



MOBILE PHONE SERVICE MANUAL

CAUTION

BEFORE SERVICING THE UNIT, READ THE "SAFETY PRECAUTIONS" IN THIS MANUAL

MODEL : LG-K350ds

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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

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(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
LTE3	1710 – 1785	1805 – 1880
LTE7	2500 – 2570	2620 – 2690
LTE28	703 – 748	758 - 803

2.2 HW Features

List	Type / Spec.	
1. Phone Type	DOP Type	
2. Size	144.7mm x 71.5mm x 8.7mm	
3. Weight	140 g (with Battery)	
4. Battery	2,125mAh(Typ) (Li-Ion) , 2,045mAh(Min.)	
5. Chipset	MT6735 1.3GHz Quad core	
6. Memory	16GB(EMMC) + 1,024MB(LPDDR3) External Memory(SD Card) : Up to 32GB	
7. LCD	Size	5 inch
	Display Type	Active matrix TFT, Transmissive Type
	Color	16.7M colors
	Resolution	1280(H) X 720(V), 294ppi
8. Touch	Type	5 inch Capacitive type/ In-cell
9. Main Camera (5M)	Type	CMOS image sensor
	Resolution	2592(H) X 1944(V) pixels.
	Image Scaling Down	5M(2560x1920), W4M(2560x1536)), 3M(1920x1920), 1M(1280x960)
	Format	Image : JPG, Video : MP4

2.2 HW Features

10. Audio	Receiver	12 X 06 X 2.5T Receiver
	Speaker	16 X 12 X 2.6T Speaker
	Format	MP3, AAC, MIDI, EAAC+, OGG, AMR
11. Bluetooth	Standard	Bluetooth 4.2
	Effective Distance	10M
	Distance	0 m ~ 10 m (depend on environment)
12. WLAN	Standard	IEEE 802.11 b/g/n
	Throughput	Max 40Mbps (SDIO Driver performance)
	Depend on environment	0 ~ 50m (depend on environment)
13. GPS	type	A-GPS, GLONASS
14. FM	type	FM Radio, 3.5pi Ear-jack

2. PERFORMANCE

2.3 RSSI Display

RSSI BAR	GSM RSSI	WCDMA RSSI	LTE RSSI	Comment
BAR 5->4	- 90dBm± 3dB	- 84dBm± 4dB	-85dBm ± 4dB	1. Call Connected & CPIPH Level=-3.3
BAR 4->3	- 95dBm± 3dB	- 89dBm± 4dB	-95dBm ± 4dB	
BAR 3->2	- 98dBm± 3dB	- 95dBm± 4dB	-105dBm ± 4dB	
BAR 2->1	- 102dBm± 3dB	- 99dBm± 4dB	-115dBm ± 4dB	
BAR 1->0	- 104dBm± 3dB	- 105dBm± 4dB	-128dBm ± 4dB	

2.4 Current consumption

	Specification		
	GSM	WCDMA	LTE
1. Sleep Mode (Sleep & Idle Avg)	8mA↓@ P.P 5	8mA↓@ DRX 7	8mA↓@ 2.56s
2. Standby (With Earjack)	10mA↓@ P.P 5	10mA↓@ DRX 7	10mA↓@ 2.56s
3. Standby (BT Connected)	10mA↓	10mA↓	10mA↓
4. Talk Mode	-GSM LVL0 : 400mA↓@ Avg	-Max Pwr : 650mA↓@Avg -Tx 10dBm : 260 mA↓@ Avg	-Max Pwr(LCD Off) 850mA↓@Avg -Tx 10dBm(LCD Off) 400mA↓@ Avg
5. No SVC Mode	200mA↓	200mA↓	200mA↓
6. Power Off Mode	1mA↓	1mA↓	1mA↓

2.5 Battery bar

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

※Cut Off Voltage : 3.45 ± 0.1 V

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 / QuickMemo/ Gallery / Camera	
PC Sync	Yes	LG Bridge
Speed Dial	Yes	Voice mail center -> 1 key
Profile	Yes	not same with feature phone setting
CLIP / CLIR	Yes	
Phone Book	Name / Number / Email / Groups / Postal addresses / Organizations / IM / Note / Nickname / Website / Event /	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	Yes	
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	
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	Yes	
EMS Melody / Picture Send / Receive / Save	No	
MMS MPEG4 Send / Receive / Save	Yes	<ul style="list-style-type: none"> ➤ Send / Receive : Yes ➤ Save : depends on content type Support video content type list <ol style="list-style-type: none"> 1. video/mp4 2. video/h263 3. video/3gpp2 video/3gpp
Long Message	MAX 2000 characters	The standard of Open vender
Cell Broadcast	Yes	CB app supports Cell Broadcast message
Download	Over the Web	
Game	No	
Calendar	Yes	
Memo	Yes	There is no limitation on the number of items. It depends on available memory amount.
World Clock	Yes	

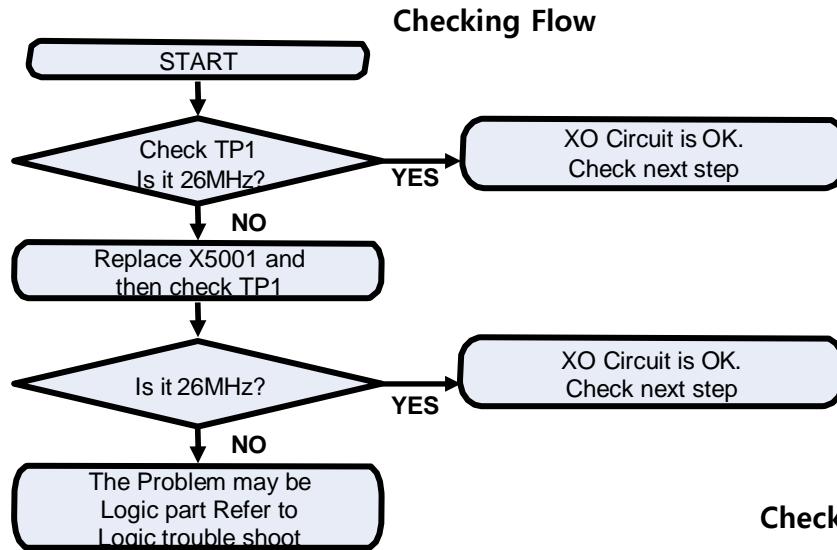
2.6 SW Specification

Unit Convert	No	
Stop Watch	Yes	
Wall Paper	Yes	
WAP Browser	No	WAP stack and wml are not supported.
Download Melody / Wallpaper	Yes	Ringtone and wallpaper can be downloaded in LG SmartWorld app.
SIM Lock	No	
SIM Toolkit	Yes	
MMS	Yes	Google MMS Client
EONS	Yes	
CPHS	Yes	V4.2
ENS	No	
Camera	Yes	8M AF / Digital Zoom : x4
JAVA	No	
Voice Dial	No	US English only
IrDa	No	IrRC
Bluetooth	Yes	Ver. 4.2
FM radio	Yes	
GPRS	Yes	Class 12
EDGE	Yes	Class 12(Rx only)
Hold / Retrieve	Yes	
Conference Call	Yes	Max. 6
DTMF	Yes	
Memo pad	No	
TTY	No	
AMR	Yes	
SyncML	No	
IM	Yes	Google Hangout
Email	Yes	

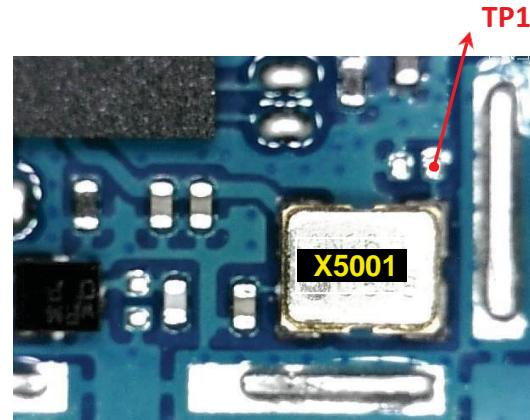
3. TROUBLE SHOOTING

3.1 Checking XO Block

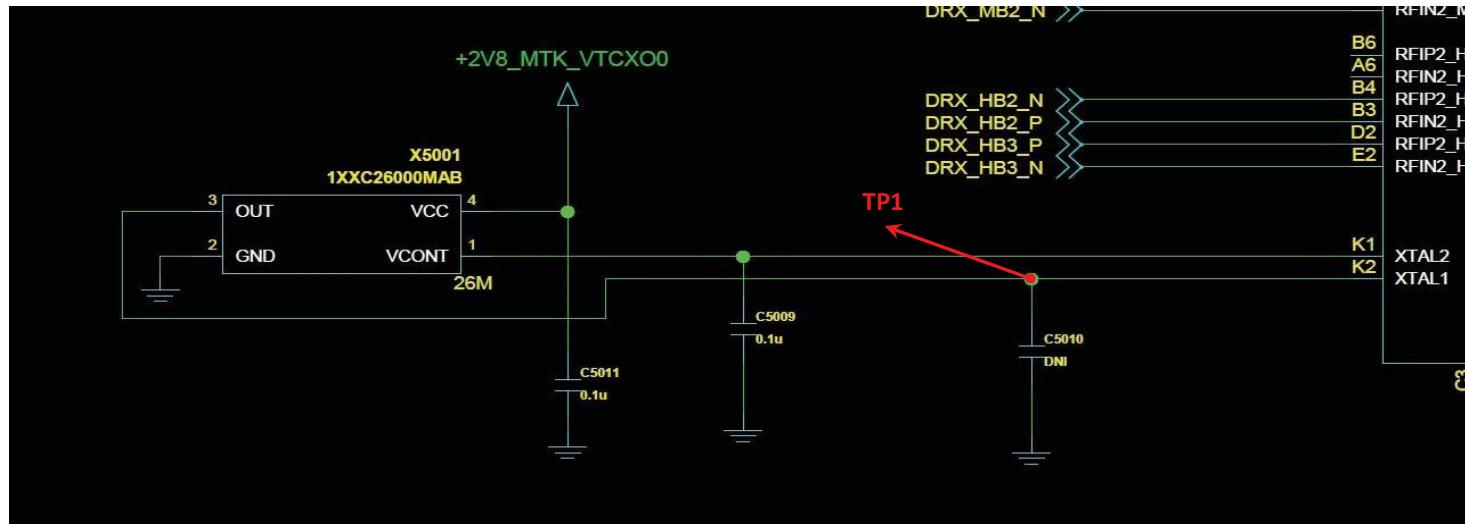
The out put frequency(26MHz) of VTCXO(X5001) is used as the reference one of MT6169



Image



Checking Flow

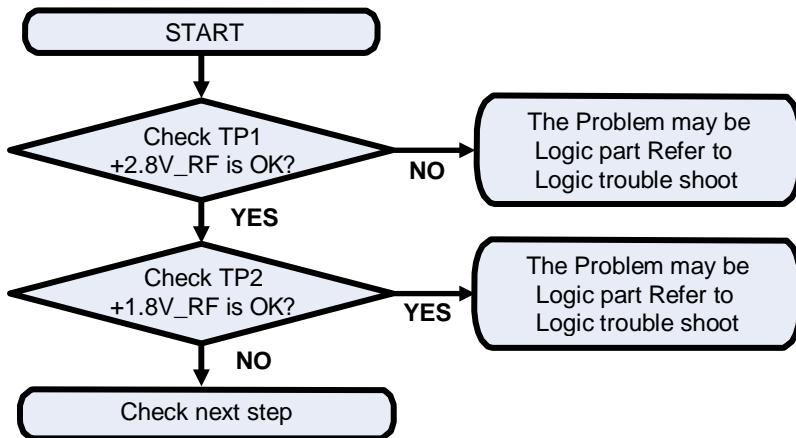


3. TROUBLE SHOOTING

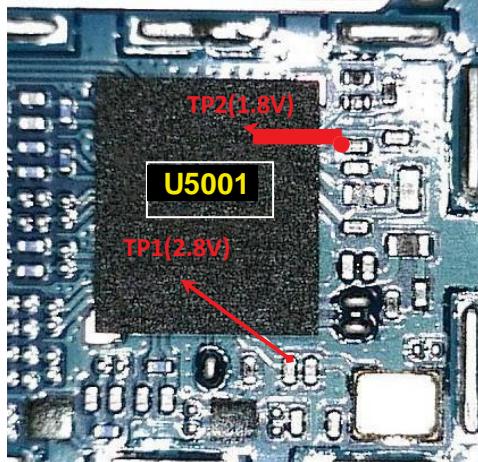
3.2 Checking Transceiver DC Power Supply Circuit Block

The MT6169 operating voltages used two voltage sources 1.8V and 2.8V

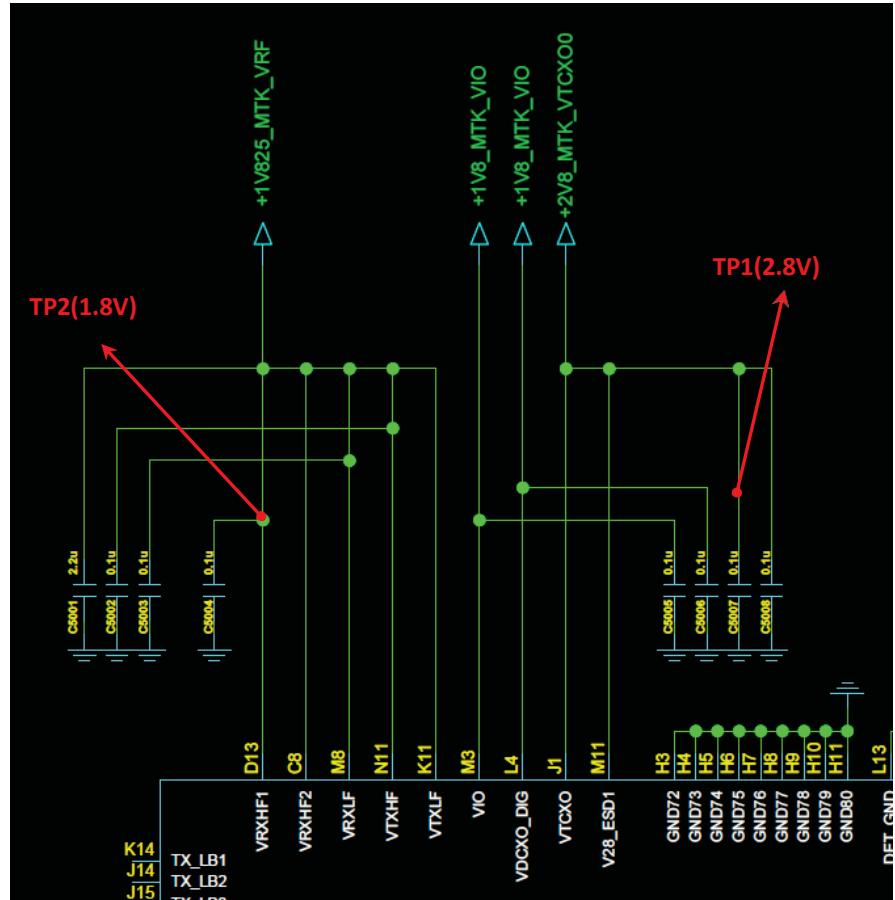
Checking Flow



Image



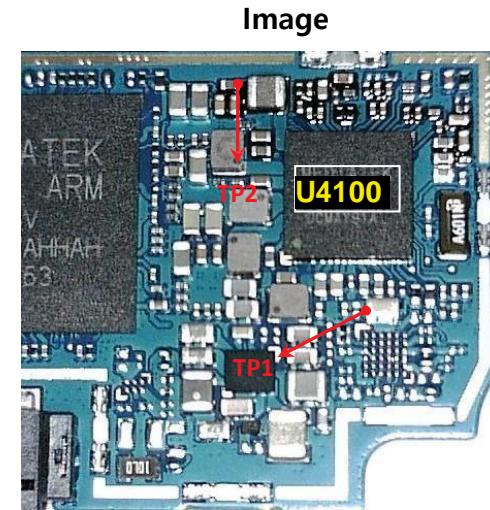
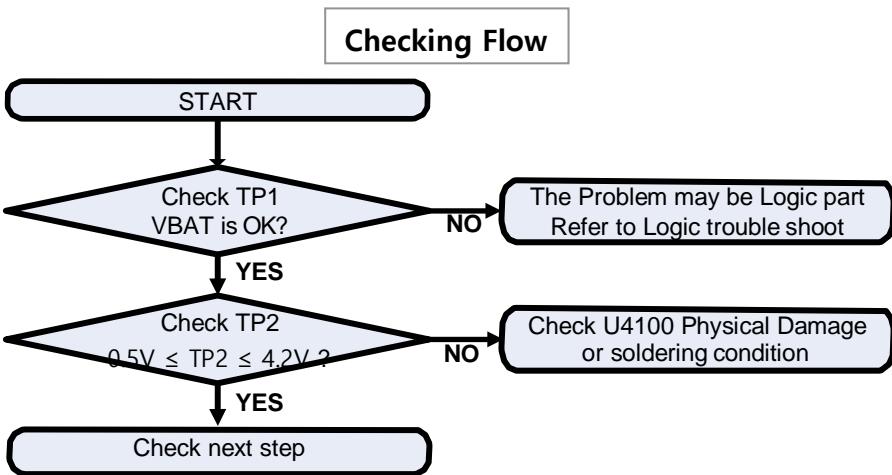
Circuit Diagram



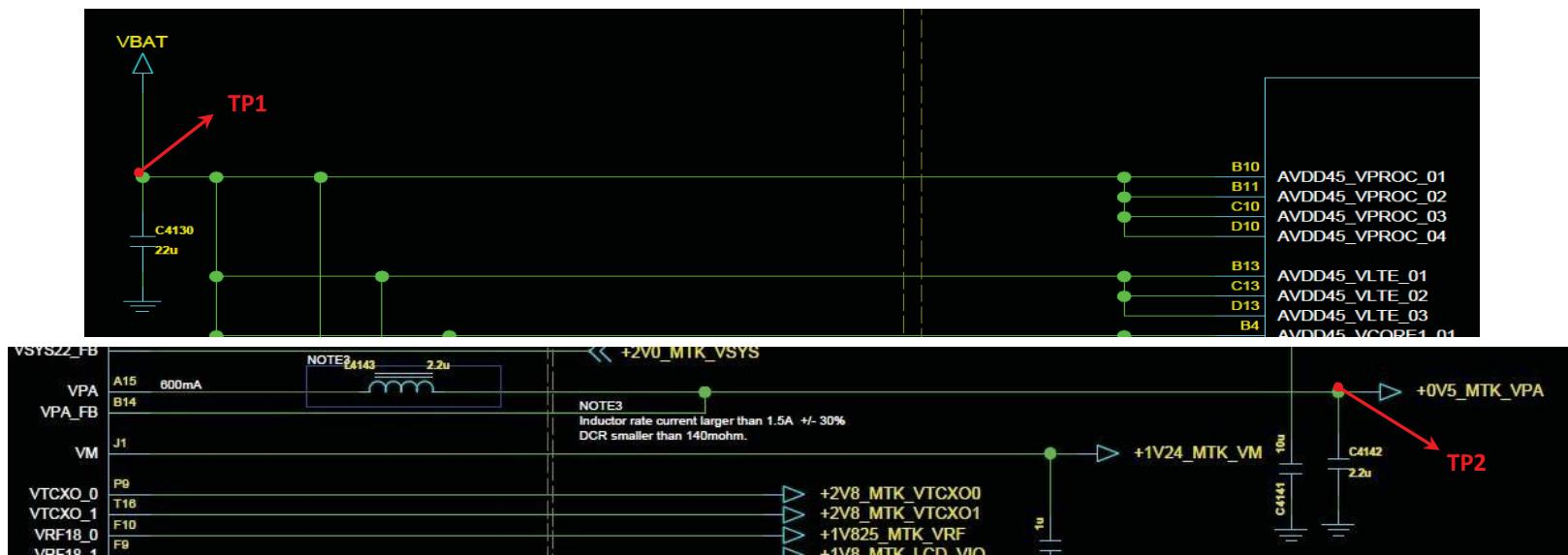
3. TROUBLE SHOOTING

3.3 Checking DC-DC Block

The DC-DC(MT6328, U4100) output voltages is used as the reference one of SKY77643-31



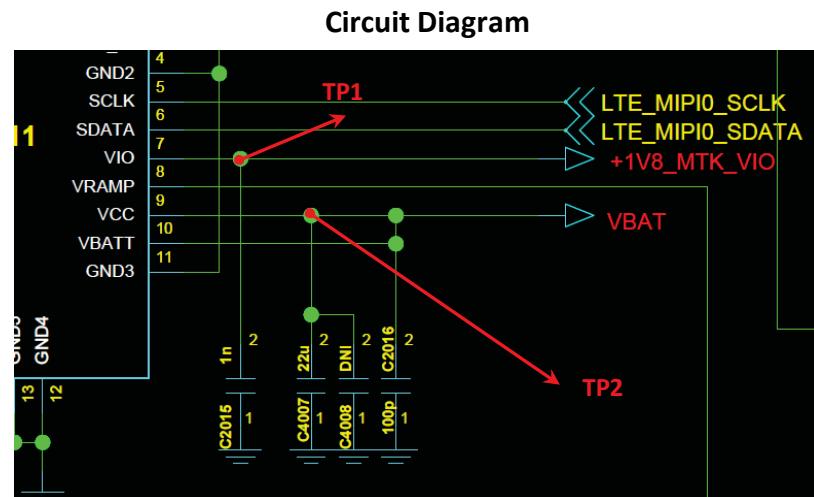
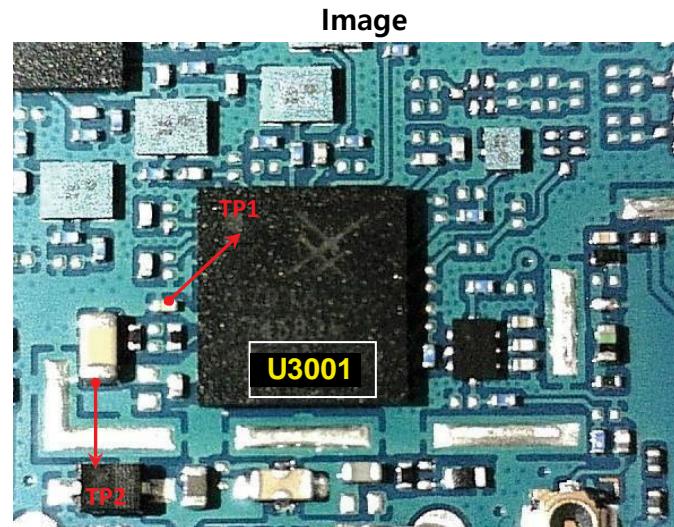
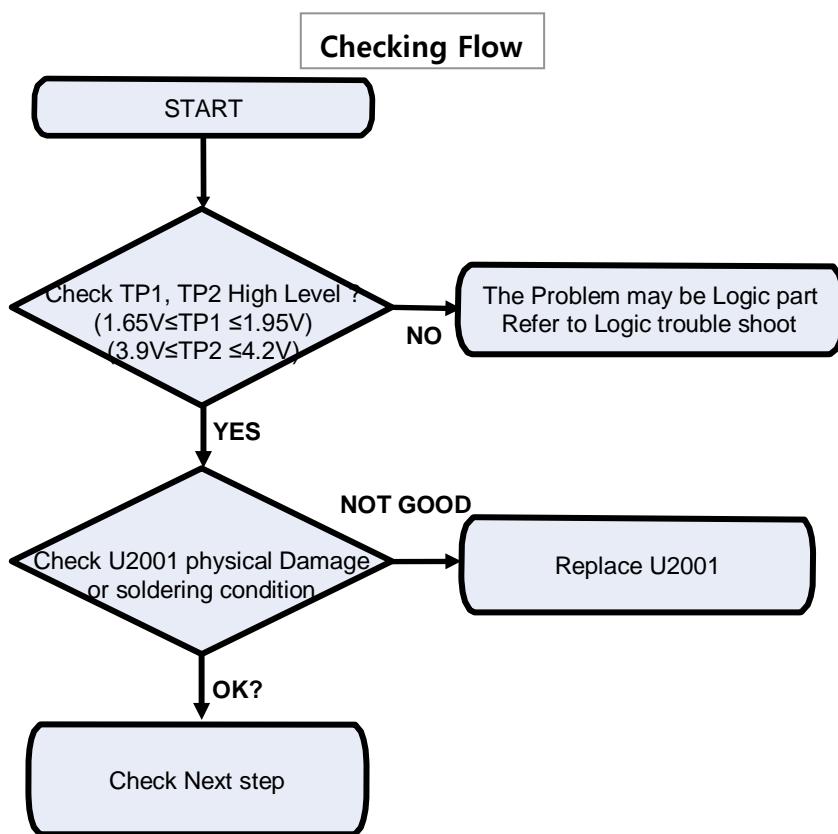
Circuit Diagram



3. TROUBLE SHOOTING

3.4 ASM(Antenna Switch Module) Block

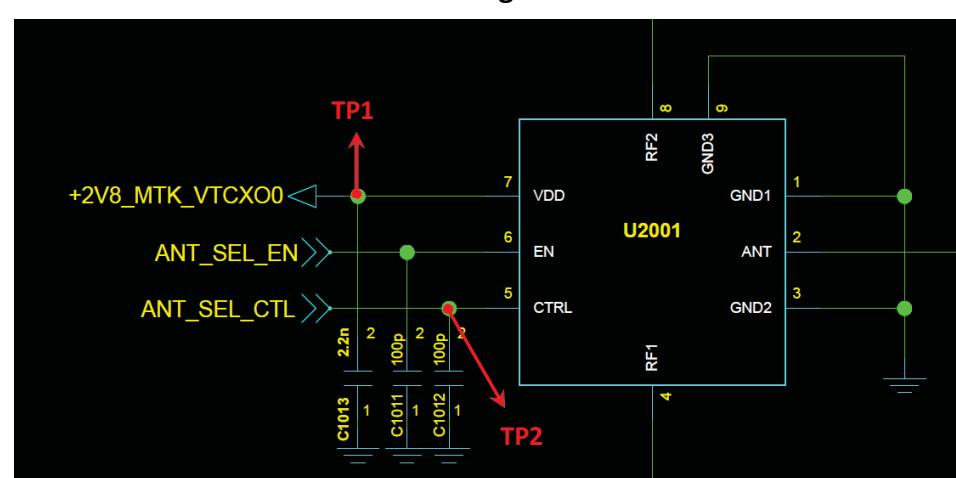
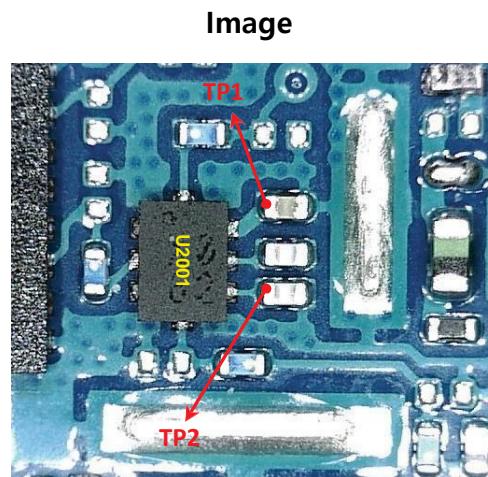
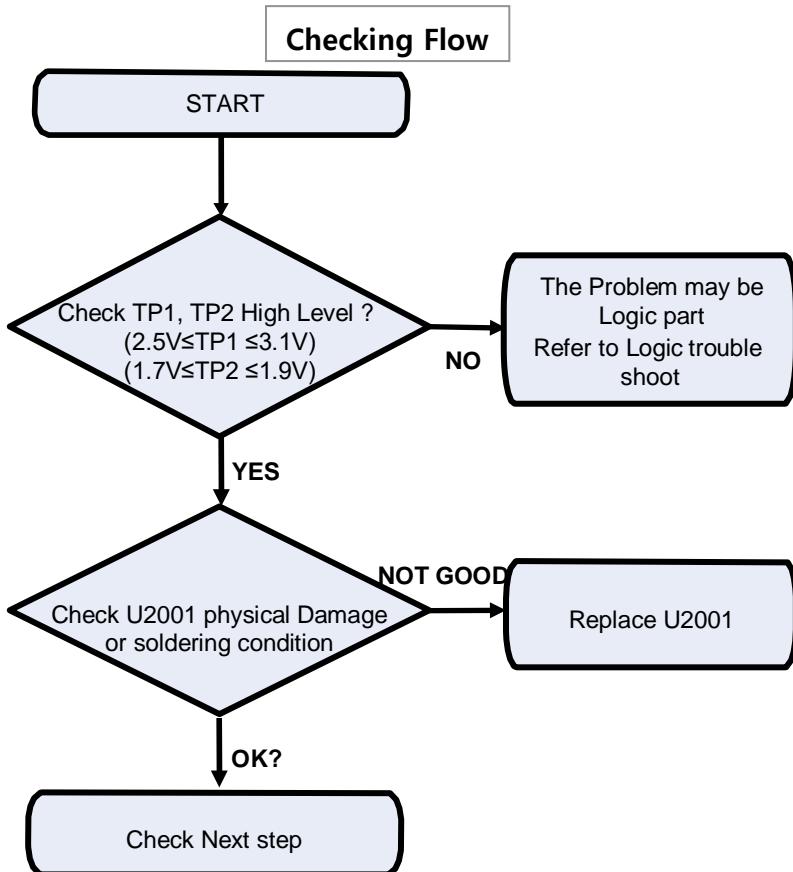
3.4.1 Checking ANT #1 ASM (GSM 850/900, W B5/8, LTE B7/28)



3. TROUBLE SHOOTING

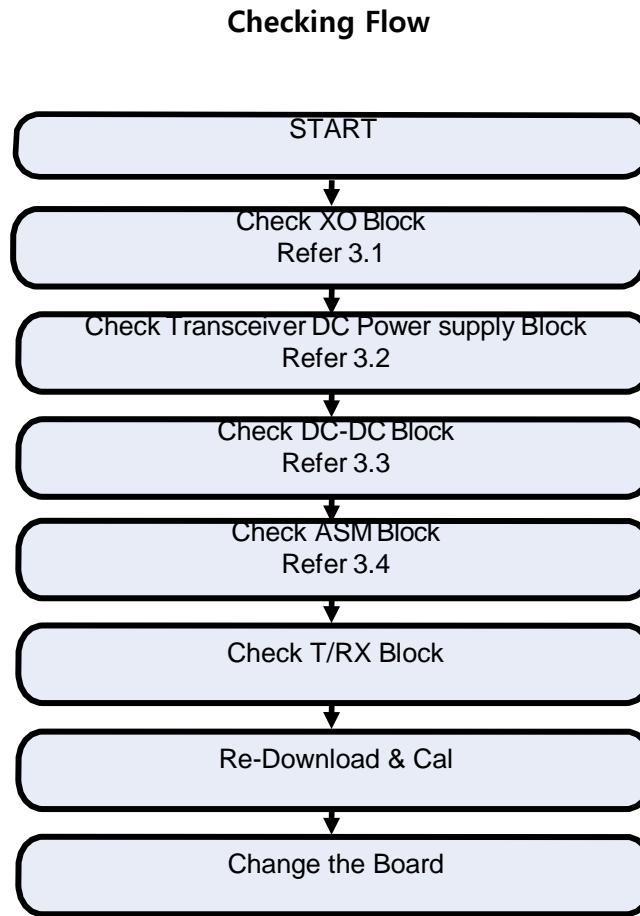
3.4 ASM(Antenna Switch Module) Block

3.4.2 Checking ANT #2 ASM (GSM 1800/1900, W B1 B2, LTE B3)



3.5 GSM RF PART

GSM RF Part support GSM850/900/1800/1900 with ASM, PAM, Transceiver component

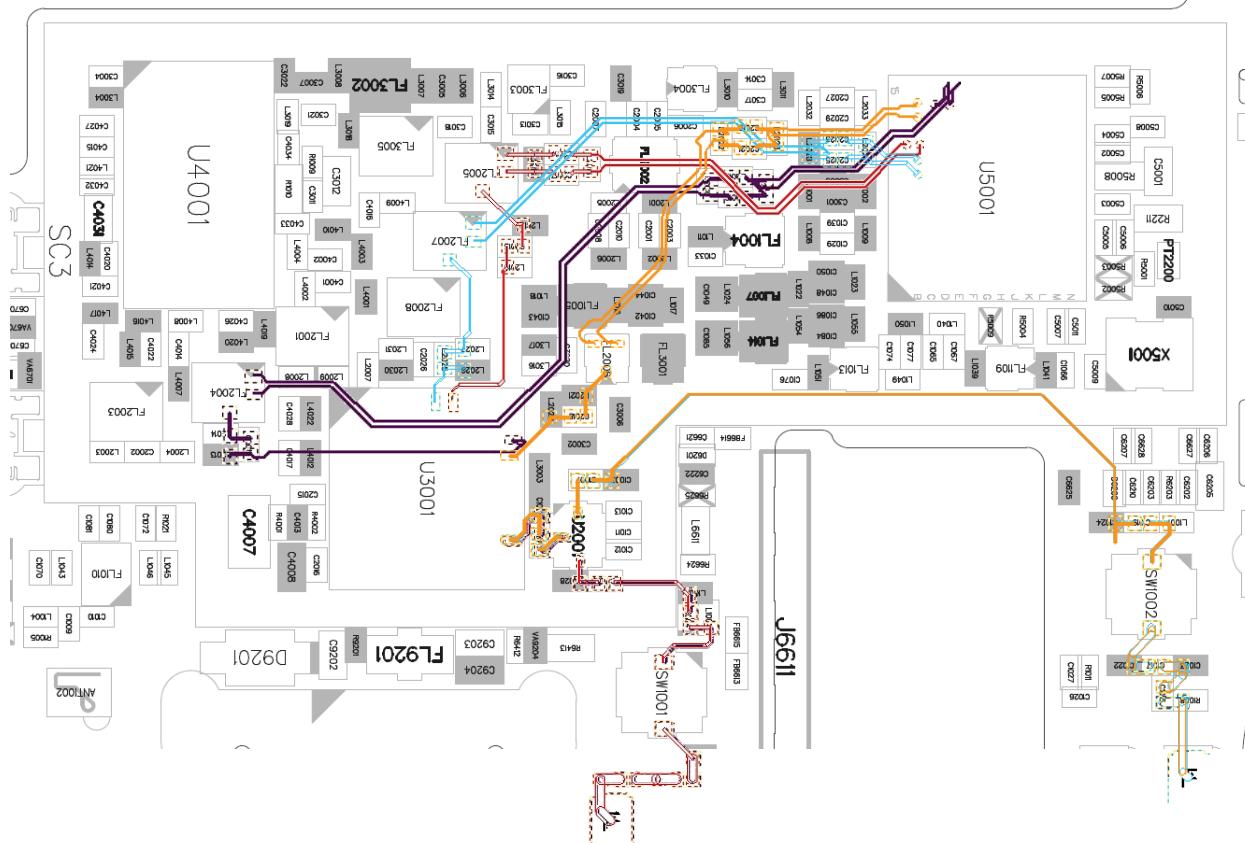


3. TROUBLE SHOOTING

3.5 GSM RF PART

3.5.1 GSM RF Part RX RF PATH

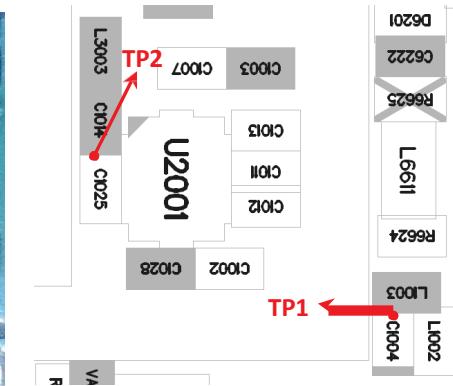
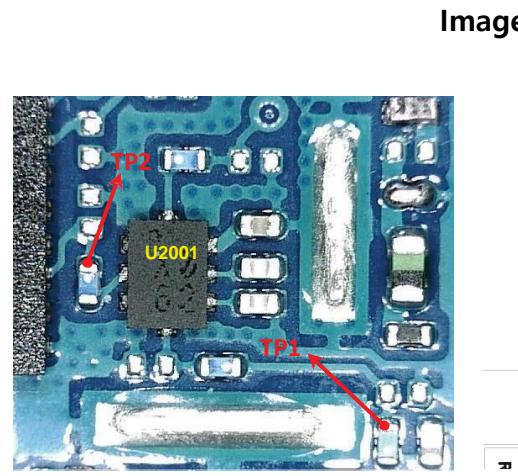
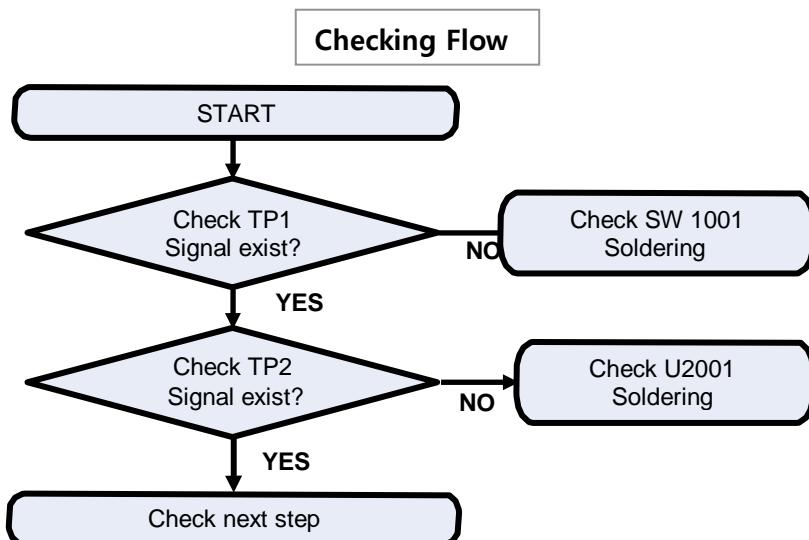
GSM850 RX PATH
GSM900 RX PATH
GSM1800 RX PATH
GSM1900 RX PATH



