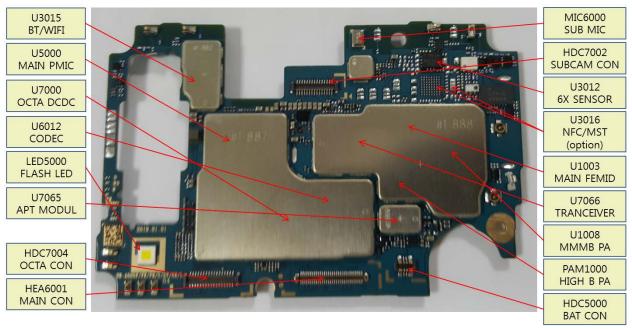
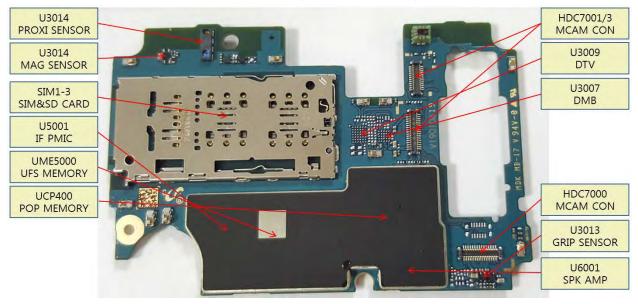
8-1. Components Layout

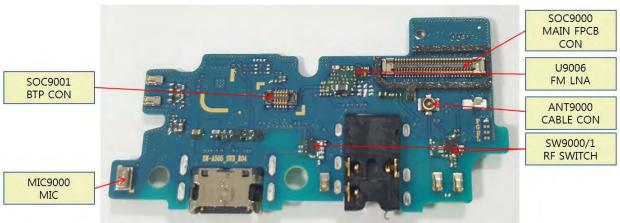
MAIN PBA (TOP SIDE)



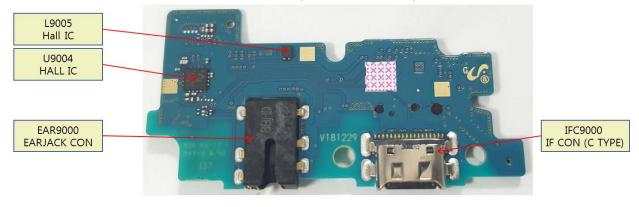
MAIN PBA (BOTTOM SIDE)



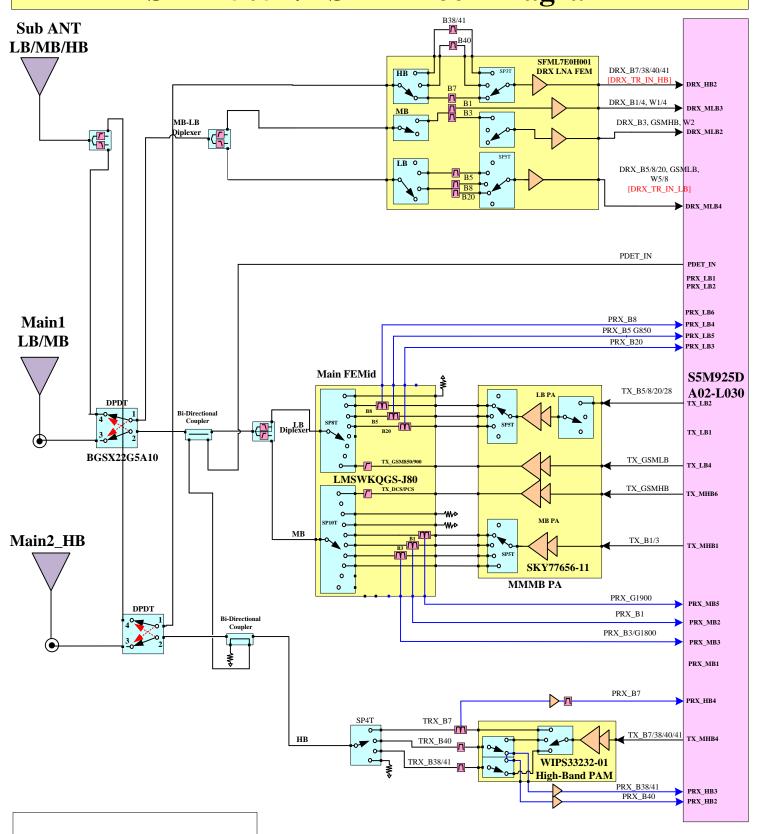
SUB PBA (TOP SIDE)



SUB PBA (BOTTOM SIDE)



SM-A505F/DS RF Block Diagram



[SM-A505F/DS RF Band]

2G: Quad

3G: W1,W2,W5,W8 LTE FDD: B1/3/5/7/8/20 LTE TDD: B38/40/41 GSM/GPRS/EDGE 850 - Tx 824.2 - 848.8MHz / Rx 869.2 - 893.8MHz GSM/GPRS/EDGE 1900 - Tx 1850.2 - 1909.8MHz / Rx 1930.2 - 1989.8MHz

UMTS Band 2 - Tx 1850 - 1910MHz / Rx 1930 - 1990MHz UMTS Band 5 - Tx 824 - 849 / Rx 869 - 894MHz LTE Band 5 - Tx 824 - 849MHz / Rx 869 - 894MHz

LTE Band 41 - TRx 2496 - 2690MHz

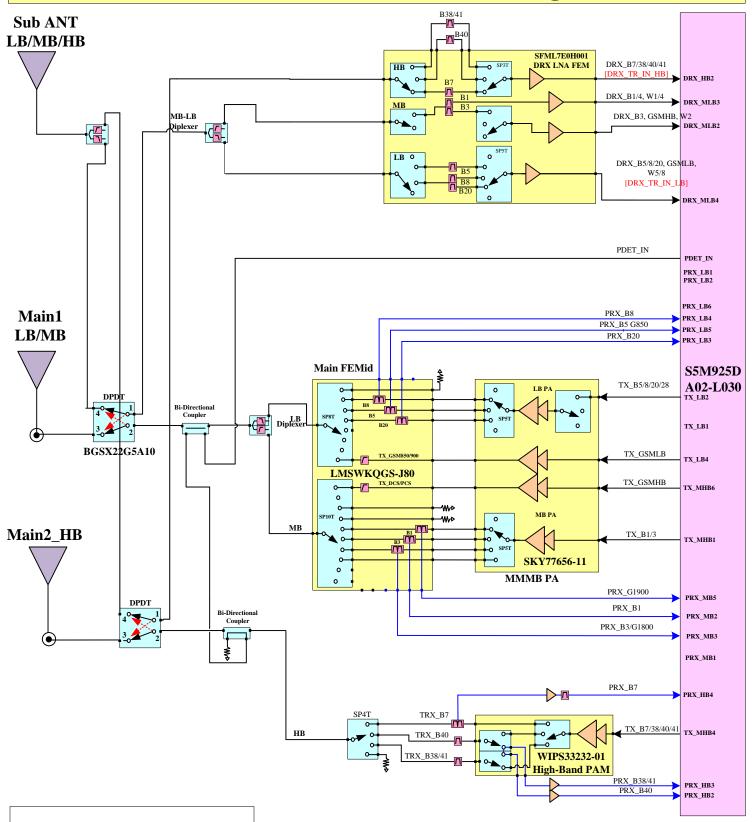
WLAN 2.4G - TRx 2412 - 2462MHz within USA WLAN 2.4G - TRx 2412 - 2472MHz Non USA

WLAN 5G - TRx 5180 - 5240MHz WLAN 5G - TRx 5260 - 5320MHz WLAN 5G - TRx 5500 - 5720MHz WLAN 5G - TRx 5745 - 5825MHz

Bluetooth/EDR/LE - TRx 2402 - 2480MHz NFC - TRx 13.56MHz

GNSS - Rx 1592 - 1606MHz

SM-A505FN/DS RF Block Diagram



[SM-A505FN/DS RF Band]

2G: Quad

3G: W1,W2,W5,W8 LTE FDD: B1/3/5/7/8/20 LTE TDD: B38/40/41

GSM/GPRS/EDGE 850 - Tx 824.2 - 848.8MHz / Rx 869.2 - 893.8MHz GSM/GPRS/EDGE 1900 - Tx 1850.2 - 1909.8MHz / Rx 1930.2 - 1989.8MHz

UMTS Band 2 - Tx 1850 - 1910MHz / Rx 1930 - 1990MHz UMTS Band 5 - Tx 824 - 849 / Rx 869 - 894MHz

LTE Band 5 - Tx 824 - 849MHz / Rx 869 - 894MHz

LTE Band 41 - TRx 2496 - 2690MHz

WLAN 2.4G - TRx 2412 - 2462MHz within USA WLAN 2.4G - TRx 2412 - 2472MHz Non USA

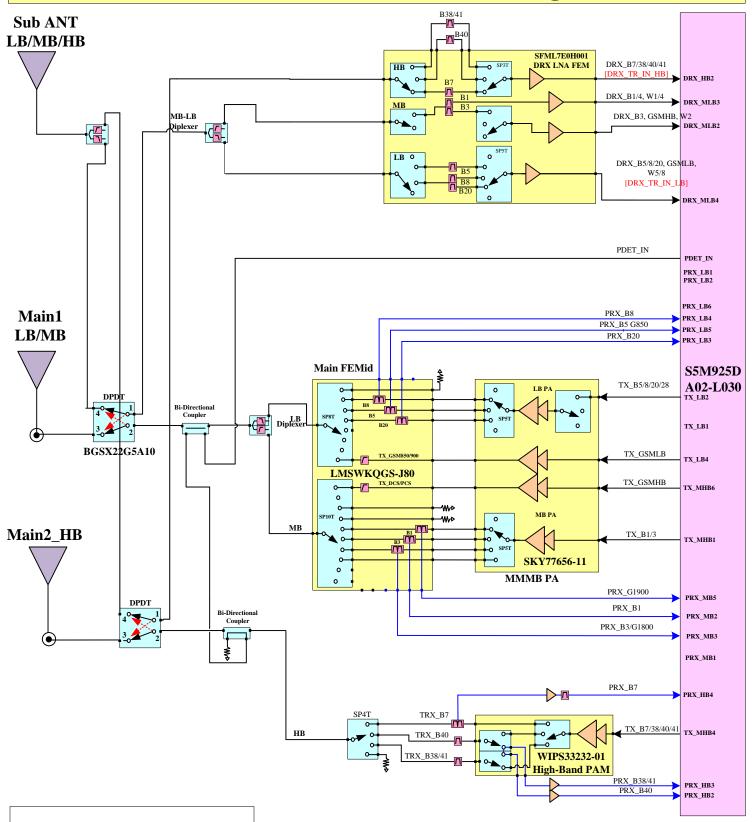
WLAN 5G - TRx 5180 - 5240MHz

WLAN 5G - TRx 5260 - 5320MHz WLAN 5G - TRx 5500 - 5720MHz

WLAN 5G - TRx 5745 - 5825MHz Bluetooth/EDR/LE - TRx 2402 - 2480MHz

NFC - TRx 13.56MHz GNSS - Rx 1592 - 1606MHz

SM-A505FN/DS RF Block Diagram



[SM-A505FN/DS RF Band]

