Internal Use Only

MOBILE PHONE
SERVICE MANUAL

CAUTION
BEFORE SERVICING THE UNIT, READ THE “SAFETY PRECAUTIONS” IN THIS MANUAL

MODEL : LG-H815

Date: May, 2015 / Issue 1.0

Table Of Contents

1.1 Purpose

This manual provides the information necessary to repair, calibration, description and download the features of this model.

1.2 Regulatory Information

A. Security

This material is prohibited to share and release to unauthorized person, in accordance with the regulations, LG Electronics, Civil / criminal responsibility in accordance with the relevant provisions violate.

B. Precautions for repair

- In case of Disassembly or Assembly to repair product, be careful of a product failure caused by RF signals and Static electricity.
- When using Magnetic tool for the Phone's SVC repair, you should check affect the Electric parts according to effect of Magnet.
- When fastening the screw, be careful not to damage the head of screw and even product.

C. Attention

Boards, which contain Electrostatic Sensitive Device (ESD), are indicated by the  **sign.**

Following information is ESD handling:

- Service personal should ground themselves by using a wrist, strap when exchange system board.
- When repair are made to a system board, they should spread the floor with anti-static mat which is also grounded.
- Use a suitable, grounded soldering iron.
- Keep sensitive parts in these protective packages until these are used.
- When returning system board or parts like EEPROM to the Factory, use the protective package as described.

2.1 Band Specification

Support Band	TX Freq (MHz)	RX Freq (MHz)
WCDMA(FDD1)	1920 – 1980	2110 – 2170
WCDMA(FDD2)	1850 - 1900	1930 - 1990
WCDMA(FDD5)	824 – 849	869 – 894
WCDMA(FDD8)	880 – 915	925 – 960
EGSM	880 – 915	925 – 960
GSM850	824 – 849	869 – 894
DCS1800	1710 – 1785	1805 – 1880
PCS1900	1850 – 1910	1930 – 1990
LTE FDD1	1920 – 1980	2110 – 2170
LTE FDD2	1850 – 1910	1930 – 1990
LTE FDD3	1710 – 1785	1805 – 1880
LTE FDD4	1710 – 1755	2110 – 2155
LTE FDD5	824 – 849	869 – 894
LTE FDD7	2500 – 2570	2620 – 2690
LTE FDD8	880 – 915	925 – 960
LTE FDD17	704 – 715	734 – 745
LTE FDD20	832 – 862	792 – 821
LTE FDD28	703 – 748	758 – 803

2.2 HW Features

List	Type / Spec.	
1. Phone Type	DOP Type	
2. Size	148.9 x 76.1 x 9.8mm (Metallic Battery Cover) 148.9 x 76.1 x 10.1mm(Leather Battery Cover)	
3. Weight	155g (Metallic Battery Cover) 157g (Leather Battery Cover)	
4. Battery	**3,000mAh(Typ) (Li-Ion)**	
5.Chipset	MSM8992, WTR3925, PM8994, PMI8994, WCD9330	
6. Memory	3GB(SDRAM DDR3) + 32GB eMMC	
7. LCD	Size	5.5 inch
	Display Type	Transmissive type / normally black / IPS
	Color	16M colors
	Resolution	2560x1440 pixels, 538PPI
8. Touch	Type	Capacitive type
9. Main Camera (16M)	Type	CMOS image sensor
	Resolution	5312(H) X 2988(V) pixels.
	Image Scaling Down	12M(4:3) / 3984 X2988 9M(1:1) / 2976 X2976
	Format	**Image :** JPG, **Video :** MP4

2.2 HW Features

10. Audio	Receiver	11 X 06 X 2.65T Receiver
	Speaker	15 X 11 X 3.5T Speaker
	Format	mp3 / wav /amr / aac / ac3 / ogg / flac / mid / wma
11. Bluetooth	Standard	Bluetooth 4.1
	Effective Distance	10M
	Distance	0 m ~ 10 m (depend on environment)
12. WLAN	Standard	2.4GHz IEEE 802.11 b/g/n/, 5GHz IEEE 802.11 a/n/ac
	Throughput	Max 40Mbps (SDIO Driver performance)
	Depend on environment	0 ~ 50m (depend on environment)
13. GPS	type	A-GPS
14. FM	type	FM Radio, 3.5pi Ear-jack

2.3 RSSI Display

Antenna BAR	Specification			Unit
	LTE	WCDMA	GSM	
5→4	-86 dBm ± 4dBm	-87 ±4dBm	-90 ±2dBm	dBm
4→3	-96 dBm ± 4dBm	-92 ±4dBm	-96 ±2dBm	
3→2	-106 dBm ± 4dBm	-98 ±4dBm	-98 ±2dBm	
2→1	-116 dBm ± 4dBm	-102 ±4dBm	-102 ±2dBm	
1→0	-128 dBm ± 4dBm	-108 ±4dBm	-104 ±2dBm	

2.4 Current consumption

Item	Specification		
	LTE	WCDMA	GSM
1. Sleep Mode	Under 12.5mA	Under 12mA	Under 12mA
2. Sleep : connector Ear jack	Under 13mA	Under 12.5mA	Under 12.5mA
3. Current(Sleep & Idle AVG)	Under 15mA @ 2.56s	Under 14.5mA @ DRX 7	Under 14.5mA @ P.P 5

2.5 Battery bar

Battery Bar	Specification	
BAR 20 (Full)	98% over	remain%
BAR 20 --> 19	98% ◊ 97%	
BAR 19 --> 18	93% ◊ 92%	
BAR 18 --> 17	88% ◊ 87%	
BAR 17 --> 16	83% ◊ 82%	
BAR 16 --> 15	78% ◊ 77%	
BAR 15 --> 14	73% ◊ 72%	
BAR 14 --> 13	68% ◊ 67%	
BAR 13 --> 12	63% ◊ 62%	
BAR 12 --> 11	58% ◊ 57%	
BAR 11 --> 10	53% ◊ 52%	
BAR 10 --> 9	48% ◊ 47%	
BAR 9 --> 8	43% ◊ 42%	
BAR 8 --> 7	38% ◊ 37%	
BAR 7 --> 6	33% ◊ 32%	
BAR 6 --> 5	28% ◊ 27%	
BAR 5 --> 4	23% ◊ 22%	
BAR 4 --> 3	16% ◊ 15%	
BAR 3 --> 2	13% ◊ 12%	
BAR 2 --> 1	8% ◊ 7%	
BAR 1 --> 0	3% ◊ 2%	
Low Battery Pop-up	5% ~ 15%	

2.6 SW Specification

Item	Feature	Comment
RSSI	0 ~ 5 Levels	
Battery Charging	0 ~ 20 Levels	
Key Volume	0 ~ 7 Level	
Audio Volume	0 ~ 15 Level	
Time / Date Display	Yes	
Multi-Language	Yes	depending on build language
Quick Access Mode	Phone / Messaging / Apps / Web / Contact	Phone / Contact / Messaging / Applications
PC Sync	Yes	
Speed Dial	Yes	Voice mail center -> 1 key
Profile	Yes	not same with feature phone setting
CLIP / CLIR	Yes	
Phone Book	Name / Number / Email / Website / Postal addresses / Organizations / Groups / Birthday / Notes / Ringtone	There is no limitation on the number of items. It depends on available memory amount.
Last Dial Number	Yes	
Last Received Number	Yes	
Last Missed Number	Yes	
Search by Number/Name	Name / Number	
Group	Yes	There is no limitation on the number of items. It depends on available memory amount.
Fixed Dial Number	Yes	
Service Dial Number	No	
Own Number	Yes	My Profile (add/edit/delete are supported)

2.6 SW Specification

Voice Memo	Yes	Support voice recorder
Call Reminder	No	Missed call popup
Network Selection	Automatic	
Mute	Yes	
Call Divert	Yes	
Call Barring	Yes	
Call Charge (AoC)	No	
Call Duration	Yes	
SMS (EMS)	There is no limitation on the number of items . It depends on available memory amount.	EMS does not support.
SMS Over GPRS	No	
EMS Melody / Picture Send / Receive / Save	No	
MMS MPEG4 Send / Receive / Save	Yes	➢ **Send / Receive** : Yes ➢ **Save** : depends on content type Support video content type li st 1. video/mp4 2. video/h263 3. video/3gpp2 video/3gpp
Long Message	It depends on SIM	The standard of Open vender
Cell Broadcast	Yes	
Download	Yes	
Game	No	
Calendar	Yes	
Memo	No	integrated to QMemo+
World Clock	Yes	

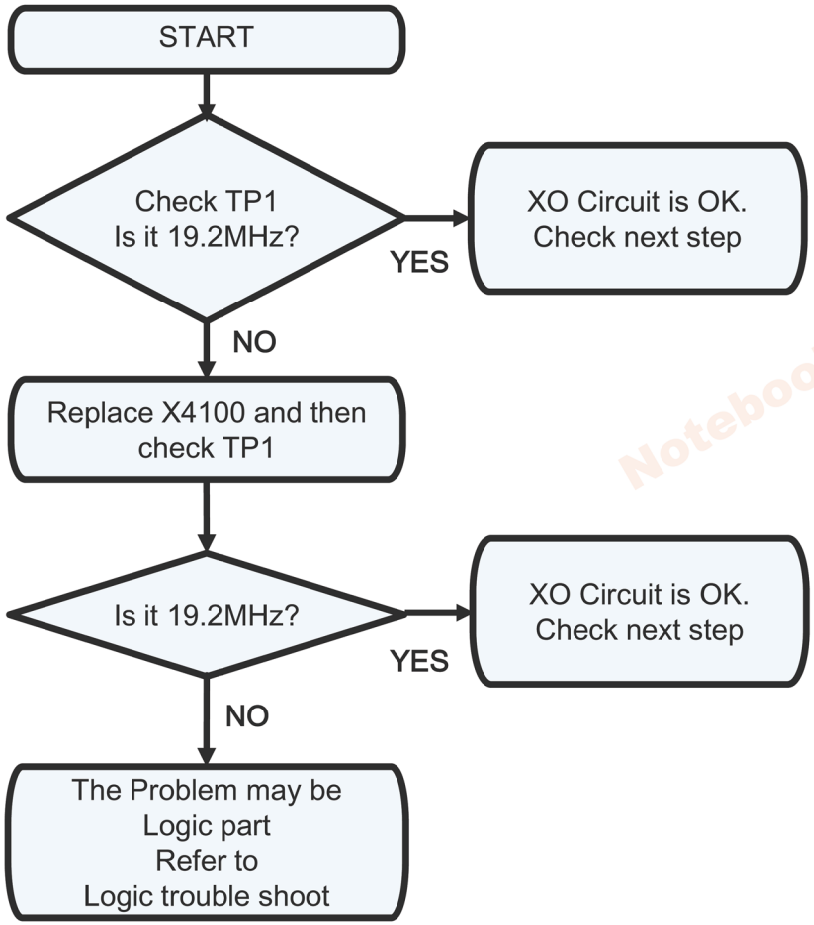
2.6 SW Specification

Unit Convert	No	
Stop Watch	Yes	
Wall Paper	Yes	
WAP Browser	No	WAP stack and wml are not su pported.
Download Melody / Wallpaper	Yes	Over web browser
SIM Lock	No	
SIM Toolkit	Yes	
MMS	Yes	Google MMS Client
EONS	Yes	
CPHS	Yes	V4.2
ENS	No	
Camera	Yes	Main : 16M AF VT : 8M FF
JAVA	No	
Voice Dial	Yes	
IrDa	No	IrRC
Bluetooth	Yes	Ver. 4.1
FM radio	No	
GPRS	Yes	Class 12
EDGE	Yes	Class 12(Rx only)
Hold / Retrieve	Yes	
Conference Call	Yes	Max. 6
DTMF	Yes	
Memo pad	No	integrated to QMemo+
TTY	No	
AMR	Yes	
SyncML	No	
IM	Yes	Google Hangout
Email	Yes	

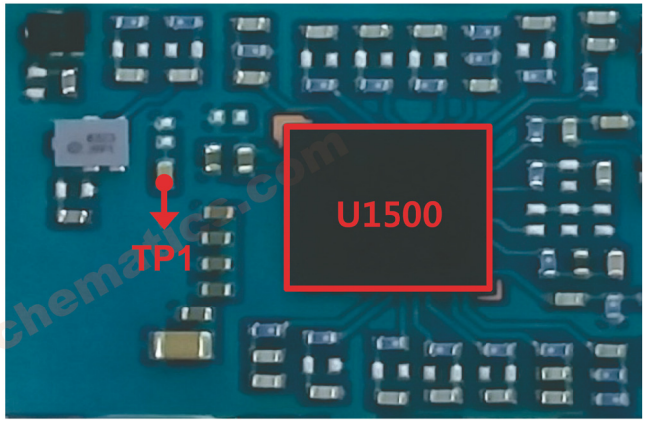
3.1 Checking XO Block

The output frequency(19.2MHz) of XO(X4100) is used as the reference one of WTR3905 and PM8994 internal VCO

Checking Flow

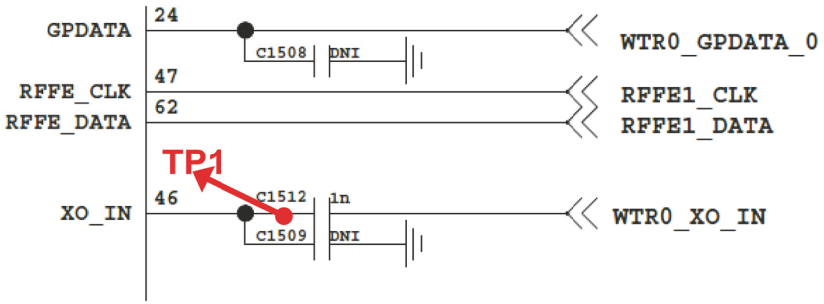


Image



BOTTOM

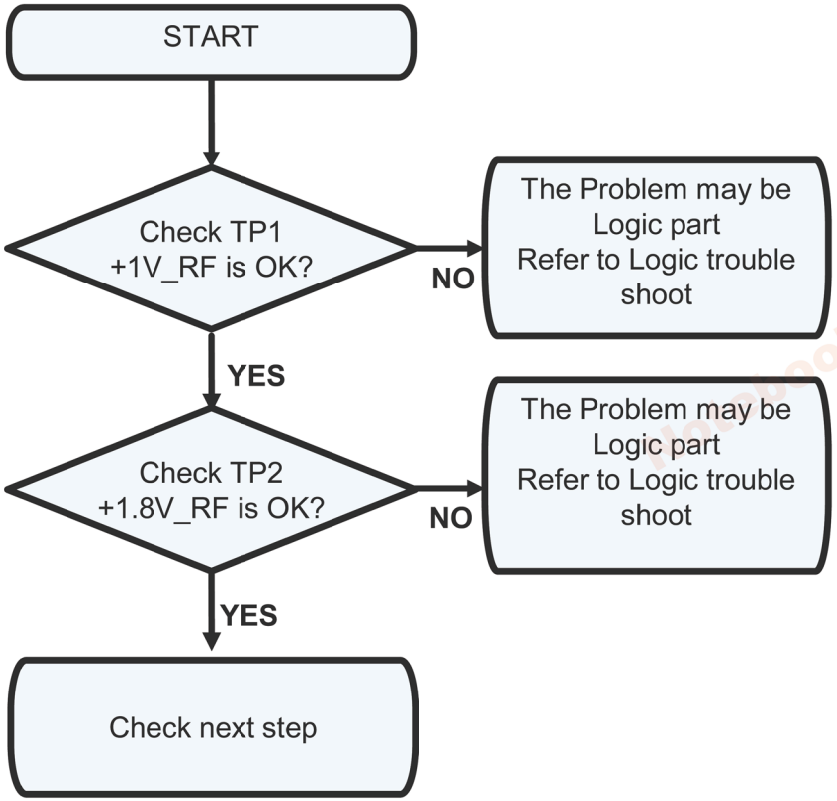
Circuit Diagram



3.2 Transceiver DC Power Supply Circuit

Checking Transceiver DC Power Supply Circuit

Checking Flow



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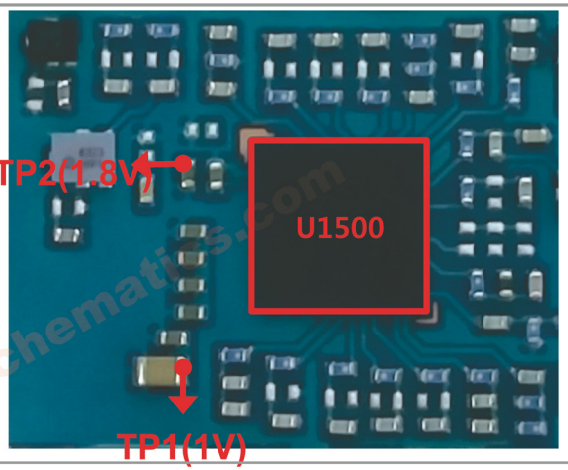
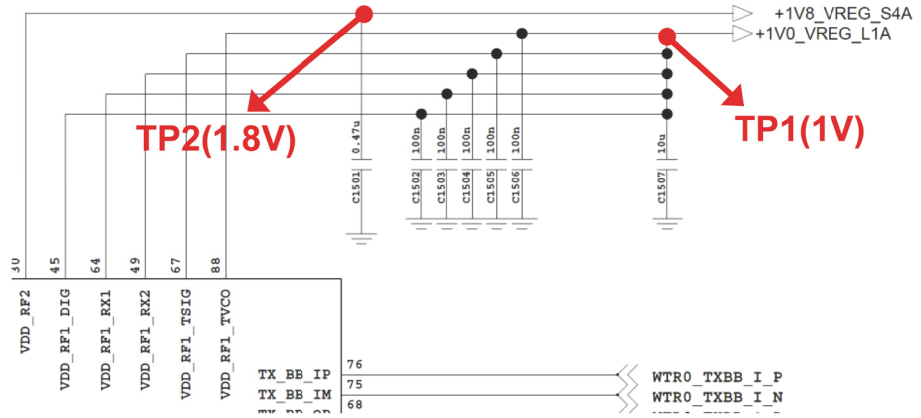


BOTTOM

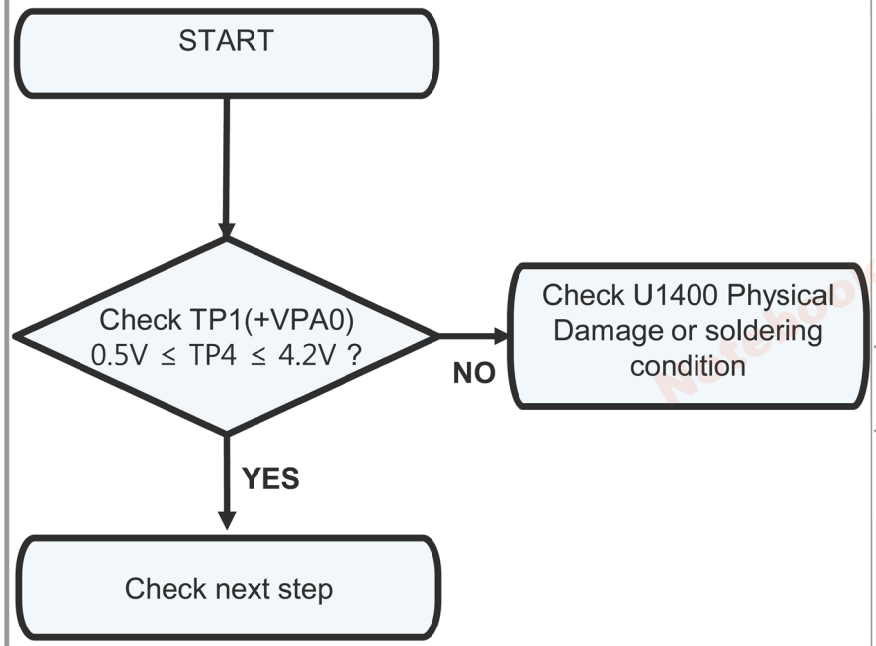
Circuit Diagram



3.3 DC-DC Block

Checking DC-DC Block

Checking Flow



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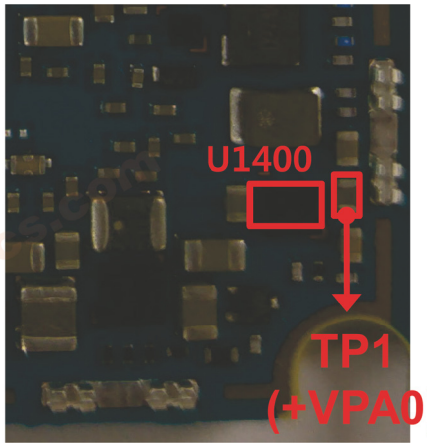
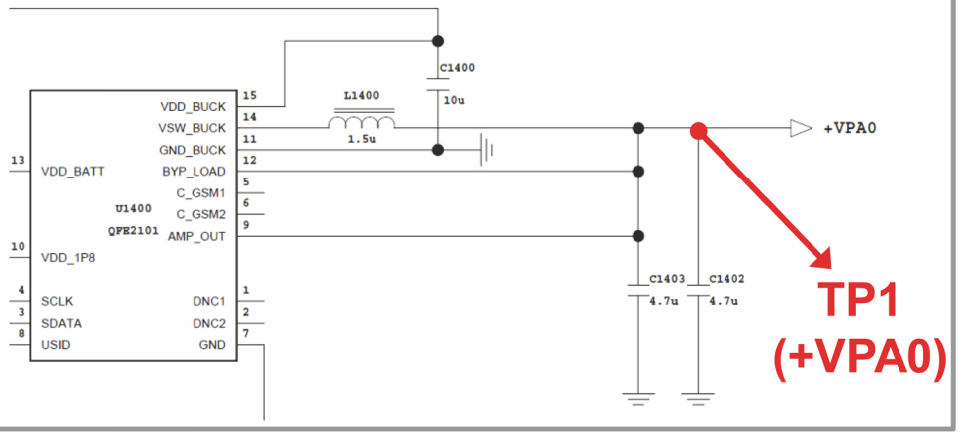


BOTTOM

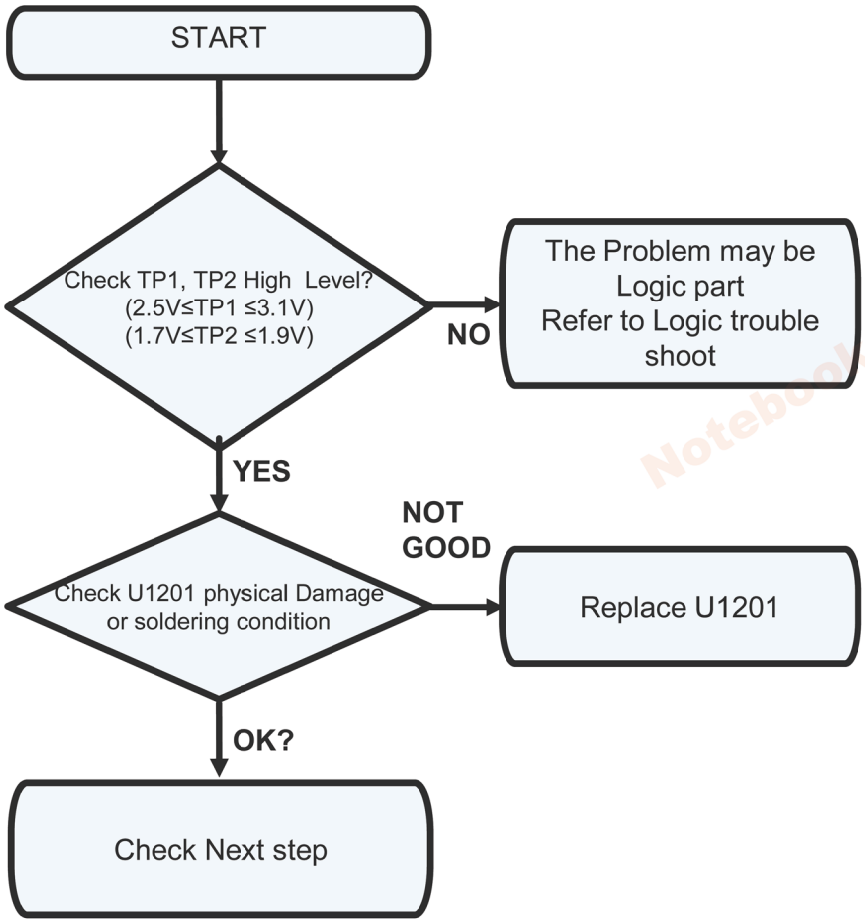
Circuit Diagram



3.4 ASM Block

Checking FEMiD Block

Checking Flow



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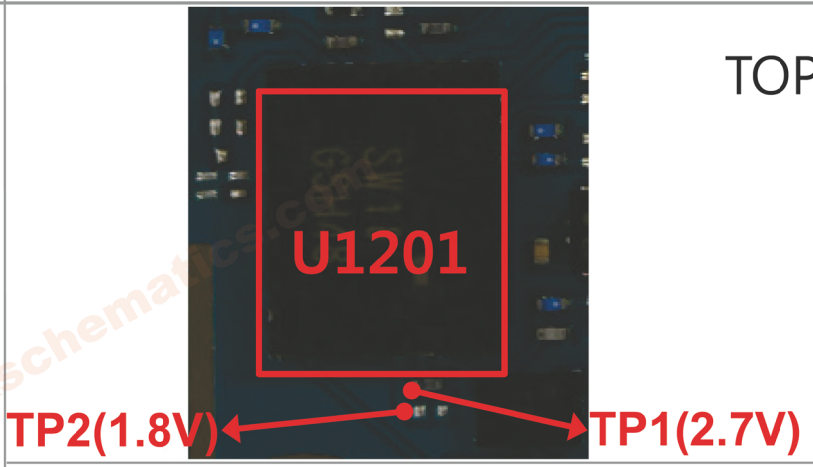
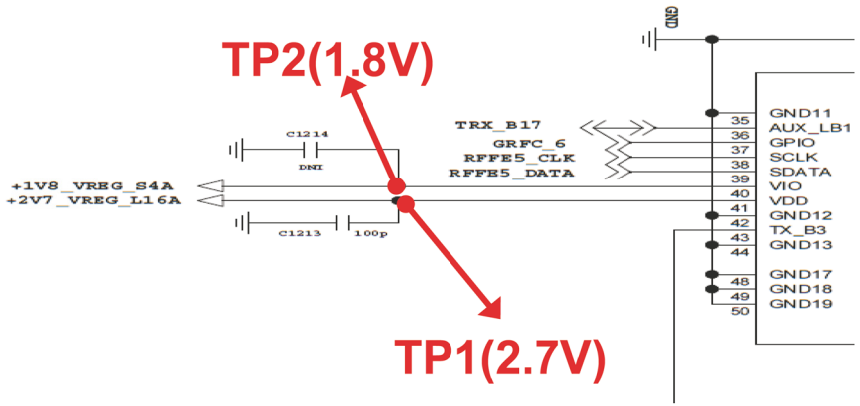


TOP

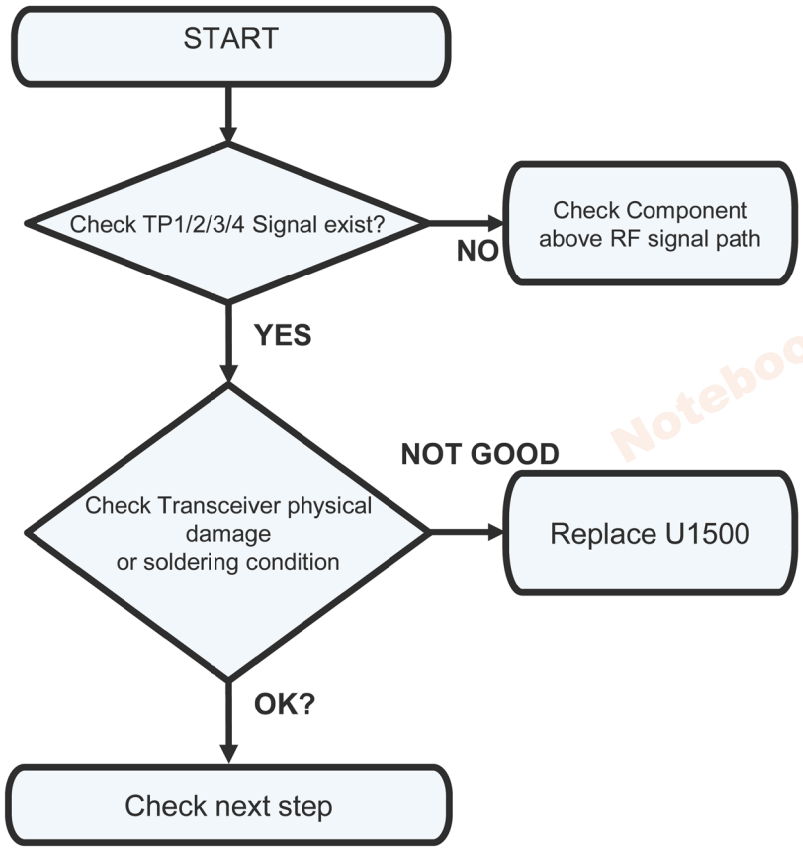
Circuit Diagram

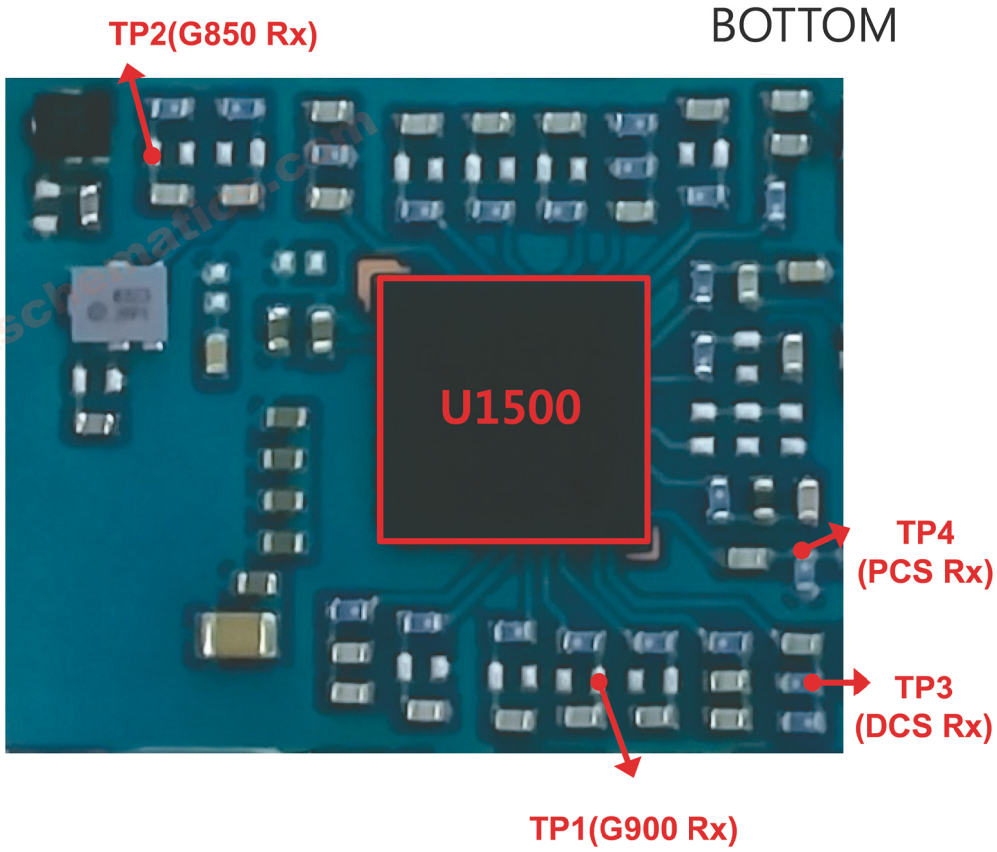


3.5.1 GSM PART

GSM850/900/1800/1900 Rx

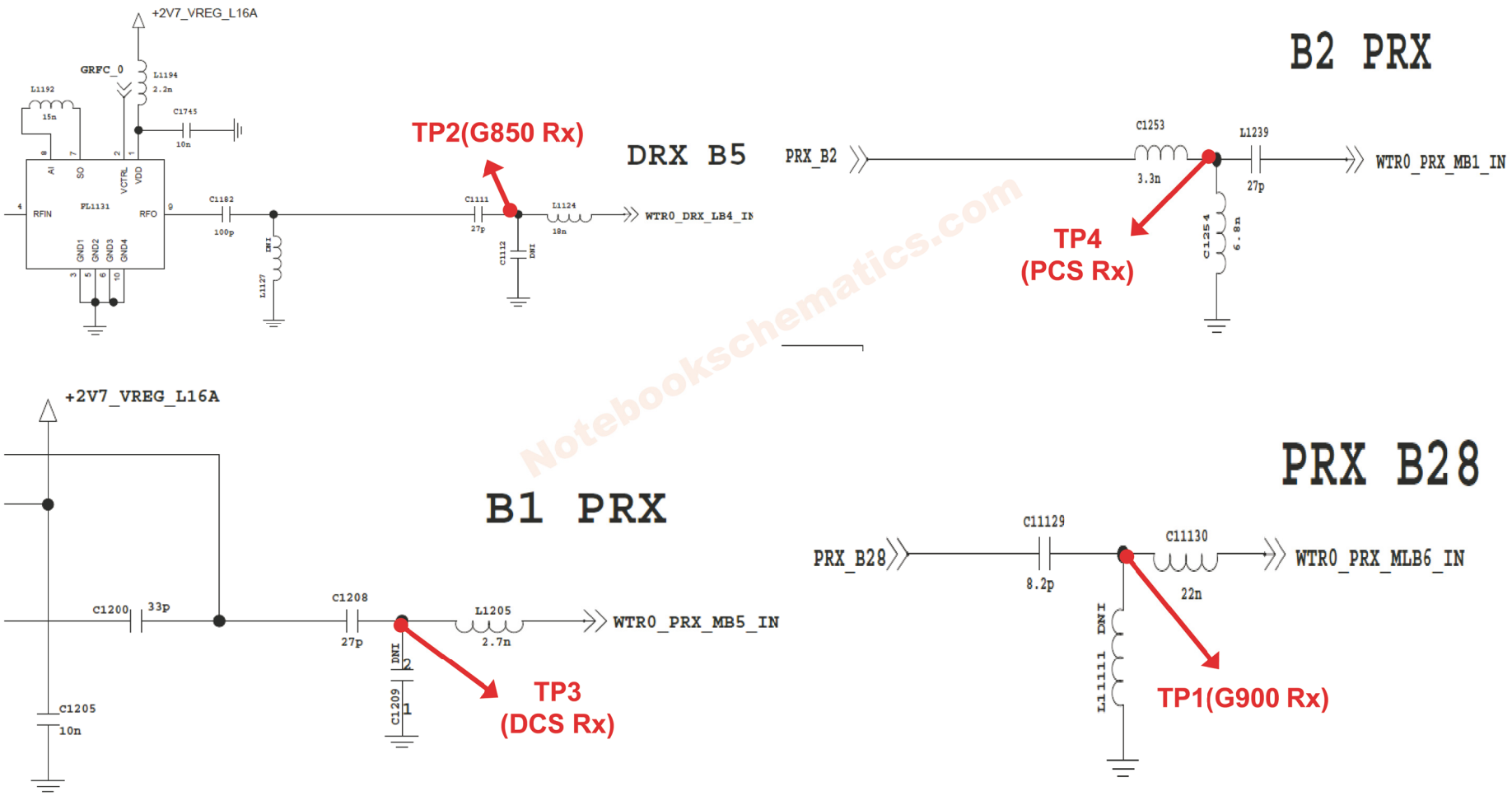
Checking Flow	Image





3.5.1 GSM PART

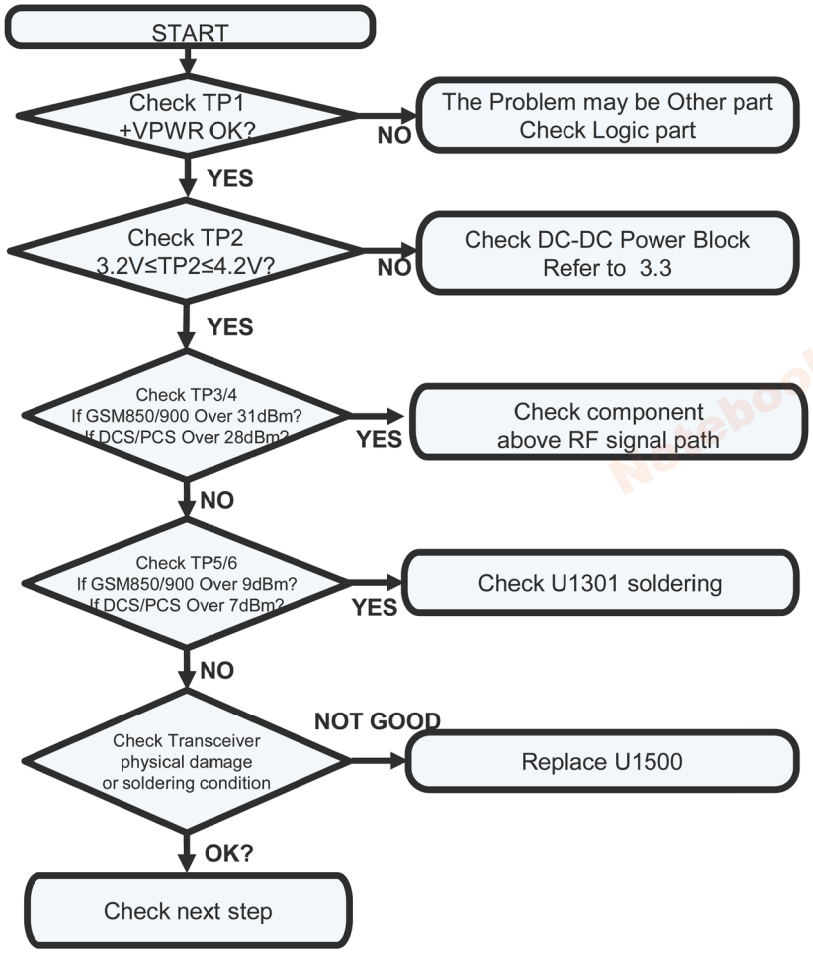
Circuit Diagram



3.5.2 GSM PART

GSM850/900/1800/1900 Tx

Checking Flow



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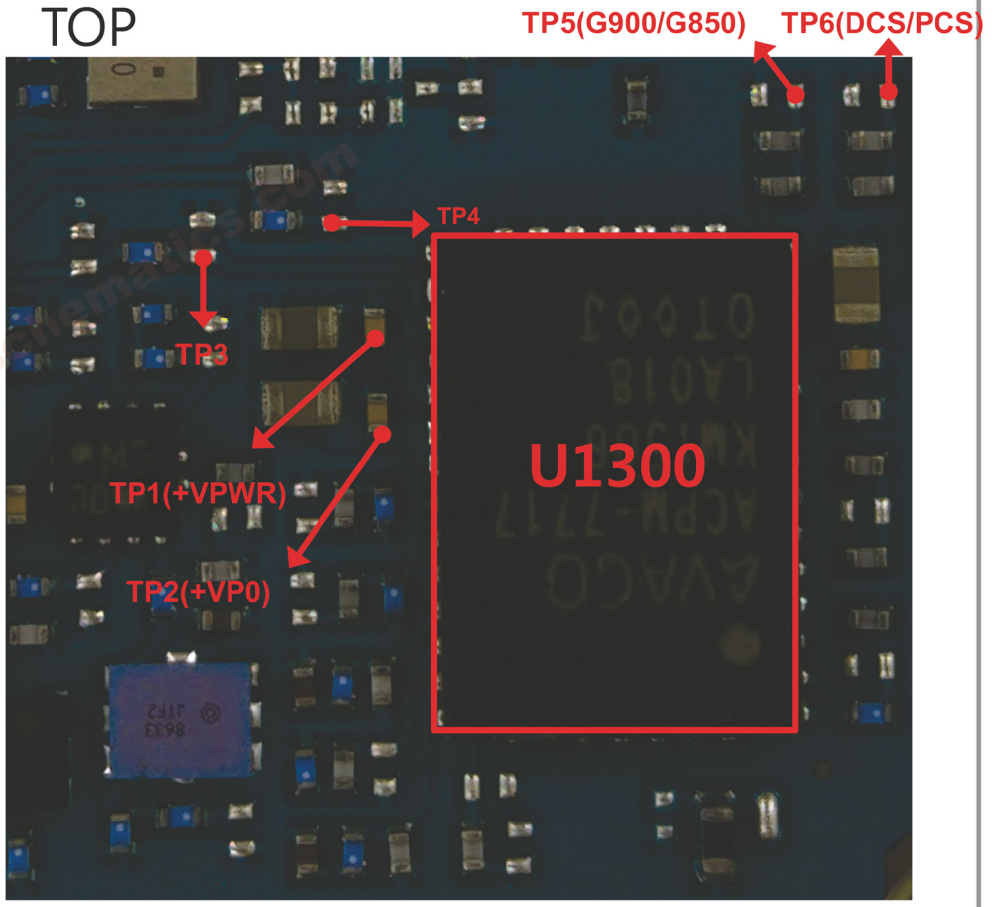
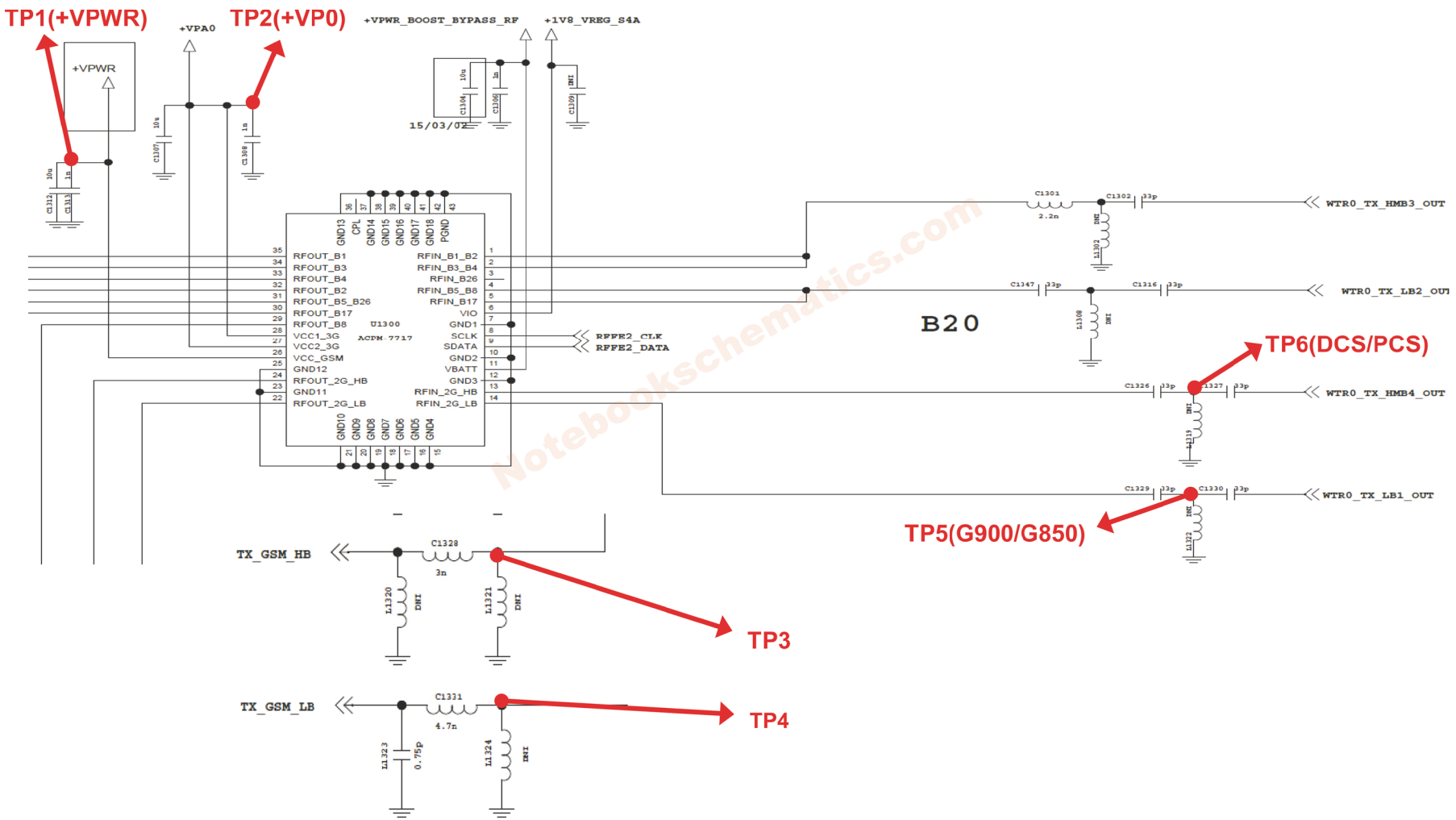


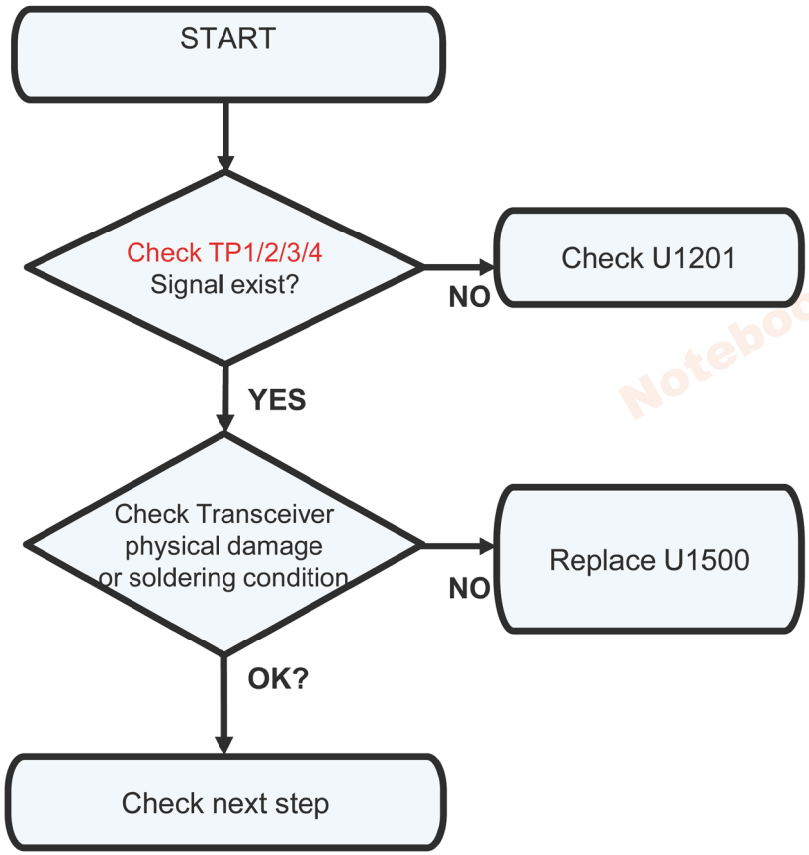
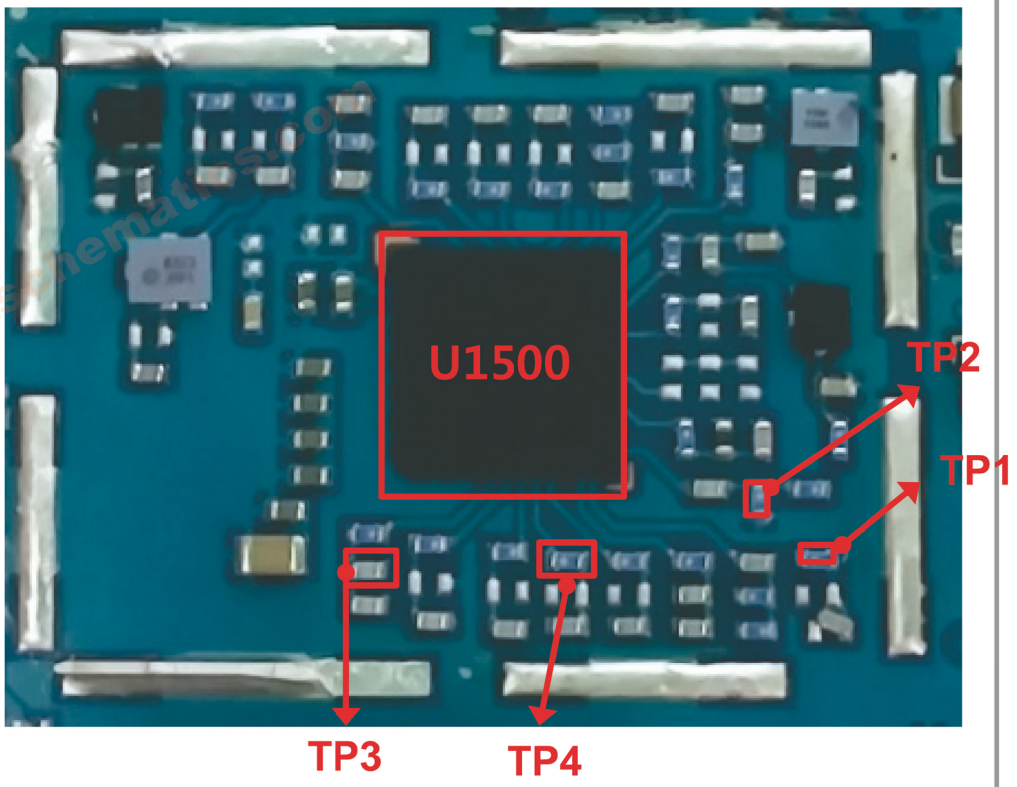
3.5.2 GSM PART

Circuit Diagram



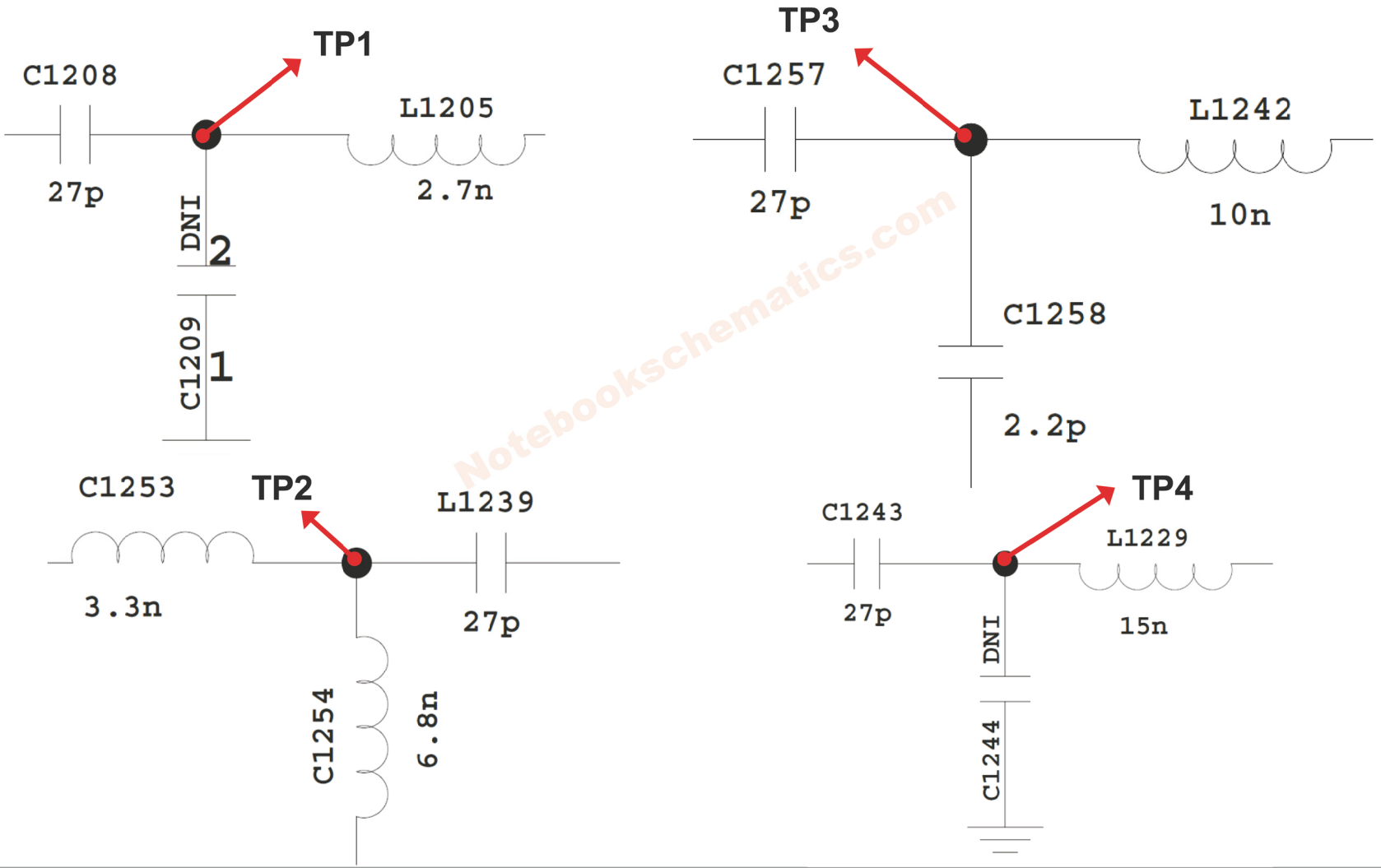
3.6.1 WCDMA PART

Checking Rx signal path(B1/B2/B5/B8)