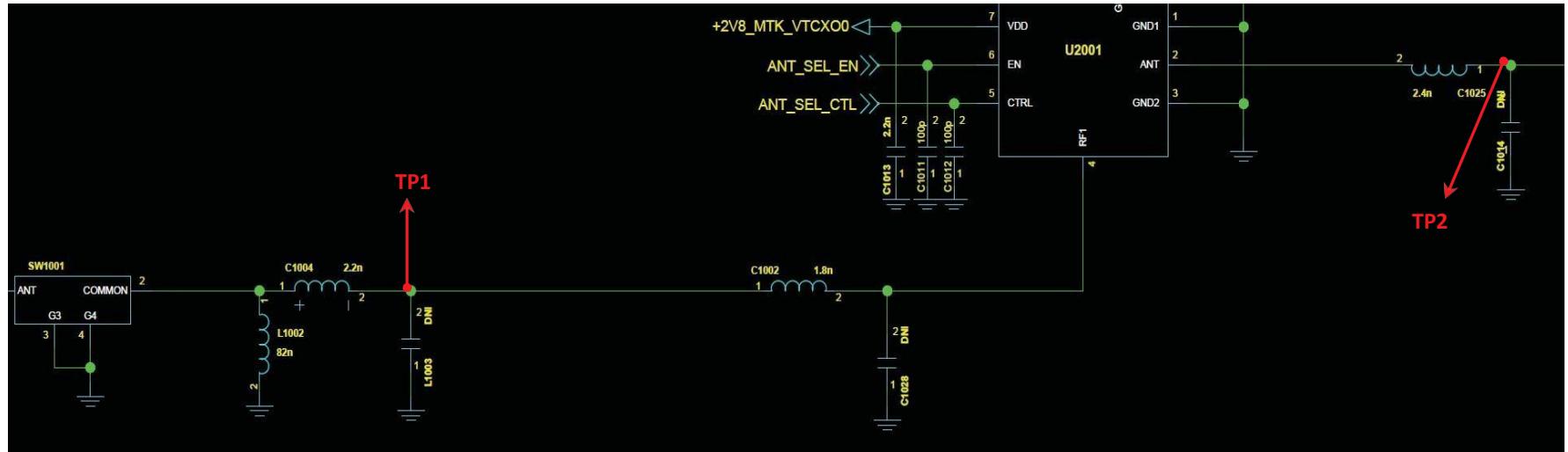
3. TROUBLE SHOOTING

3.5 GSM RF PART

3.5.2 Checking RF Signal RX path(SW, GSM850/900)



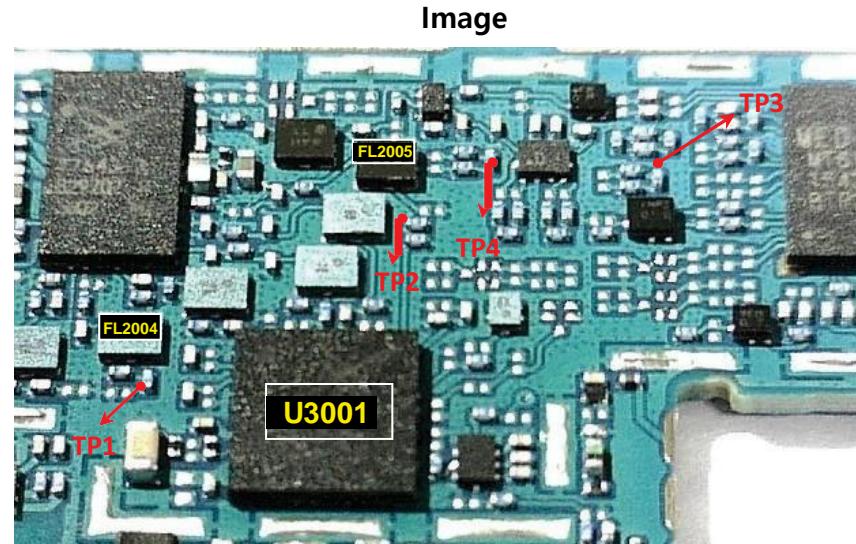
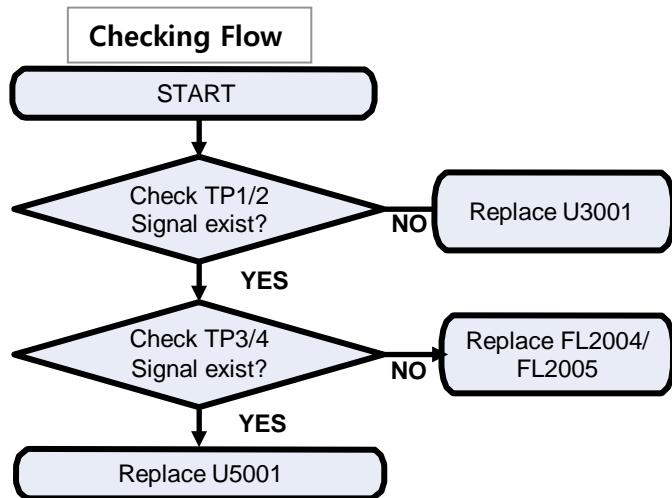
Circuit Diagram



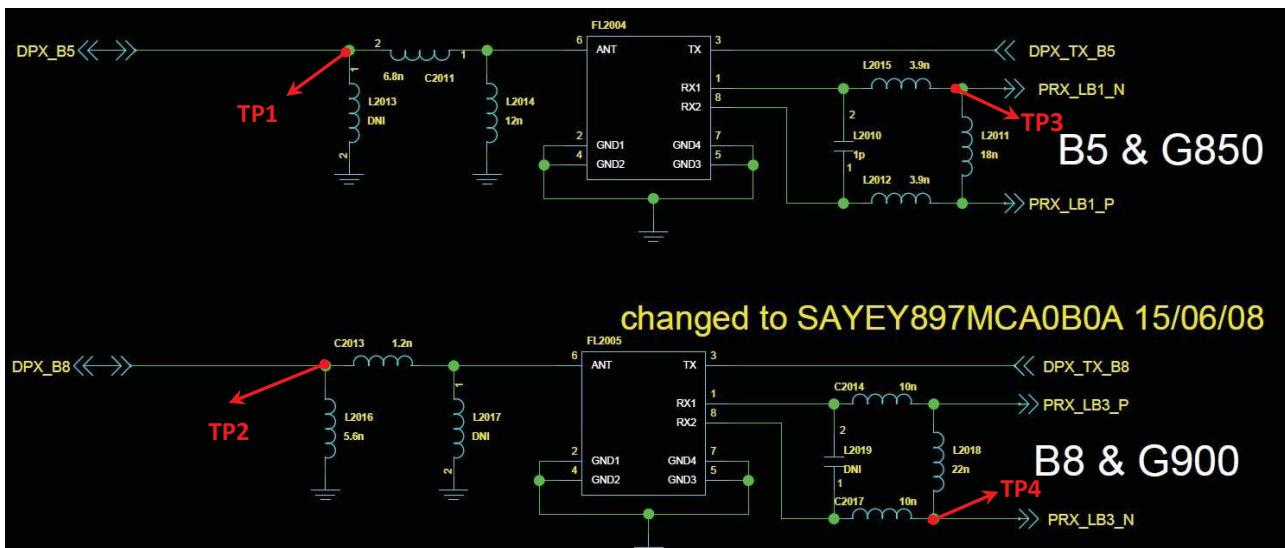
3. TROUBLE SHOOTING

3.5 GSM RF PART

3.5.3 Checking RF Signal RX path(GSM850/900)



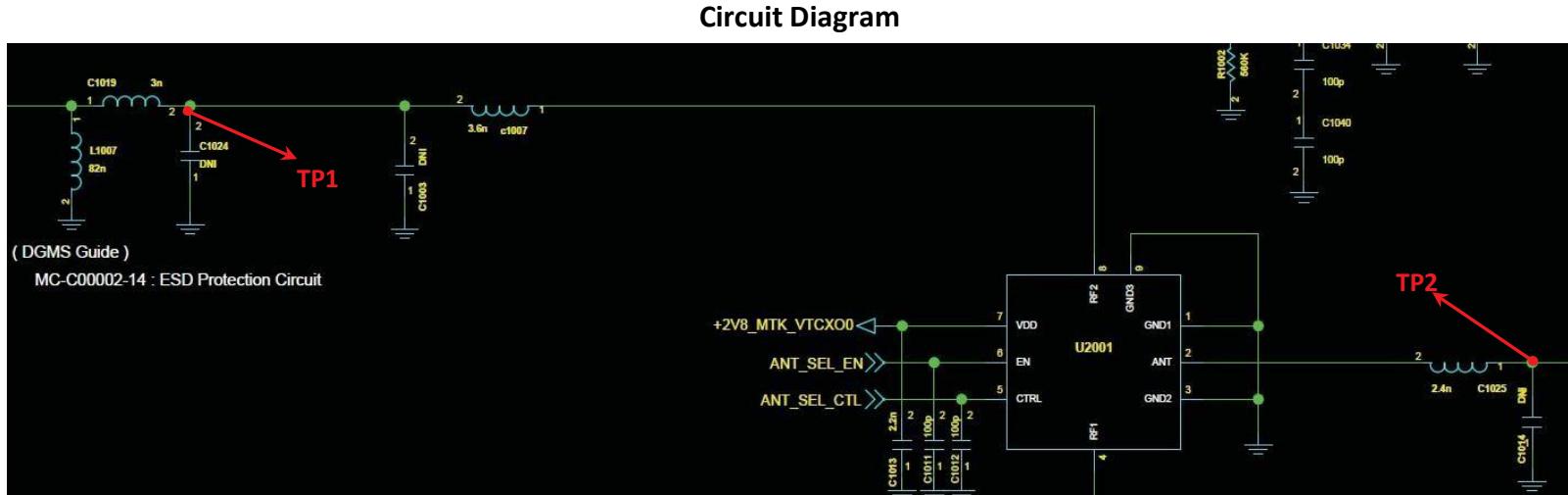
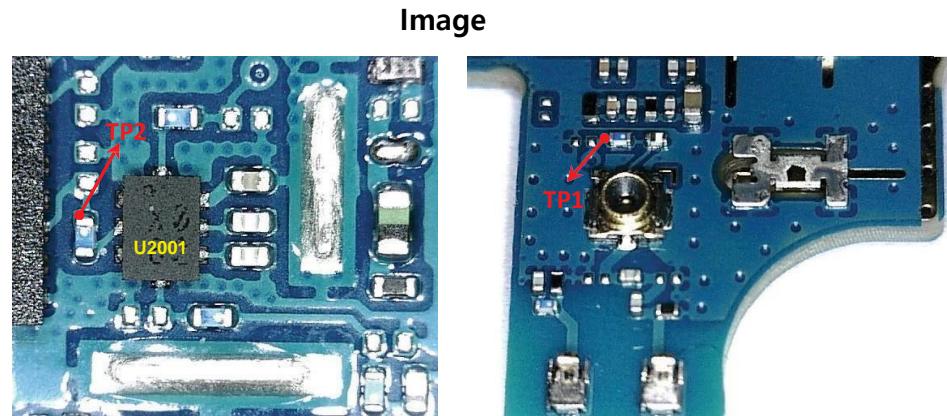
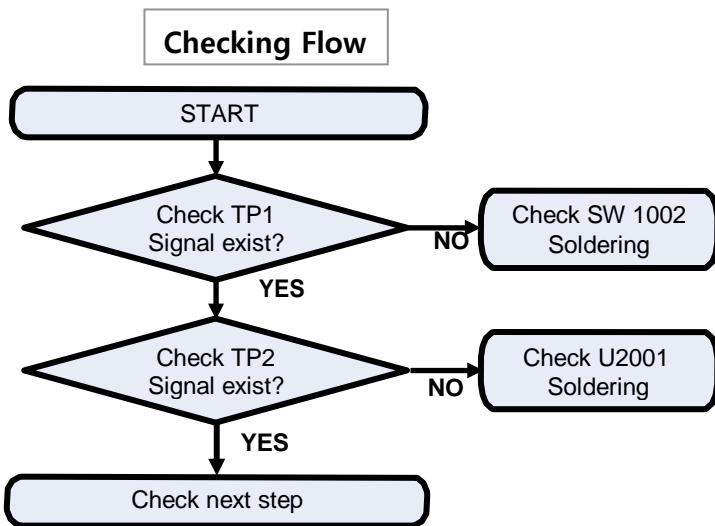
Circuit Diagram



3. TROUBLE SHOOTING

3.5 GSM RF PART

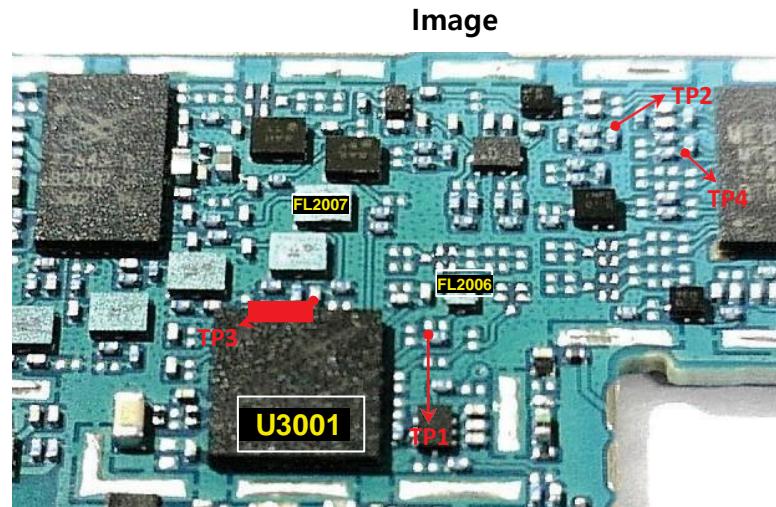
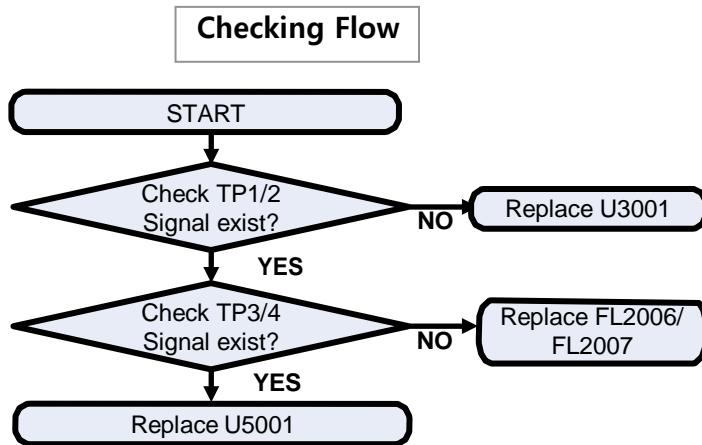
3.5.4 Checking RF Signal RX path(GSM1800/1900)



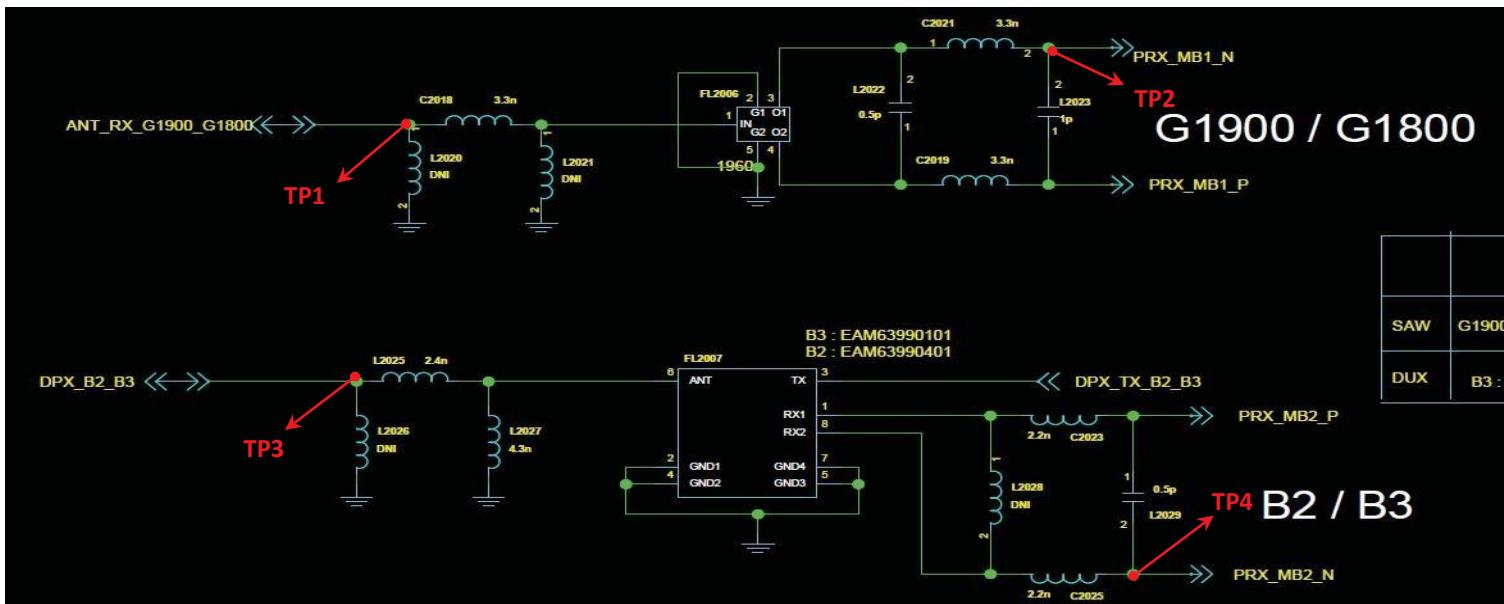
3. TROUBLE SHOOTING

3.5 GSM RF PART

3.5.5 Checking RF Signal RX path(GSM1800/1900)



Circuit Diagram



3. TROUBLE SHOOTING

3.5 GSM RF PART

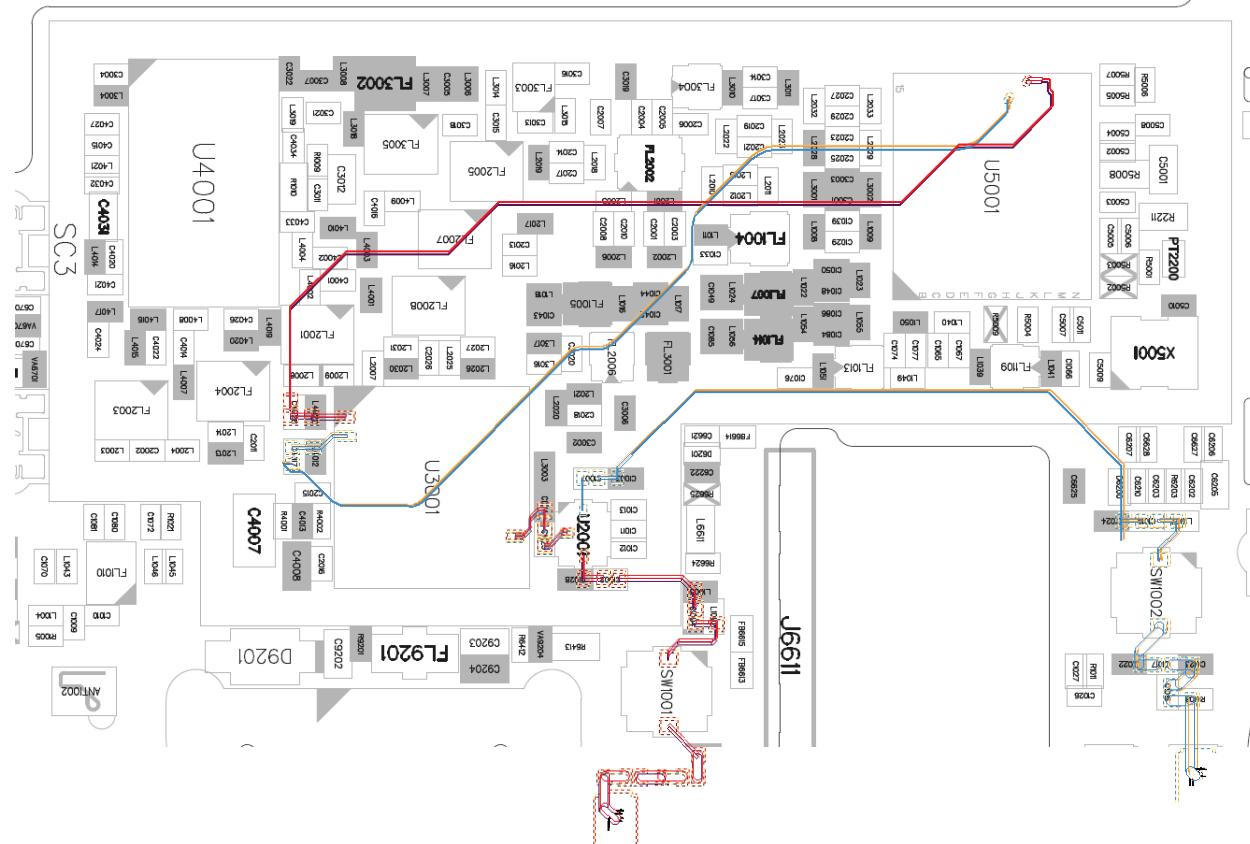
3.5.6 GSM RF Part TX RF PATH

GSM850 TX PATH

GSM900 TX PATH

GSM1800 TX PATH

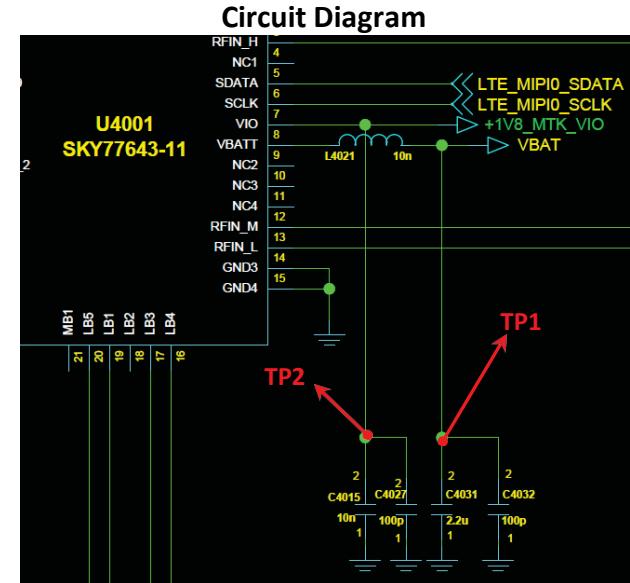
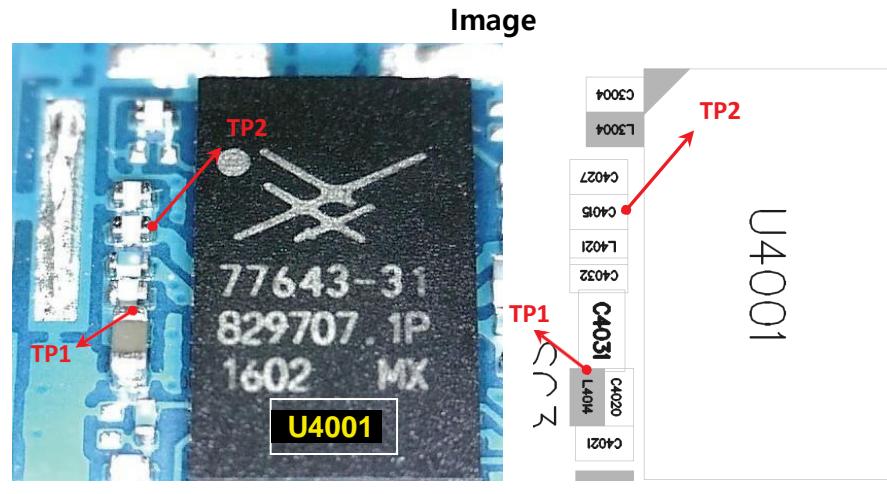
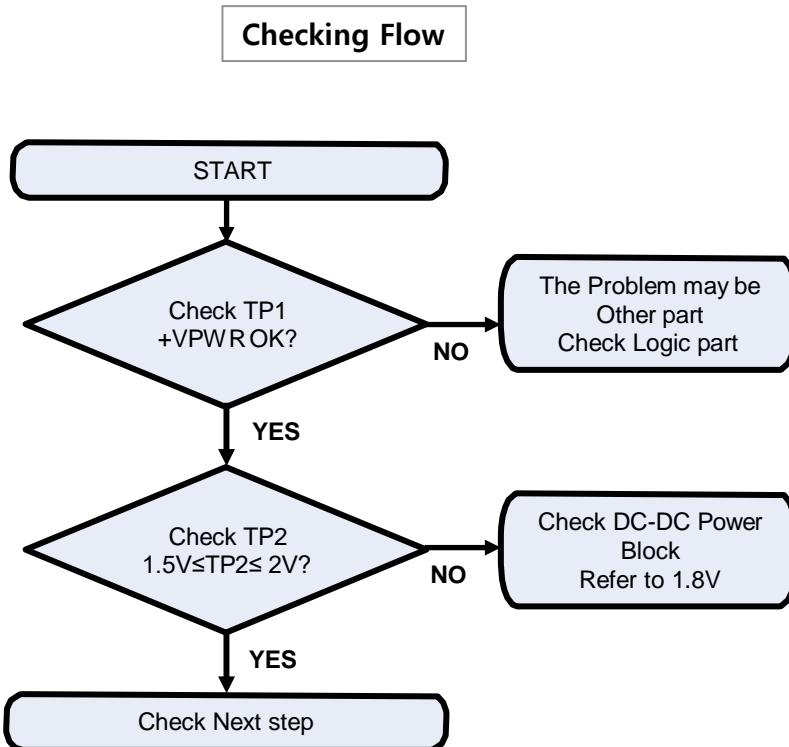
GSM1900 TX PATH



3. TROUBLE SHOOTING

3.5 GSM RF PART

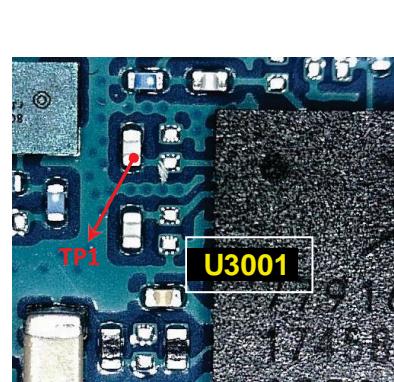
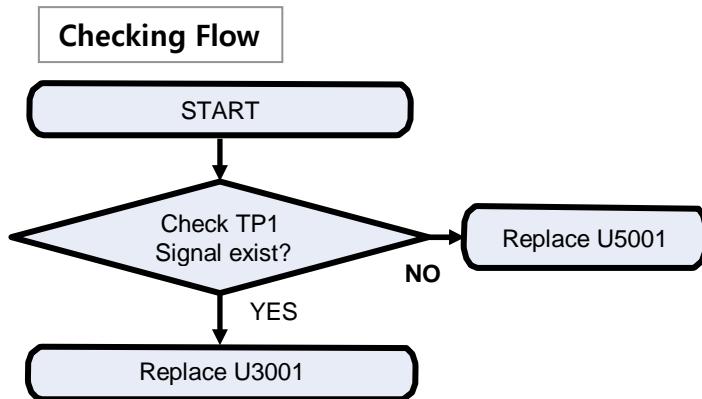
3.5.7 Checking GSM PAM DC Power Circuit



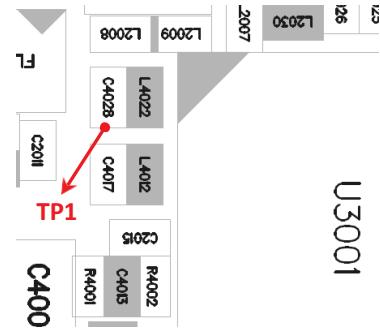
3. TROUBLE SHOOTING

3.5 GSM RF PART

3.5.8 Checking RF Signal TX path(GSM850/900)

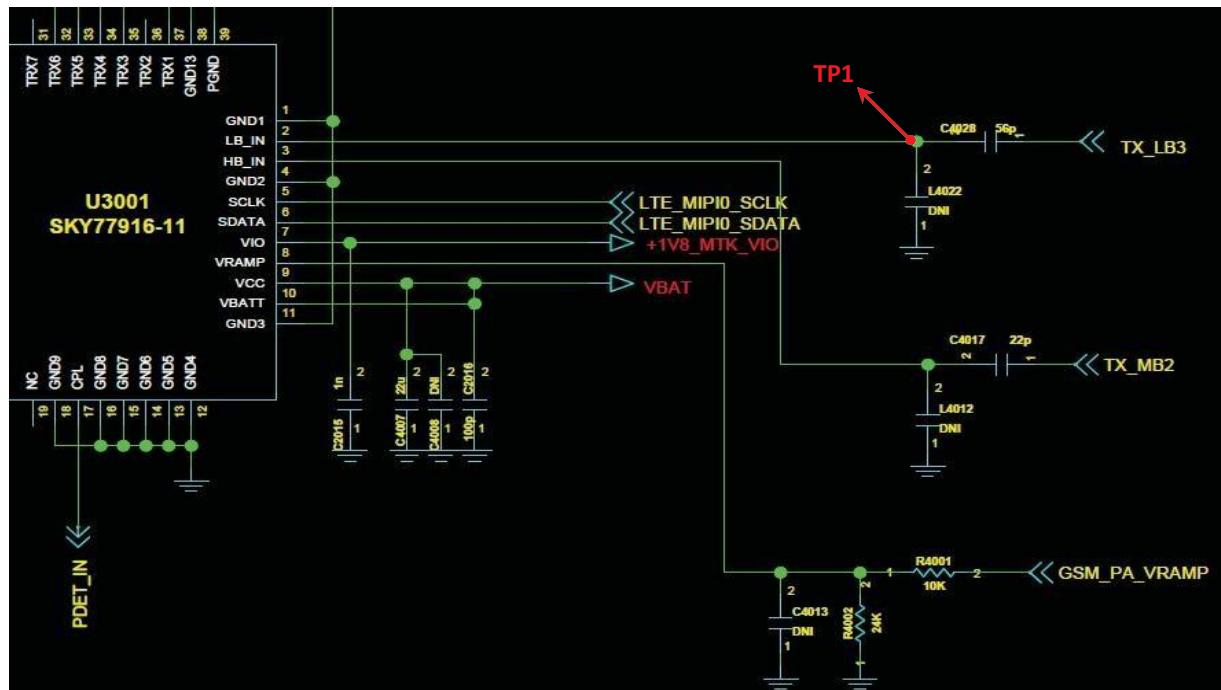


Image



U3001

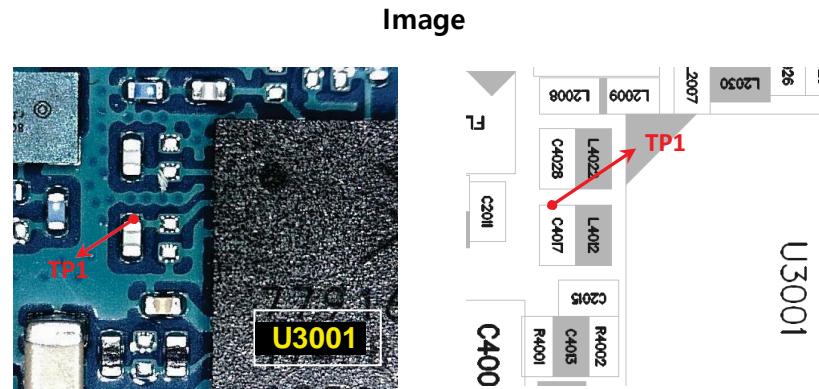
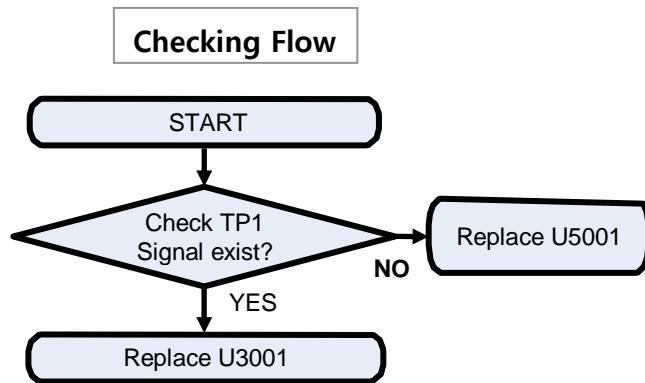
Circuit Diagram



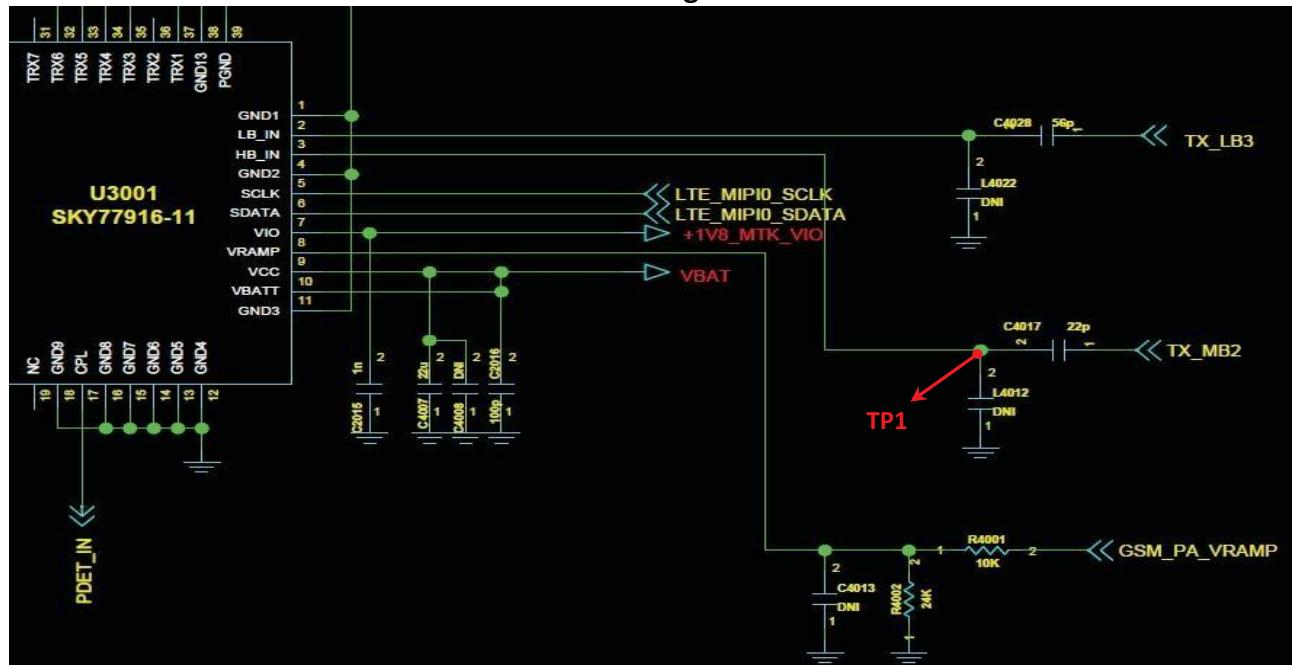
3. TROUBLE SHOOTING

3.5 GSM RF PART

3.5.9 Checking RF Signal TX path(GSM1800/1900)



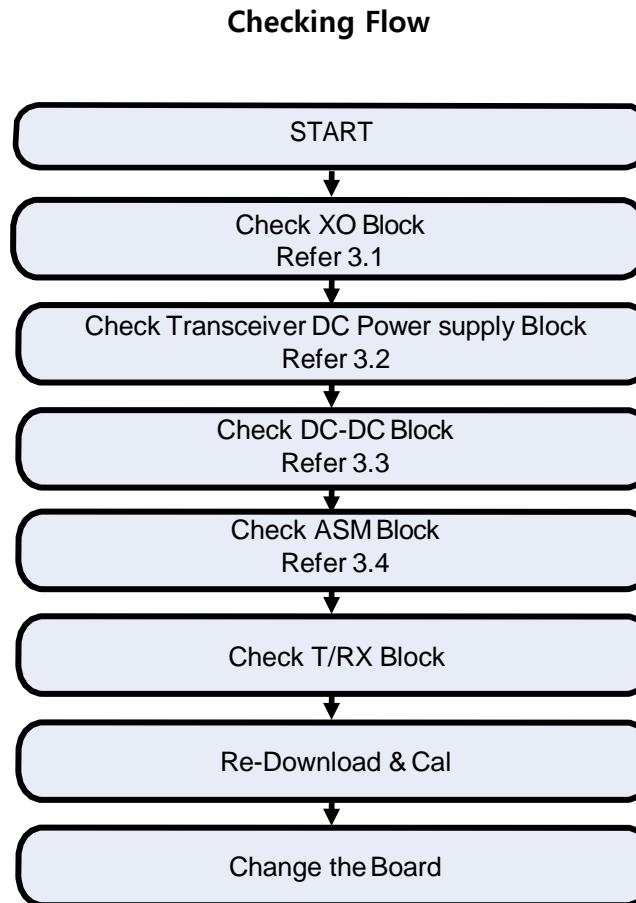
Circuit Diagram



3. TROUBLE SHOOTING

3.6 WCDMA RF PART

WCDMA RF Part support WCDMA B1/2/5/8 with ASM, PAM, Transceiver component

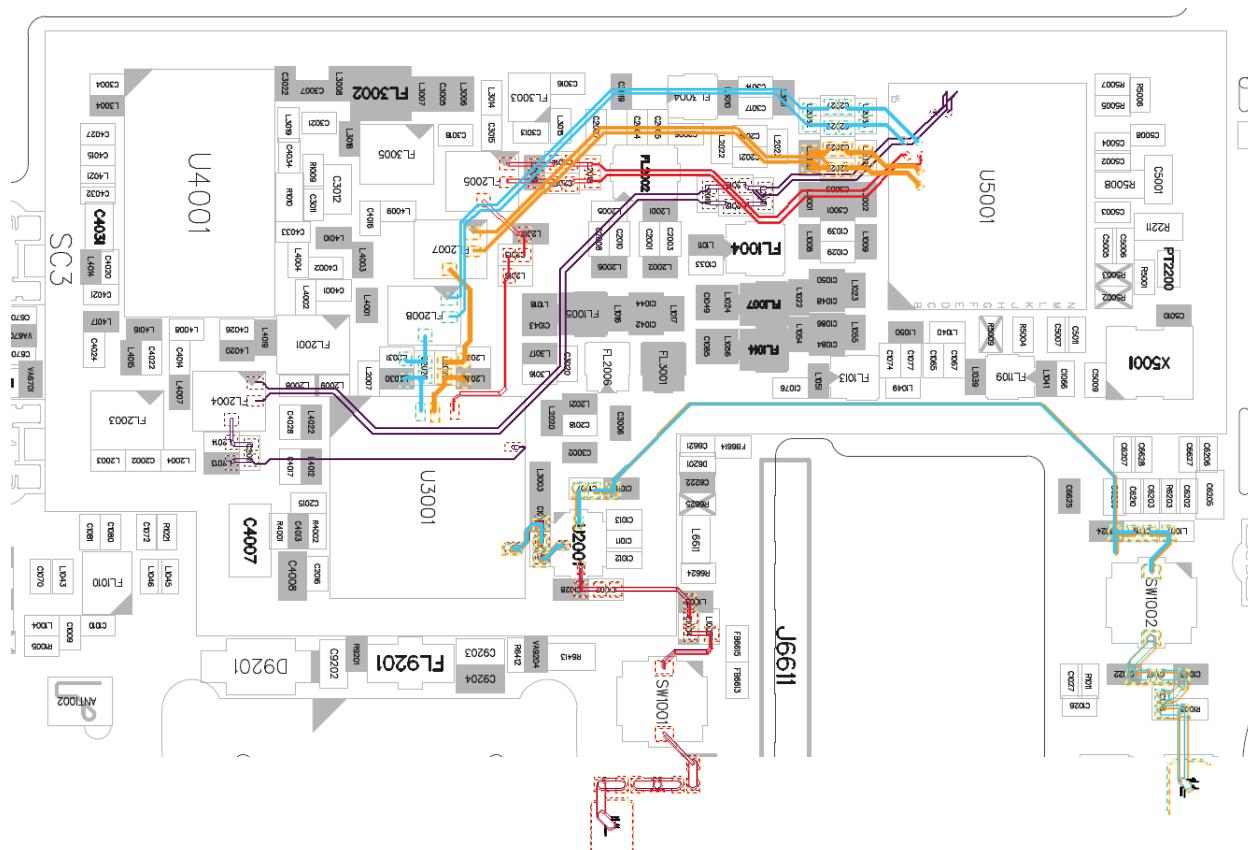


3. TROUBLE SHOOTING

3.6 WCDMA RF PART

3.6.1 WCDMA RF Part RX RF PATH

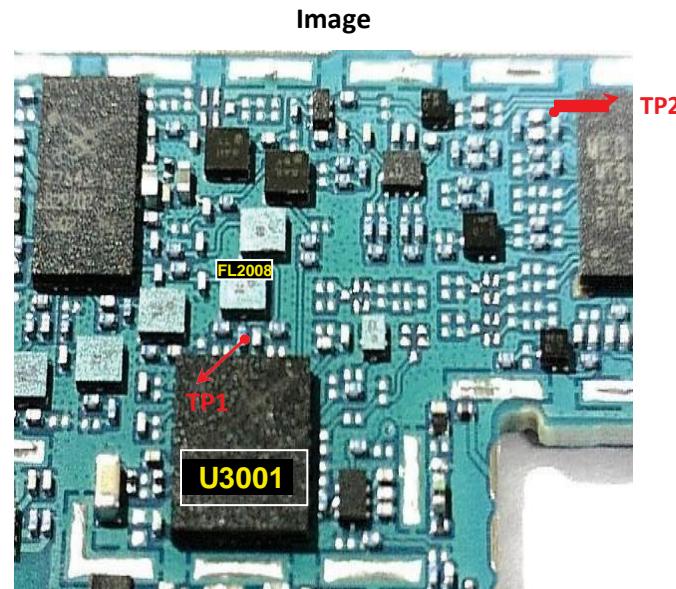
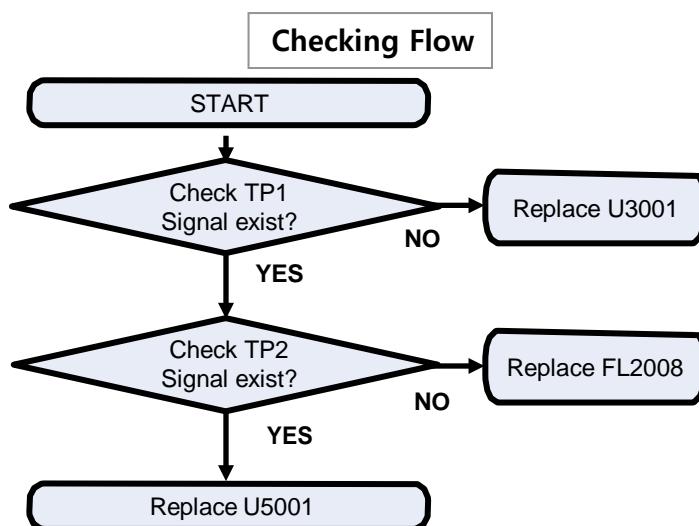
WCDMA B5 RX PATH
WCDMA B8 RX PATH
WCDMA B1 RX PATH
WCDMA B2 RX PATH