2G: Quad

3G: W1,W2,W5,W8 LTE FDD: B1/3/5/7/8/20 LTE TDD: B38/40/41

GSM/GPRS/EDGE 850 - Tx 824.2 - 848.8MHz / Rx 869.2 - 893.8MHz GSM/GPRS/EDGE 1900 - Tx 1850.2 - 1909.8MHz / Rx 1930.2 - 1989.8MHz

UMTS Band 2 - Tx 1850 - 1910MHz / Rx 1930 - 1990MHz UMTS Band 5 - Tx 824 - 849 / Rx 869 - 894MHz

LTE Band 5 - Tx 824 - 849MHz / Rx 869 - 894MHz

LTE Band 41 - TRx 2496 - 2690MHz

WLAN 2.4G - TRx 2412 - 2462MHz within USA WLAN 2.4G - TRx 2412 - 2472MHz Non USA

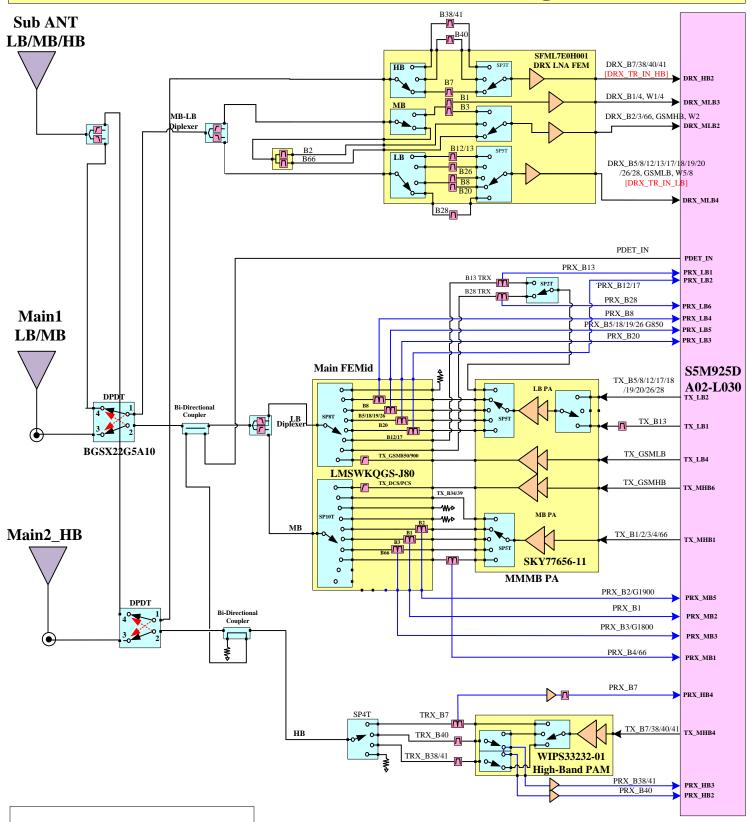
WLAN 5G - TRx 5180 - 5240MHz

WLAN 5G - TRx 5260 - 5320MHz WLAN 5G - TRx 5500 - 5720MHz

WLAN 5G - TRx 5745 - 5825MHz Bluetooth/EDR/LE - TRx 2402 - 2480MHz

NFC - TRx 13.56MHz GNSS - Rx 1592 - 1606MHz

SM-A505G/DS RF Block Diagram



[SM-A505G/DS RF Band]

2G: Quad

3G: W1, W2, W4, W5, W8

LTE FDD:

B1/2/3/4/7/8/12(17)/13/20/26(5/18/

LTE TDD: B38/40/41

GSM/GPRS/EDGE 850 - Tx 824.2 - 848.8MHz / Rx 869.2 - 893.8MHz

GSM/GPRS/FDGE 1900 - Tx 1850 2 - 1909 8MHz / Rx 1930 2 - 1989 8MHz

UMTS Band 2 - Tx 1850 - 1910MHz / Rx 1930 - 1990MHz

UMTS Band 4 - Tx 1710 - 1755 / Rx 2110 - 2155MHz UMTS Band 5 - Tx 824 - 849 / Rx 869 - 894MHz

LTE Band 2 - Tx 1850 - 1910MHz / Rx 1930 - 1990MHz

LTE Band 4 - Tx 1710 - 1755MHz / Rx 2110 - 2155MHz

LTE Band 5 - Tx 824 - 849MHz / Rx 869 - 894MHz

LTE Band 12 - Tx 699 - 716MHz / Rx 729 - 746MHz

LTE Band 13 - Tx 777 - 787MHz / Rx 746 - 756MHz

LTE Band 17 - Tx 704 - 716MHz / Rx 734 - 746MHz LTE Band 25 - Tx 1850 - 1915MHz / Rx 1930 - 1995MHz

LTE Band 41 - TRx 2496 - 2690MHz

LTE Band 66 - Tx 1710 - 1780MHz / Rx 2110 - 2200MHz

WLAN 2.4G - TRx 2412 - 2462MHz within USA WLAN 2.4G - TRx 2412 - 2472MHz Non USA

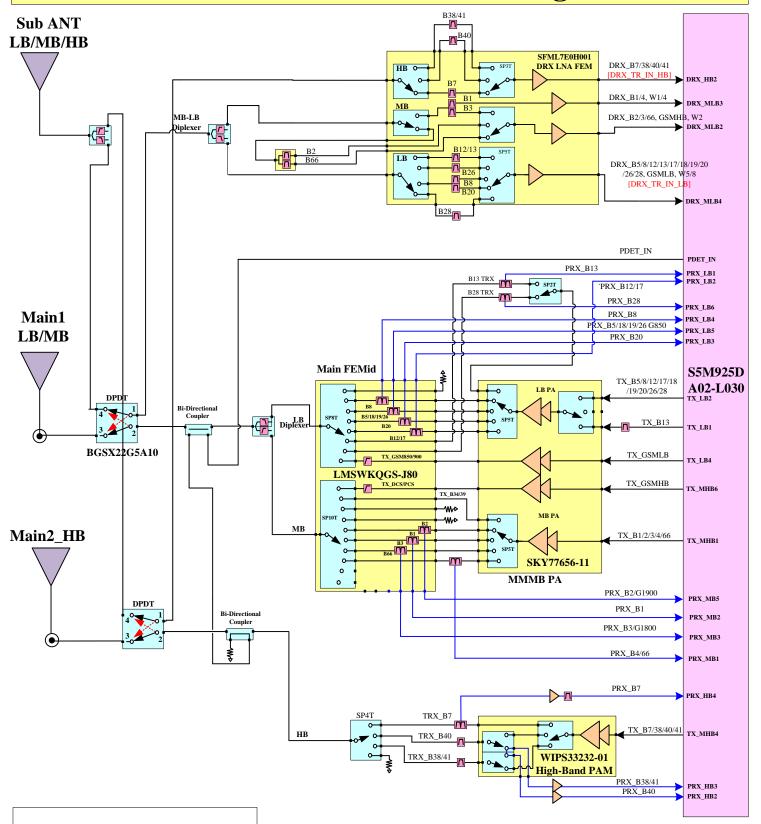
WLAN 5G - TRx 5180 - 5240MHz WLAN 5G - TRx 5260 - 5320MHz

WLAN 5G - TRx 5500 - 5720MHz WLAN 5G - TRx 5745 - 5825MHz

Bluetooth/EDR/LE - TRx 2402 - 2480MHz

GNSS - Rx 1592 - 1606MHz

SM-A505GT/DS RF Block Diagram



[SM-A505GT/DS RF Band]

2G: Quad

3G: W1, W2, W4, W5, W8

LTE FDD:

B1/2/3/4/7/8/12(17)/13/20/26(5/18/

LTE TDD: B38/40/41

GSM/GPRS/FDGF 850 - Tx 824 2 - 848 8MHz / Rx 869 2 - 893 8MHz GSM/GPRS/EDGE 1900 - Tx 1850.2 - 1909.8MHz / Rx 1930.2 - 1989.8MHz

UMTS Band 2 - Tx 1850 - 1910MHz / Rx 1930 - 1990MHz

UMTS Band 4 - Tx 1710 - 1755 / Rx 2110 - 2155MHz

UMTS Band 5 - Tx 824 - 849 / Rx 869 - 894MHz

LTE Band 2 - Tx 1850 - 1910MHz / Rx 1930 - 1990MHz LTE Band 4 - Tx 1710 - 1755MHz / Rx 2110 - 2155MHz

LTE Band 5 - Tx 824 - 849MHz / Rx 869 - 894MHz

LTE Band 12 - Tx 699 - 716MHz / Rx 729 - 746MHz LTE Band 13 - Tx 777 - 787MHz / Rx 746 - 756MHz