Checking Flow	Image
	

3.6.1 WCDMA PART

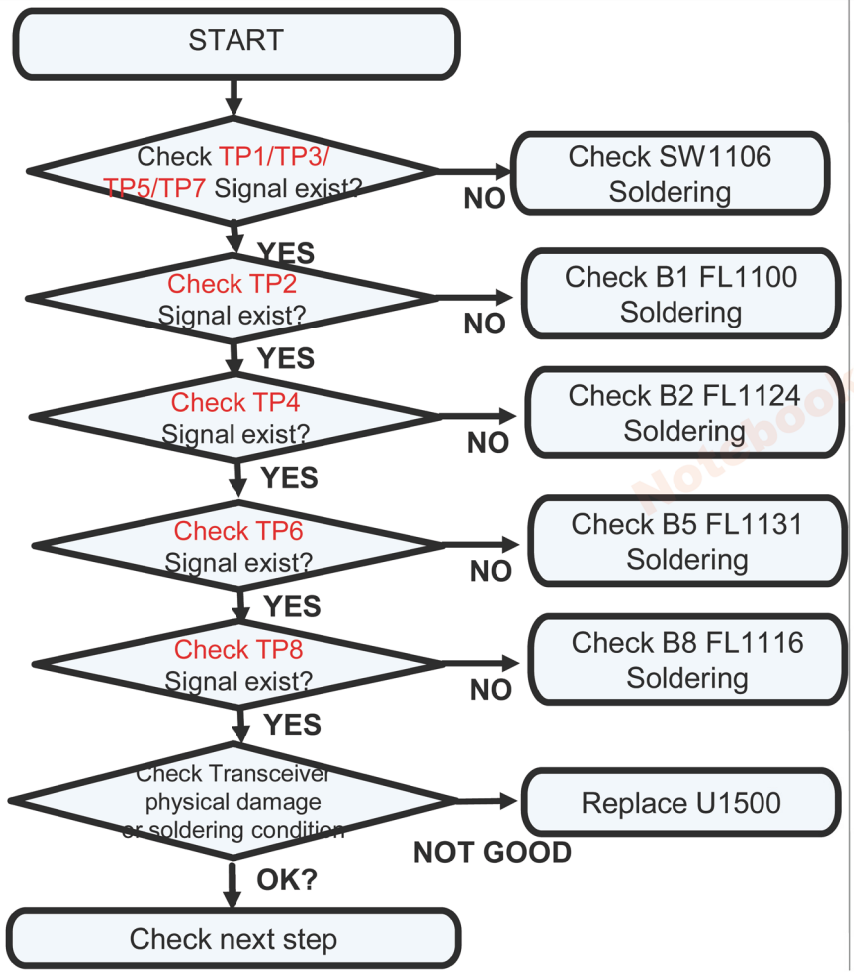
Circuit Diagram

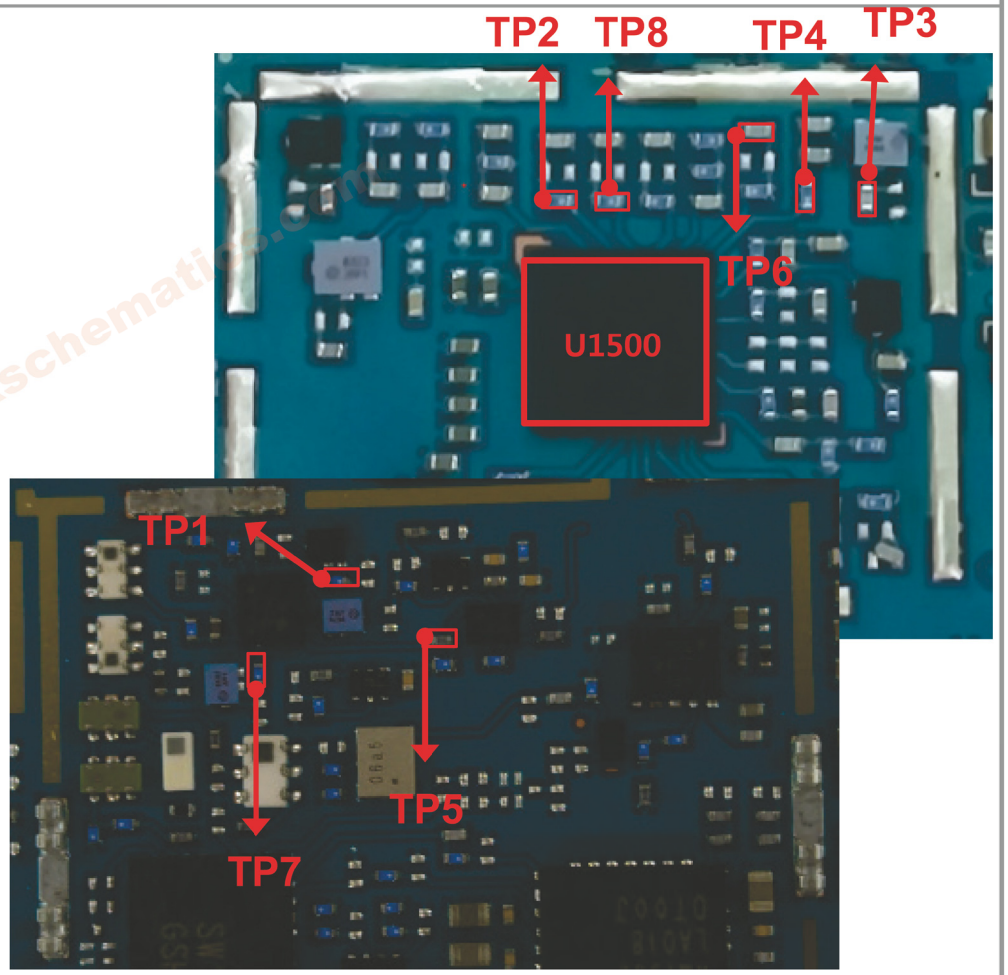


3.6.2 WCDMA PART

Checking DRX RF signal path (B1/2/5/8)

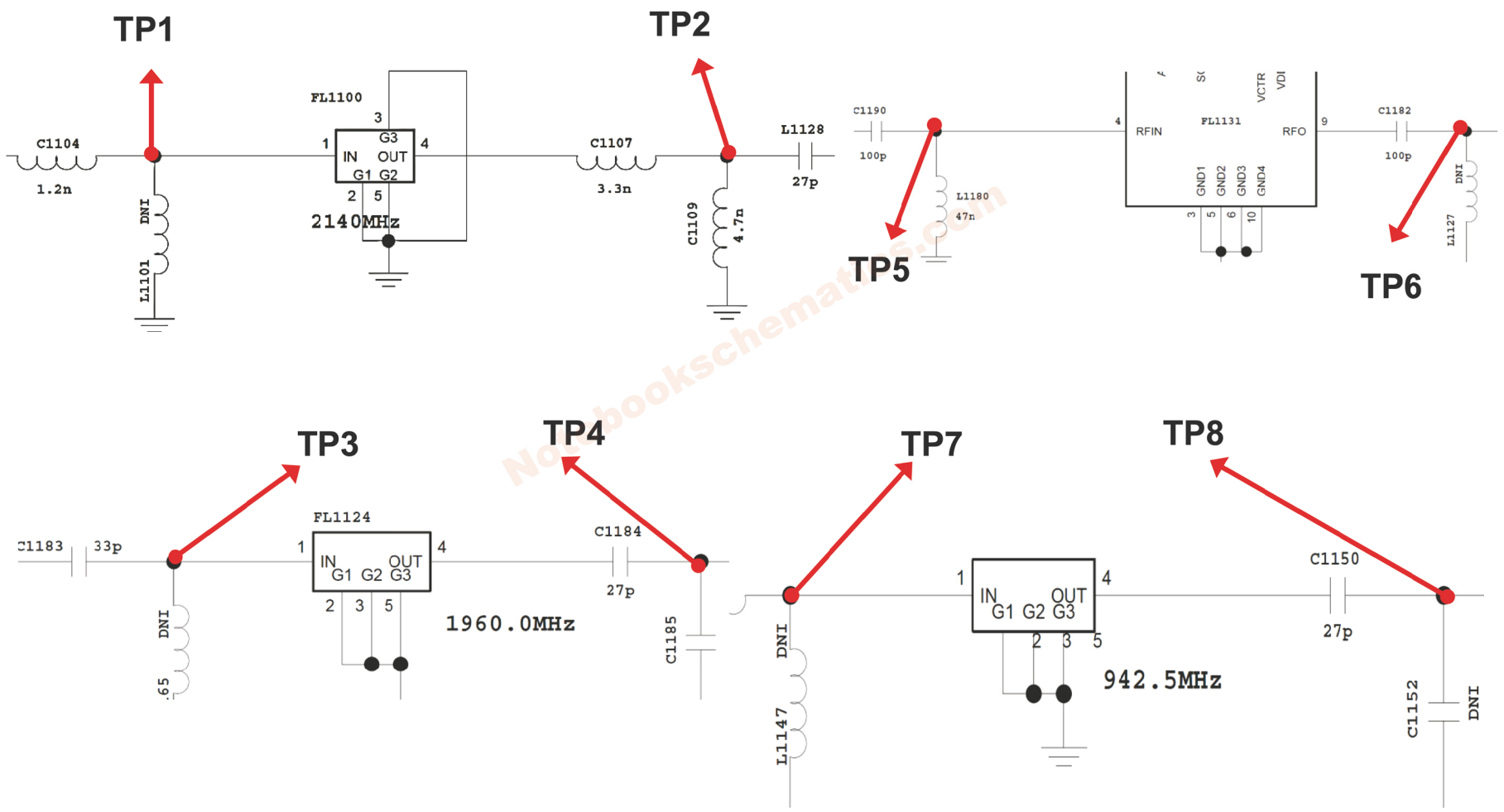
Checking Flow	Image





3.6.2 WCDMA PART

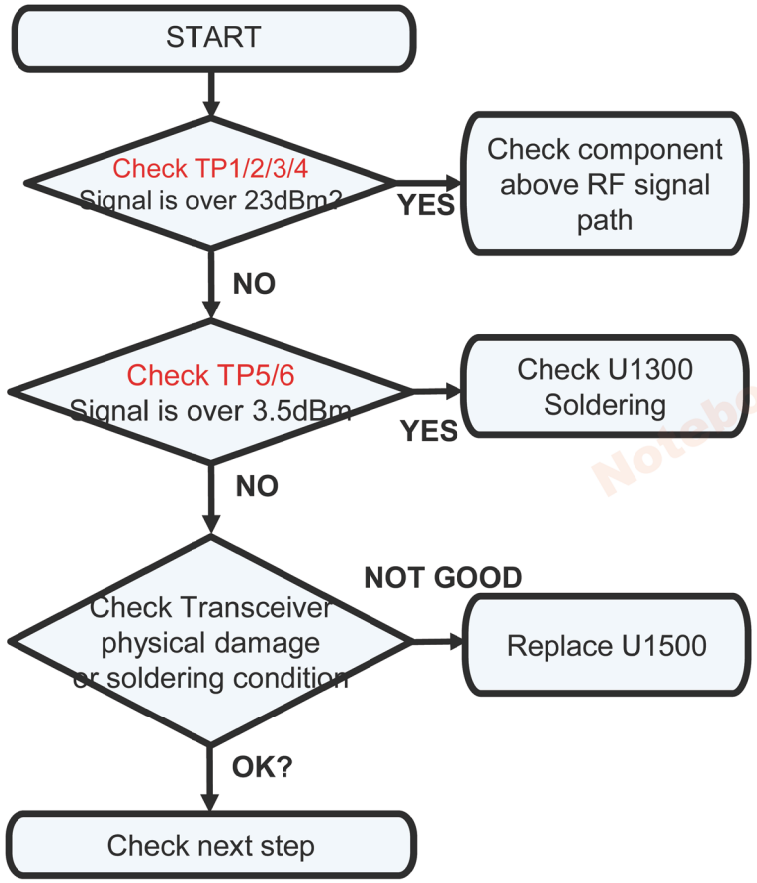
Circuit Diagram

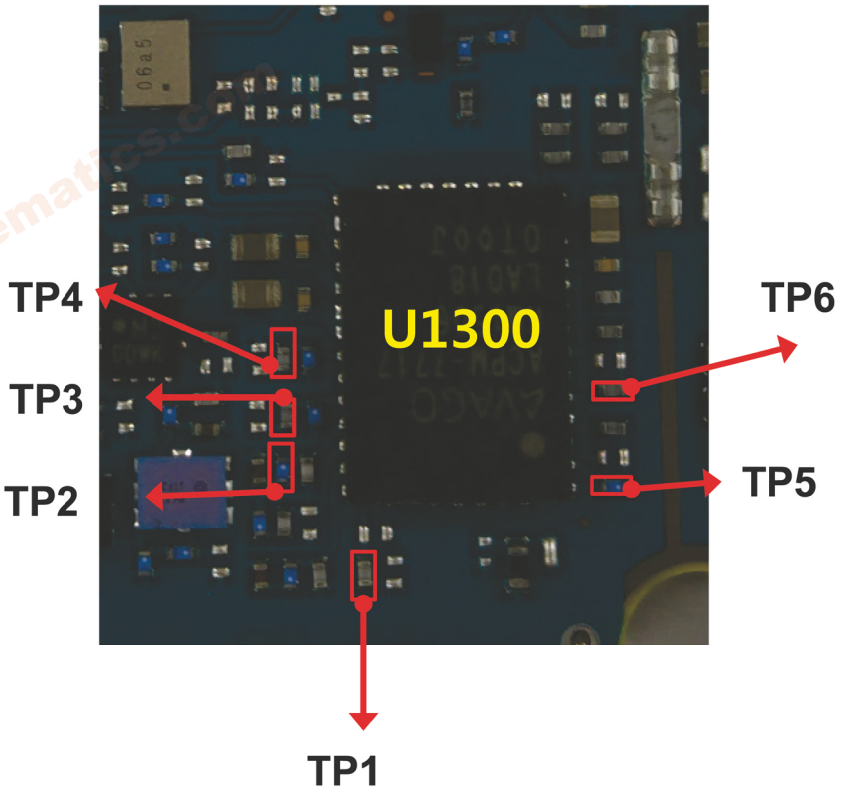


3.6.3 WCDMA PART

Checking Tx signal path (B1/B2/B5/B8 Tx)

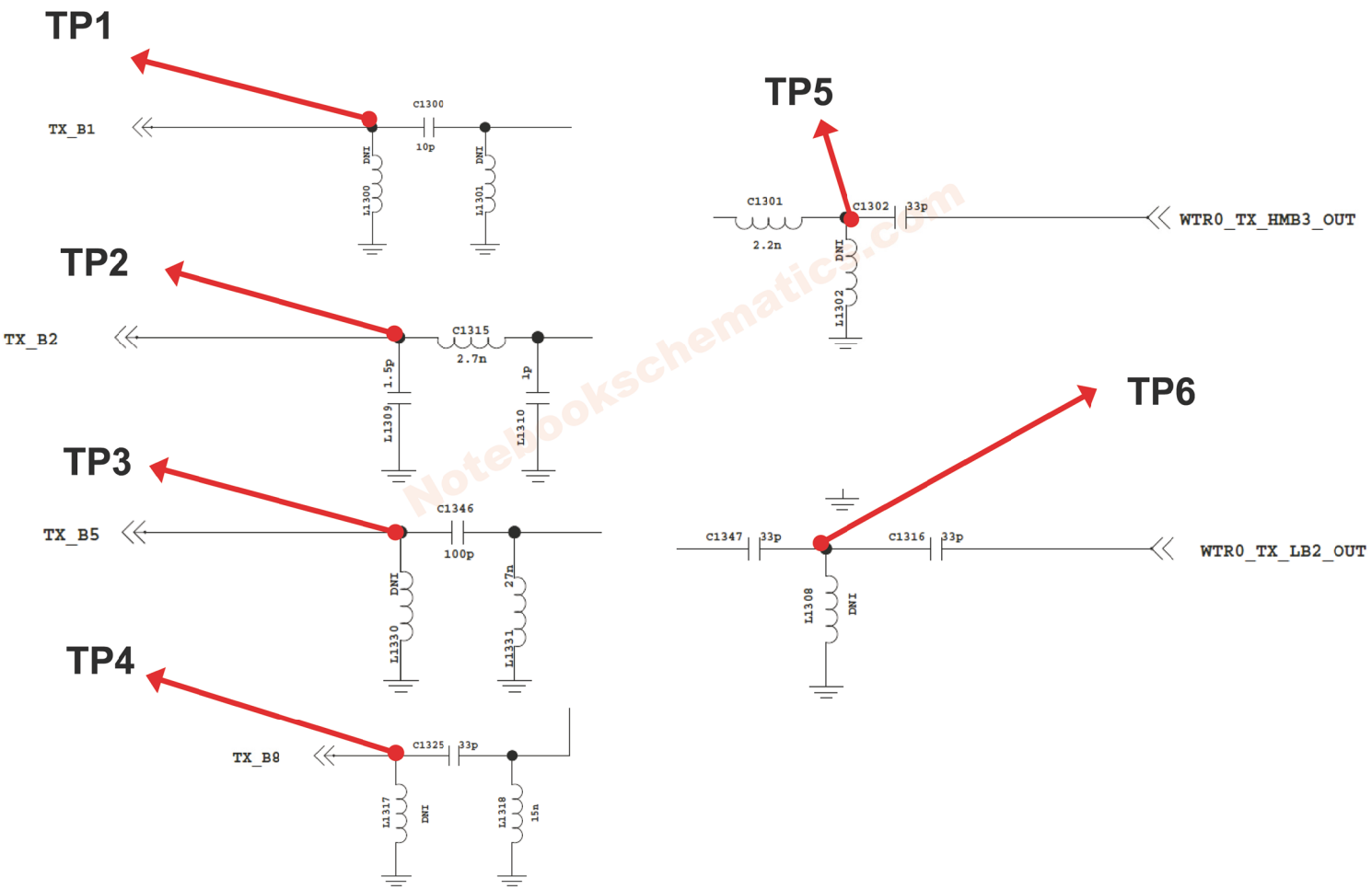
Checking Flow	Image





3.6.3 WCDMA PART

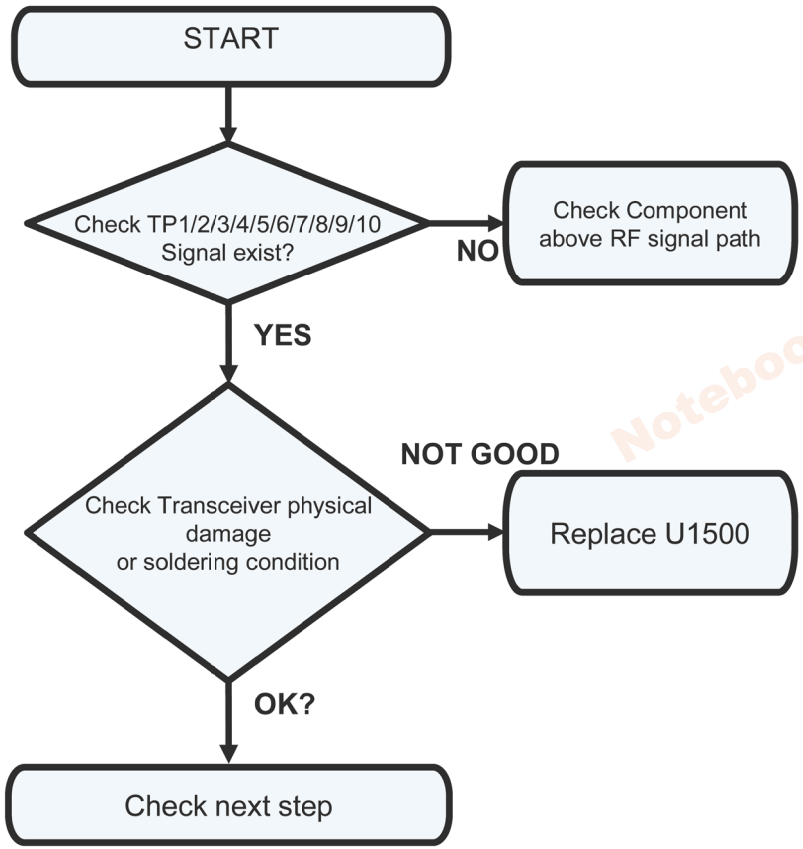
Circuit Diagram

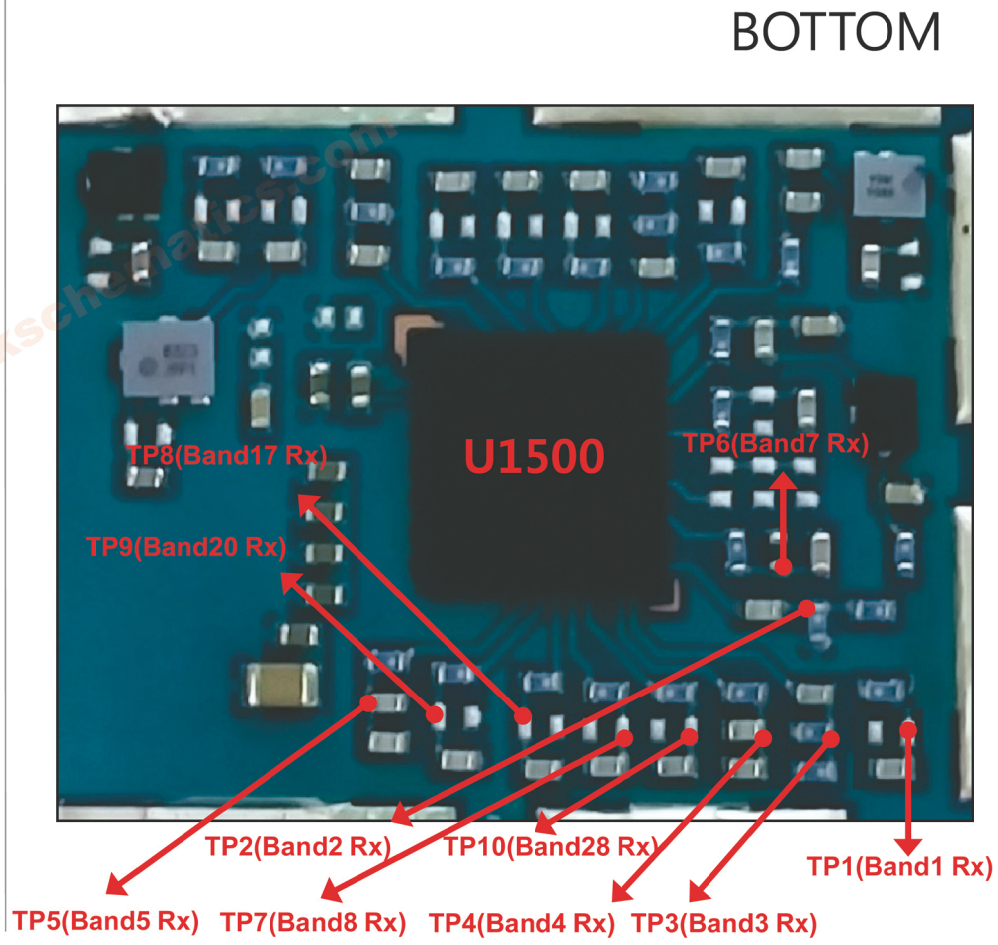


3.7.1 LTE PART

LTE1/2/3/4/5/7/8/17/20/28 Rx

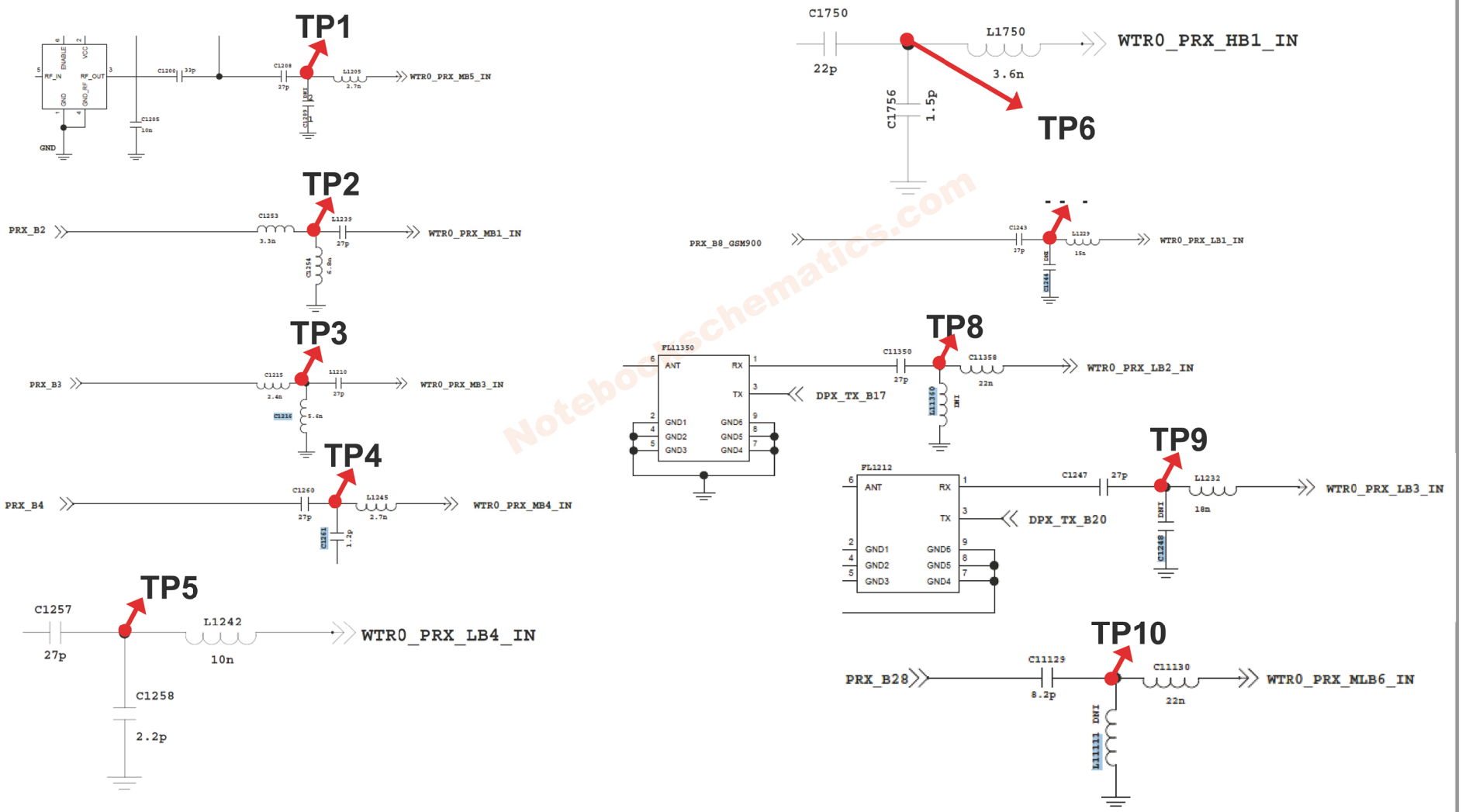
Checking Flow	Image





3.7.1 LTE PART

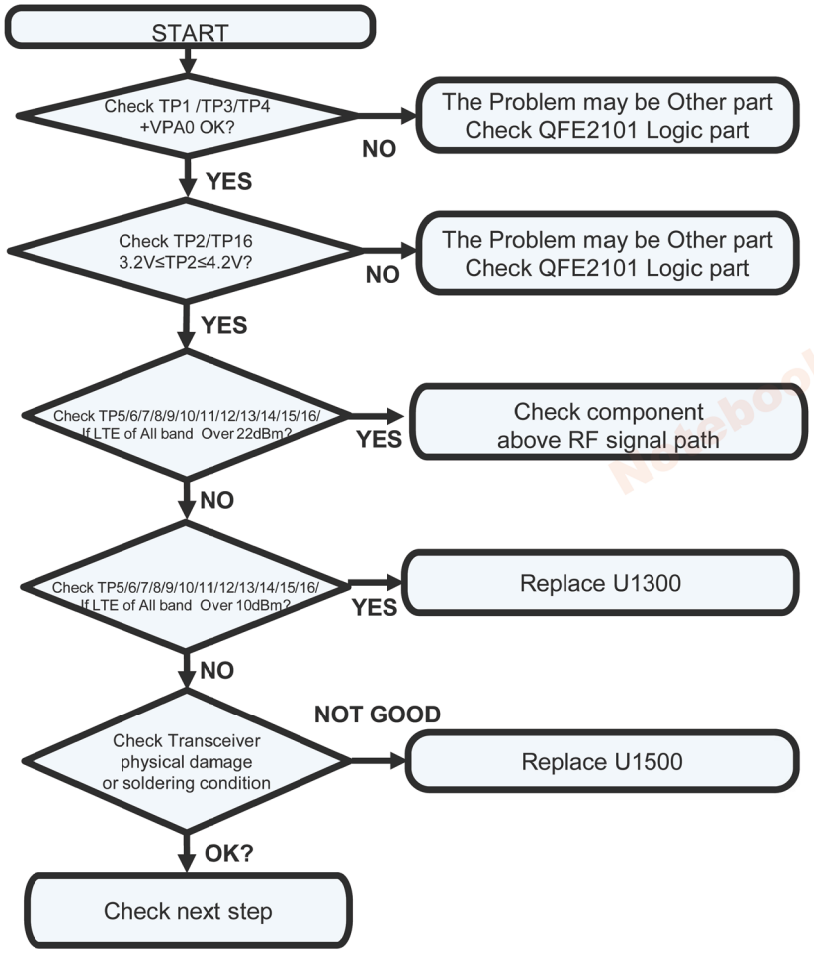
Circuit Diagram



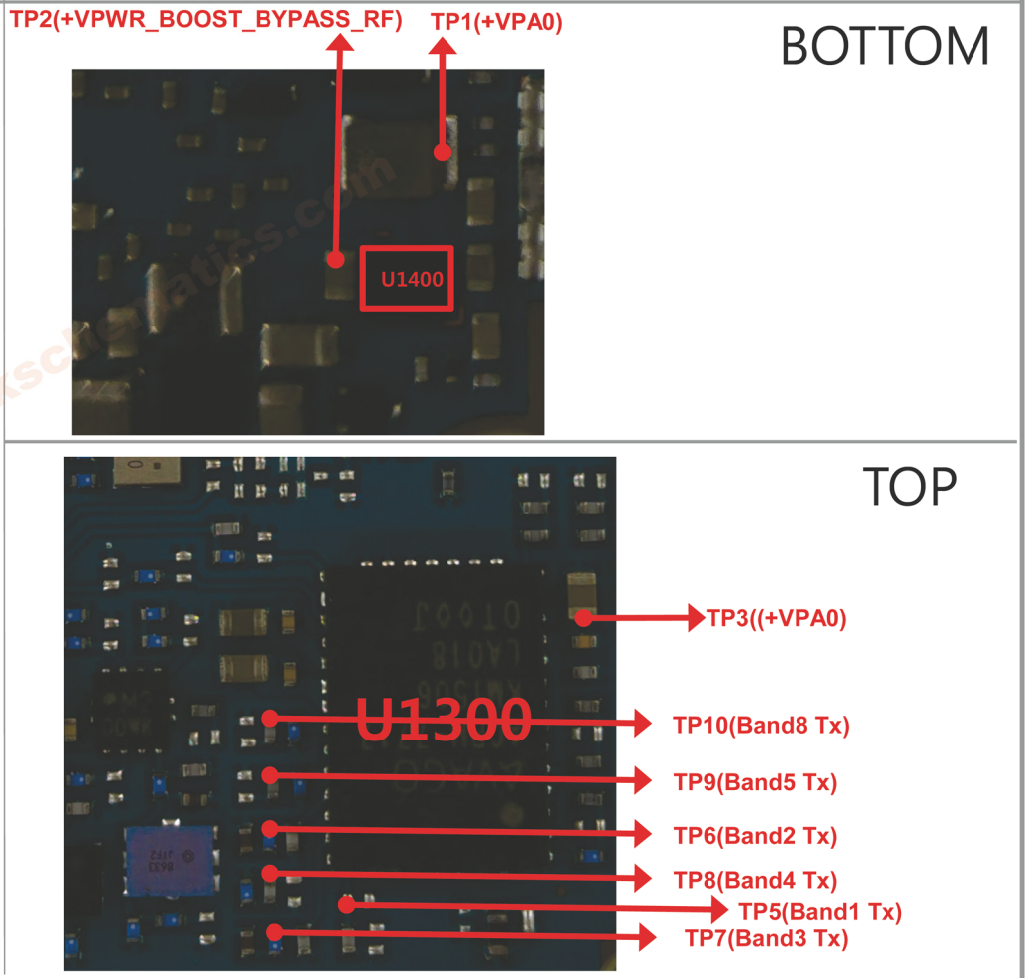
3.7.2 LTE PART

LTE1/2/3/4/5/7/8/17/20/28A/28B Tx

Checking Flow

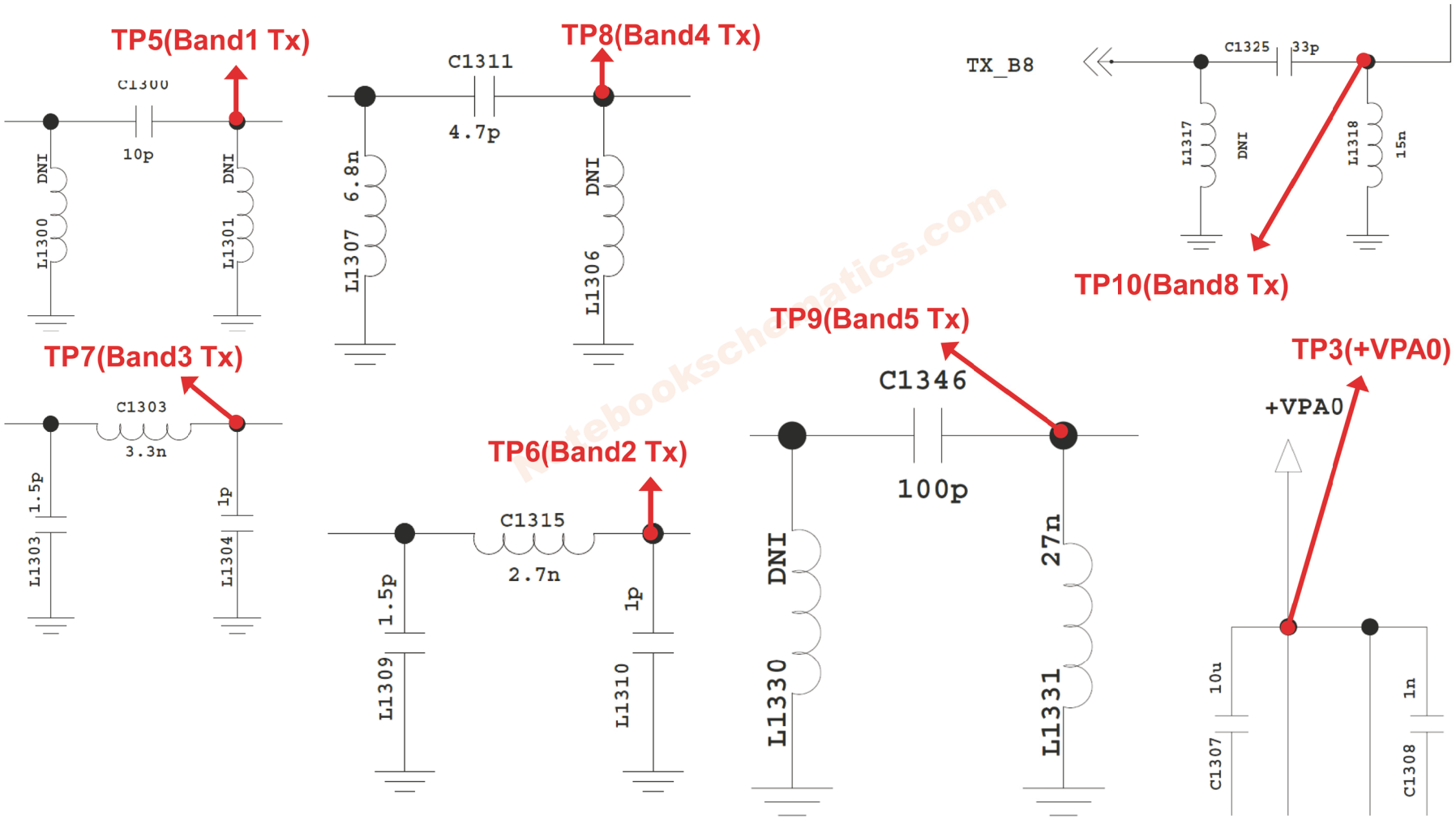


Image



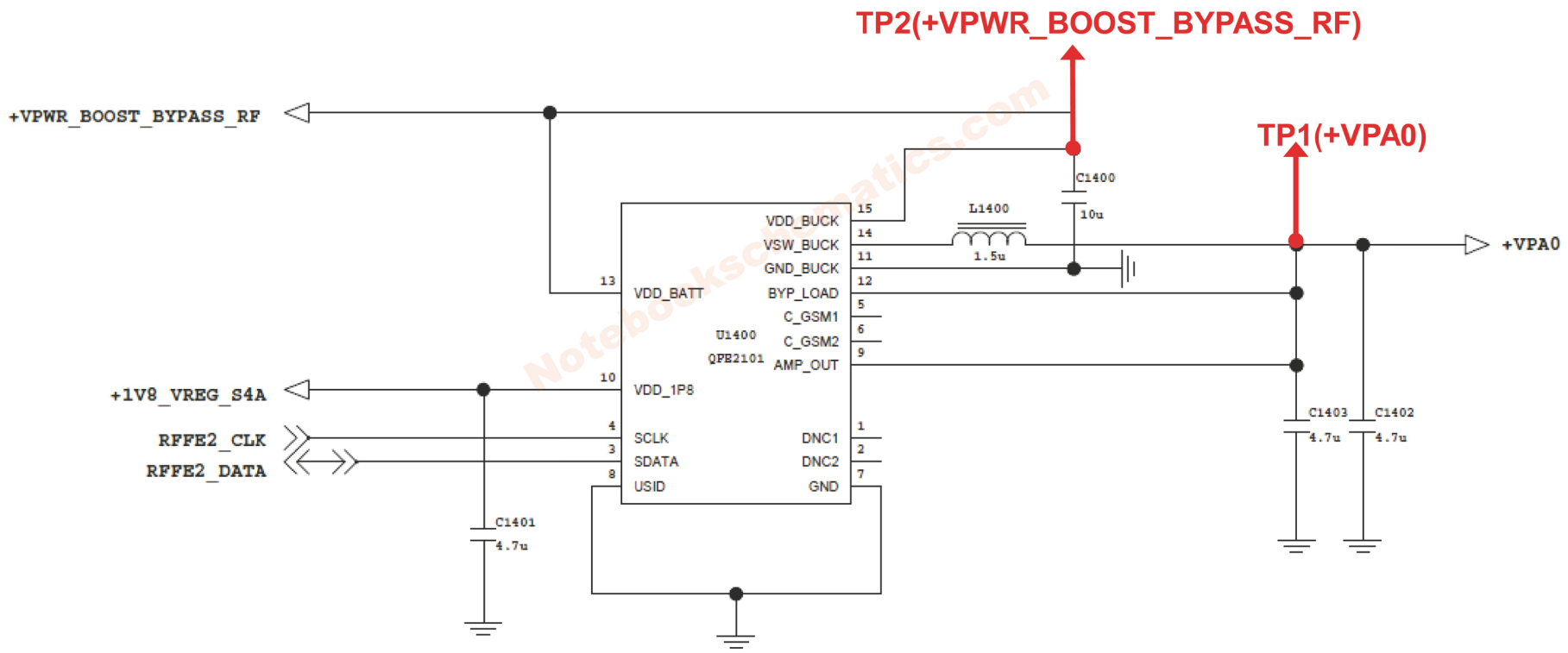
3.7.2 LTE PART

Circuit Diagram



3.7.2 LTE PART

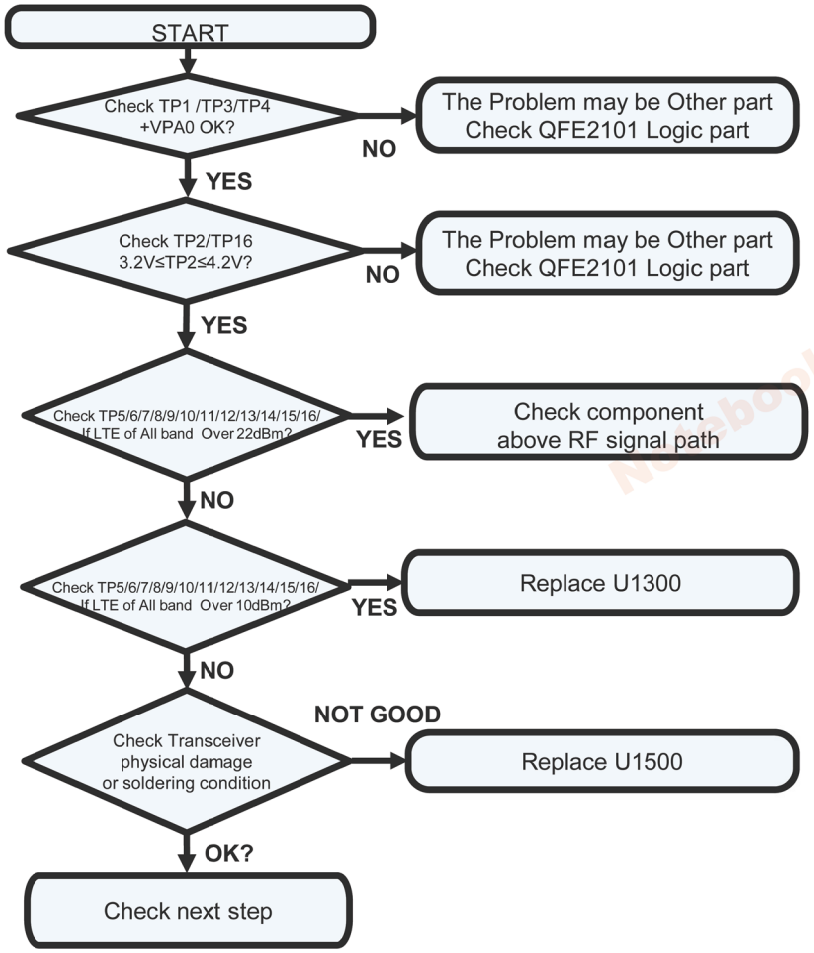
Circuit Diagram



3.7.3 LTE PART

LTE1/2/3/4/5/7/8/17/20/28A/28B Tx

Checking Flow



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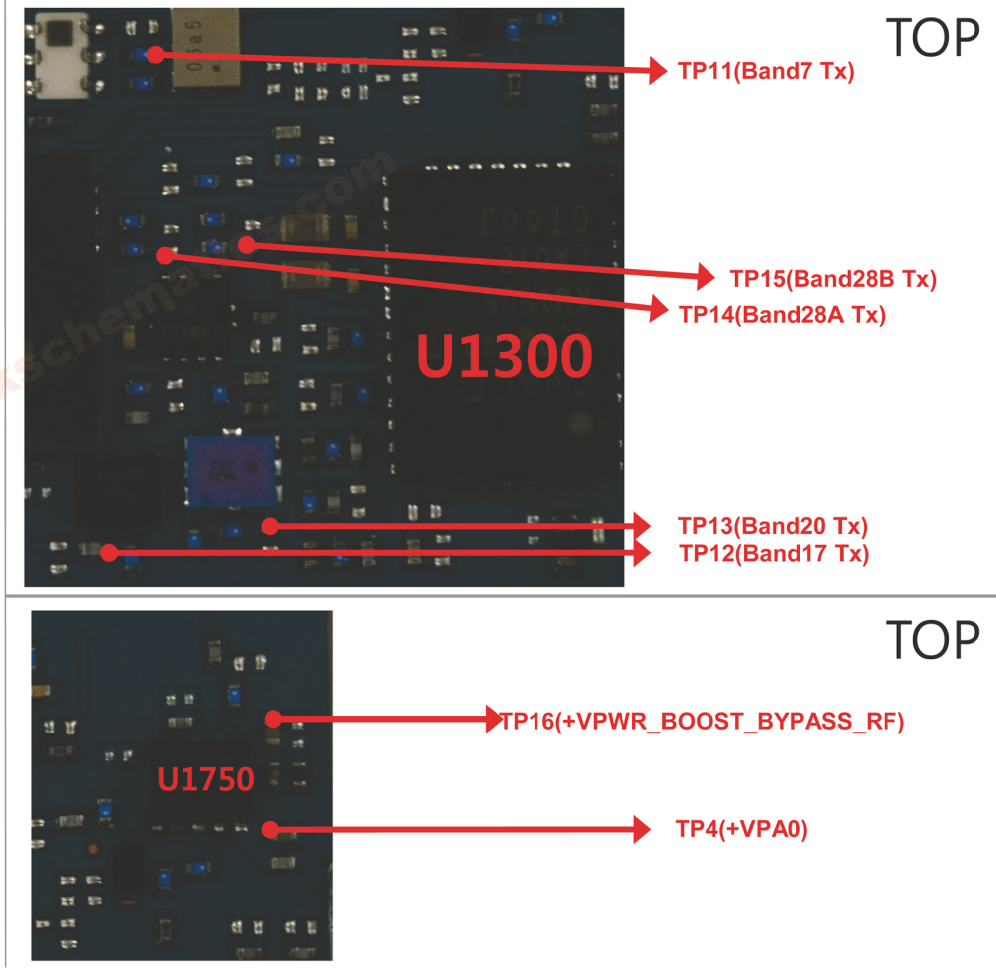
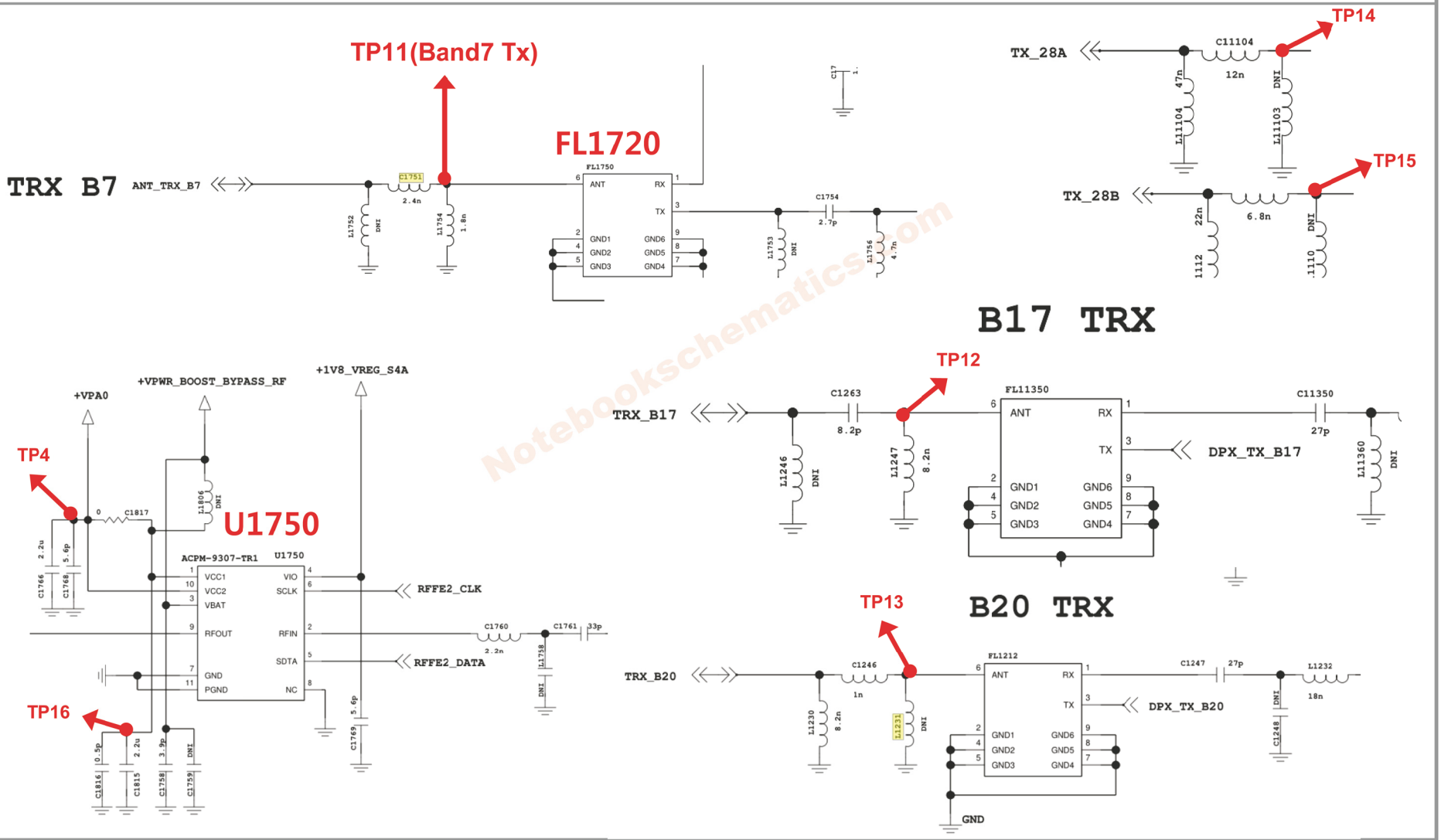