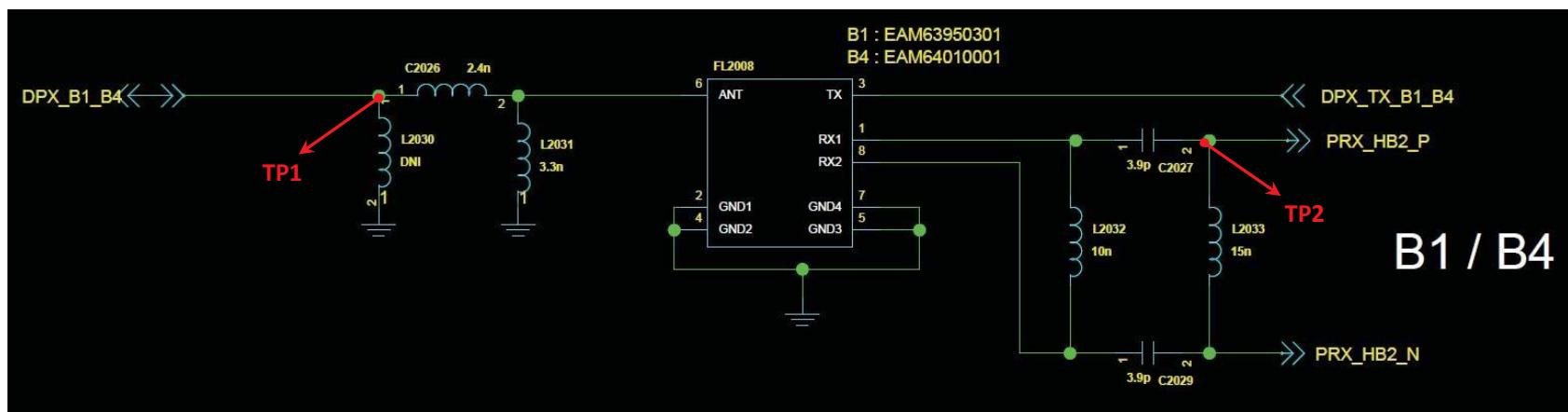
3. TROUBLE SHOOTING

3.6 WCDMA RF PART

3.6.2 Checking RF Signal RX path(WCDMA B1)



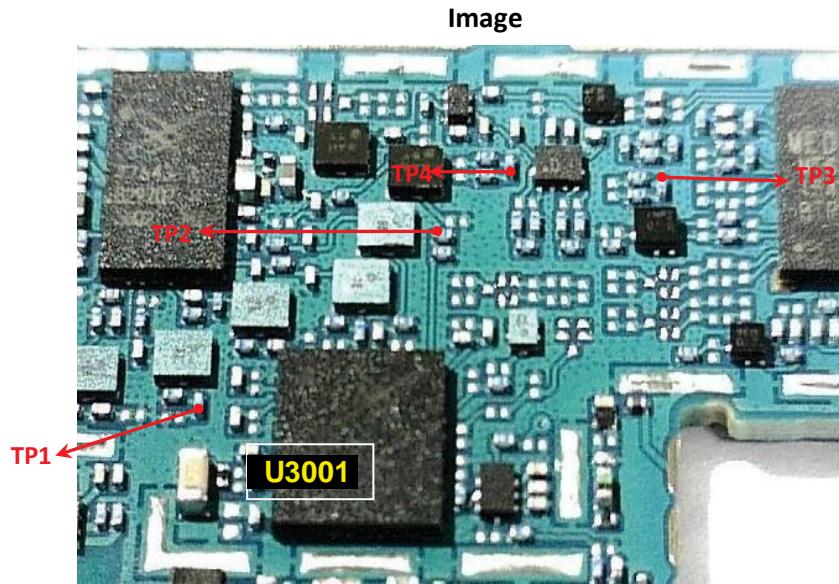
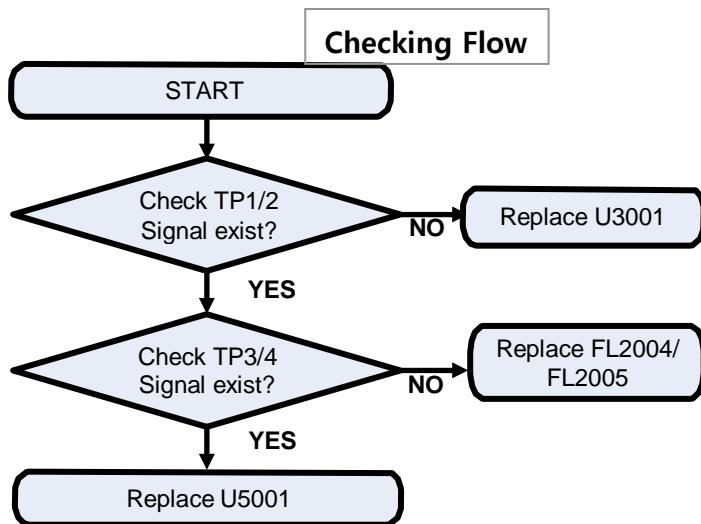
Circuit Diagram



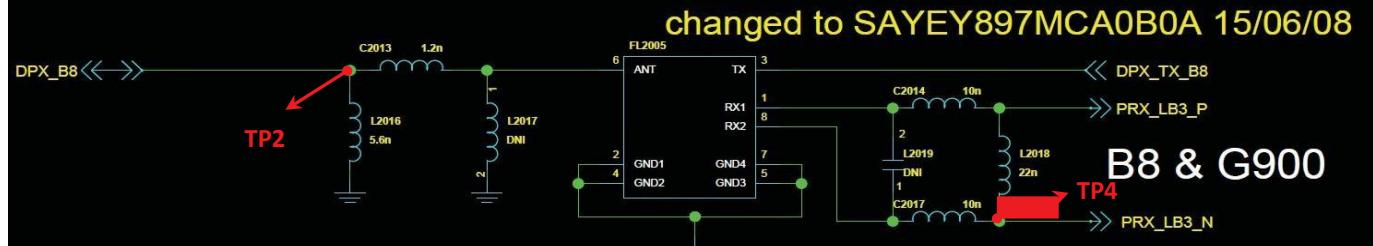
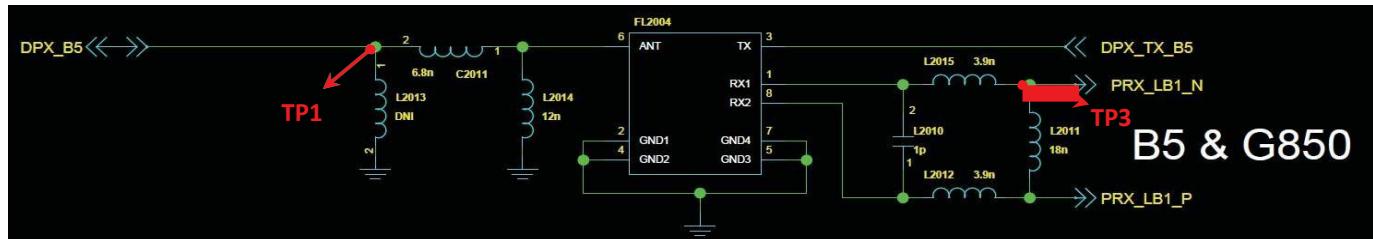
3. TROUBLE SHOOTING

3.6 WCDMA RF PART

3.6.3 Checking RF Signal RX path(SW, WCDMA B5/8)



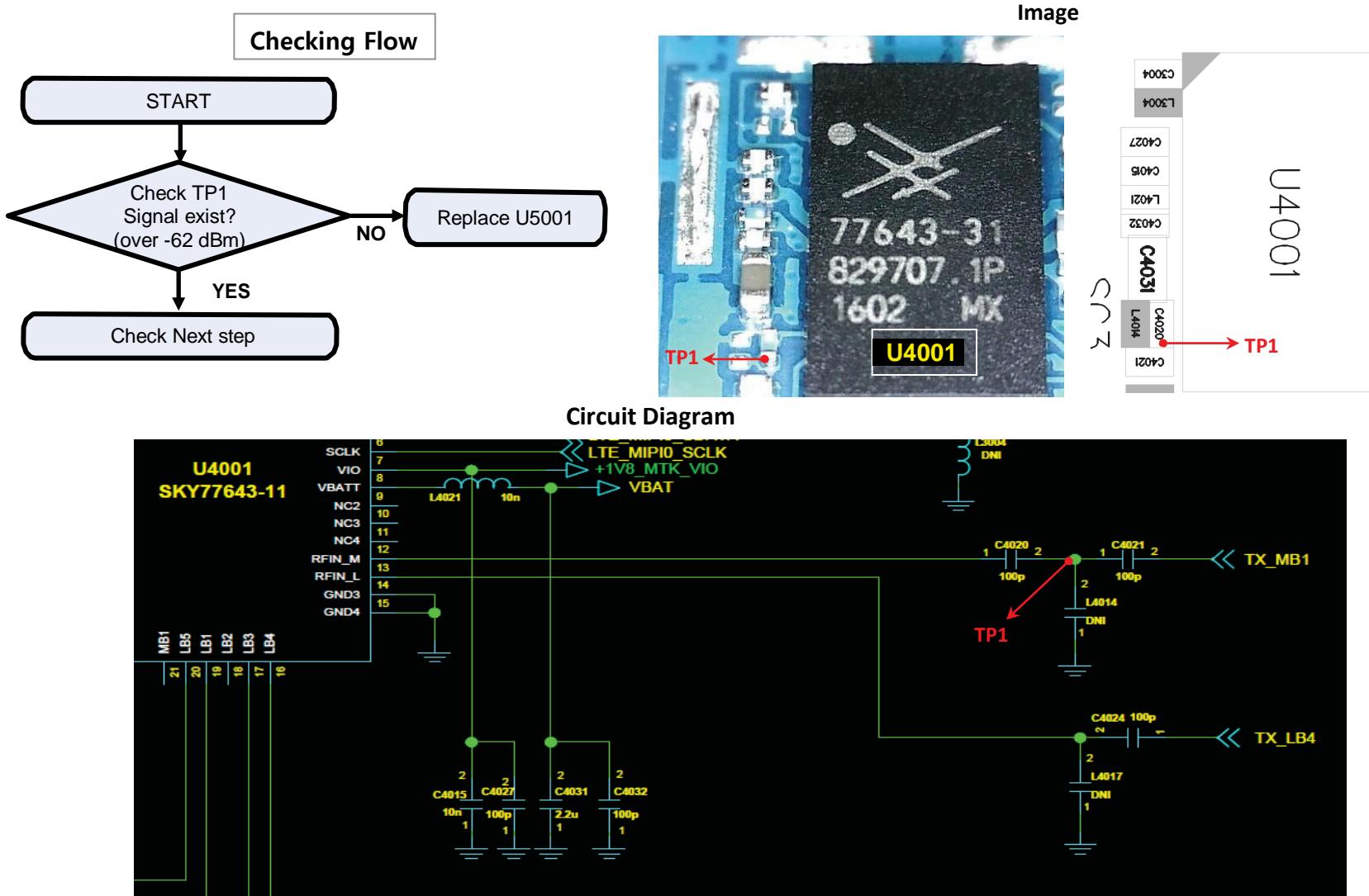
Circuit Diagram



3. TROUBLE SHOOTING

3.6 WCDMA RF PART

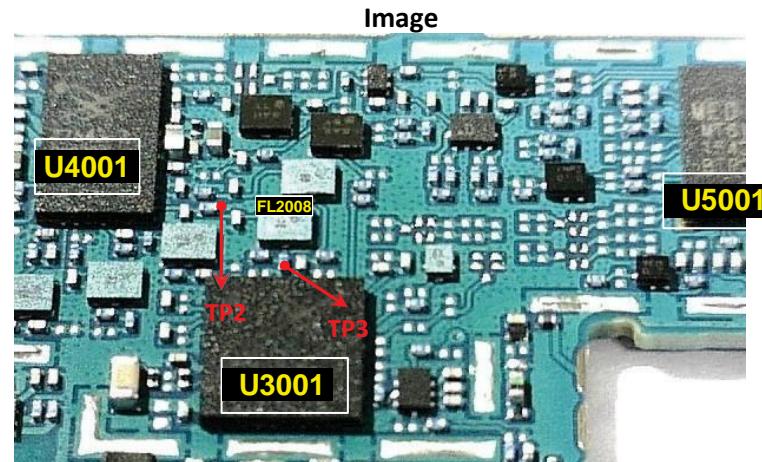
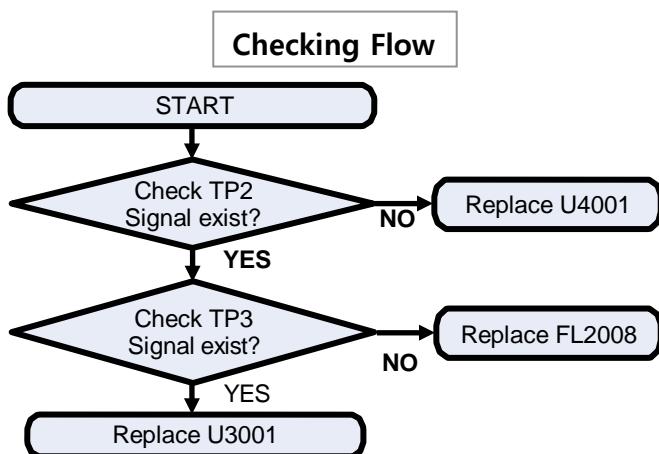
3.6.5 Checking RF Signal TX path(WCDMA B1)



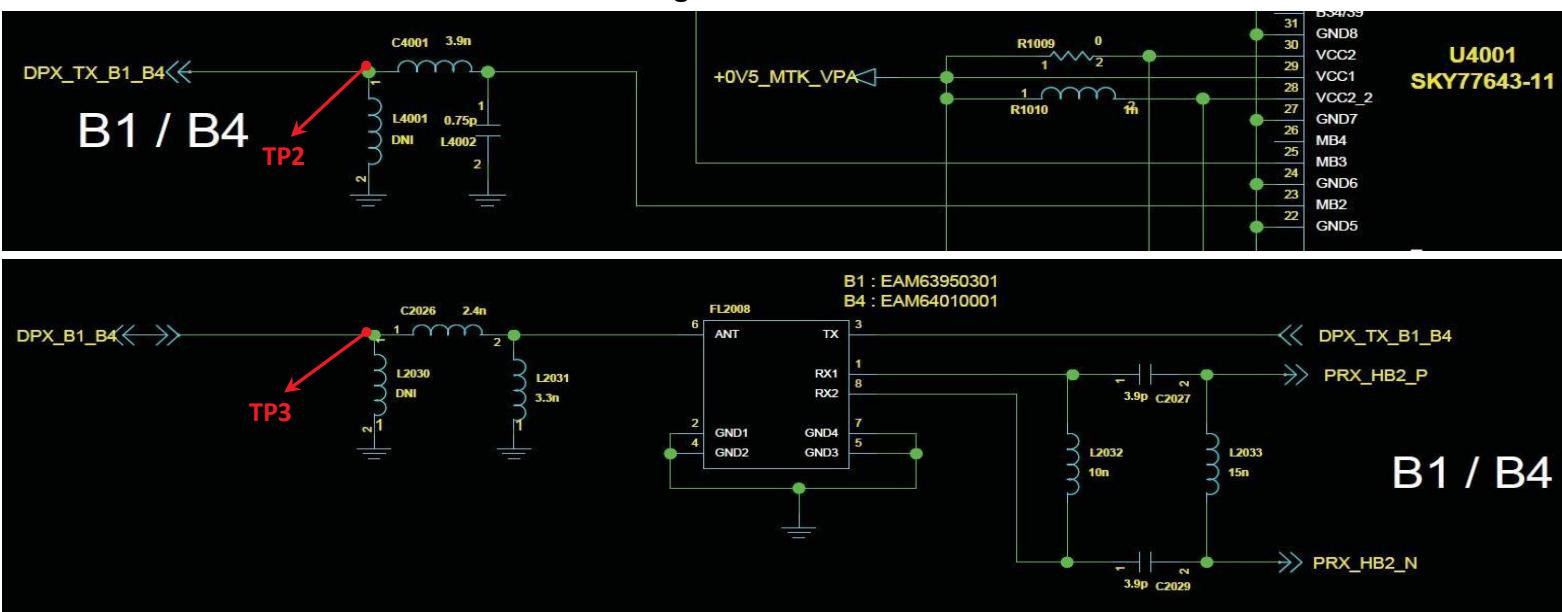
3. TROUBLE SHOOTING

3.6 WCDMA RF PART

3.6.6 Checking RF Signal TX path(WCDMA B1)



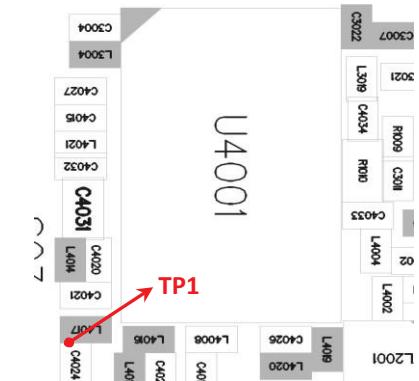
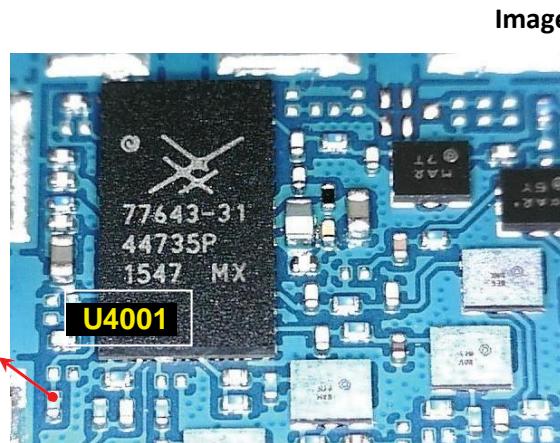
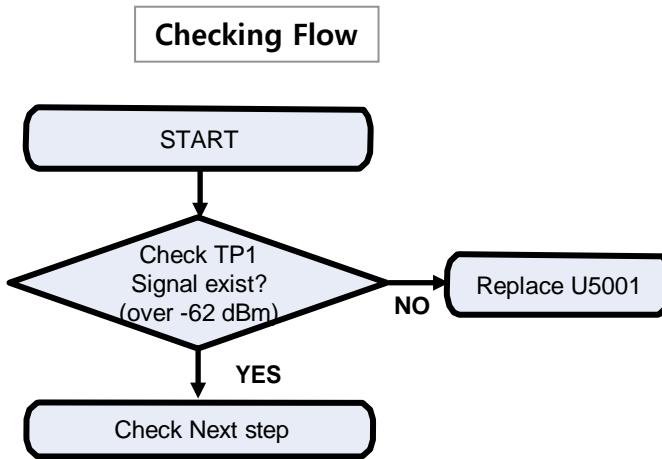
Circuit Diagram



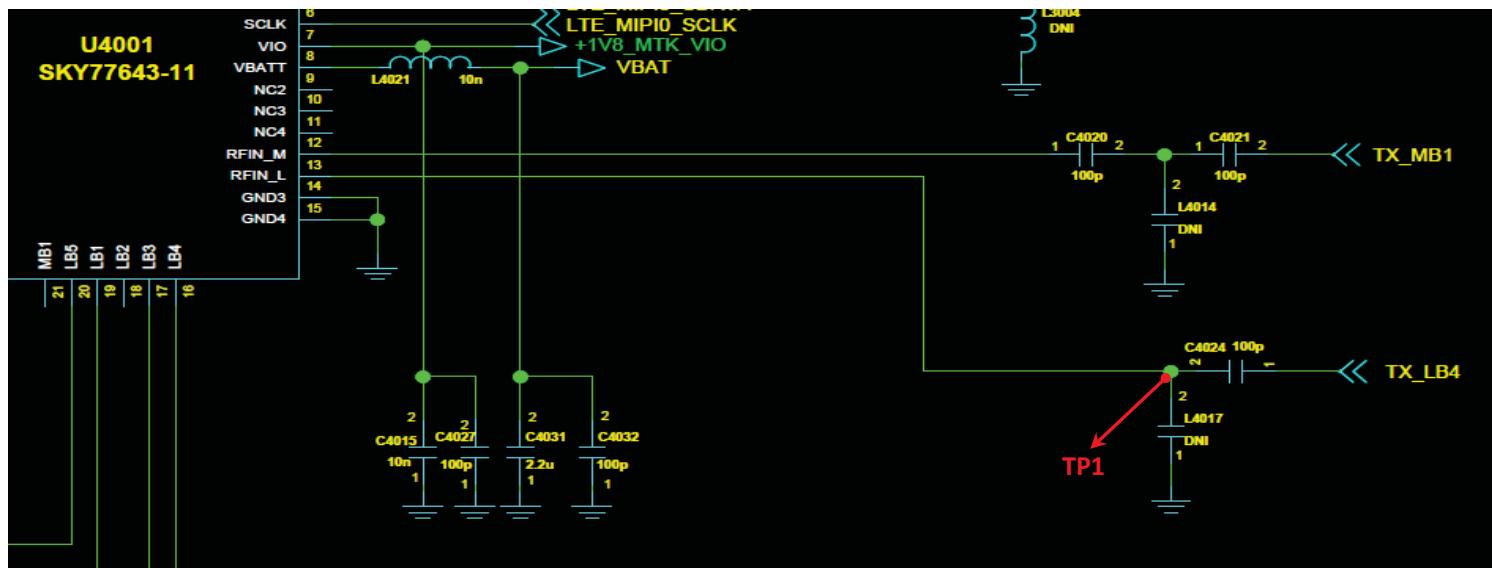
3. TROUBLE SHOOTING

3.6 WCDMA RF PART

3.6.7 Checking RF Signal TX path(WCDMA B5/8)



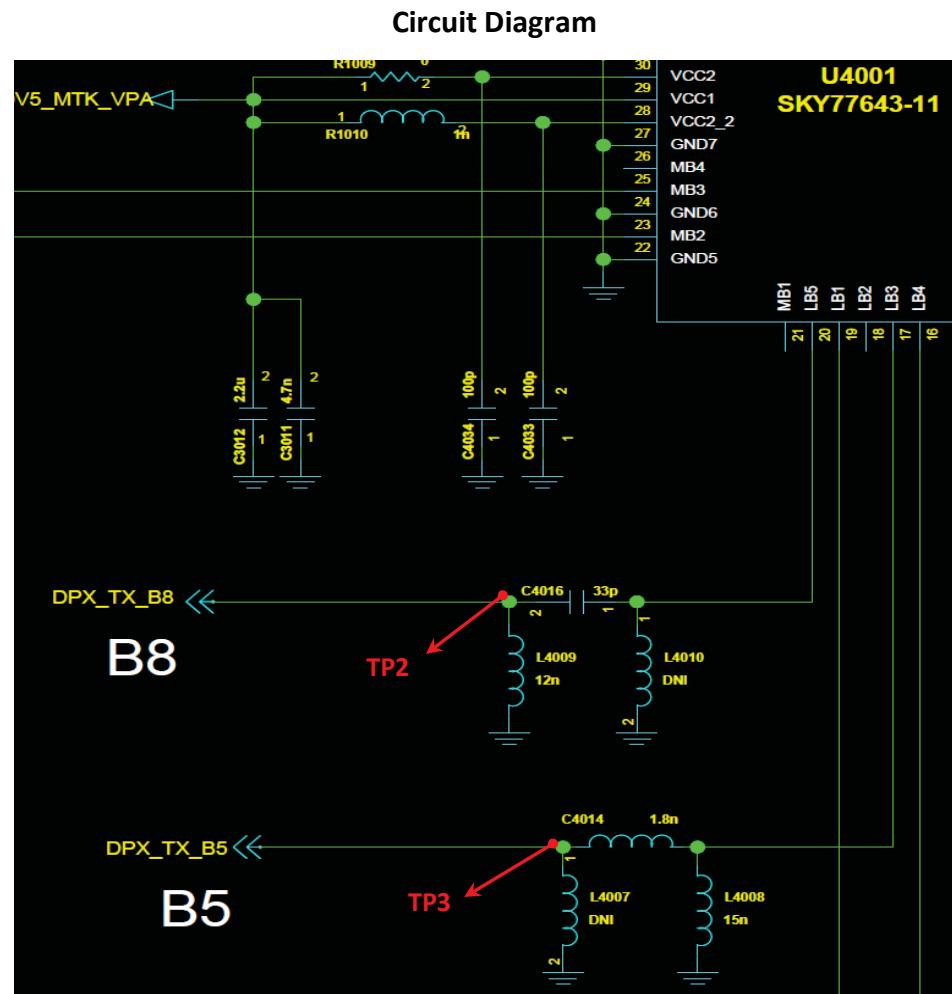
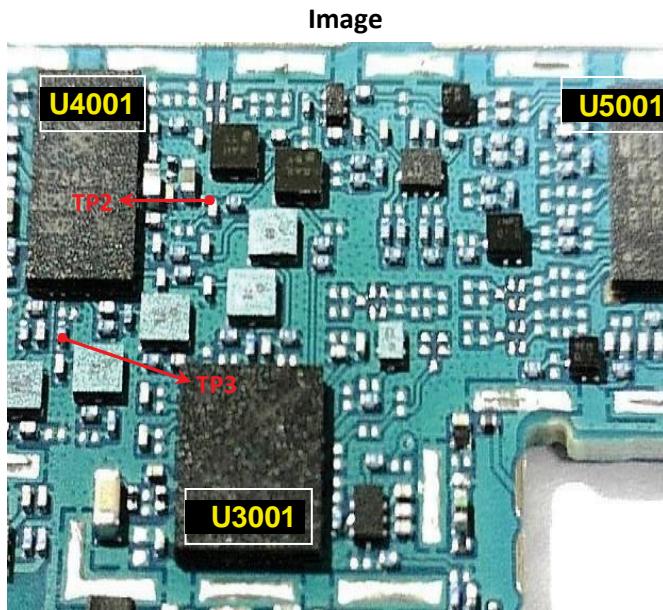
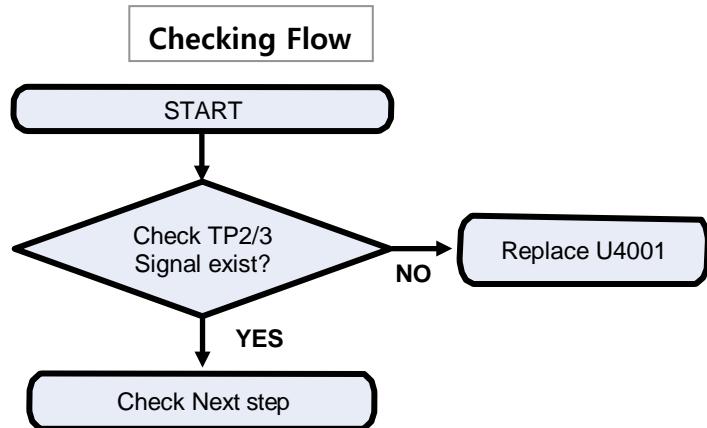
Circuit Diagram



3. TROUBLE SHOOTING

3.6 WCDMA RF PART

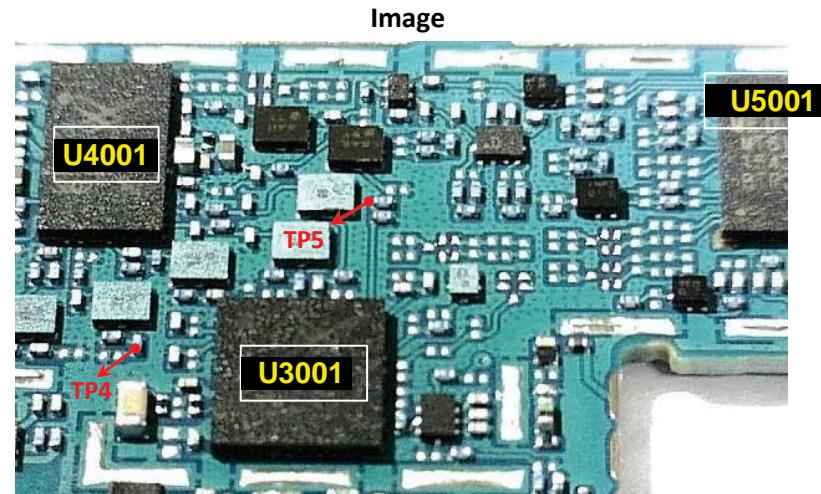
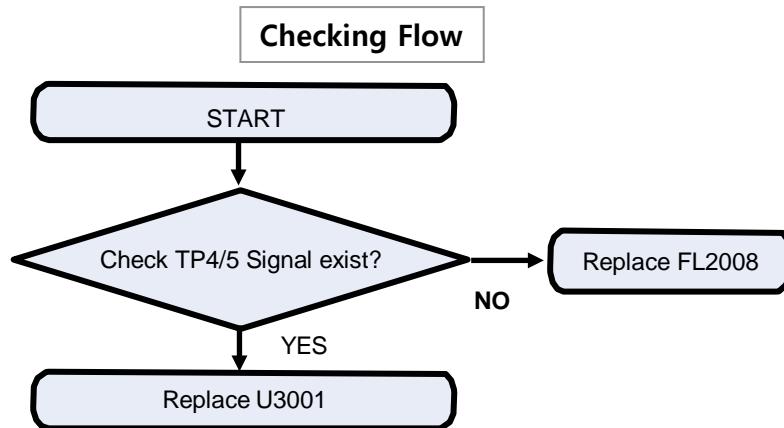
3.6.8 Checking RF Signal TX path(WCDMA B5/8)



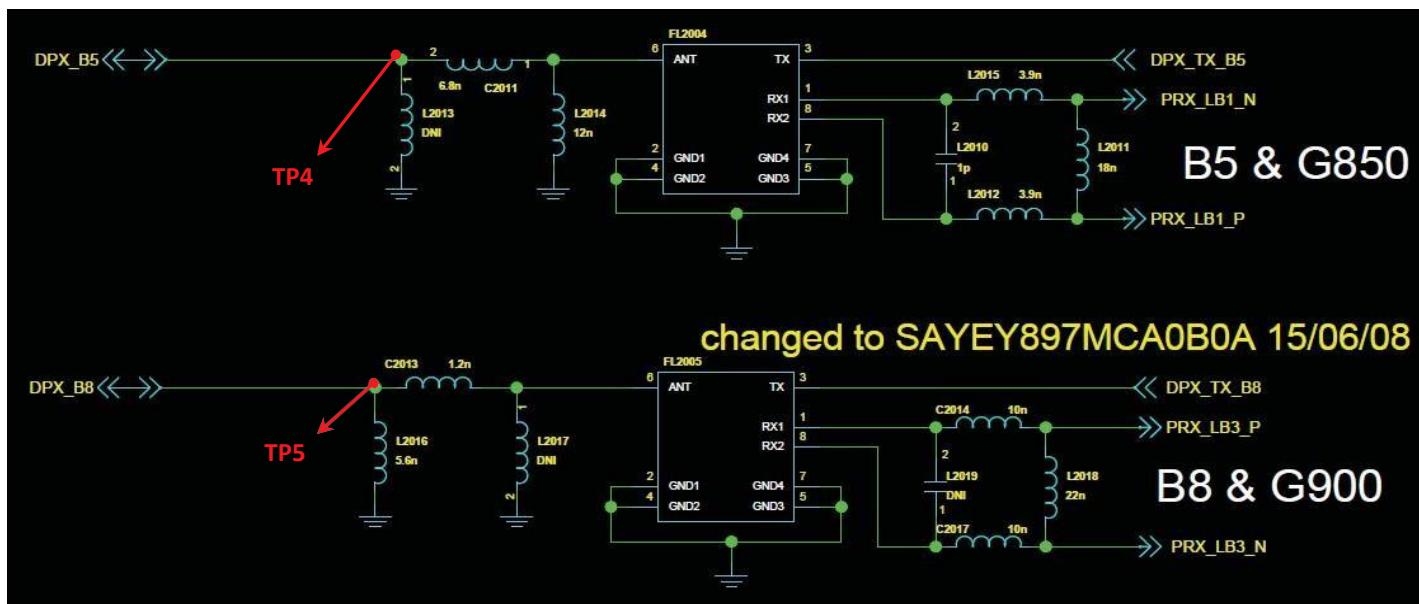
3. TROUBLE SHOOTING

3.6 WCDMA RF PART

3.6.9 Checking RF Signal TX path(WCDMA B5/8)



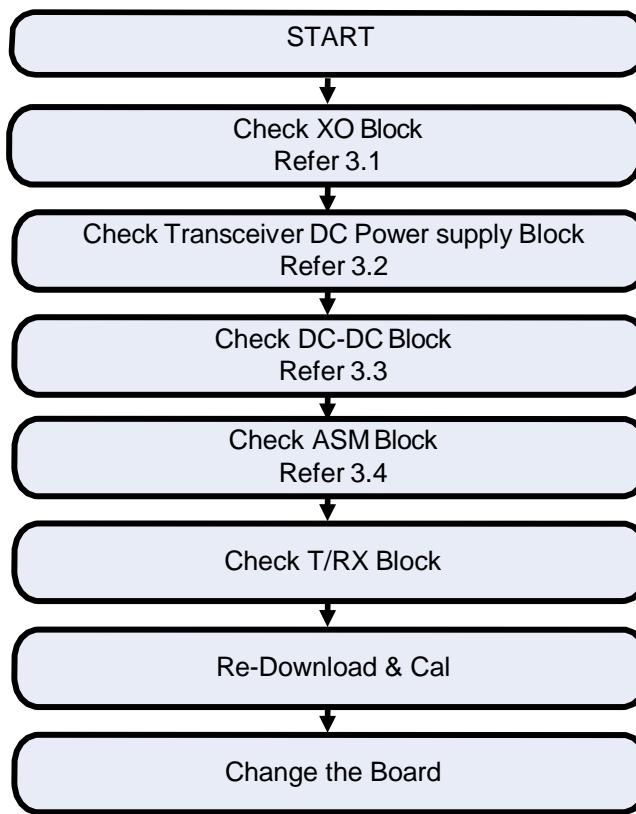
Circuit Diagram



3.7 LTE RF PART

LTE RF Part support LTE B3/7/28 with ASM, PAM, Transceiver component

Checking Flow

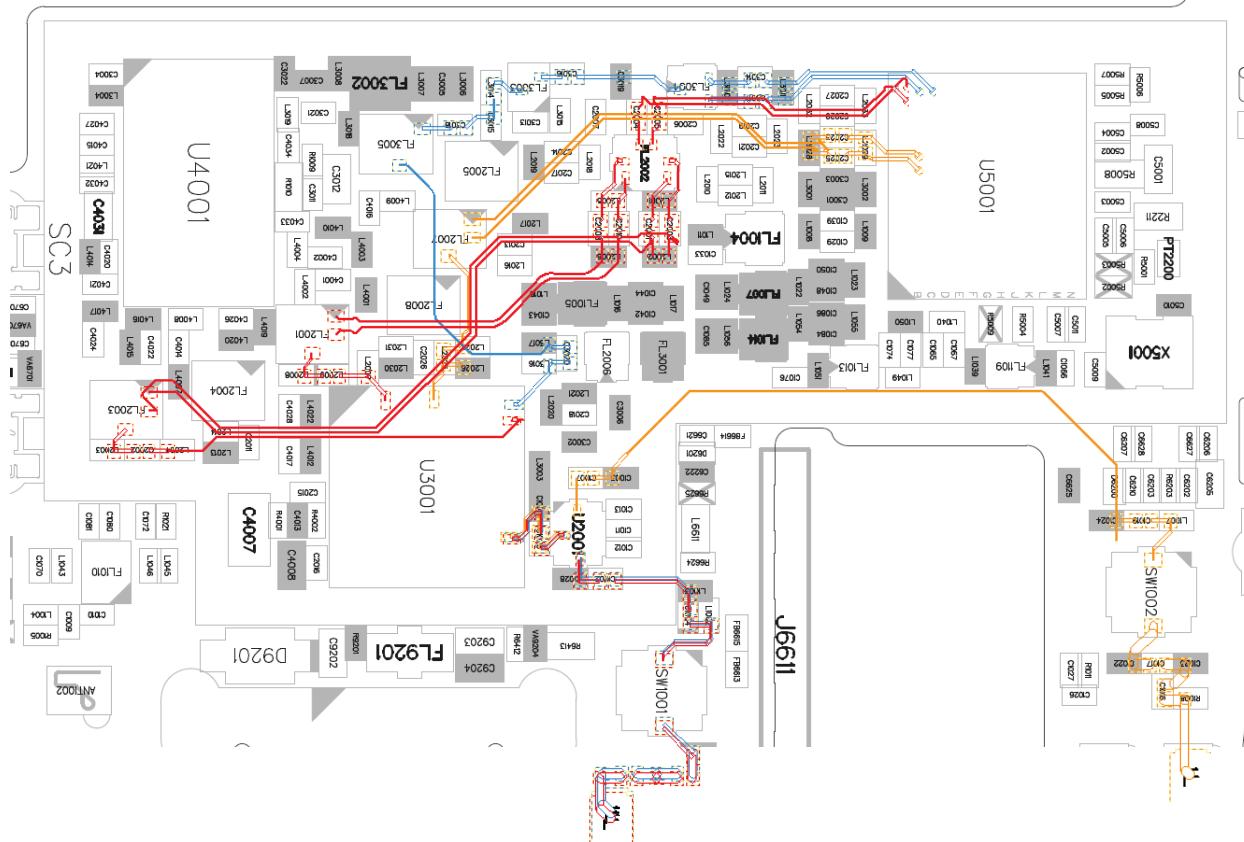


3. TROUBLE SHOOTING

3.7 LTE RF PART

3.7.1 LTE RF Part RX RF PATH

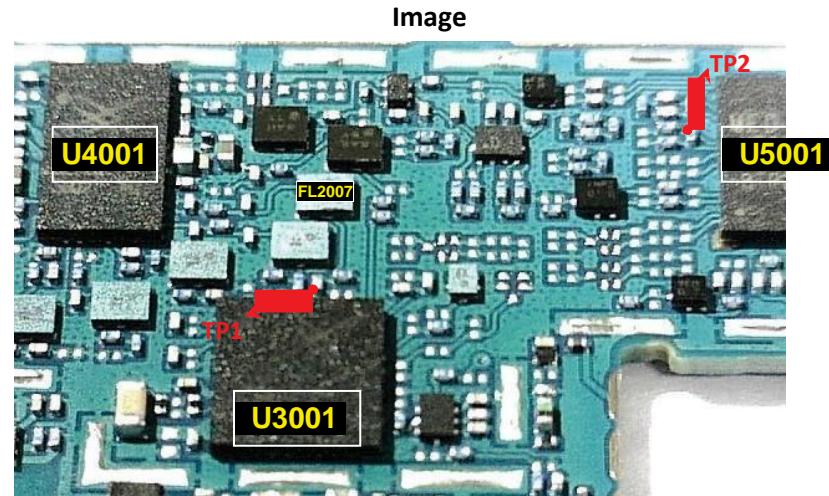
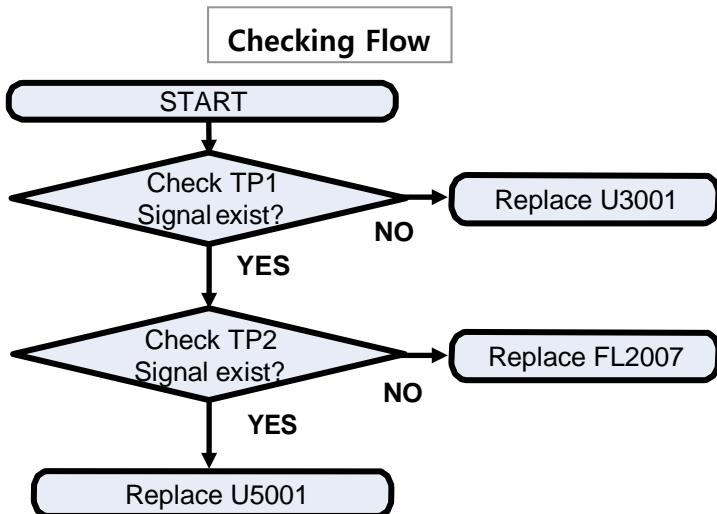
LTE B3 RX PATH
LTE B7 RX PATH
LTE B20 RX PATH