LTE Band 17 - Tx 704 - 716MHz / Rx 734 - 746MHz

LTE Band 26 - Tx 814 - 849MHz / Rx 859 - 894MHz

LTE Band 41 - TRx 2496 - 2690MHz

LTE Band 66 - Tx 1710 - 1780MHz / Rx 2110 - 2200MHz

WLAN 2.4G - TRx 2412 - 2462MHz within USA WLAN 2.4G - TRx 2412 - 2472MHz Non USA

WLAN 5G - TRx 5180 - 5240MHz

WLAN 5G - TRx 5260 - 5320MHz

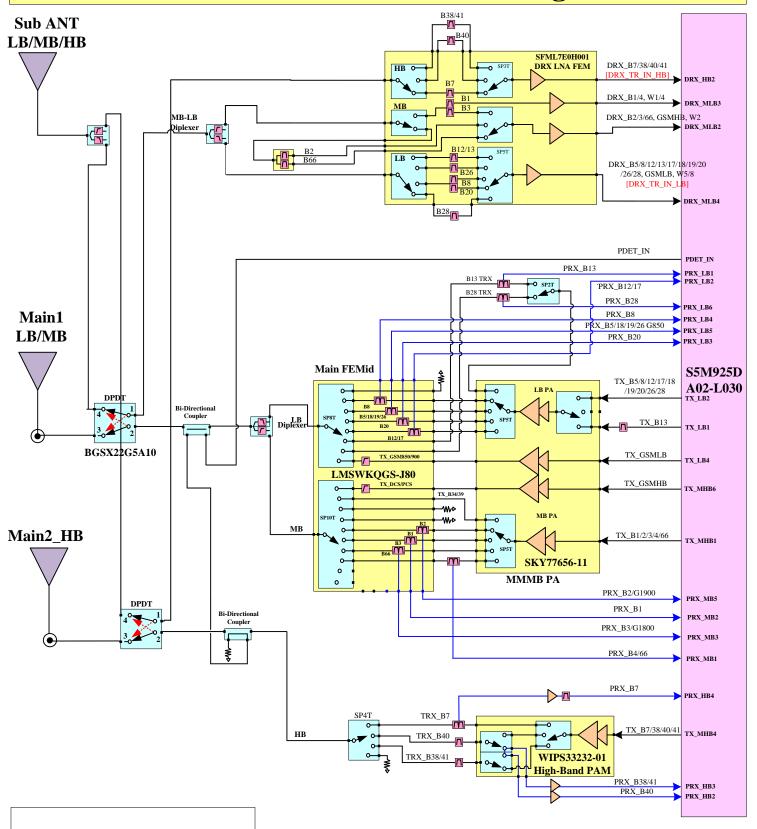
WLAN 5G - TRx 5500 - 5720MHz

WLAN 5G - TRx 5745 - 5825MHz

Bluetooth/EDR/LE - TRx 2402 - 2480MHz

GNSS - Rx 1592 - 1606MHz

SM-A505GN/DS RF Block Diagram



[SM-A505GN/DS RF Band]

2G: Quad

3G: W1,W2,W4,W5,W8

LTE FDD:

B1/2/3/4/7/8/12(17)/13/20/26(5/28)

LTE TDD: B38/40/41

GSM/GPRS/EDGE 850 - Tx 824.2 - 848.8MHz / Rx 869.2 - 893.8MHz

GSM/GPRS/EDGE 1900 - Tx 1850.2 - 1909.8MHz / Rx 1930.2 - 1989.8MHz

UMTS Band 2 - Tx 1850 - 1910MHz / Rx 1930 - 1990MHz

UMTS Band 4 - Tx 1710 - 1755 / Rx 2110 - 2155MHz

UMTS Band 5 - Tx 824 - 849 / Rx 869 - 894MHz

LTE Band 2 - Tx 1850 - 1910MHz / Rx 1930 - 1990MHz LTE Band 4 - Tx 1710 - 1755MHz / Rx 2110 - 2155MHz

LTE Band 5 - Tx 824 - 849MHz / Rx 869 - 894MHz

LTE Band 12 - Tx 699 - 716MHz / Rx 729 - 746MHz LTE Band 13 - Tx 777 - 787MHz / Rx 746 - 756MHz

LTE Band 17 - Tx 704 - 716MHz / Rx 734 - 746MHz

LTE Band 26 - Tx 814 - 849MHz / Rx 859 - 894MHz

LTE Band 41 - TRx 2496 - 2690MHz

LTE Band 66 - Tx 1710 - 1780MHz / Rx 2110 - 2200MHz

WLAN 2.4G - TRx 2412 - 2462MHz within USA

WLAN 2.4G - TRx 2412 - 2472MHz Non USA WLAN 5G - TRx 5180 - 5240MHz

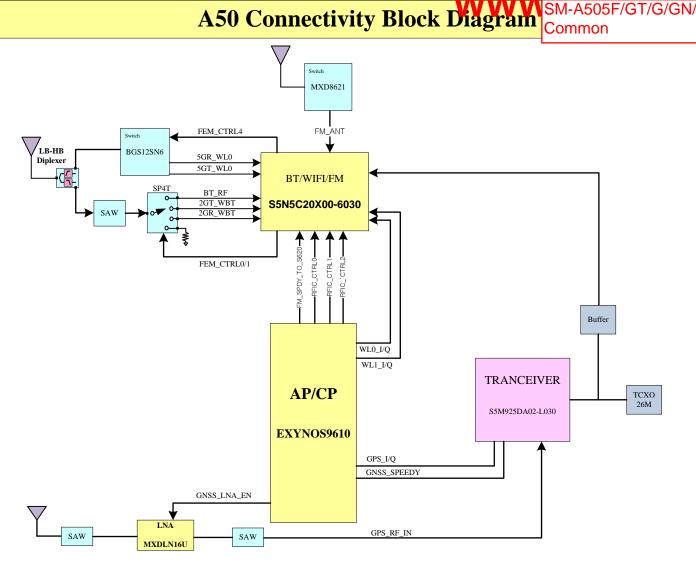
WLAN 5G - TRx 5260 - 5320MHz

WLAN 5G - TRx 5500 - 5720MHz WLAN 5G - TRx 5745 - 5825MHz

Bluetooth/EDR/LE - TRx 2402 - 2480MHz

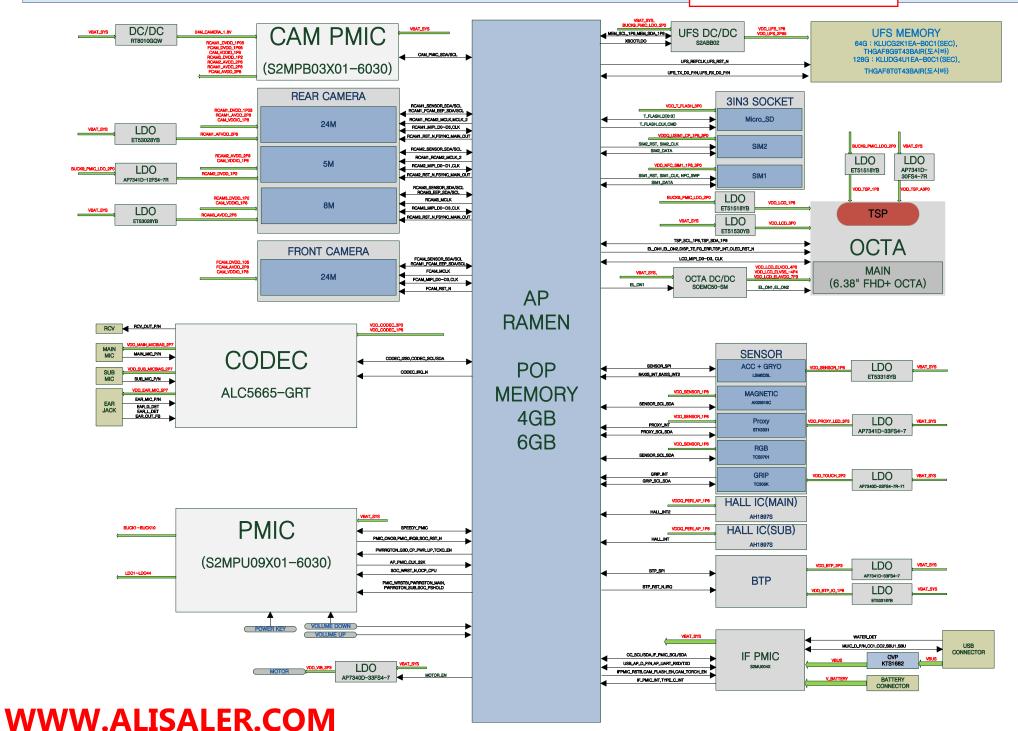
NFC - TRx 13.56MHz

GNSS - Rx 1592 - 1606MHz



A50 BB Block Diagram

SM-A505F/GT/G/GN/FN/FM AliFixit.COM Common



SM-A505F/GT/G/GN/FN/FM WWW.AliFixit.COM Common **U3014** U3008 © CREE U3811 U3888 U3888 U7031 U7032 U7033 HDC7003 SIM4UP ANT9003 (ANT9005 SIM1 SIM2 SIM3 HDC7001 | Man \$C6001 **U**7034 **D**6000 BNT5184 U6002 BH6002 8 UME5000 HDC4000 U5001 HDC7000 C5882 C5886 C5885 R6005 F C6007 2 2 2 L6001 L6818 L6818 U6001 WWW.ALISALER.COM 06669 Θ BH6000

WWW.AliFixit.COM SM-A505F/GT/G/GN/FN/FM Common U7039 U7038 ANT3000 ANT3001 MICGORD 5252 * C3885 B L3814 C3842 C7314 0 7 2000 U7044 L7825 C3824 L3884 R887 VORC) C3991 S F3088 P8 U7812 E -U7868 sceaga U3012 U7040 F3882 S U7041 **SC6004** 20 C3853 AN USE E 13006 and 1000 and 10 **U3015 U3002** HDC7002 U3016 C3854 C3857 L3811 C3852 F1000 COR17 COR18 U7071 SC6003 C7011 C7825 C7032 L1823 | L1812 | L1815 | E C7295 C7327 C5829 C5846 C5839 F1001 F1002 C1887 L1988 C1823 U7003 88 87 27 CLA C1844 ZD1000 | R1000 | R100 C7044 C50974 C50974 C50974 C50975 C50974 C50975 C5 U1003 J 🌰 L SUSGOOD 29060 C1862 C7307 Unex L782 C7298 U/822 SC60 02 CORRI C1816 C1928 L1825 L5008 RFS1000 L1806 L1809 C1850 GA7000 L1874 L1872 C1881 C1876 L1834 C1874 C1850 L1820 C1849 C1856 L1838 C1856 C1856 C1856 (5618 C1886 L1837 C1885 **U1008** 1873 L1833 C1872 C5053 U7838 U7811 5 S U7066 L5009 C5857 C5878 11801 11801 11801 U5000 C7308 E C1838 L1879 L5010 R7811 U7843 C7313 U7842 1 C1698 L100-U7020 | • F1006 C5071 Θ' L5004 0C5052 C7311 C5002 C5005 U1001 C1166 L5005 L1891 C1863 CLP1000 L5006 C1911 L1871 L1884 L1867 L1863 L1885 L5001 C5055 PAM1000 L5003 L5002 C4699 C4879 C4899 C50 R4861 R4863 F1003 L1898 L1864 L1839 F1008 C1093 L5011 C4865 C4868 C4117 C4823 C4886 C6015 8 C1818 L1986 C5063 C5021 CTM4 CTR62 CTR64 CTR49 CTR63 CTR63 U7805 U7805 RFS1001 C5003 1188 1188 1188 1188 1188 ZD7009 C4816 1 C4121 C6852 RIBBA SC6005 C6085 U6012 C7058 C4038 C4039 C6084 C5043 C5059 C4036 C7057 C5815 C4878 L7008 C5004 L7012 C4114 C7059 C4894 C7056 C6039 ZB682 R6888 ZB687 R6887 C6092 U7018 C7306 U7065 L5991 L5999 D5100 C6025 C4034 U7000 L7007 C7867 C5001 | March | Marc C5101 C4037 C5058 CON6001 L5020 C5129 L3019 C4854 E L7009 C5873 C5144 C4856 U3017 C7072 C7073 L7010 C7286 C7060 C7061 U5003 LE 115000 ANT5000 C4115 C4183 ностро ANT5002 | C4818 | ZD6819 | C7879 | C6818 | C7876 | C7877 | C7878 | C6811 | C7877 | C7888 | R4849 | HDC7004 TP_UB HEA6001 WW.ALISALER.COM TP4888