3.7.3 LTE PART

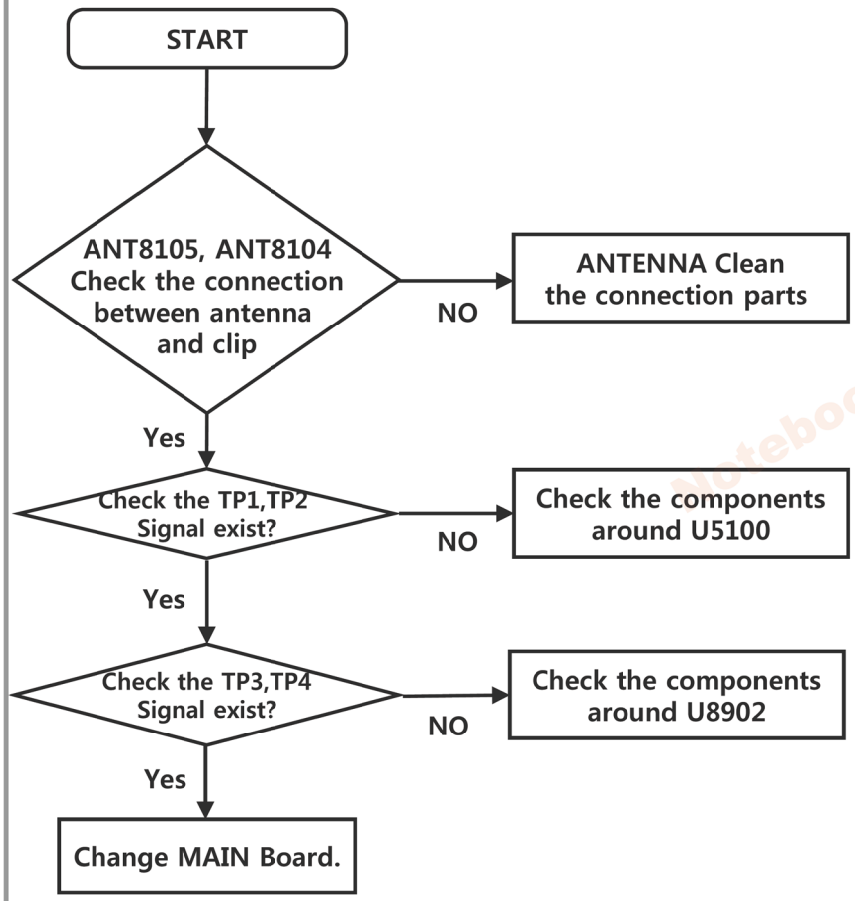
Circuit Diagram



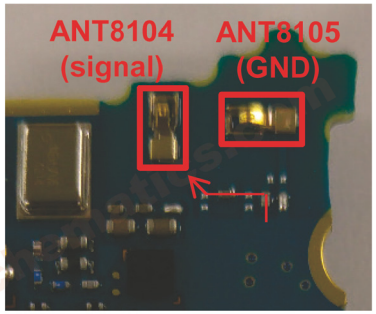
3.8 BT/WiFi PART

BT&WIFI

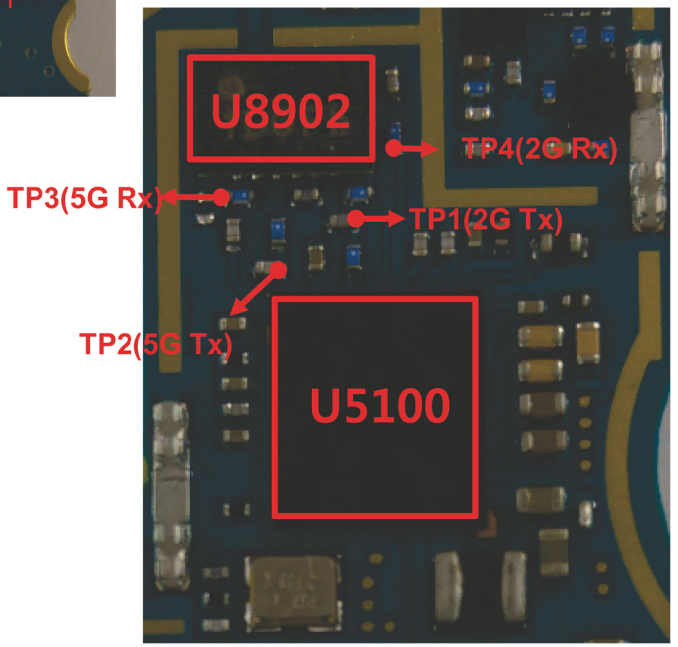
Checking Flow	Image



BOTTOM

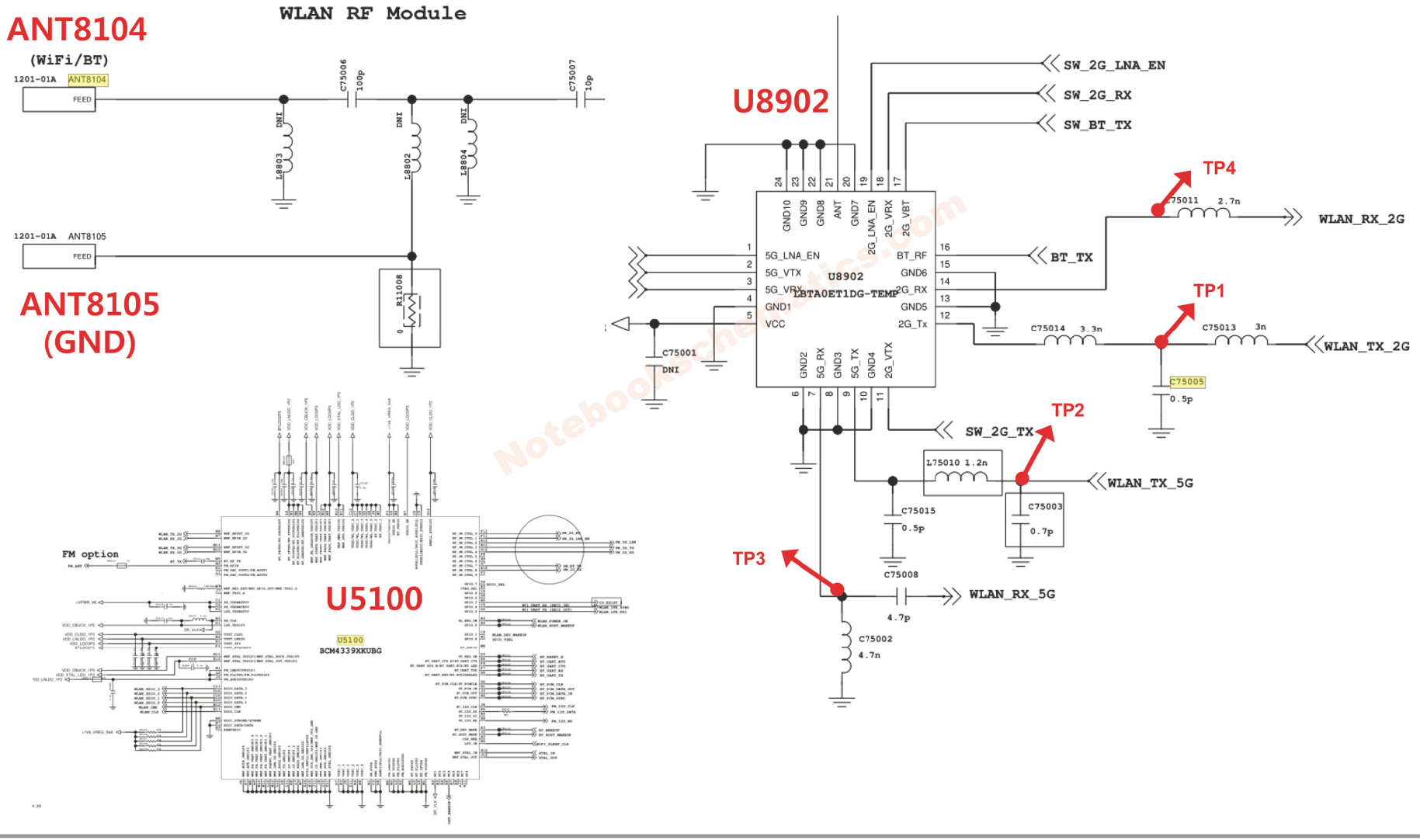


BOTTOM



3.8 BT/WiFi PART

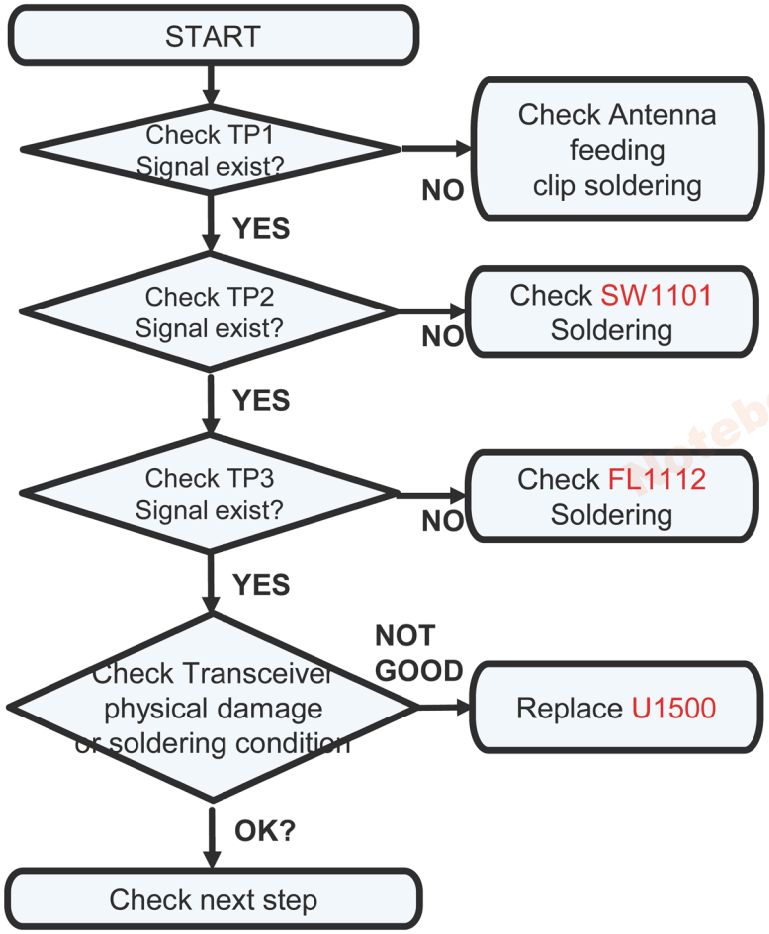
Circuit Diagram

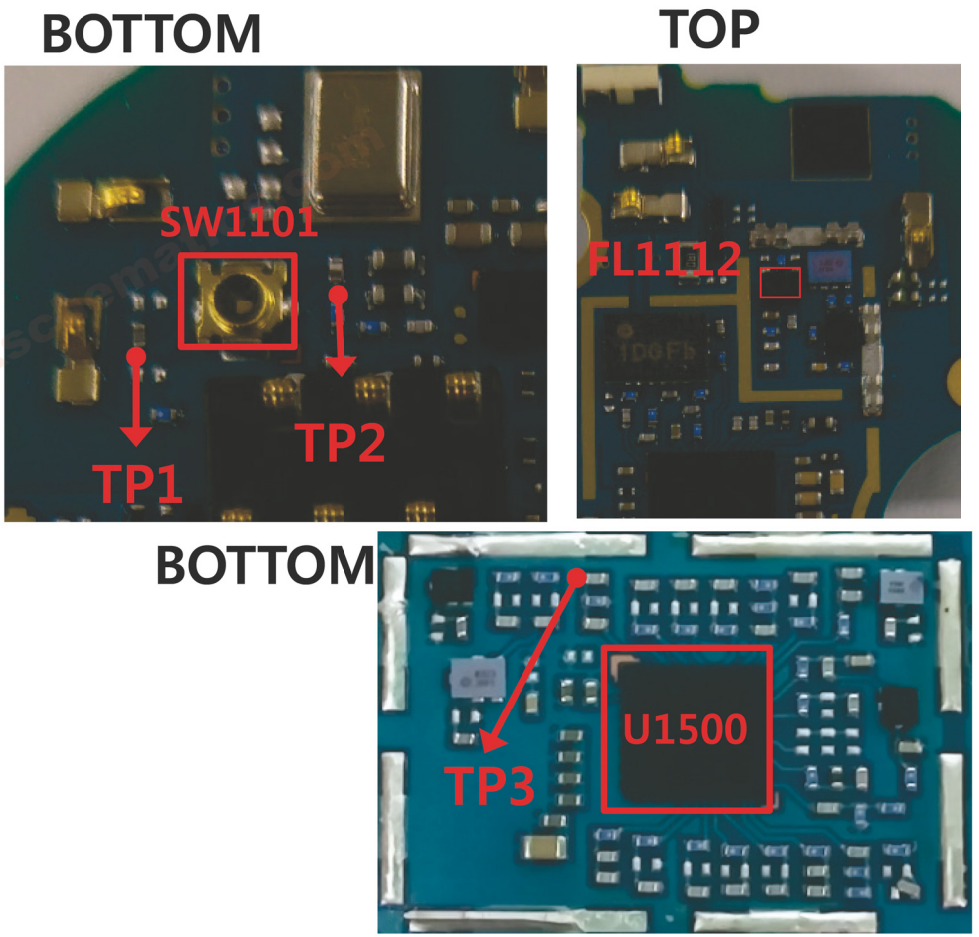


3.9 GPS PART

Checking GPS

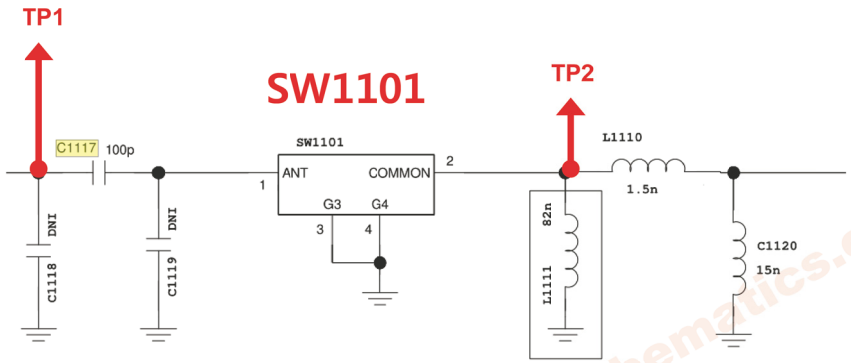
Checking Flow	Image



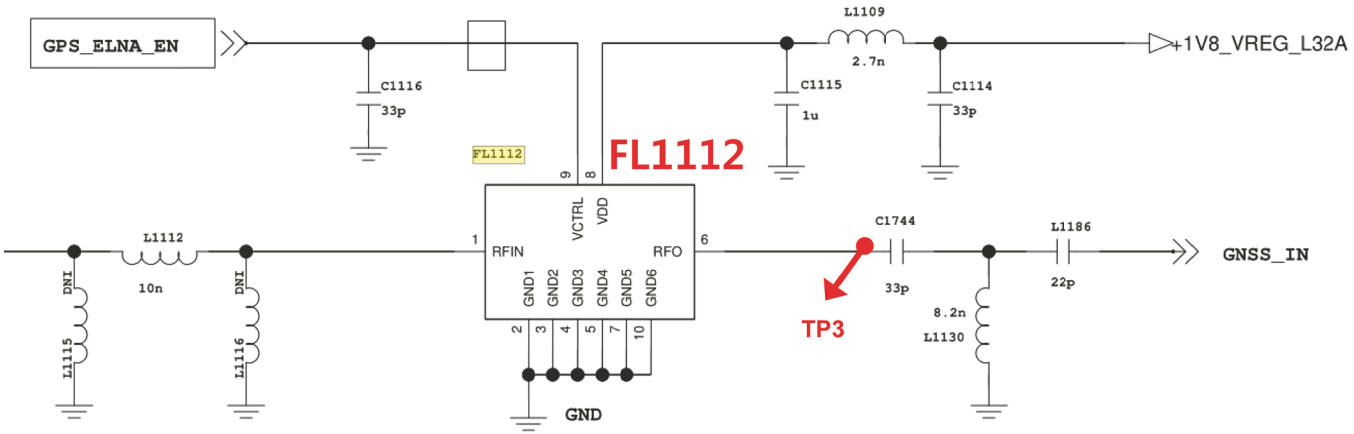


3.9 GPS PART

Circuit Diagram

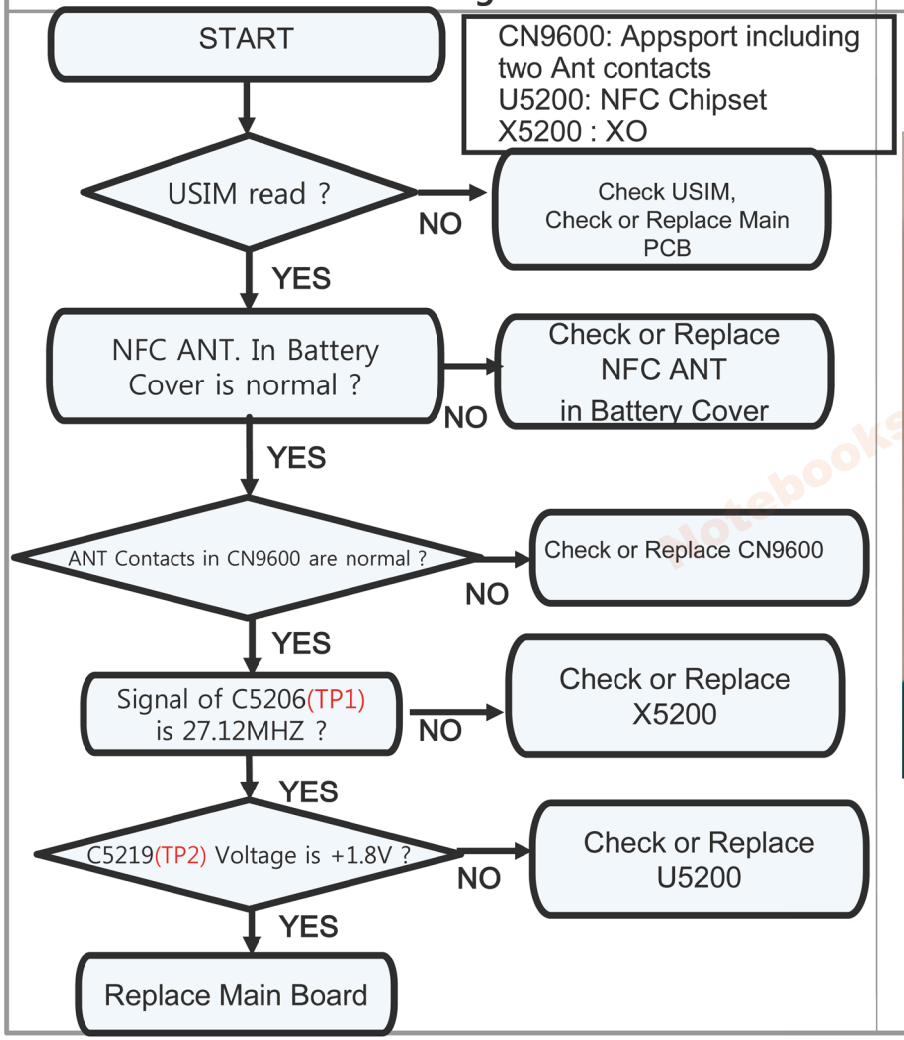


MC-C00002-14 : ESD Protection Circuit
(DGMS Guide)

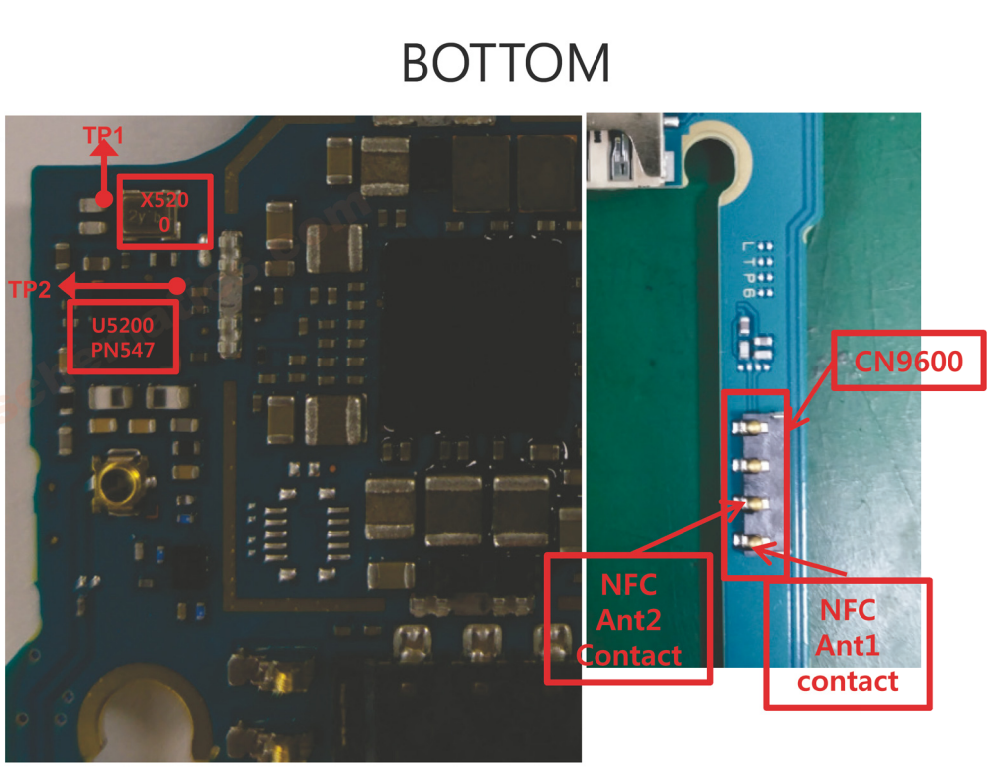


3.10 NFC Part

Checking Flow

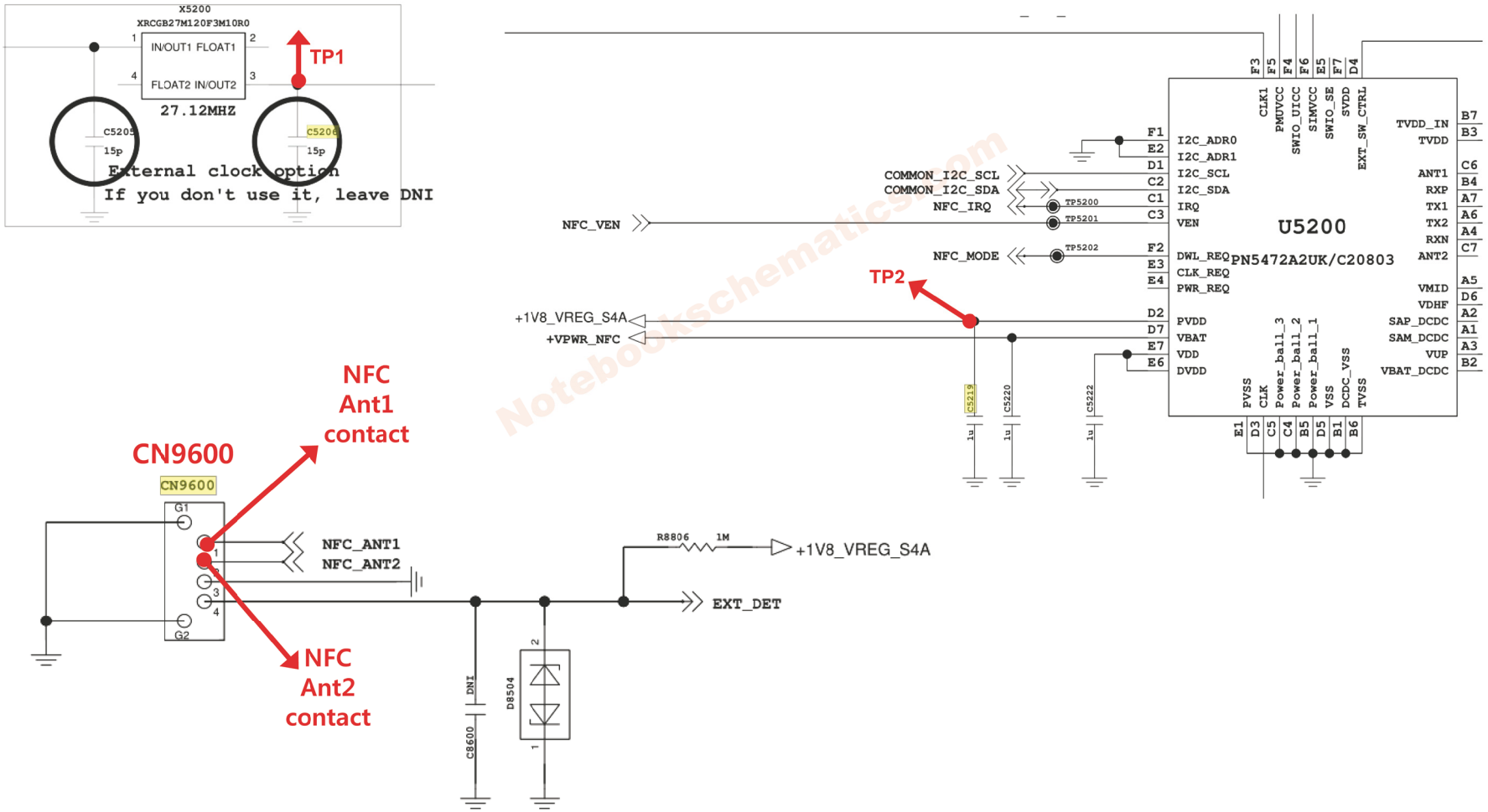


Image



3.10 NFC Part

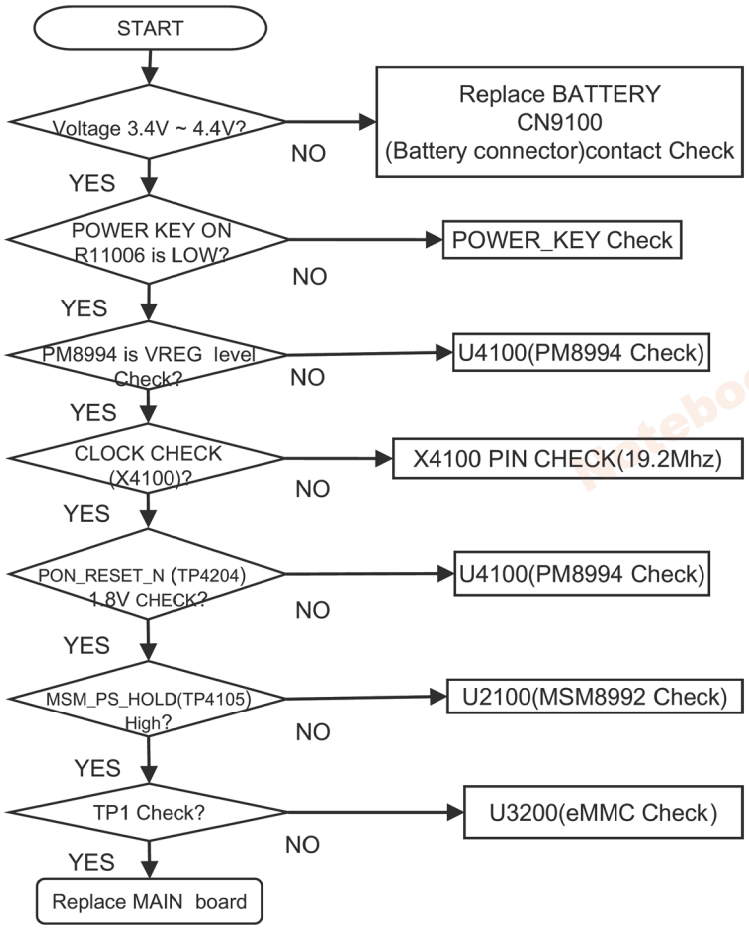
Circuit Diagram



3.11 Power

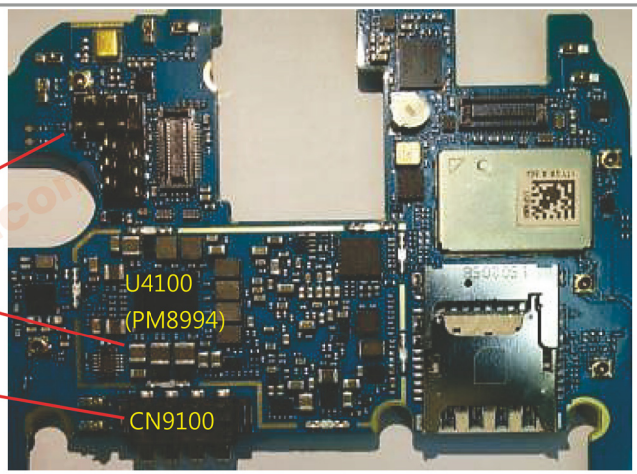
The out put frequency(19.2MHz) of XO(X4100) is used as the reference one of PM8994 internal VCO

Checking Flow

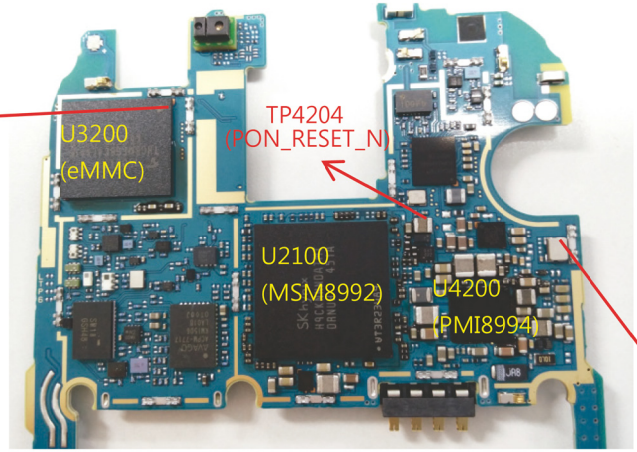


Image

Main Bottom

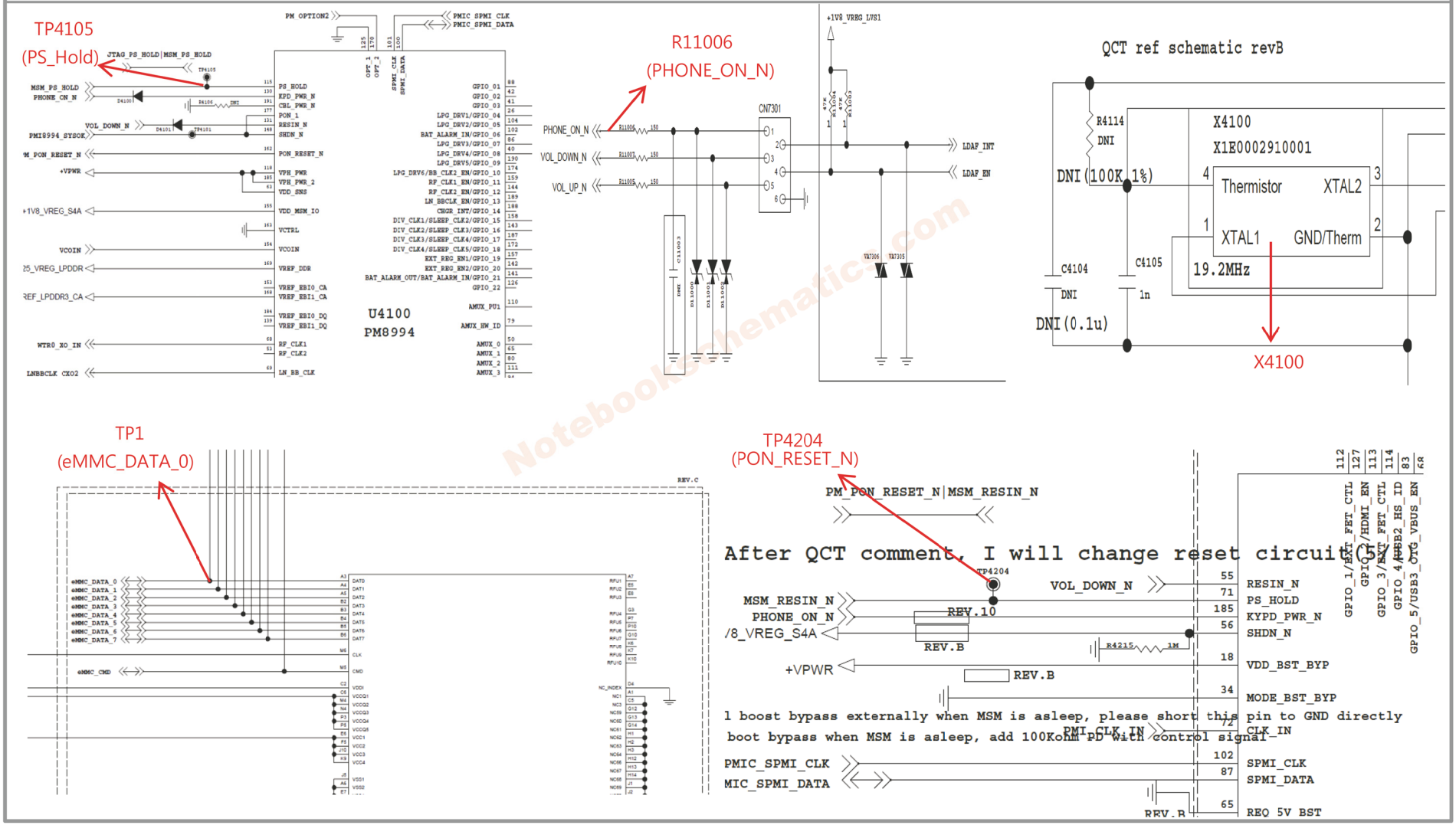


Main Top



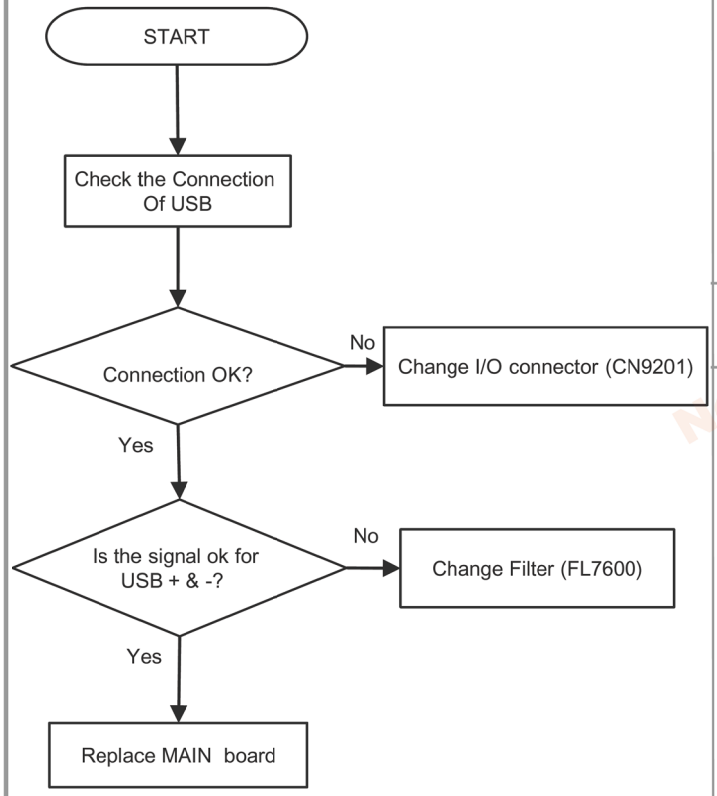
3.11 Power

Circuit Diagram

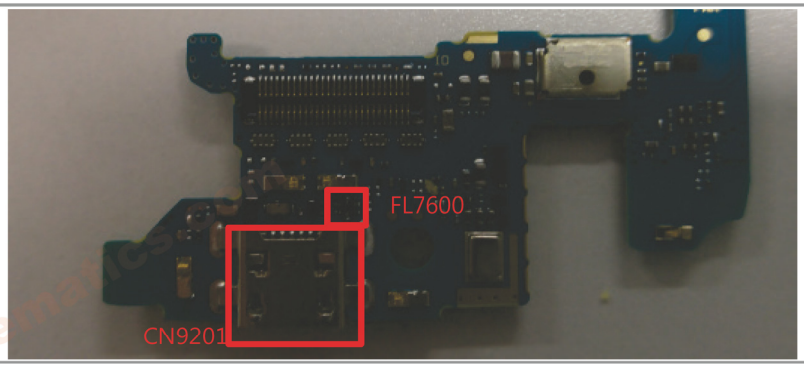


3.12 USB

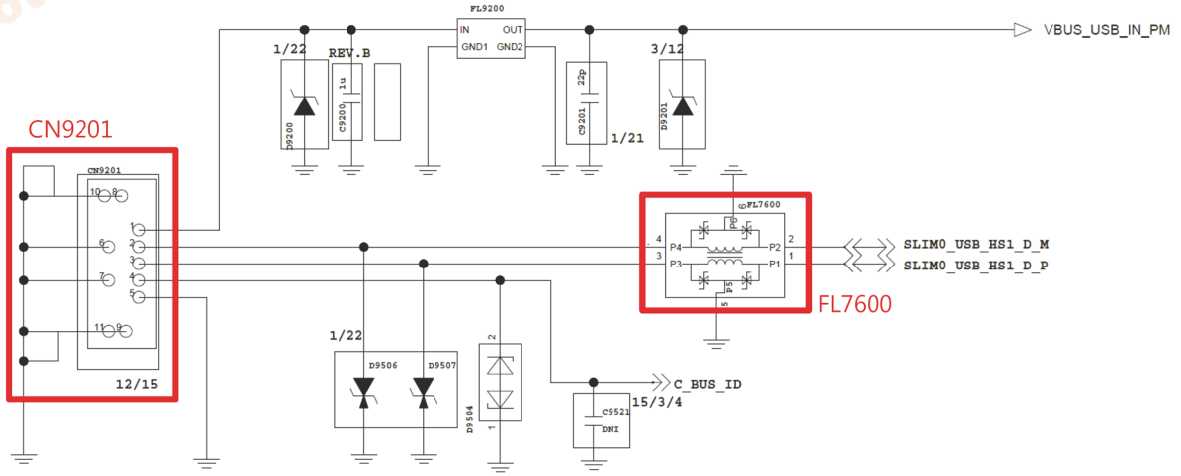
Checking Flow



Image



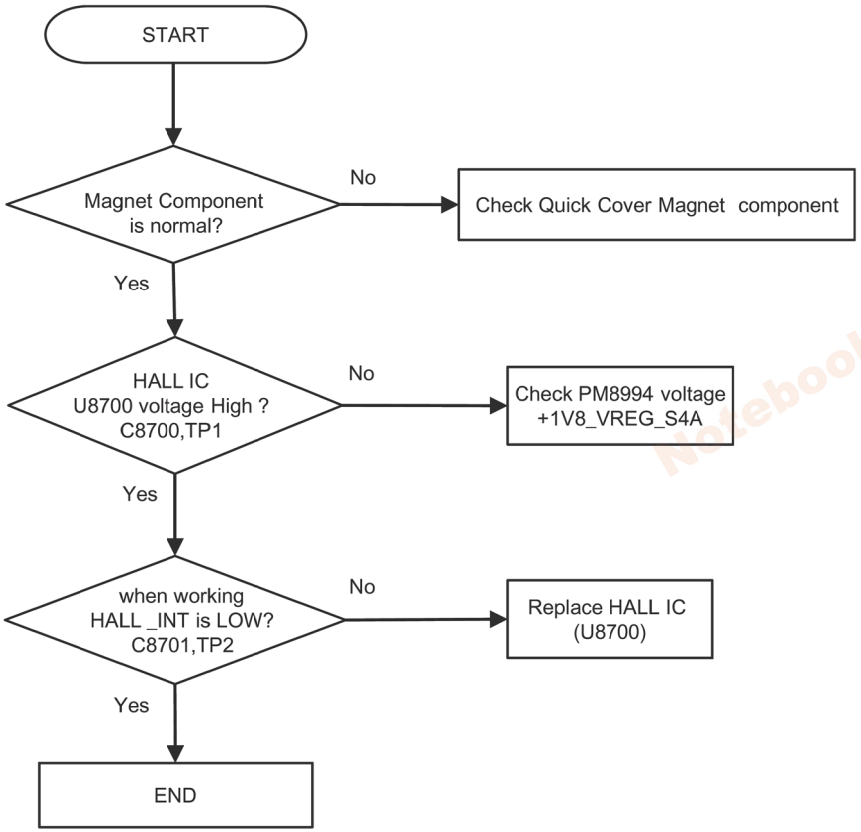
Circuit Diagram



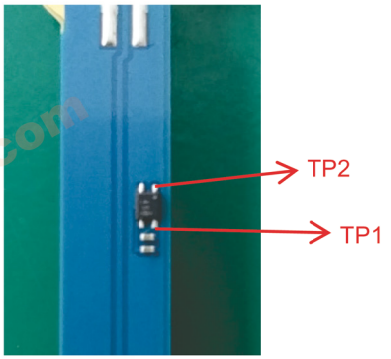
3.13 Hall IC

When Quick Cover does not working check Hall IC.

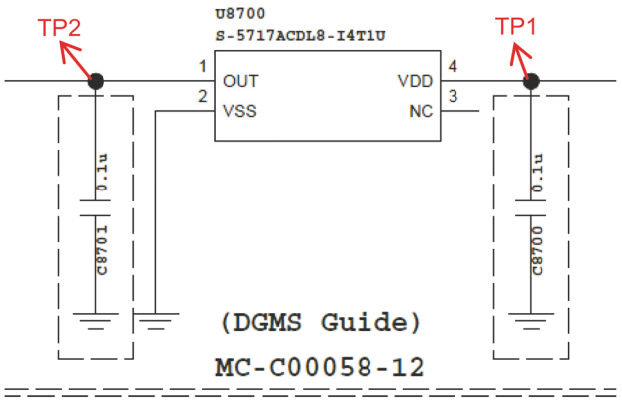
Checking Flow



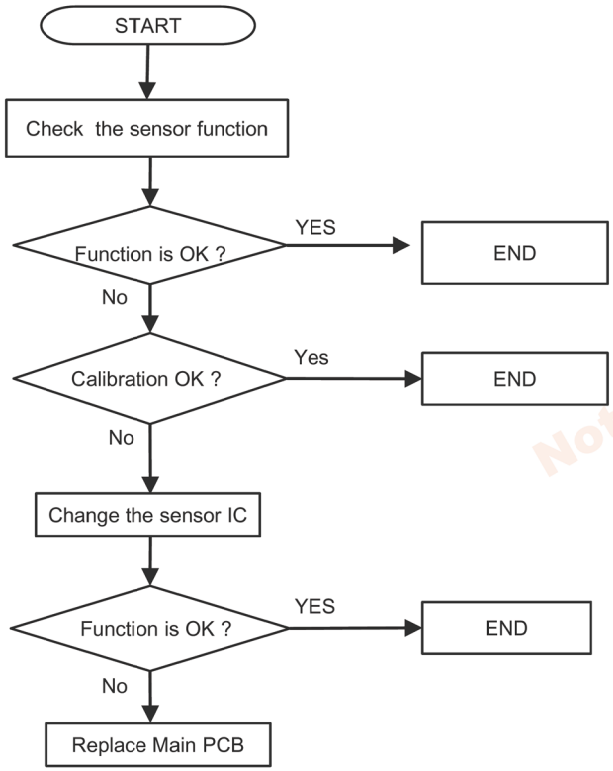
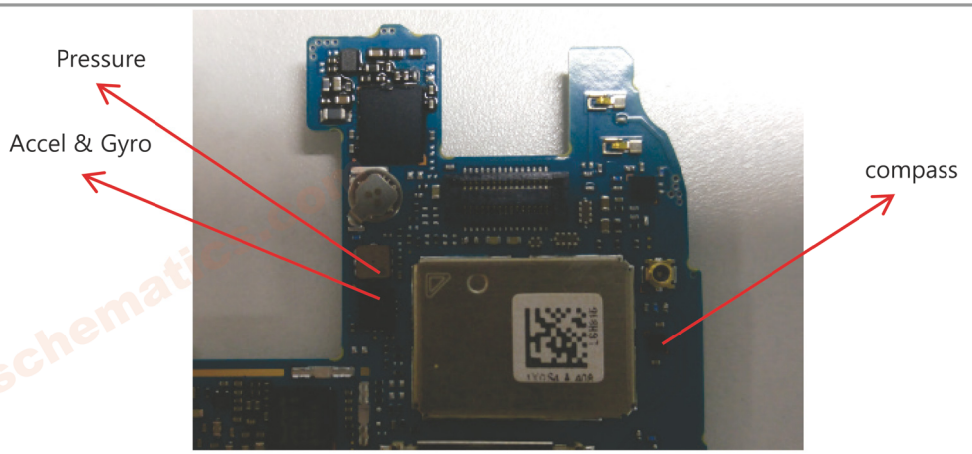
Image



Circuit Diagram



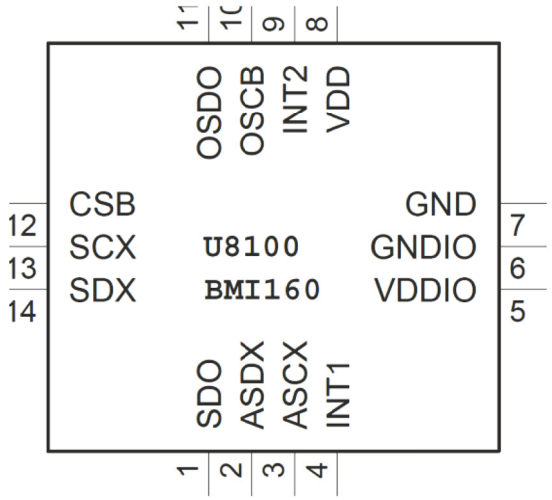
3.14.1 Sensor - Accel_Gyro, Compass, Pressure

Checking Flow	Image
	

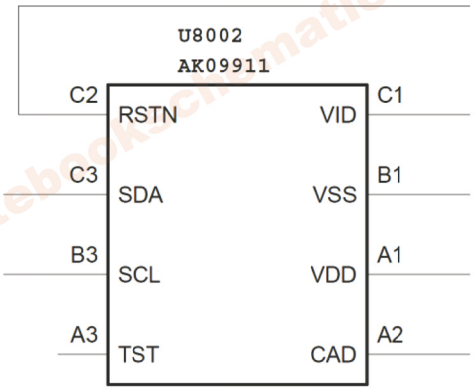
3.14.1 Sensor - Accel_Gyro, Compass, Pressure

Circuit Diagram

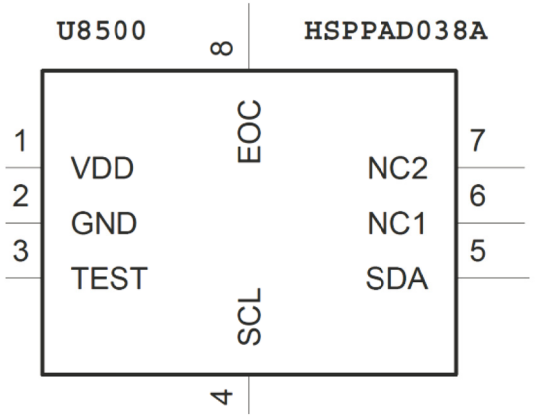
Accel_Gyro



Compass

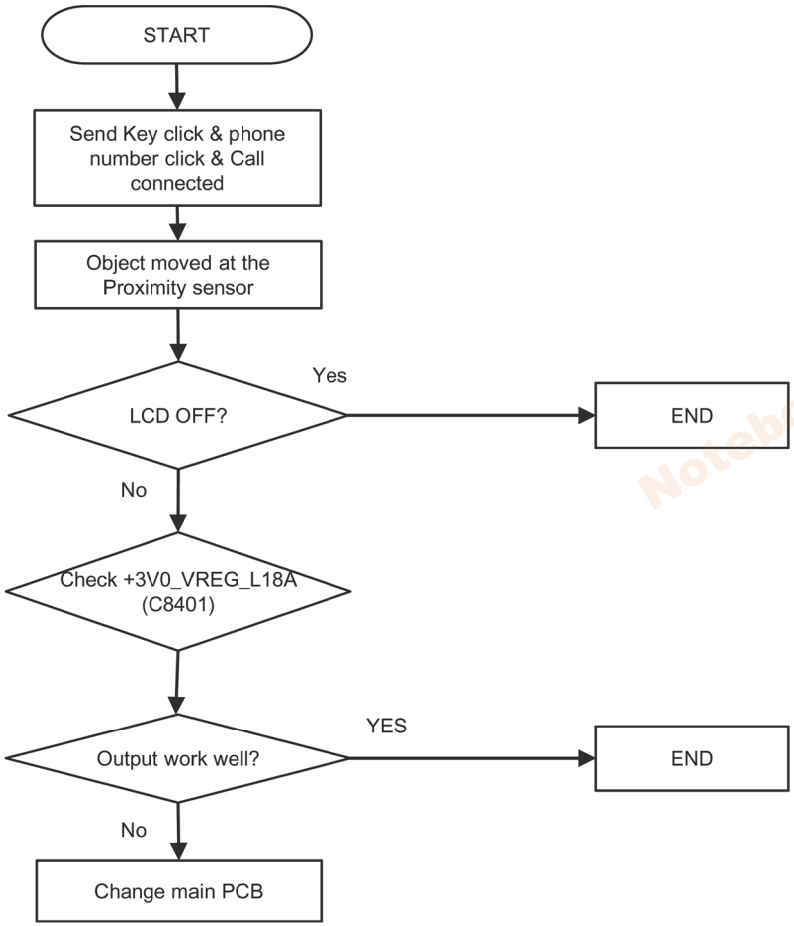


Pressure

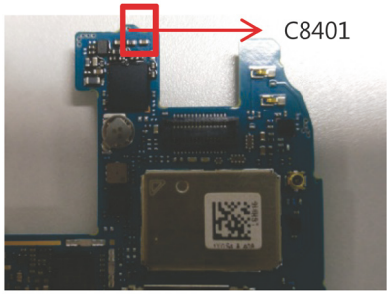


3.14.2 Sensor - Proximity

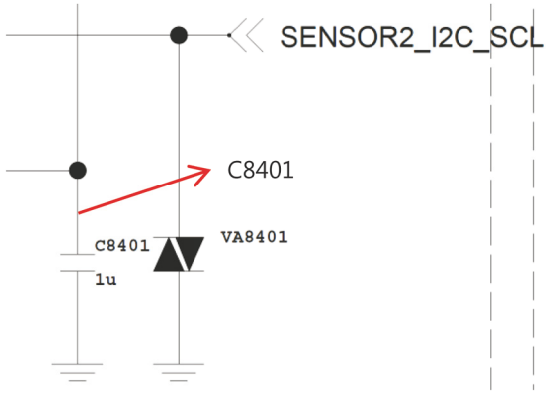
Checking Flow



Image



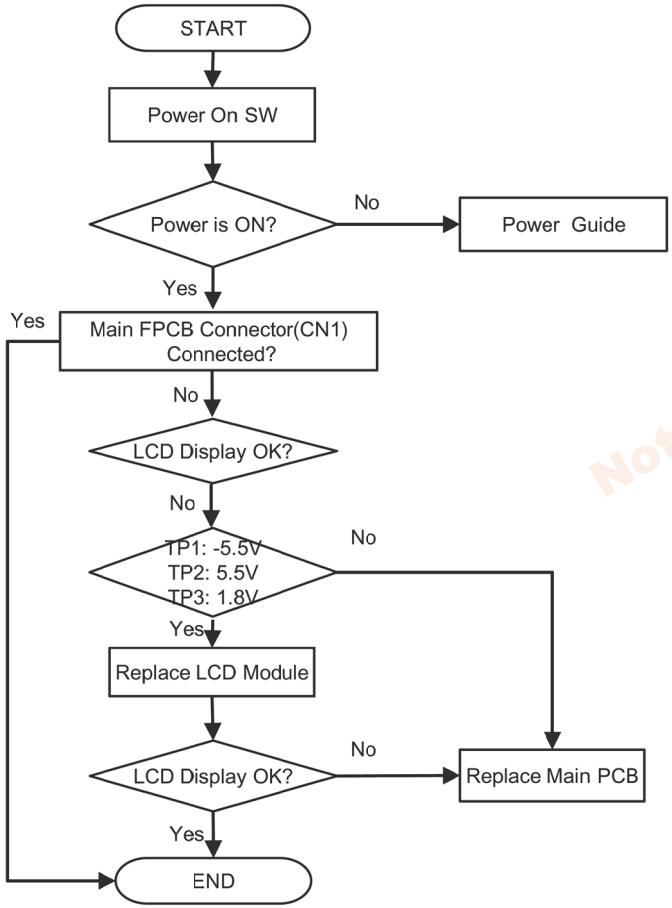
Circuit Diagram

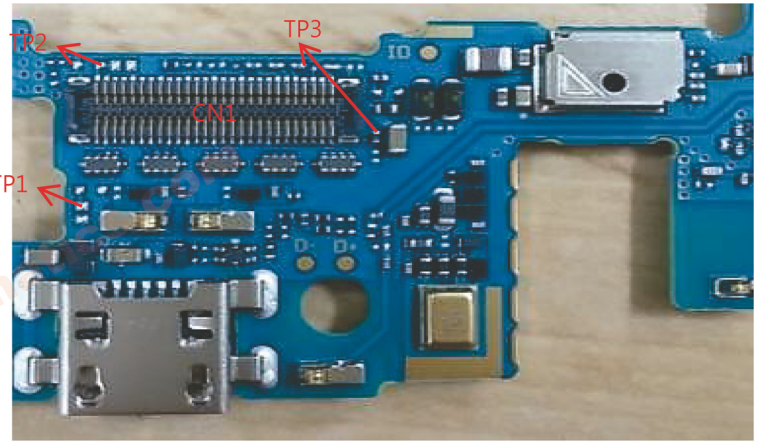


3.15 Display

When Main display is does not working check CN1 and TP Voltage.