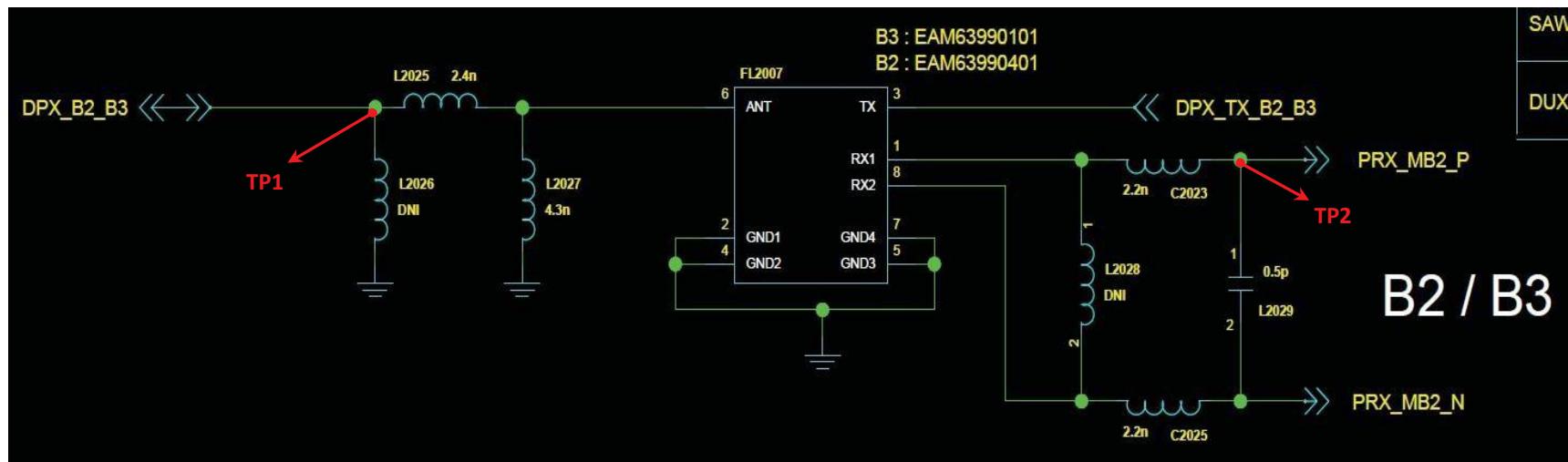
3. TROUBLE SHOOTING

3.7 LTE RF PART

3.7.2 Checking RF Signal RX path(LTE B3)



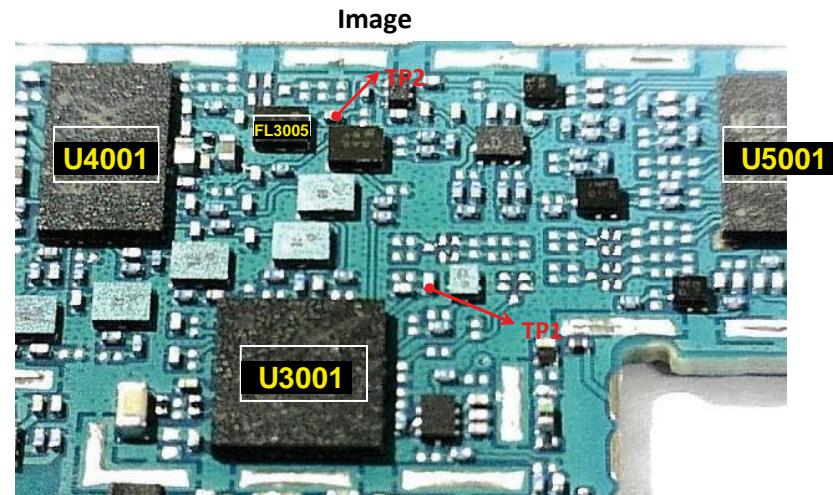
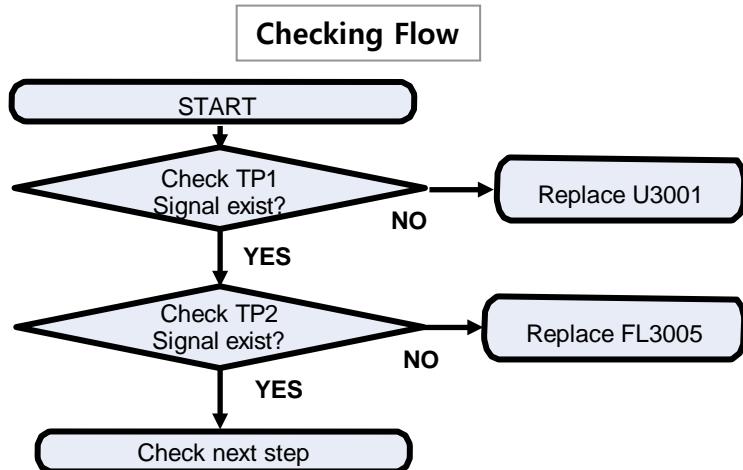
Circuit Diagram



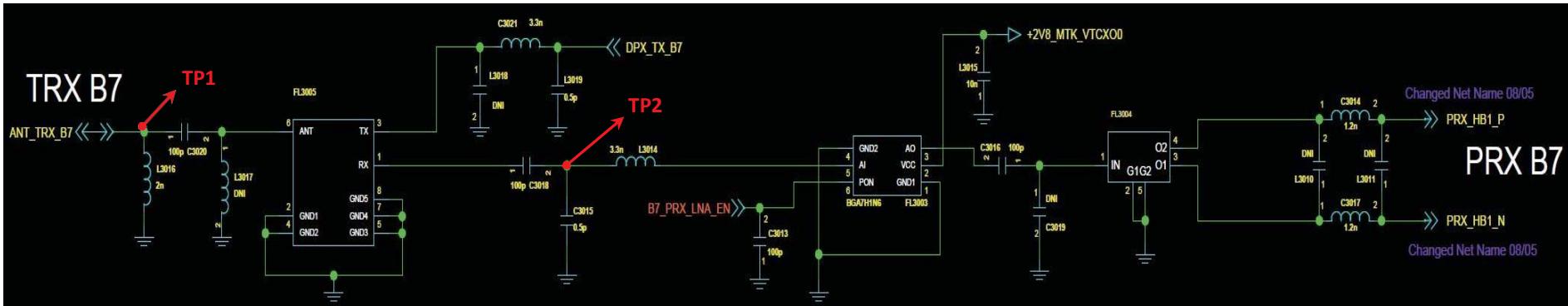
3. TROUBLE SHOOTING

3.7 LTE RF PART

3.7.3 Checking RF Signal RX path(LTE B7)



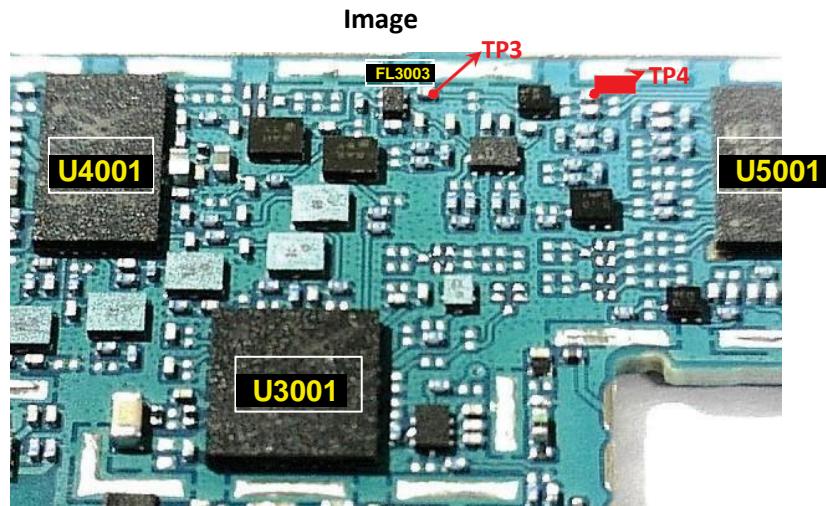
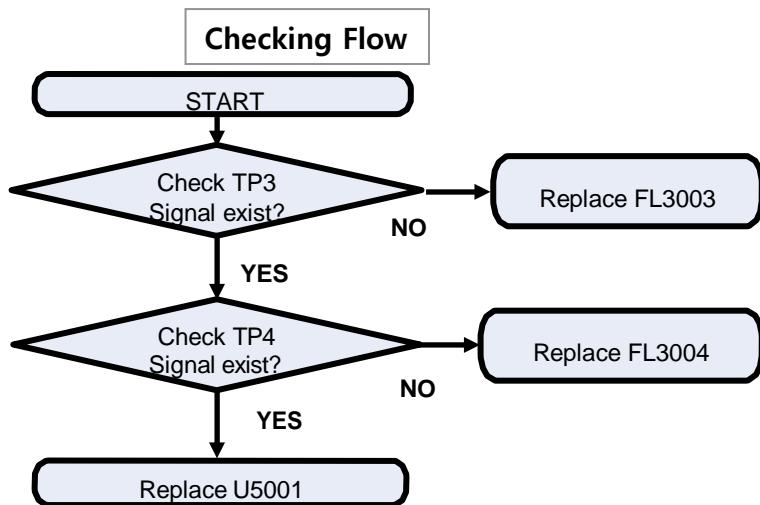
Circuit Diagram



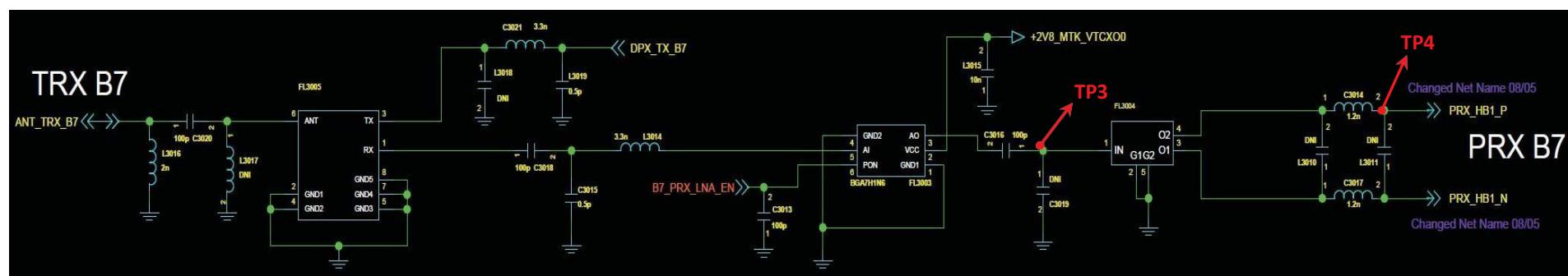
3. TROUBLE SHOOTING

3.7 LTE RF PART

3.7.4 Checking RF Signal RX path(LTE B7)



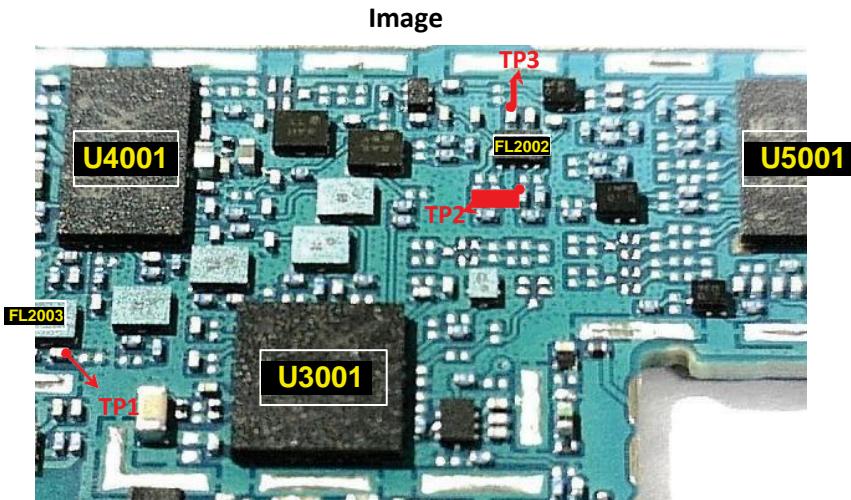
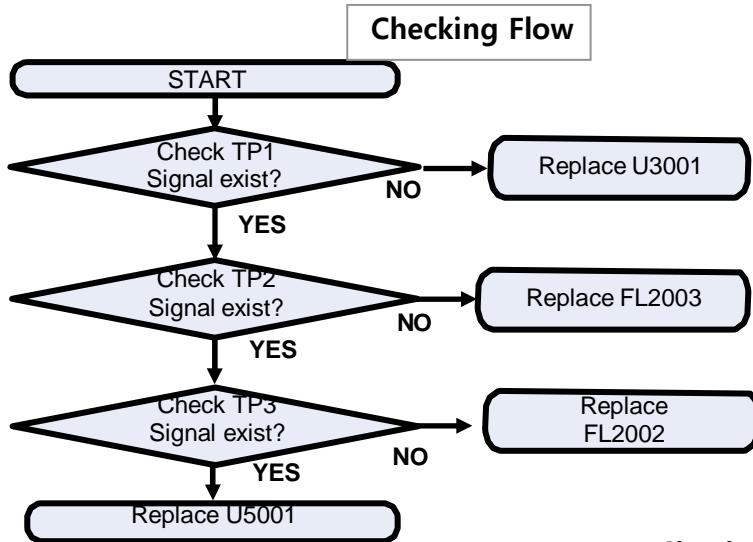
Circuit Diagram



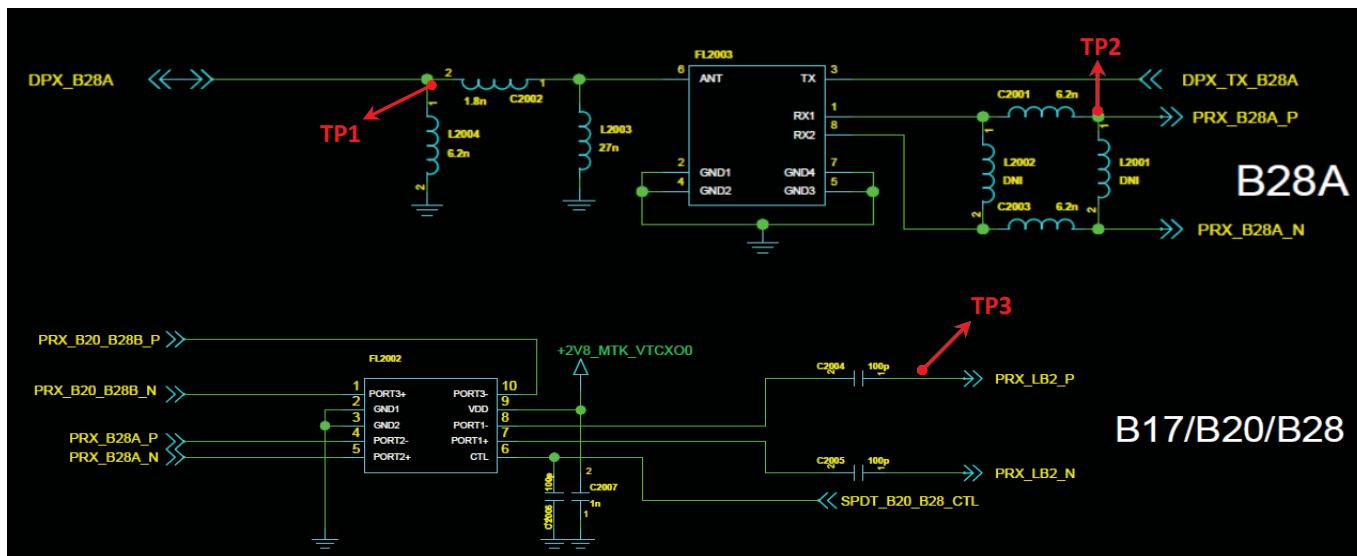
3. TROUBLE SHOOTING

3.7 LTE RF PART

3.7.5 Checking RF Signal RX path(LTE B28A)



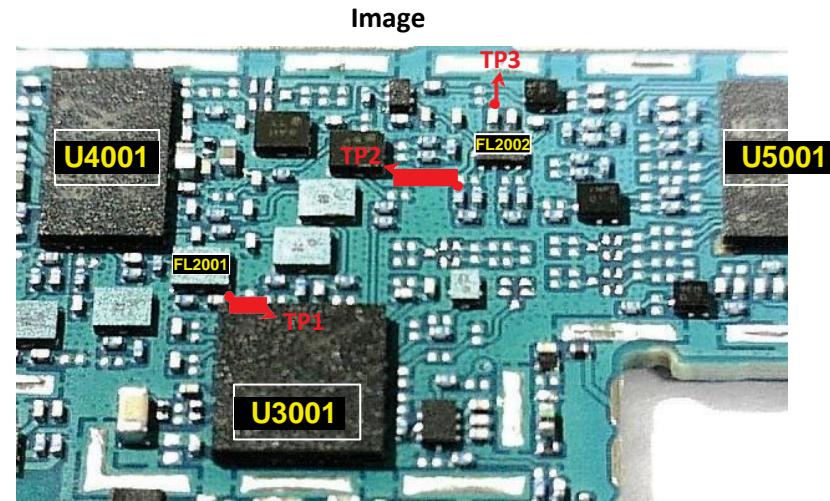
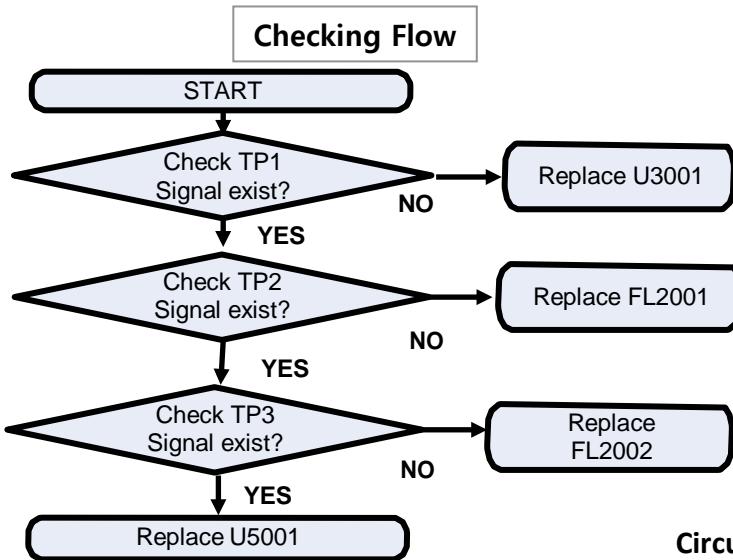
Circuit Diagram



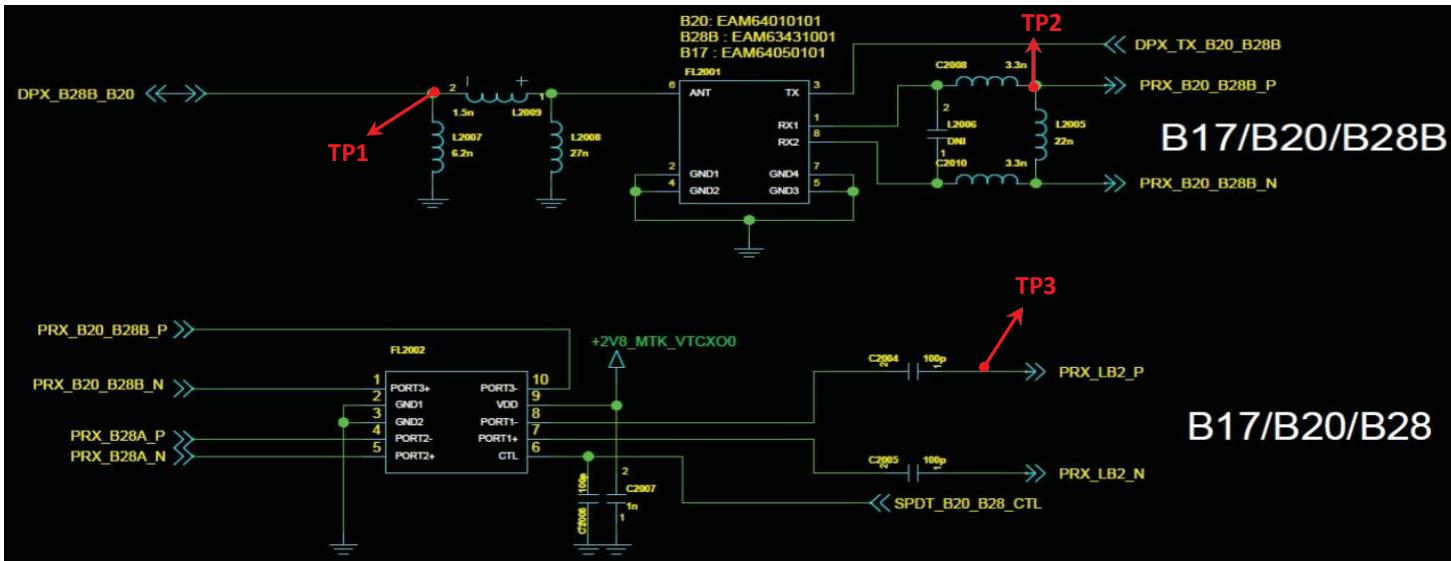
3. TROUBLE SHOOTING

3.7 LTE RF PART

3.7.6 Checking RF Signal RX path(LTE B28B)



Circuit Diagram

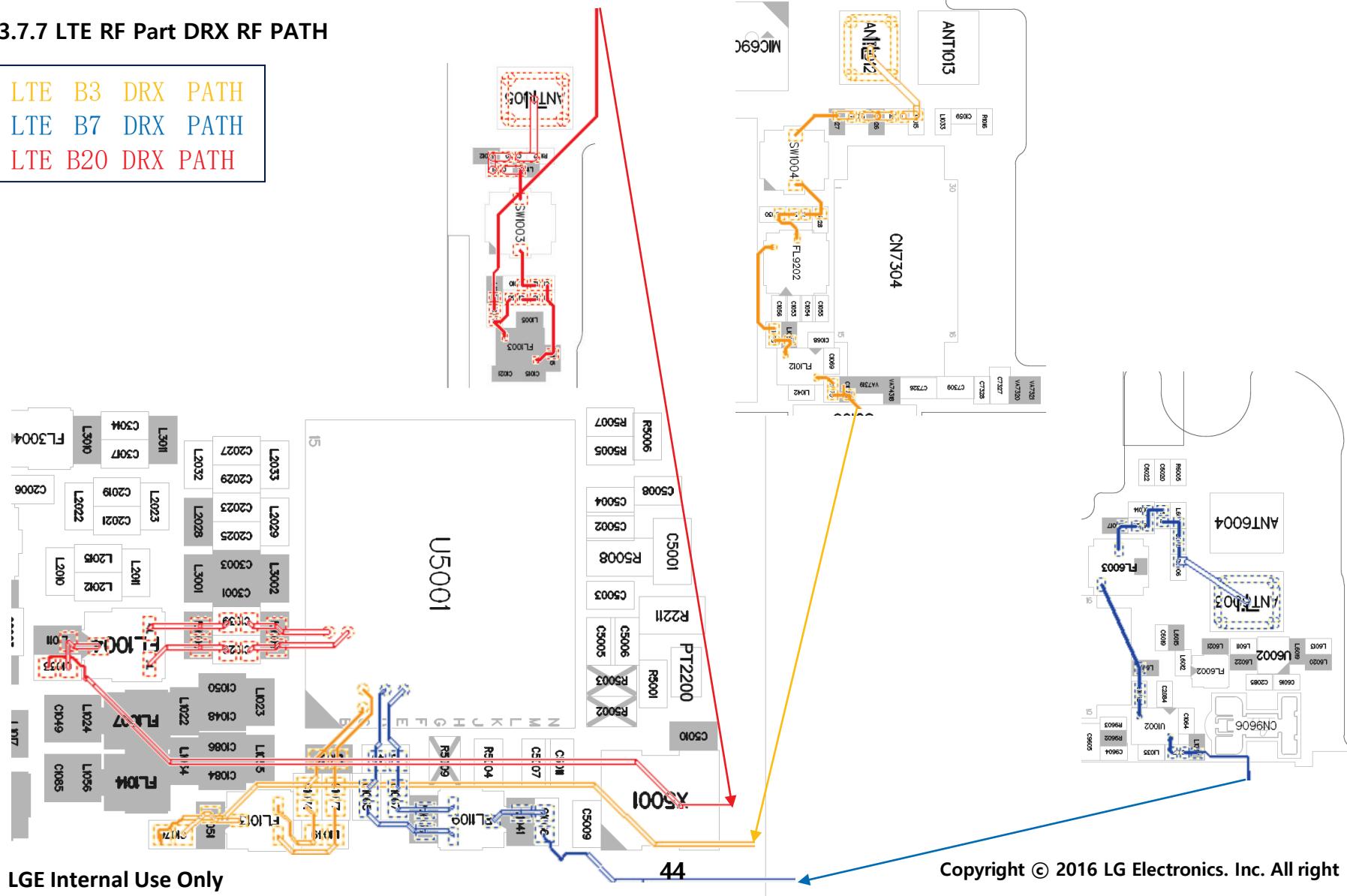


3. TROUBLE SHOOTING

3.7 LTE RF PART

3.7.7 LTE RF Part DRX RF PATH

LTE B3 DRX PATH
LTE B7 DRX PATH
LTE B20 DRX PATH

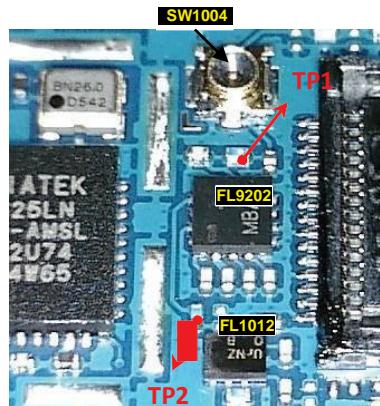
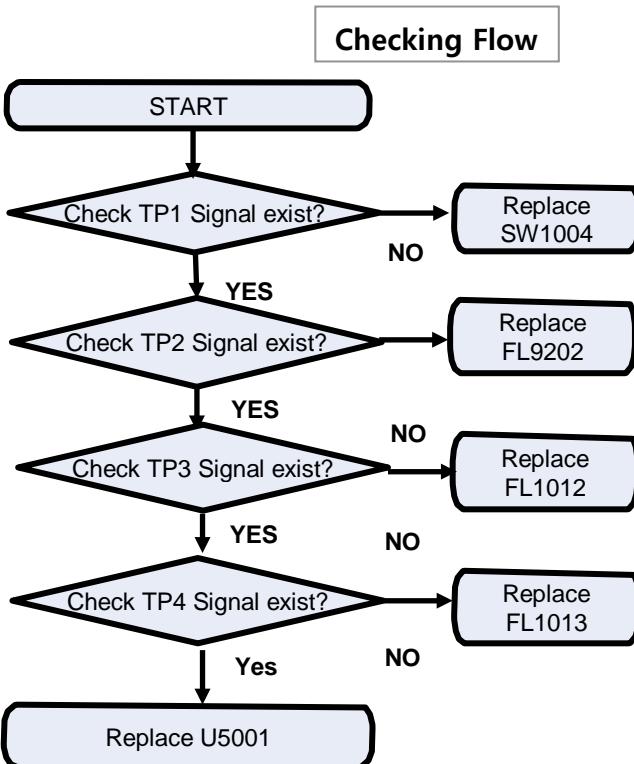


LGE Internal Use Only

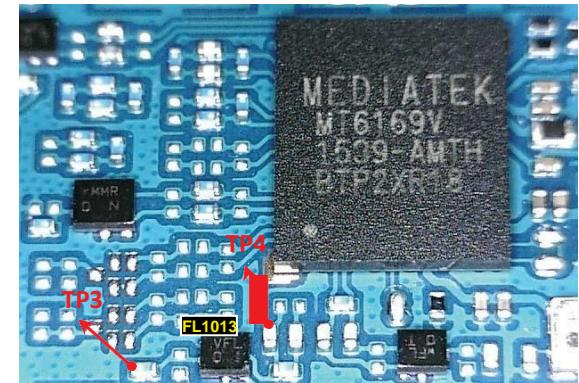
3. TROUBLE SHOOTING

3.7 LTE RF PART

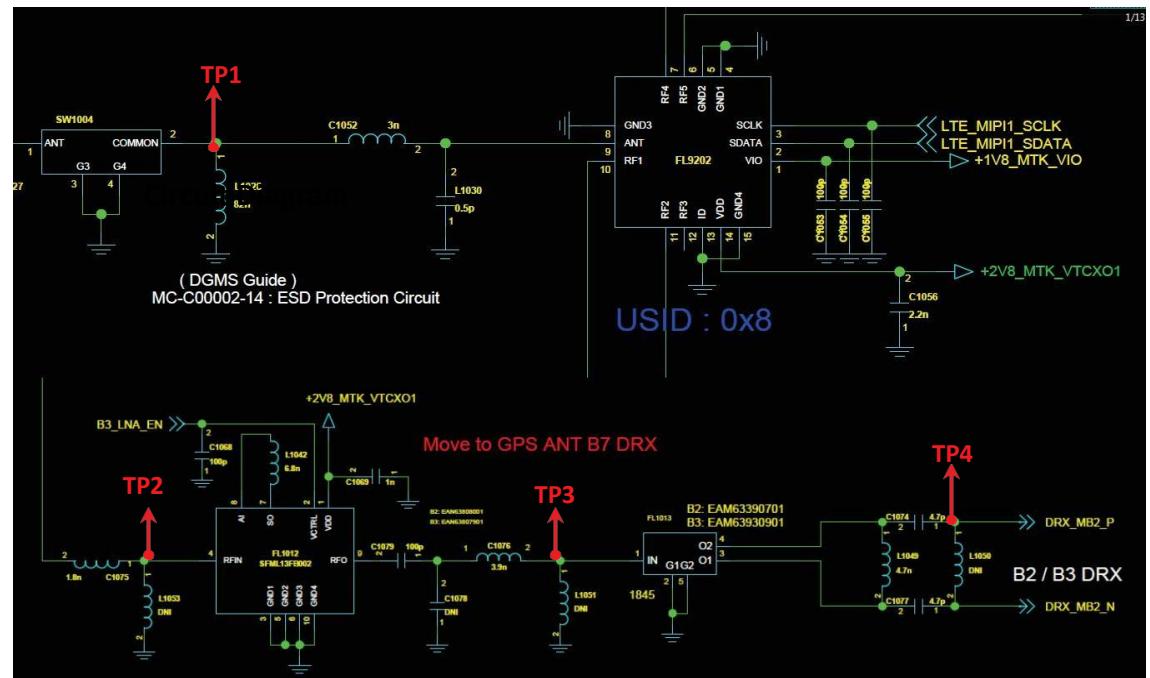
3.7.8 Checking RF Signal DRX path(LTE B3)



Image



Circuit Diagram

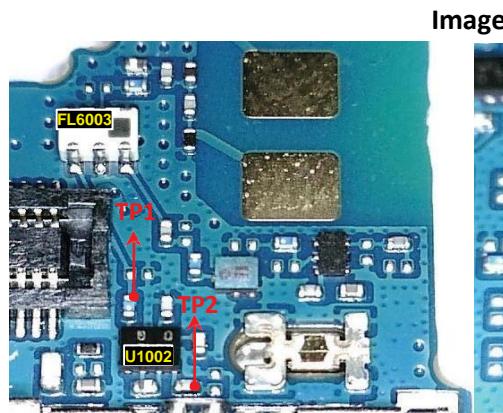
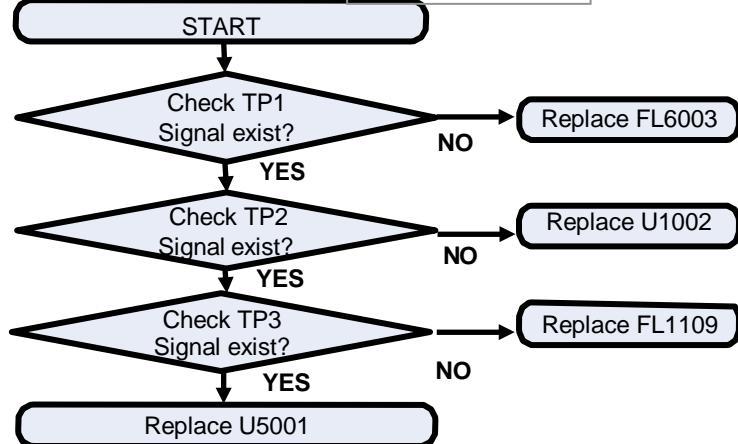


3. TROUBLE SHOOTING

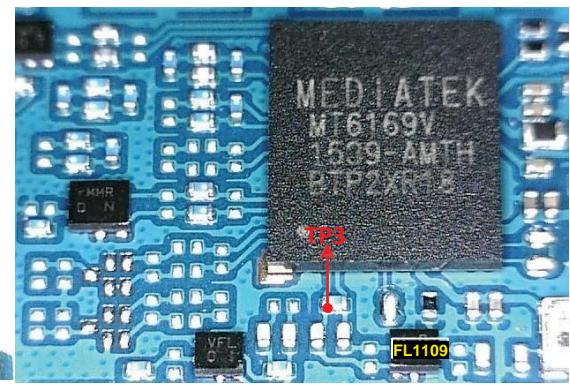
3.7 LTE RF PART

3.7.9 Checking RF Signal DRX path(LTE B7)

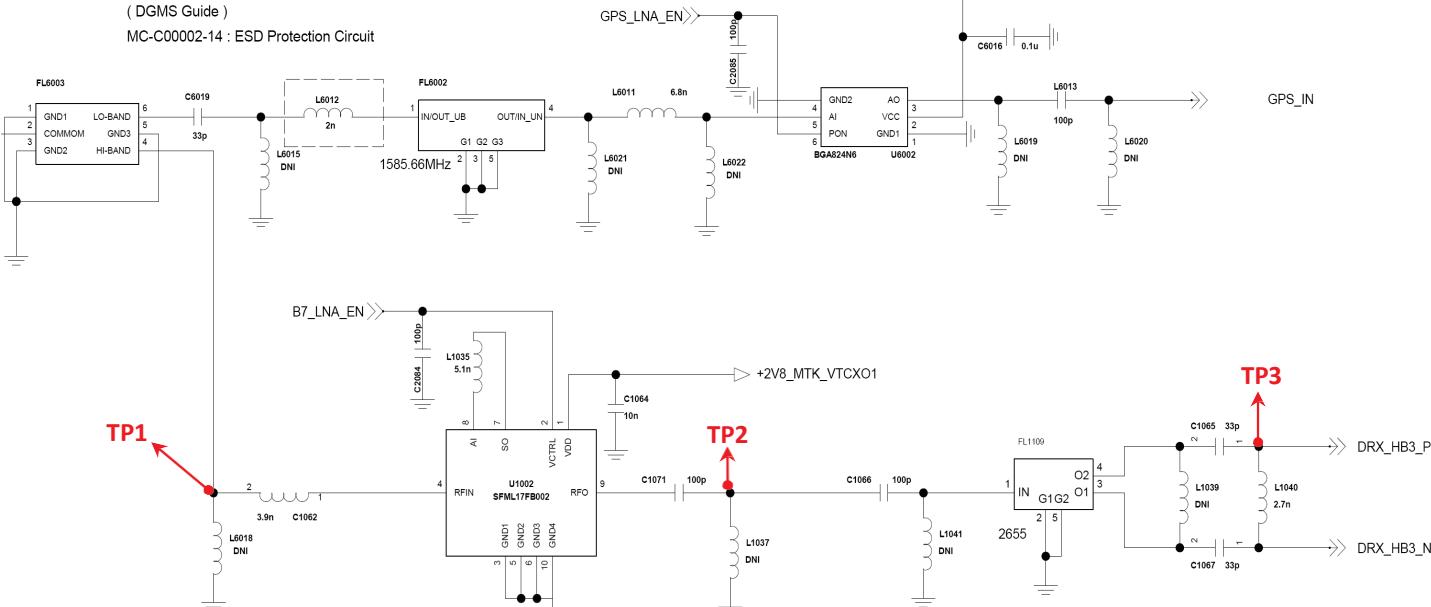
Checking Flow



Image



Circuit Diagram

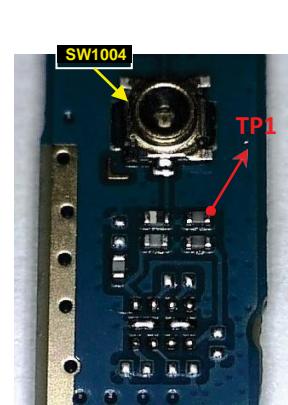
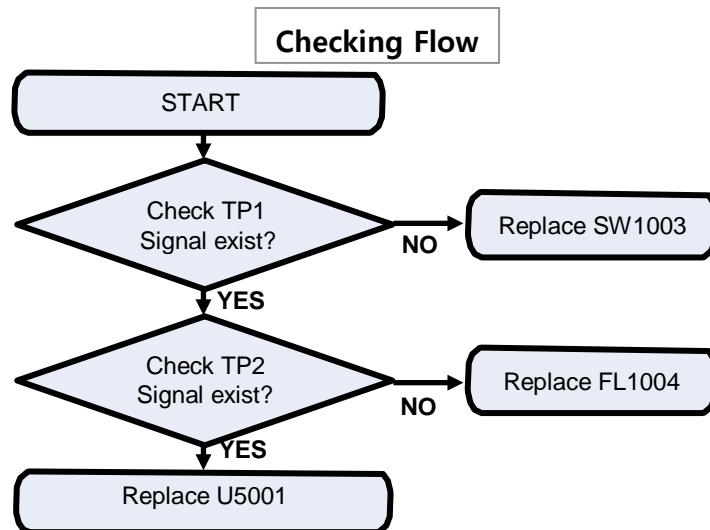


B7 DRX

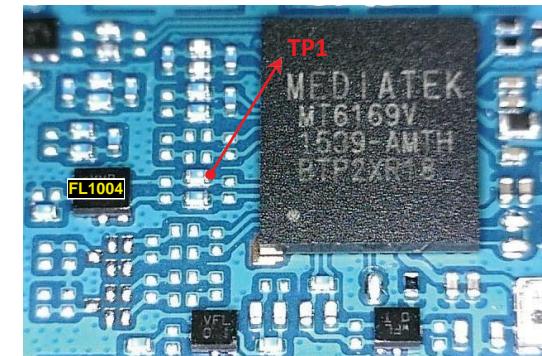
3. TROUBLE SHOOTING

3.7 LTE RF PART

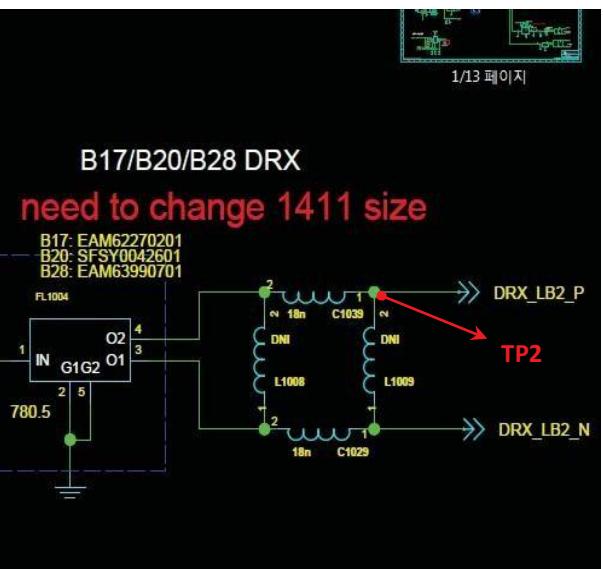
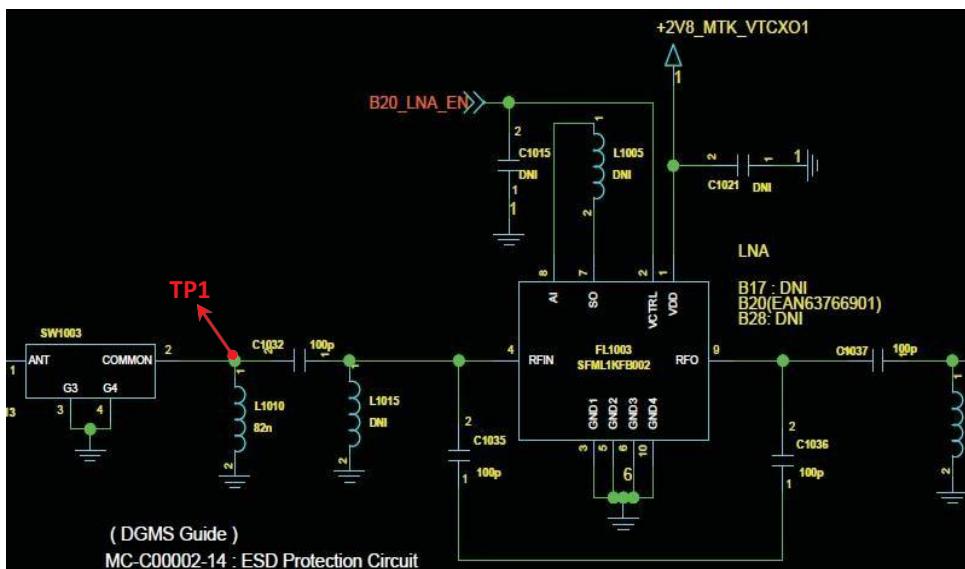
3.7.10 Checking RF Signal DRX path(LTE B28)