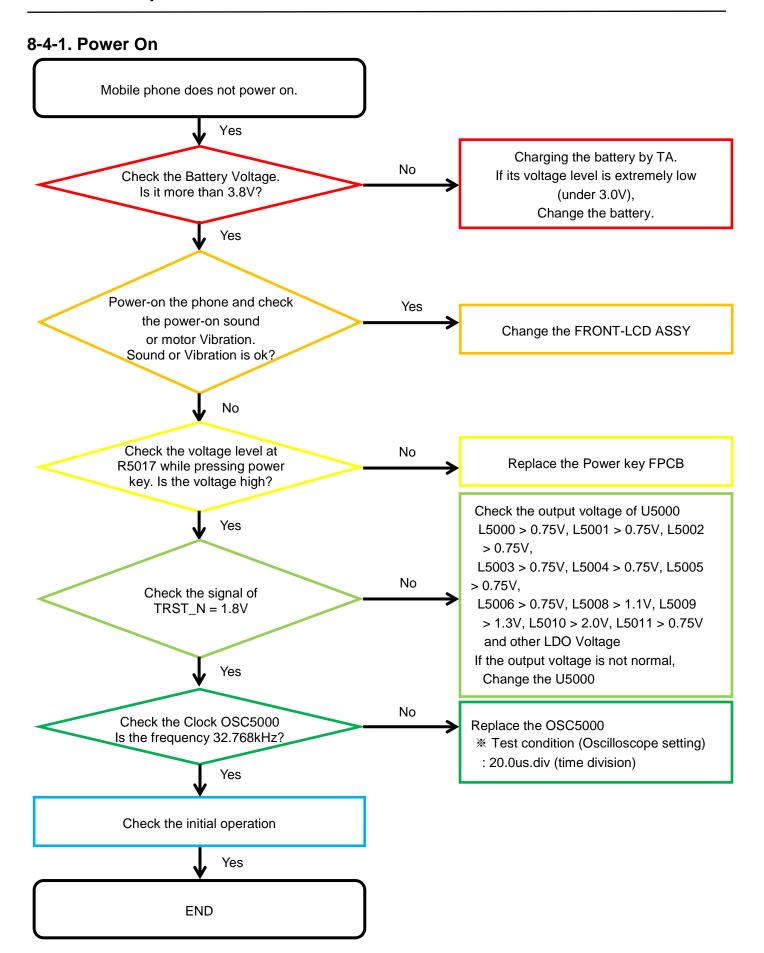
Soldering iron

8. Level 3 Repair

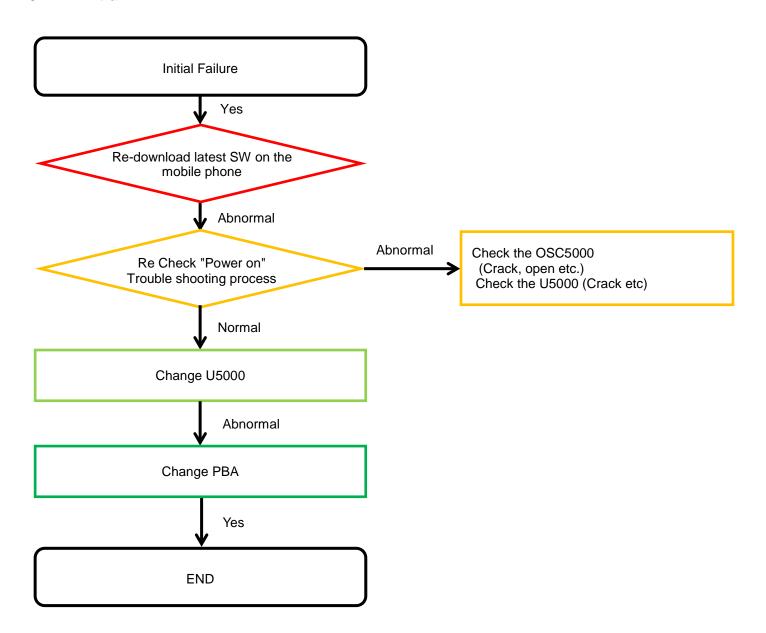
8-3. Flow chart of Troubleshooting.



