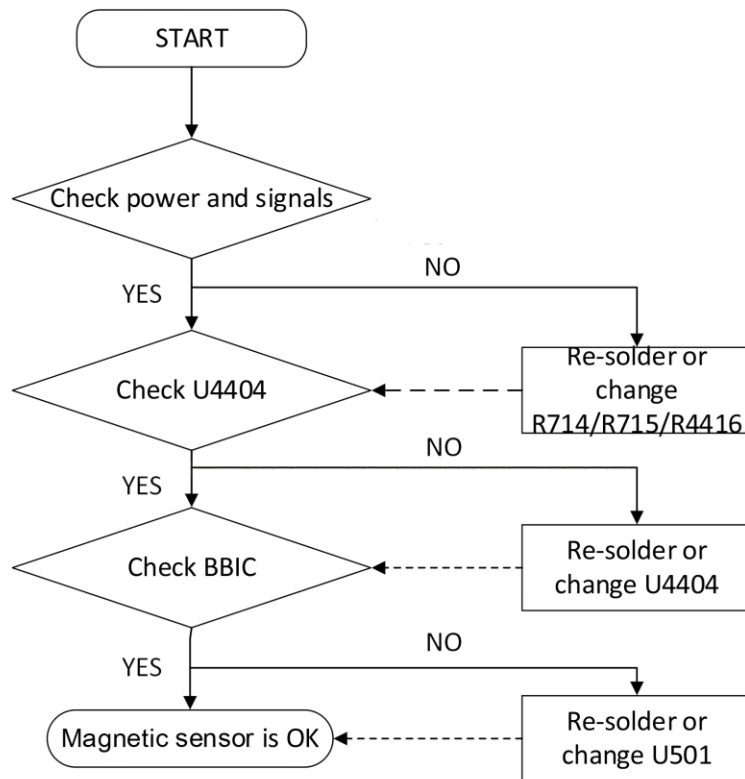
: Proximity and Light Sensor is worked as below: Control the screen's on/off operation automatically while making phone calls, and adjust the screen brightness according to ambient light.



8. Level 3 Repair

8-4-8. Magnetic Sensor

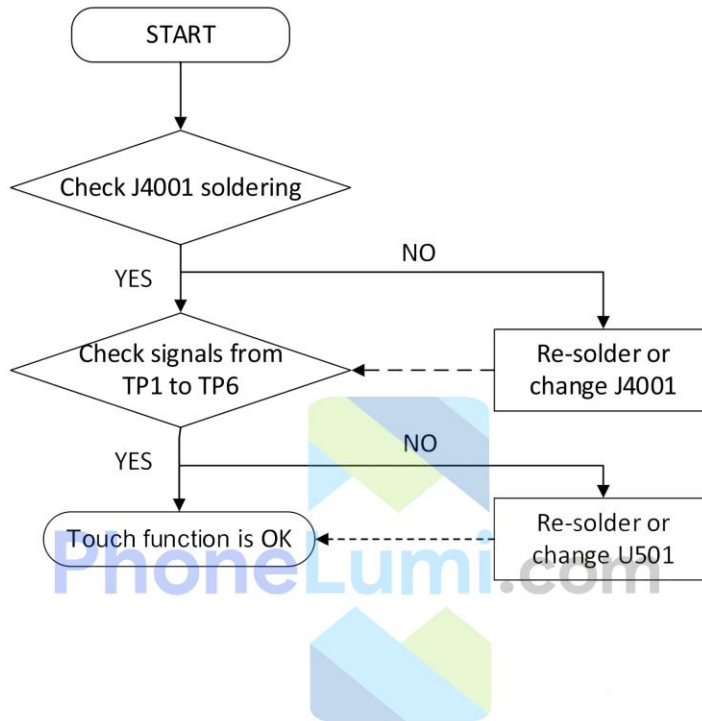
: Magnetic Sensor is usually used for compass and the control signals are generated by SDM450