Image



Circuit Diagram

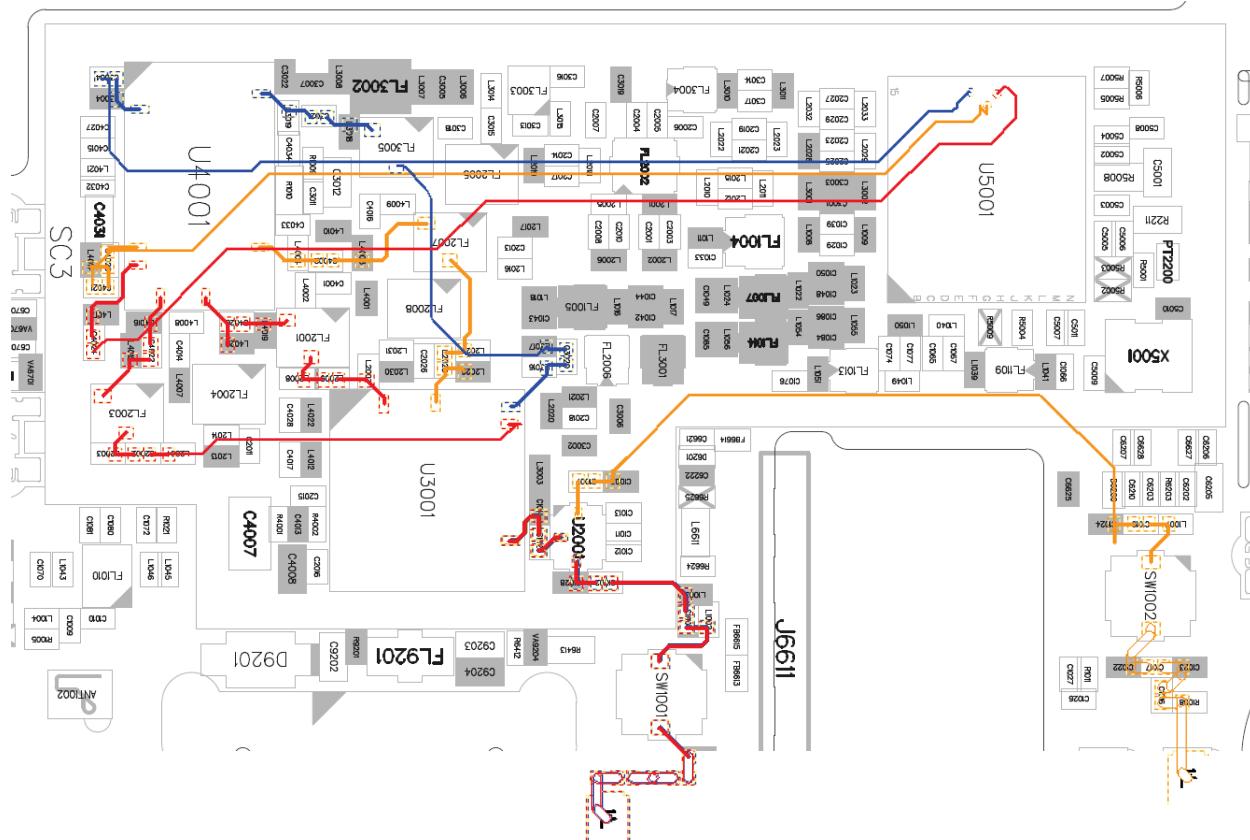


3. TROUBLE SHOOTING

3.7 LTE RF PART

3.7.11 Checking RF Signal DRX path(LTE B28)

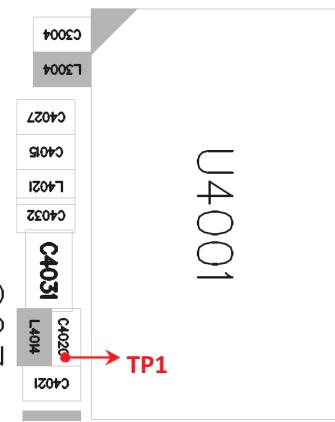
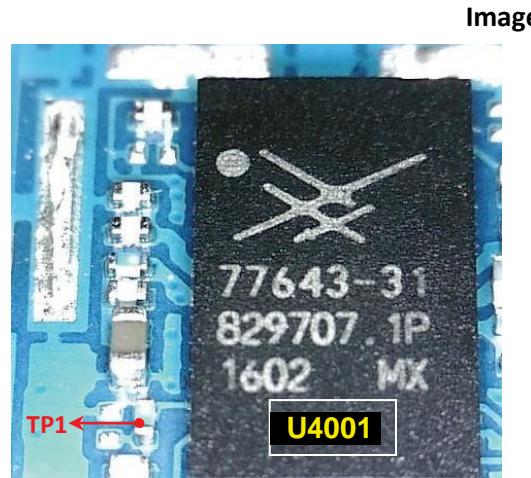
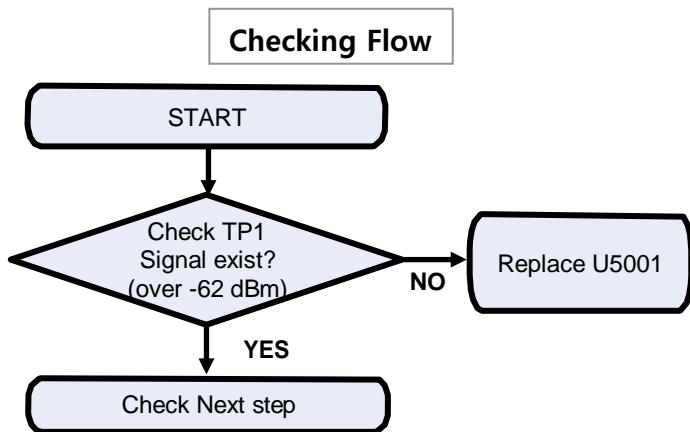
LTE B3 TX PATH
LTE B7 TX PATH
LTE B28 TX PATH



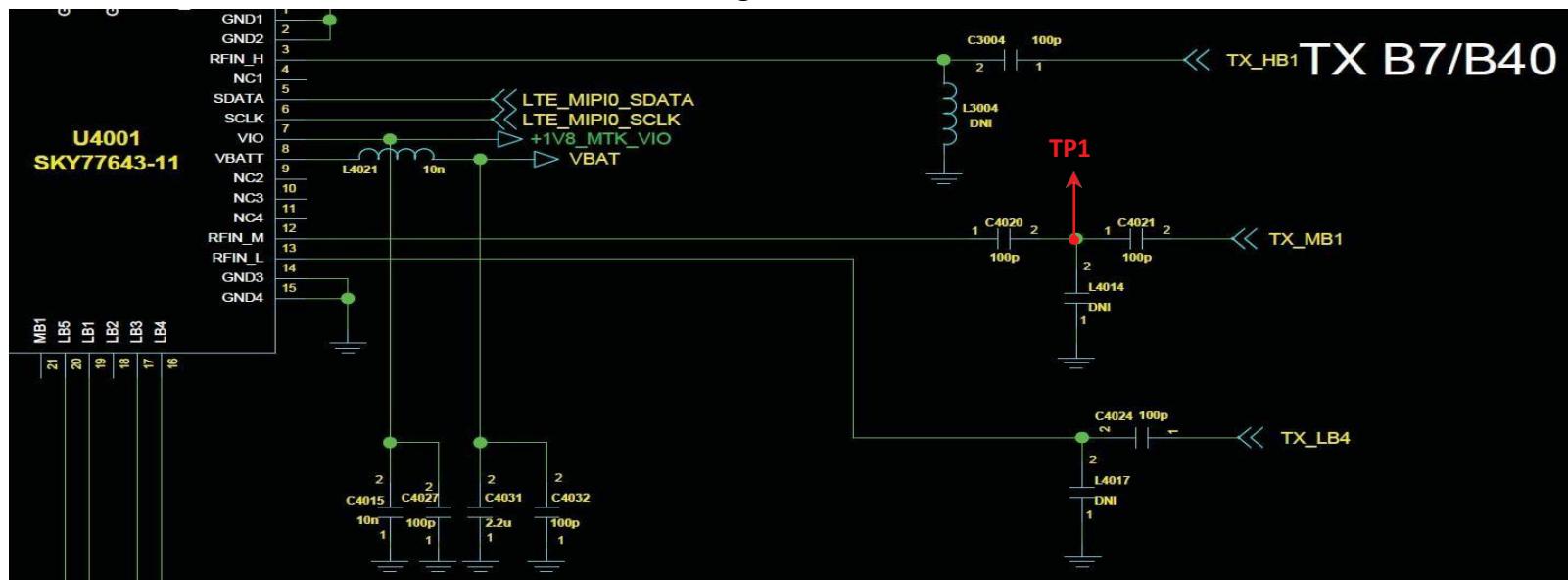
3. TROUBLE SHOOTING

3.7 LTE RF PART

3.7.12 Checking RF Signal TX path(LTE B3)



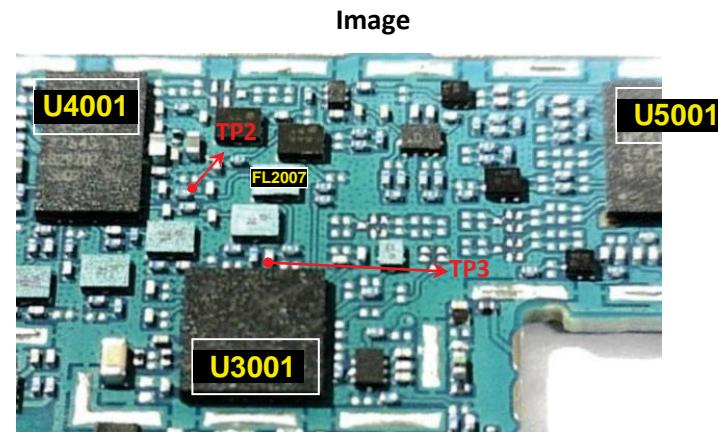
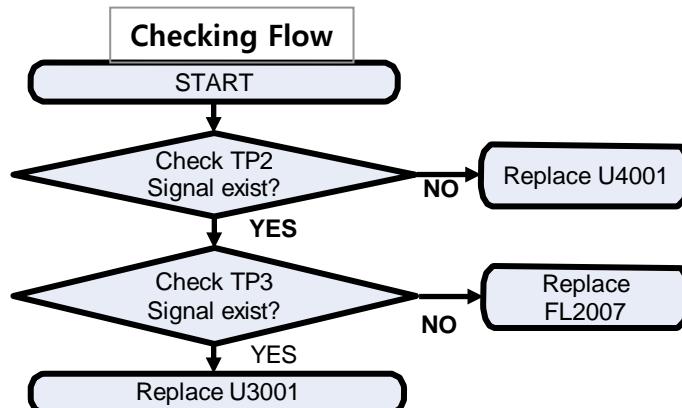
Circuit Diagram



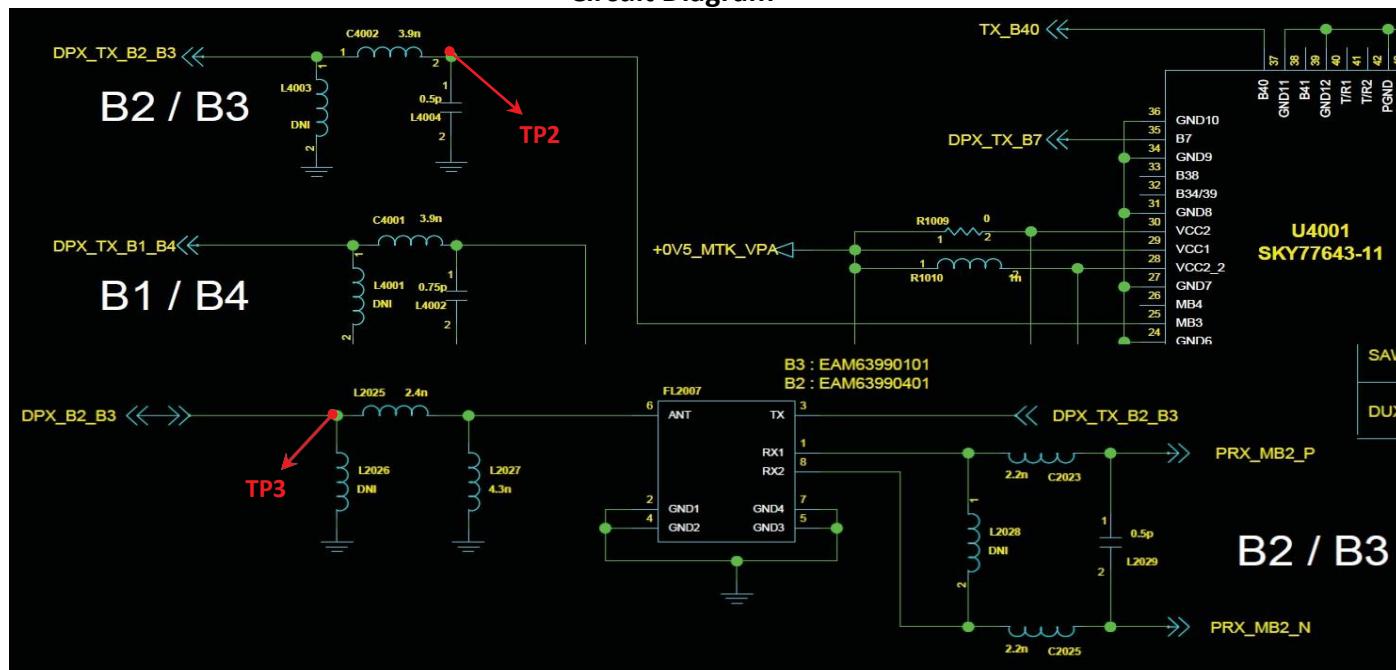
3. TROUBLE SHOOTING

3.7 LTE RF PART

3.7.13 Checking RF Signal TX path(LTE B3)



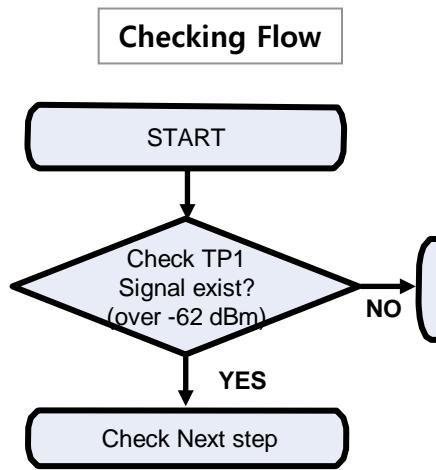
Circuit Diagram



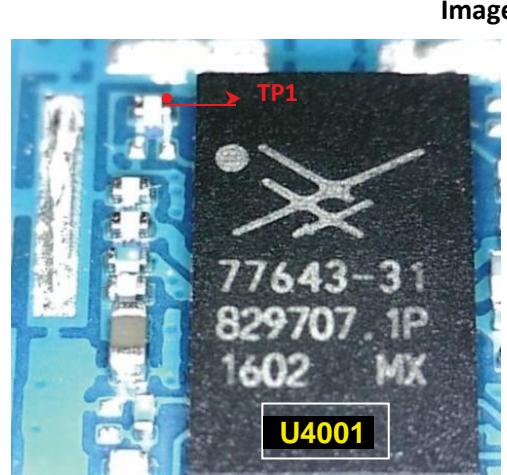
3. TROUBLE SHOOTING

3.7 LTE RF PART

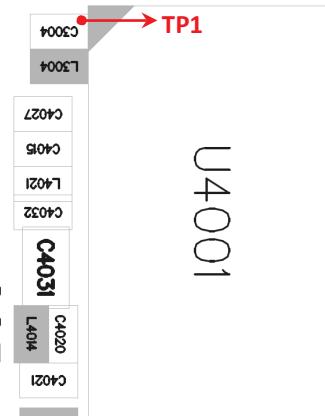
3.7.14 Checking RF Signal TX path(LTE B7)



Image

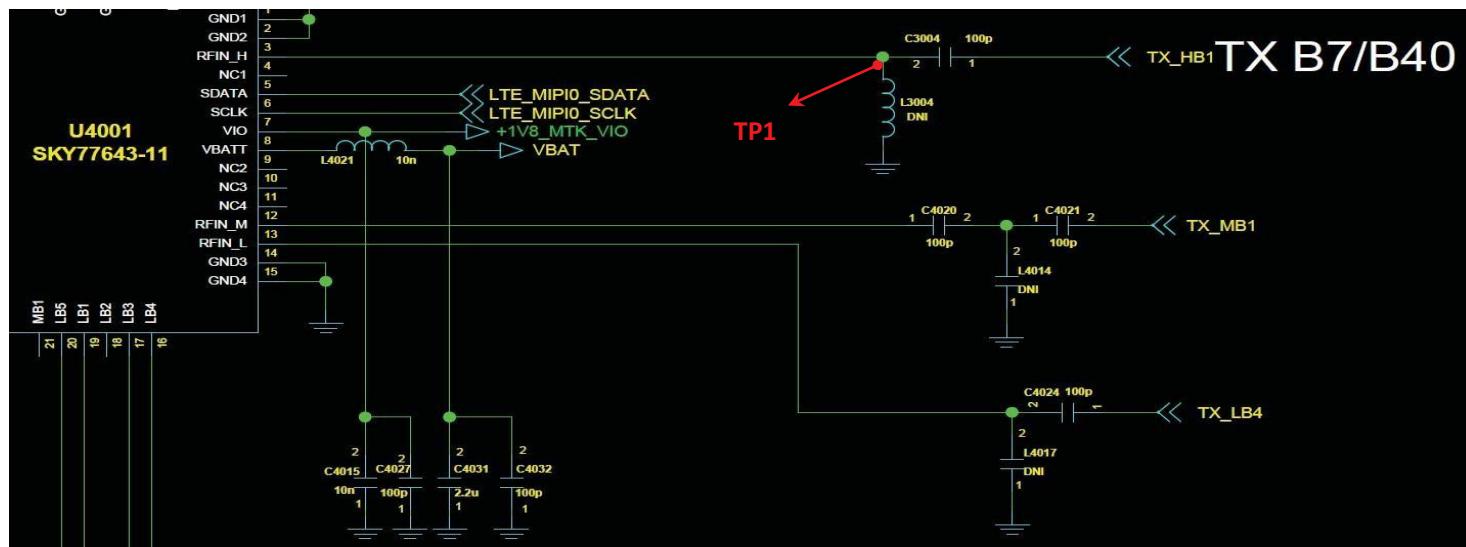


Image



U4001

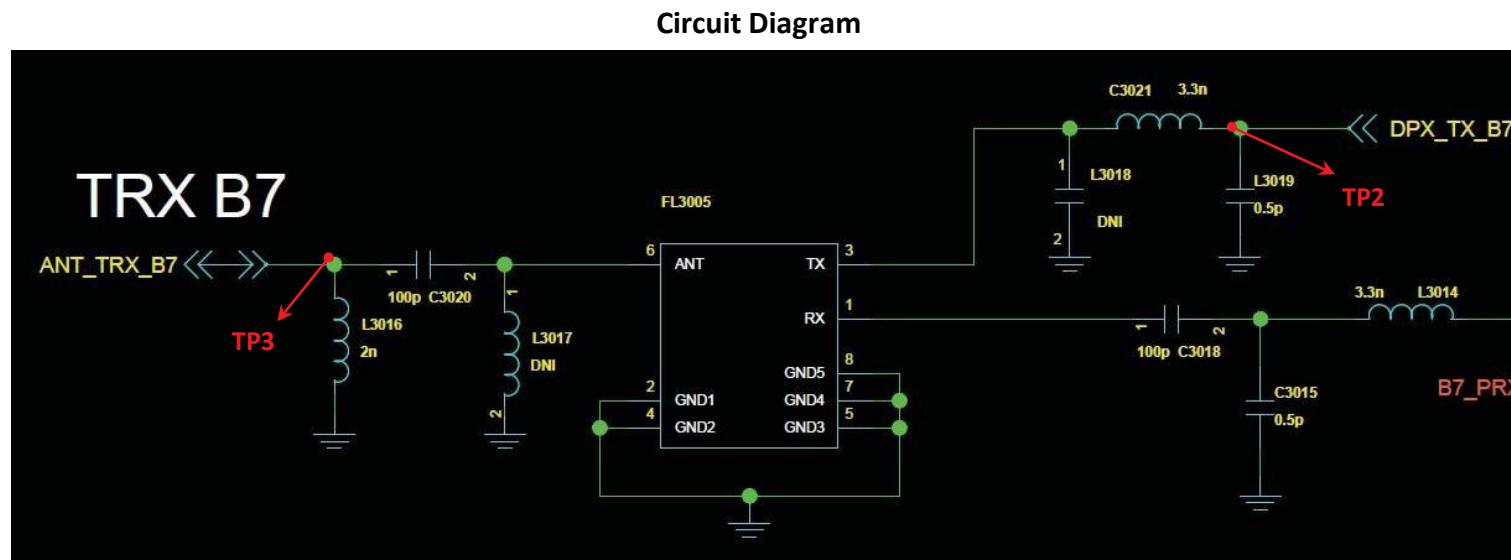
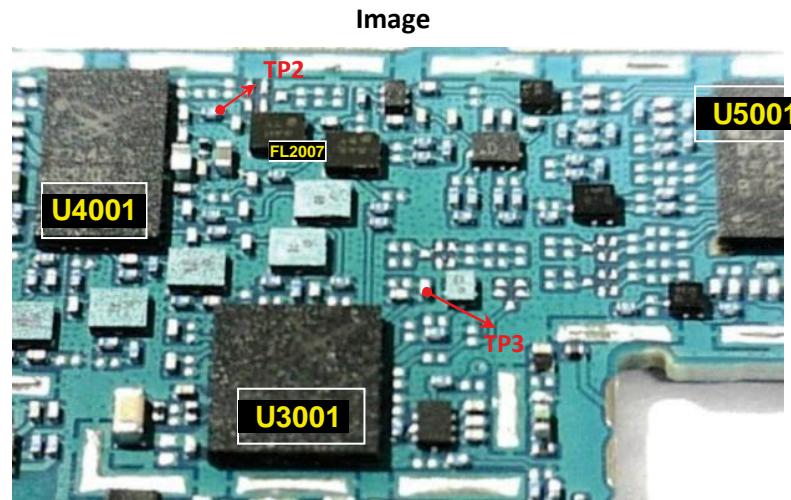
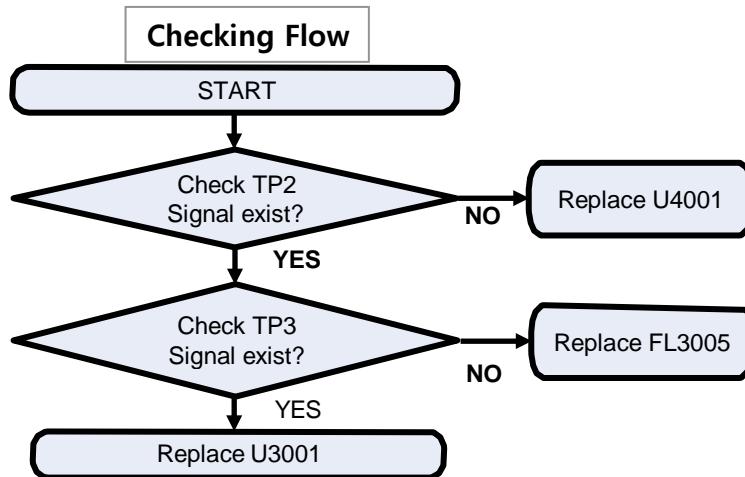
Circuit Diagram



3. TROUBLE SHOOTING

3.7 LTE RF PART

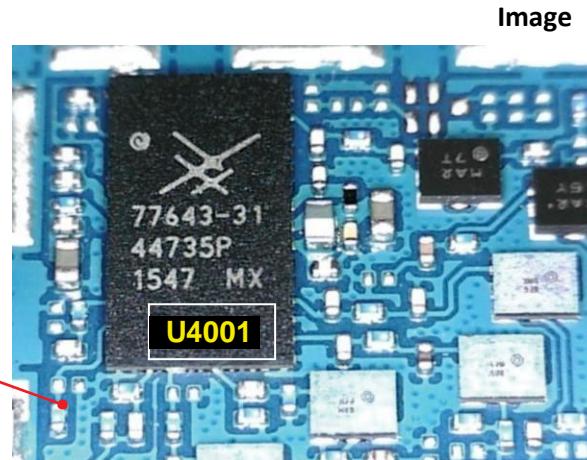
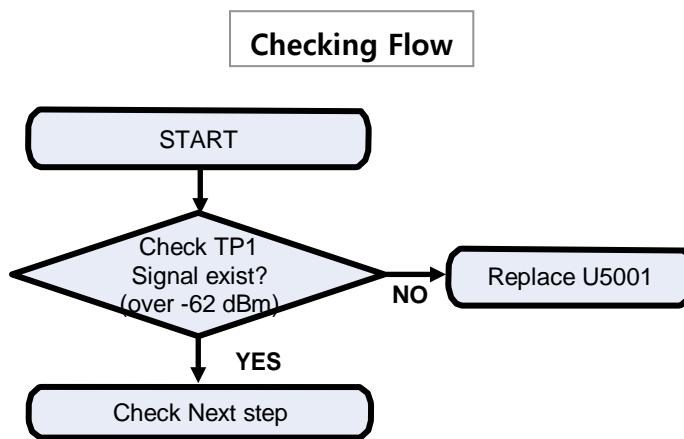
3.7.15 Checking RF Signal TX path(LTE B7)



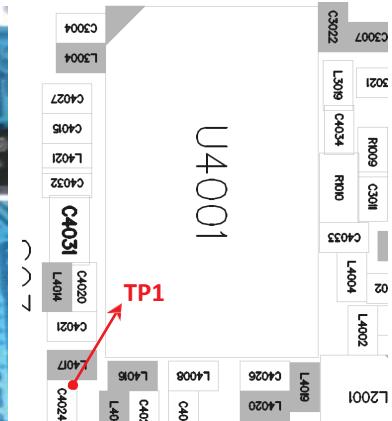
3. TROUBLE SHOOTING

3.7 LTE RF PART

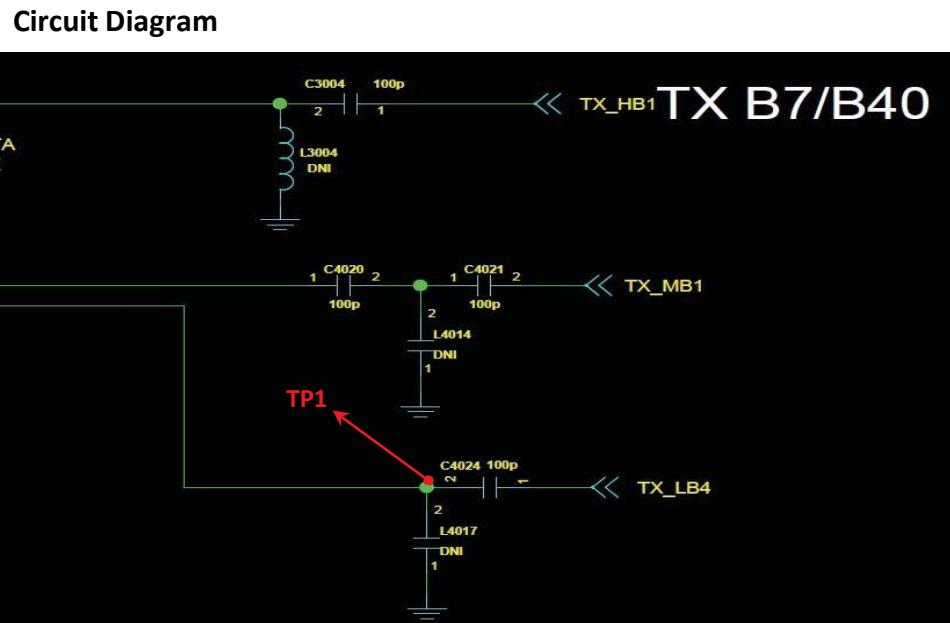
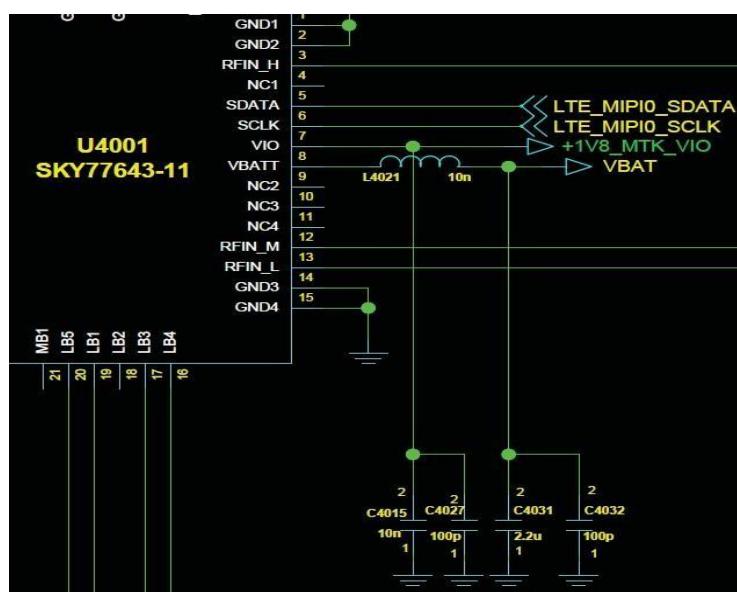
3.7.16 Checking RF Signal TX path(LTE B28)



Image



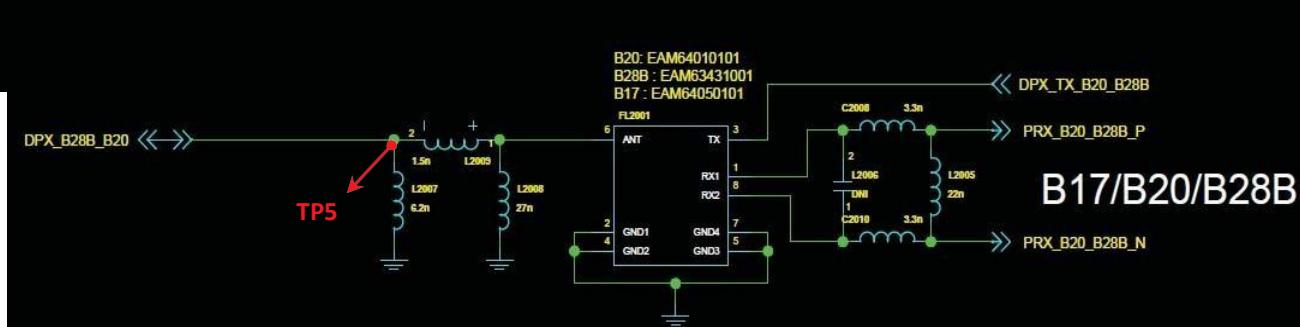
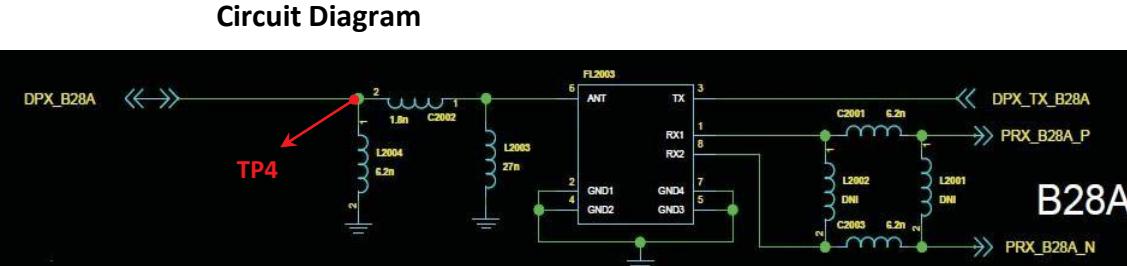
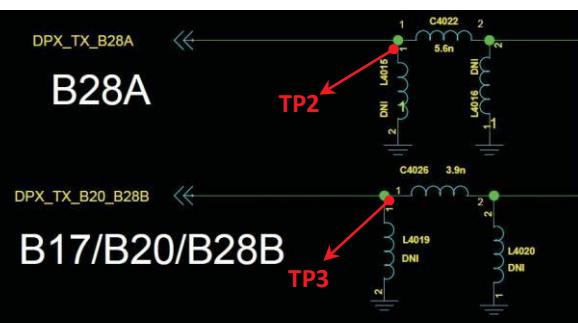
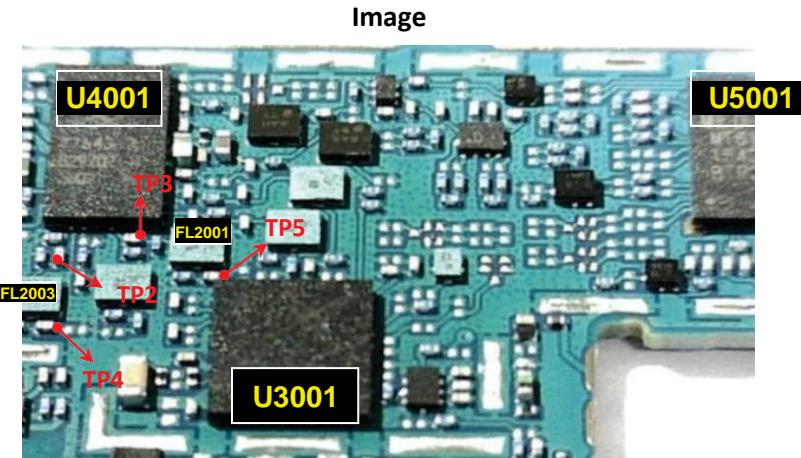
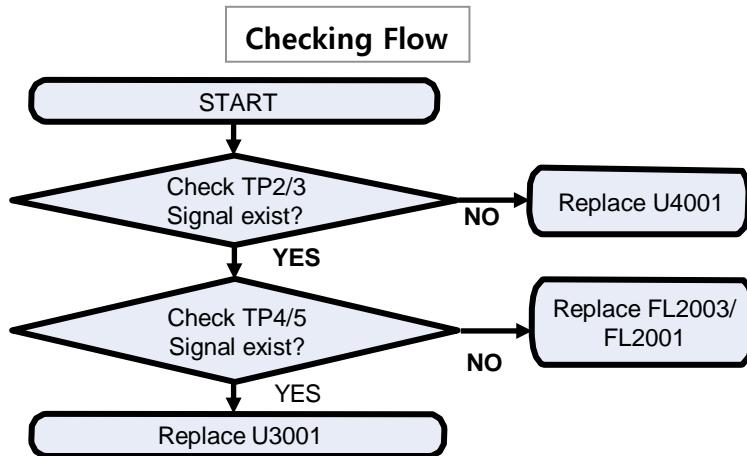
U4001



3. TROUBLE SHOOTING

3.7 LTE RF PART

3.7.17 Checking RF Signal TX path(LTE B28)

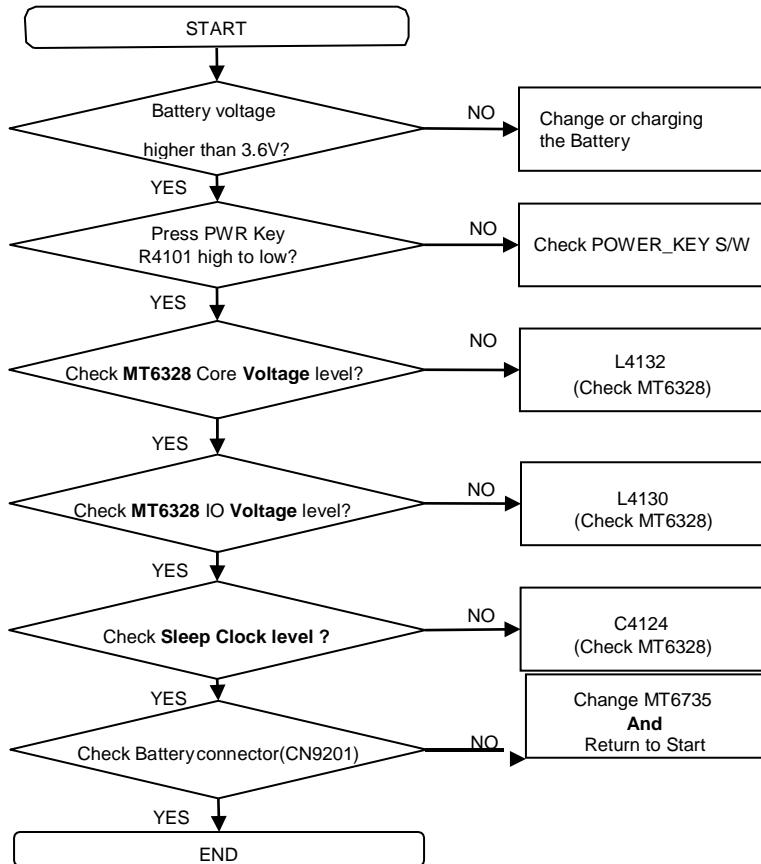


3. TROUBLE SHOOTING

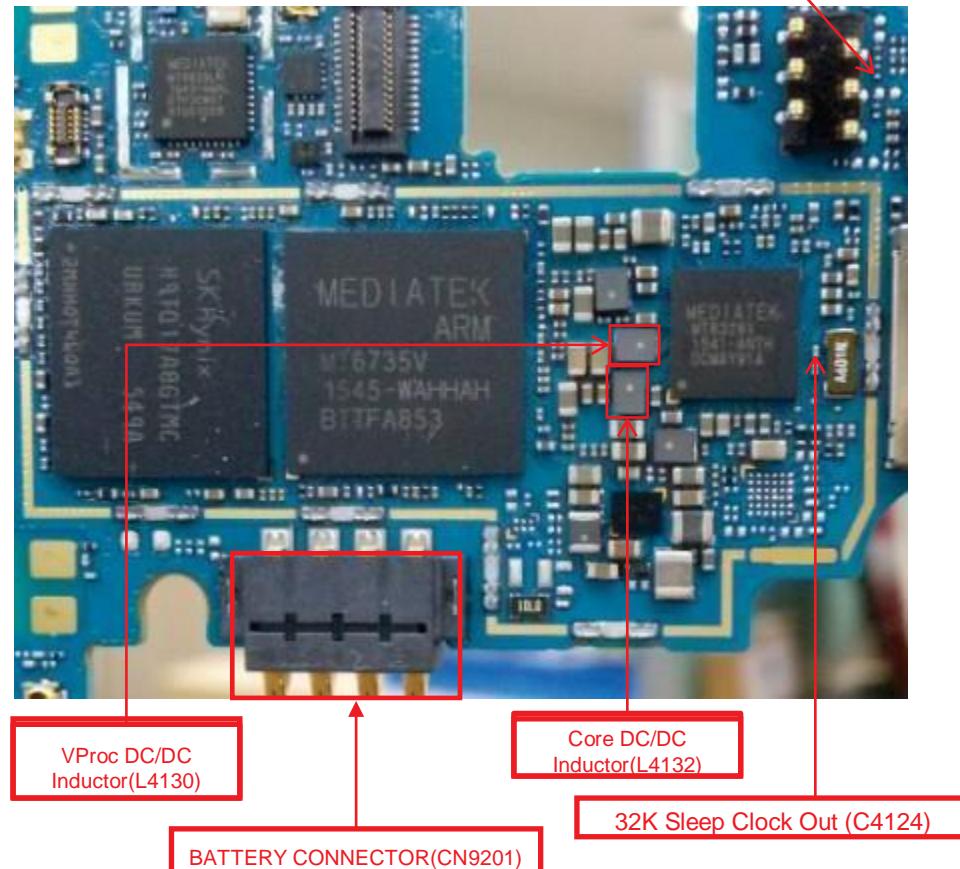
3.8 Power

Checking Power signal (Battery connector, Power Key, PMIC Regulator)