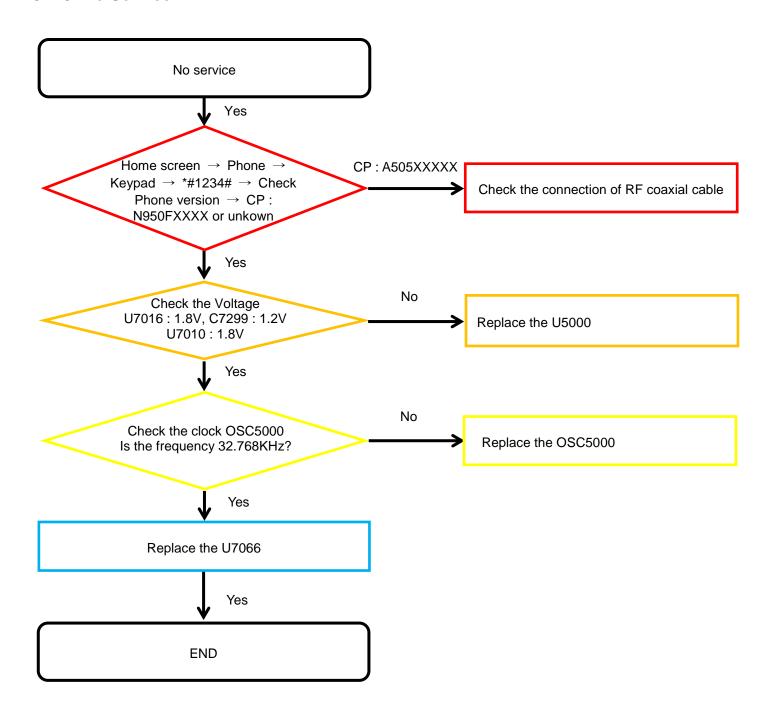
8960 & Spectrum Analyzer



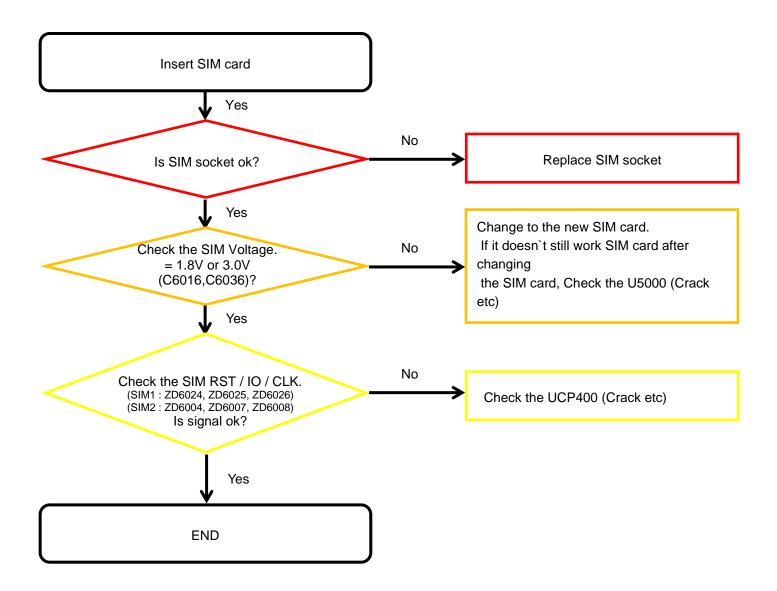
8-4-2. Initial



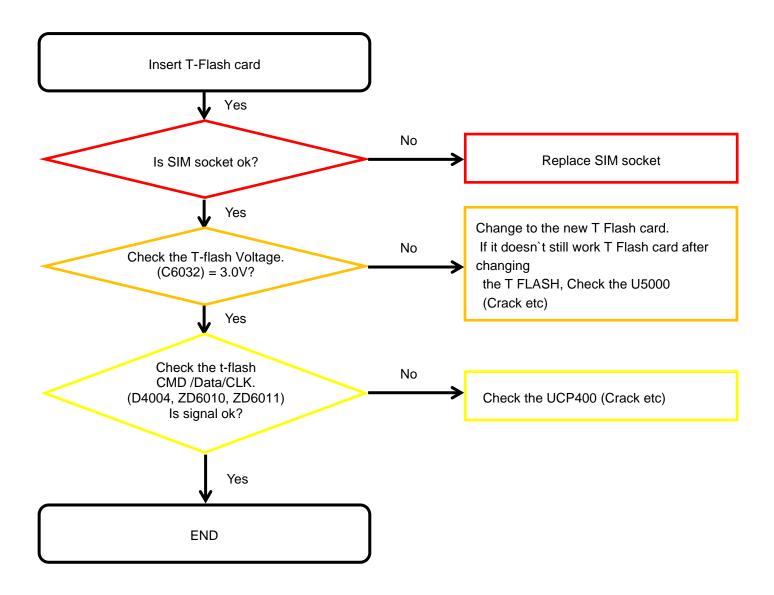
8-4-3. No Service



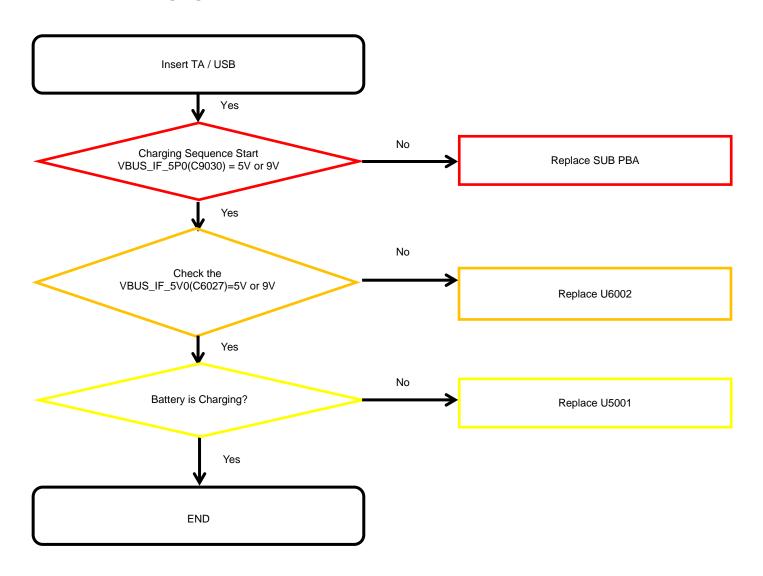
8-4-4. SIM Part



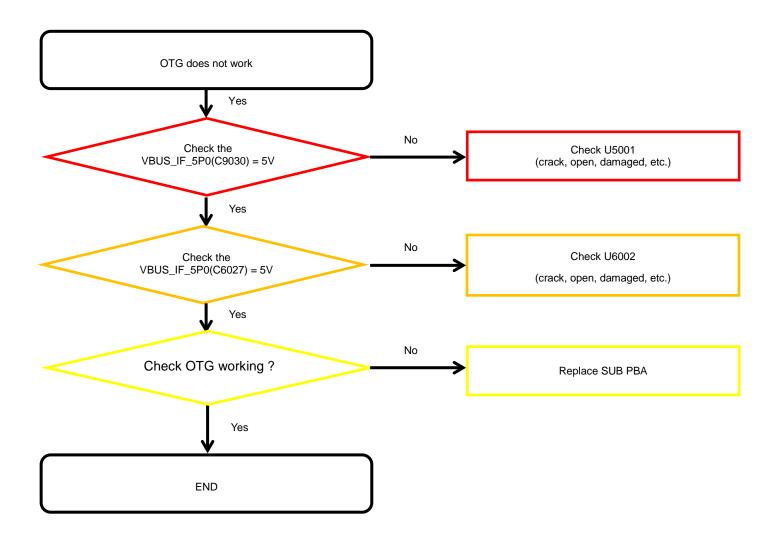
8-4-5. T-Flash Part



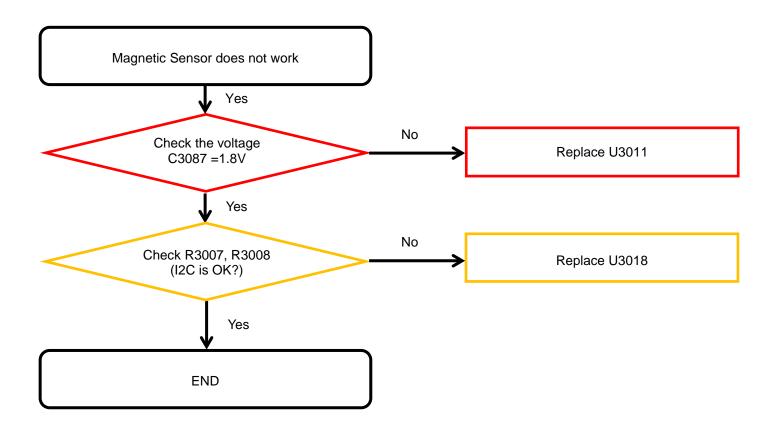
8-4-6. Cable Charging Part



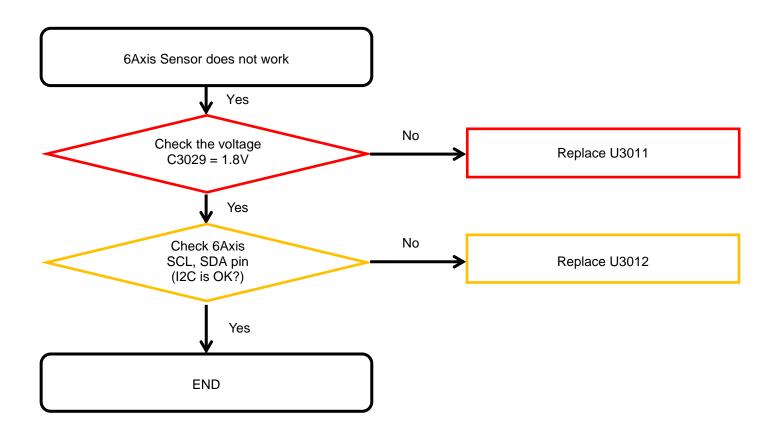
8-4-7. OTG



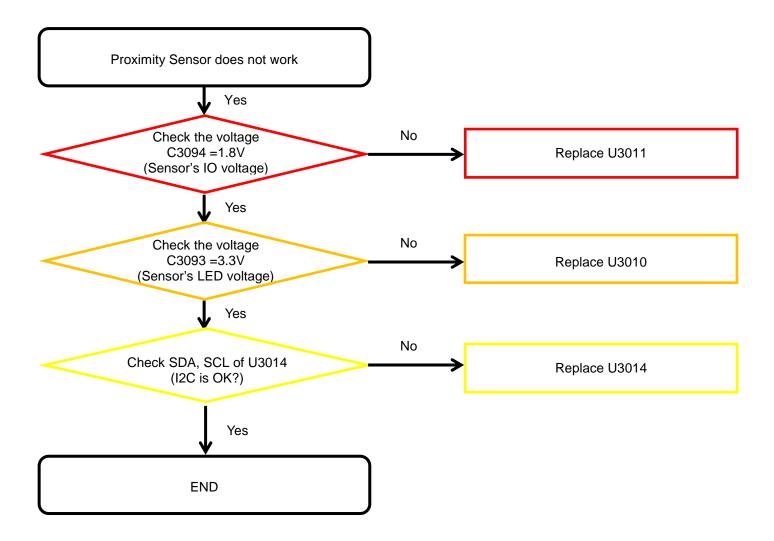
8-4-8-1. Magnetic Sensor



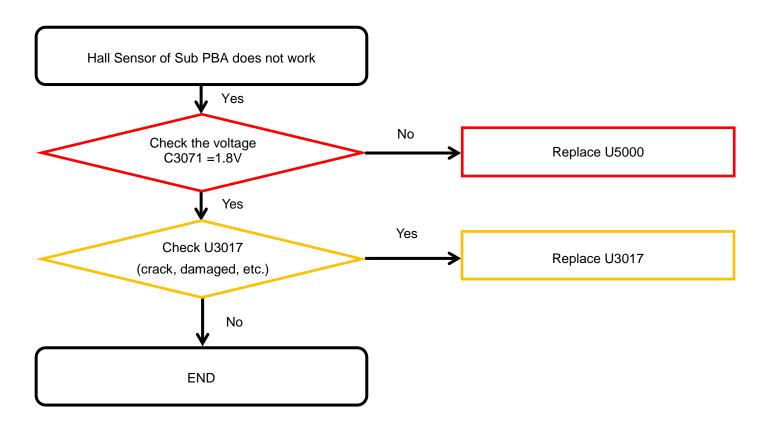
8-4-8-2. 6Axis Sensor



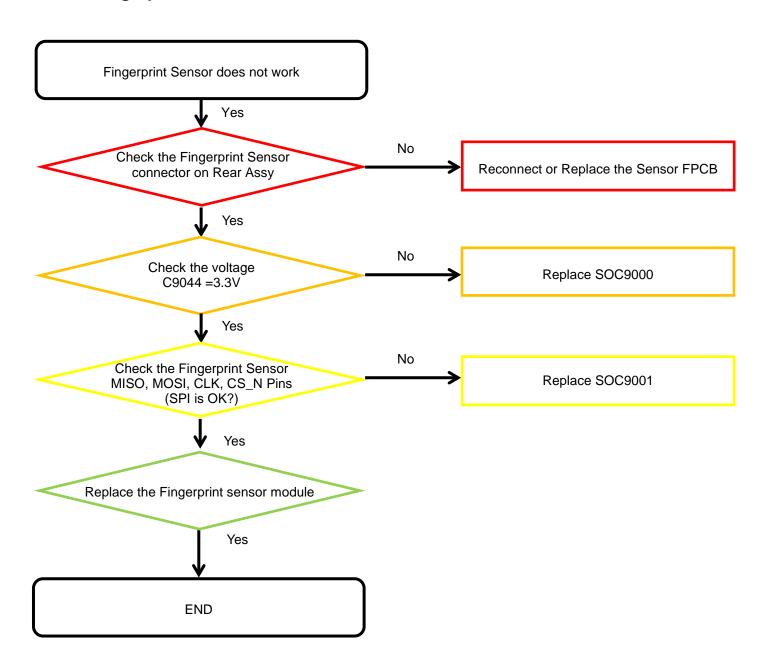