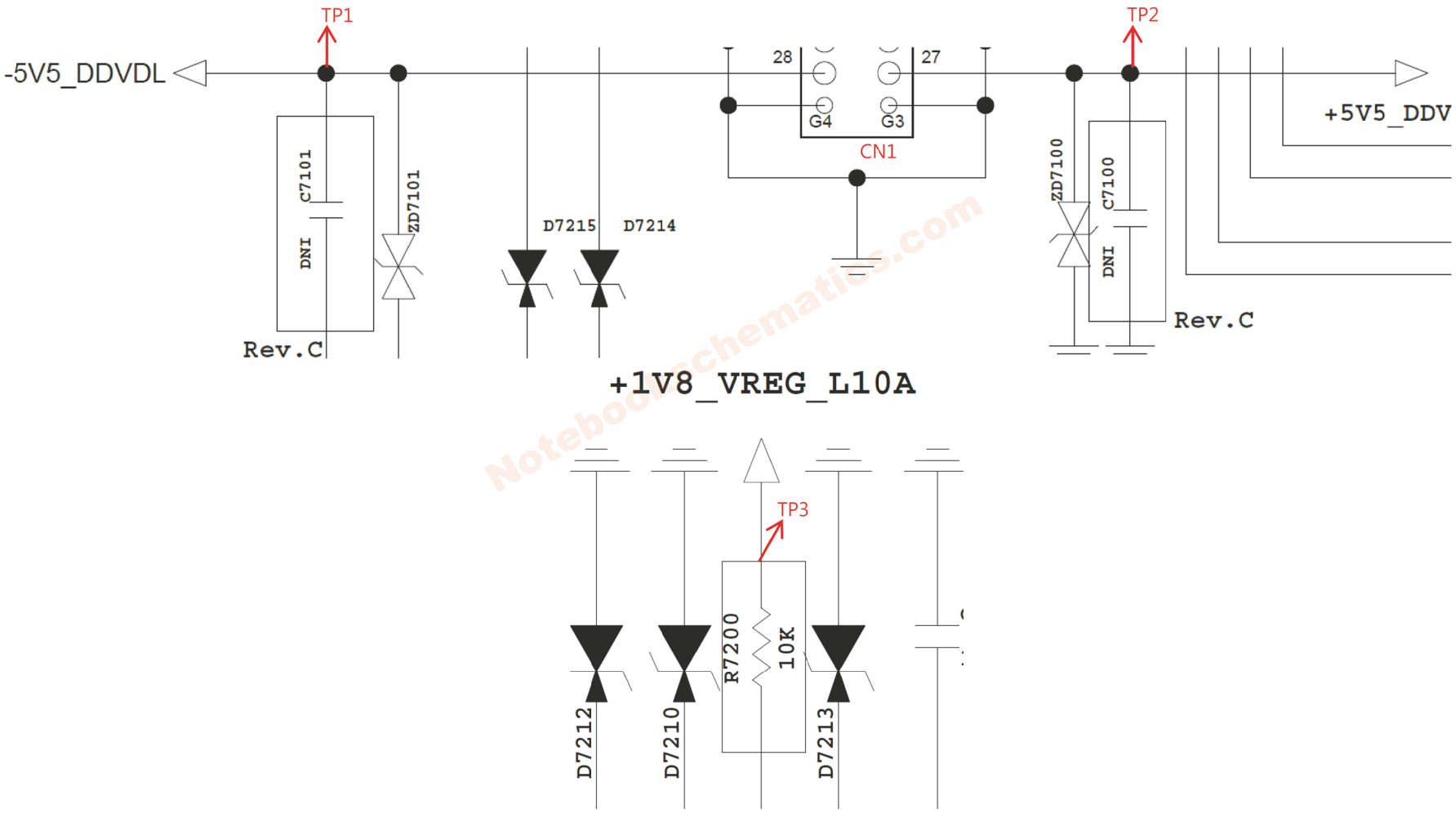
Checking Flow	Image





3.15 Display

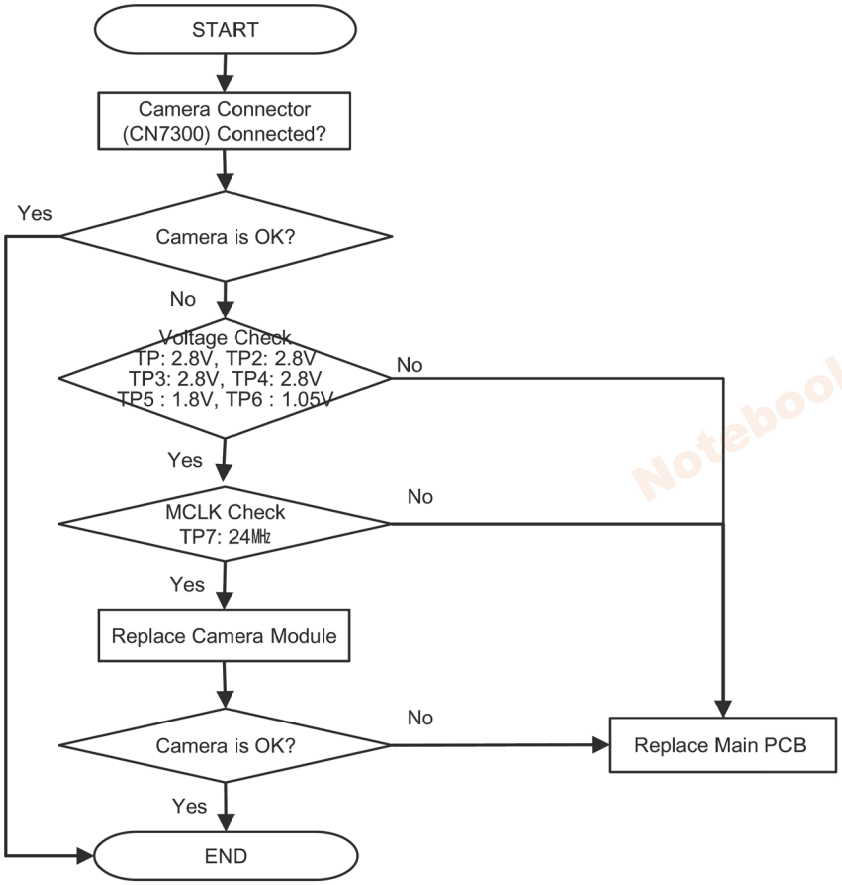
Circuit Diagram

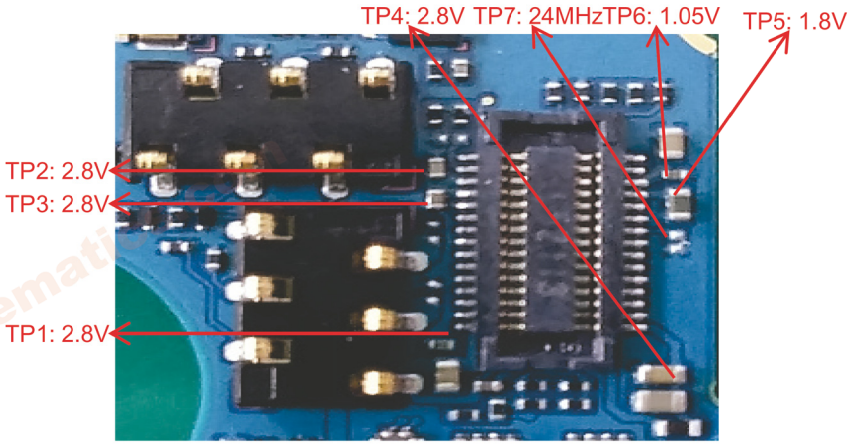


3.16 Main Camera

When Main Camera is does not working check CN7300 and TP Voltage.

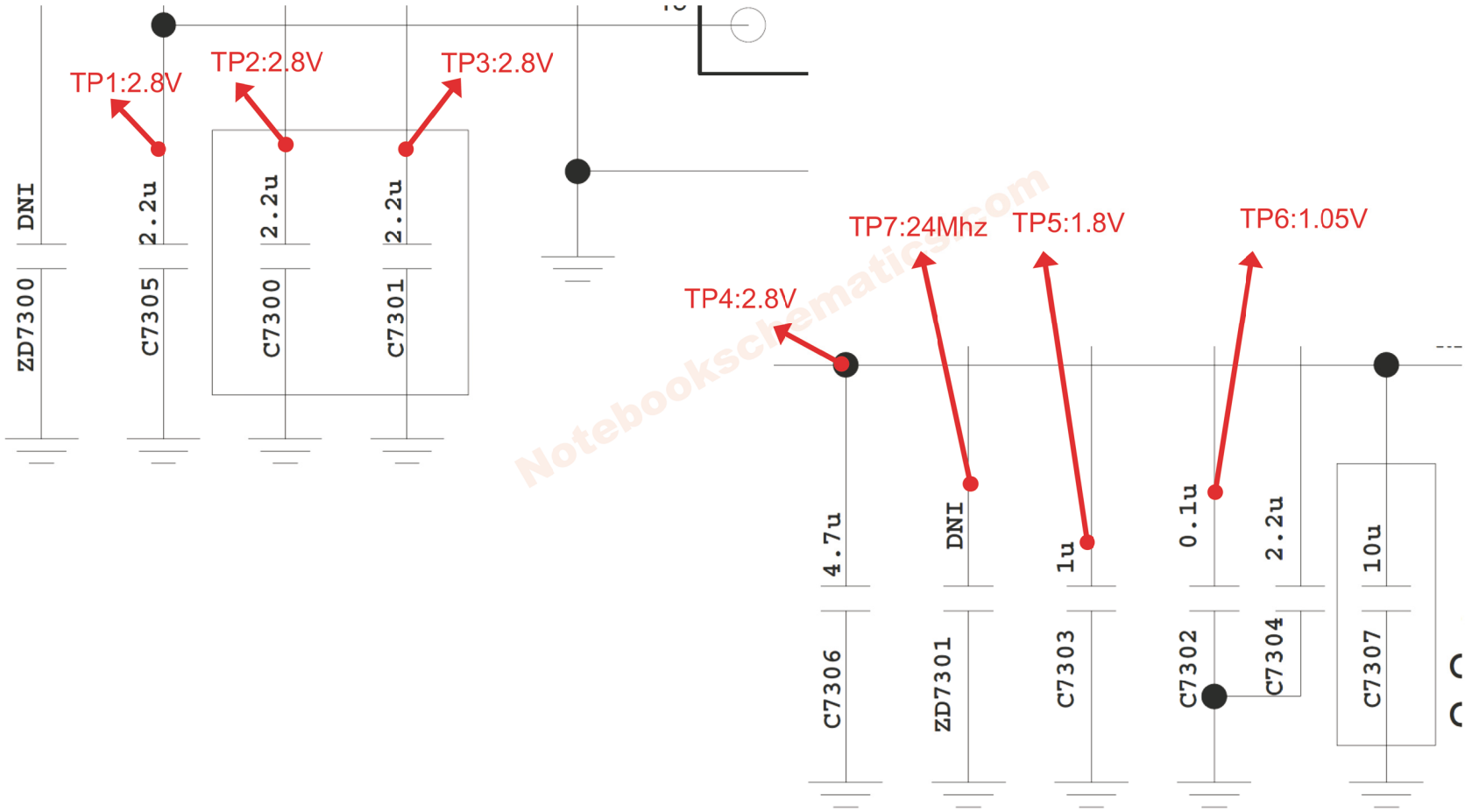
Checking Flow	Image





3.16 Main Camera

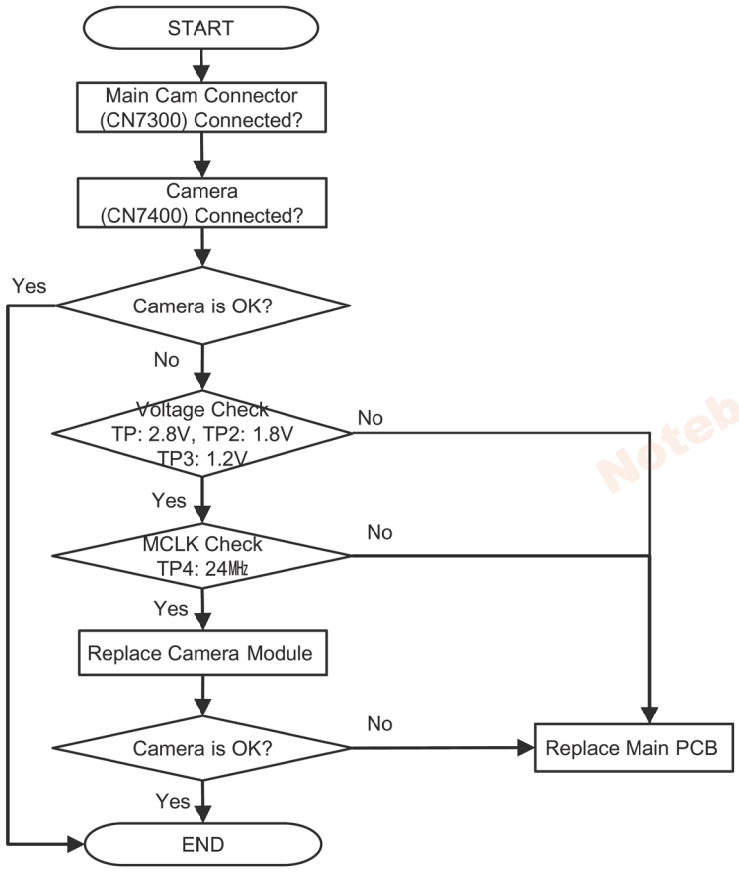
Circuit Diagram



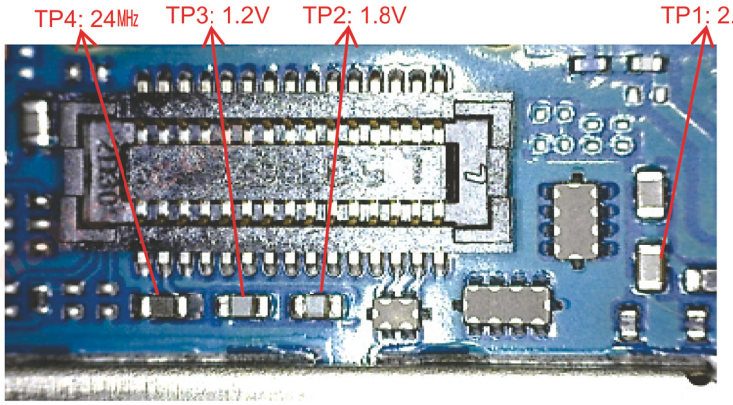
3.17 Front Camera

When Front Camera is does not working check CN7300 and TP Voltage.

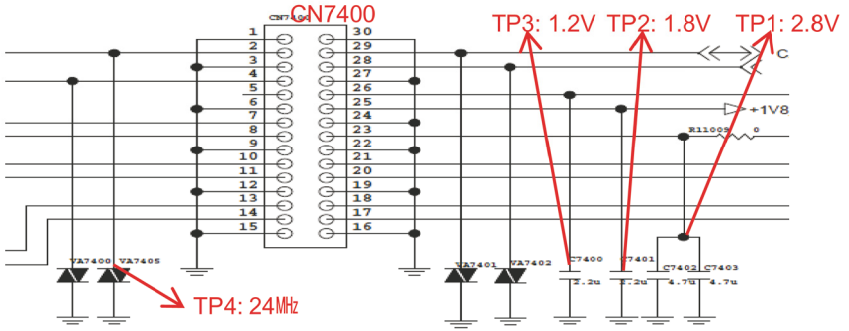
Checking Flow



Image



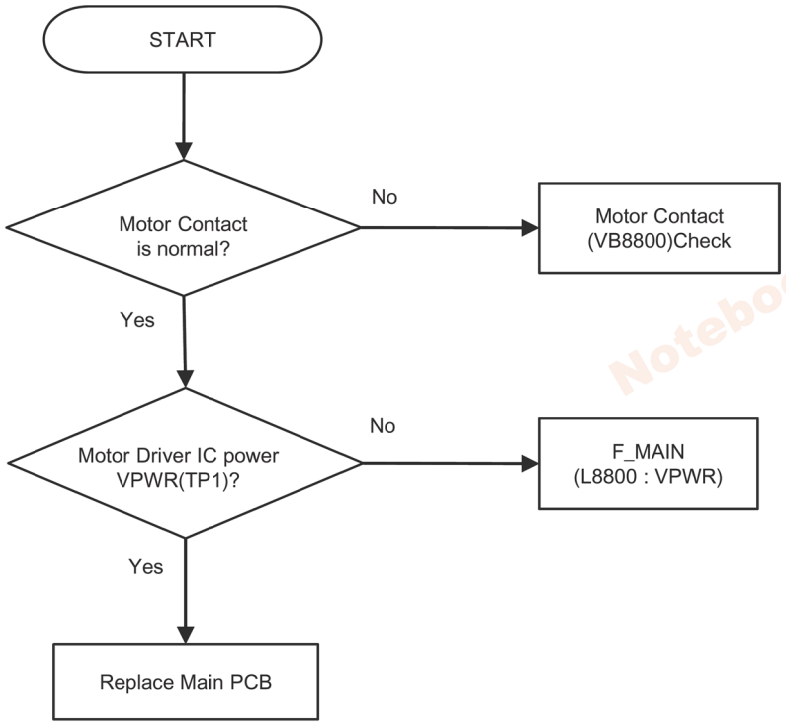
Circuit Diagram



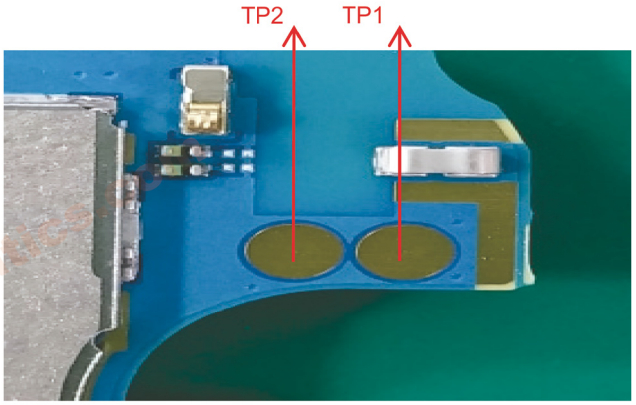
3.18 Motor

When Motor does not working check Motor Contact.

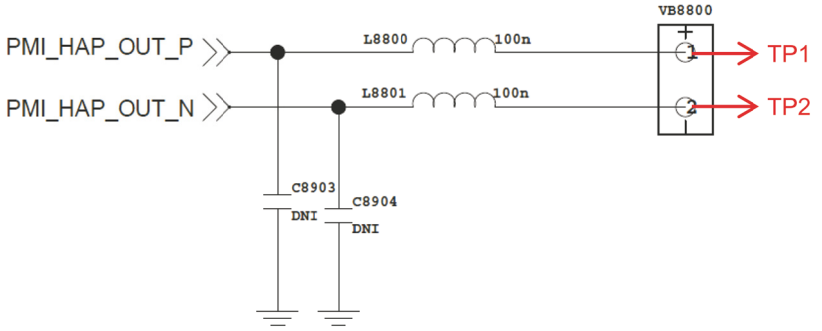
Checking Flow



Image



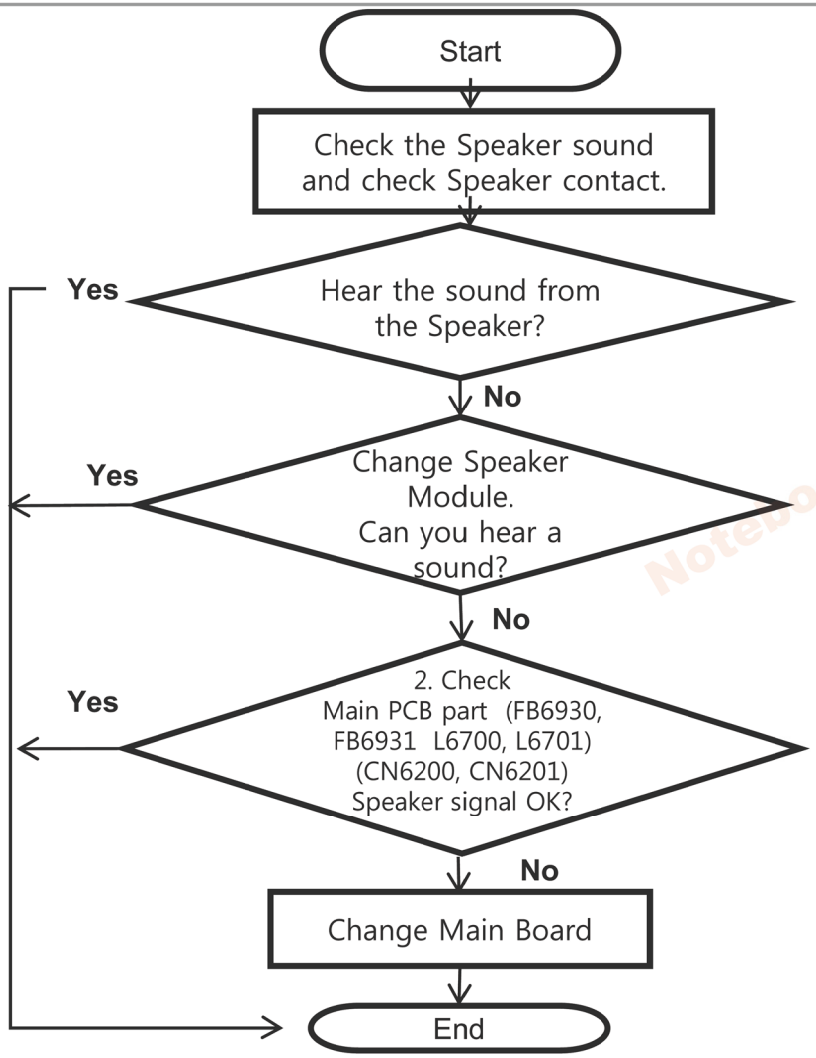
Circuit Diagram



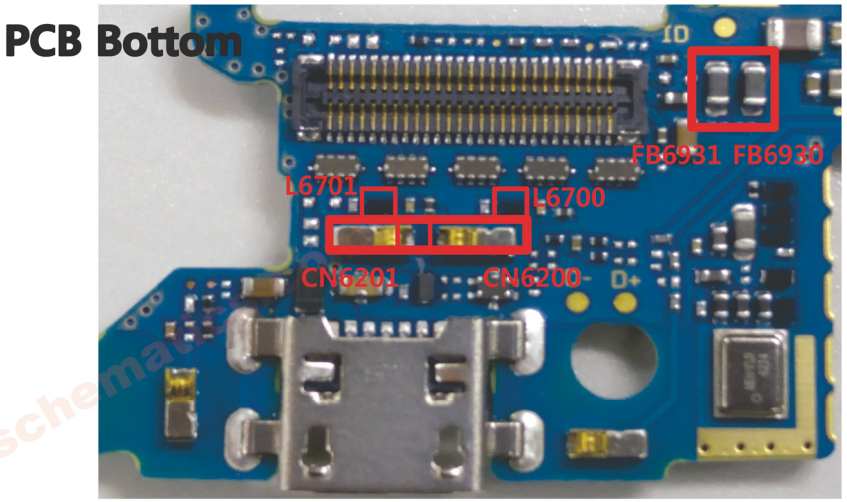
3.19.1 Audio - Speaker

It's trouble shooting guide for sound mute case. (don't hear)
Speaker control signals are generate by MSM8992-B(U2100), WCD9330(U6100) Speak Boost_Amp (U6200)

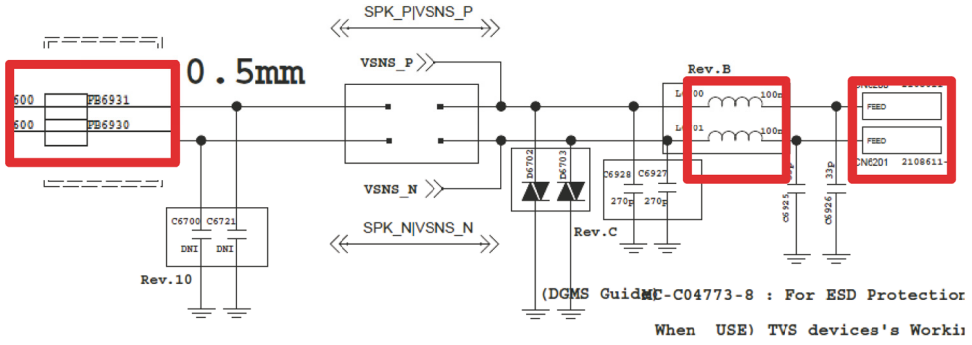
Checking Flow



Image



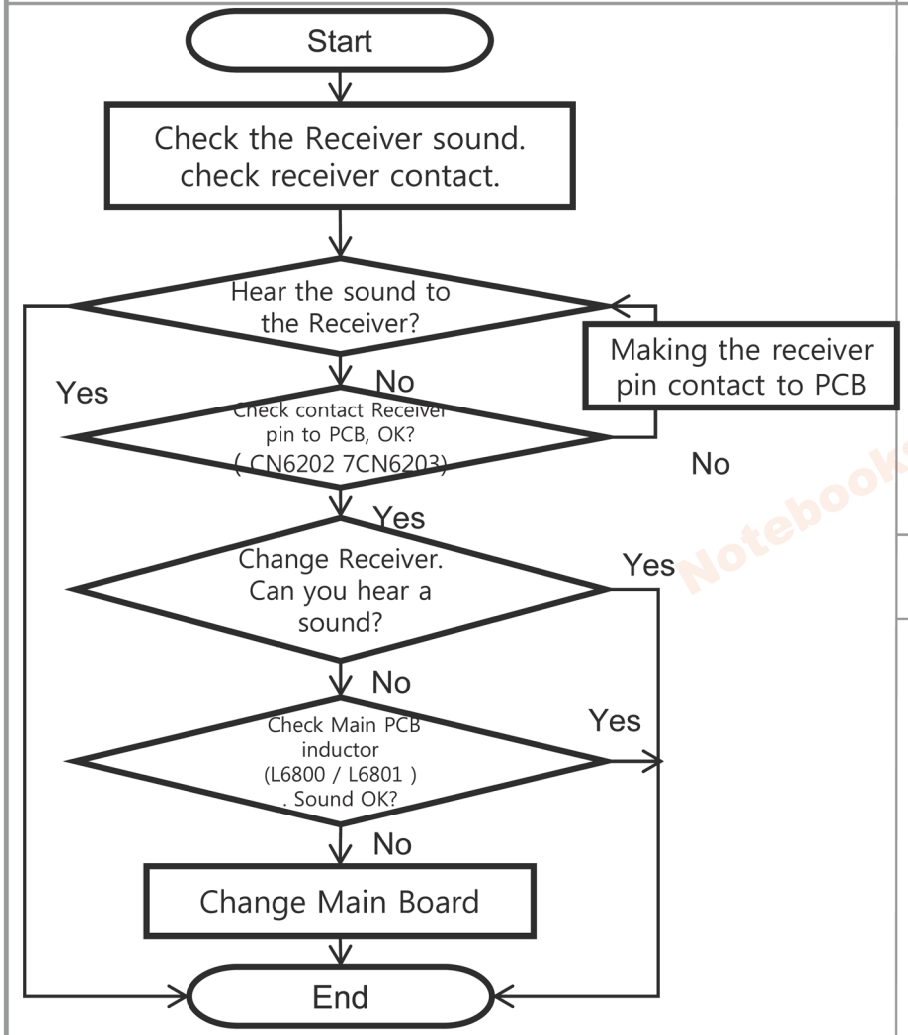
Circuit Diagram



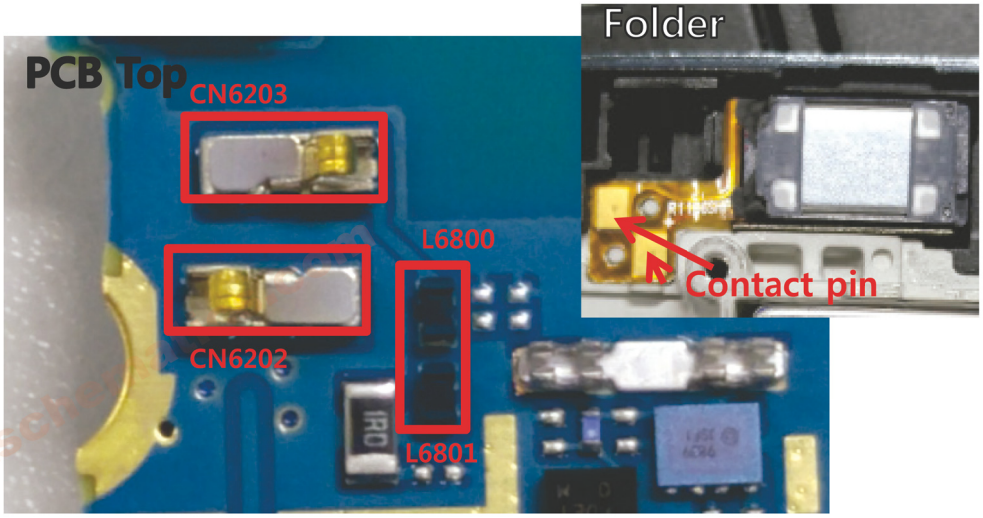
3.19.2 Audio - Receiver

Receiver control signals are generate by MSM8992(U2100), WCD9330(U6100)
Voice Receiving path as below : MSM8992 → WCD9330 → Receiver

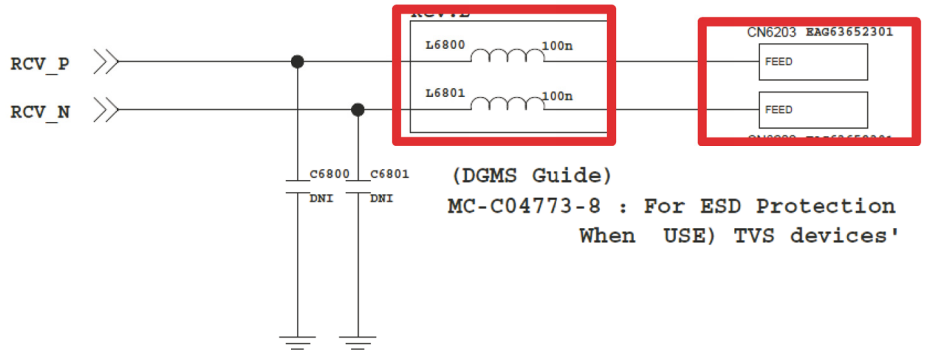
Checking Flow



Image



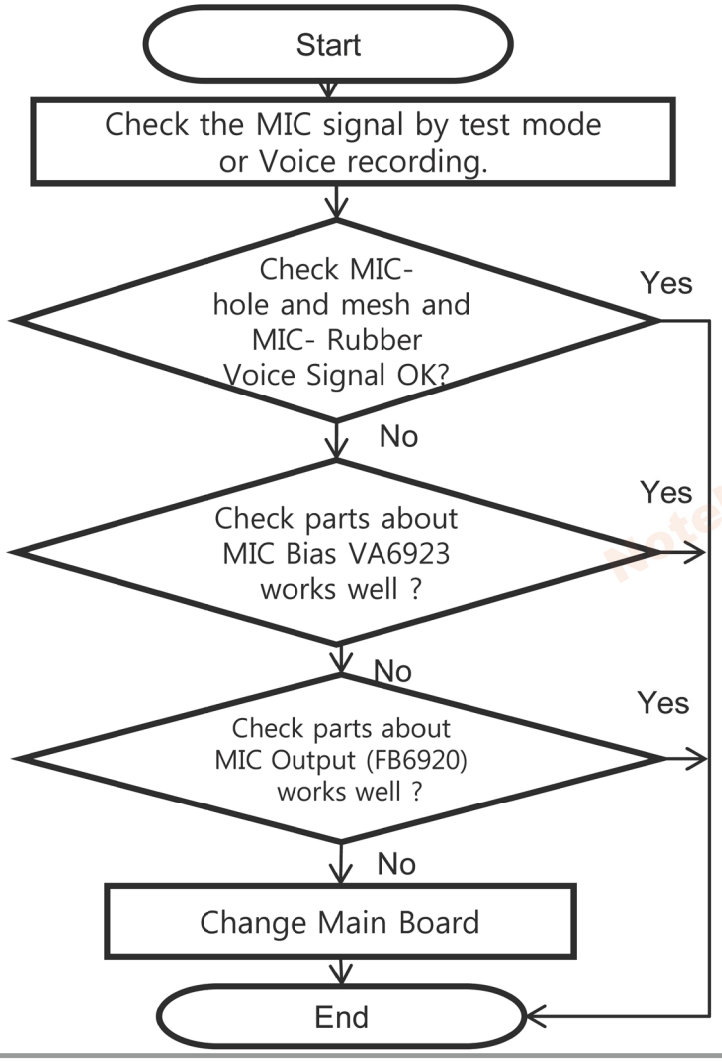
Circuit Diagram



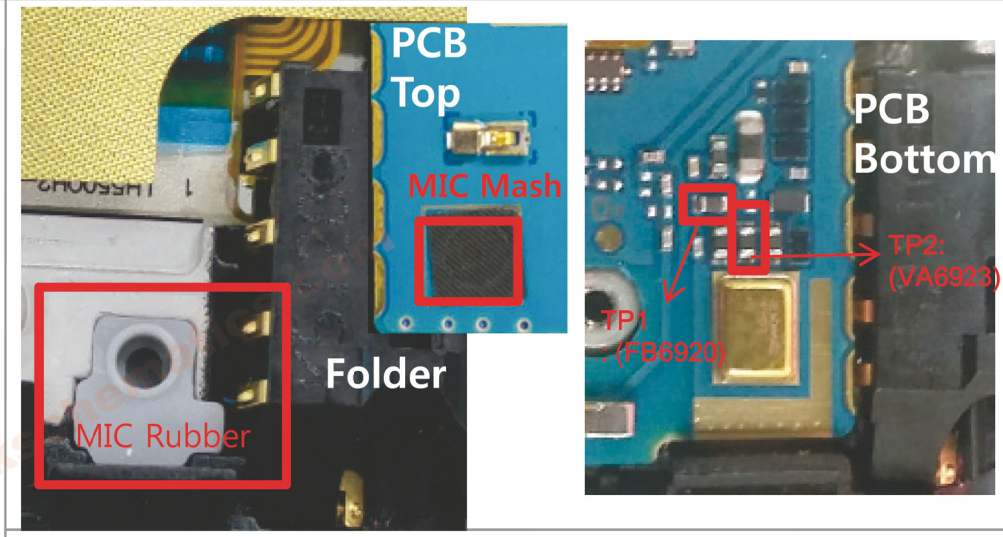
3.19.3 Audio - Main MIC

A Main MIC is located at the bottom of PCB
It operates in case of voice call (handset), voice recording, camcorder recording

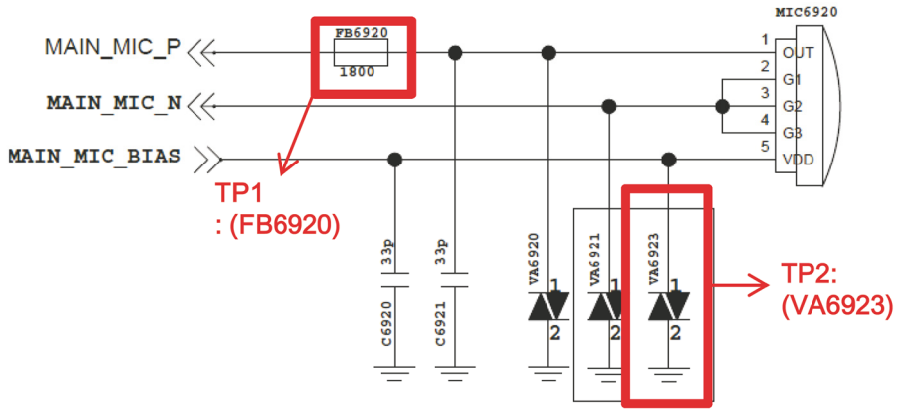
Checking Flow



Image



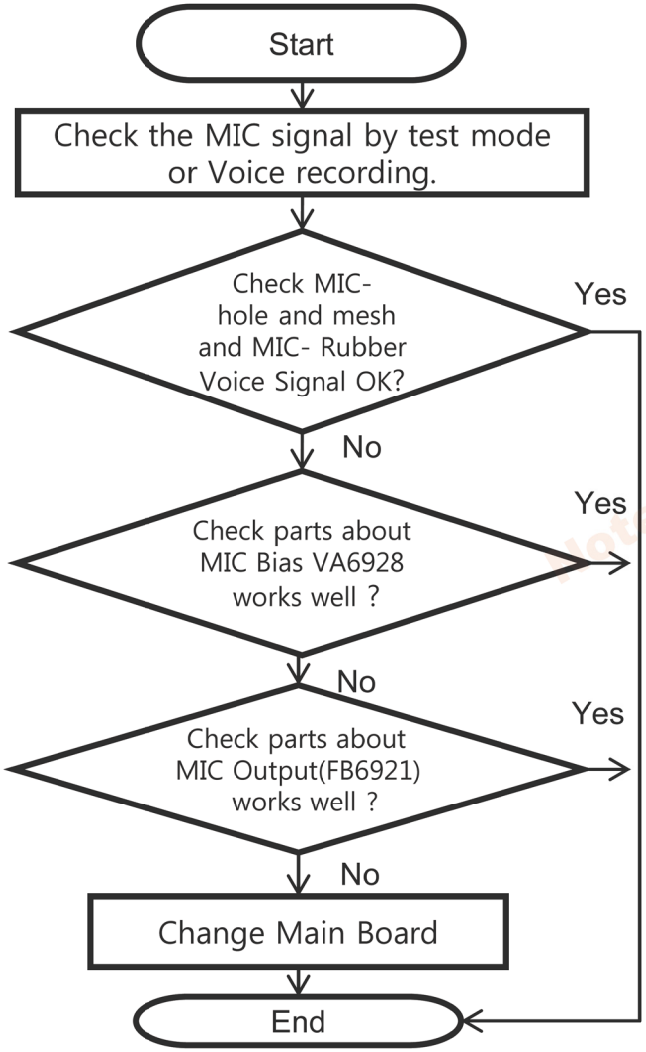
Circuit Diagram



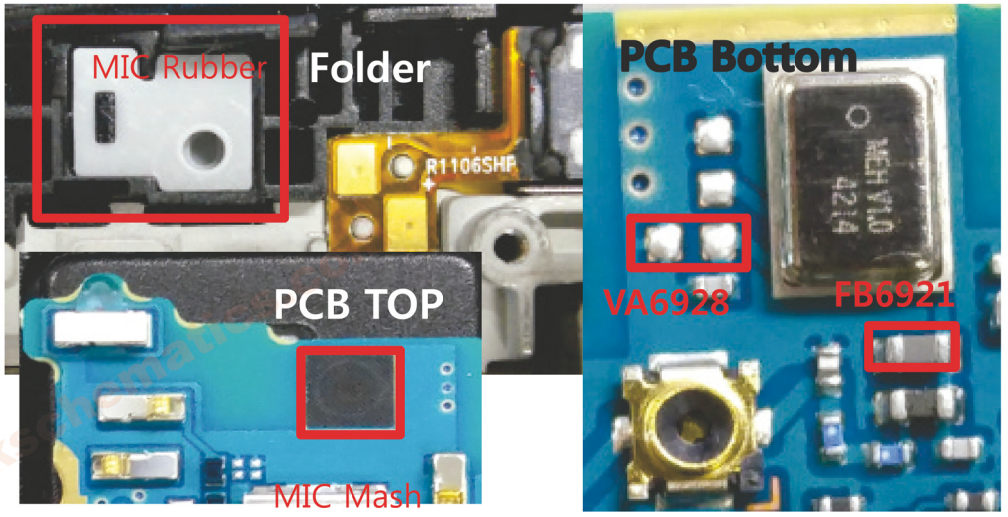
3.19.4 Audio - Sub MIC

A Sub MIC is located at the bottom of PCB. It operates in case of voice call (handset noise suppression on/ Speaker Phone noise suppression on), camcorder recording (zooming)

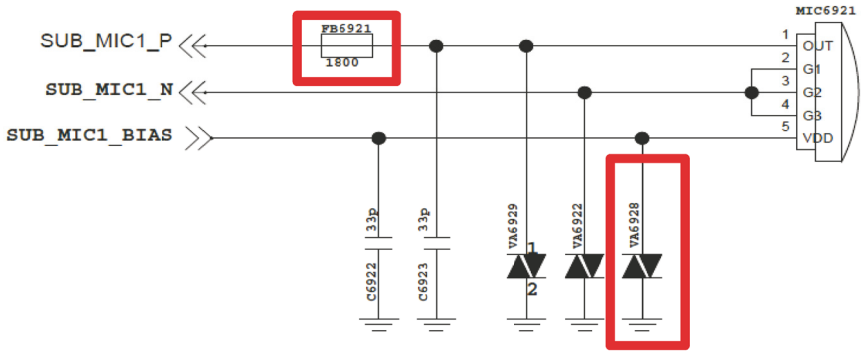
Checking Flow



Image



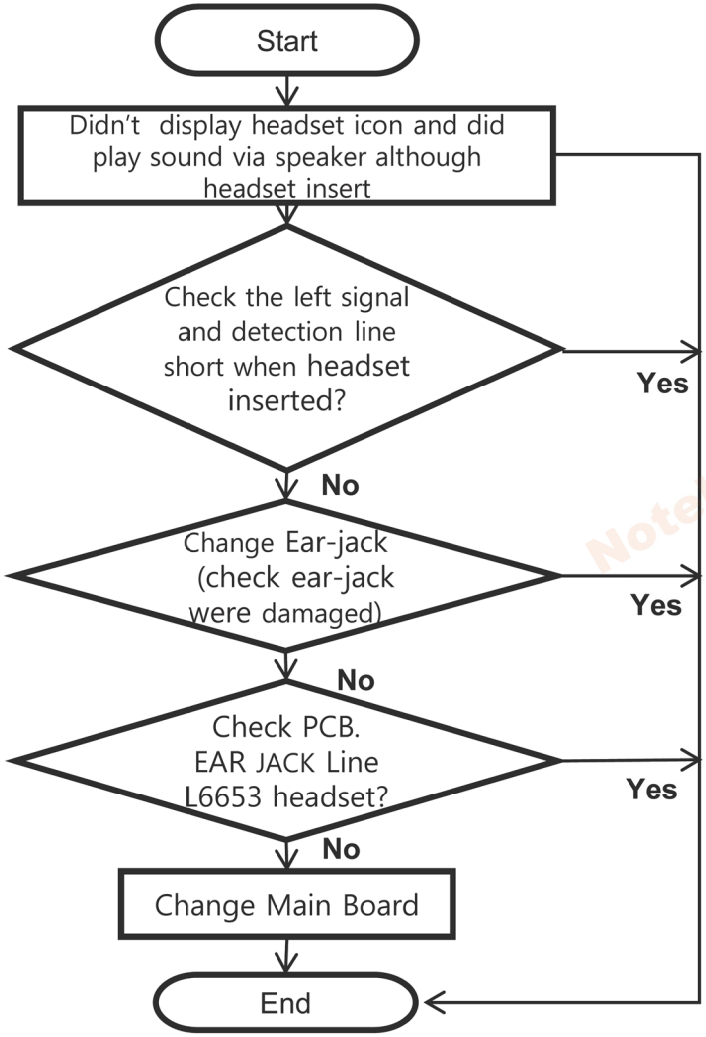
Circuit Diagram



3.19.5 Audio – Ear MIC

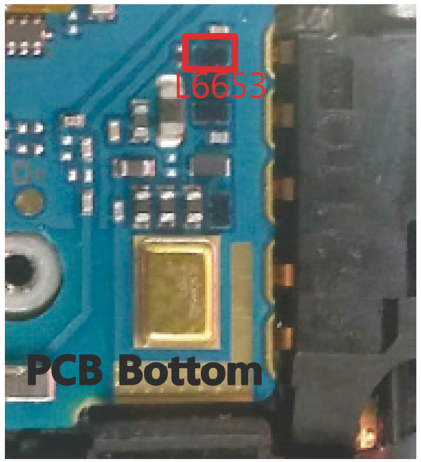
When you can't Listen to music or call through earphone, refer to trouble shooting guide.
Ear MIC control signals are generate by MSM8992(U2100), WCD9330(U6100)