Checking Flow



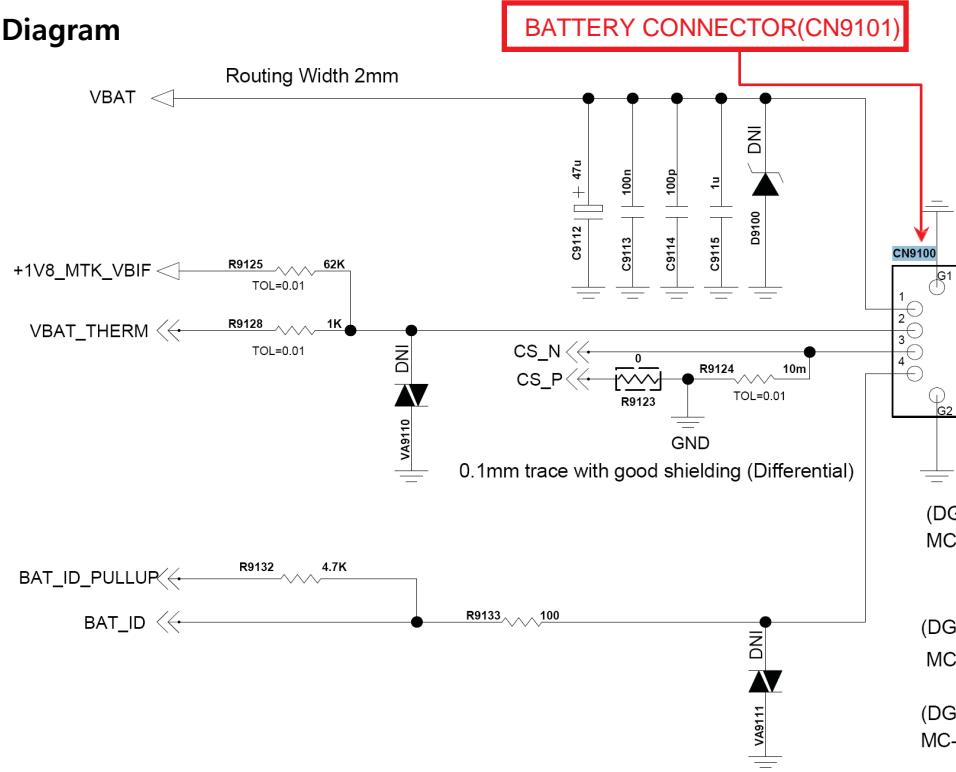
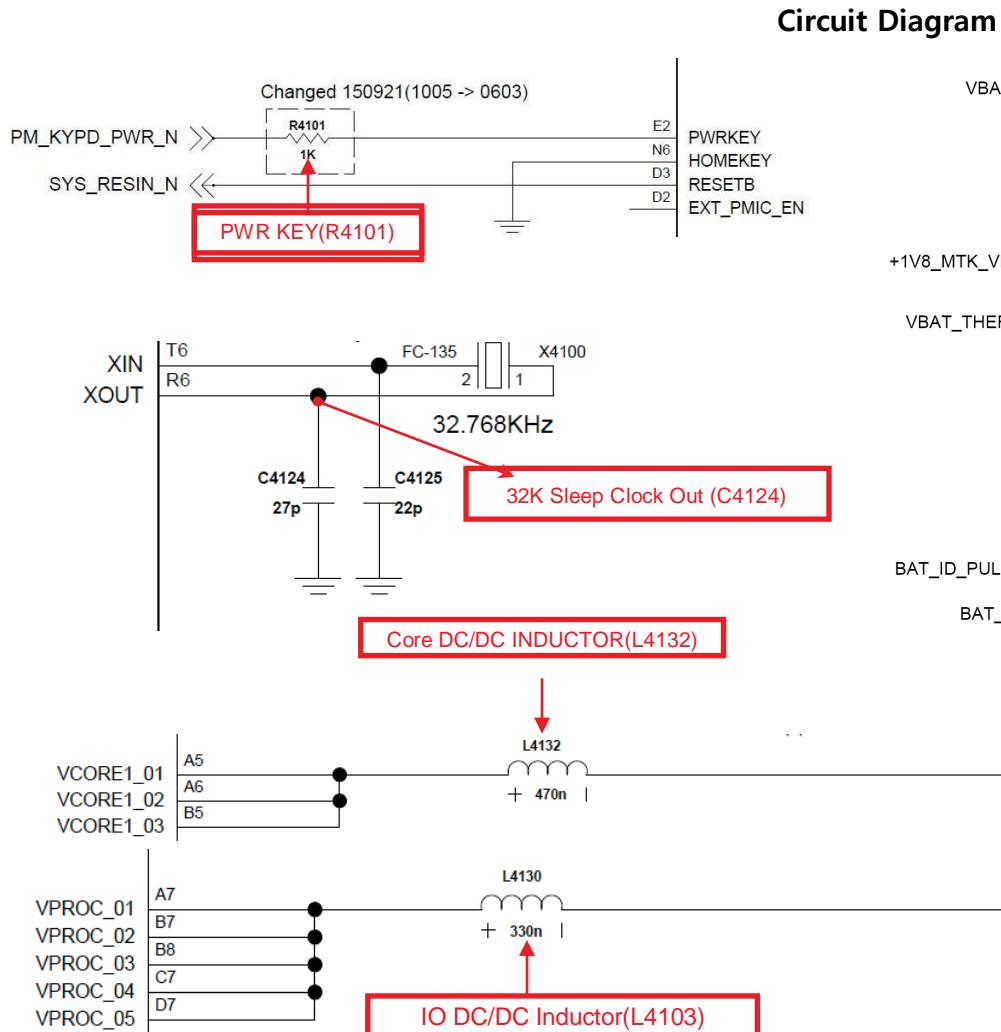
Image



3. TROUBLE SHOOTING

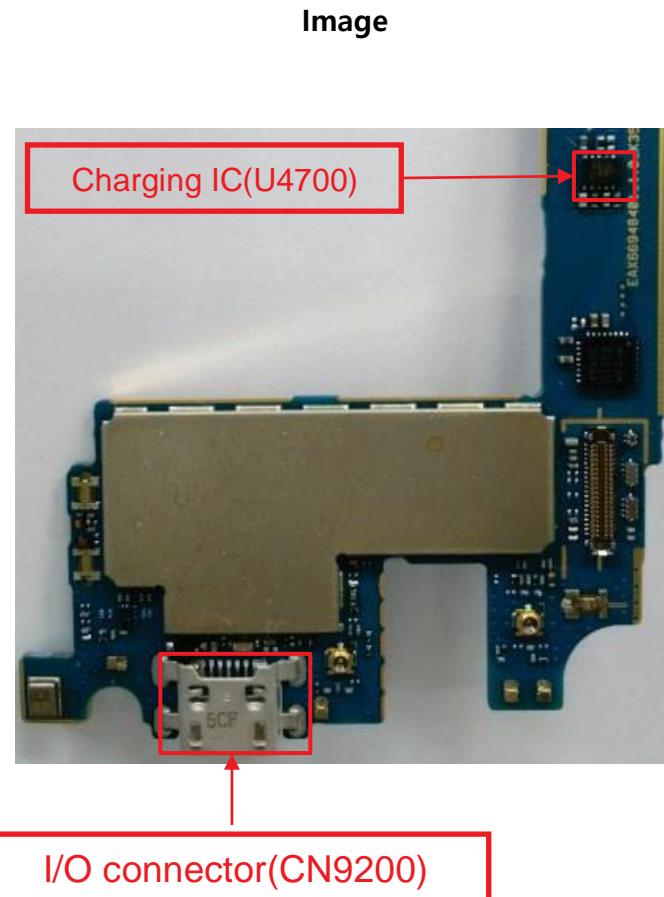
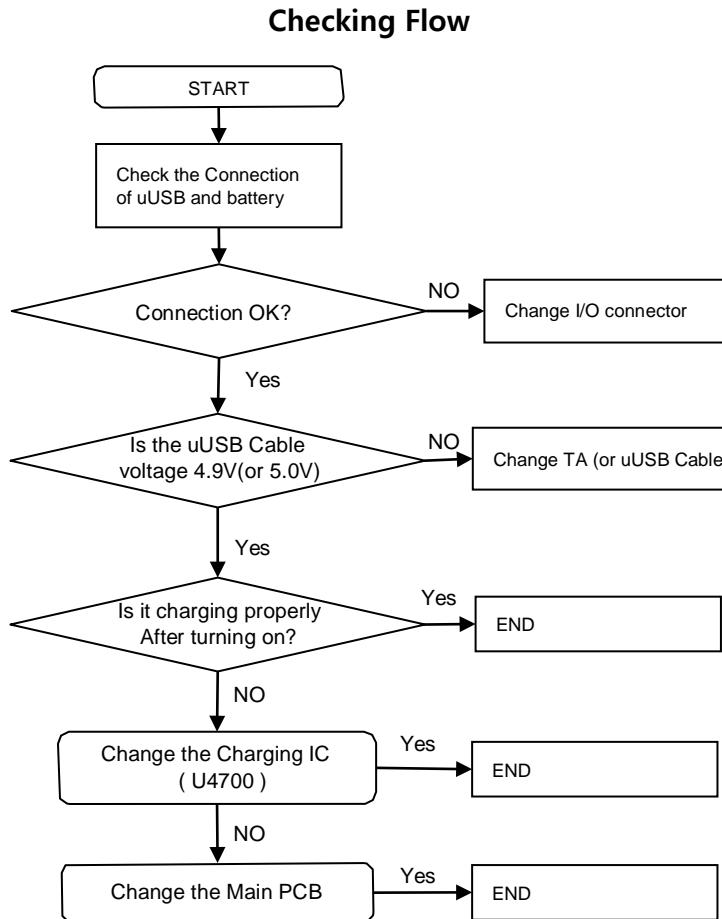
3.8 Power

Checking Power signal (Battery connector, Power Key, PMIC Regulator)



3.9 Charger

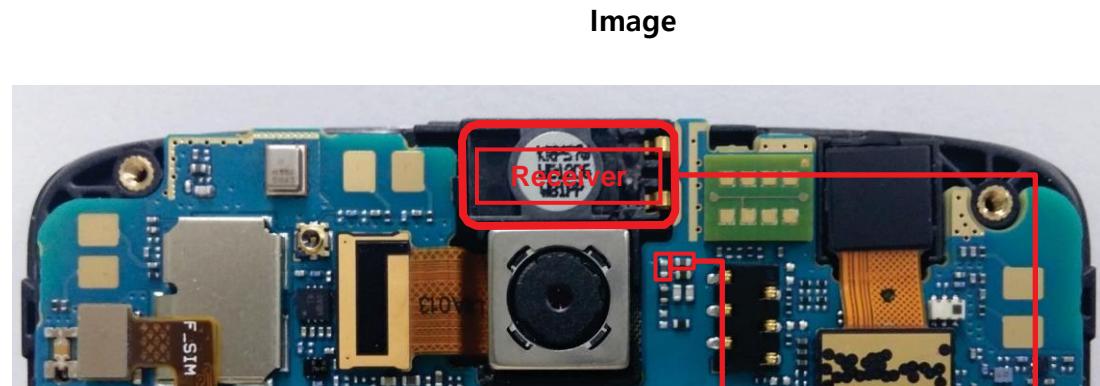
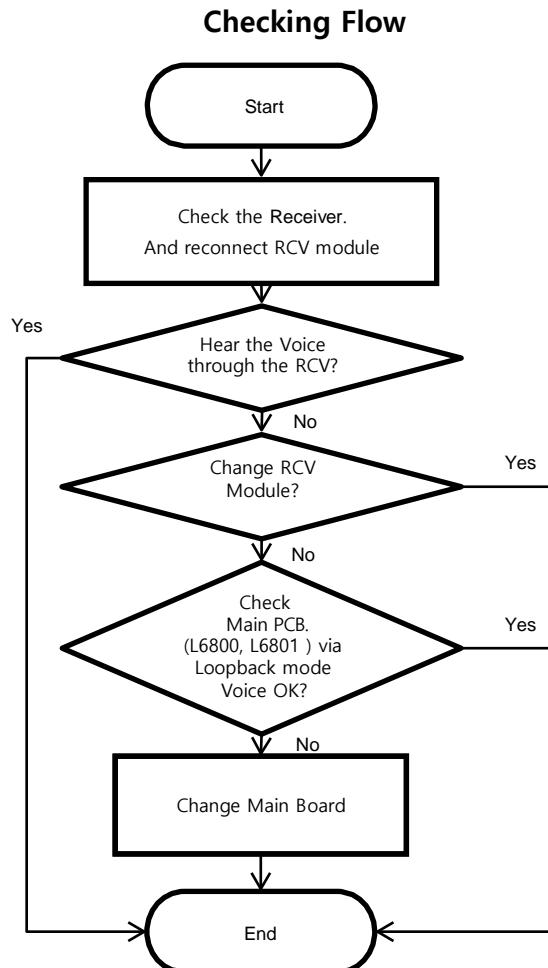
The I/O connector and uUSB cable voltage(5.0V) is used as the reference one of PMIC for charging.



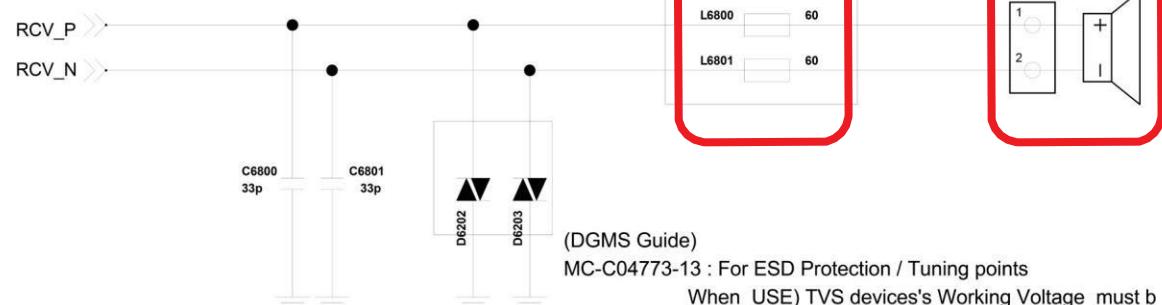
3. TROUBLE SHOOTING

3.10 Audio Block(3.10.1 Audio receiver)

The receiver control signals are generated by MT6328(U4100), the MT6328 chip and the receiver are to be checked out.



Circuit Diagram

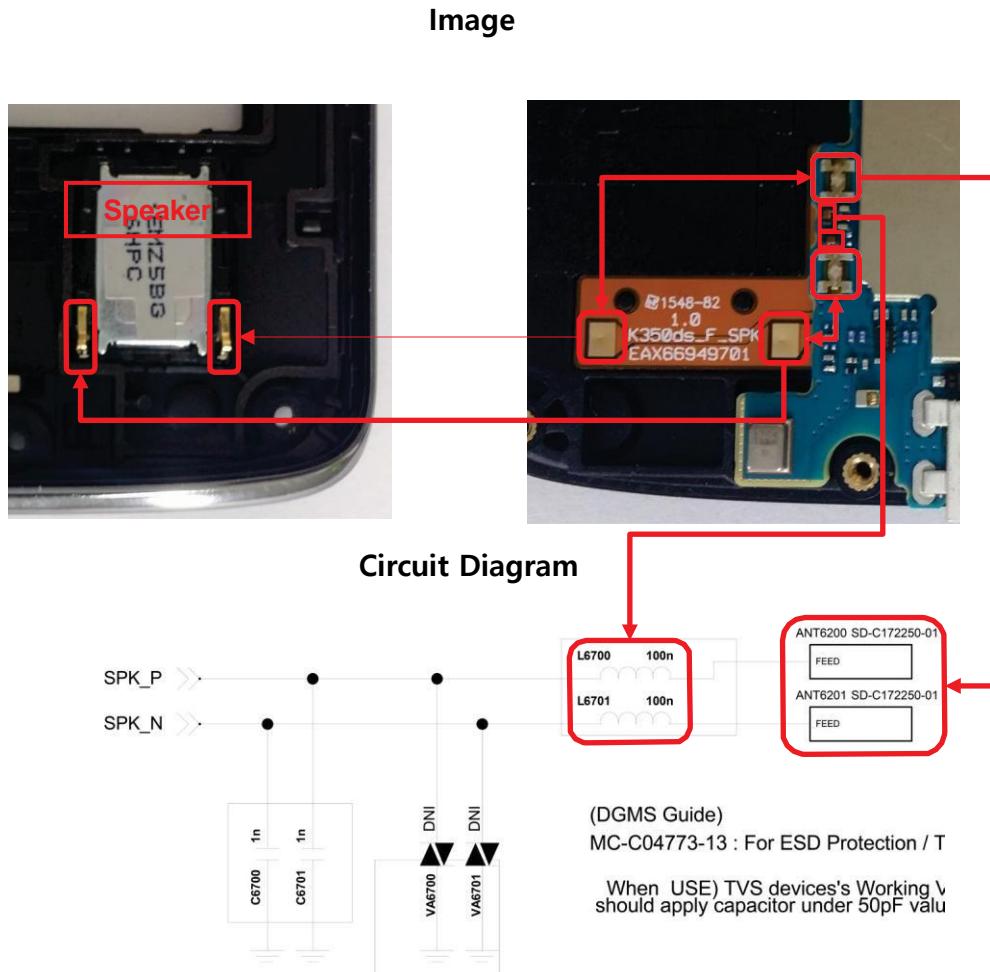
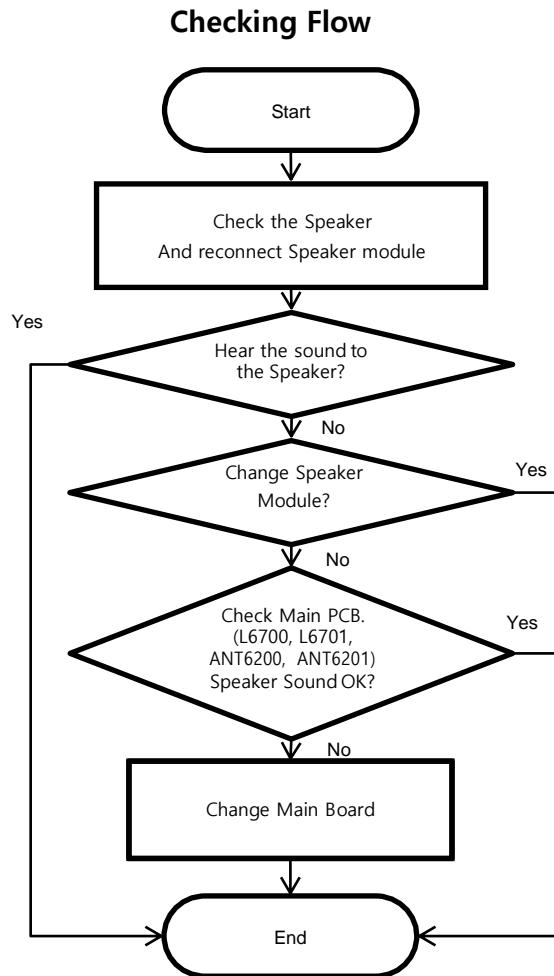


(DGMS Guide)
MC-C04773-13 : For ESD Protection / Tuning points
When USE) TVS devices's Working Voltage must b

3. TROUBLE SHOOTING

3.10.1 Audio_speaker

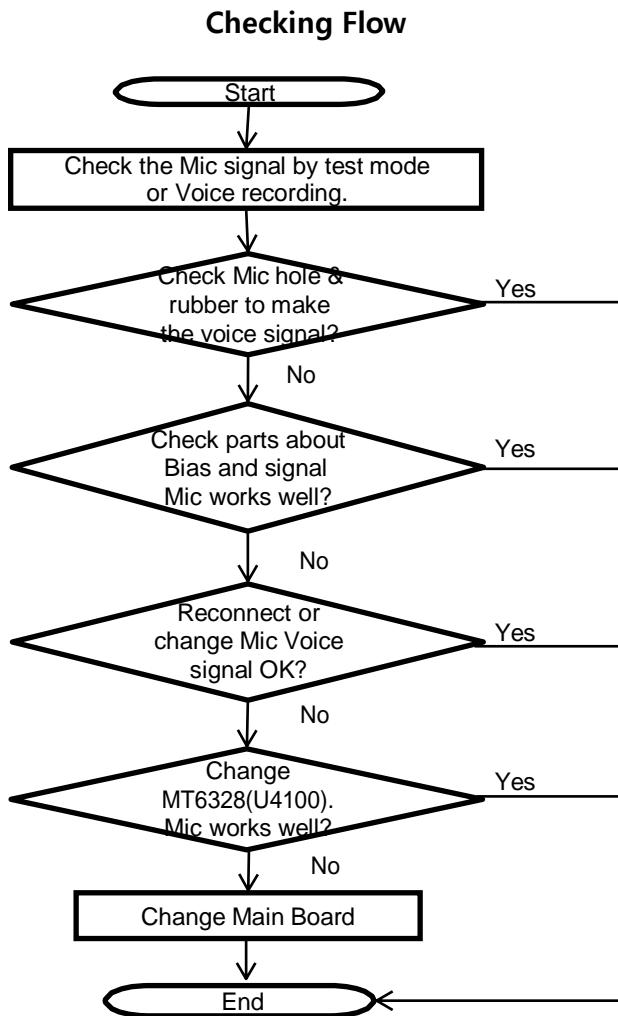
The Speaker control signals are generated by MT6328(U4100), the MT6328 chip and the speaker are to be checked out.



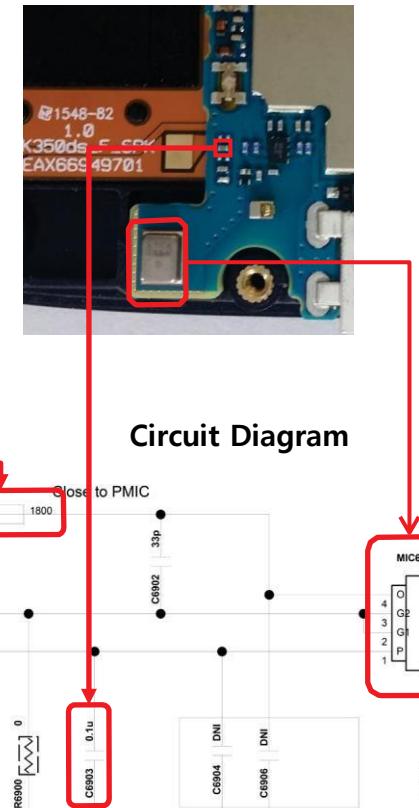
3. TROUBLE SHOOTING

3.10.2 Audio_Main MIC

It's operating voice call(except speakerphone), voice recording, camcorder recording.



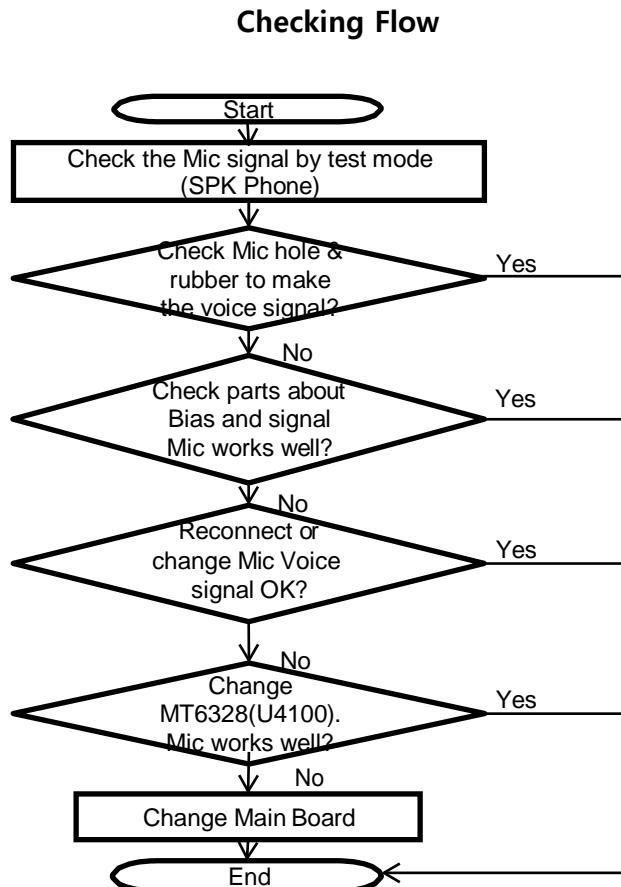
Image



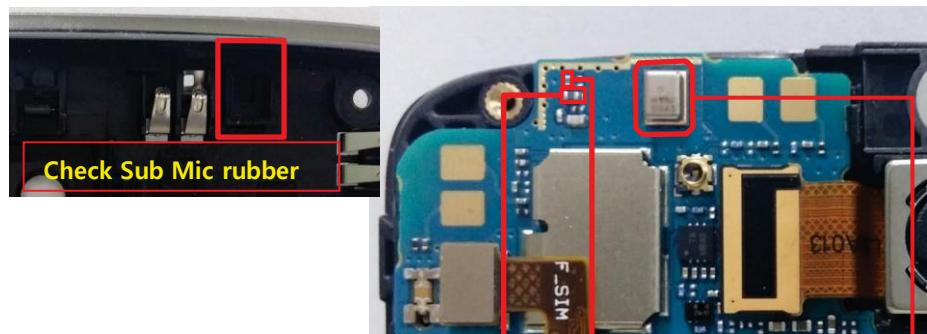
Check FB6900, VMIC voltage level (C6903)

3.10.3 Audio_sub MIC

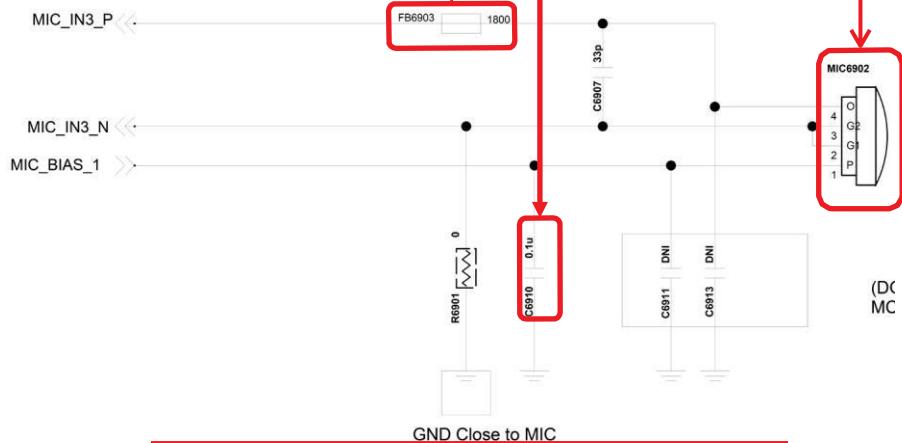
It's operating Speakerphone call.



Image



Circuit Diagram

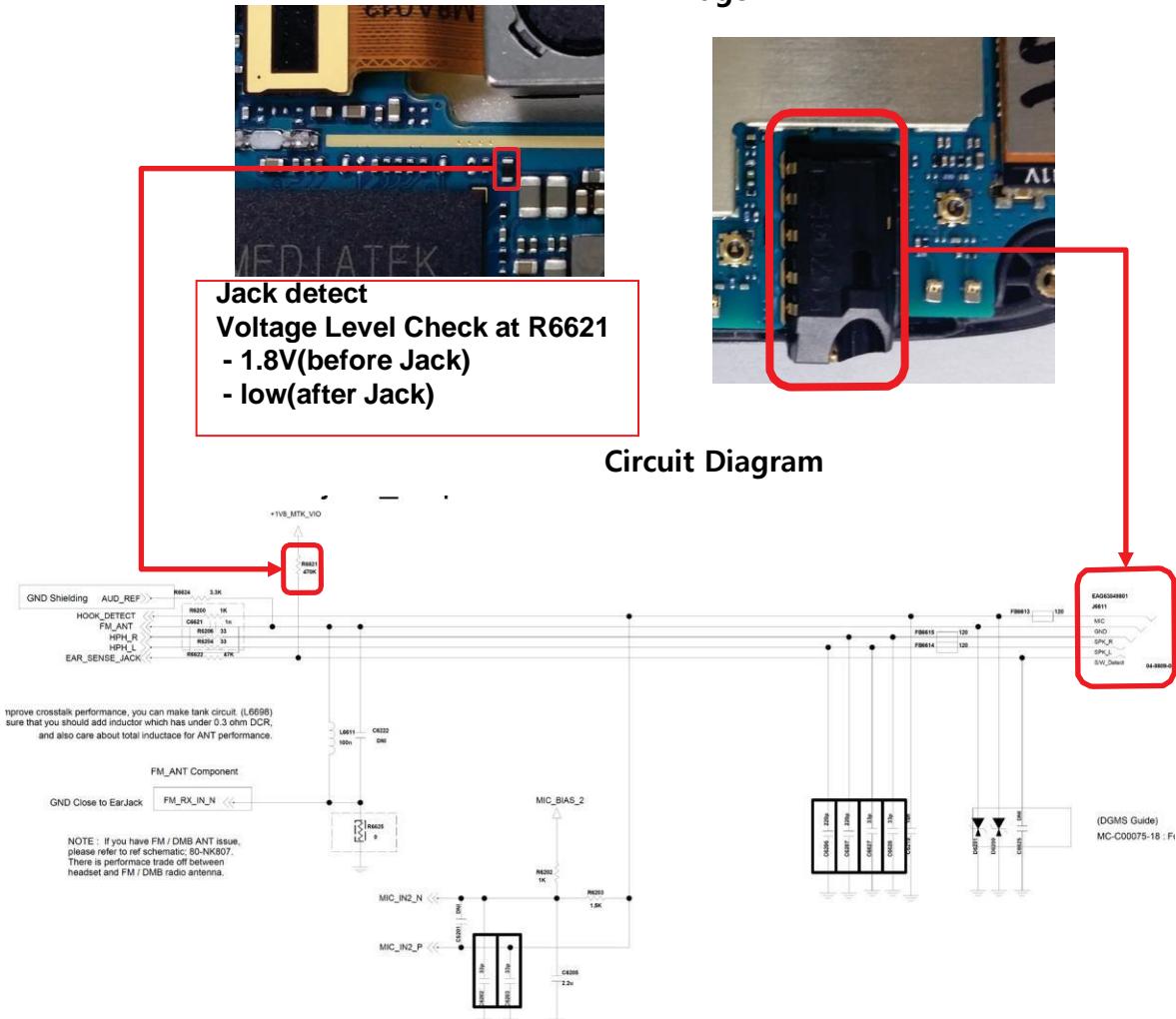
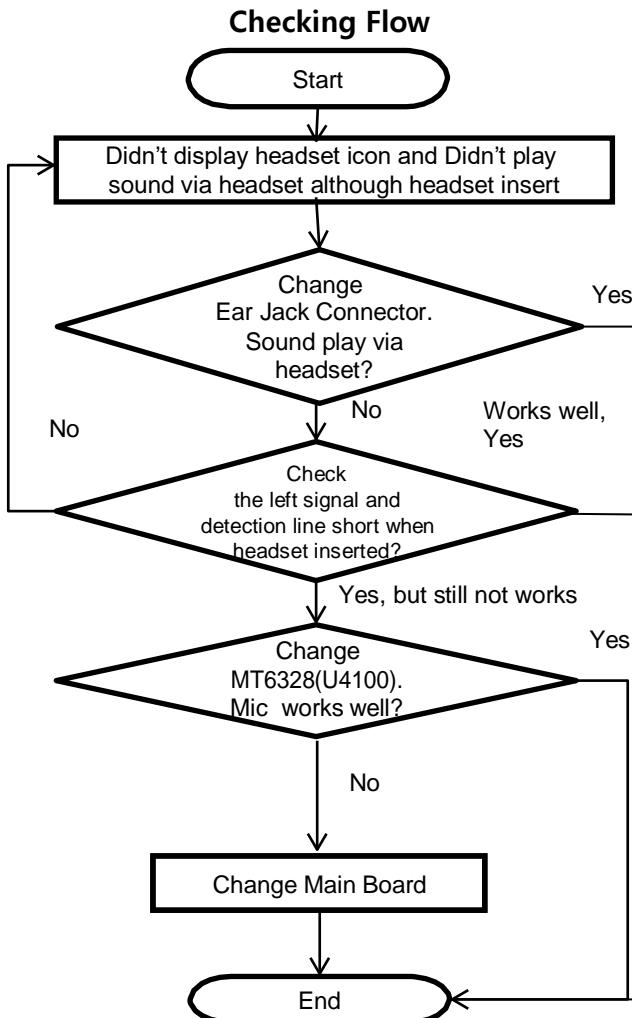


Check FB6903, , VMIC voltage level (C6910)

3. TROUBLE SHOOTING

3.10.4 Audio_Ear MIC Jack

Disable detecting headset insert or No sound from Earphone, Check the Ear Mic and MT6328

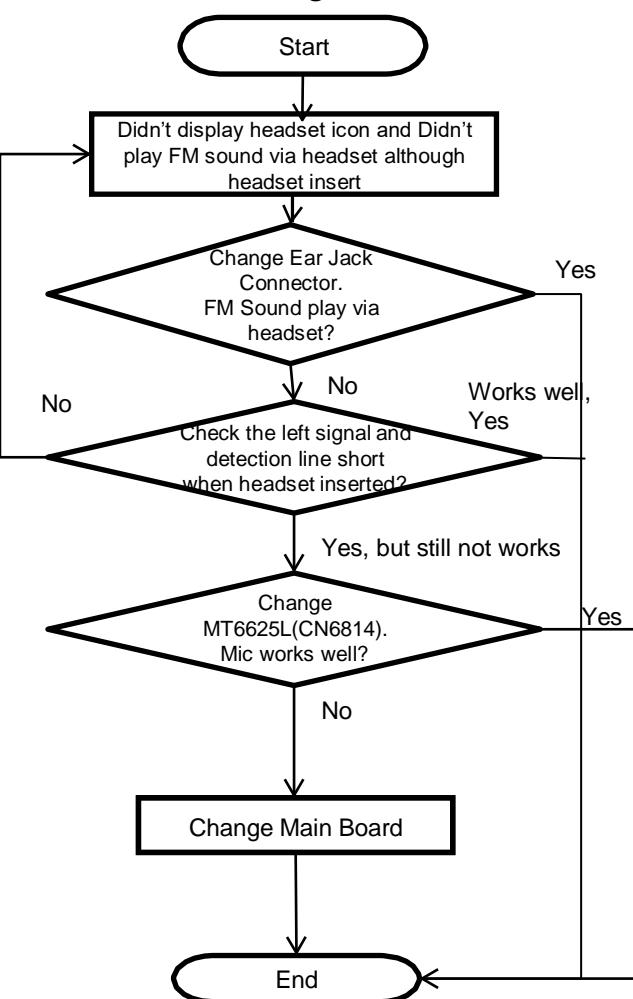


3. TROUBLE SHOOTING

3.10.5 FM_Radio

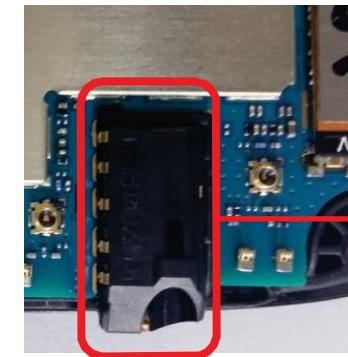
Disable detecting headset insert or No FM sound from Earphone, Check the Ear Mic and MT6625L

Checking Flow

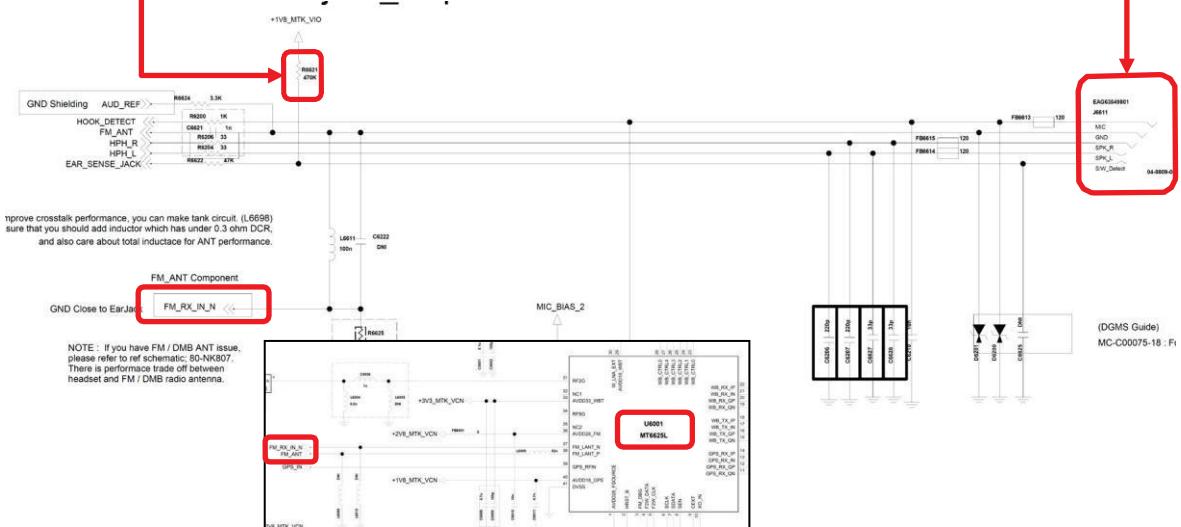


LGE Internal Use Only

Image



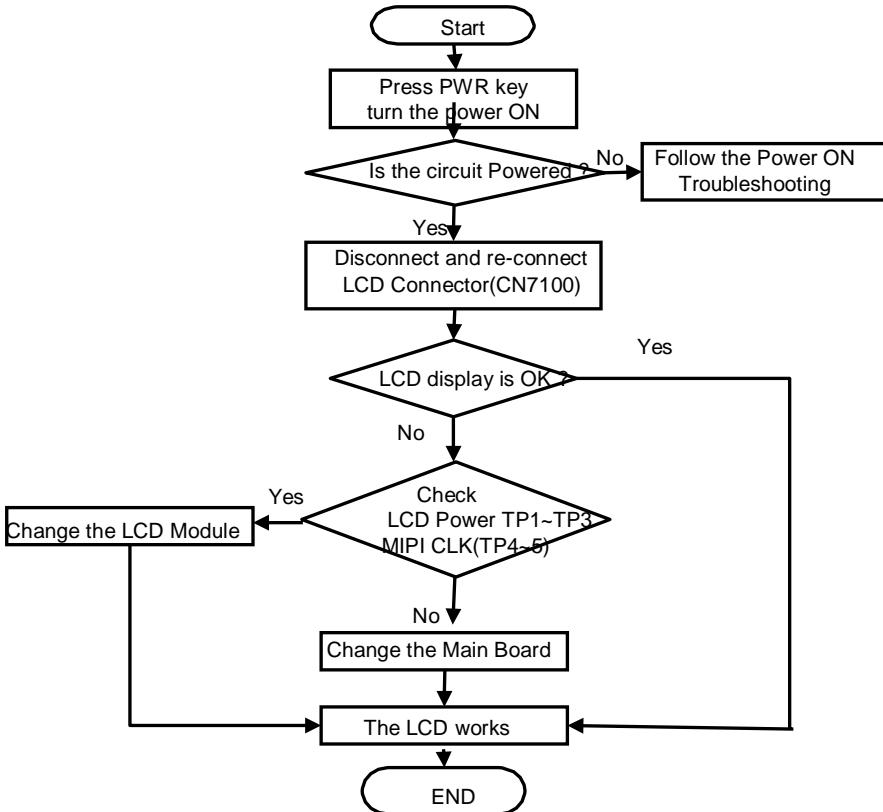
Circuit Diagram



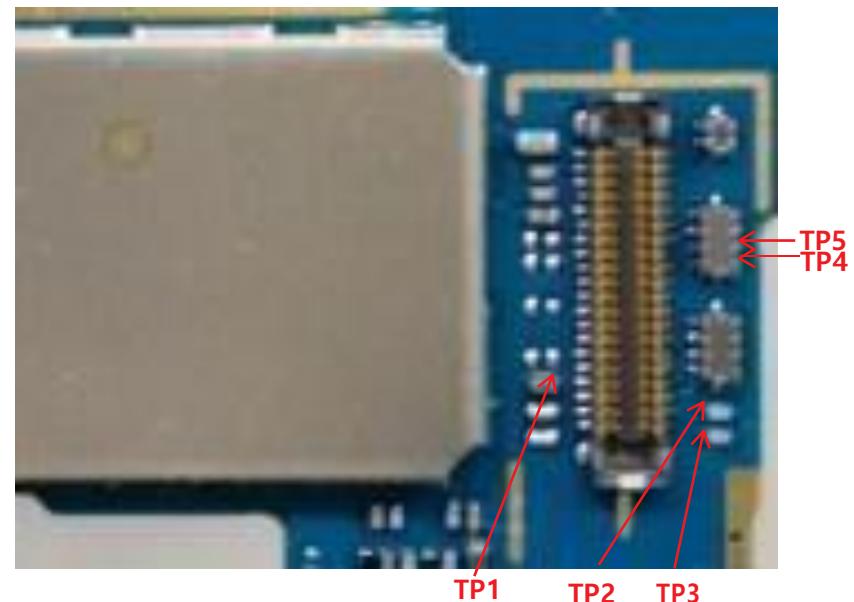
3.11 Checking LCD Block

The LCD control signals are generated by MT6735. Its interface is MIPI having four data lanes and one clock lane.