8-4-8-3. Proximity



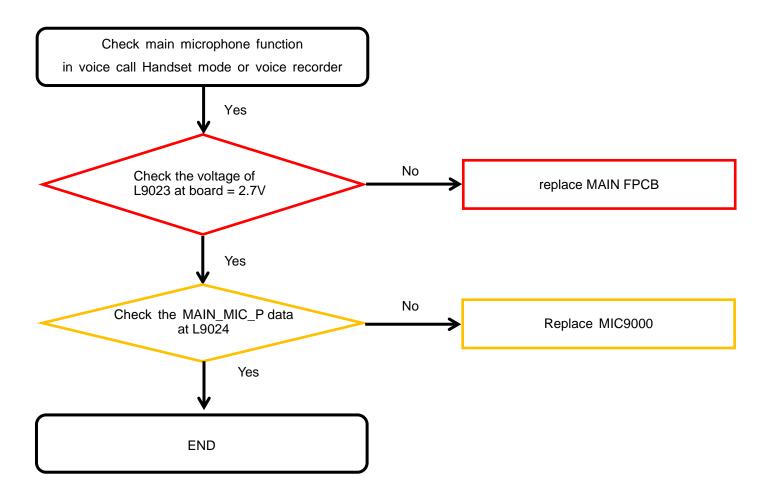
8-4-8-4. Hall Sensor



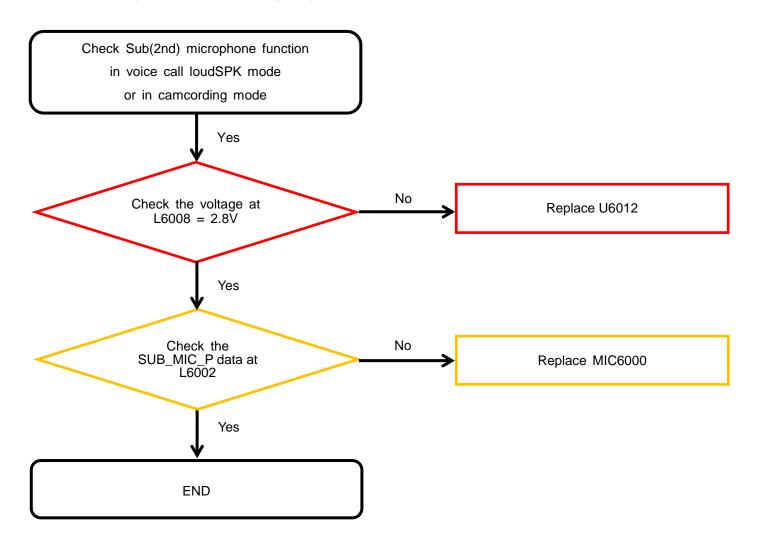
8-4-8-5. Fingerprint Sensor



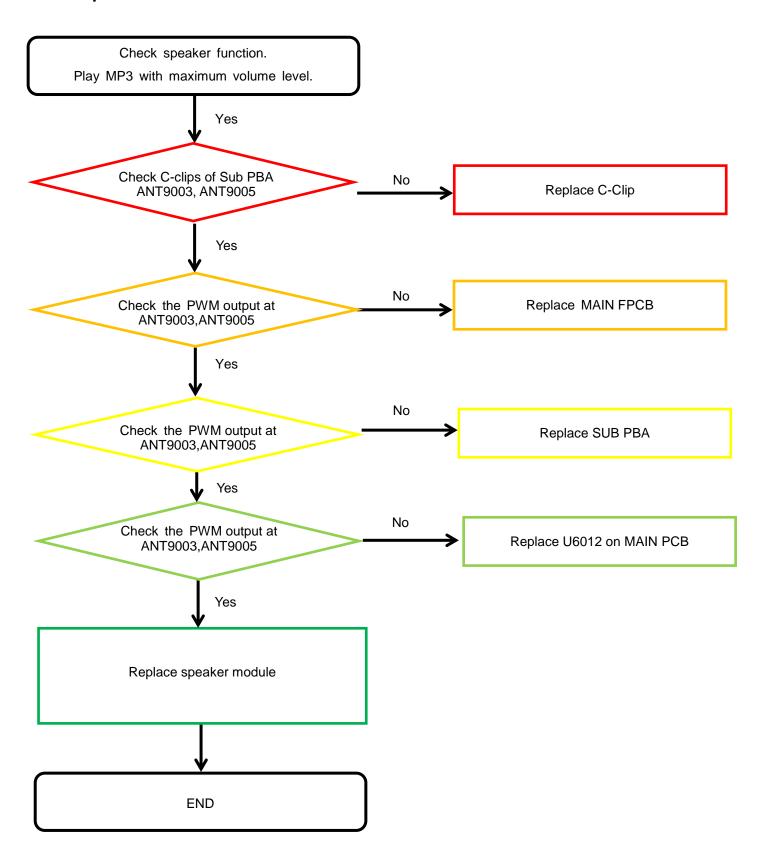
8-4-9-1. Microphone Part - Main MIC



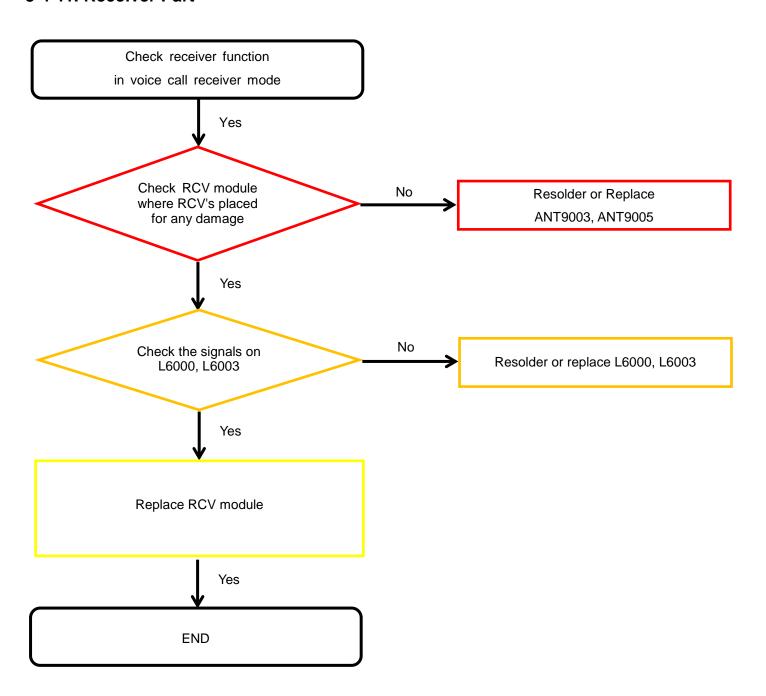
8-4-9-2. Microphone Part - Sub(2nd) MIC



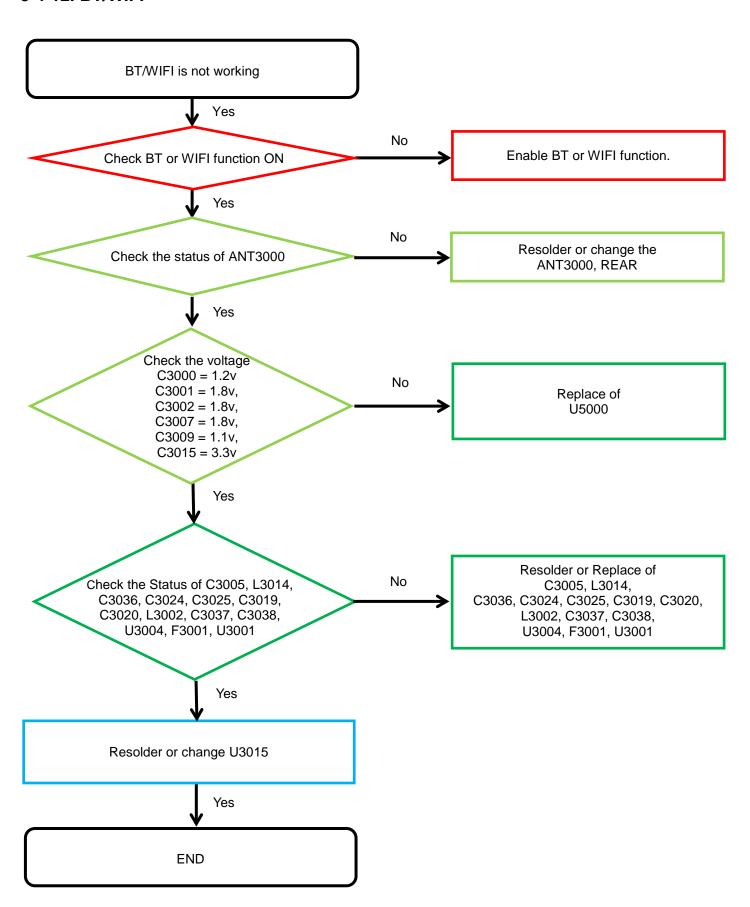
8-4-10. Speaker Part



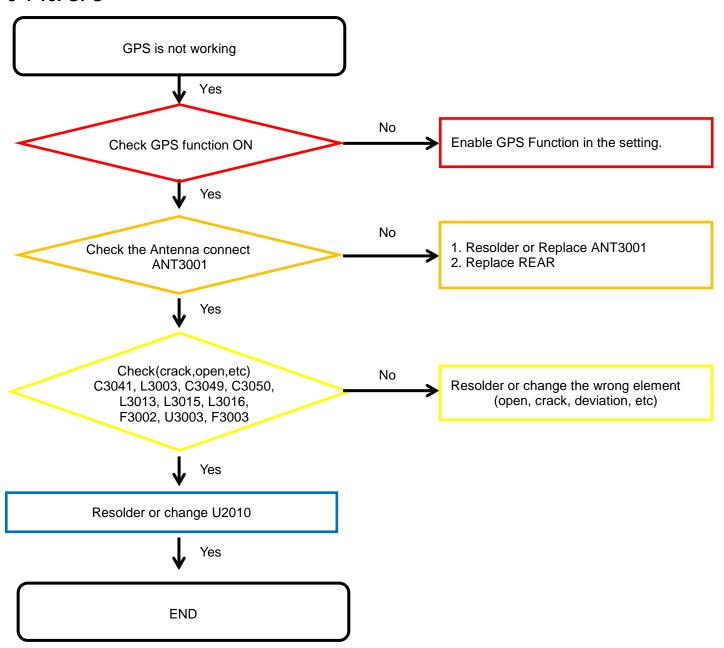
8-4-11. Receiver Part



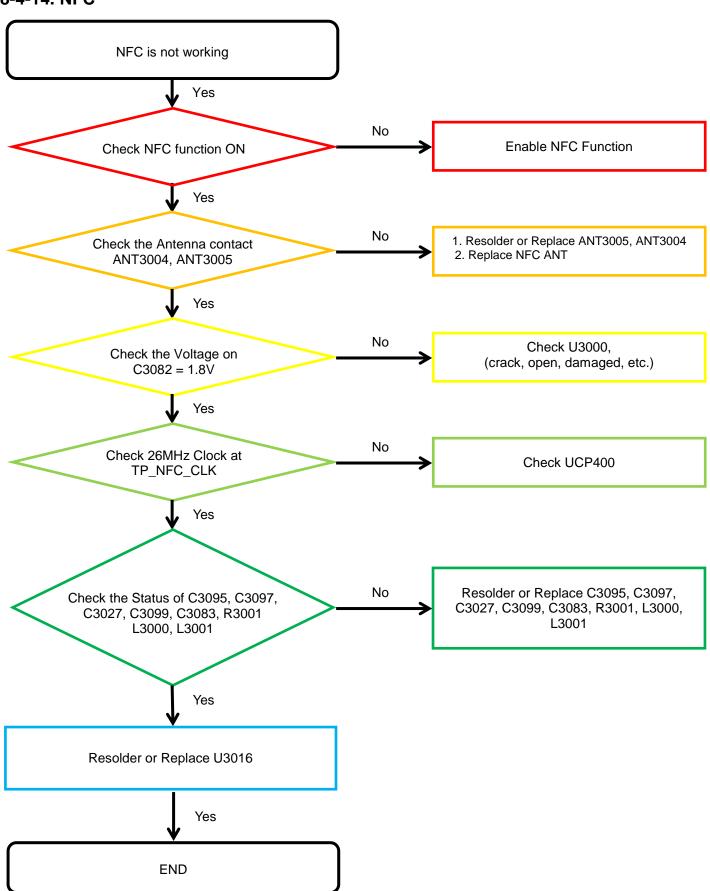
8-4-12. BT/WIFI



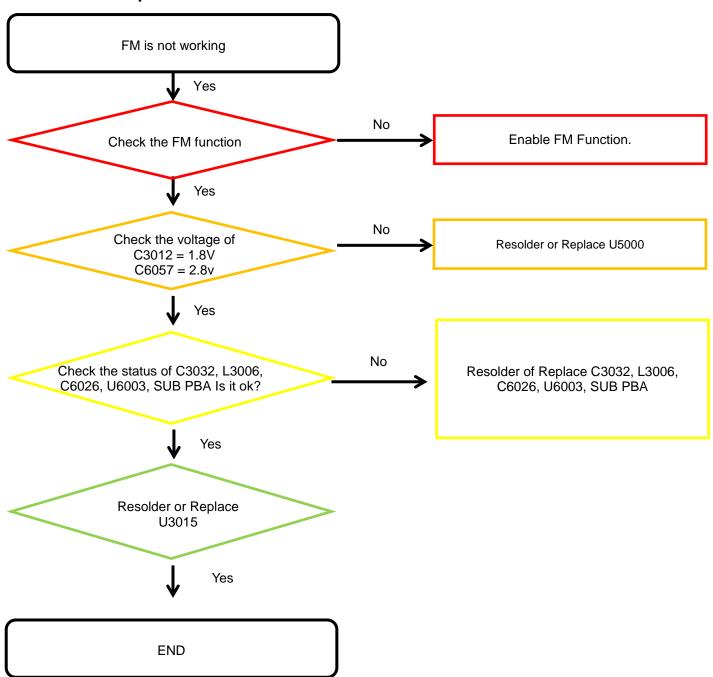
8-4-13. GPS