Checking Flow

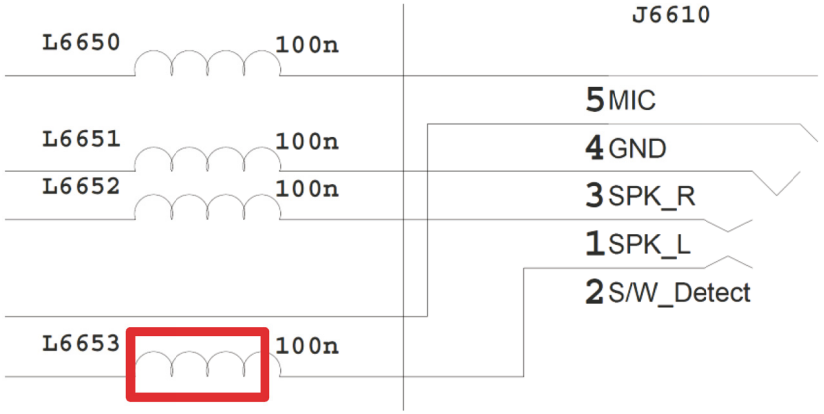


Image

Folder

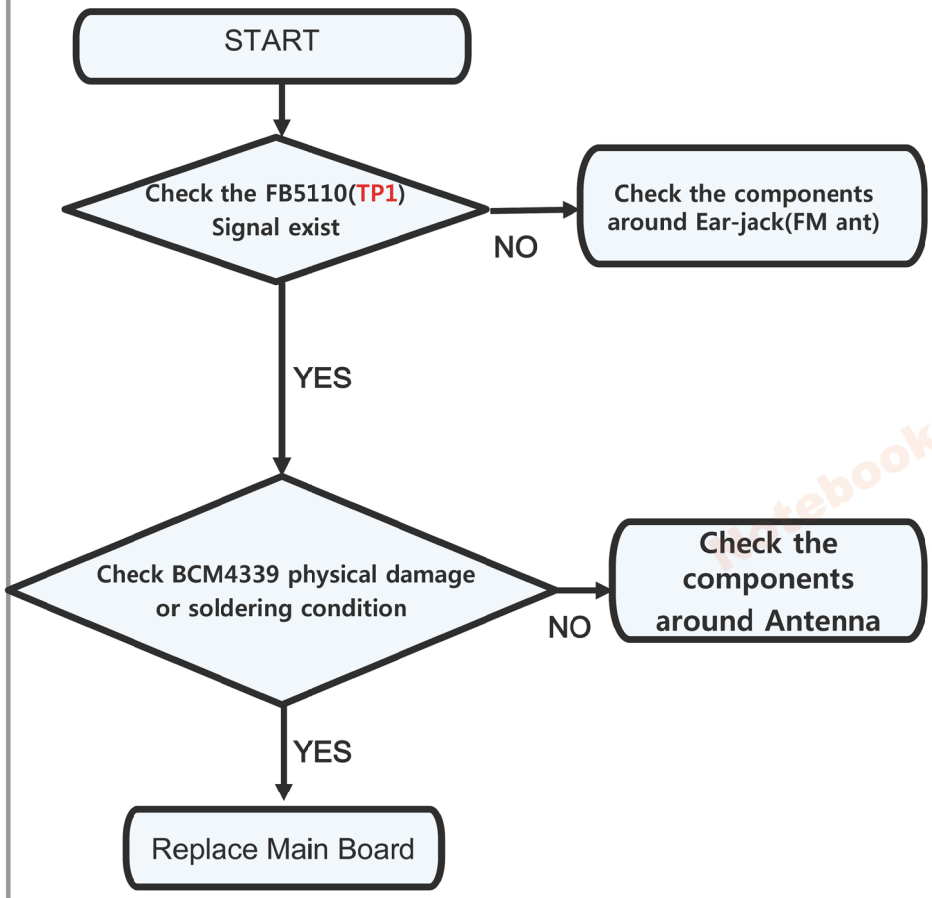


Circuit Diagram

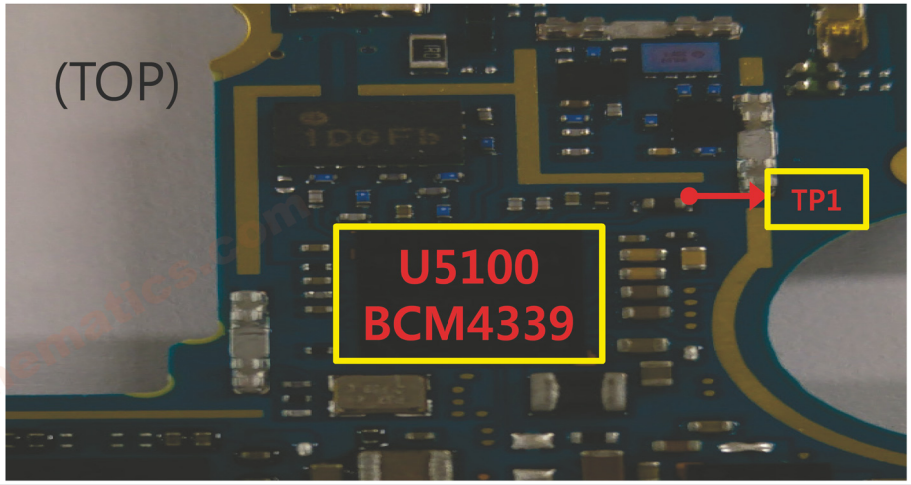


3.20 FM Radio Part

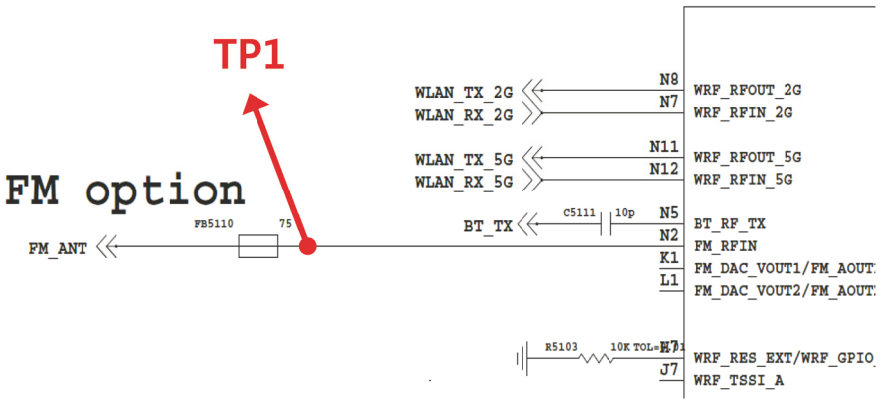
Checking Flow



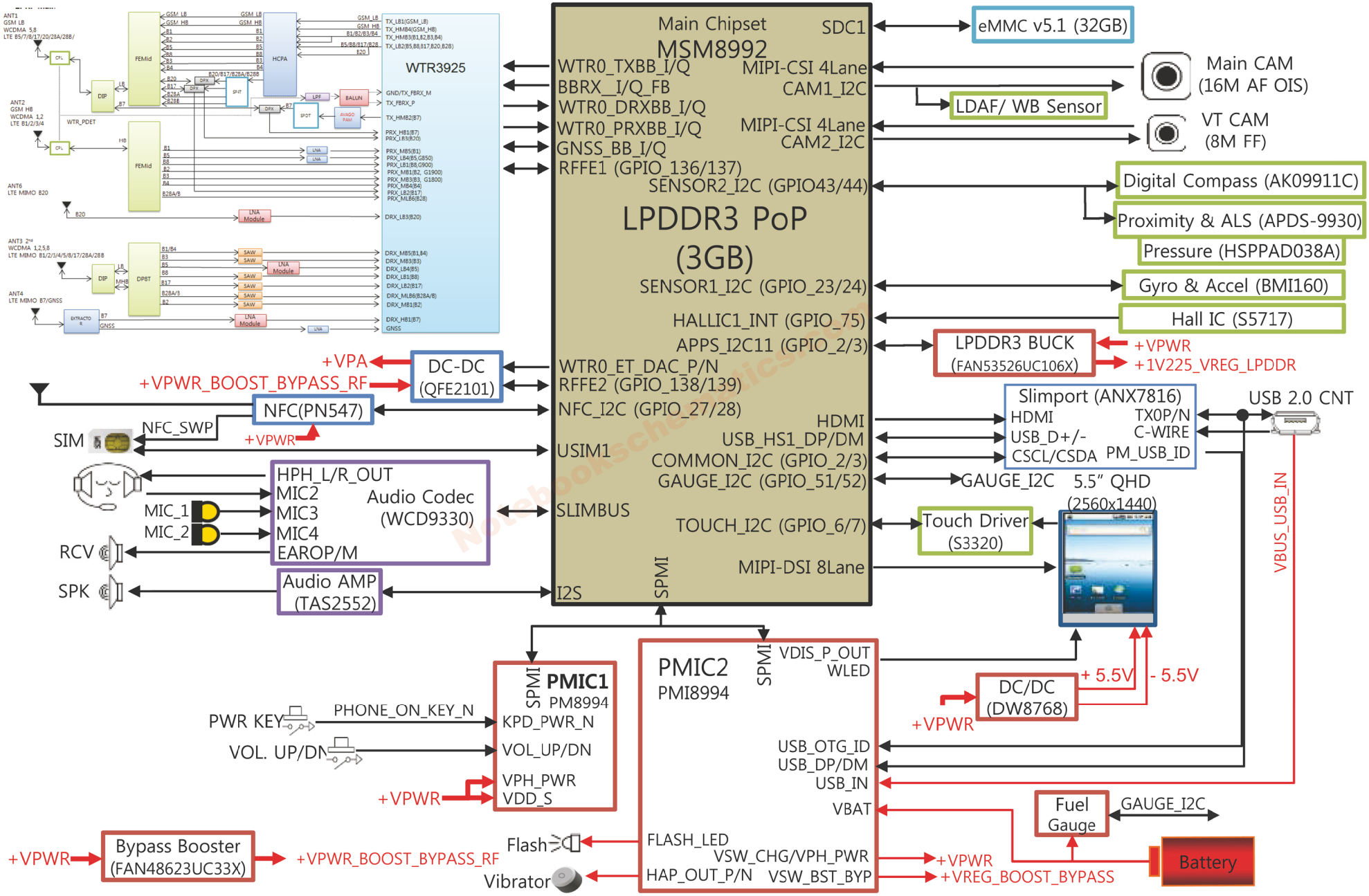
Image



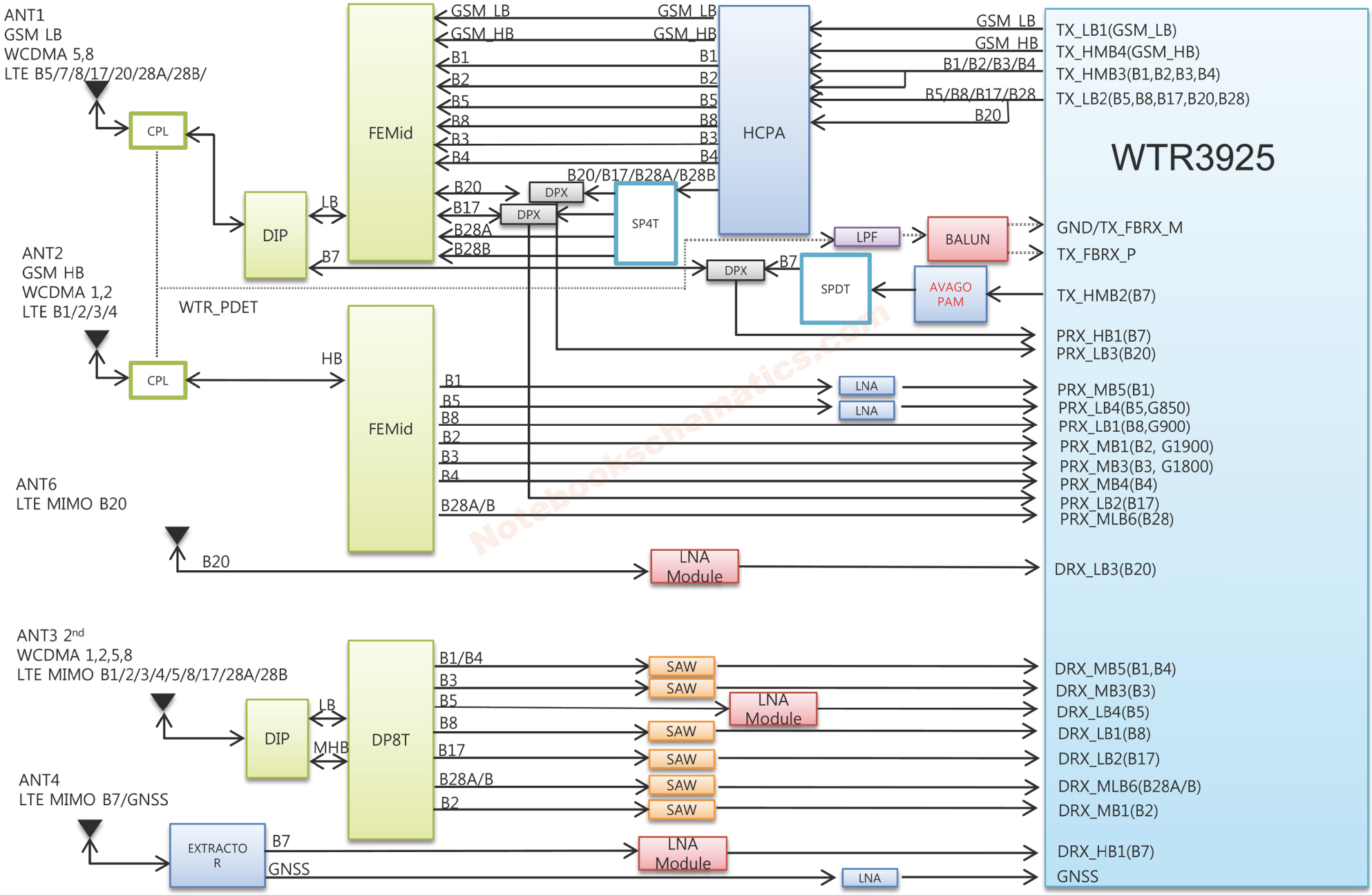
Circuit Diagram



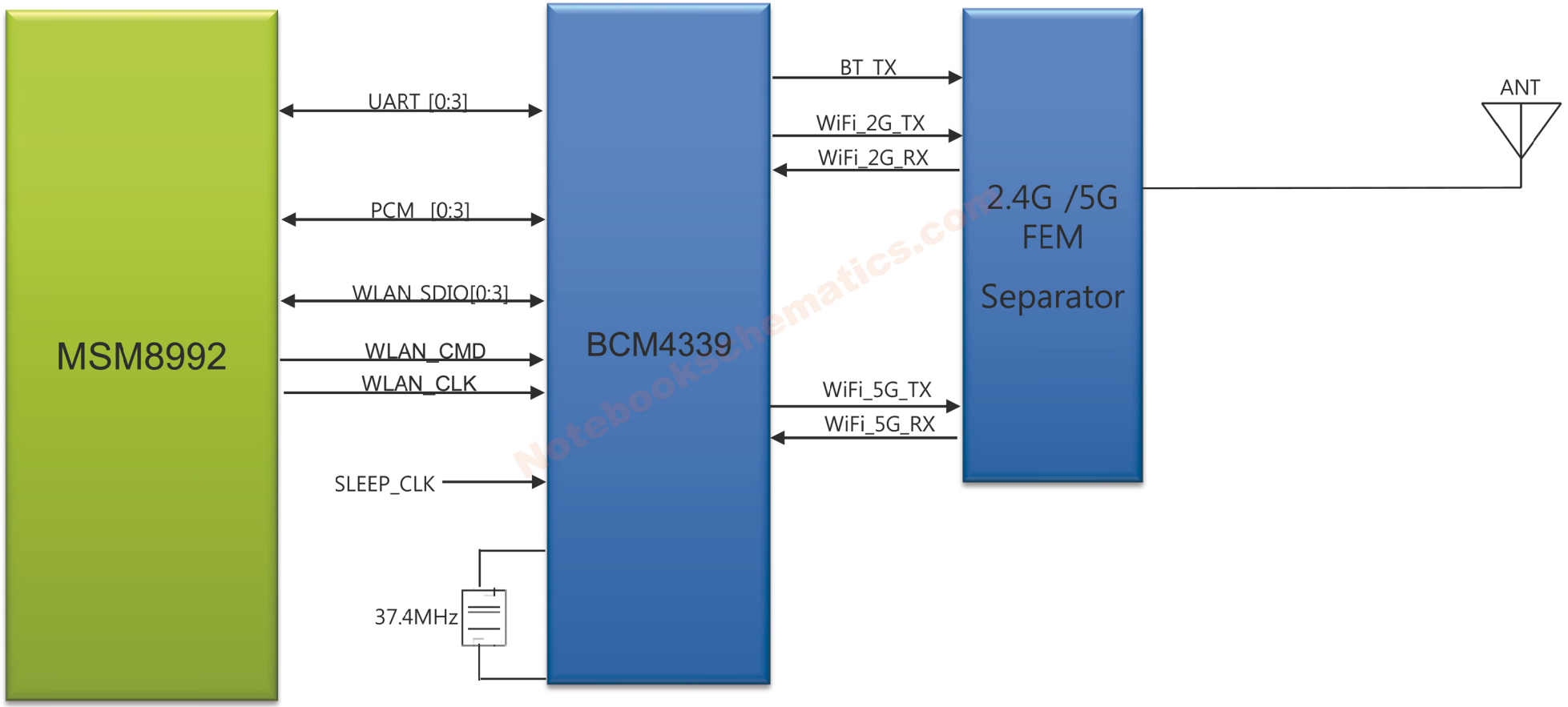
1. Total block diagram



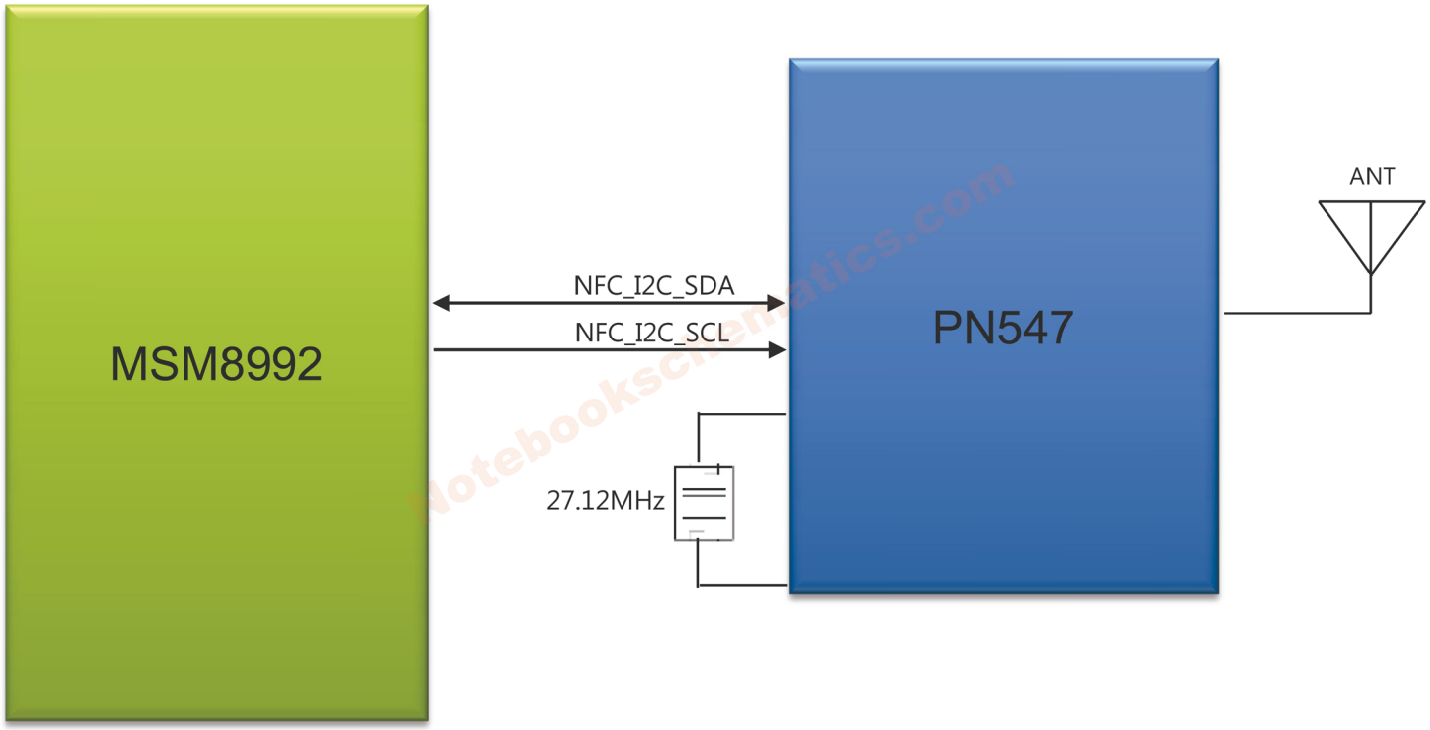
2. RF Main



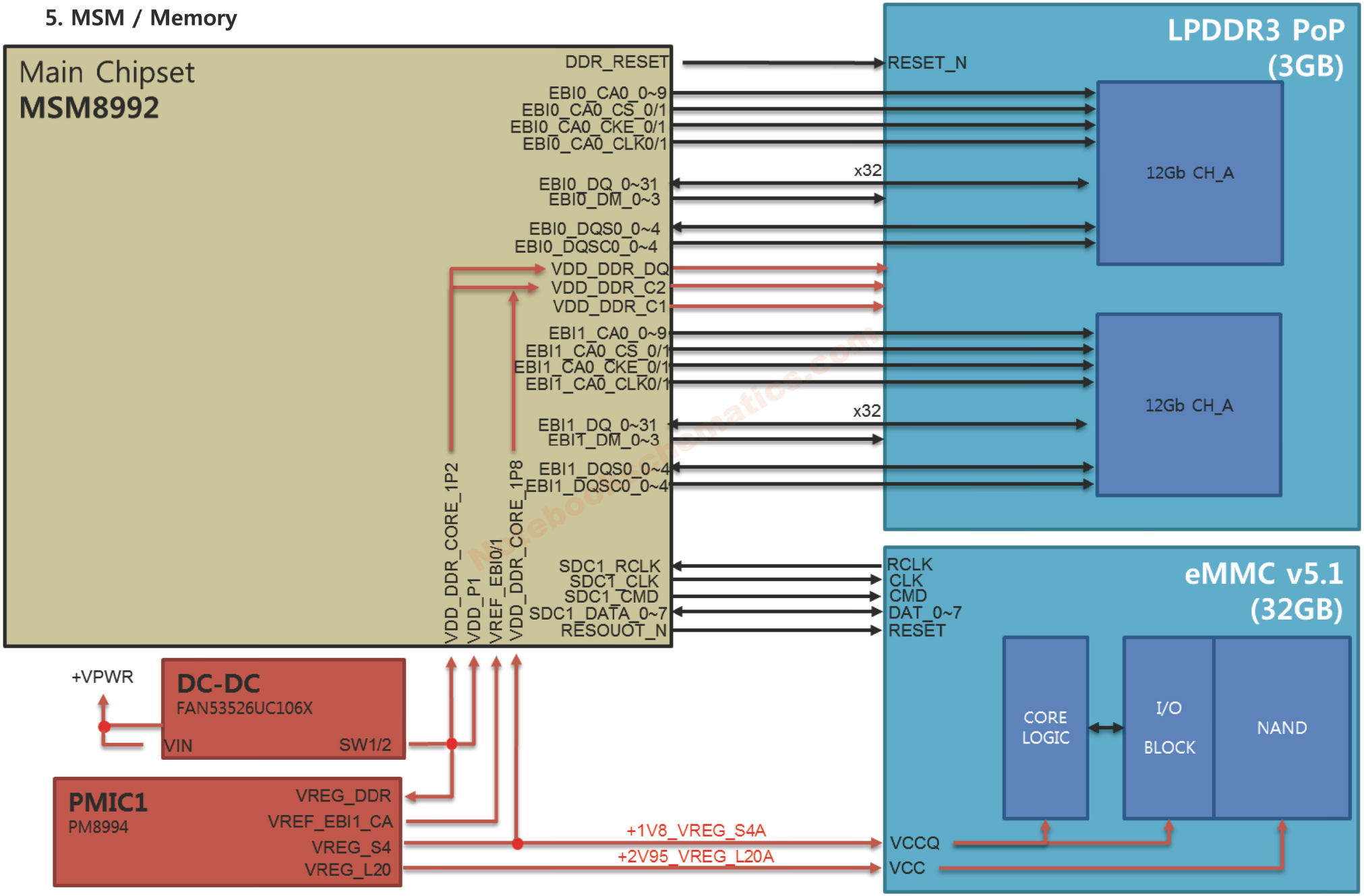
3. Connectivity (BT_WiFi)



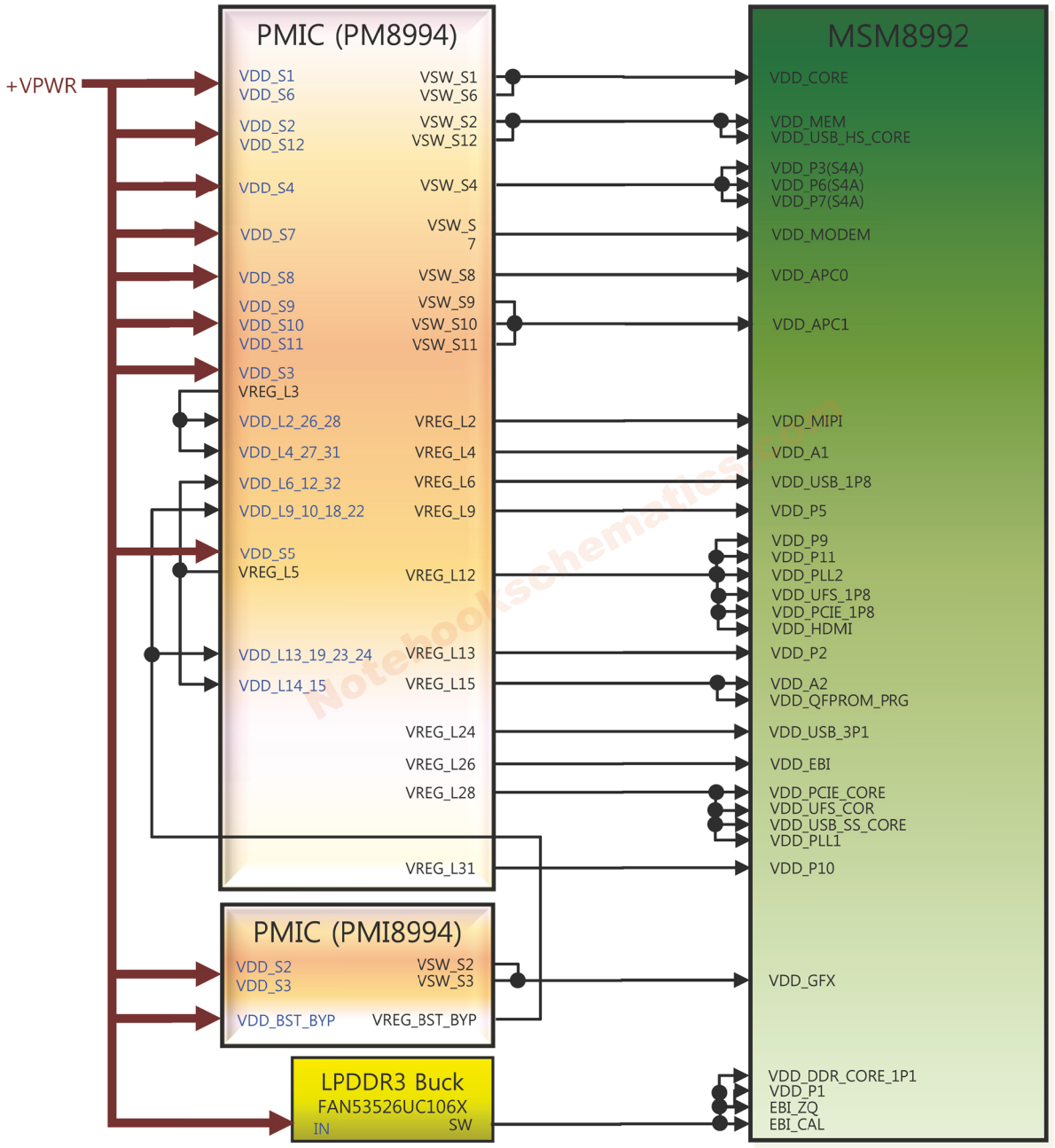
4. Connectivity (NFC)



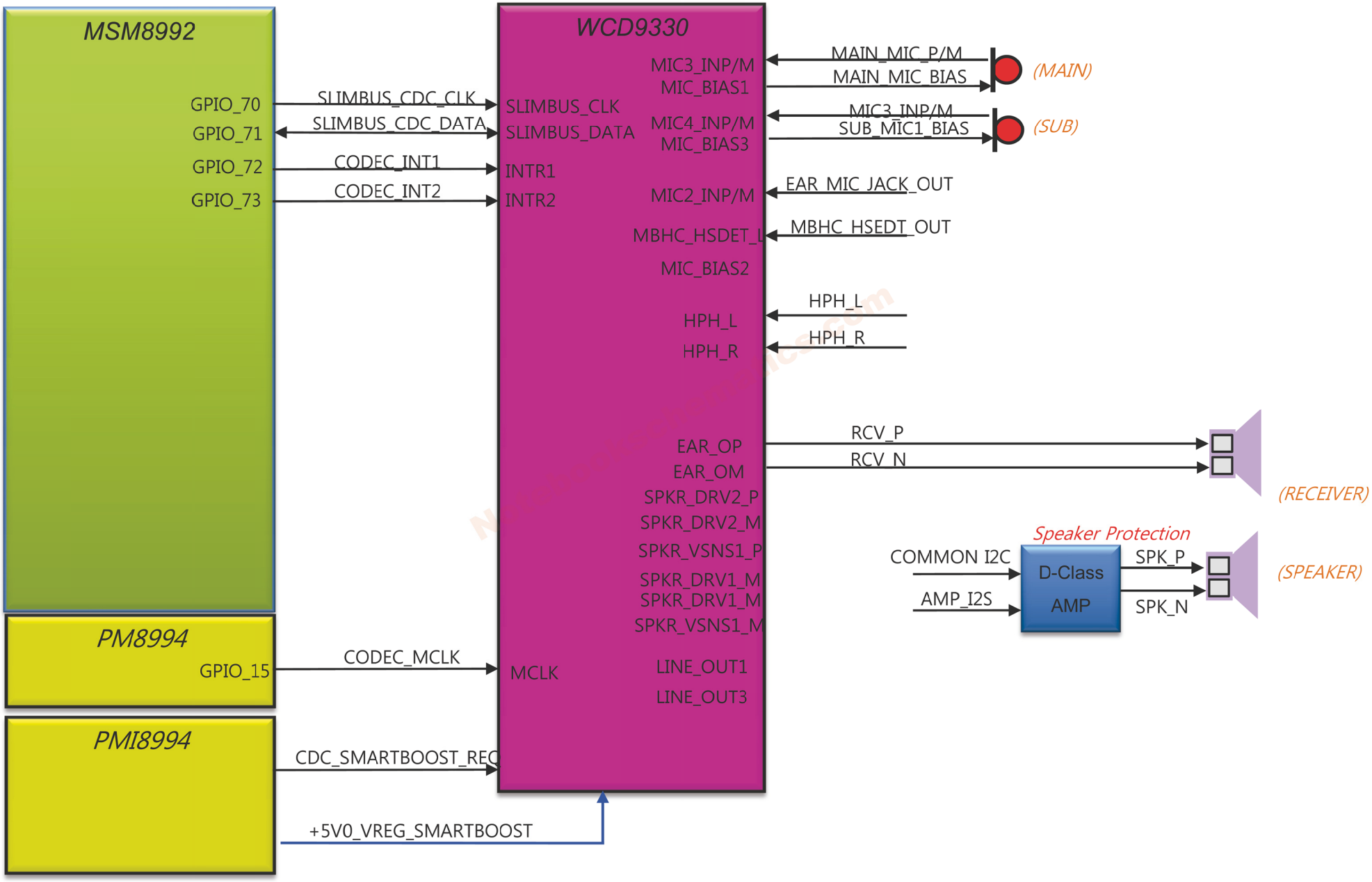
5. MSM / Memory



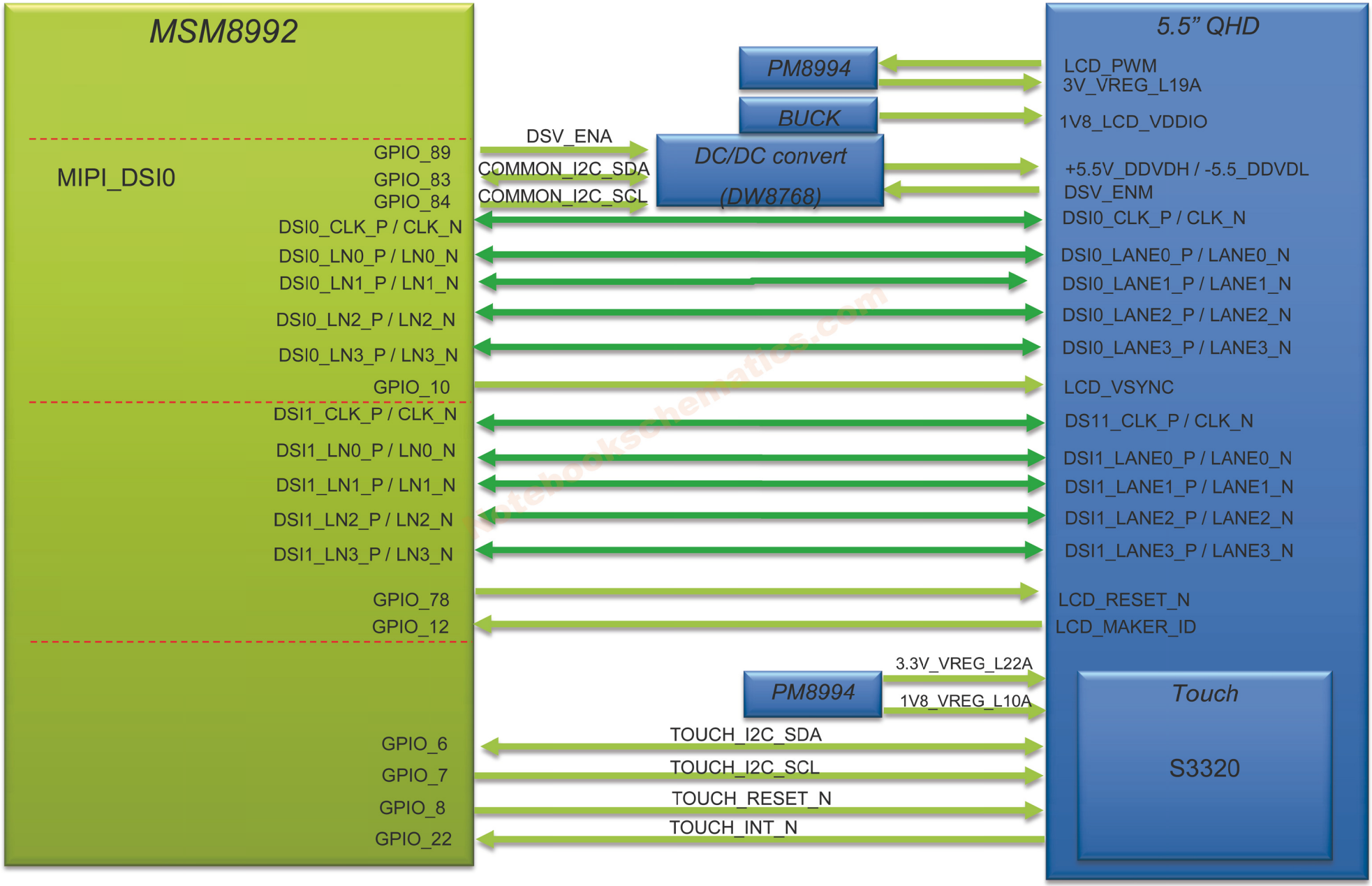
7. Power2



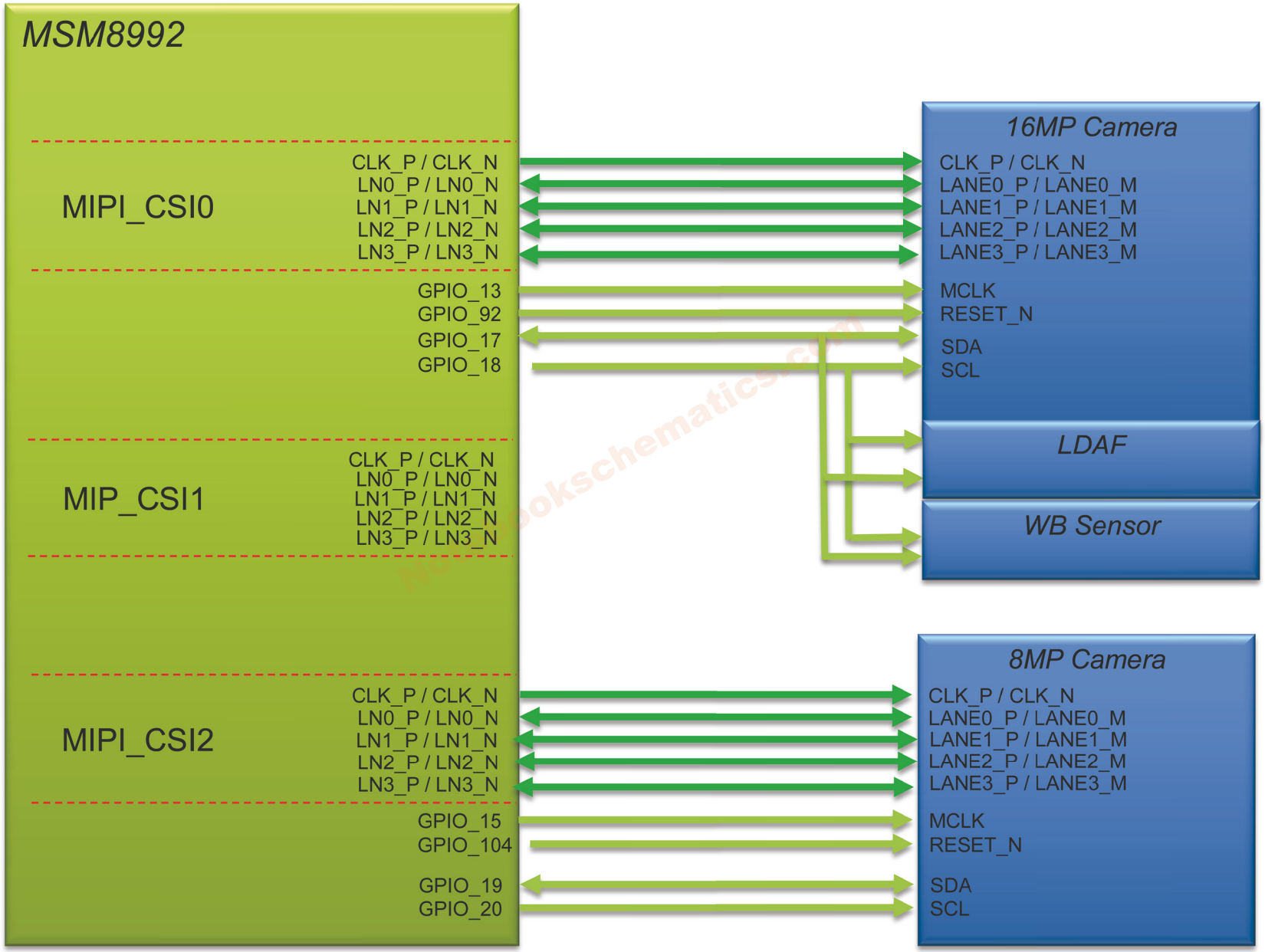
8.Audio



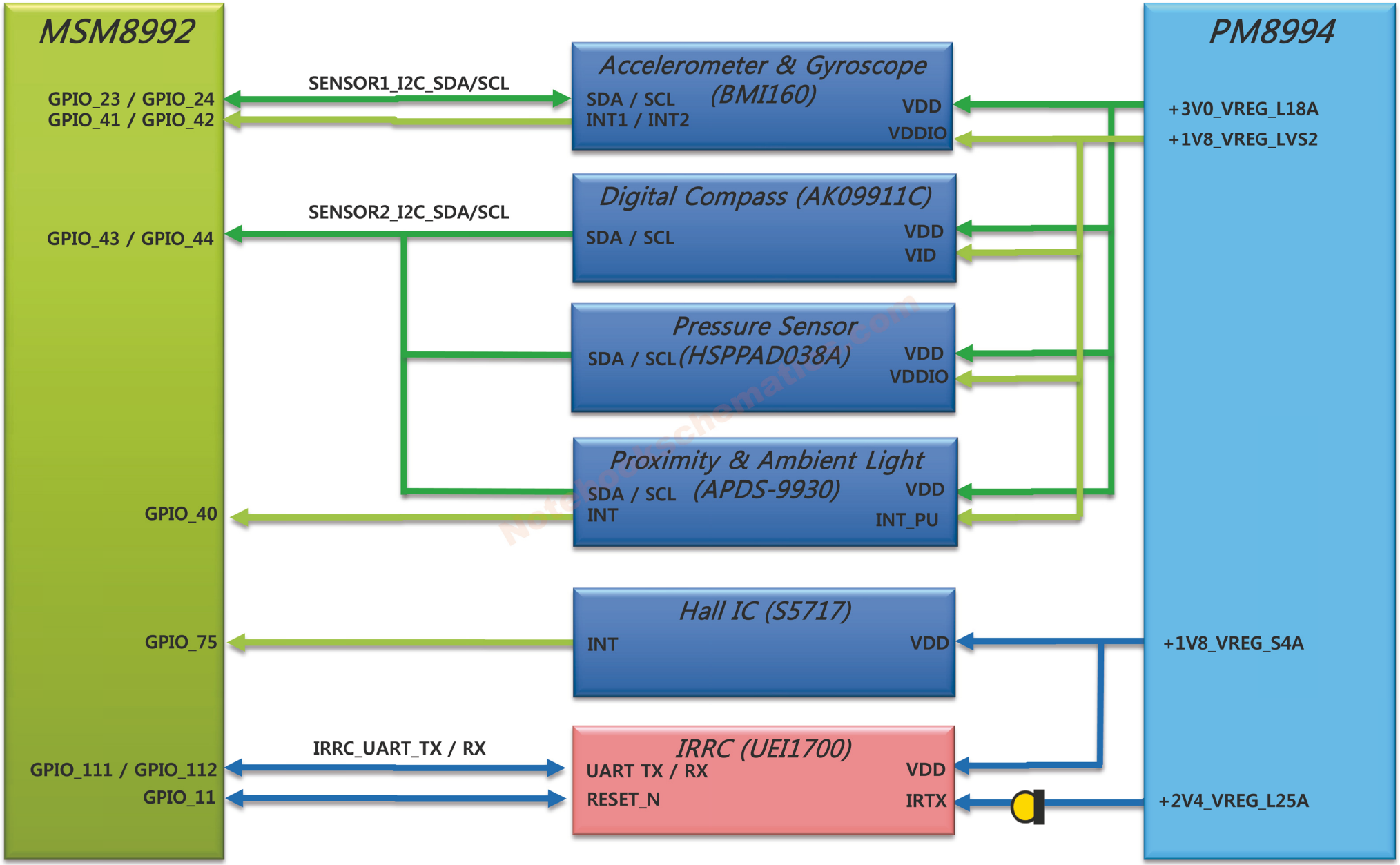
9.LCD & Touch



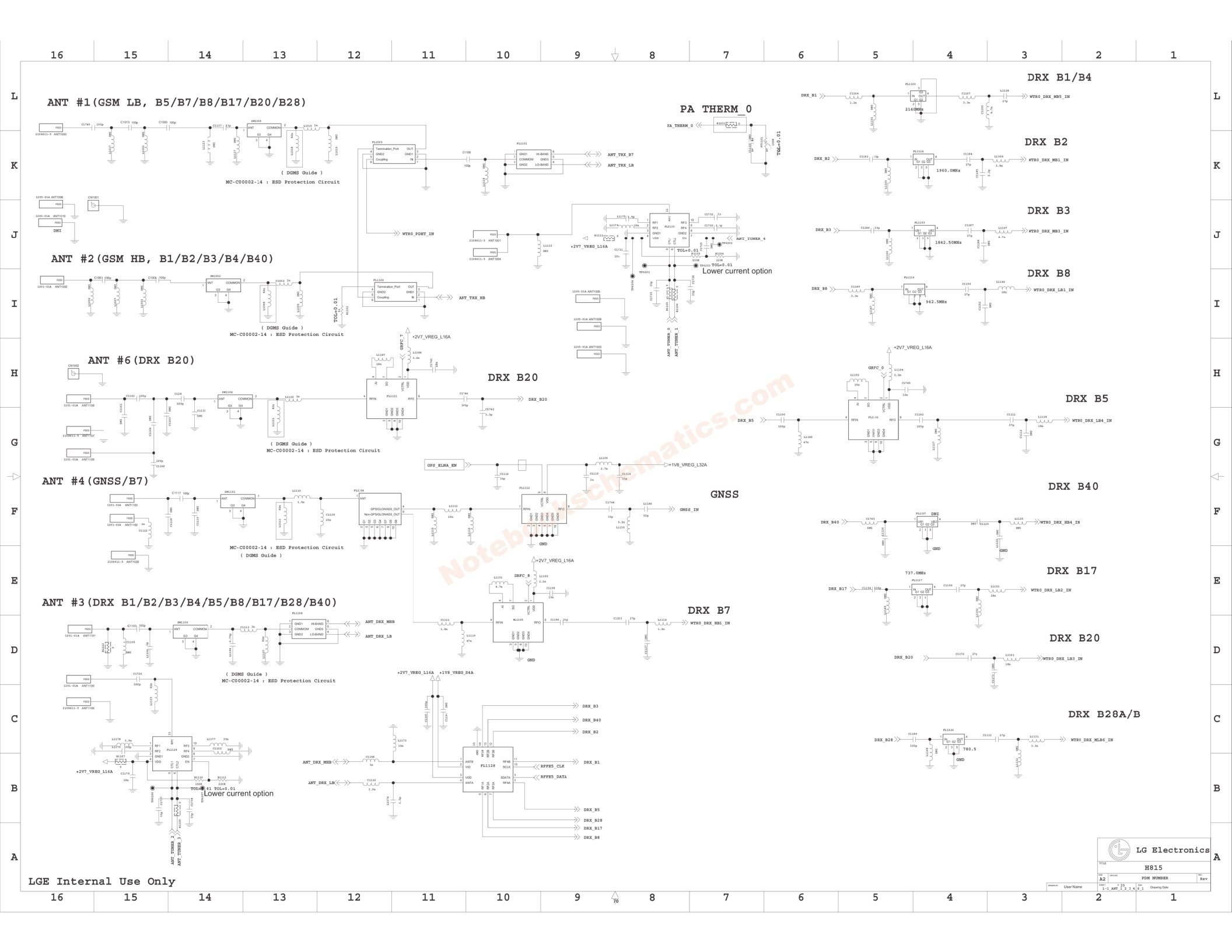
10.Camera



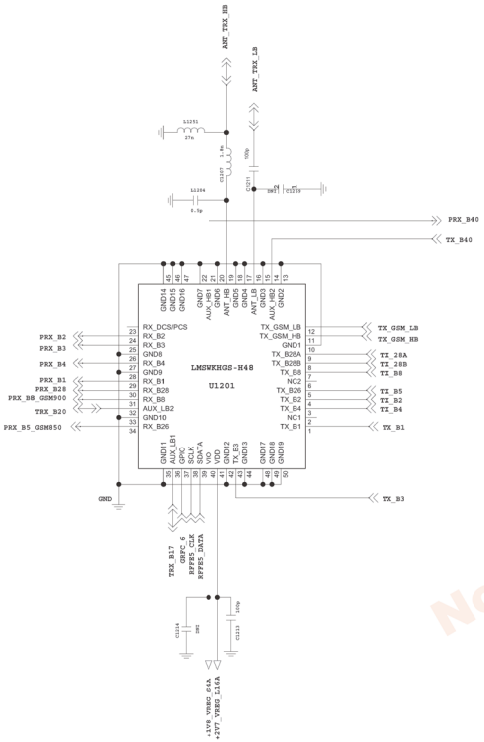
11.Sensor



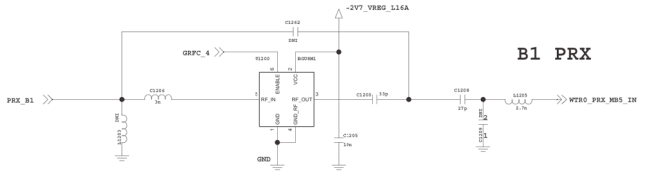
CIRCUIT DIAGRAM


ANT #1(GSM LB, B5/B7/B8/B17/B20/B28)
(DGMS Guide)
MC-C00002-14 : ESD Protection Circuit
ANT #2(GSM HB, B1/B2/B3/B4/B40)
(DGMS Guide)
MC-C00002-14 : ESD Protection Circuit
ANT #6(DRX B20)
(DGMS Guide)
MC-C00002-14 : ESD Protection Circuit
ANT #4(GNSS/B7)
MC-C00002-14 : ESD Protection Circuit
(DGMS Guide)
ANT #3(DRX B1/B2/B3/B4/B5/B8/B17/B28/B40)
(DGMS Guide)
MC-C00002-14 : ESD Protection Circuit
PA THERM_0
Lower current option
Lower current option
DRX B20
GNSS
DRX B7
DRX B1/B4
2140MHz
DRX B2
1960.0MHz
DRX B3
1842.50MHz
DRX B8
942.5MHz
DRX B5
DRX B40
DRX B17
737.0MHz
DRX B20
DRX B28A/B
780.5
LGE Internal Use Only
LG Electronics
H815
PDM NUMBER
Rev
A2
User Name
Drawing Date

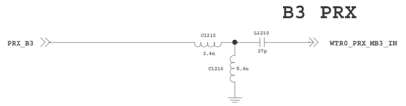
<1-3-2-24_SP8T_SP12T_CA> Rev_0.3



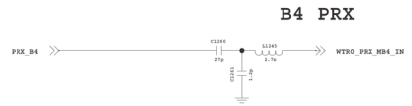
B1 PRX



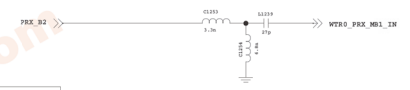
B3 PRX



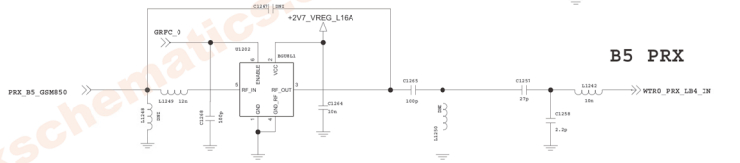
B4 PRX



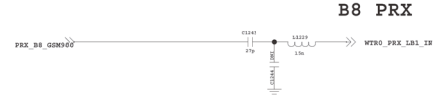
B2 PRX



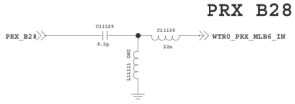
B5 PRX



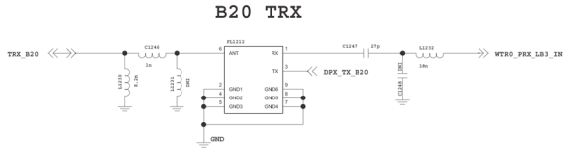
B8 PRX



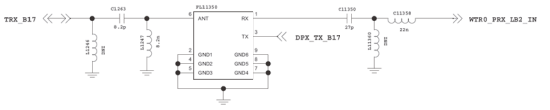
PRX B28



B20 TRX



B17 TRX



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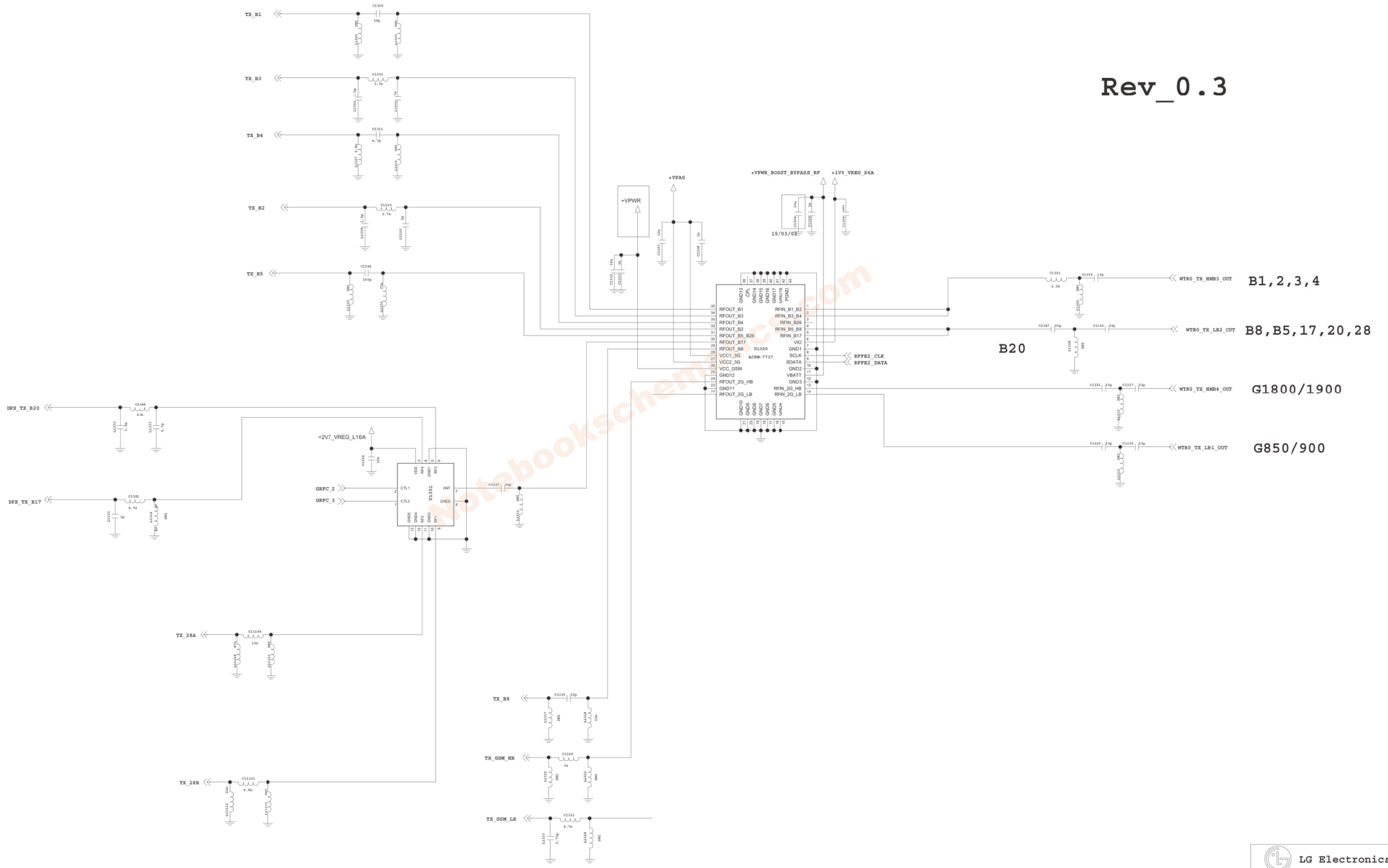
LG Electronics			
TITLE	H815		
SIZE A2	PDM NUMBER		Rev
Drawn by: User Name	SHEET 23 1-2_PBKID_1	Date Drawing Date	

< 1-3-3-4_HCPA_ET_ACPM7617 >

Rev_0.3



LGE Internal Use Only

LG Electronics

TITLE H815

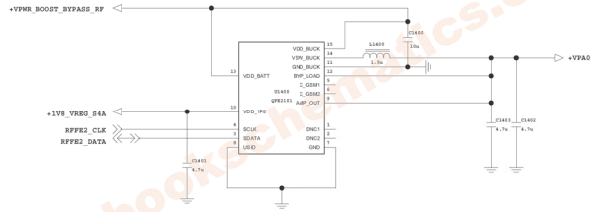
SIZE A2 | DOC.NO PDM NUMBER | REV Rev

SHEET 25 | 1-3_HCPA_ET_ACPM7617

DRAWN BY User Name | Date Drawing Date

< 1-2-4-3_PT_APT_QFE2101 >

Rev_0.3



LGE Internal Use Only

LG Electronics

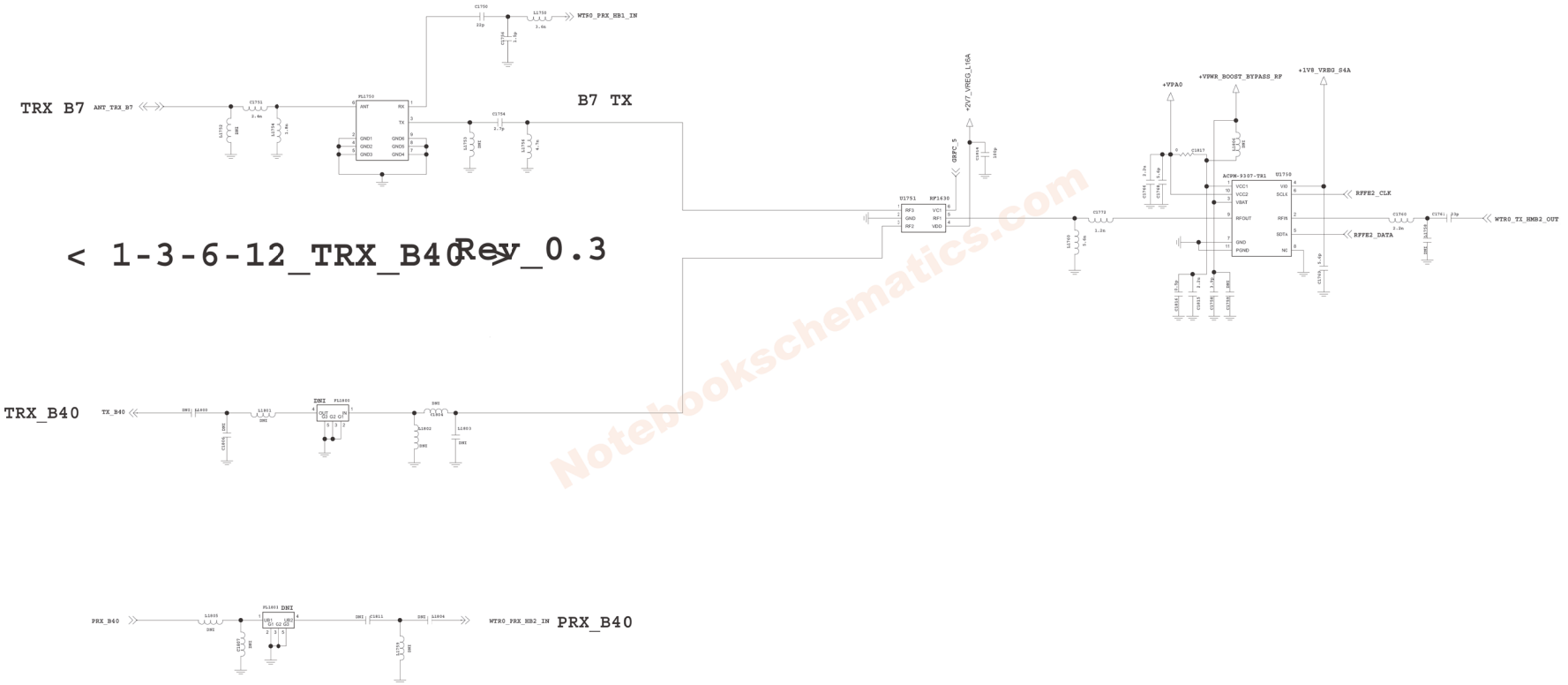
TITLE: H815

SIZE: A2 | DOC.NO: PDM NUMBER | REV: Rev

DRAWN BY: User Name | SHEET: 1-4_PT_RT_QFE2101 | DATE: Drawing Date

< 1-3-6-7_TRX_B7_Rev_0.5

< 1-3-6-12_TRX_B40_Rev_0.3



LGE Internal Use Only

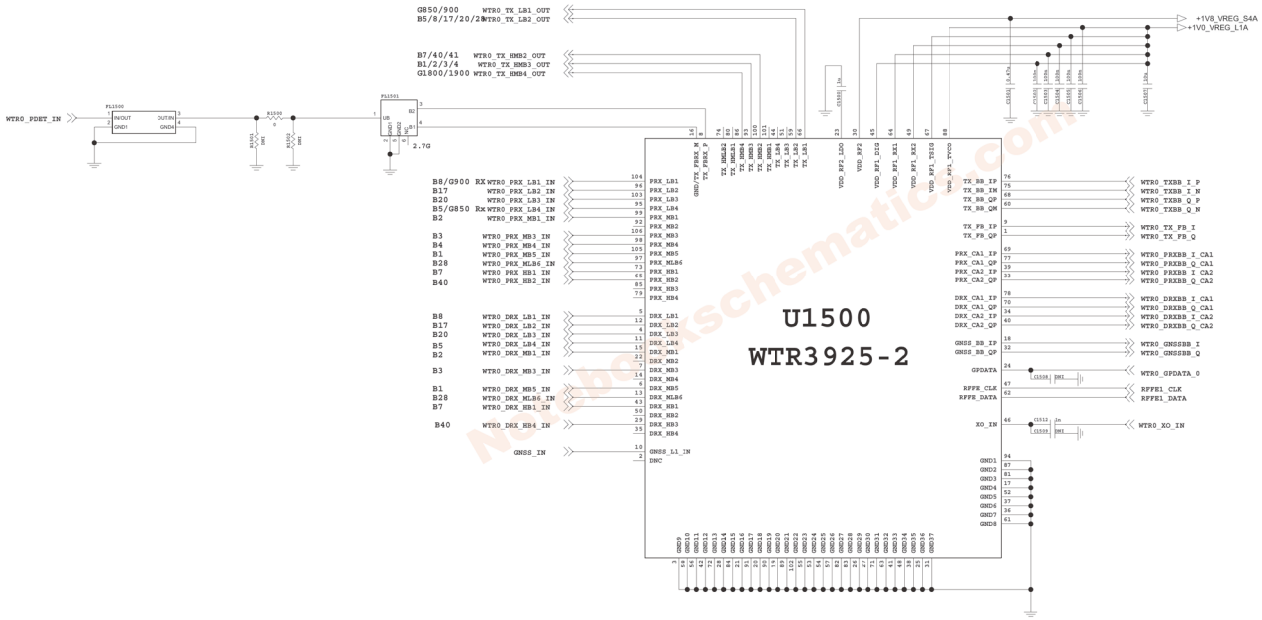
LG Electronics

TITLE: H815

SIZE: A2 | DOC.NO: PDM NUMBER | REV: Rev

Drawn By: User Name | SHEET: 25 1-3_TRX_B7_B40 | Date: Drawing Date

< 1-7-5-1_WTR3925 > Rev_0.3



LG Electronics

TITLE: H815

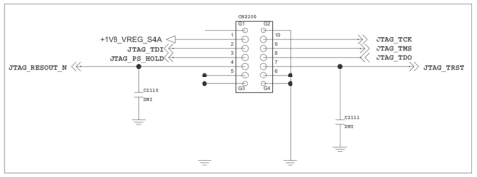
SIZE: A2 | DOC.NO: PDM NUMBER | REV: Rev

DRAWN BY: User Name | SHEET: 25 | 1-6_WTR3925 | Date: Drawing Date

< 2-1-9-1-1 MSM8992 CONTROL > Rev.0.1

CCDS CARD Information	
Release Date	
Based on Reference Schematic	

< JTAG >



REXT resistors
- Place all REXT resistors close to MSM.

eMMC
- Leave SDC1_RCLK floating & change R2113 value to 33 ohm. if eMMC v4.5 or lower is implemented.
- Place R2113 on clk line close to MSM.
- Leave all SDC1 signals floating if eMMC is not implemented.

SD CARD
- Place R2114 on clk line close to MSM.
- Leave all SDC2 signals floating if SD CARD is not used.

USB 3.0
- VDD_UFS_1P8 and VDD_UFS_CORE must be powered.
- Leave USB1_SS_RX/TX pin floating if USB3.0 is not implemented.

USB2_HS
- Connect USB2_HS_DP/DM to GND if USB2_HS is not used.
- We will use USB2_HS for AppsPort

Add DNI caps to SPMI_DATA and SPMI_CLK
QCT Schematic Review (4/9)
- Minimum total bus capacitance of 15 pF should be met run simulation to make sure reflections do not violate threshold levels. Used to mitigate possible HW issue.