Checking Flow



Image



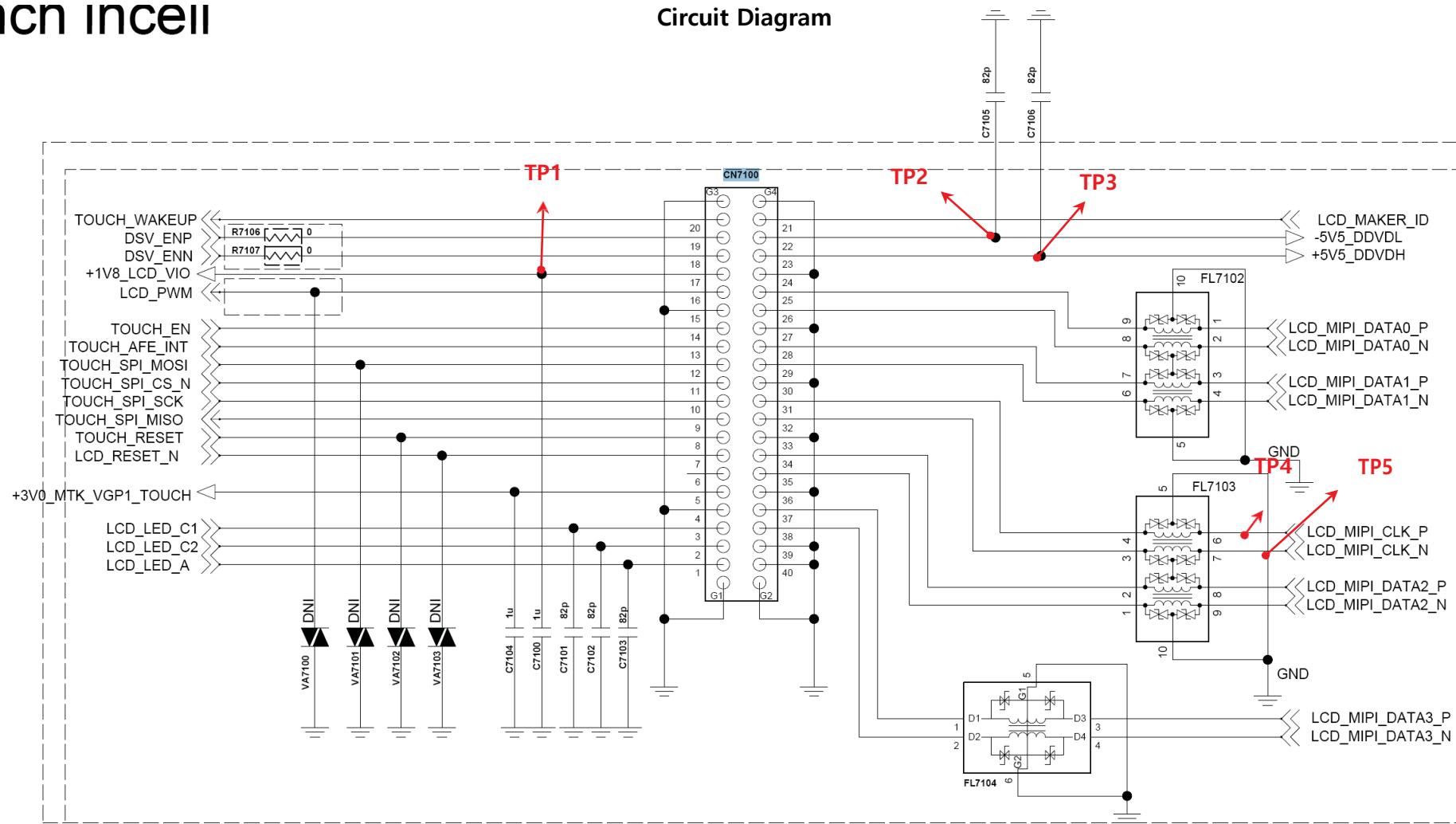
3. TROUBLE SHOOTING

3.11 Checking LCD Block

The LCD control signals are generated by MT6735. Its interface is MIPI having four data lanes and one clock lane.

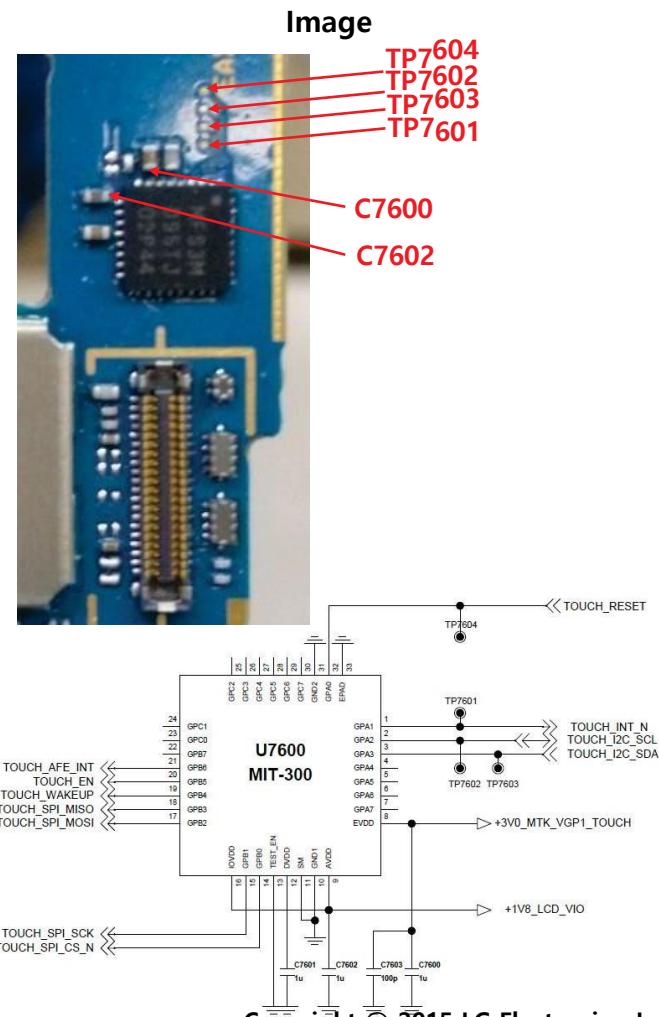
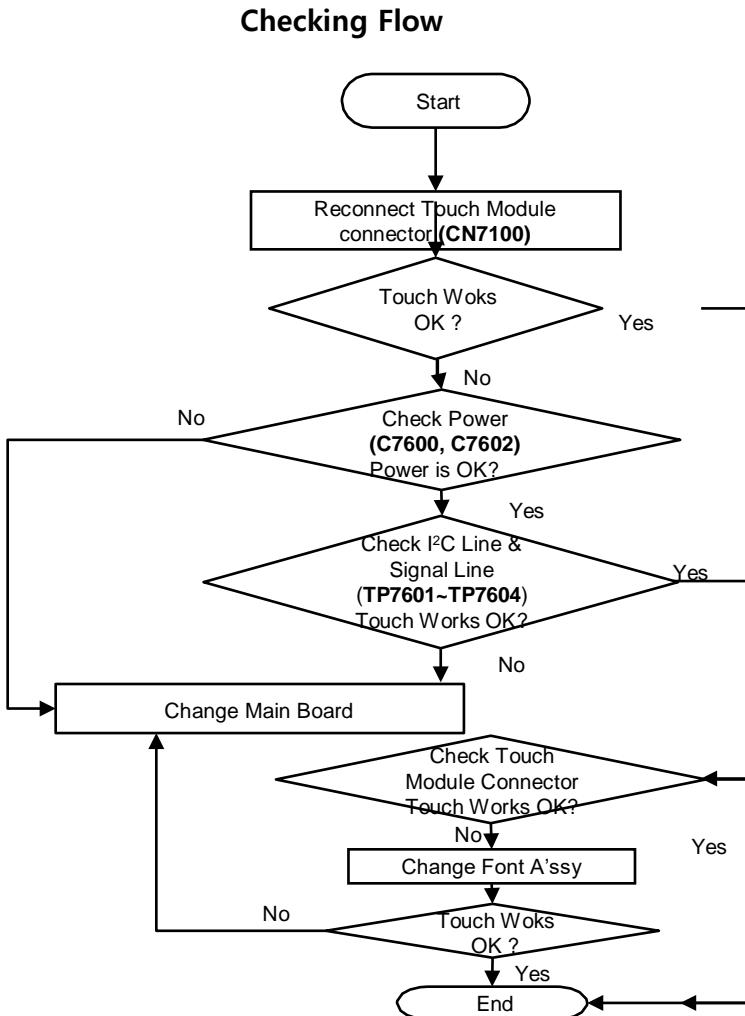
ICn INCELL

Circuit Diagram



3.12 Checking Touch Block

The Touch control signals are generated by MT6735. It is assembled with LCD.

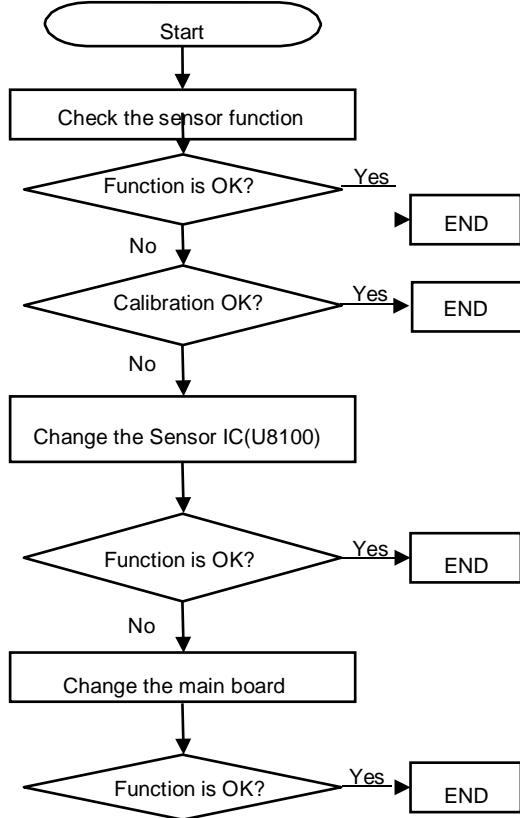


3. TROUBLE SHOOTING

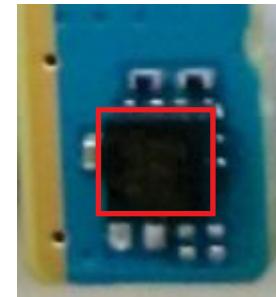
3.13 Checking accelmeter+compass sensor Block

The Accl. & compass sensors are calibrated by using SW algorithm.

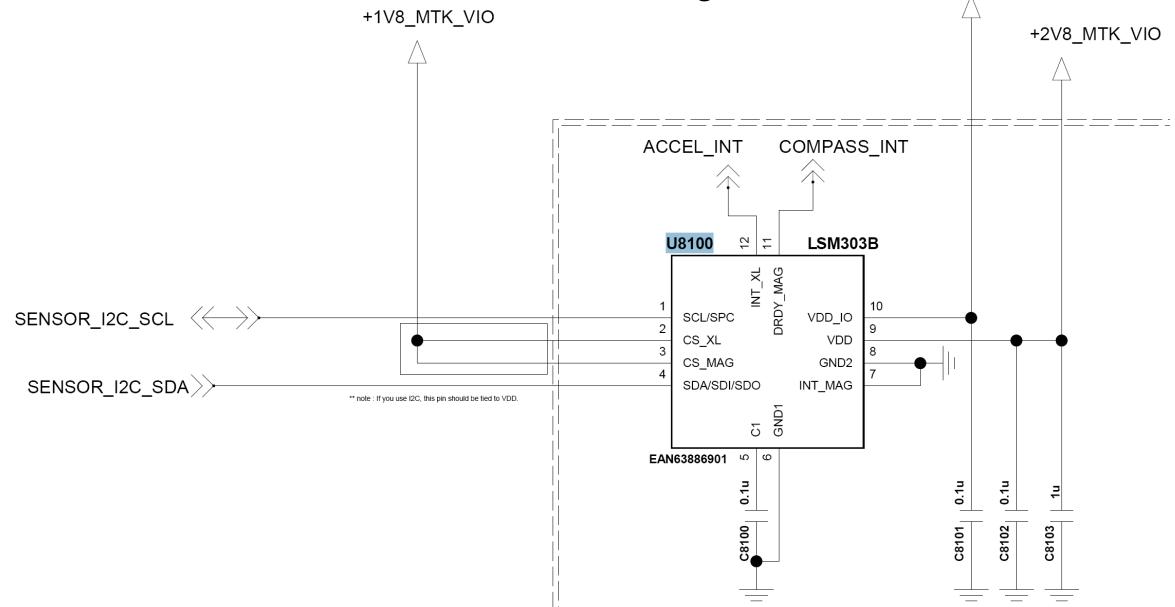
Checking Flow



Image



Circuit Diagram



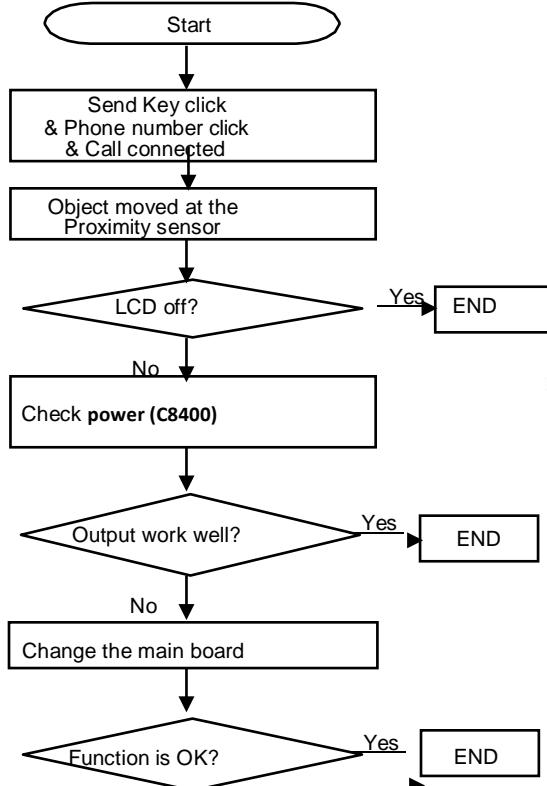
3. TROUBLE SHOOTING

3.13 Checking proximity sensor Block

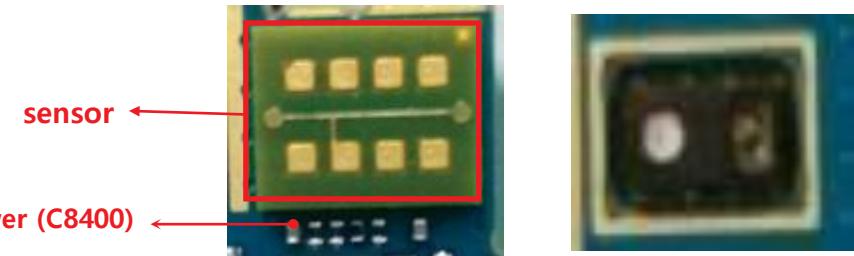
Proximity Sensor is worked as below: Send Key click → Phone number click → Call connected

→ Object moved at the sensor → Control the screen's on/off operation automatically

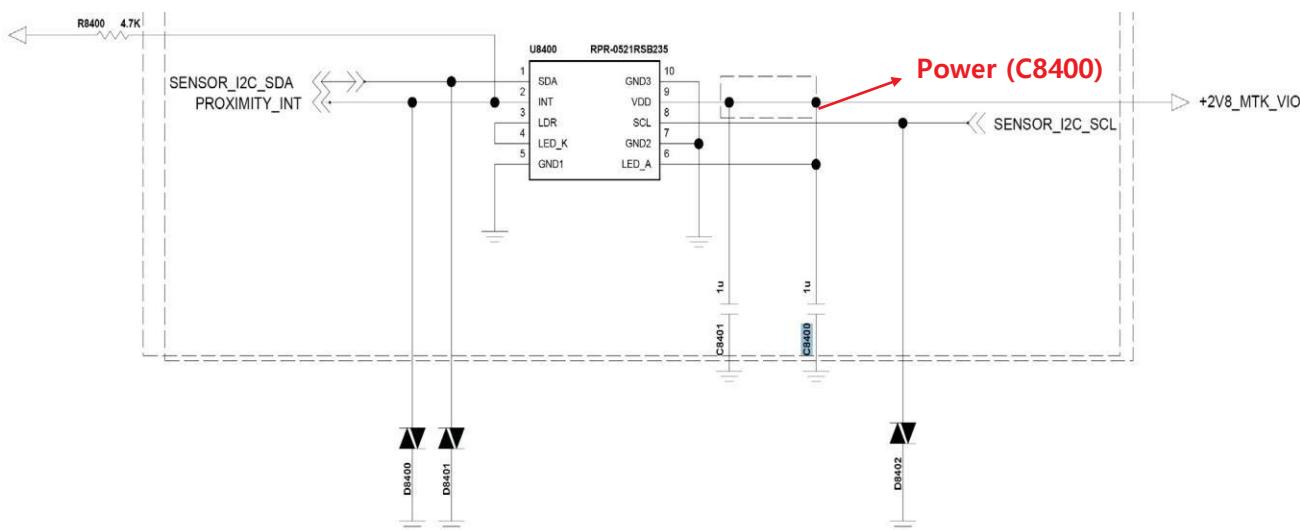
Checking Flow



Image



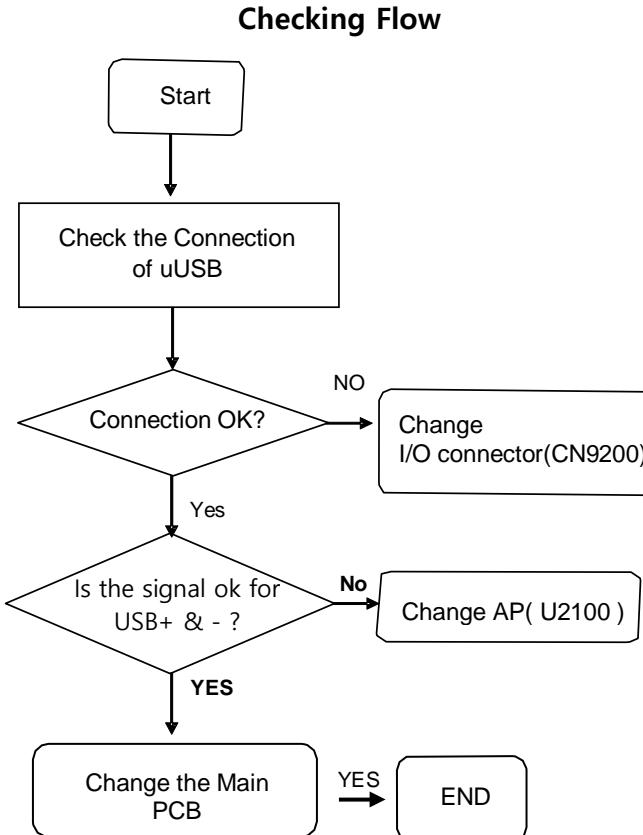
Circuit Diagram



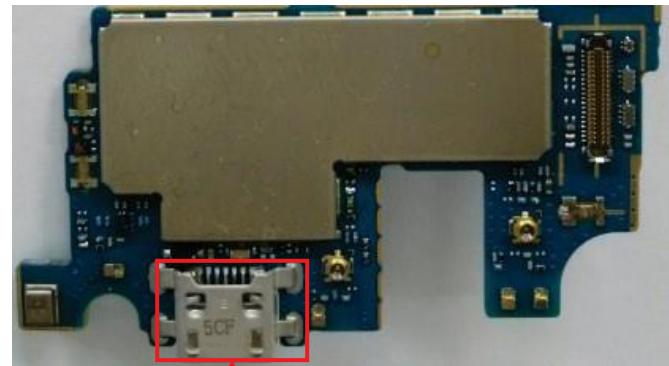
3. TROUBLE SHOOTING

3.14 Checking USB Block

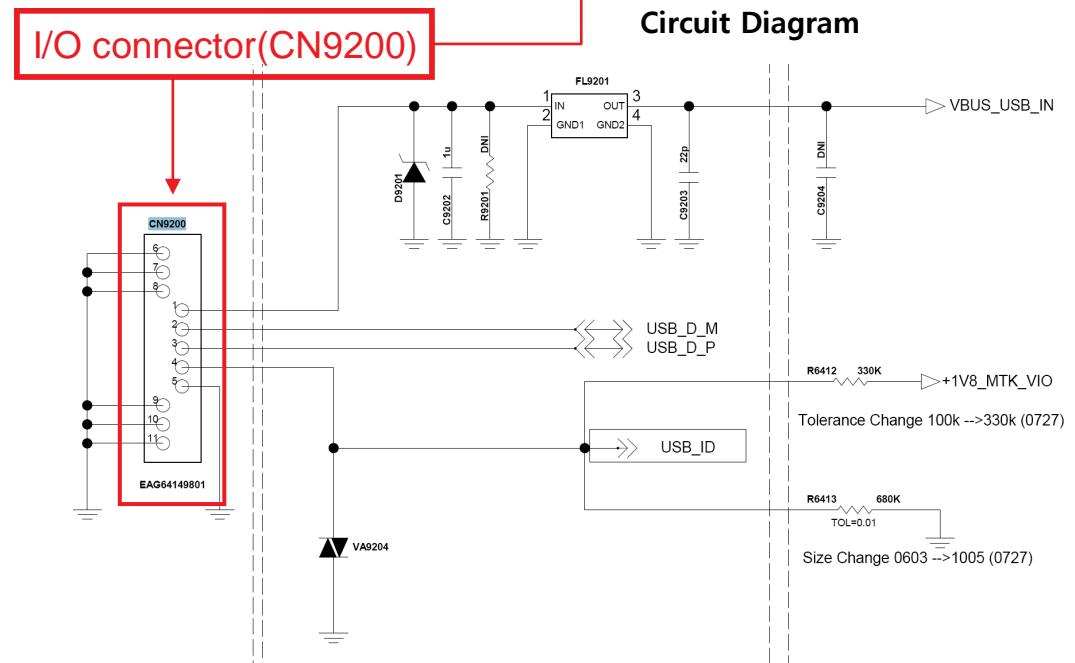
I/O connector is used as the USB port.



Image



Circuit Diagram



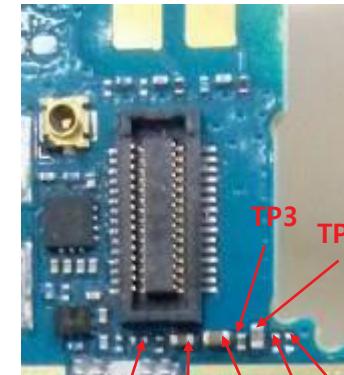
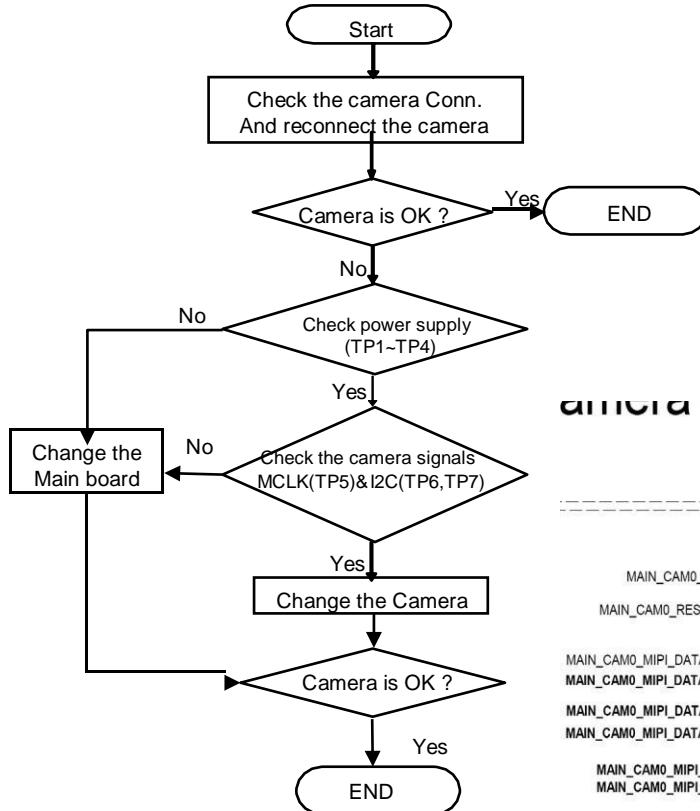
3. TROUBLE SHOOTING

3.15 Checking Main camera Block

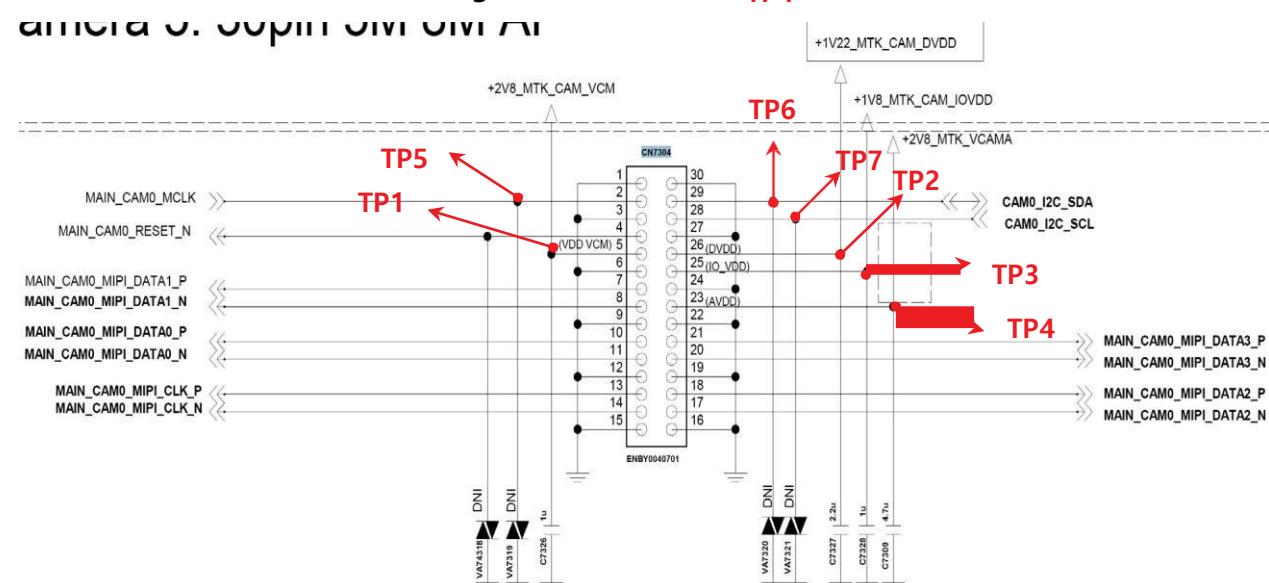
8M camera control signals are generated by MT6735 (U2100 : Main Chipset). And powered by MT6328 (U4100 : PMIC).

Image

Checking Flow



Circuit Diagram

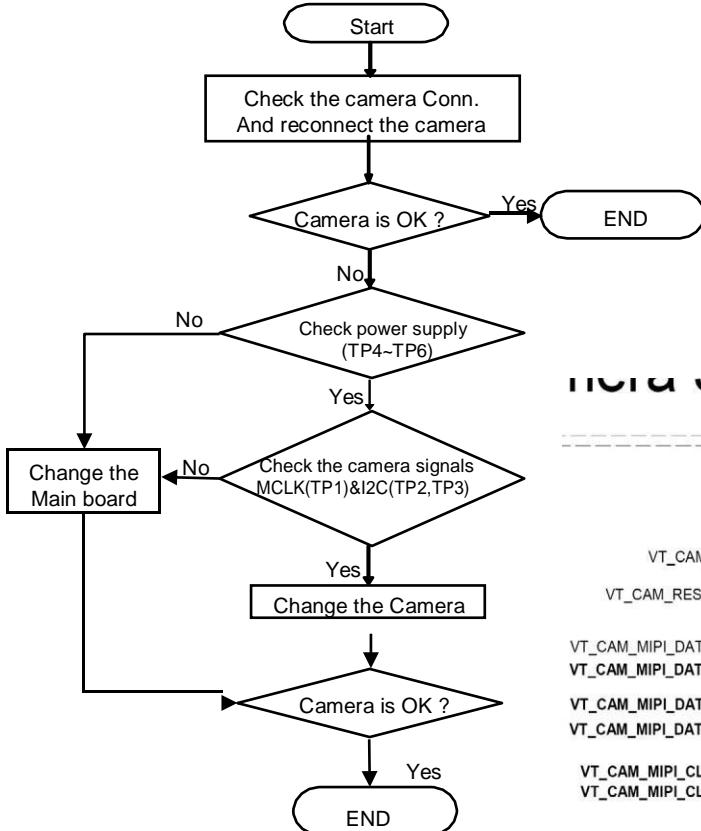


3. TROUBLE SHOOTING

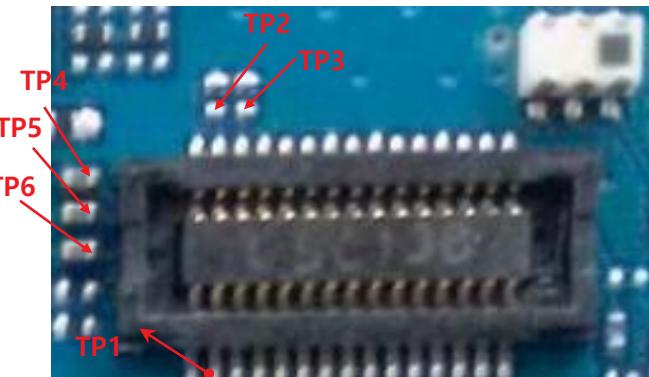
3.15 Checking VT camera Block

5M camera control signals are generated by MT6735 (U2100 : Main Chipset). And powered by MT6328 (U4100 : PMIC).

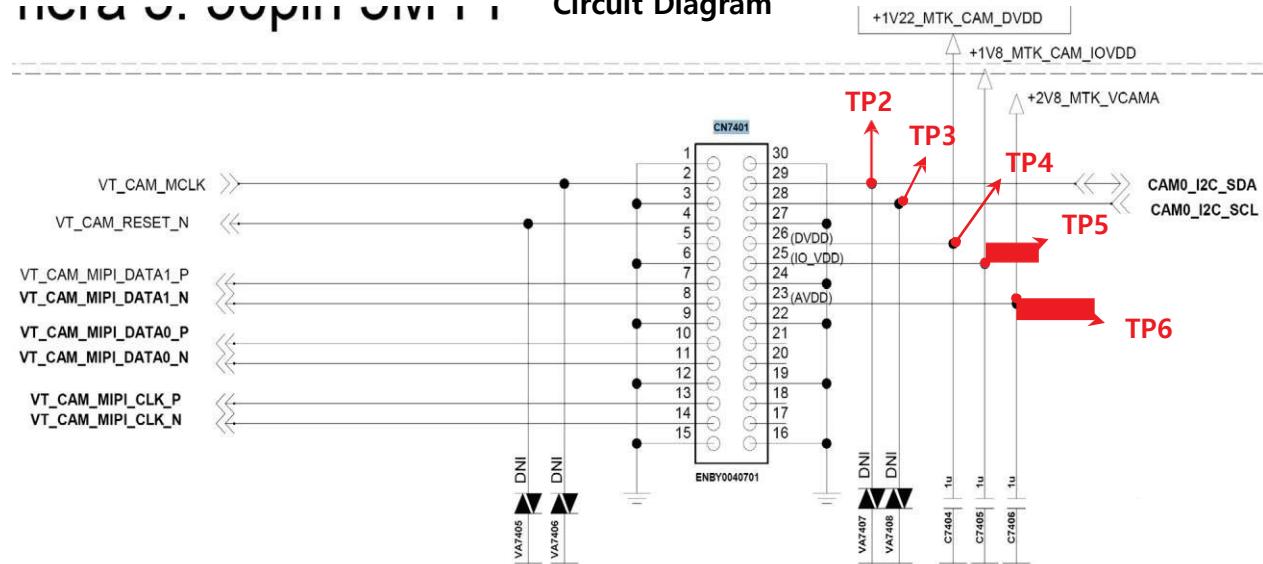
Checking Flow



Image



Circuit Diagram

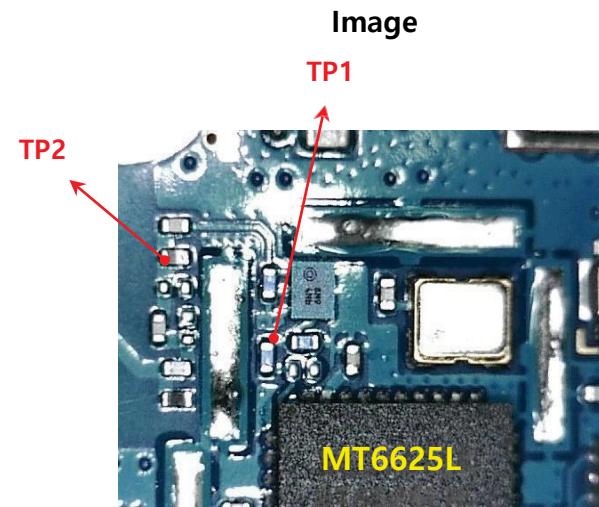
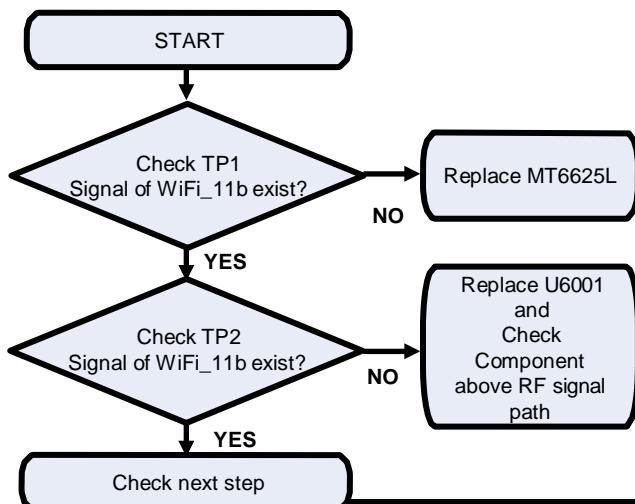