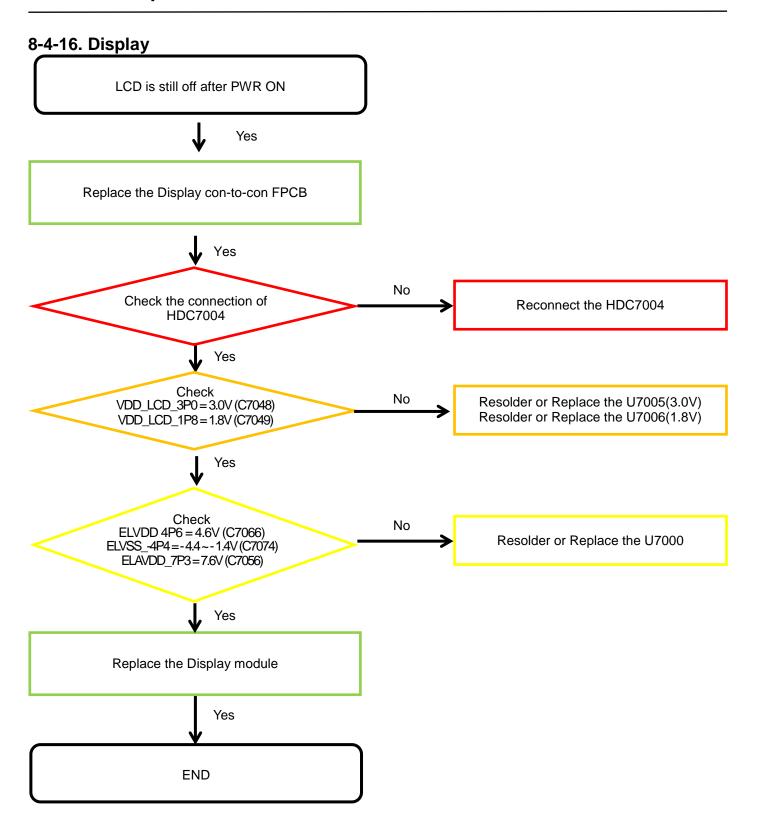


8-4-14. NFC

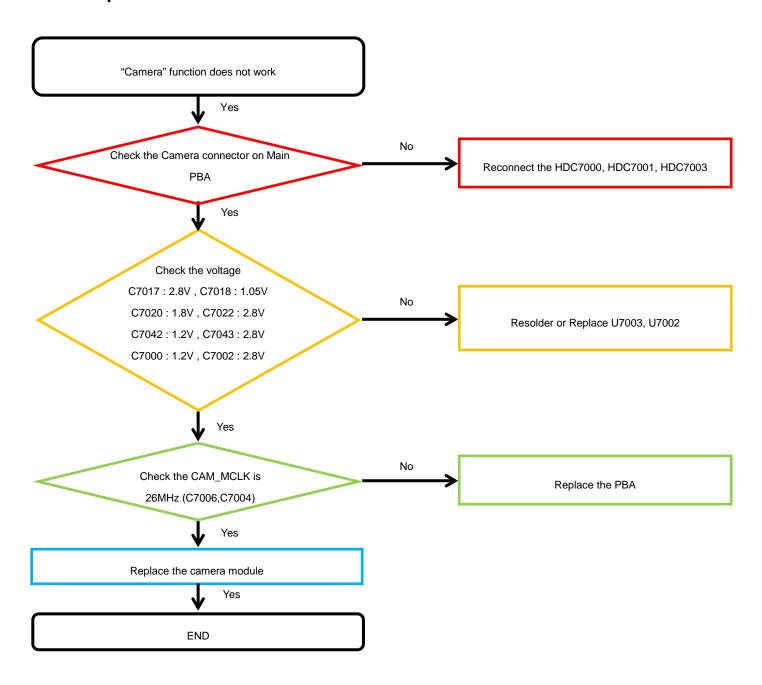


8-4-15. FM radio part

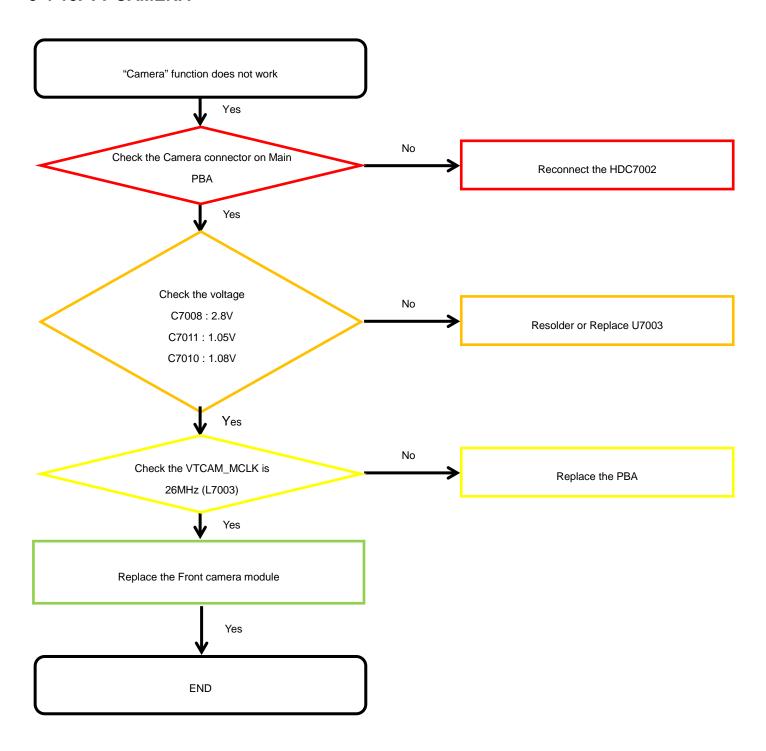




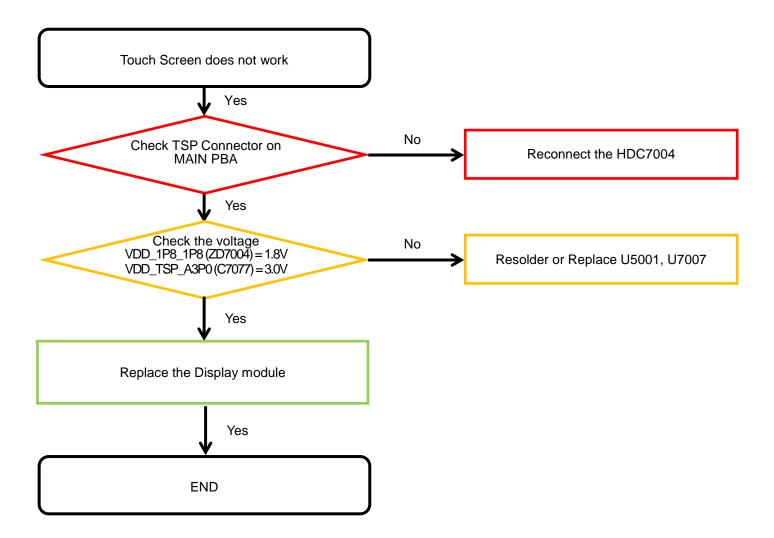
8-4-17. Triple Camera



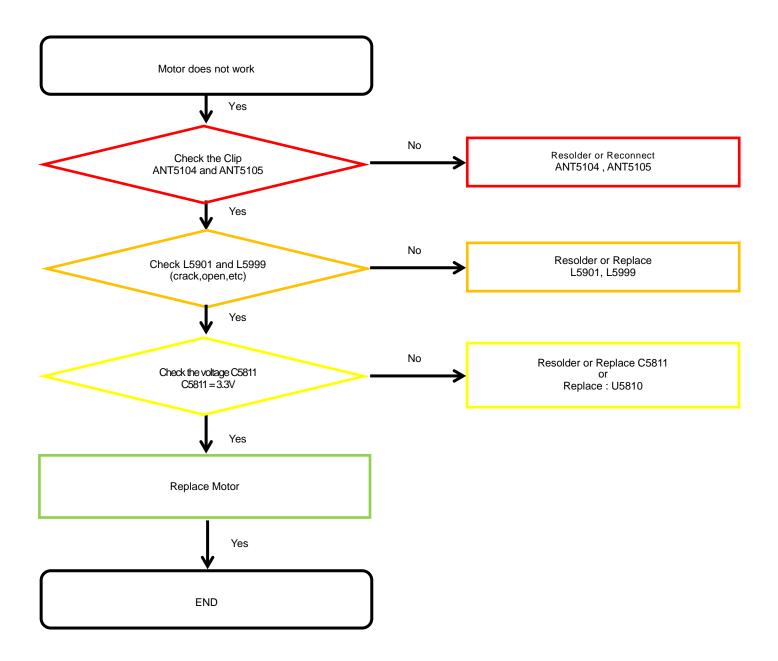
8-4-18. VT CAMERA



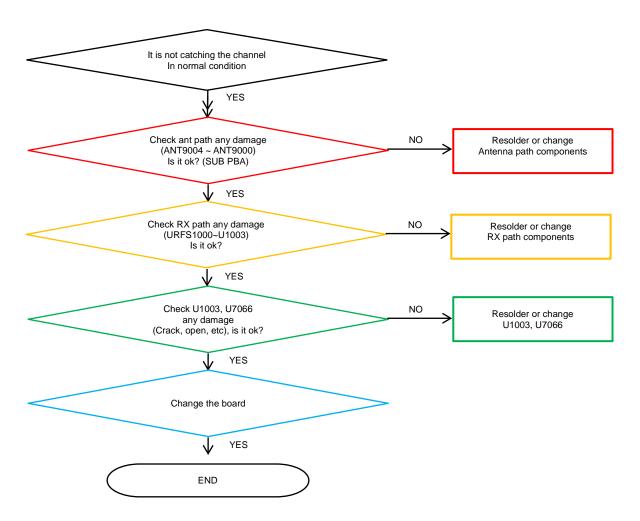
8-4-19. TSP



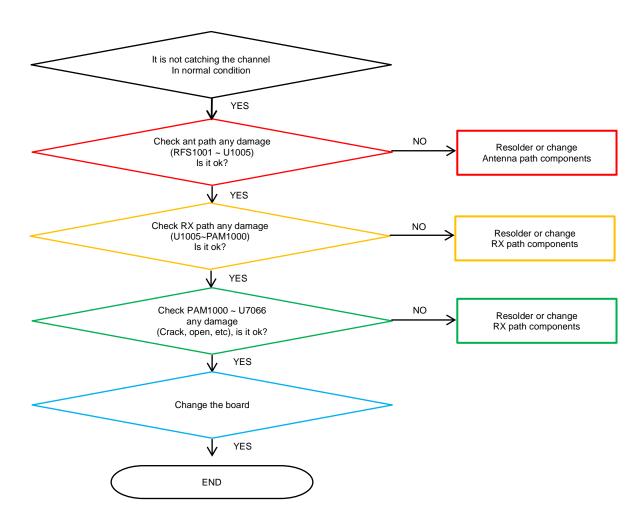
8-4-20. Motor



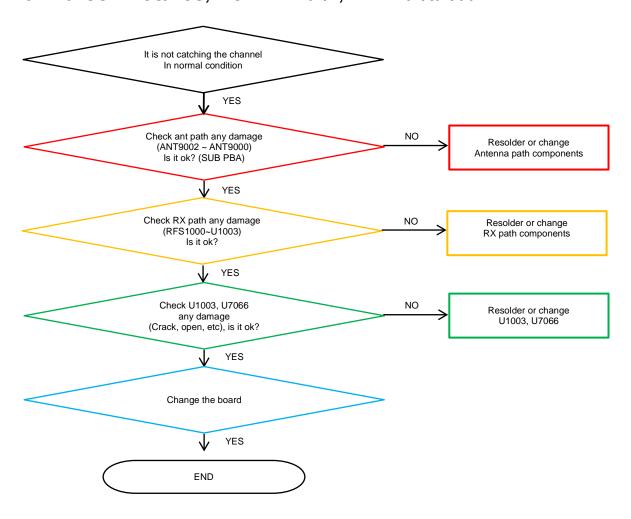
8-4-21. GSM 850/900, WCDMA B5/8, LTE B5/8/12/13/17/20/28 PRx



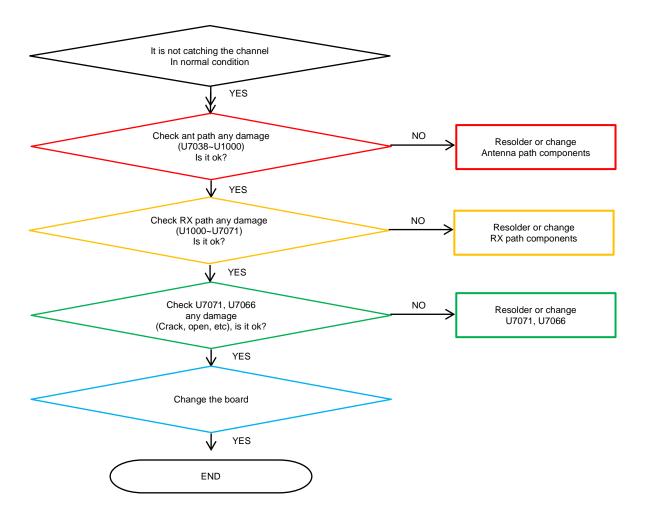
8-4-22. LTE B7/38/40/41 PRx