QCT Schematic Review (4/9)
- Ground all TX_DAC1 signals if they are not used

7/23
- Ground all ET_DAC0/1 signals if they are not used

15/03/02

U2100
MSM8992-B

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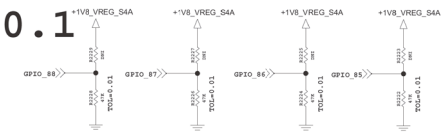
LG Electronics
H815
A2
User Name
2-1 MSM8992 Control
Drawing Date

< 2-1-9-1-2 MSM8992 GPIO > Rev.0.1

CCDS CARD Information	
Release Date	
Based on Reference Schematic	

FOR GLOBAL BSP ONE SOURCE

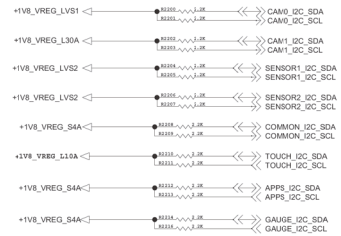


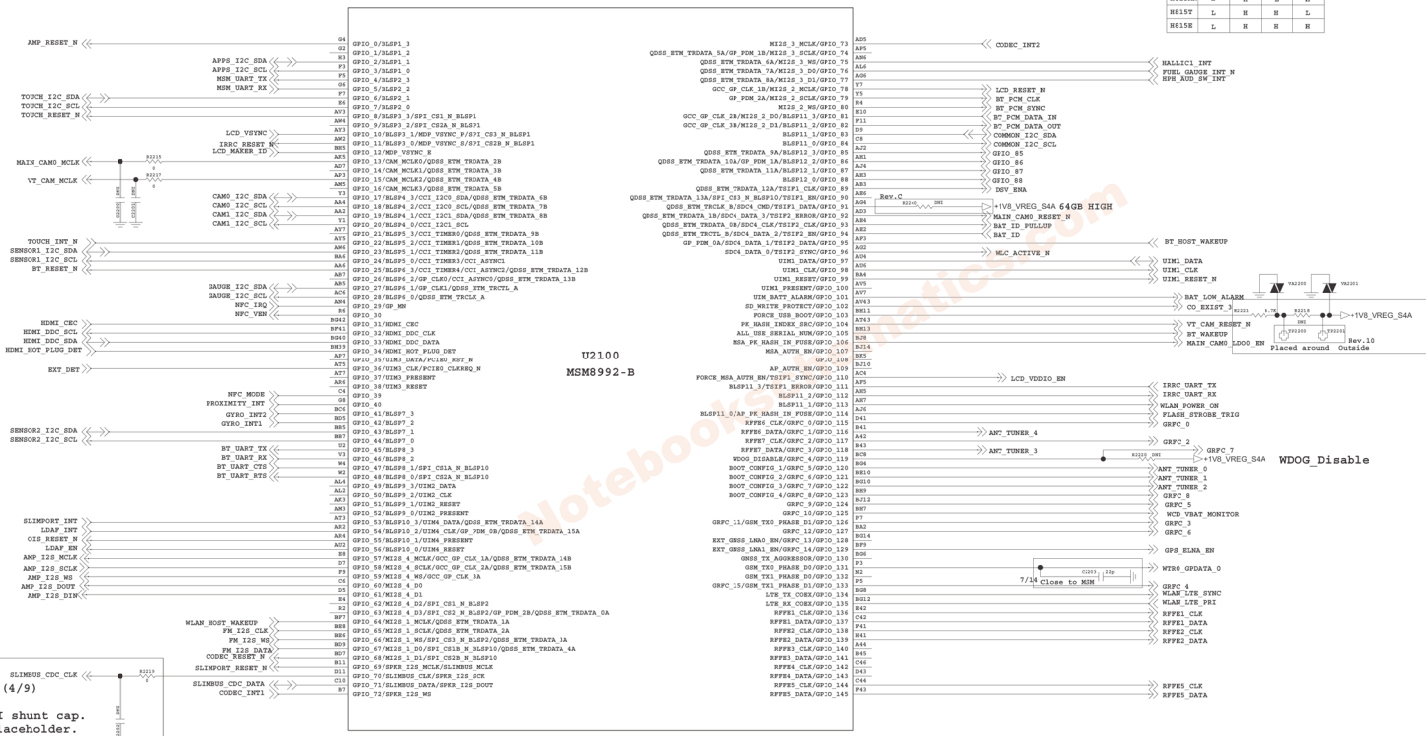
	GPIO88	GPIO87	GPIO86	GPIO85
H815	L	L	L	L
H815P	L	L	L	H
H815TR	L	L	H	L
H815K	L	L	H	H
H815L	L	H	L	L
H815AR	L	H	L	H
H815T	L	H	H	L
H815E	L	H	H	H

FOR PCB recognition (TOP)

FOR PCB recognition(BOTTOM)

I2C Pull-Up





QCT Schematic Review (4/9)

- Recommended value for R2218 is 4.7k to minimize the leakage If Forced_USB_Boot feature is used.

Boot Configuration GPIOs

GPIO103	FORCED_USB_BOOT
GPIO119	WDOG_DISABLE
GPIO120	FASTBOOT_SELECT(0)
GPIO121	FASTBOOT_SELECT(1)
GPIO122	FASTBOOT_SELECT(2)
GPIO123	FASTBOOT_SELECT(3)
GPIO104	PK_HASH_INDEX_SRC
GPIO105	ALL_USE_SERIAL_NUMBER
GPIO106	MSA_PK_HASH_IN_FUSE
GPIO107	MSA_AUTH_EN
GPIO114	AP_PK_HASH_IN_FUSE
GPIO109	AP_AUTH_EN
GPIO110	FORCE_MSA_AUTH_EN

- Make sure there are no external pulls on these GPIOs.

QCT Schematic Review (4/9)

- Recommend to add DNI shunt cap. here for RC filter placeholder.

to be filtered.

- The placeholder components can be replaced with RC filter (51-ohm and 82 pF) in case the SLIMBus clock output needs

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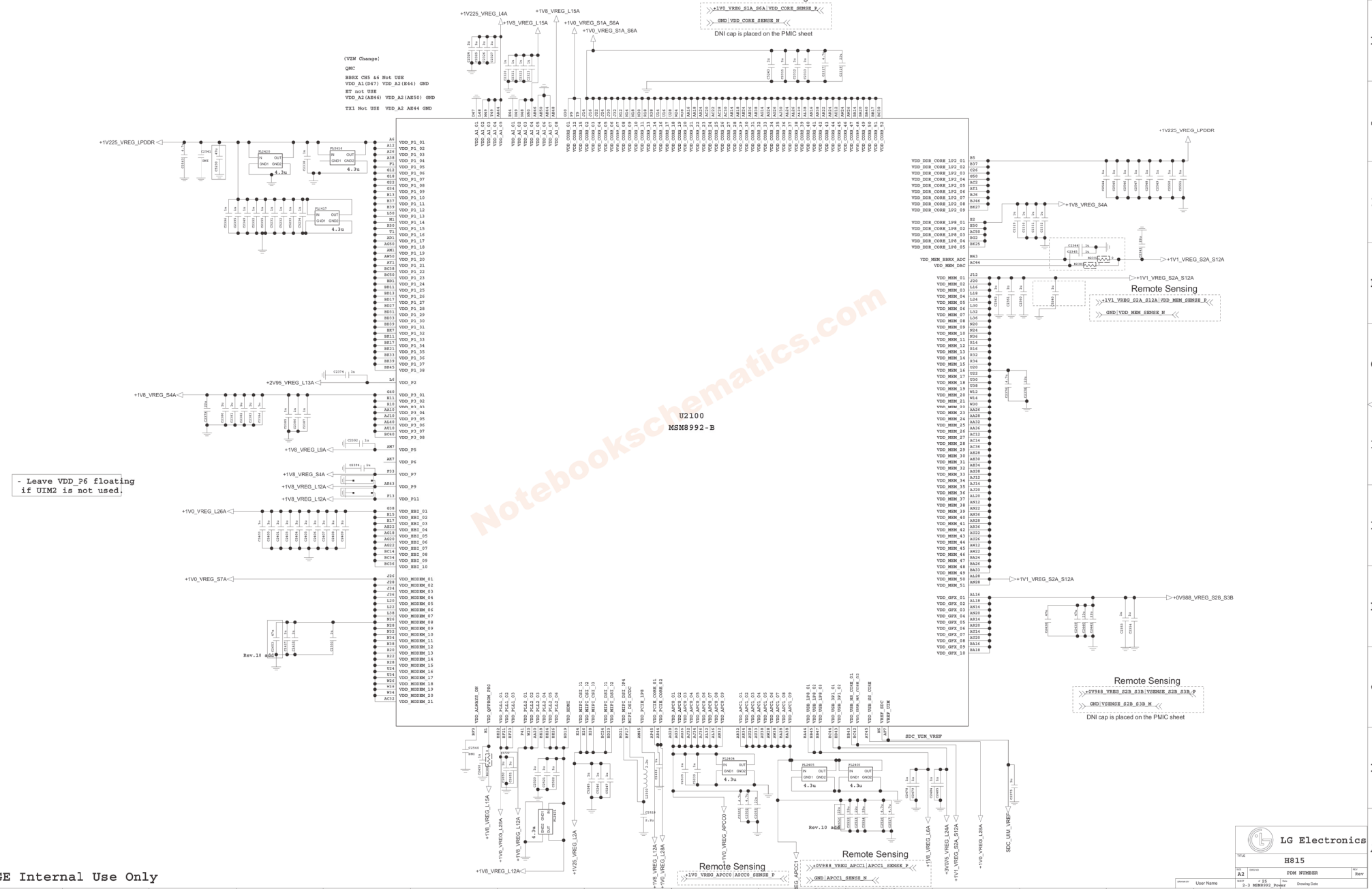
LG Electronics

TITLE: H815

SIZE: A2 | DOCUMENT NO: | REV: Rev

DRAWN BY: User Name | SHEET: 25 | 2-2 MSM8992 GPIO | Drawing Date

< 2-1-9-1-3 MSM8992 POWER > Rev.0.1

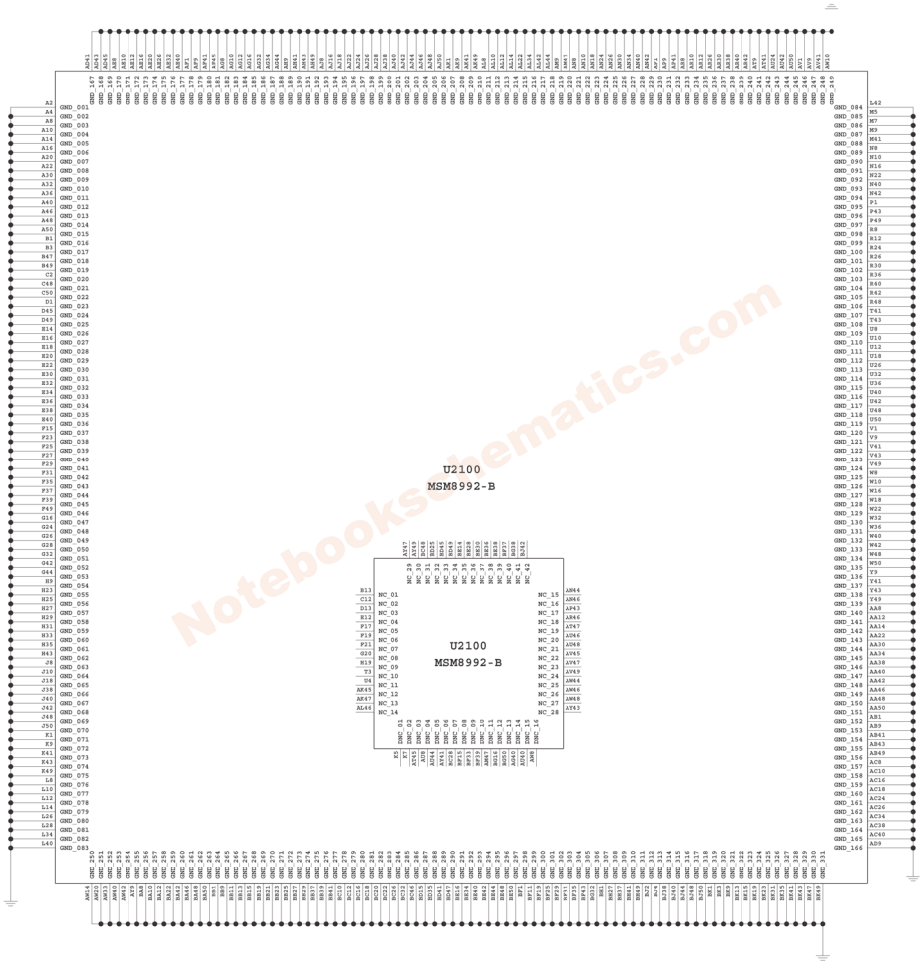


LGE Internal Use Only

LG Electronics	
TITLE	H815
SIZE A2	PDM NUMBER
SHEET 2-3 MSM8992_Power	Rev
DRAWN BY User Name	Drawing Date

< 2-1-9-1-4 MSM8992 GND_NC > Rev.0.1

CCDS CARD Information	
Release Date	
Based on Reference Schematic	



LGE Internal Use Only

LG Electronics

H815

A2 | PDM NUMBER | Rev

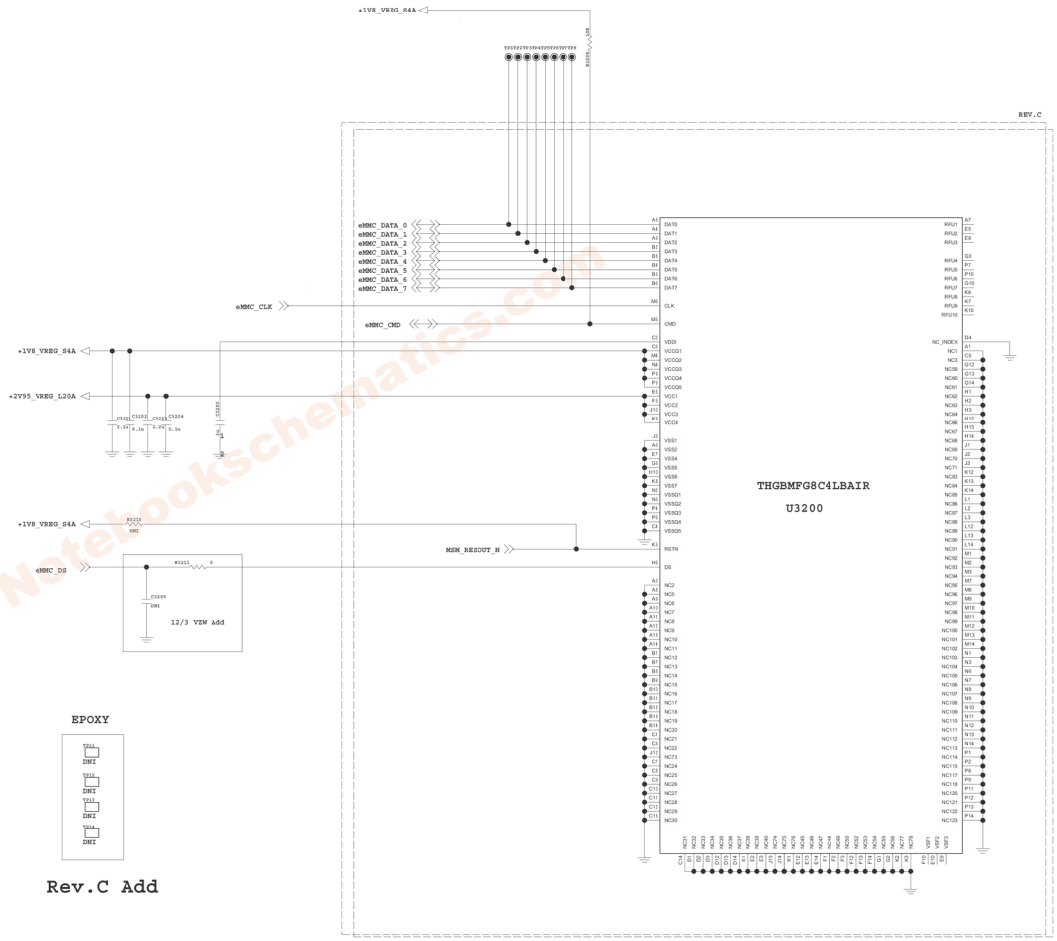
2-4 MSM8992_GND

Drawing Date

<LPDDR3_POP_933MHz>

Rev.C

< eMMC_5_1_32Gbyte_Toshiba_15nm >



EPOXY

Rev.C Add

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LG Electronics

H815

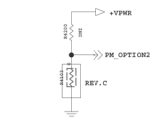
PDM NUMBER

Rev

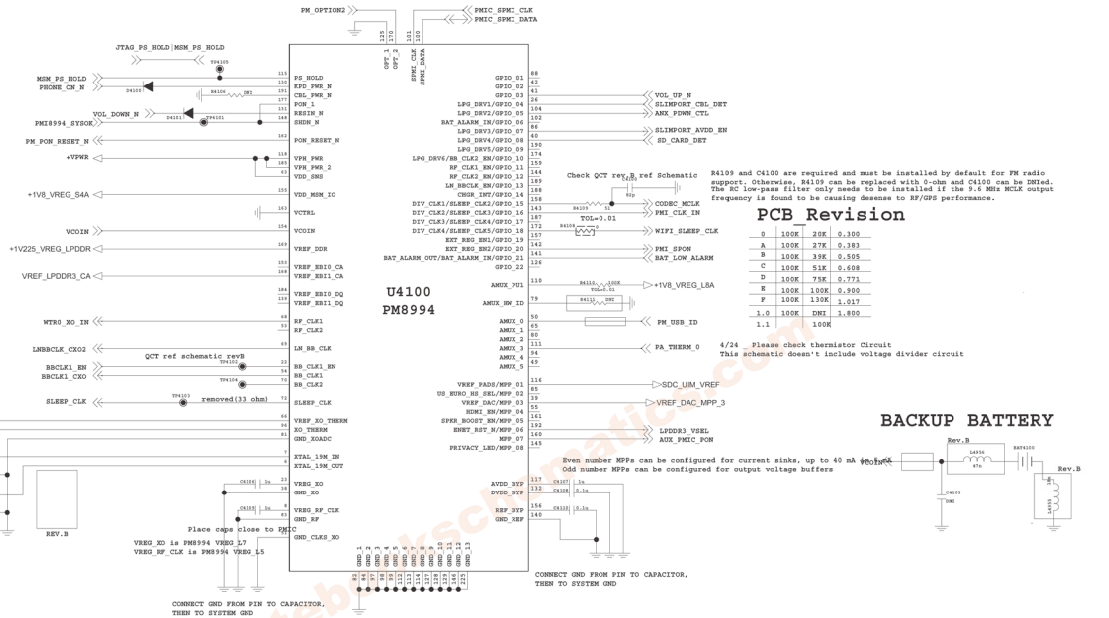
Drawing Date

< 4-1-11-1_PMIC_PM8994_Data > Rev_0.3

PMIC_Option



OPT_2	Power-on sequence
GND	TBD
Hi-Z	TBD
VDD	PMIC will power-down



R4109 and C4100 are required and must be installed by default for FM radio support. Otherwise, R4109 can be replaced with 0-ohm and C4100 can be DNIed. The RC low-pass filter only needs to be installed if the 9.6 MHz MCLK output frequency is found to be causing desense to RF/GPS performance.

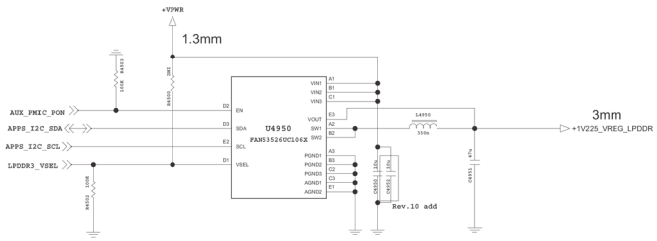
PCB_Revision

0	100K	20K	0.300
A	100K	27K	0.383
B	100K	39K	0.505
C	100K	51K	0.608
D	100K	75K	0.771
E	100K	100K	0.900
F	100K	130K	1.017
1.0	100K	DNI	1.800
1.1		100K	

4/24 Please check thermistor Circuit
This schematic doesn't include voltage divider circuit

BACKUP BATTERY

Buck for LPDDR3 Core and EBI pad



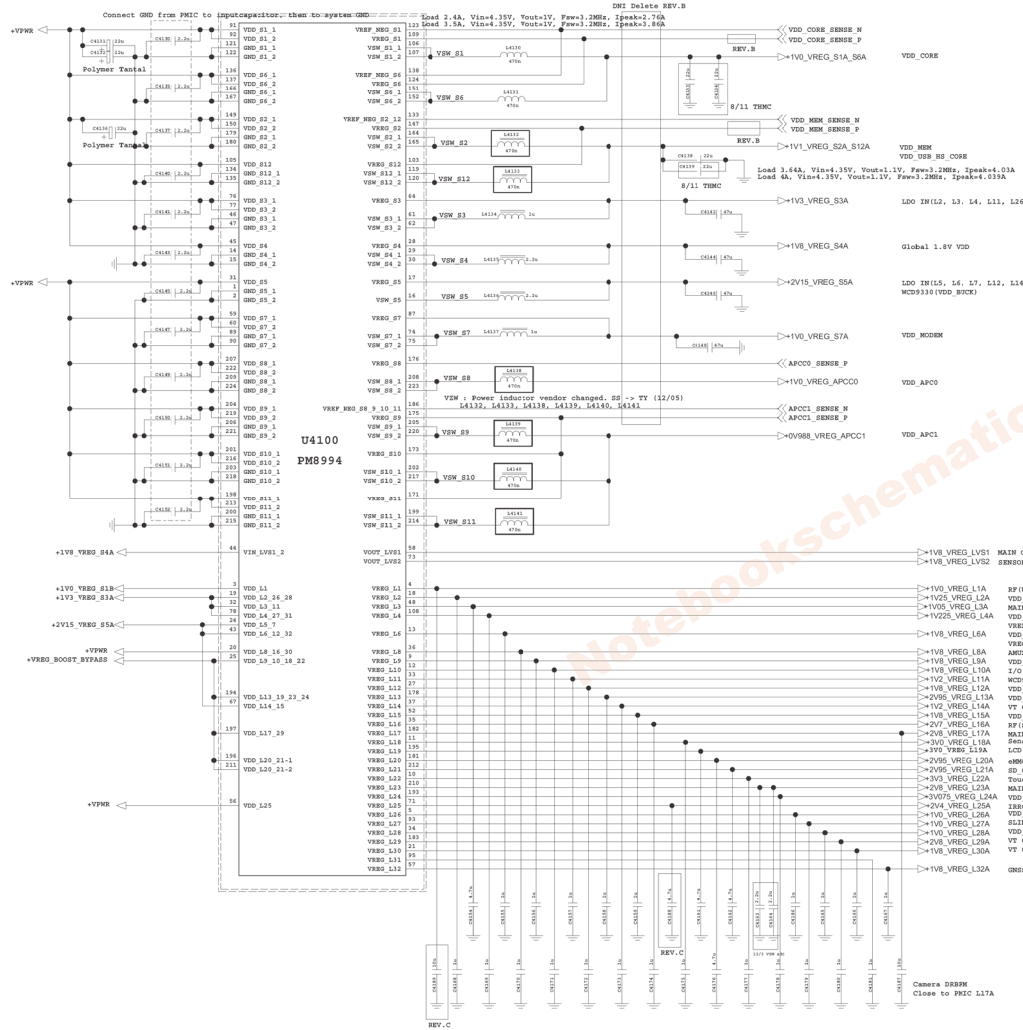
LG Electronics

TITLE: H815

SIZE: A2 | DOC.NO: PDM NUMBER | REV: Rev

DRAWN BY: User Name | SHEET: 25 | 4-1 PMIC_PM8994_Data | Drawing Date

< 4-1-11-2_PMIC_PM8994_Power V0.3>



DC-DC

Function	Circuit Type	Default Voltage	Specified Range	Programmable Range	Rated Current	Default On
S1A	FT_SMPS	1.0V	0.375 - 1.1125 V	0.375 - 1.275 V	3500mA	Y
S6A					3500mA	
S2A	FT_SMPS	1.1V	0.5875 - 1.1125 V	0.375 - 1.275 V	3500mA	Y
S12A					3500mA	
S3A	HF_SMPS	1.3V	0.375 - 1.400 V	0.375 - 3.050 V	3500mA	Y
S4A	HF_SMPS	1.8V	1.700 - 1.950 V	0.375 - 3.050 V	2000mA	Y
S5A	HF_SMPS	2.15V	1.700 - 2.300 V	0.375 - 3.050 V	2000mA	Y
S7A	HF_SMPS	1.0V	0.375 - 1.1125 V	0.375 - 3.050 V	3500mA	
S8A	FT_SMPS	1.0V	0.375 - 1.1125 V	0.375 - 1.275 V	3500mA	Y
S9A					3500mA	
S10A	FT_SMPS	1.0V	0.375 - 1.1125 V	0.375 - 1.275 V	3500mA	
S11A					3500mA	
S1B	HF_SMPS	1.05V			1000mA	
S2B	FT_SMPS	1.0V			4000mA	Y
S3B					4000mA	
SMBB	Bharger	4.35V			3000mA	
Bat/Byp	Boost-Bypass	3.3V			2000mA	Y
+5V	Boost	5.0V			1300mA	
WLED	Boost				40mA	
DISP	Boost					
DISN	Boost					
LPDDR Buck	Buck	1.1V			3000mA	Y
RF Bat/Byp	Boost-Bypass	3.5V			3000mA	?

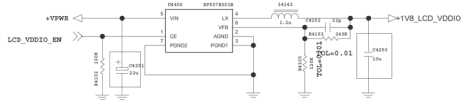
LDO

sheet update_QCT_C

Function	Circuit Type	Default Voltage	Specified Range	Programmable Range	Rated Current	Default On
L1	NMOS LDO	1.0V	0.550 - 1.300 V	0.375 - 1.525 V	1200mA	
L2	NMOS LDO	1.225V	0.950 - 1.430 V	0.750 - 1.525 V	30mA	
L3	NMOS LDO	1.2V	0.550 - 1.300 V	0.375 - 1.525 V	1200mA	
L4	NMOS LDO	1.225V	0.950 - 1.430 V	0.750 - 1.525 V	30mA	
L5	Low noise LDO	1.8V	1.700 - 1.950 V	1.380 - 2.220 V	On Chip Only	
L6	PMOS LDO	1.8V	1.150 - 3.600 V	0.750 - 4.900 V	150mA	
L7	Low noise LDO	1.8V	1.700 - 1.950 V	1.380 - 2.220 V	On-Chip-Only	
L8	PMOS LDO	1.8V	1.700 - 1.950 V	0.750 - 4.900 V	50mA	
L9	PMOS LDO	1.8/2.95V	1.150 - 3.600 V	0.750 - 4.900 V	150mA	
L10	PMOS LDO	1.8/2.95V	1.150 - 3.600 V	0.750 - 4.900 V	150mA	
L11	NMOS LDO	1.2V	0.950 - 1.430 V	0.750 - 1.525 V	30mA	
L12	PMOS LDO	1.8V	1.650 - 3.300 V	0.750 - 4.900 V	300mA	Y
L13	PMOS LDO	1.8/2.95V	1.150 - 3.600 V	0.750 - 4.900 V	150mA	Y
L14	PMOS LDO	1.8V	1.150 - 3.600 V	0.750 - 4.900 V	150mA	
L15	PMOS LDO	1.85V	1.650 - 3.300 V	0.750 - 4.900 V	300mA	
L16	PMOS LDO	2.7V	1.150 - 3.600 V	0.750 - 4.900 V	150mA	
L17	PMOS LDO	2.7V	1.650 - 3.300 V	0.750 - 4.900 V	300mA	
L18	PMOS LDO	2.85V	1.650 - 3.300 V	0.750 - 4.900 V	300mA	
L19	PMOS LDO	2.8V	0.950 - 3.600 V	0.750 - 4.900 V	600mA	
L20	PMOS LDO	2.95V	0.950 - 3.600 V	0.750 - 4.900 V	600mA	Y
L21	PMOS LDO	2.95V	0.950 - 3.600 V	0.750 - 4.900 V	800mA	Y
L22	PMOS LDO	3.0V	1.150 - 3.600 V	0.750 - 4.900 V	150mA	
L23	PMOS LDO	2.8V	0.950 - 3.600 V	0.750 - 4.900 V	600mA	
L24	PMOS LDO	3.075V	1.150 - 3.600 V	0.750 - 4.900 V	150mA	Y
L25	PMOS LDO	1.0V	0.950 - 3.600 V	0.750 - 4.900 V	600mA	
L26	NMOS LDO	0.988V	0.380 - 1.300 V	0.375 - 1.525 V	600mA	Y
L27	NMOS LDO	1.05V	0.950 - 1.430 V	0.750 - 1.525 V	300mA	
L28	NMOS LDO	1.0V	0.950 - 1.430 V	0.750 - 1.525 V	300mA	Y
L29	PMOS LDO	2.8V	1.650 - 3.300 V	0.750 - 4.900 V	300mA	
L30	PMOS LDO	1.8V	1.700 - 1.950 V	0.750 - 4.900 V	50mA	
L31	NMOS LDO	1.2V	0.380 - 1.300 V	0.375 - 1.525 V	600mA	Y
L32	PMOS LDO	1.8V	1.700 - 2.840 V	0.750 - 4.900 V	50mA	
LVS1	Switch	1.8V	1.700 - 1.950 V		300mA	
LVS2	Switch	1.8V	1.700 - 1.950 V		100mA	

Note : The following LDOs are not considered pseudo-capless capable
- L1, L3, L5, L7, L26 and L31
The remaining LDOs are considered pseudo-capless capable.

L25_Bhelper --> Buck FOR LCD VDDIO

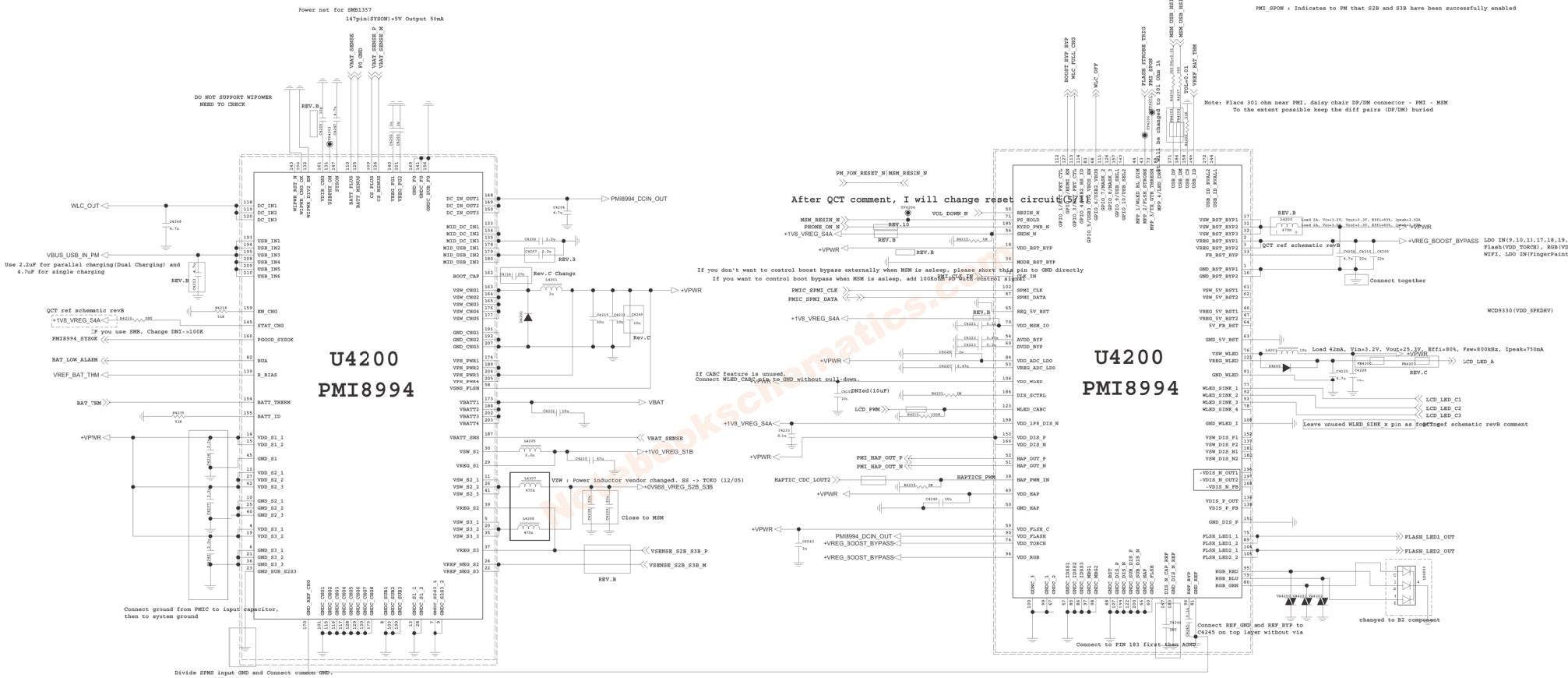


LGE Internal Use Only

LG Electronics
H815
PDM NUMBER
Rev
User Name
4-2 PMIC_PM8994_Power
Drawing Date

< 4-2-4-1_PMIC_PMI8994_Charger > Rev_0.3

4-2-4-2_PMIC_PMI8994_Data > Rev_0.3



LG Electronics

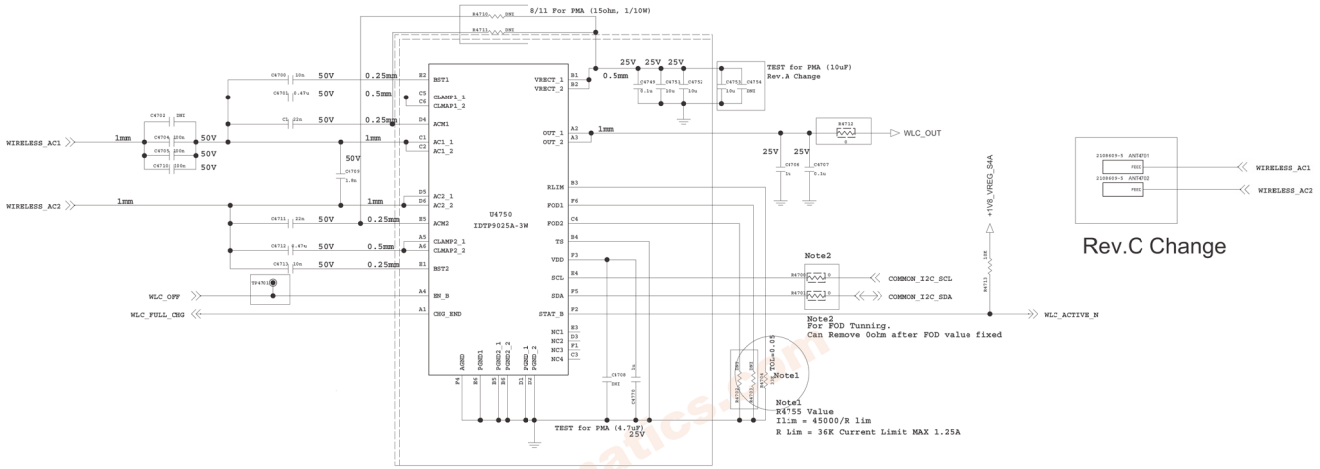
TITLE: H815

SIZE: A2 | PDM NUMBER | Rev

Drawn By: User Name | Date: Engineering Date

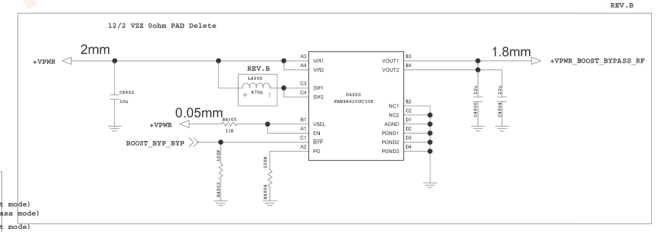
Sheet: 4-3_PMIC_PMI8994_Charger_Data

< 4-7-3-4_Wireless_Charger_IDTP9025A_0.5



Rev.C Change

Bypass booster FAN48623



EN	BYP_N	VSEL	Vout
0	X	X	Boost bypass disabled
1	1	0	For Vin < 3.3V, Vout = 3.3V (Boost mode) For Vin > = 3.3V, Vout = Vin(bypass mode)
1	1	1	For Vin < 3.5V. Vout = 3.5V (Boost mode) For Vin > = 3.5V, Vout = Vin (bypass mode)
1	0	X	Vout = Vin (forced bypass mode)

LGE Internal Use Only

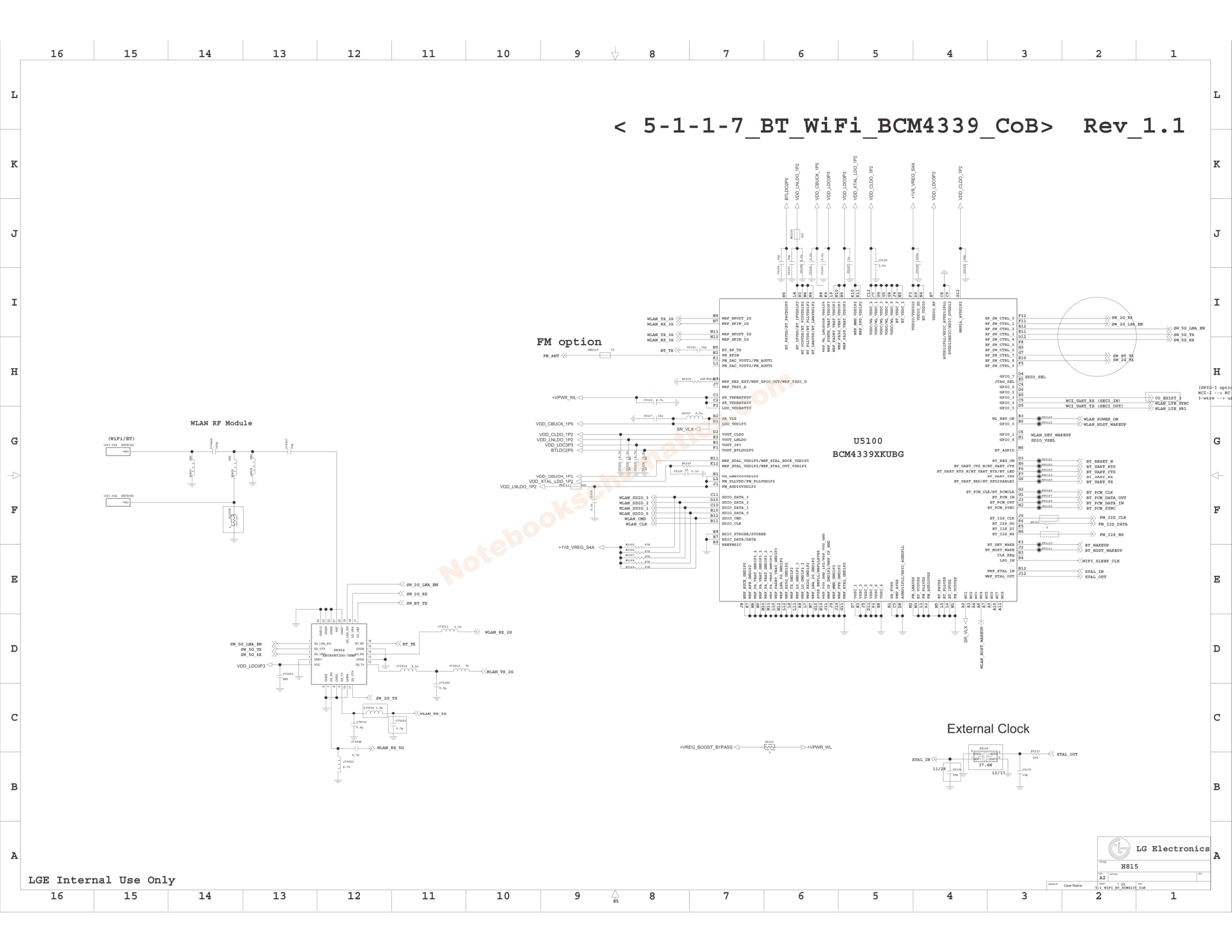
LG Electronics

TITLE: H815

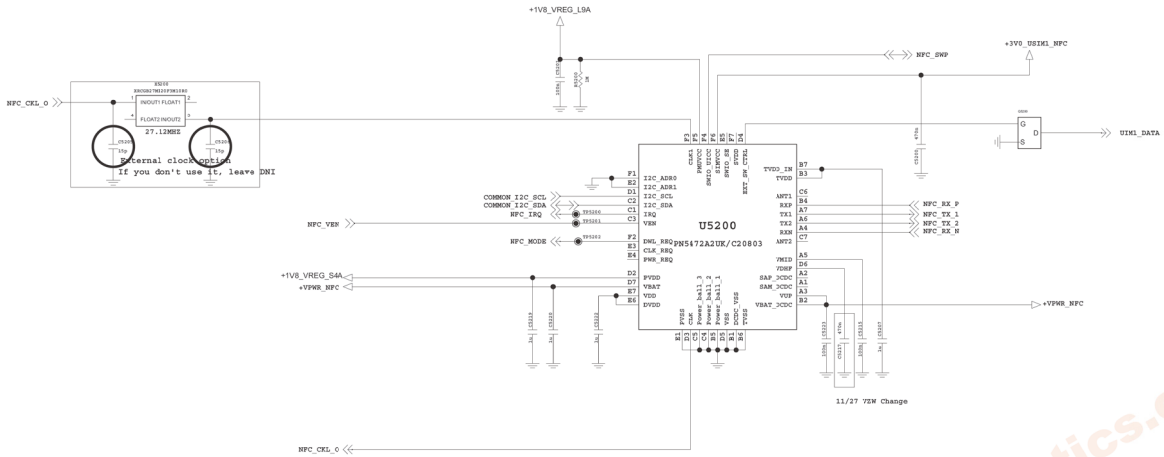
SIZE: A2 | DOC NO: PDM NUMBER | REV: Rev

Drawn By: User Name | Date: 2015-03-25 | Sheet: 4-4 Bypass booster_Wireless_Charging

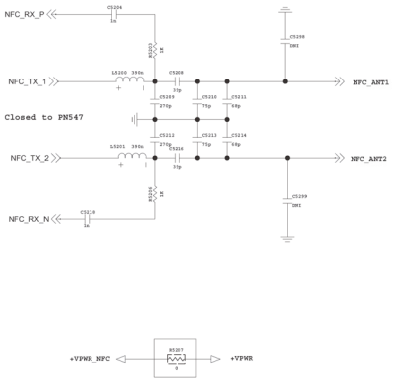
< 5-1-1-7_BT_WiFi_BCM4339_CoB> Rev_1.1



<5-2-1-4_NFC_PN547> Rev_1.2



NFC Antenna



< 5-3-1-5_TDMB_FC8080 > Rev_1.0

LGE Internal Use Only

LG Electronics

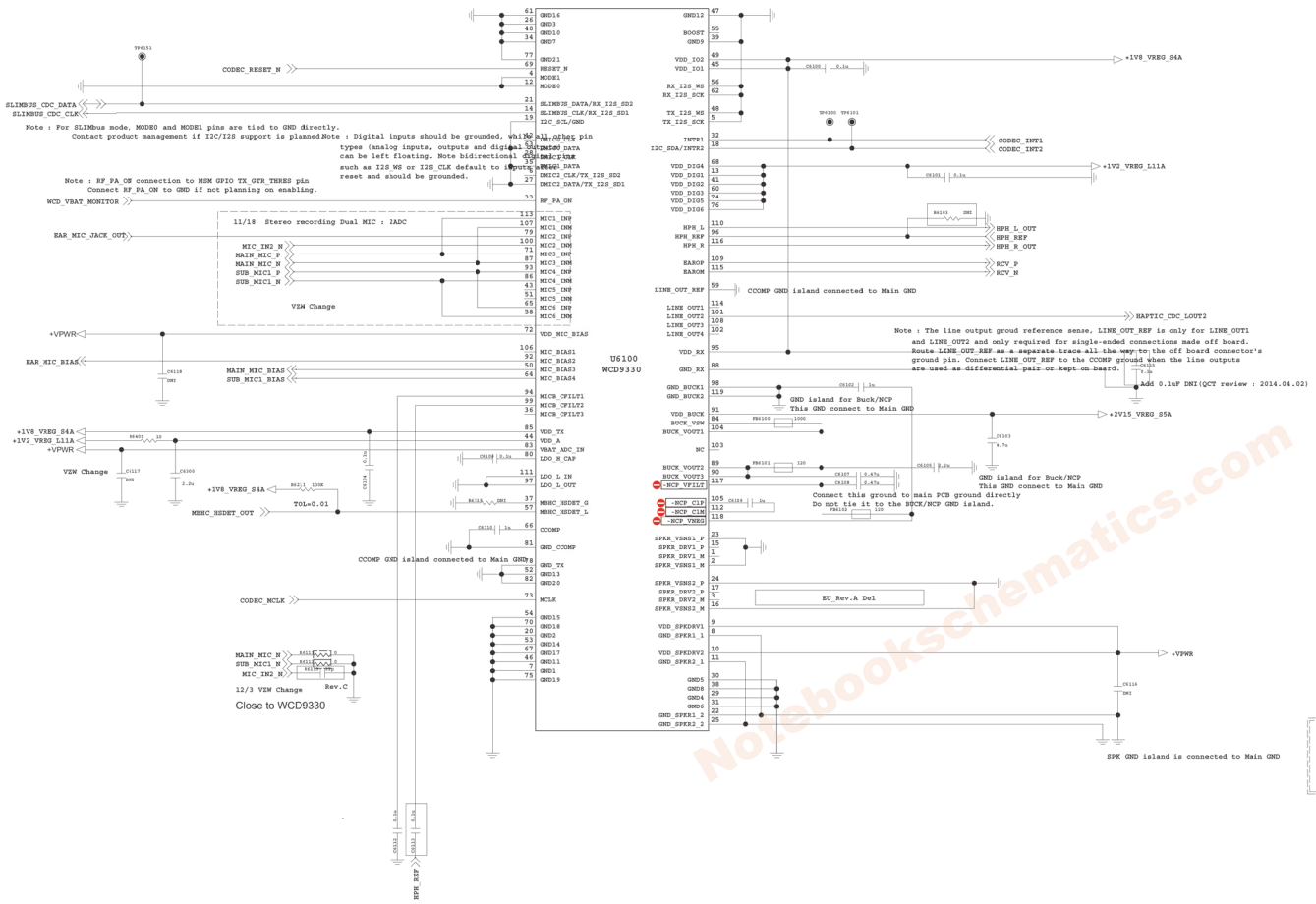
H815

A2

5-2 29547

User Name

< 6-1-1-6_Codec_WCD9330 > Rev_0.3



Note : For SLIMbus mode, MODE0 and MODE1 pins are tied to GND directly.
Contact product management if I2C/I2S support is planned.

Note : Digital inputs should be grounded, while all other pin types (analog inputs, outputs and digital outputs) can be left floating. Note bi:directional digital pins such as I2S_WS or I2S_CLK default to inputs after reset and should be grounded.

Note : RF_PA_ON connection to MSM GPIO TX_GTR_THRES pin
Connect RF_PA_ON to GND if not planning on enabling.

11/18 Stereo recording Dual MIC : ADC

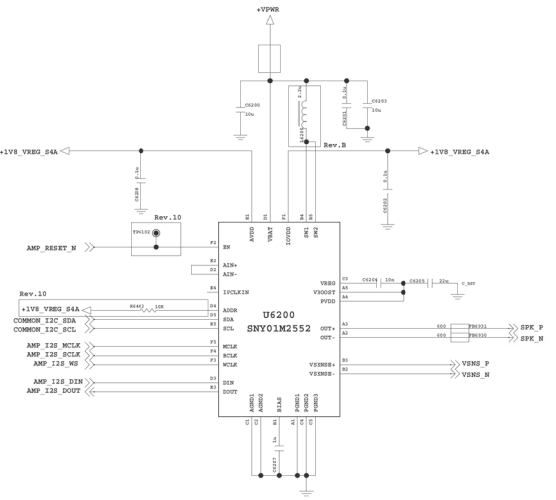
Note : The line output groud reference sense, LINE_OUT_REF is only for LINE_OUT1 and LINE_OUT2 and only required for single-ended connections made off board. Route LINE_OUT_REF as a separate trace all the way to the off board connector's ground pin. Connect LINE_OUT_REF to the CCOMP ground when the line outputs are used as differential pair or kept on board.

Add 0.1uF DNI(QCT review : 2014.04.02)

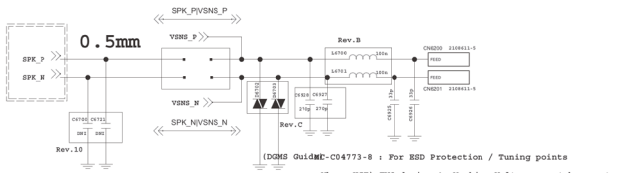
TOL=0.01

EU_Rev.A Del

AMP_SNY01M2552



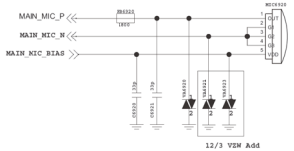
<6-7-1_Speaker> Rev.1.0



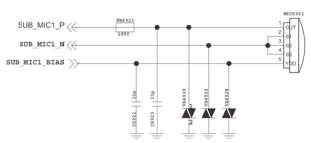
When USE) TVS devices's Working Voltage must be greater than the Path voltage should apply capacitor under 50pF value for ESD protection with d-class amp

Note 1. If Speaker is located in Main antenna nearby, C6700, C6701 Shunt Cap. should be far from Main antenna
In case of Speaker phone mode, it could affect a desense of TIS just like GSM850/GSM900/W900 band.