8. Level 3 Repair

8-4-9. TOUCH SCREEN

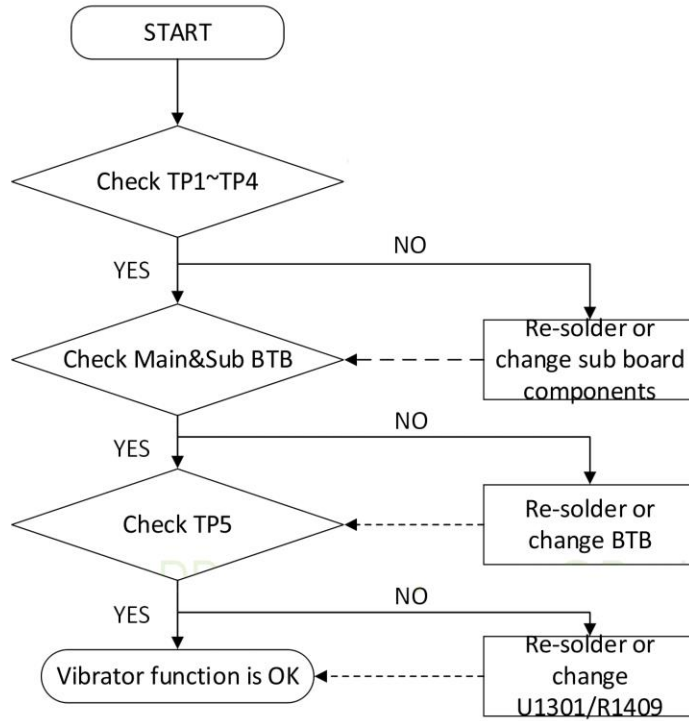
: The Touch control signals are generated by SDM450. It is assembled with LCD.



8. Level 3 Repair

8-4-10. Vibrator

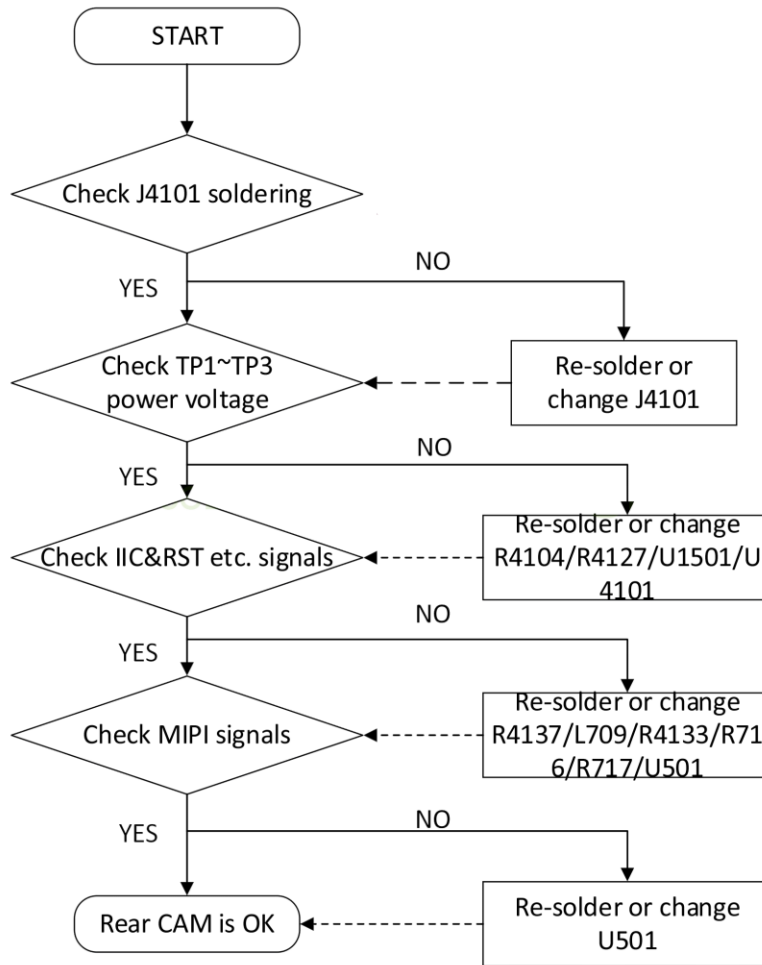
: The Vibrator control signals are generated by PMI632.