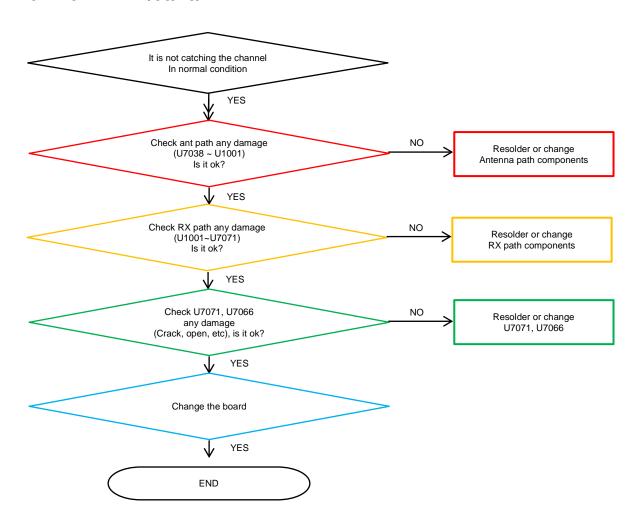
8-4-23. GSM DCS/PCS, WCDMA B1/2/4, LTE B1/2/3/4/66 PRx



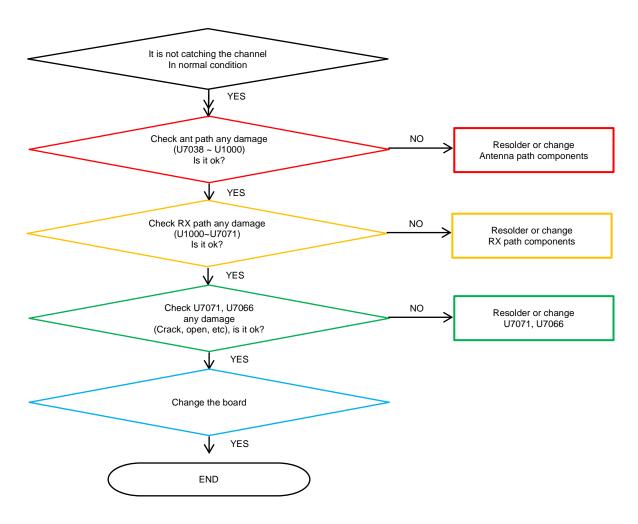
8-4-24. GSM 850/900, WCDMA B5/8, LTE B5/8/12/13/17/20/28 DRx



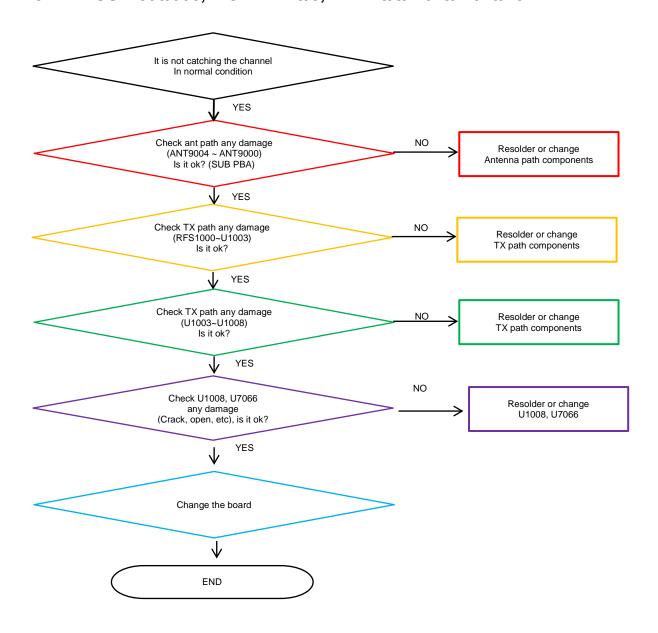
8-4-25. LTE B7/38/40/41 DRx



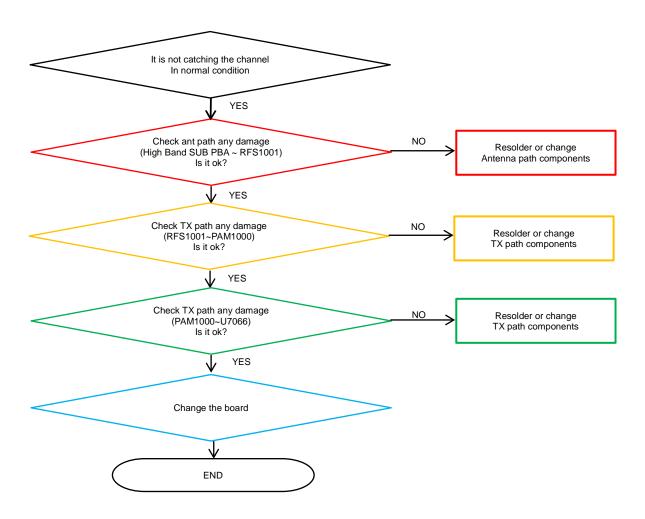
8-4-26. GSM DCS/PCS, WCDMA B1/2/4, LTE B1/2/3/4/66 DRx



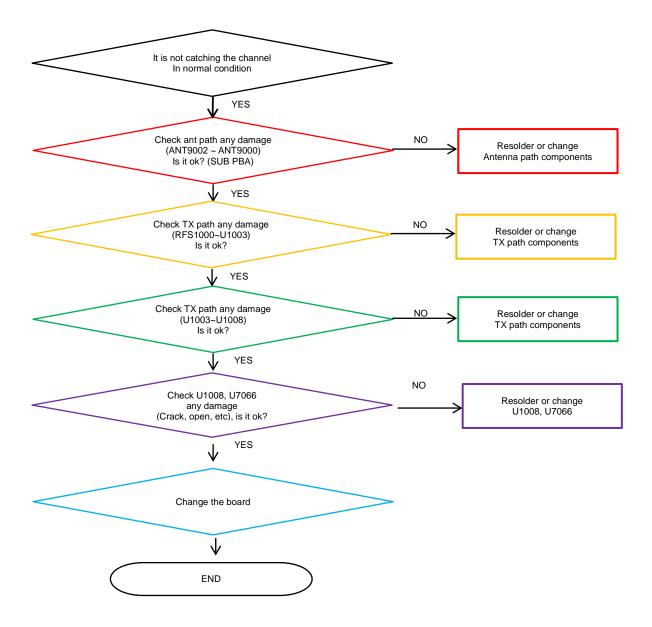
8-4-27. GSM 850/900, WCDMA B5/8, LTE B5/8/12/13/17/20/28 TX



8-4-28. LTE B7/38/40/41 Tx



8-4-29. GSM DCS/PCS, WCDMA B1/2/4, LTE B1/2/3/4/66 Tx



8-5. Service Schematics

- NC Point(Top View)