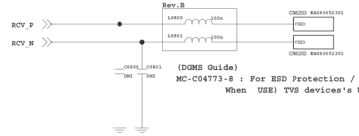
Main MIC



Sub_MIC1



< 6-8-2_Receiver >

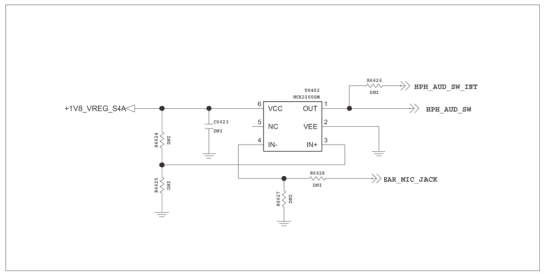


(DGMS Guide)
MC-C00074-11 : For ESD Protection / Tuning points
When USE) TVS devices's Working Voltage must be greater than the Path voltage

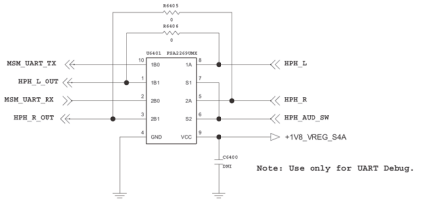
When USE) TVS devices's Working Voltage must be greater than the Path voltage

LGE Internal Use Only

LG Electronics
H815
PDM NUMBER
A2
User Name
6-1_WCD9330_MIC_RCV_SPK
Drawing Date

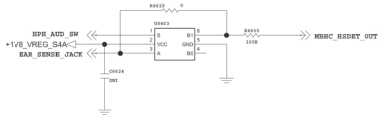


MP : ALL DNI



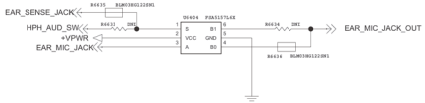
MP

R6405/R6406	0 Ohm
OTHERS	DNI



MP

R6629	0 Ohm
R6630	100 KOhm
OTHERS	DNI

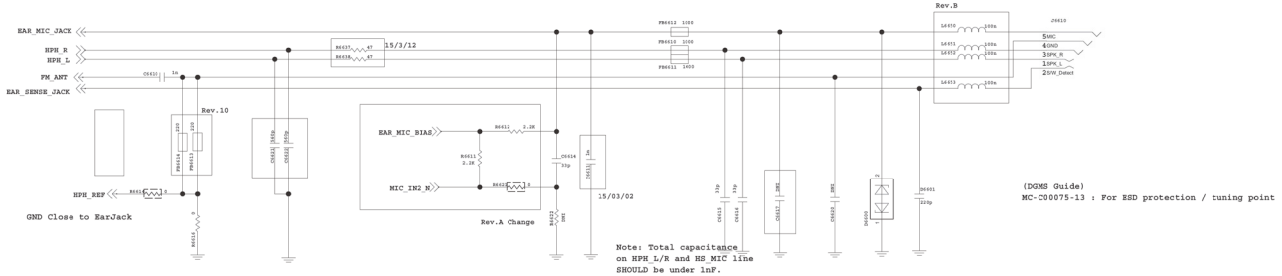


MP

R6633/R6634	DNI
R6635/R6636	Bead

< 6-6-1_Earjack > Rev_0.6

Circuit 1. Ear jack_3.5pi except MBHC



LGE Internal Use Only

LG Electronics

H815

PDM NUMBER

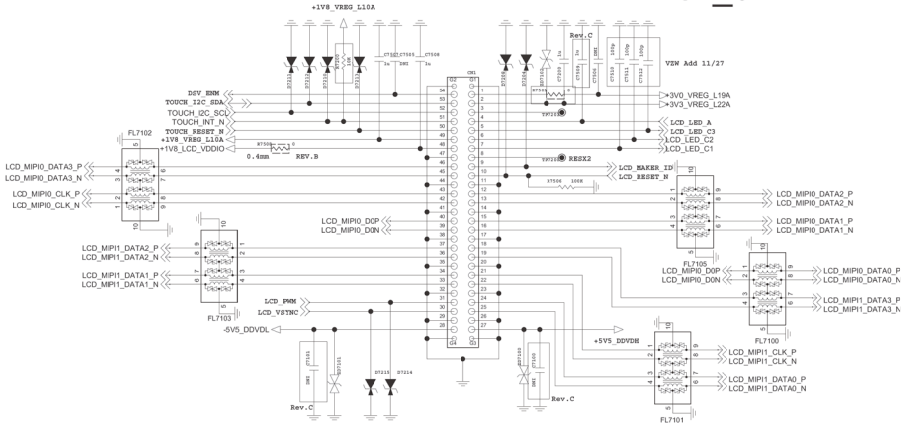
25
6-2 EARJACK

Drawing Date

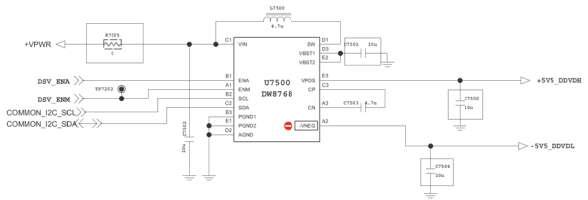
User Name

<7-1-8-4-2_Quad_INCELL_LCD_5.5">

Rev_0.1



DSV DW8768



LGE Internal Use Only

LG Electronics

H815

PDM NUMBER

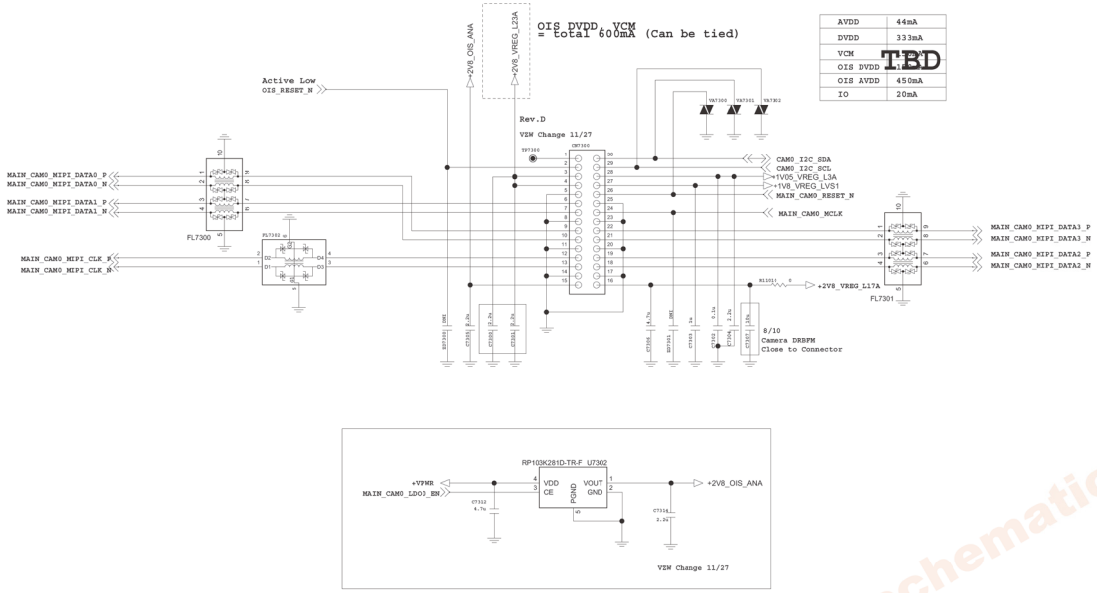
Rev

User Name

7-1 QLCD TORCH

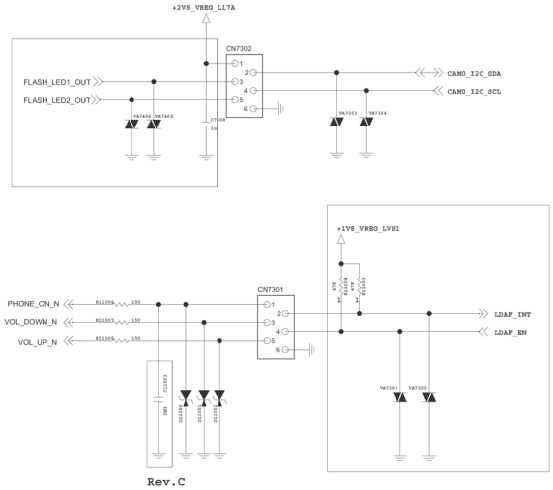
Drawing Date

< MAIN_Camera_30pin_16M_OIS>

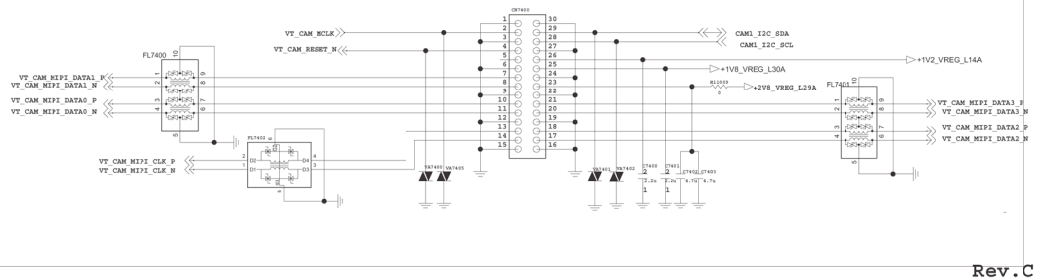


AVDD	44mA
DVDD	333mA
VCM	TBD
OIS DVDD	450mA
OIS AVDD	450mA
IO	20mA

<Back_Key_LDAF_FPCB>



<7-3-5-1_30pin_8M_FF>



Rev.C

LGE Internal Use Only

LG Electronics

H815

PDM NUMBER

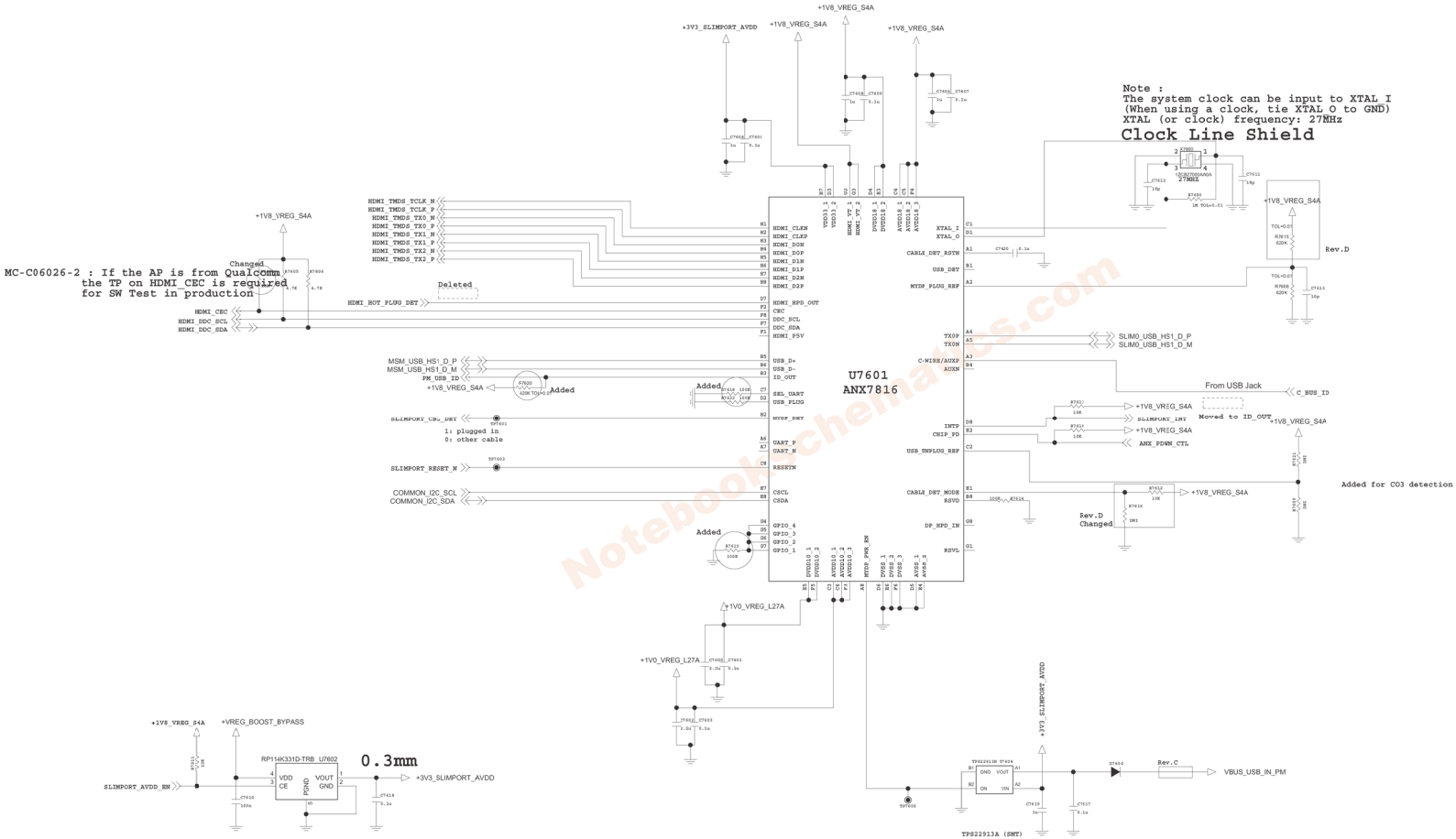
Rev

User Name

7-2 CAM 7-4-1 VTCAM

Drawing Date

Slimport ANX7816



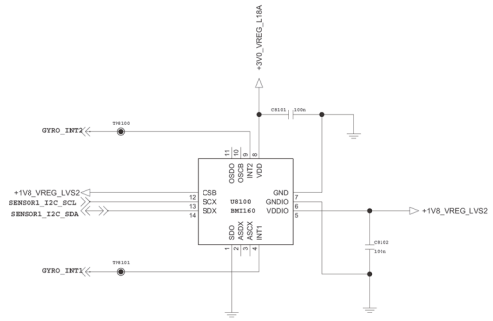
LGE Internal Use Only

LG Electronics	
TITLE	H815
SIZE / DRAWING	PDM NUMBER / Rev
A2	
DRAWN BY	User Name
SHEET	25 / 7-3 SLIMPORT
DATE	Drawing Date

SENSOR/MOTOR/IRRC/SIM/SD/LED

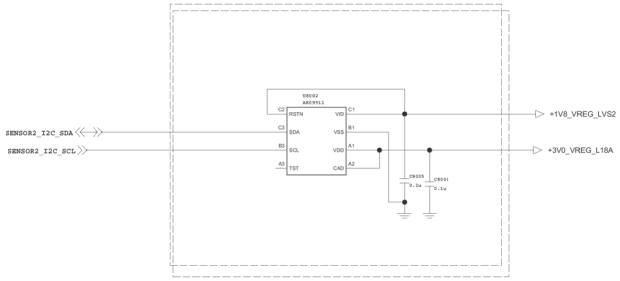
I2C	Devices
Sensor1	Accel+Gyro
Sensor2	Compass, Pressure, Prox+Amb

<BOSCH Accel_Gyro_BMI160>



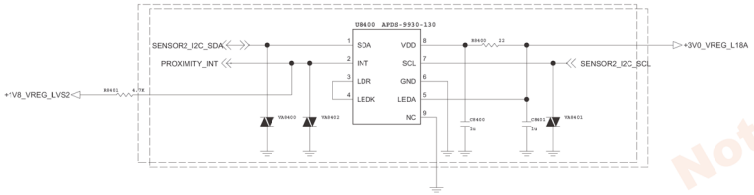
<Compass_AK09911C>

HSCDTD008A --> AK09911C

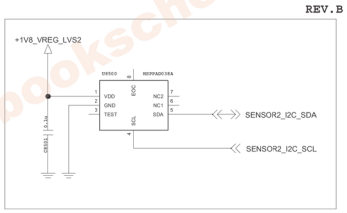


<8-4-3-3_Proximity_Ambient_APDS_9930>

Rev_0.3

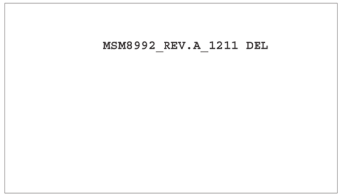


<Pressure_HSPPAD038A >

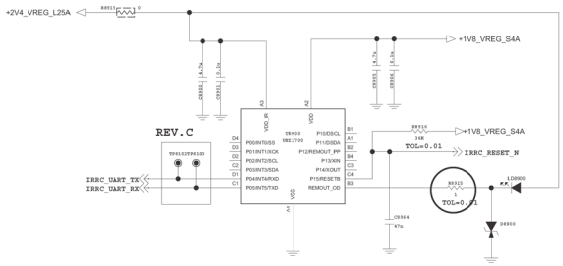


Tem&Hum Sensor

Gas Sensor



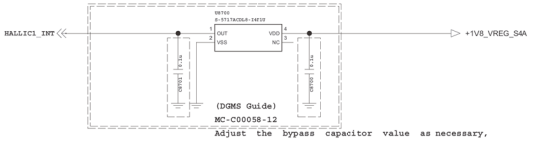
< IRRC UEI1700>



Delete 2.4V LDO

<8-7-1-5_Hall_IC_S5717>

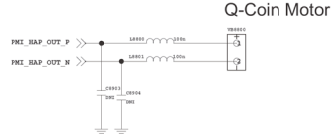
Rev_1.1



(DGMS Guide)
MC-C00058-12
Adjust the bypass capacitor value as necessary, according to signal line noise conditions

< MOTOR Haptic >

Q-Coin Motor



LGE Internal Use Only

LG Electronics

H815

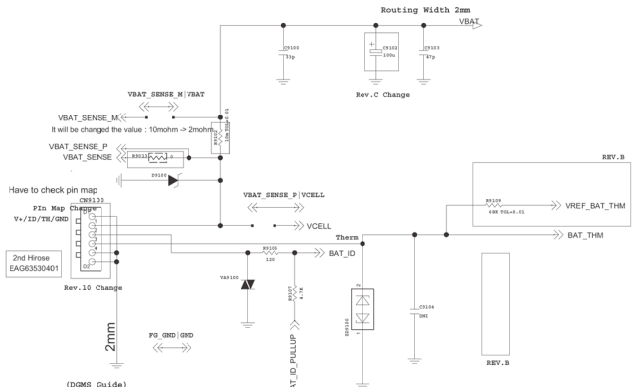
PDM NUMBER

User Name

8-5_Sensor_Motor_IRRC_LED

Drawing Date

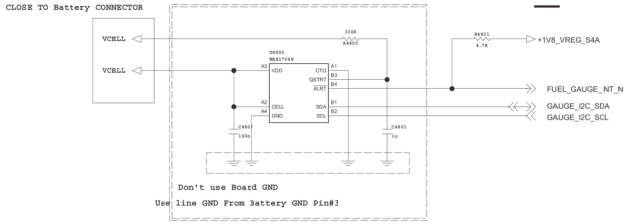
<9-1-2_Battery_CNT_4HREV.0.5



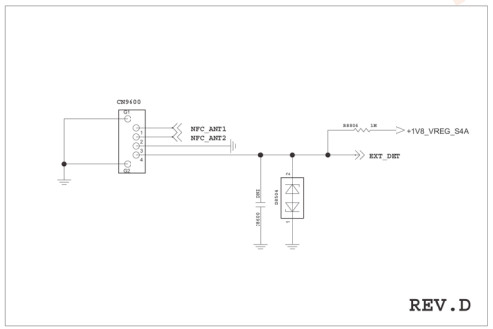
(DGMS Guide)
MC-C047667 : F(1%) grade component
1. PCB rev
2. Device ADC
3. Thermistor, temperature pheri.
(DGMS Guide)
MC-C00073-15 : Apply to large capacity around the bat connector
1. Over 47uF around the bat connector
2. Over 100uF totally on VBat line
Use the TVS diode of VR=5V, when TVS diode have to use for ESD

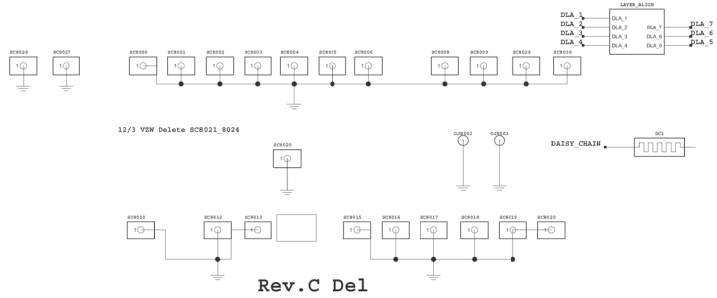
CAD NOTE :
Separate the AGND from the switching ground(PGND)

<4-8-1_Fuel_Gauge_MAX17048>
Rev_1.0

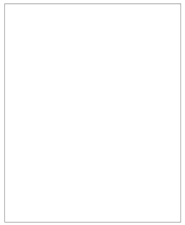


< APPSPORT Contact >





VZW TEST CLIP
Delete



LGE Internal Use Only

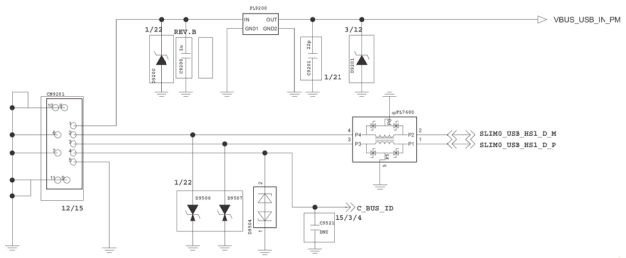
LG Electronics
H815
PDM NUMBER
Rev
A2
25
User Name 9-1_BAT_CNT_Fuel_Gauge_Charger_SW

<9-2-1_USB_IO> Rev.1.0

Connector 2. USB 2.0

NOTE1: QMC Checklist

A 47 kΩ resistor and 1%1F shunt RC filter is required on the USB_IN lines of the PMIC for noise rejection and for charger removal detection.

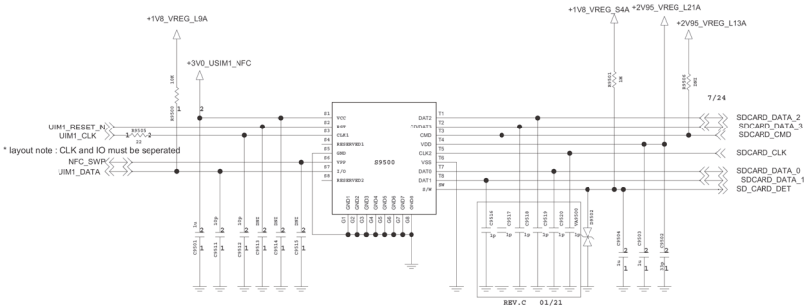


FACTORY TP

< 9-5-3_Micro_SD_Combo >

Rev_0.3

Card Detect	SW	VSS(SW)CARD_DET
Card Installed		GND
Card Not Installed		1.8V

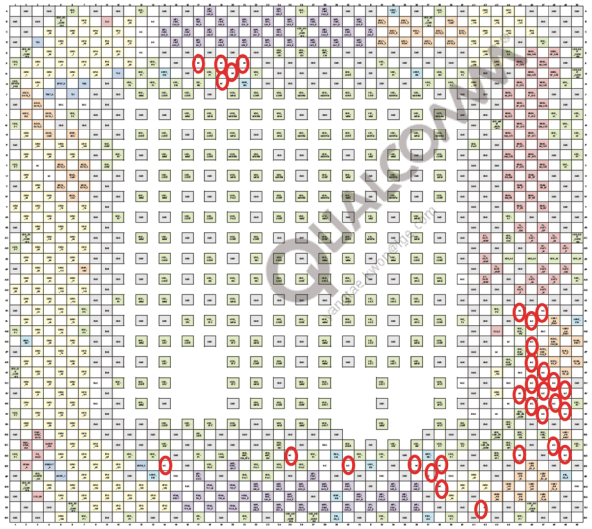


LGE Internal Use Only

LG Electronics

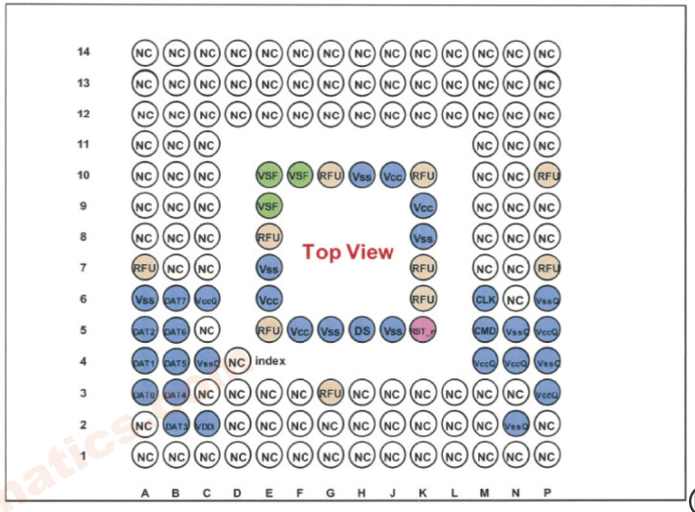
H815

U2100 MSM8992



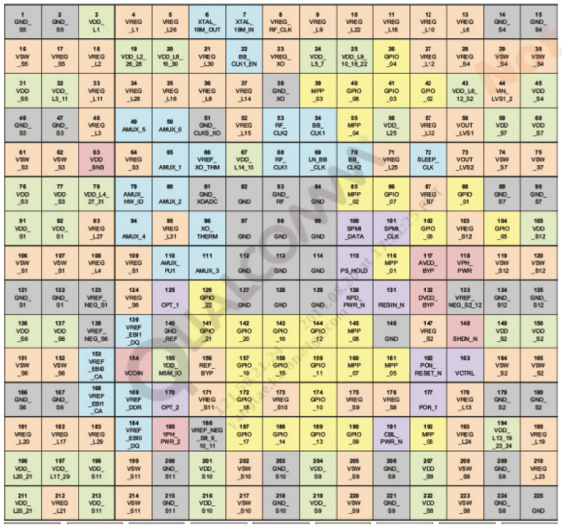
O Not used

U3200 eMMC



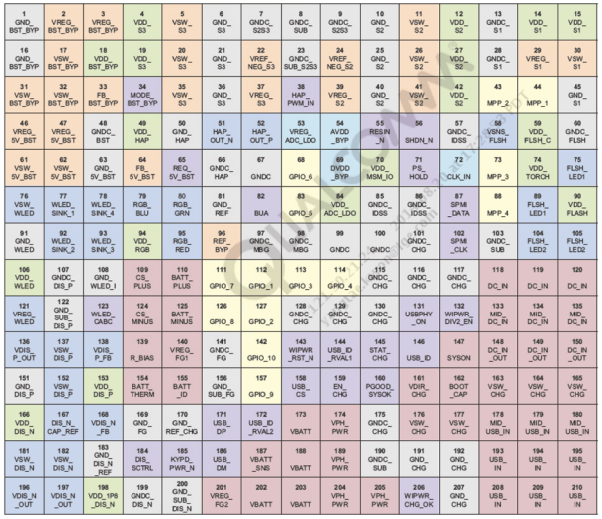
NC Not used

U4100 PM8994



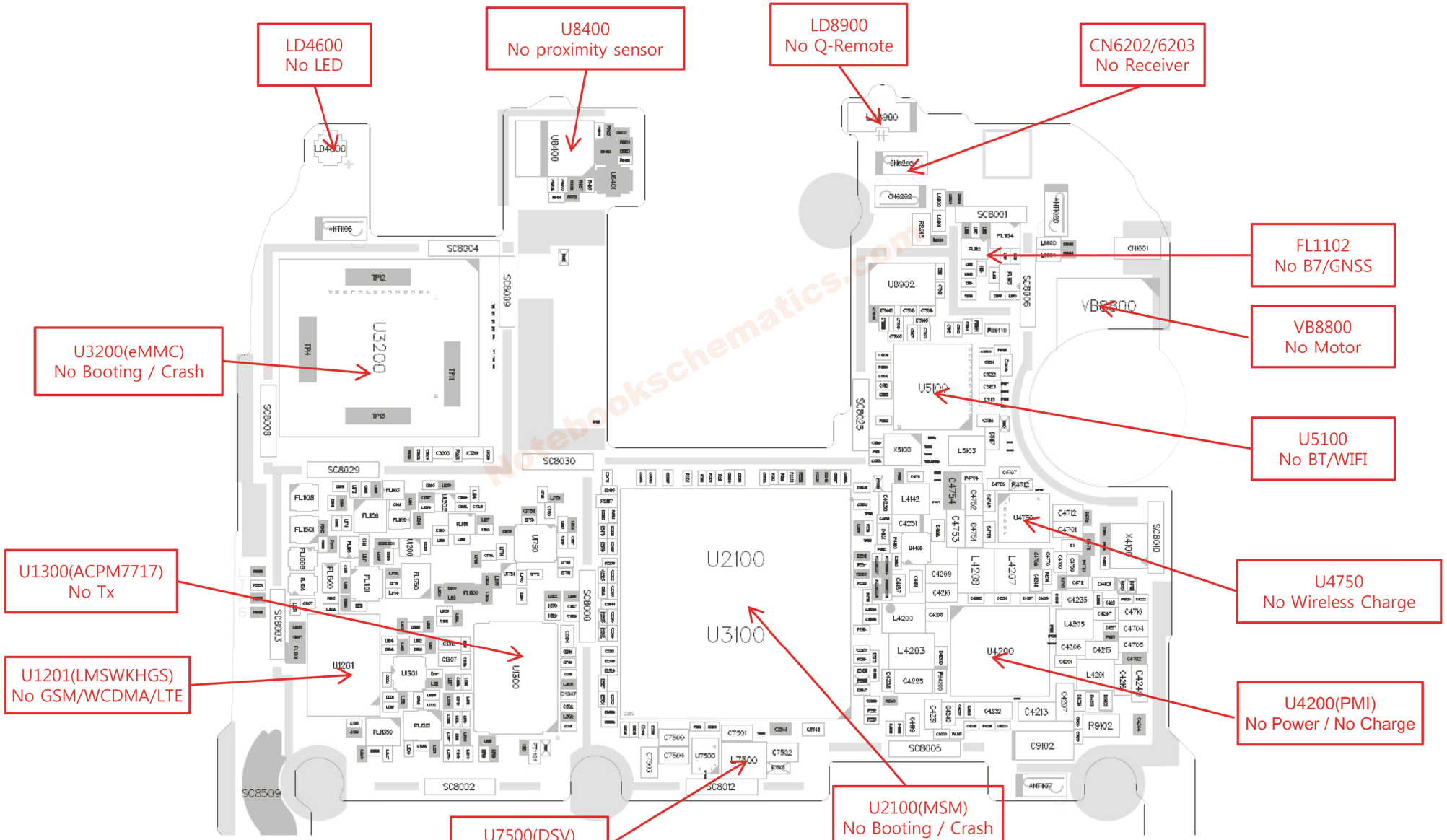
O Not used

U4200 PMI8994

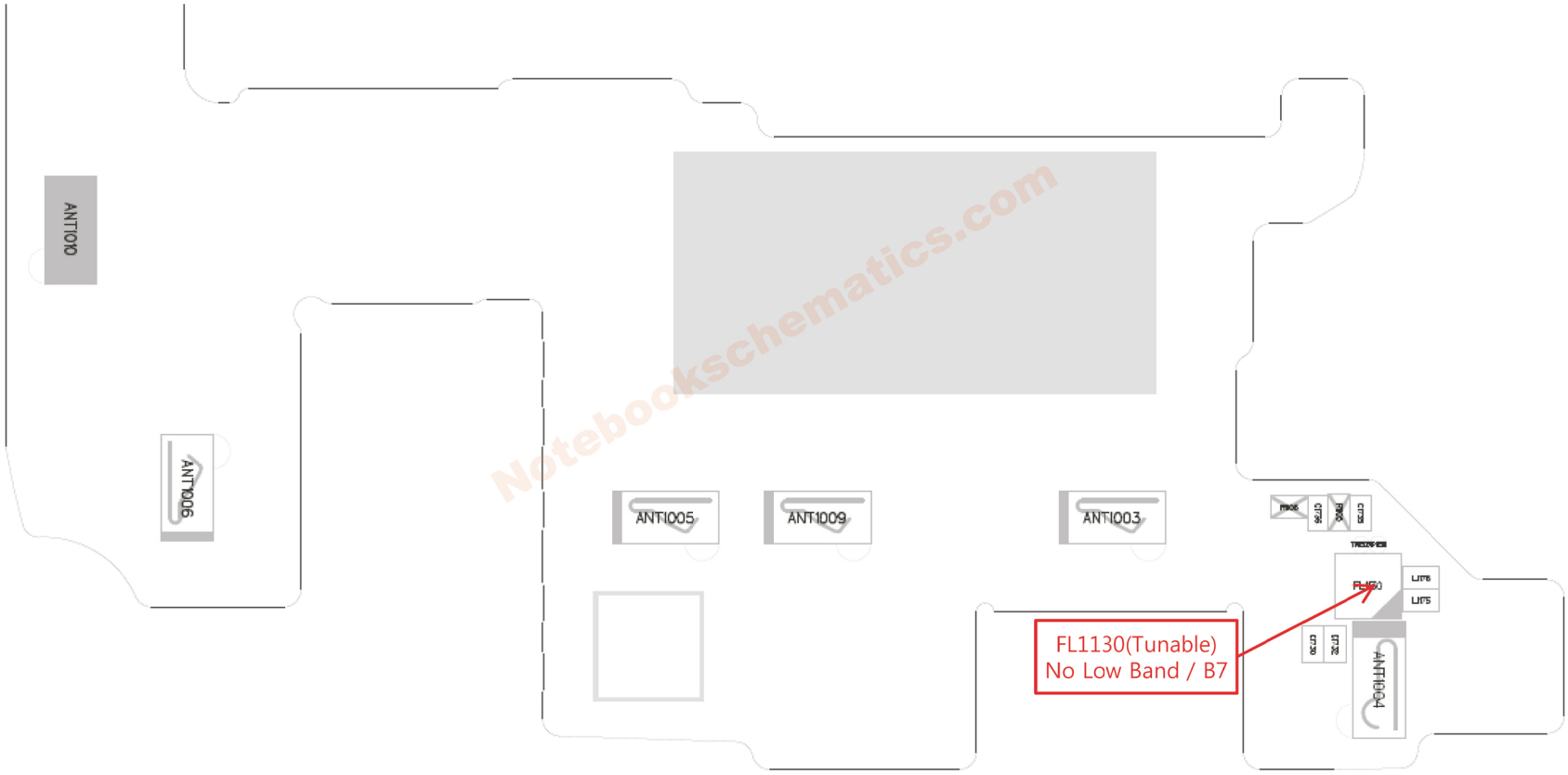


O Not used

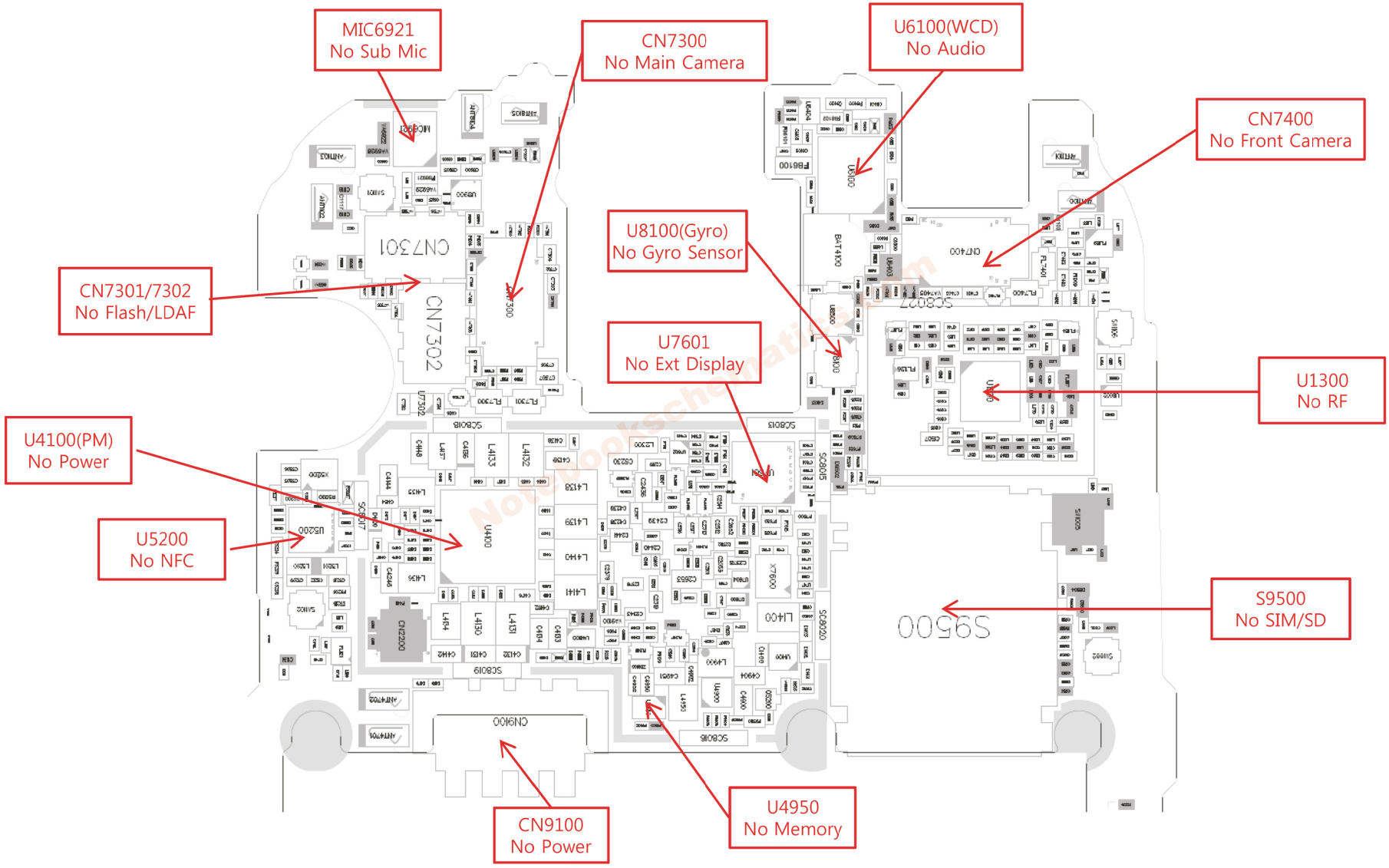
LG-H815 MAIN_TOP (1)



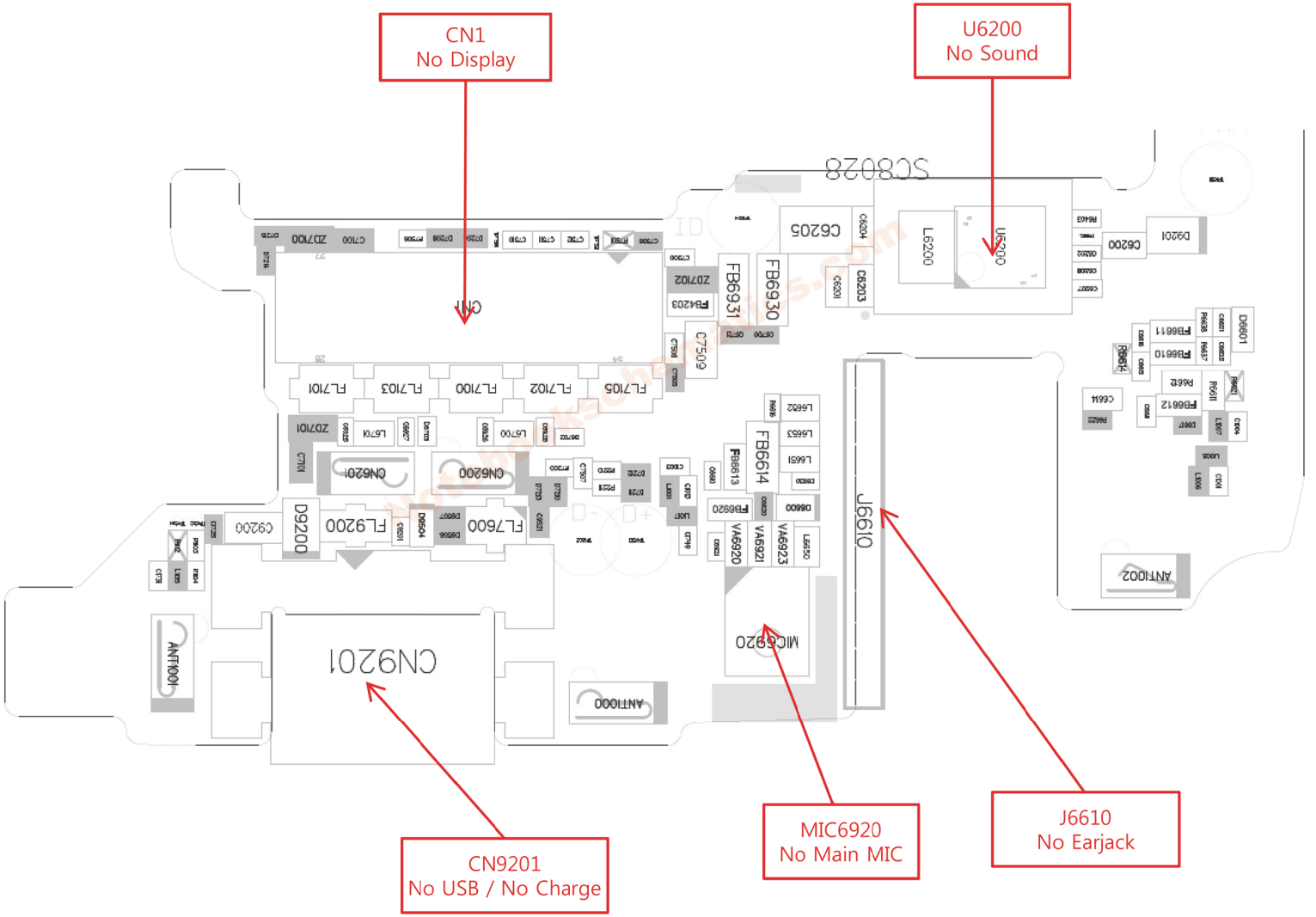
LG-H815 MAIN_TOP (2)

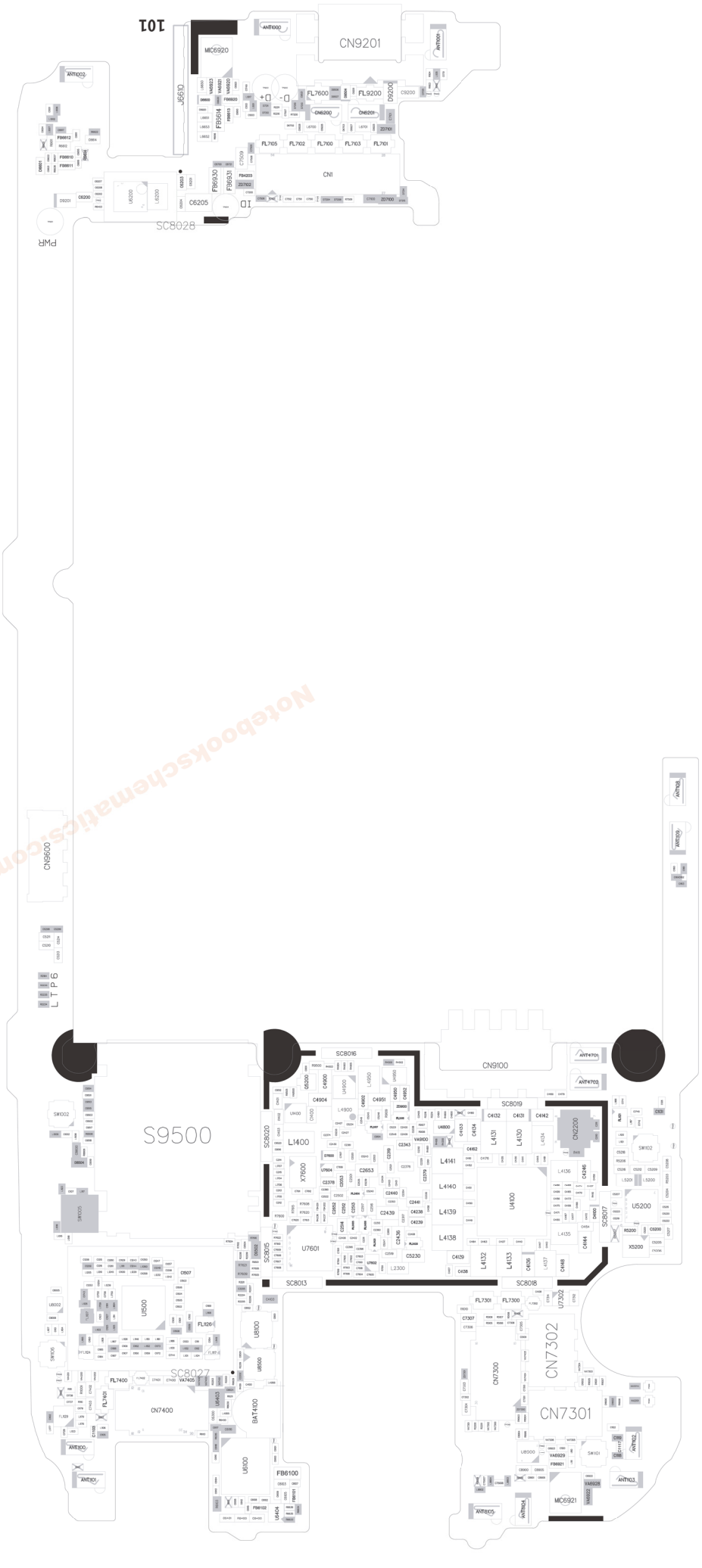


LG- H815 MAIN_BOT (1)

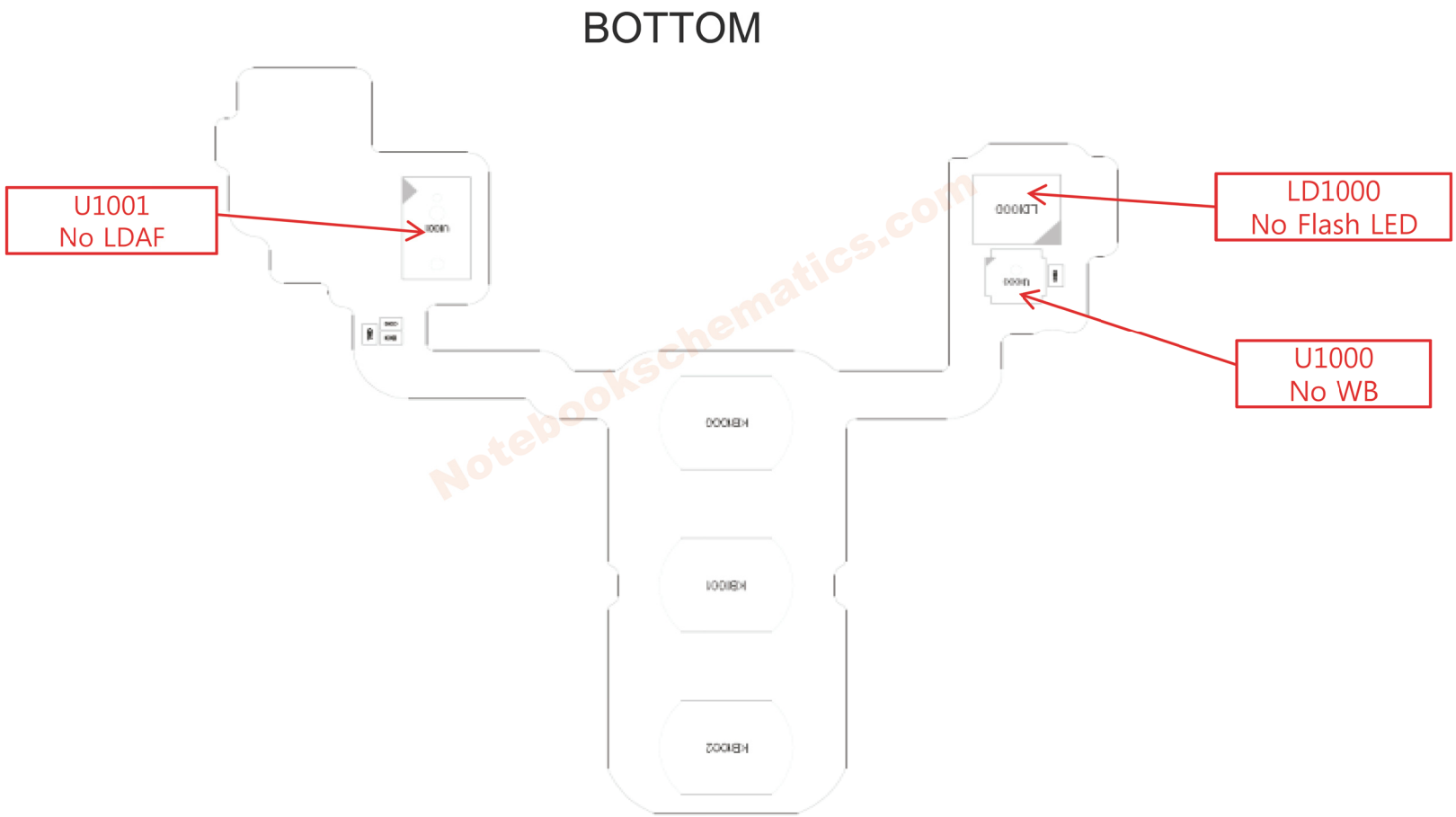


LG-H815 MAIN_BOT (2)

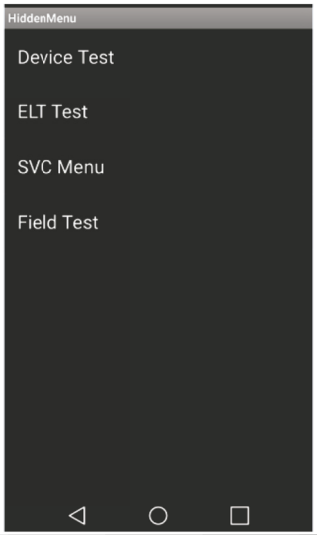




LG-H815 Key FPCB



1. Hidden Menu Start



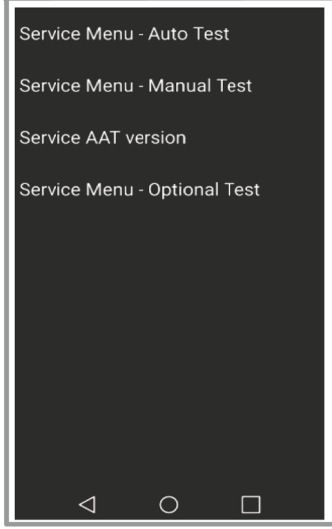
- Start shortcut key: *#546368#*815#
- Hidden Menu List
  : Start the desired menu, click

2. Device Test

-SAAT
→ can choose Service Menu Tests

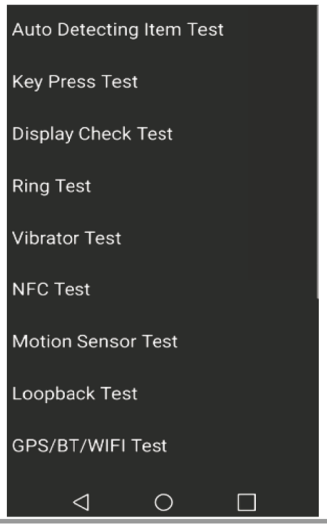
-SAAT
→ can boot AAT Mode Automatic.

2. Device Test



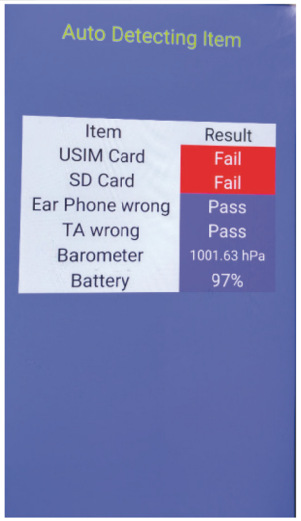
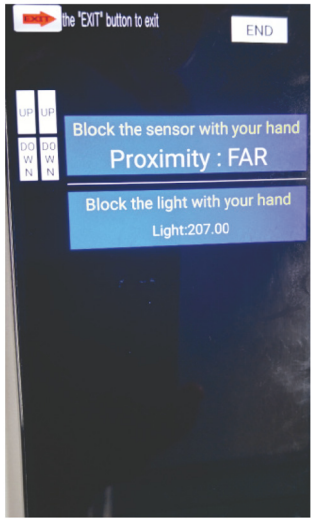
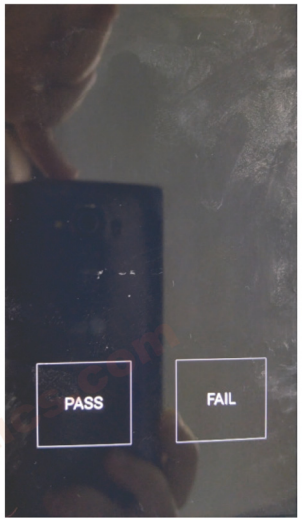
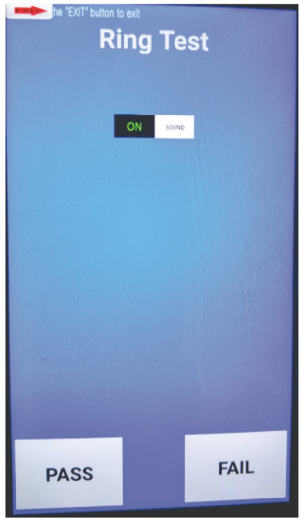
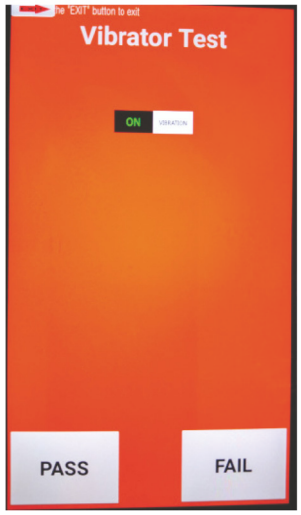
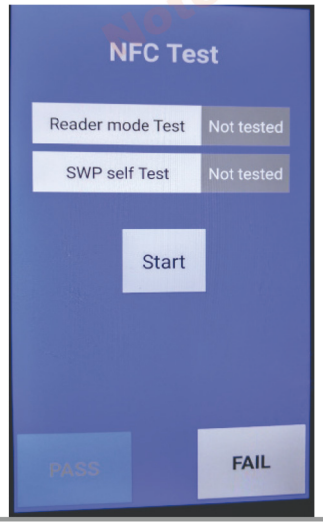
- Service Menu – Auto Test
- Service Menu – Manual Test
- Service AAT version
  → Hidden Menu version Display
- Service Menu – Optional Test

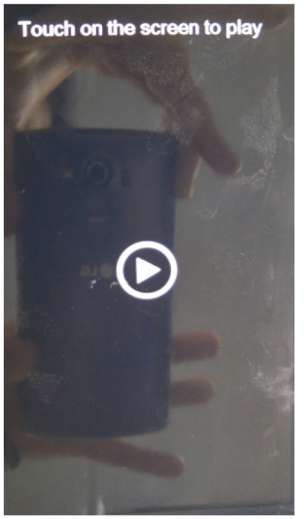
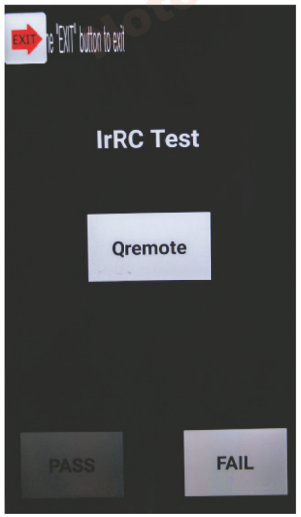
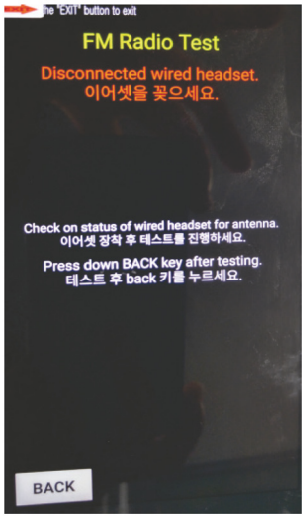
3. Device test List



- Service Menu – Auto Test
  → All Test Items are continued one after another.
  → Continuous information on the menu, giving you ability test.

- Service Menu – Manual Test
  → Each test item can be selected and performed by user.