8. Level 3 Repair

8-4-11. Rear Camera

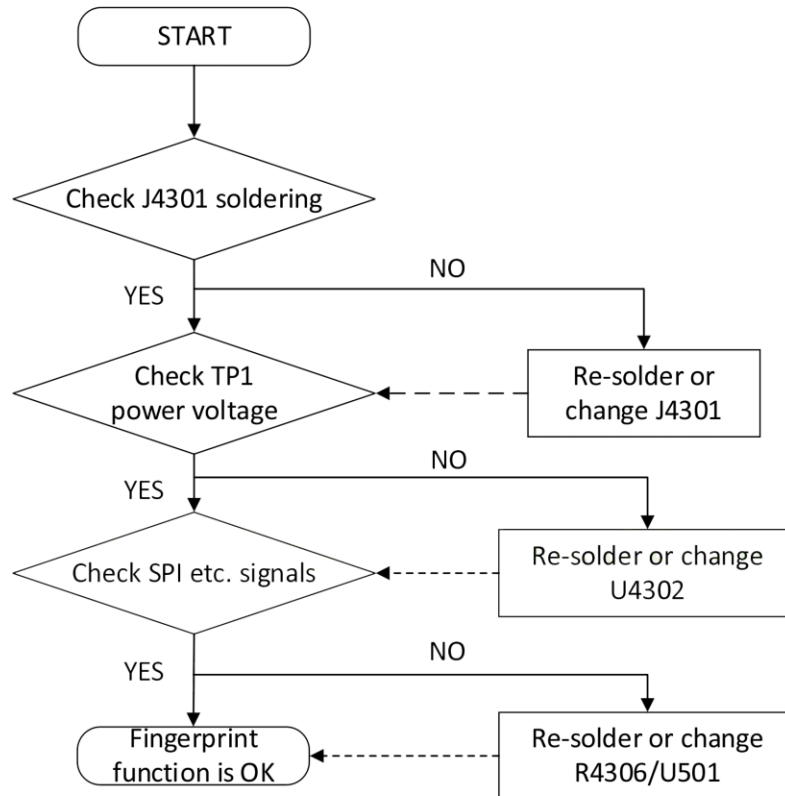
: The camera control signals are generated by SDM450. Other cameras' analysis methods refer to the rear camera.



8. Level 3 Repair

8-4-12. Fingerprint

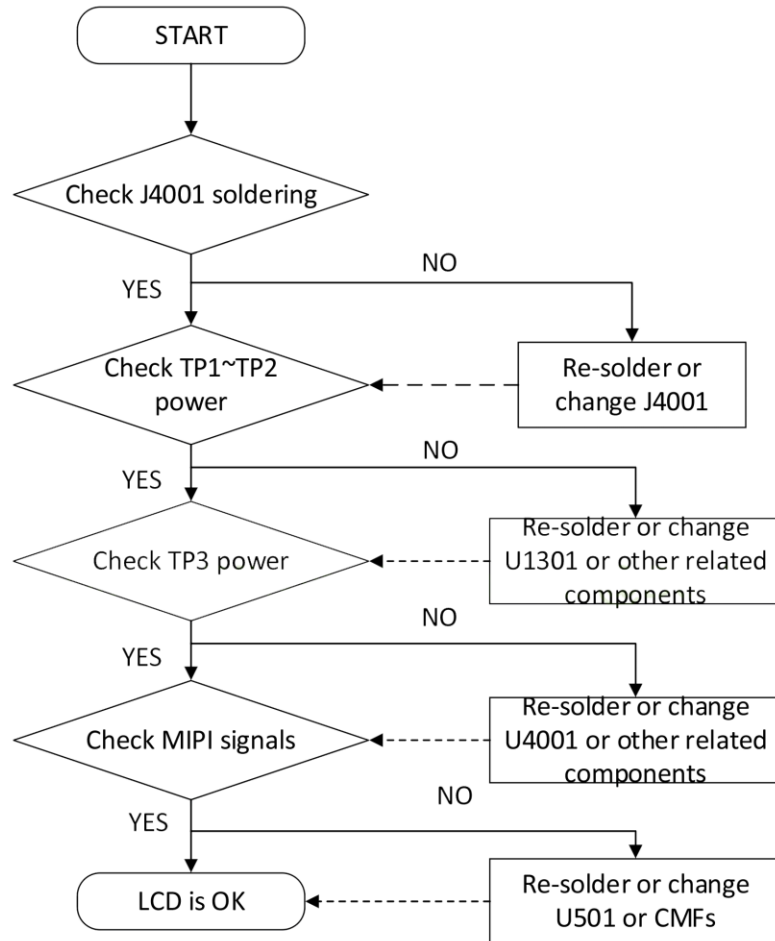
: The Fingerprint control signals are generated by SDM450.