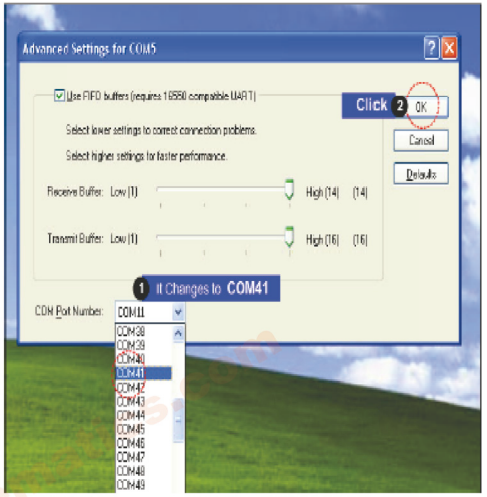
1. Auto Detecting Item Test	2. Key Press Test	3. Display Check Test	4. Ring Test
			
5. Vibrator Test	**6. NFC Test**	**7. Motion Sensor Test**	**8. Loopback Test**
			

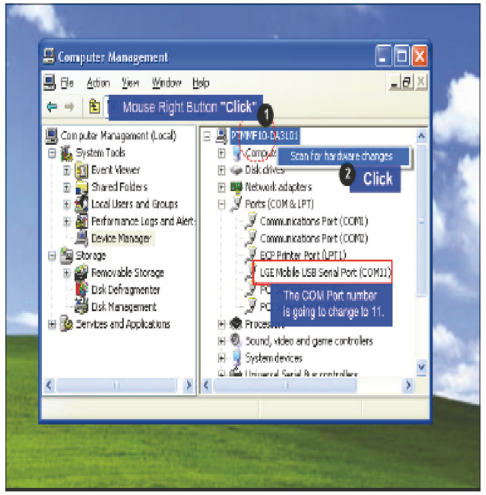
9. GPS/ BT / WIFI Test	10. Touch Draw Test - Manual	11. Camera(Main) test	12. Camcorder Test
			
13. Camera(VT) test	**14. IrRC Test**	**15. FM Radio Test**	
			

1. Summary

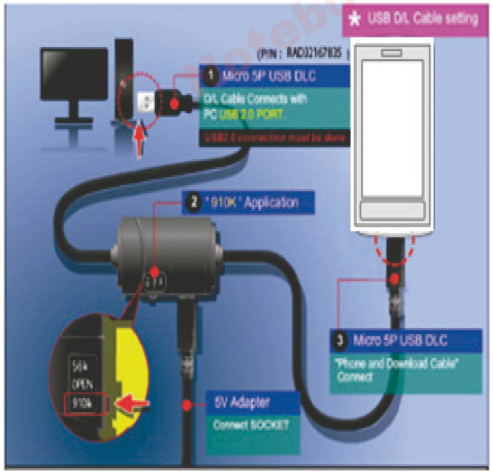
Tool Version	DLL name	USB Driver	
LGFLASHv190	LGH815_20150423_LGFLASHv190Z_Download	LGUnitedMobileDriver_S50MAN311AP22_ML_WHQL_Ver_3.11.3	
Please Check the Version to "B2B"			
H/W			
	Name	Part No.	SW
D/L Cable	Micro 5P (56-open-910K) USB DLC	RAD32167835	TOT

2. . USB COM port Setting

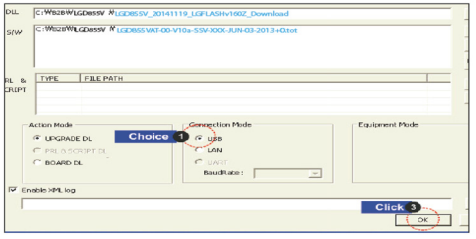


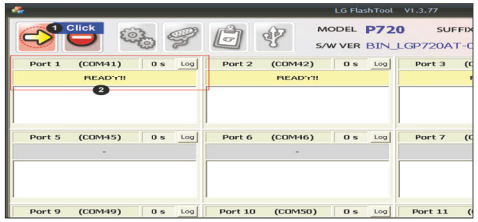


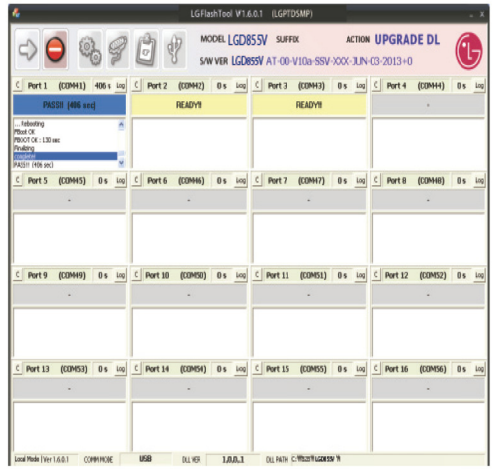
3. USB D/L Cable setting



4. Flash tool D/L setting





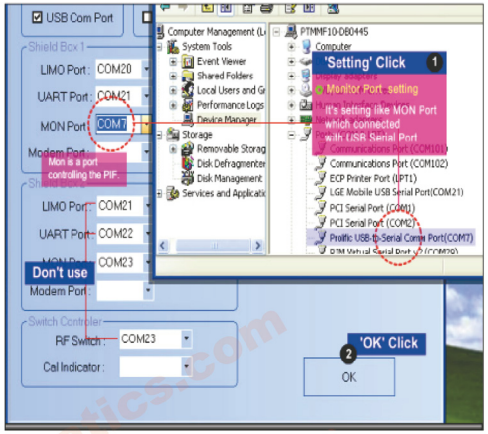


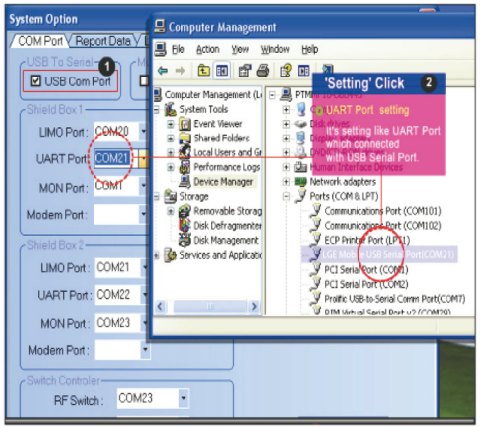
※ If you want more information, please refer B2B's Notification "Download User Guide".

1. Summary

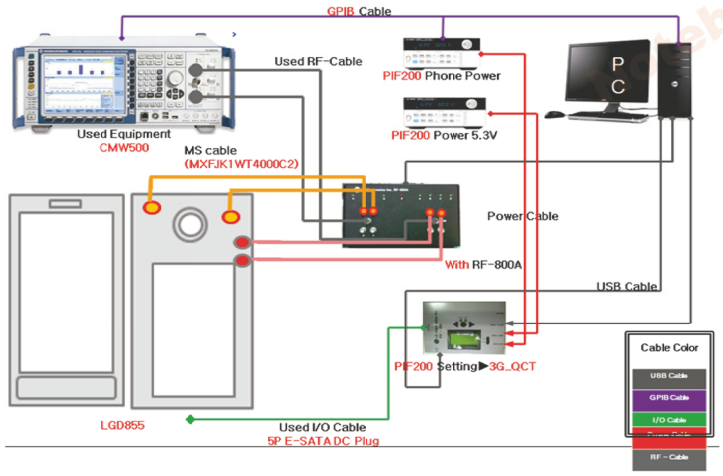
CAL INFORMATION		
S/W VERSION		
[TachyonV2013] LGH815 20150523 ALL File Calibration		
Please Check the Version to "B2B"		
H/W		
	Name	Part No.
PIF	PIF200	BJAY0024021
USB Cable	USB Cable	RAD32247898
Power Cable	DC Power Cable	RAD32247878
I/O Cable	5P E-SATA DC Plug	RAD32167861
RF Cable Main	MXFJM3WX6000	RAD32827895
Power Supply PIF	Power supply 5.2V	
Power Supply Phone	Power supply 5.0V	
PF Test Equipment	CMW500	
Notice	1. Use the Battery (Refer to Attached ppt) 1) Phone states: Power off 2) If do not use the battery, TX fails. 2. Port Setting (Refer to Attached ppt) 1) Uart Port1 : Use the "LGE Mobile USB Serial Port"	
CMW 500 RF Cable connection		

2. . USB COM port Setting

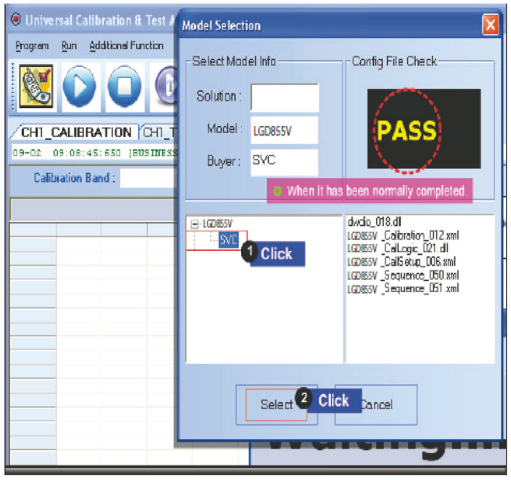


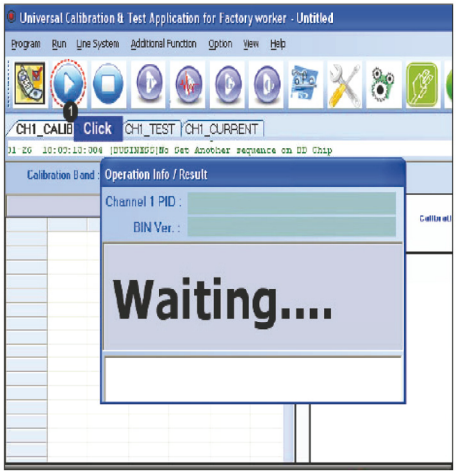


3. Calibration Cable setting

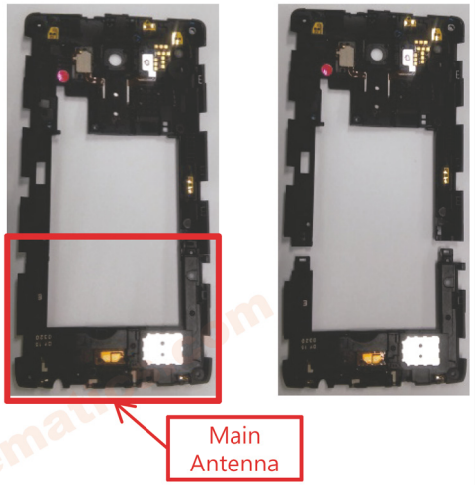
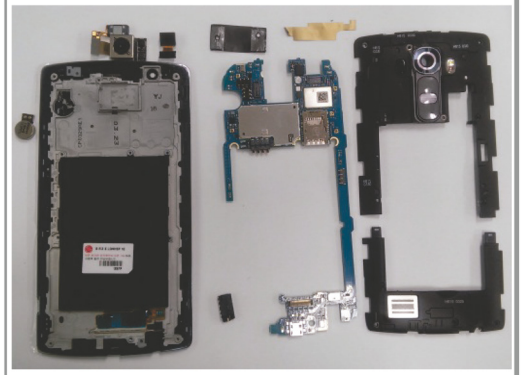


4. Flash tool D/L setting

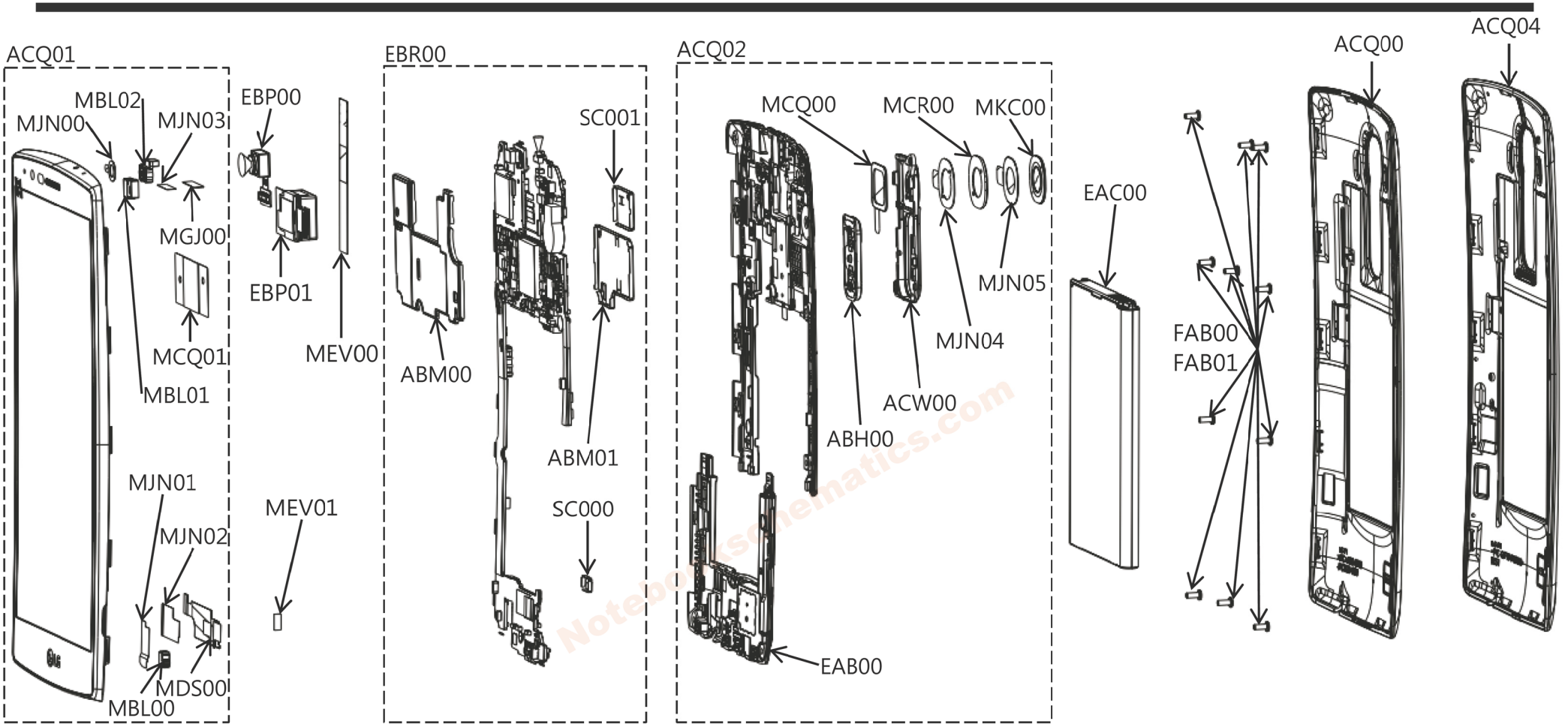




※ If you want more information, please refer B2B's Notification "RF Calibration User Guide".

1. Disassemble Screw (11ea)	2. Disassemble Rear cover	3. Disassemble Main Antenna	4. Disassemble Connector
			
5. Disassemble Main PCB	**6. Disassemble HW Parts (5ea)**	**7. Disassemble Gasket, Pad**	**8. Complete Disassembling**
			

12. EXPLODED VIEW



Location no	Description	Location no	Description	Location no	Description	Location no	Description
ACQ01	Cover Assembly	**MBL00**	Cap	**SC000**	Can,Shield	**MJN04**	Tape,Décor
MDS00	Gasket	**MBL01**	Cap	**SC001**	Can,Shield	**MCR00**	Décor
MJN00	Tape,Camera	**MBL02**	Cap	**ACQ02**	Cover Assembly,Rear	**EAB00**	Speaker Module
MJN01	Tape	**EBP00**	Camera Module	**MCQ00**	Damper,Camera	**EAC00**	Rechargeable Battery,Lithium Ion
MCQ01	Damper	**EBP01**	Camera Module	**ACW00**	Décor Assembly	**FAB00**	Screw,Machine
MGJ00	Plate	**EBR00**	PCB Assembly,Main	**ABH00**	Button Assembly	**FAB01**	Screw,Tapping
MJN02	Tape	**ABM00**	Can Assembly,Shield	**MJN05**	Tape,Window	**ACQ00**	Cover Assembly,Battery
MJN03	Tape	**ABM01**	Can Assembly,Shield	**MKC00**	Window,Camera	**ACQ04**	Cover Assembly,Battery
MEV00	Insulator	**MEV01**	Insulator				

No	P/N	Description	Quantity	Location no
1	AGQ88636668	Phone Assembly	1	AGQ000000
2	MEZ66193101	Label,Approval	1	MEZ002101
3	ACQ88378268	Cover Assembly,EMS	1	ACQ100400
4	GMEY0014301	Screw,Machine	11	FAB00
5	FAB32218901	Screw,Tapping	0	FAB01
6	ACQ87895152	Cover Assembly,Rear	1	ACQ02
7	EAB63789201	Speaker Module	1	EAB00
8	ACQ87913352	Cover Assembly,Rear(SVC)	1	ACQ105802
9	ABH75379602	Button Assembly	1	ABH00
10	MBG65484202	Button	1	MBG000000
11	MBG65504102	Button	1	MBG000001
12	MJN69707701	Tape,Protect	1	MJN061100
13	MFB63852901	Lens,Flash	1	MFB029600
14	MCQ68384501	Damper,Camera	1	MCQ009401
15	MCK68592001	Cover,Rear	1	MCK063301
16	ACW74817002	Decor Assembly	1	ACW00
17	MBF63223801	Bush	2	MBF000000
18	MCR65888802	Decor	1	MCR000000
19	MKC65479002	Window,Camera	1	MKC00
20	MKC65439801	Window,IRDA	1	MKC041800
21	MJN69728001	Tape,Protect	1	MJN061100
22	MJN69587101	Tape,Window	1	MJN05
23	MJN69528601	Tape,Decor	1	MJN04
24	EAA63924701	PIFA Antenna,WiFi	1	EAA030102
25	EAA63924801	PIFA Antenna,GPS	1	EAA030101
26	EAA63924901	PIFA Antenna,RF	1	EAA030103
27	EAA63944501	PIFA Antenna,RF	1	EAA030100
28	EBR80113801	PCB Assembly,Flexible	1	EBR070500
29	EBR80166001	PCB Assembly,Flexible,Insert	1	EBR070100
30	MJN69767301	Tape	1	MJN000000
31	MJN69767701	Tape	1	MJN000004
32	MJN69767501	Tape	1	MJN000002
33	MJN69767401	Tape	1	MJN000001
34	ADB74498101	Dome Assembly,Metal	1	ADB048600
35	MDS65431601	Gasket	1	MDS000000
36	EBR81266601	PCB Assembly,Flexible,SMT	1	EBR070400
37	EBR80149301	PCB Assembly,Flexible,SMT Top	1	EBR070300
38	EAX66326001	PCB,Flexible	1	EAX010700
39	EBR81266701	PCB Assembly,Flexible,SMT Bottom	1	EBR070200

40	EAN63846101	IC,Proximity	1	U1001
41	EAE62726601	Capacitor,Ceramic,Chip	2	C1002,C1003
42	EAV63132201	LED,Flash	1	LD1000
43	ECCH0009101	Capacitor,Ceramic,Chip	1	C1001
44	EAE62762301	Capacitor,Ceramic,Chip	1	C1000
45	EAN63806501	IC,RGB Sensor	1	U1000
46	MCQ68424601	Damper,Camera	1	MCQ00
47	MCQ68605801	Damper	1	MCQ000000
48	MCR66127702	Decor	1	MCR00
49	MDS65370601	Gasket	1	MDS000000
50	MEZ64319901	Label,After Service	1	MEZ000900
51	MCQ68404601	Damper,Motor	1	MCQ049800
52	ACQ87884251	Cover Assembly,Bar	1	ACQ003401
53	EBP62581701	Camera Module	1	EBP00
54	EAU62024101	Motor,DC	1	EAU010000
55	EBP62362103	Camera Module	1	EBP01
56	EAG63849801	Jack,Phone	1	EAG140300
57	EAB63688601	Receiver	1	EAB010400
58	MJN69548301	Tape,Protect	1	MJN061101
59	ACQ88367631	Cover Assembly	1	ACQ01
60	MJN69587001	Tape	1	MJN01
61	MKC65479101	Window,IRDA	1	MKC041800
62	MJN69567001	Tape,Camera	1	MJN00
63	MDS65252601	Gasket	1	MDS00
64	MCR65947601	Decor	1	MCR000000
65	MBL66397801	Cap	1	MBL02
66	MBL66378101	Cap	1	MBL01
67	MBL66357901	Cap	1	MBL00
68	ACQ87865101	Cover Assembly,Front	1	ACQ032700
69	MCQ68424501	Damper	1	MCQ000000
70	MCQ68664301	Damper	1	MCQ01
71	MGJ64688301	Plate	1	MGJ00
72	MHK65065301	Sheet	1	MHK000000
73	MHK65105301	Sheet	1	MHK000001
74	MJN69527001	Tape	1	MJN02
75	ACQ87913201	Cover Assembly,Front(Sub)	1	ACQ032700
76	MCK68591901	Cover,Front	1	MCK032700
77	ADV75307501	Frame Assembly	1	ADV000000
78	MCK68646801	Cover,Front	1	MCK032700
79	MDQ64316801	Frame	1	MDQ000000

80	MJN69547001	Tape	1	MJN000000
81	MJN69567301	Tape,Protect	1	MJN061100
82	MJN69568501	Tape	1	MJN03
83	MJN69687401	Tape,Protect	1	MJN061102
84	MJN69707501	Tape,Protect	1	MJN061103
85	MJN69527301	Tape,Protect	1	MJN061101
86	EAT62833501	Module,Hybrid Touch LCD	1	EAT130000
87	MLAZ0038301	Label	1	MEZ000000
88	MEV65634201	Insulator	1	MEV00
89	MEV65634401	Insulator	1	MEV01
90	MJN69449001	Tape,Protect	1	MJN061103
91	EBR81224331	PCB Assembly,Main	1	EBR00
92	EBR81098001	PCB Assembly,Main,Insert	1	EBR071500
93	ABM74836001	Can Assembly,Shield	1	ABM01
94	MEV65430701	Insulator	1	MEV000000
95	MBK64154101	Can,Shield	1	MBK070300
96	ABM74876201	Can Assembly,Shield	1	ABM00
97	MEV65631401	Insulator	1	MEV000001
98	MDS65470601	Gasket	1	MDS000000
99	MDS65490601	Gasket	1	MDS000002
100	MEV65410701	Insulator	1	MEV000002
101	MCQ68664401	Damper	1	MCQ000000
102	MBK64373001	Can,Shield	1	MBK070300
103	MDS65430501	Gasket	1	MDS000001
104	MDS65470501	Gasket	1	MDS000000
105	BRAH0001305	Resin,PC	0	RAA050100
106	MDJ64544501	Filter	2	MDJ000000
107	EBR81184731	PCB Assembly,Main,SMT	1	EBR071800
108	BRAH0001304	Resin,PC	0	RAA050100
109	MEZ65049701	Label	1	MEZ000000
110	EBR80270901	PCB Assembly,Main,SMT Bottom	1	EBR071600
111	EAE63763701	Capacitor,Ceramic,Chip	2	C6621,C6622
112	EAE62967601	Capacitor,Ceramic,Chip	2	C6927,C6928
113	EAP63266201	Inductor,Wire Wound,Chip	6	L4132,L4133,L4138,L4139,L4140,L4141
114	ERHY0009502	Resistor,Chip	1	R5199
115	EAP62226401	Inductor,Multilayer,Chip	1	C11121,L1307
116	EAP62225901	Inductor,Multilayer,Chip	5	C1198,C1246
117	EAP62266401	Inductor,Multilayer,Chip	2	C75011,L1109
118	EAM63170001	Filter,EMI/Power	9	FL7100,FL7101,FL7102,FL7103,FL7105,FL7300,FL7301,FL7400,FL7401
119	EDTY0012102	Diode,TVS	3	D6600,D9504,ZD9100

120	ECCH0009502	Capacitor,Ceramic,Chip	1	L1174,L1175,L1303,L1309,L1332
121	ECCH0017301	Capacitor,Ceramic,Chip	78	C2320,C2321,C2322,C2323,C2324,C2325,C2326,C2327,C2331,C2332,C2344,C2345,C2349,C2352,C2355,C2362,C2375,C2381,C2382,C2383,C2384,C2385,C2386,C2387,C2392,C2394,C2450,C2478,C2479,C2484,C2485,C2486,C2544,C2545,C2547,C2549,C2550,C2551,C2650,C3200,C4178,C4202,C4203,C5232
122	EAN63188601	IC,PMIC	1	U4100
123	EAF62210001	Varistor	7	VA8400,VA8401,VA8402
124	EAE63286601	Capacitor,Ceramic,Chip	12	C4234,C4237,C4242
125	EAH62033201	Diode,TVS	3	D11000,D11001,D11002
126	EAE62502901	Capacitor,Ceramic,Chip	5	C4228,C4240,C5117
127	EAP62946701	Inductor,Wire Wound,Chip	2	L4205
128	EAG63652201	C-Clip	4	ANT1004,ANT1028,ANT1106,ANT1107
129	ECCH0009103	Capacitor,Ceramic,Chip	19	C1108,C1182,C1190,C1195,C1211,C1213,C1265,C1268,C1346,C1814
130	EAE62282201	Capacitor,Ceramic,Chip	2	C1512,C6610
131	EAG63910001	C-Clip	9	ANT1002,ANT1100,ANT1101,ANT1102,ANT1103,ANT1108,ANT1109,ANT8104,ANT8105
132	ECCH0000198	Capacitor,Ceramic,Chip	8	C3201,C3203
133	ECZH0025916	Capacitor,Ceramic,Chip	6	C1186,C1200,C1302,C1316,C1317,C1325,C1326,C1327,C1329,C1330,C1347,C1761,C9100
134	ECCH0009506	Capacitor,Ceramic,Chip	17	C1111,C1123,C1133,C11350,C1150,C1159,C1172,C1184,C1187,C1208,C1243,C1247,C1257,C1260,L1128,L1210,L1239
135	ECCH0009101	Capacitor,Ceramic,Chip	25	C1001
136	ERHY0009506	Resistor,Chip	10	R4102,R4233
137	ECZH0000830	Capacitor,Ceramic,Chip	1	C6614
138	EAE62726601	Capacitor,Ceramic,Chip	6	C1002,C1003
139	EAN63148201	IC,Geomagnetic Sensor	1	U8002
140	ERHY0017901	Resistor,Chip	1	R4800
141	EAW61644701	Resonator,Ceramic	1	X5200
142	ECCH0000120	Capacitor,Ceramic,Chip	2	C5208,C5216
143	EAG63772101	Connector,RF	5	SW1002,SW1005,SW1101,SW1102,SW1106
144	EAE62762301	Capacitor,Ceramic,Chip	10	C1000
145	EAE63143201	Capacitor,Ceramic,Chip	2	C1304,C1307,C1312,C4250
146	SEVY0005101	Varistor	2	VA7405,VA9100
147	EAN63748301	IC,DC,DC Converter	1	U4900
148	EAF61450601	Varistor	5	VA4200,VA4201,VA4202,VA7403,VA7404
149	EBC62235801	Resistor,Chip	1	R8916
150	ERHY0024601	Resistor,Chip	3	R11005,R11006,R11007
151	ERHY0009524	Resistor,Chip	2	R6637,R6638
152	ERHY0009505	Resistor,Chip	8	R3208,R4713
153	ECCH0000143	Capacitor,Ceramic,Chip	2	C5204,C5218
154	EAP63145901	Inductor,Wire Wound,Chip	2	L4130,L4131
155	EAE63621501	Capacitor,Ceramic,Chip	14	C2053,C2319,C2343,C2378,C2379,C2440,C2441,C2512,C2513,C2514,C2652,C4138,C4238,C4239
156	ERHY0009311	Resistor,Chip	1	R1102
157	EAN62632401	IC,NFC	1	U5200
158	EAE62286801	Capacitor,Ceramic,Chip	12	C1502,C1503,C1504,C1505,C1506,C4800,C5201,C5215,C5223,C7610,C8101,C8102
159	EAE63421801	Capacitor,Ceramic,Chip	9	C2436,C2439,C2653,C4142,C4144,C4148,C4246,C4951,C5230

160	EAE63682001	Capacitor,Ceramic,Chip	5	C4215
161	ERHZ0000407	Resistor,Chip	1	R5200
162	SEVY0005402	Varistor	4	VA6920,VA6921,VA6923,VA6929
163	ERHY0009501	Resistor,Chip	4	C1817,R1500,R2215,R2217,R5121,R6405,R6406
164	SAFP0000401	Wire Pad,Short	13	R1101,R1105,R1106,R2302,R2303,R2308,R4700,R4701,R5110,R6112,R7508
165	ERHZ0000405	Resistor,Chip	1	R9500
166	ECCH0017601	Capacitor,Ceramic,Chip	15	C2543,C4161,C4188,C5121,C5123
167	EAG64051601	Connector,Terminal Block	1	CN9100
168	EAG63651901	C-Clip	2	ANT4701,ANT4702
169	ENBY0040701	Connector,BtoB	2	CN7300,CN7400
170	EAN63169801	IC,Audio Codec	1	U6100
171	EAM62070801	Filter,Bead	1	FB6613
172	EAN63727901	IC,RF Transceiver,4G	1	U1500
173	EAE62506501	Capacitor,Ceramic,Chip	4	C4204,C4247,C4248,C5116
174	ERHY0009527	Resistor,Chip	7	R11003,R11004,R5105,R5106,R5107,R5108,R5109
175	EAE62946401	Capacitor(High Frequency),Ceramic,Chip	5	C1730
176	EAH63092501	Diode,TVS	2	D9200,D9201
177	EAP62226601	Inductor,Multilayer,Chip	2	L1192,L1318
178	ECCH0034801	Capacitor,Ceramic,Chip	3	C4222,C4227
179	ECCH0009201	Capacitor,Ceramic,Chip	1	C8964
180	EAP61866701	Inductor,Multilayer,Chip	6	L1008,L1018,L1107,L1111,L1121,L1133
181	ECCH0009104	Capacitor,Ceramic,Chip	9	C1114,C1116,C1196,C1735,C1736
182	ECCH0009504	Capacitor,Ceramic,Chip	2	C5110,C5134
183	SEVY0008901	Varistor	2	D6702,D6703
184	MBV62321701	Clip	7	SC8000,SC8001,SC8002,SC8003,SC8004,SC8005,SC8006,SC8008,SC8009,SC8010,SC8012,SC8025,SC8029,SC8030
185	EAN63550101	IC,Gyro Sensor	1	U8100
186	EAG64249801	Socket,DIMM/SIMM	1	S9500
187	ERHY0009516	Resistor,Chip	14	R2212,R2213
188	ERHZ0000350	Resistor,Chip	3	R7608,R7615,R7620
189	ERHY0009526	Resistor,Chip	4	R2221,R8401
190	EAM63730401	Filter,Bead	1	FB4200
191	EAM62732701	Filter,Saw	1	FL1124
192	EAE62947001	Capacitor(High Frequency),Ceramic,Chip	1	C1300,C4200,C5102,C5111
193	EAM62870101	Filter,Bead	1	FB6100
194	ERHY0009536	Resistor,Chip	1	R4110
195	EAB63069501	Microphone,Condenser	2	MIC6920,MIC6921
196	EBC62575901	Resistor,Chip	2	R4236,R4237
197	EBC61856101	Resistor,Chip	1	R9505
198	EAM62630901	Filter,Bead	3	FB6610,FB6611,FB6612
199	EAE62945801	Capacitor(High Frequency),Ceramic,Chip	1	C1732,L1304

200	EAN62421601	IC,Fuel Gauge	1	U4800
201	ERHY0009537	Resistor,Chip	2	R1103,R1110
202	EAP63146501	Inductor,Multilayer,Chip	1	L4200
203	ECZH0001116	Capacitor,Ceramic,Chip	2	C5209,C5212
204	ERHZ0000401	Resistor,Chip	2	R11009,R11010
205	EAP62108501	Inductor,Multilayer,Chip	6	L1124,L1146,L1151,L1161,L1187,L1232
206	EAP62108601	Inductor,Multilayer,Chip	6	L11112
207	EDSY0018101	Diode,Switching	1	D4101
208	EUSY0355701	IC,LDO Voltage Regulator	1	U7302
209	EAM63030601	Filter,Separator,Switch	1	FL1130
210	ECCH0009105	Capacitor,Ceramic,Chip	1	C4100
211	MBK64373501	Can,Shield	1	SC000
212	ECCH0004904	Capacitor,Ceramic,Chip	3	C7303,C8400,C8401
213	EAP62226201	Inductor,Multilayer,Chip	1	C1321,C1331,L1191,L1756
214	EAP63345901	Inductor,Wire Wound,Chip	6	L6800,L6801
215	ECCH0007805	Capacitor,Ceramic,Chip	1	C4187,C4189
216	EAM62633801	Filter,Bead	2	FB6930,FB6931
217	ECCH0009209	Capacitor,Ceramic,Chip	6	L1310,L1315
218	EAE62962201	Capacitor(High Frequency),Ceramic,Chip	1	L1323
219	ECCH0000155	Capacitor,Ceramic,Chip	1	C6204
220	EAN62578201	IC,Analog Switch	1	U6404
221	EAP62108201	Inductor,Multilayer,Chip	1	C1149,C1303
222	SMZY0023501	Capacitor Assembly	1	BAT4100
223	EAM63890101	Filter,Bead	4	FB4201,FB4202,R6635,R6636
224	EAG63260701	Connector,BtoB	1	CN1
225	ECCH0009216	Capacitor,Ceramic,Chip	3	C2203,C4252
226	EAM62930401	Filter,Saw	1	FL1117
227	ERHY0009543	Resistor,Chip	1	R9106
228	EAP63206301	Inductor,Wire Wound,Chip	1	L4950
229	EAP62108301	Inductor,Multilayer,Chip	1	L1230,L1247
230	ERHZ0000243	Resistor,Chip	2	R6611,R6612
231	EAE63284001	Capacitor,TA,Polymer	3	C4251
232	EAP62108901	Inductor,Multilayer,Chip	1	L11104,L1119,L1180
233	ECCH0009203	Capacitor,Ceramic,Chip	1	C2100,C2102,C2103
234	ERHY0009507	Resistor,Chip	2	R4215,R4230,R4231
235	ECZH0001210	Capacitor,Ceramic,Chip	2	C5200,C5217
236	ERHY0003201	Resistor,Chip	2	R5203,R5206
237	ERHZ0000205	Resistor,Chip	1	R7600
238	EAE62946901	Capacitor(High Frequency),Ceramic,Chip	1	C1263
239	EAM62633401	Filter,Bead	2	FB6101,FB6102

240	EBC62316201	Resistor,Chip	2	R1104,R1111
241	EAE63462901	Capacitor,Low ESL	7	FL2404,FL2405,FL2406,FL2416,FL2417,FL2420,FL2421
242	SAFP0000501	Wire Pad,Short	1	R4712,R7505
243	ENZY0025801	Terminal Block	2	CN7301,CN7302
244	EAN63766901	IC,RF Amplifier	1	FL1121
245	EAN63766401	IC,Signal Bridge	1	U7601
246	ECCH0009106	Capacitor,Ceramic,Chip	3	C1199,C1205,C1264,C1324,C1745
247	EAP62886101	Inductor,Multilayer,Chip	1	C75002
248	EAM62451101	Filter,LCR	1	FL7600
249	EAN63765901	IC,DC,DC Converter	1	U4950
250	EAE62945901	Capacitor(High Frequency),Ceramic,Chip	1	C1261
251	EAN63667201	IC,Microprocessors	1	U8900
252	EAP63106601	Inductor,Wire Wound,Chip	1	L1400
253	EAM63150101	Filter,EMI/Power	2	FL7302,FL7402
254	SFBH0008102	Filter,Bead	2	FB6920,FB6921
255	EAP62526401	Inductor,Multilayer,Chip	2	C75014
256	EAP62526501	Inductor,Wire Wound,Chip	2	L4201
257	EAE62946201	Capacitor(High Frequency),Ceramic,Chip	2	C1185,C1258
258	EAP62526601	Inductor,Wire Wound,Chip	1	L4142
259	ECCH0009514	Capacitor,Ceramic,Chip	2	C5103
260	ECCH0000112	Capacitor,Ceramic,Chip	2	C5205,C5206
261	EAN62972701	IC,Acceleration Sensor	1	U8500
262	EAE62505701	Capacitor,Ceramic,Chip	2	C7509,C9200
263	EAM63491001	Filter,Saw	1	FL1126
264	EAG64451201	Connector,I/O	1	CN9201
265	EAP62226301	Inductor,Multilayer,Chip	1	L1760
266	EAG64230501	Connector,Terminal Block	1	CN9600
267	EAN63149401	IC,DC,DC Converter	1	U1400
268	EAE62963701	Capacitor(High Frequency),Ceramic,Chip	1	C7613
269	EAW61543401	Crystal	1	X7600
270	EAP62227901	Inductor,Multilayer,Chip	1	L4955
271	ERHZ0000312	Resistor,Chip	1	R9109
272	EAP62226101	Inductor,Multilayer,Chip	2	C1126
273	EAN63787301	IC,Speaker Amplifier	1	U6200
274	EAN62768701	IC,LDO Voltage Regulator	1	U7602
275	EAP62226001	Inductor,Multilayer,Chip	1	C1104,C1772
276	EAP62107901	Inductor,Multilayer,Chip	1	L1110
277	SFEY0015301	Filter,EMI/Power	1	FL9200
278	EAP62906101	Inductor,Multilayer,Chip	1	C1215
279	EAP62807301	Inductor,Multilayer,Chip	1	L2300

280	EAN63806401	IC,Load Switch	1	U7604
281	EAH63012601	Diode,Schottky	1	D7600
282	ERHY0009548	Resistor,Chip	1	R6211
283	ERHZ0000441	Resistor,Chip	1	R8400
284	EAM62071001	Filter,Bead	1	FB6614
285	EAE63004901	Capacitor,Ceramic,Chip	1	C6205
286	EAE62822701	Capacitor,Ceramic,Chip	2	C5210,C5213
287	EAP62108001	Inductor,Multilayer,Chip	1	C1301,C1760,L1190,L1194
288	EAP61747501	Inductor,Multilayer,Chip	1	L1750
289	EAE62762401	Capacitor,Ceramic,Chip	1	C5109
290	EBK61691601	FET	1	Q5200
291	ECZH0000801	Capacitor,Ceramic,Chip	1	D6601
292	EAP62226701	Inductor,Multilayer,Chip	1	L1176
293	EAP62167601	Inductor,Multilayer,Chip	2	L5200,L5201
294	ECZH0000844	Capacitor,Ceramic,Chip	2	C5211,C5214
295	EAP62526201	Inductor,Multilayer,Chip	1	C1348,L1112,L1173
296	MBK64372901	Can,Shield	1	SC001
297	ECZH0025920	Capacitor,Ceramic,Chip	1	C1306,C1308,C1313,C4105
298	EAE62722601	Capacitor,Ceramic,Chip	1	C6201
299	EBR80271001	PCB Assembly,Main,SMT Top	1	EBR071700
300	EAE64022001	Capacitor,Ceramic,Chip	2	C4209,C4210
301	EAE62964001	Capacitor(High Frequency),Ceramic,Chip	1	C75003
302	EAX66474001	PCB,Main	1	EAX010000
303	EBC62824501	Resistor,Chip	4	R2109,R2110,R2111,R2112
304	EBG61306601	Thermistor,NTC	1	PT1101
305	ECCH0017301	Capacitor,Ceramic,Chip	44	C2320,C2321,C2322,C2323,C2324,C2325,C2326,C2327,C2331,C2332,C2344,C2345,C2349,C2352,C2355,C2362,C2375,C2381,C2382,C2383,C2384,C2385,C2386,C2387,C2392,C2394,C2450,C2478,C2479,C2484,C2485,C2486,C2544,C2545,C2547,C2549,C2550,C2551,C2650,C3200,C4178,C4202,C4203,C5232
306	EAN63827901	IC,RF Amplifier	1	FL1131
307	EAP62546201	Inductor,Multilayer,Chip	1	C1207
308	ERHY0009311	Resistor,Chip	1	R1102
309	ECCH0000198	Capacitor,Ceramic,Chip	2	C3201,C3203
310	EBC62581901	Resistor,Chip	2	R2114,R2115
311	EAN63787501	IC,DC,DC Converter	1	U4400
312	EAG63652201	C-Clip	4	ANT1004,ANT1028,ANT1106,ANT1107
313	ECCH0017601	Capacitor,Ceramic,Chip	5	C2543,C4161,C4188,C5121,C5123
314	EAT62613801	Module, FEM(Front End Module)	1	U8902
315	EAM62732901	Filter,Saw	1	FL1116
316	SAFP0000401	Wire Pad,Short	11	R1101,R1105,R1106,R2302,R2303,R2308,R4700,R4701,R5110,R6112,R7508
317	ECA30240001	Coupler,RF Directional	2	FL1009,FL1106
318	ECCH0009101	Capacitor,Ceramic,Chip	14	C1001
319	EAP62226201	Inductor,Multilayer,Chip	4	C1321,C1331,L1191,L1756

320	EAE62685601	Capacitor,Ceramic,Chip	2	C1,C4711
321	ERHY0009507	Resistor,Chip	3	R4215,R4230,R4231
322	ERHZ0000252	Resistor,Chip	1	R4101
323	EAE62962301	Capacitor,Ceramic,Chip	3	C5108,C5122,C5124
324	EAN63648001	IC,Proximity	1	U8400
325	EDSY0018101	Diode,Switching	1	D4101
326	EAE64021901	Capacitor,Ceramic,Chip	3	C7500,C7501,C7504
327	ECZH0025916	Capacitor,Ceramic,Chip	13	C1186,C1200,C1302,C1316,C1317,C1325,C1326,C1327,C1329,C1330,C1347,C1761,C9100
328	EAE62966901	Capacitor,Ceramic,Chip	3	C4704,C4705,C4710
329	ERHY0009516	Resistor,Chip	2	R2212,R2213
330	SAFP0000501	Wire Pad,Short	2	R4712,R7505
331	EAN63785801	IC,MCP,eMMC	1	U3200
332	EAP62226101	Inductor,Multilayer,Chip	1	C1126
333	EAM62070901	Filter,Bead	2	FB5100,FB5111
334	EAE63286601	Capacitor,Ceramic,Chip	3	C4234,C4237,C4242
335	ERHY0009501	Resistor,Chip	7	C1817,R1500,R2215,R2217,R5121,R6405,R6406
336	EAN63509701	IC,RF Amplifier	1	FL1112
337	EAM62630801	Filter,Separator	1	FL1108
338	EAP62107801	Inductor,Wire Wound,Chip	1	L7500
339	ECCH0000146	Capacitor,Ceramic,Chip	1	C4709
340	ERHY0009526	Resistor,Chip	2	R2221,R8401
341	ECZH0025920	Capacitor,Ceramic,Chip	4	C1306,C1308,C1313,C4105
342	EAE63841601	Capacitor,TA,Polymer	1	C9102
343	ECCH0009208	Capacitor,Ceramic,Chip	4	C1816,C75005,C75015,L1204
344	ELCH0003842	Inductor,Multilayer,Chip	2	L8800,L8801
345	MBV62321701	Clip	14	SC8000,SC8001,SC8002,SC8003,SC8004,SC8005,SC8006,SC8008,SC8009,SC8010,SC8012,SC8025,SC8029,SC8030
346	EAN62867801	IC,Power Amplifier	1	U1750
347	EAM63510101	Filter,Separator,Switch	1	FL1128
348	ERHY0009550	Resistor,Chip	4	R2222,R2224,R2226,R2228
349	EAM62491401	Filter,Separator	1	FL1104
350	EAP62526201	Inductor,Multilayer,Chip	3	C1348,L1112,L1173
351	EAF62210001	Varistor	3	VA8400,VA8401,VA8402
352	EAE62969601	Capacitor,Ceramic,Chip	4	C4216,C4231,C4232,C4249
353	EAP62108001	Inductor,Multilayer,Chip	4	C1301,C1760,L1190,L1194
354	ECCH0009103	Capacitor,Ceramic,Chip	10	C1108,C1182,C1190,C1195,C1211,C1213,C1265,C1268,C1346,C1814
355	EAN63767001	IC,RF Amplifier	1	U1202
356	ERHY0009506	Resistor,Chip	2	R4102,R4233
357	ERHZ0000235	Resistor,Chip	1	R2107
358	ECCH0042301	Capacitor,Ceramic,Chip	1	C4206
359	ECCH0009203	Capacitor,Ceramic,Chip	3	C2100,C2102,C2103

360	EAM63510001	Filter,Duplexer	1	FL1750
361	EAE62884301	Capacitor(High Frequency),Ceramic,Chip	2	C1768,C1769
362	EAH61992801	Diode,Schottky	2	D4200,D4201
363	ECCH0034801	Capacitor,Ceramic,Chip	2	C4222,C4227
364	EBC61856201	Resistor,Chip	4	R2101,R2102,R2103,R2104
365	EAP62225901	Inductor,Multilayer,Chip	2	C1198,C1246
366	EAN63526701	IC,Power Amplifier	1	U1300
367	EAN63945801	IC,Digital Baseband Processor,4G	1	U2100
368	EAE63162301	Capacitor,Ceramic,Chip	2	C4701,C4712
369	EAP62526601	Inductor,Wire Wound,Chip	1	L4142
370	EAG64389801	C-Clip	4	ANT1003,ANT1005,ANT1006,ANT1009
371	EAP62226701	Inductor,Multilayer,Chip	1	L1176
372	EAP61767701	Inductor,Multilayer,Chip	3	C1206,C1328,C75013
373	EAE63682001	Capacitor,Ceramic,Chip	1	C4215
374	EAE62946901	Capacitor(High Frequency),Ceramic,Chip	1	C1263
375	ERHZ0000466	Resistor,Chip	1	R4704
376	ECCH0009209	Capacitor,Ceramic,Chip	2	L1310,L1315
377	EAE63067401	Capacitor,Ceramic,Chip	1	C7503
378	ECCH0009104	Capacitor,Ceramic,Chip	5	C1114,C1116,C1196,C1735,C1736
379	EAM62490301	Filter,Bead	1	FB5110
380	ERHY0009505	Resistor,Chip	2	R3208,R4713
381	EAP62108901	Inductor,Multilayer,Chip	3	L11104,L1119,L1180
382	EAP62226301	Inductor,Multilayer,Chip	1	L1760
383	EAE62762301	Capacitor,Ceramic,Chip	4	C1000
384	EAE62884201	Capacitor(High Frequency),Ceramic,Chip	2	C1754,L1333
385	ECCH0009504	Capacitor,Ceramic,Chip	2	C5110,C5134
386	EAE62506501	Capacitor,Ceramic,Chip	4	C4204,C4247,C4248,C5116
387	EAM63030601	Filter,Separator,Switch	1	FL1130
388	ECCH0009514	Capacitor,Ceramic,Chip	1	C5103
389	EAE62685301	Capacitor,Ceramic,Chip	2	C4706,C4770
390	EAP62226001	Inductor,Multilayer,Chip	2	C1104,C1772
391	EAE62502901	Capacitor,Ceramic,Chip	3	C4228,C4240,C5117
392	EAE63284001	Capacitor,TA,Polymer	1	C4251
393	EAE64061501	Capacitor,Ceramic,Chip	2	C1766,C1815
394	EAN63688501	IC,DC,DC Converter	1	U7500
395	EAP62526401	Inductor,Multilayer,Chip	1	C75014
396	EAE63162401	Capacitor,Ceramic,Chip	4	C4751,C4752,C4753,C7502
397	EAP62106301	Inductor,Wire Wound,Chip	1	L4203
398	EBC63175701	Resistor,Chip	1	R8915
399	EAP62108301	Inductor,Multilayer,Chip	2	L1230,L1247

400	EAP62108401	Inductor,Multilayer,Chip	2	C11104,L1249
401	ECCH0009106	Capacitor,Ceramic,Chip	5	C1199,C1205,C1264,C1324,C1745
402	EAM62872101	Filter,Saw	1	FL1103
403	EAP63266301	Inductor,Wire Wound,Chip	2	L4207,L4208
404	EAE62947001	Capacitor(High Frequency),Ceramic,Chip	4	C1300,C4200,C5102,C5111
405	EAM63790301	Filter,Separator,Switch	1	U1751
406	EAN63149601	IC,Sub PMIC	1	U4200
407	EAM63031001	Filter,Separator,Switch	1	U1301
408	EAG64451301	Connector,Terminal	2	CN1001,CN1002
409	EAP62266401	Inductor,Multilayer,Chip	2	C75011,L1109
410	ERHY0009584	Resistor,Chip	1	R2113
411	ECCH0009216	Capacitor,Ceramic,Chip	2	C2203,C4252
412	EAN62969801	IC,Hall Effect Switch	1	U8700
413	EAE62946601	Capacitor(High Frequency),Ceramic,Chip	2	C1311,C75008
414	EAP63345901	Inductor,Wire Wound,Chip	2	L6800,L6801
415	ERHY0035601	Resistor,Chip	1	R9102
416	EAE62946501	Capacitor(High Frequency),Ceramic,Chip	1	C1758
417	EAP62526501	Inductor,Wire Wound,Chip	1	L4201
418	EAP62108201	Inductor,Multilayer,Chip	2	C1149,C1303
419	EAP62886101	Inductor,Multilayer,Chip	1	C75002
420	EAG63652301	C-Clip	2	CN6202,CN6203
421	EAE62762501	Capacitor,Ceramic,Chip	1	C4225
422	ECCH0009520	Capacitor,Ceramic,Chip	1	C5135
423	EAW61883401	Crystal	1	X4100
424	EAM62870401	Filter,Duplexer	1	FL11350
425	EAE63143201	Capacitor,Ceramic,Chip	4	C1304,C1307,C1312,C4250
426	EAP62226601	Inductor,Multilayer,Chip	2	L1192,L1318
427	ERHY0042406	Resistor,Chip	3	R4206,R4218,R4235
428	EAN62698301	IC,WiFi	1	U5100
429	EAM63310001	Filter,LCR	1	FL1501
430	EAP63146501	Inductor,Multilayer,Chip	1	L4200
431	EAN63790101	IC,RF Amplifier	1	U1200
432	EAE63882401	Capacitor,Ceramic,Chip	1	C4214
433	EAE63702301	Capacitor,Ceramic,Chip	1	C4208
434	EAP62226401	Inductor,Multilayer,Chip	2	C11121,L1307
435	EAE62685201	Capacitor,Ceramic,Chip	2	C4707,C4749
436	EAE62962201	Capacitor(High Frequency),Ceramic,Chip	1	L1323
437	EDTY0010002	Diode,TVS	1	D9100
438	EAM63130401	Filter,Duplexer	1	FL1212
439	ECCH0009502	Capacitor,Ceramic,Chip	5	L1174,L1175,L1303,L1309,L1332

440	EAV62193601	LED,Chip	1	LD8900
441	EAE63703001	Capacitor,Ceramic,Chip	1	C4213
442	EAE62927201	Capacitor,Ceramic,Chip	1	C4235
443	EAP62108701	Inductor,Multilayer,Chip	2	L1251,L1331
444	EAM62771001	Filter,Saw	1	FL1100
445	EAE62685701	Capacitor,Ceramic,Chip	2	C4700,C4713
446	EAP61767801	Inductor,Multilayer,Chip	1	C1751
447	EAV62251901	LED,Chip	1	LD4600
448	EAN62957701	IC,Mobile SDRAM	1	U3100
449	ERHY0009547	Resistor,Chip	1	R2118
450	EAP62187501	Inductor,Multilayer,Chip	1	L5103
451	ERHY0009502	Resistor,Chip	1	R5199
452	ERHY0009515	Resistor,Chip	1	R5111
453	ERHZ0000213	Resistor,Chip	1	R4100
454	EAT62994301	Module,Rx Module	1	U1201
455	EAM63330901	Filter,Ceramic	1	FL1500
456	EAE63541901	Capacitor,Ceramic,Chip	1	C4207
457	EAP62186301	Inductor,Multilayer,Chip	2	C1121,L1754
458	ECZH0025917	Capacitor,Ceramic,Chip	1	C9103
459	ERHY0009303	Resistor,Chip	1	R5103
460	EAP62108601	Inductor,Multilayer,Chip	1	L11112
461	EAN63788301	IC,RF Amplifier	1	FL1105
462	EAM63730401	Filter,Bead	1	FB4200
463	EAM62910201	Filter,Separator	1	FL1101
464	ECCH0007805	Capacitor,Ceramic,Chip	2	C4187,C4189
465	EAW62663501	Crystal	1	X5100
466	EAP62946701	Inductor,Wire Wound,Chip	1	L4205
467	EAN63788901	IC,Charger	1	U4750
468	EAP63485901	Inductor,Multilayer,Chip	1	L75010
469	EAE62945801	Capacitor(High Frequency),Ceramic,Chip	2	C1732,L1304
470	EAE62946401	Capacitor(High Frequency),Ceramic,Chip	1	C1730
471	EAP62108101	Inductor,Multilayer,Chip	1	C1315
472	SAD35499501	Software,Mobile	1	SAD010000
473	AGF78161434	Package Assembly	1	AGF000000
474	AGJ74298302	Pallet Assembly	1	AGJ000000
475	MLAZ0050901	Label	0	MEZ000000
476	MLAJ0004402	Label,Master Box	0	MEZ047200
477	MBL66738102	Cap,Box	0	MBL007000
478	MAY67313301	Box,Carton	0	MAY010800
479	MPCY0012403	Pallet	0	MGA000001

480	MAY67271602	Box,Pallet Sleeve	0	MAY115200
481	MEZ65773006	Label,Unit Box	1	MEZ084101
482	MEZ66471906	Label,Model	1	MEZ049601
483	MLAJ0004402	Label,Master Box	0	MEZ047200
484	MLAZ0037104	Label	1	MEZ084000
485	MAY67290304	Box,Unit	1	MAY084002
486	MAY67290303	Box,Unit	1	MAY084003
487	MAY67332802	Box,Master	0	MAY047101
488	AAD87656568	Addition Assembly	1	AAD000000
489	ACQ87865352	Cover Assembly,Battery	1	ACQ00
490	MCK68551952	Cover,Battery	1	MCK004100
491	MHK65065202	Sheet	1	MHK000000
492	EAA63925601	PIFA Antenna,RF	1	EAA030101
493	MJN69790101	Tape,Protect	1	MJN061101
494	MJN69587201	Tape,Protect	1	MJN061100
495	MHR62533258	Sleeve,Box	1	MHR007000
496	MFL69153701	Manual,Operation	0	MFL053800
497	ACQ88373052	Cover Assembly,Battery	1	ACQ04
498	EAA63925601	PIFA Antenna,RF	1	EAA030101
499	MAF63267417	Bag,Vinyl	1	MAF086500
500	MCK69005852	Cover,Battery	1	MCK004100
501	MEZ66435502	Label,Barcode	1	MEZ003500
502	MHK65065205	Sheet	1	MHK000000
503	AFN77238801	Manual Assembly,Operation	1	AFN053800
504	MBM65207701	Card,Service Guide	1	MBM068900
505	MBM65204801	Card,Quick Reference	1	MBM062600
506	MBM64995904	Card,Warranty	1	MBM087200
507	MBM65207801	Card,Service Guide	1	MBM068901
508	EAB63728201	Earphone,Stereo	1	EAB010200
509	EAC62818401	Rechargeable Battery,Lithium Ion	1	EAC00
510	EAD63665203	Cable,Assembly	1	EAD010000
511	EAY64268602	Adapters	1	EAY060000
512	SAF30440014	Software Assembly,Common	1	SAF010100
513	SAD35557607	Software,OSP	1	SAD010600
514	SAD35539707	Software,USB Driver	1	SAD010500
515	SAD35472101	Software,Application	1	SAD010100