8. Level 3 Repair

8-4-13. LCD

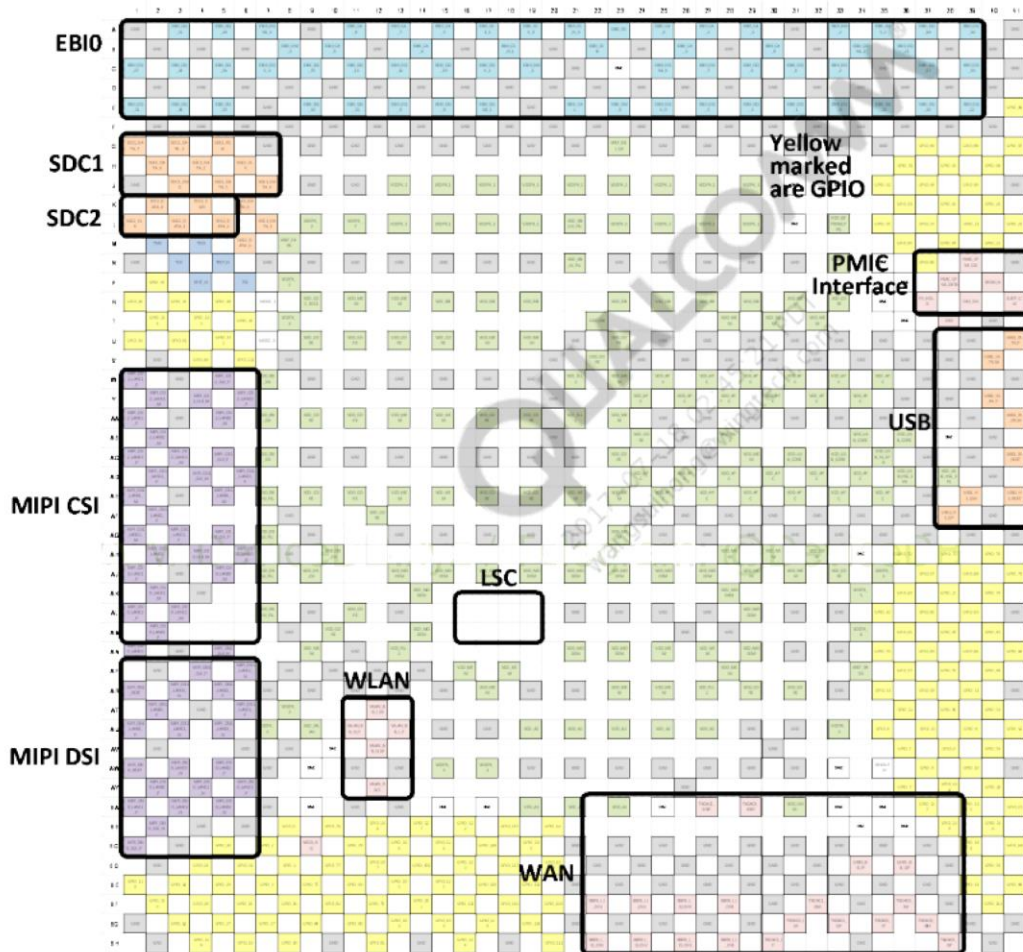
: The LCD control signals are generated by SDM450.



8. Level 3 Repair

8-5. Service Schematics

- U501_SDM450_BB chip IC , Digital Baseband Processor(Top)



8. Level 3 Repair

The image displays a complex grid-based repair chart for Level 3 repair. The grid is organized by columns (1 to 41) and rows (A to SH). The chart is color-coded and contains numerous component identifiers, such as AP01L1 through AP01L41. Several key areas are highlighted with black boxes and labels:

- VDD PX:** A large rectangular area spanning columns 14 to 28 and rows J to N.
- VDD MEM and Core:** A rectangular area spanning columns 11 to 13 and rows R to T.
- VDD APFC:** A rectangular area spanning columns 27 to 33 and rows V to Y.
- LSC:** A small rectangular area spanning columns 14 to 16 and rows AK to AL.

The grid cells are filled with various alphanumeric codes, likely representing component part numbers or test points. The overall layout is a dense, structured grid used for identifying and repairing specific components on a circuit board.

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