3. TROUBLE SHOOTING

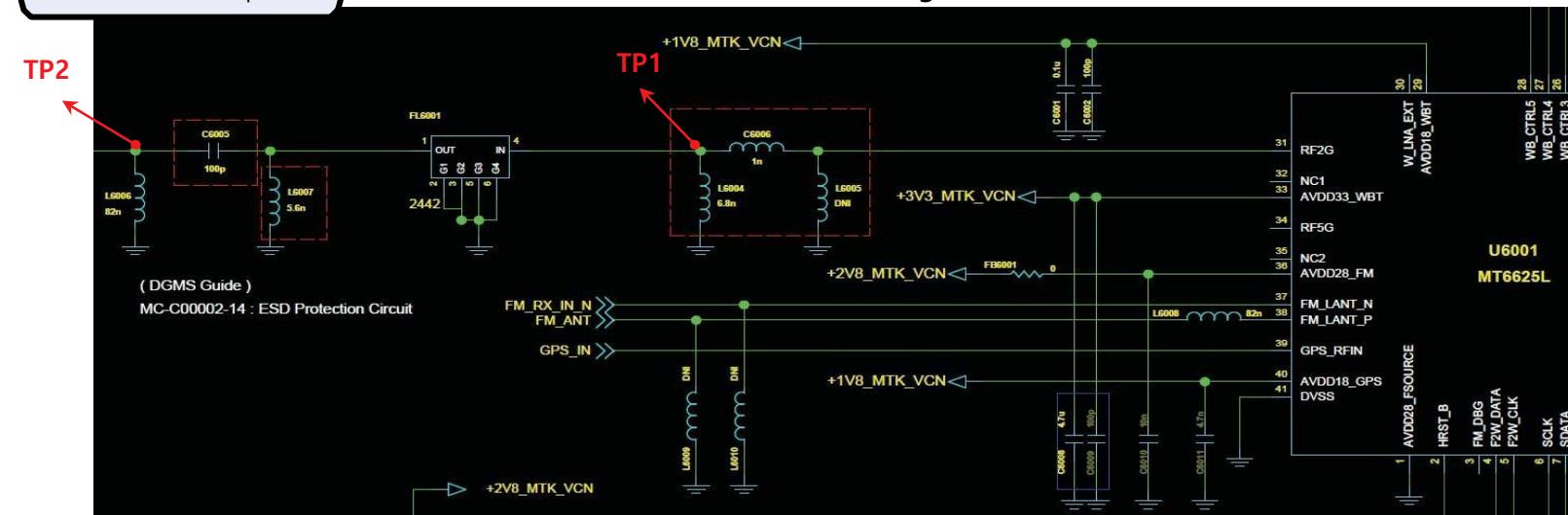
3.16 Connectivity RF PART

3.16.1 Checking RF Signal TRX path(WiFi, BT)

Checking Flow



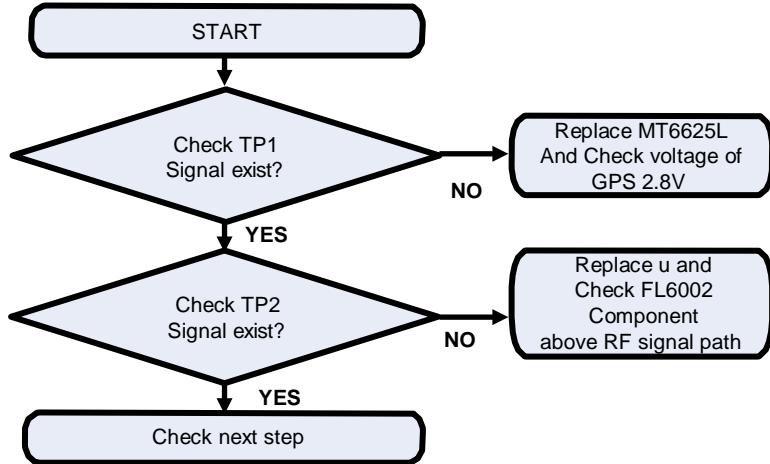
Circuit Diagram



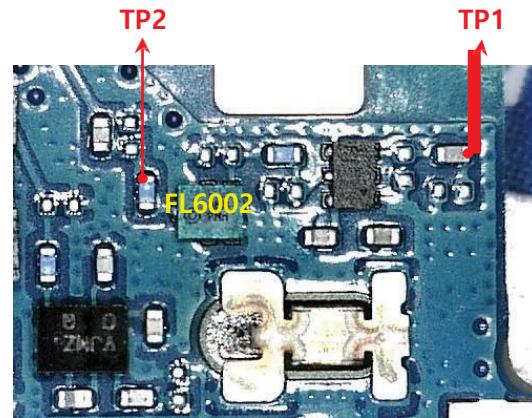
3.16 Connectivity RF PART

3.16.2 Checking RF Signal TRX path(GPS)

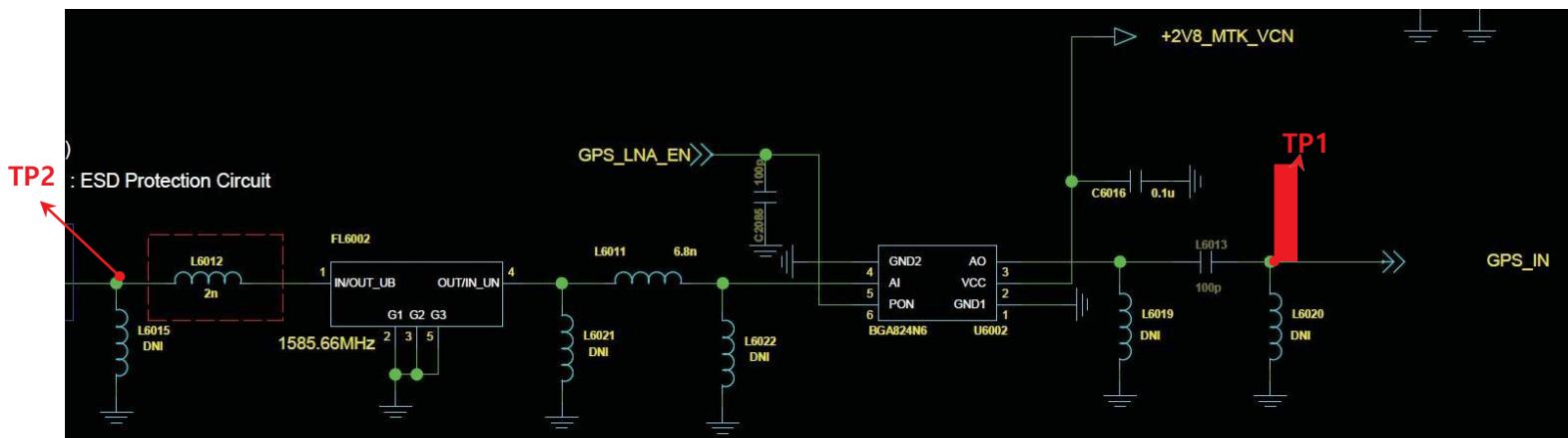
Checking Flow



Image

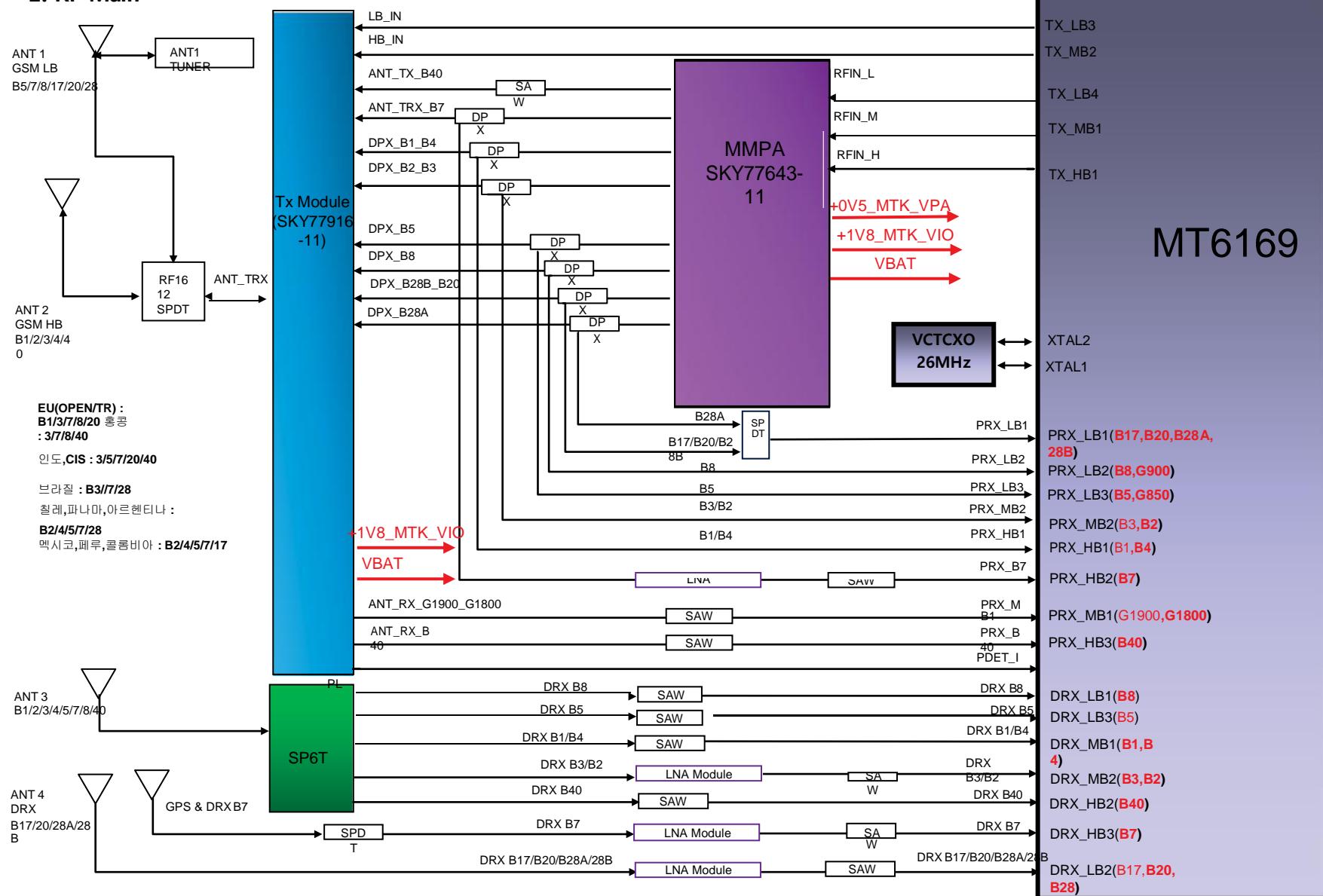


Circuit Diagram



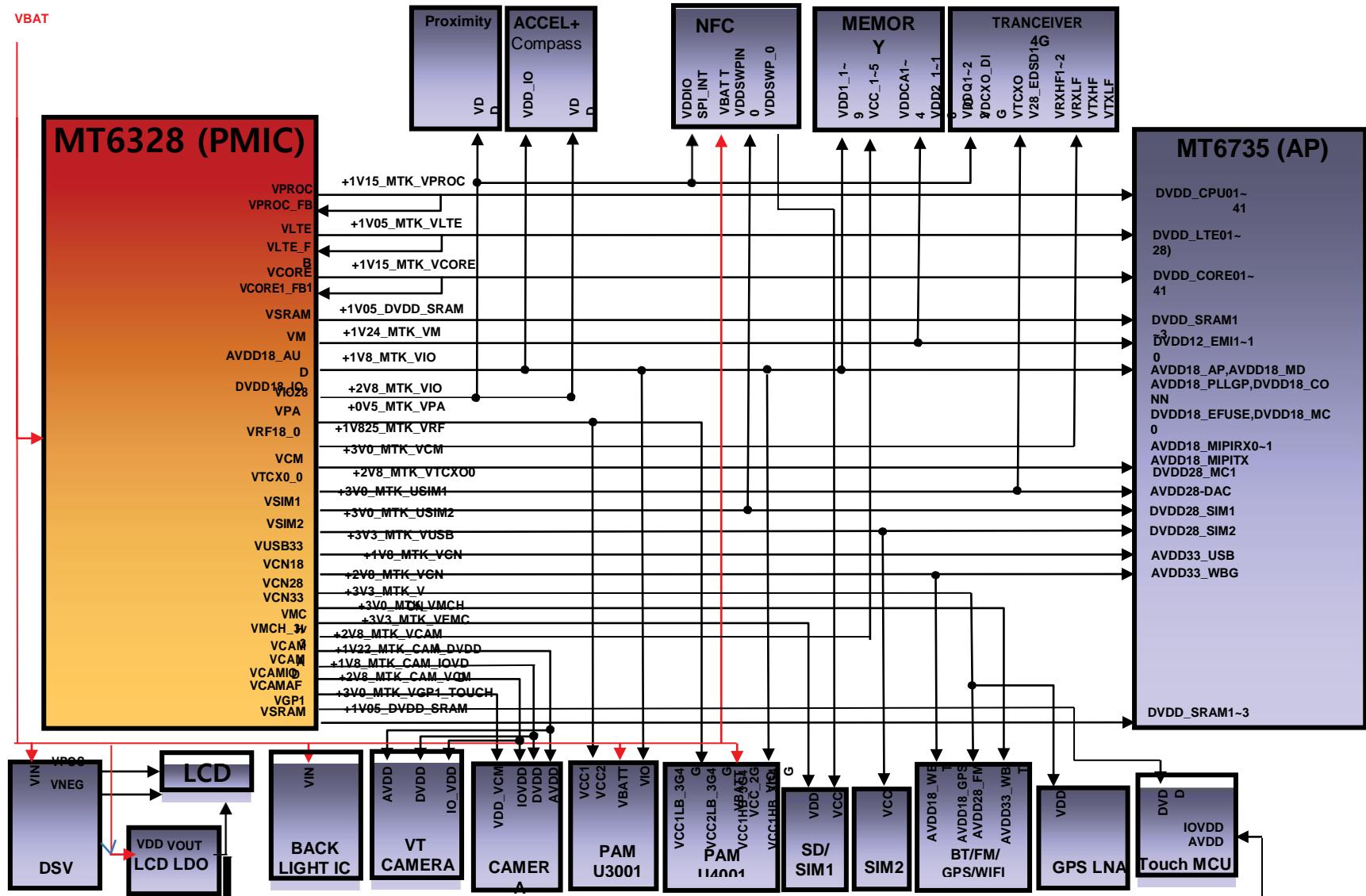
4. BLOCK DIAGRAM

2. RF Main



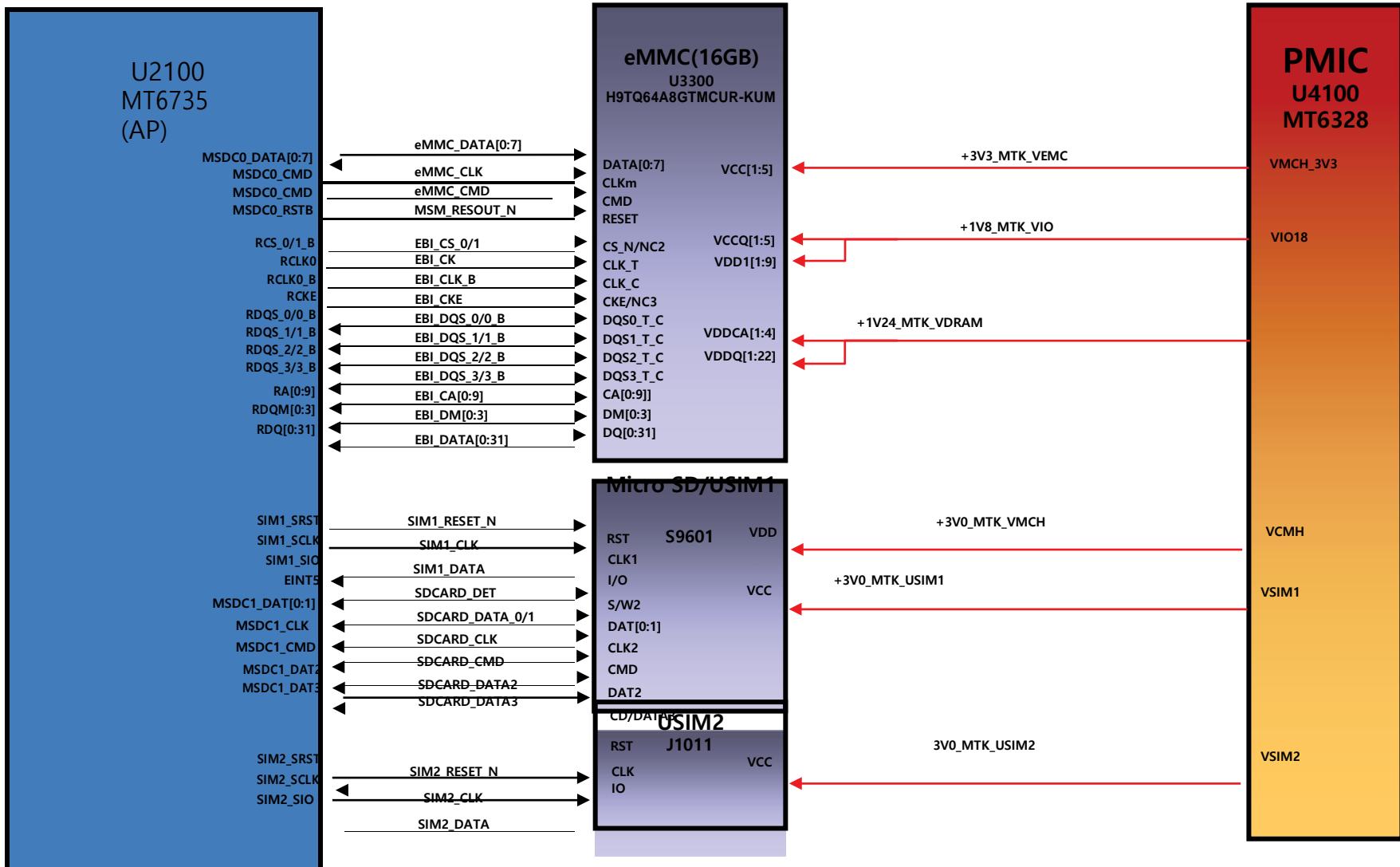
4. BLOCK DIAGRAM

3. Power block diagram



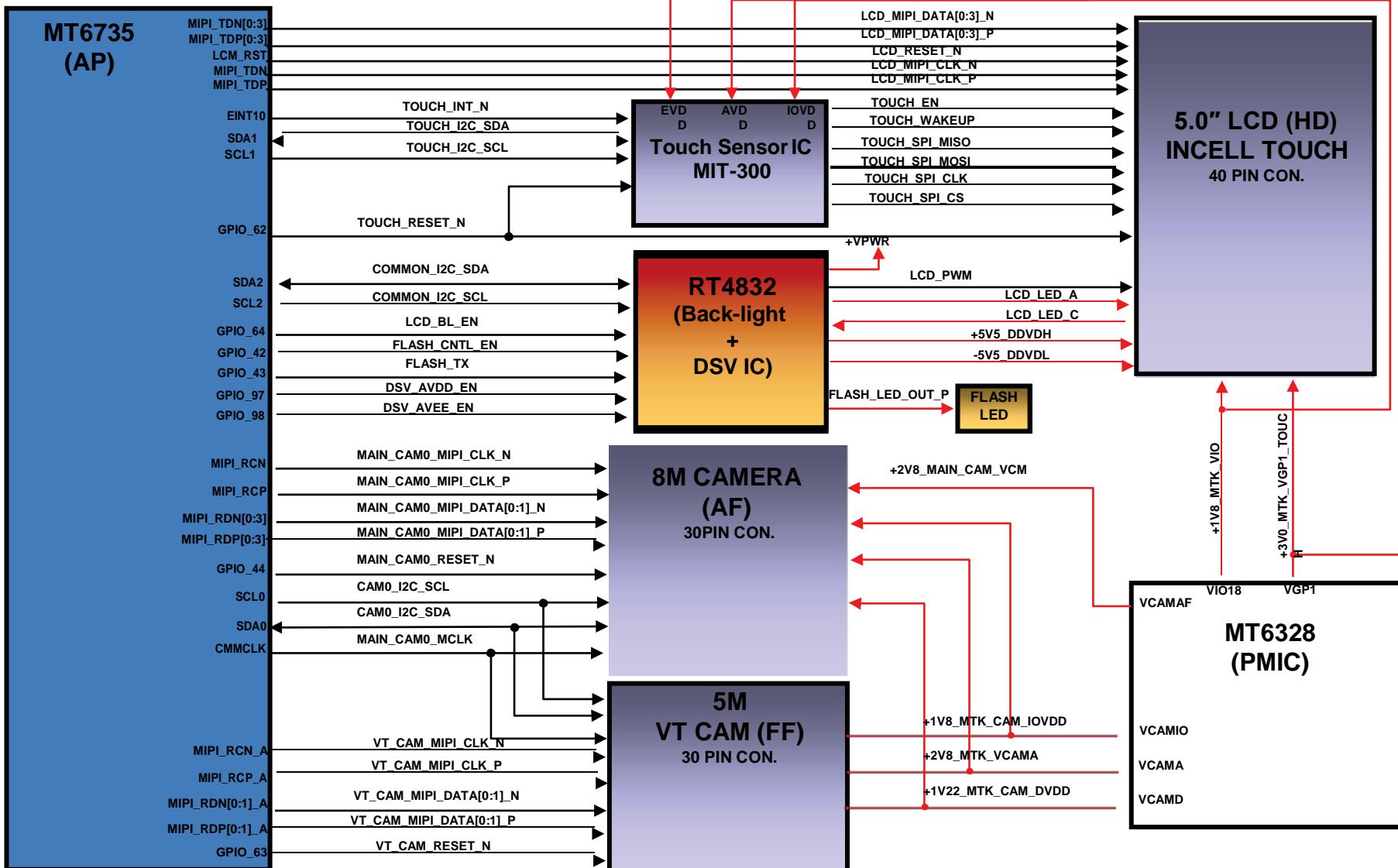
4. BLOCK DIAGRAM

4. Memory / USIM / Micro SD



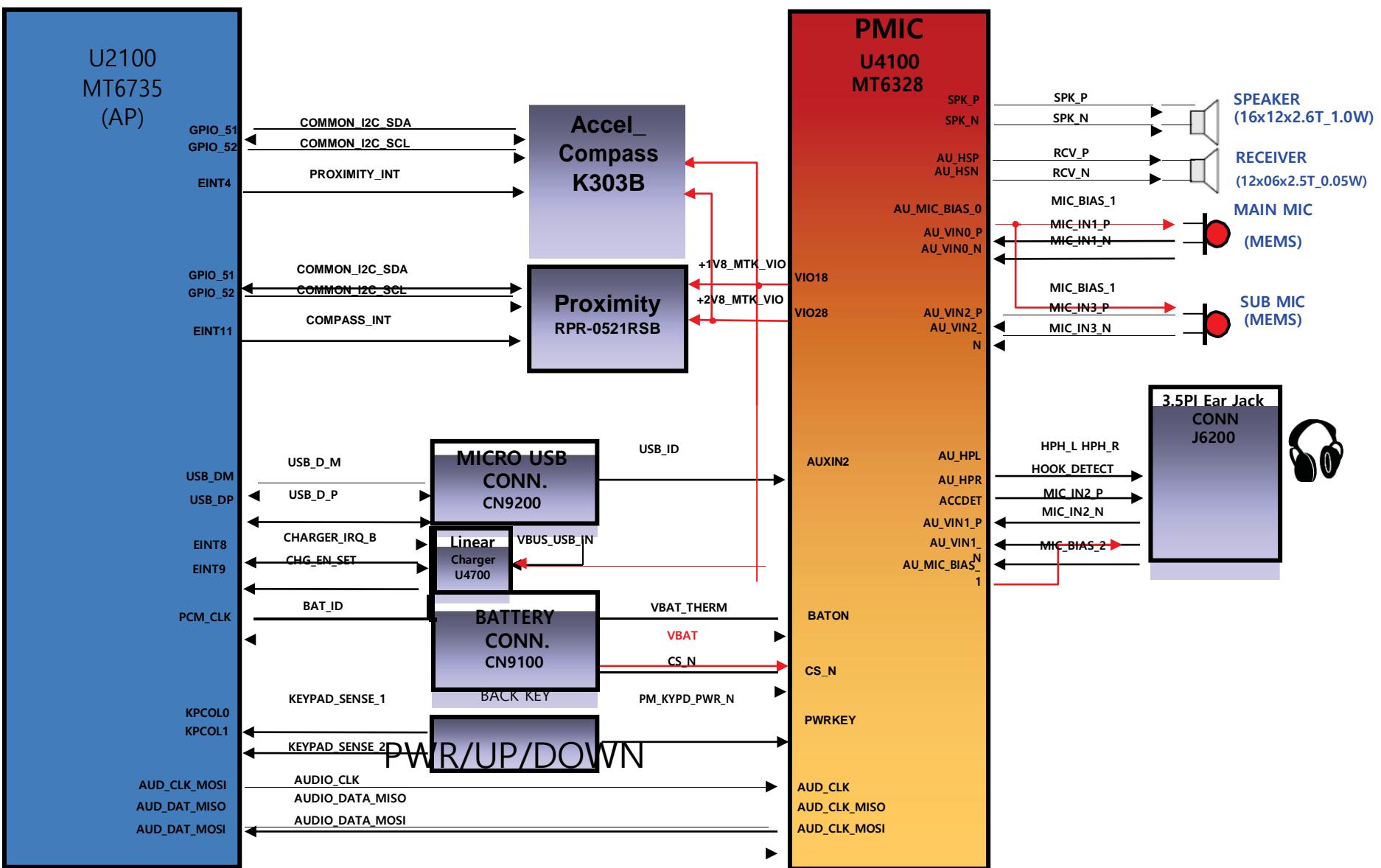
4. BLOCK DIAGRAM

5. LCD(INCELL TOUCH)



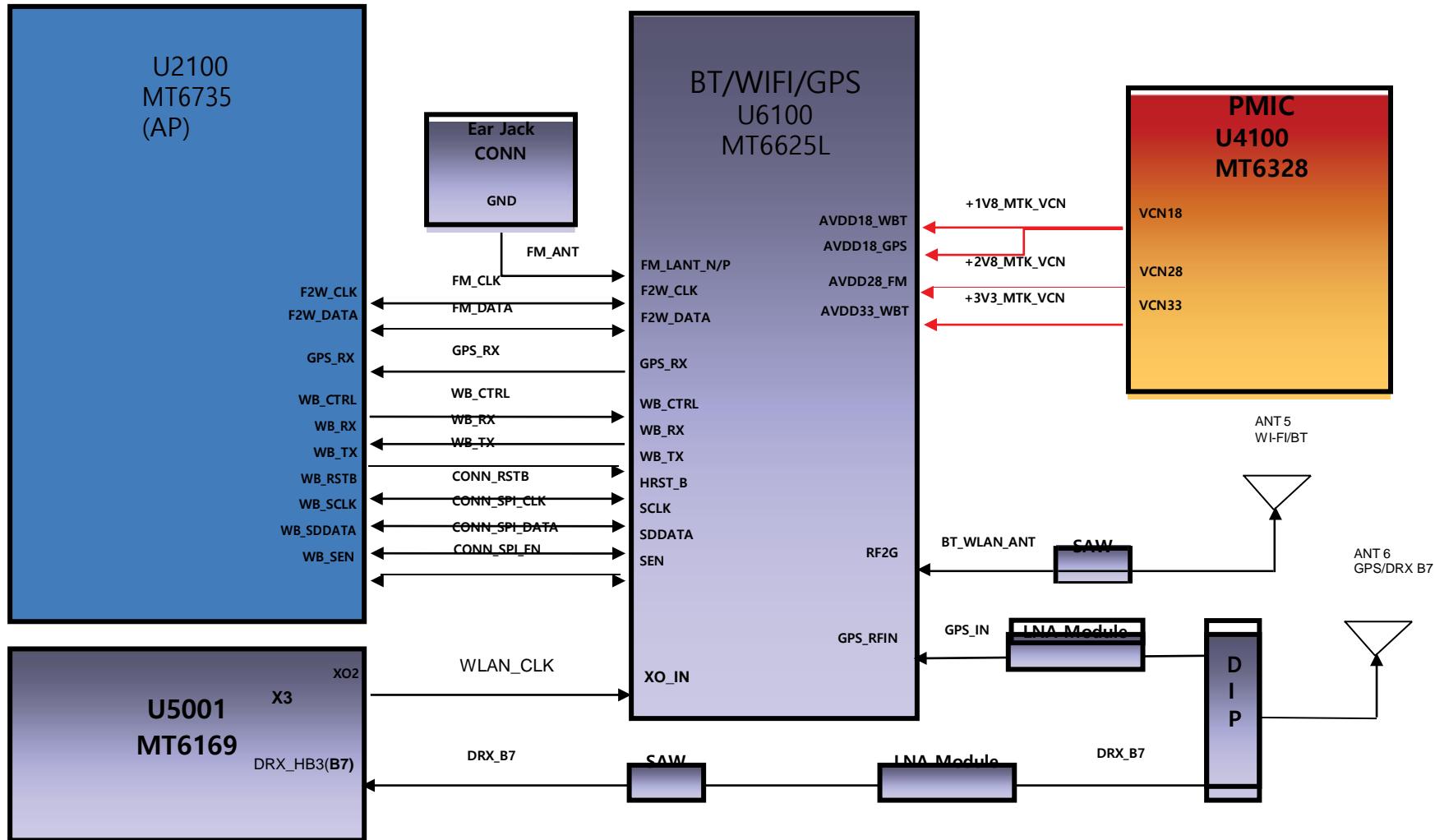
4. BLOCK DIAGRAM

7. AUDIO



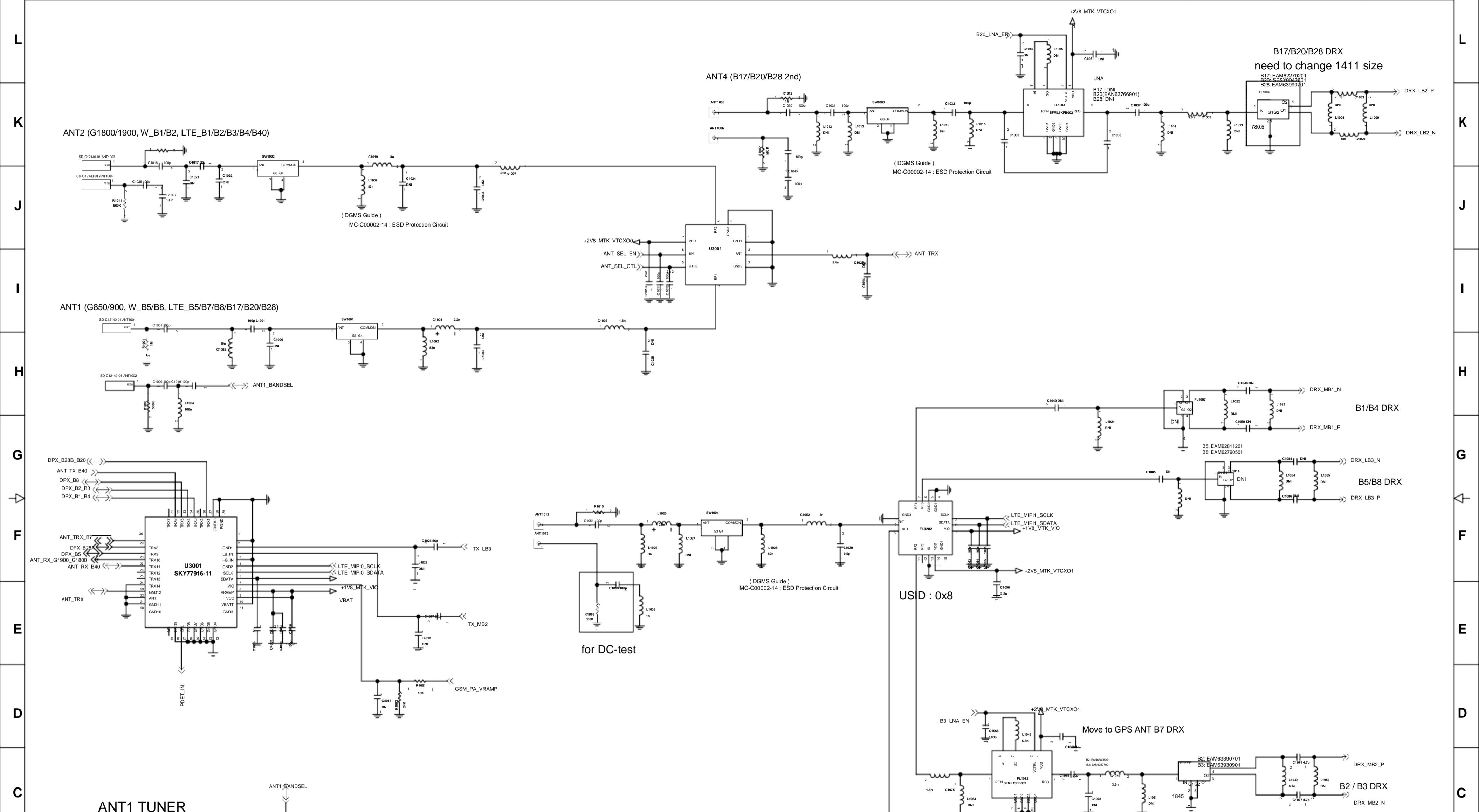
4. BLOCK DIAGRAM

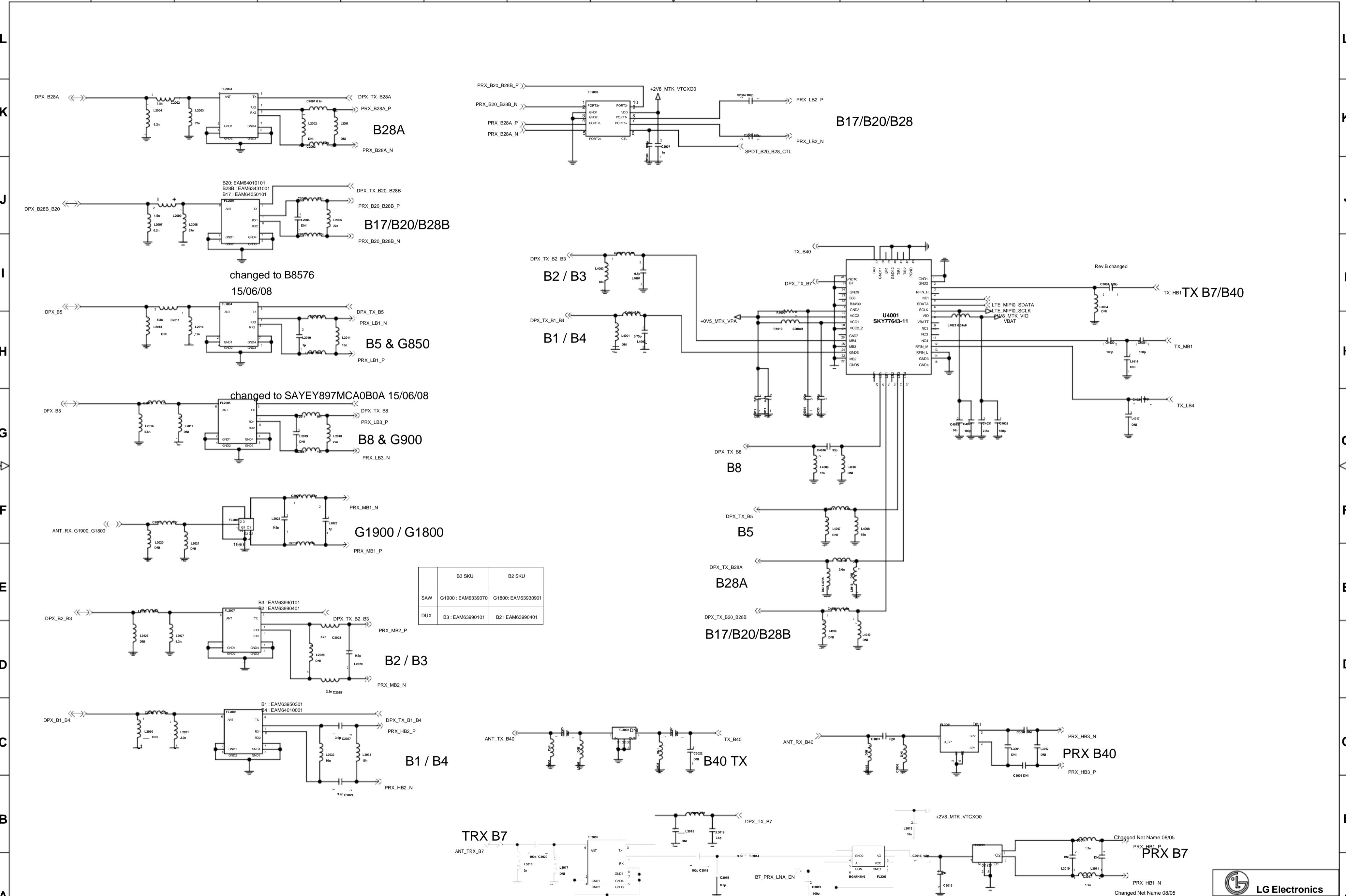
8. Connectivity (BT / WIFI / GPS / FM RADIO)



CIRCUIT DIAGRAM

16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

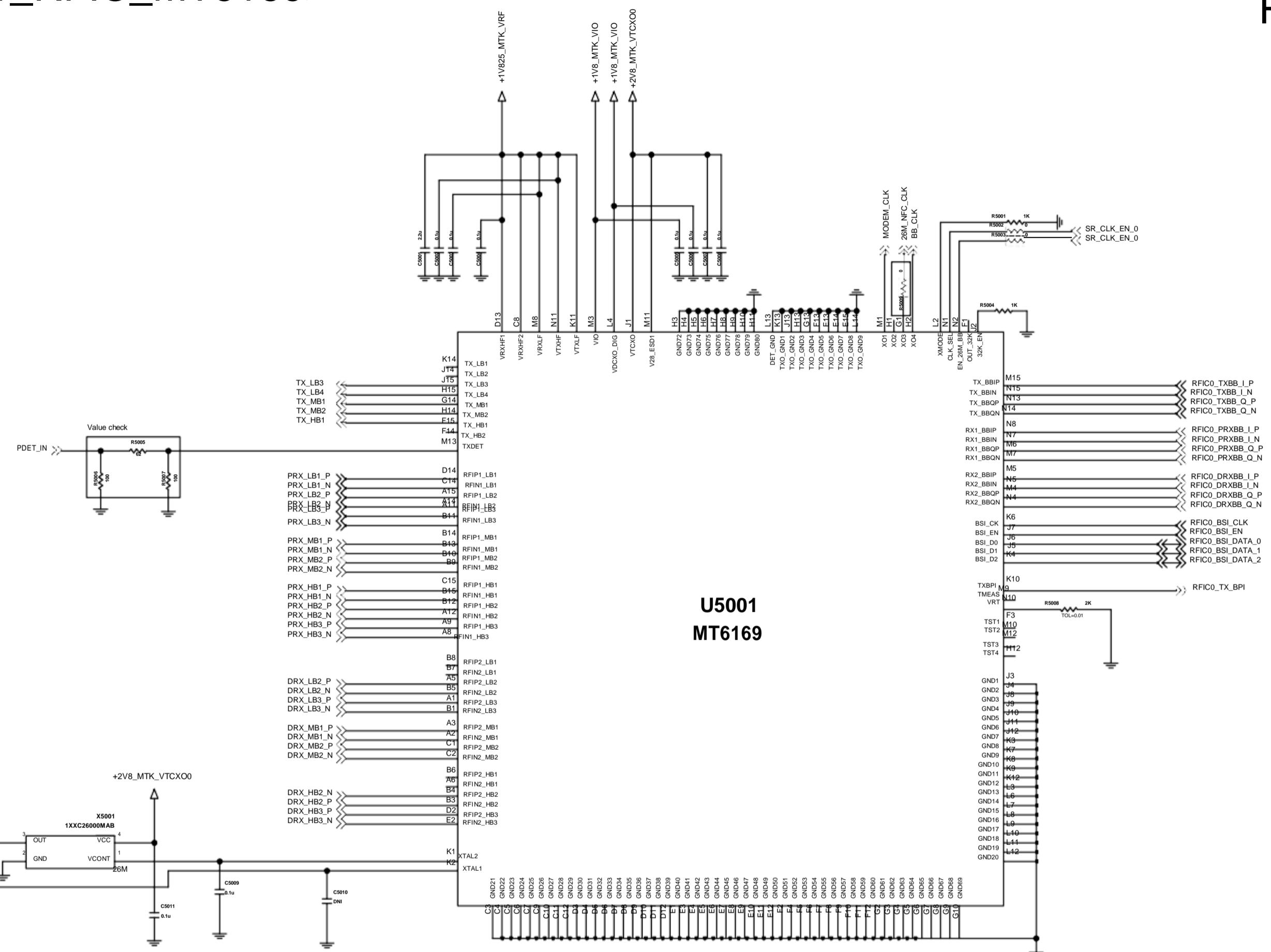




16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

<1-9-5-1_RFIC_MT6169>

Rev_0.4

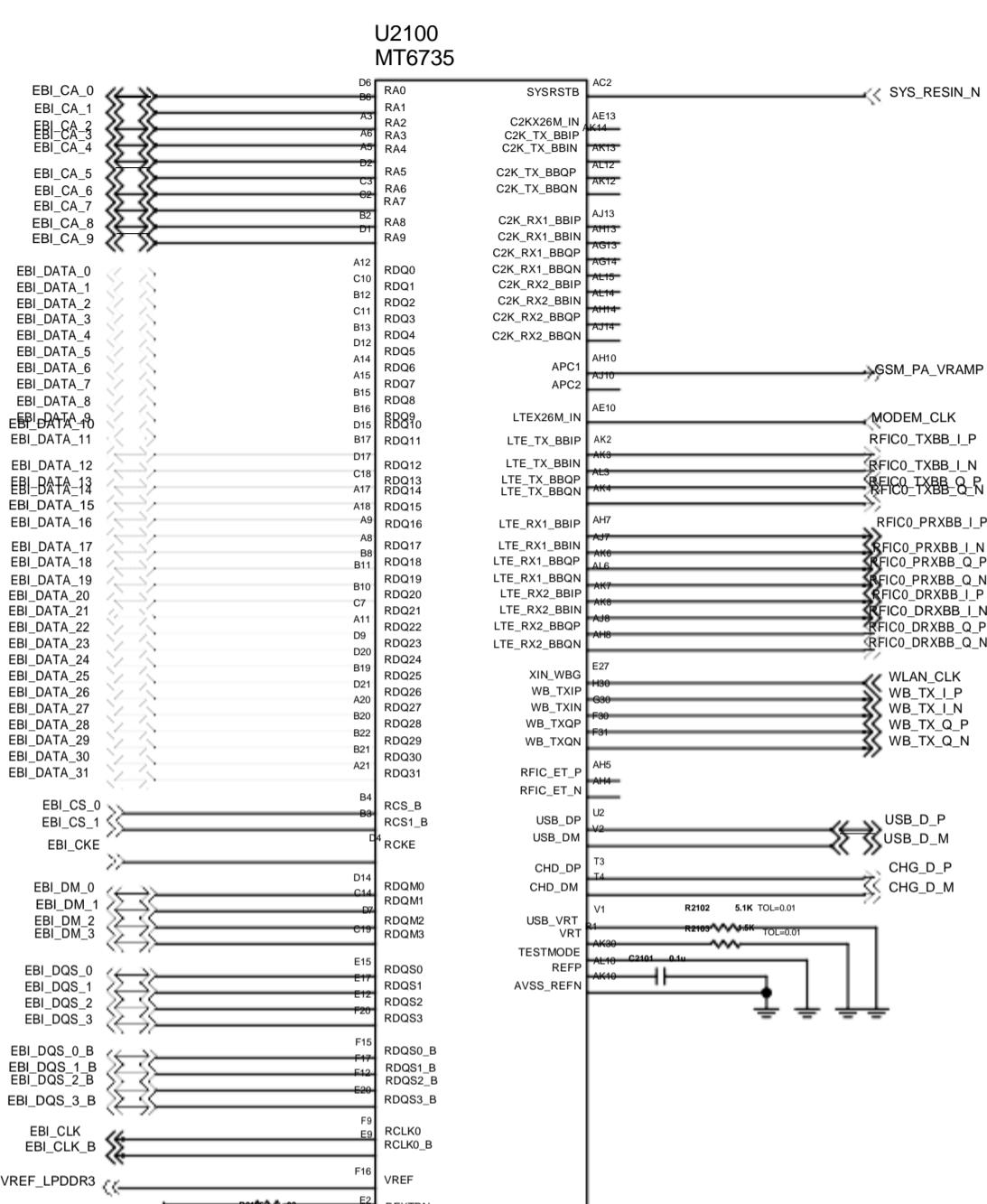


< 2-x-x-x-1_MT6735_DATA >

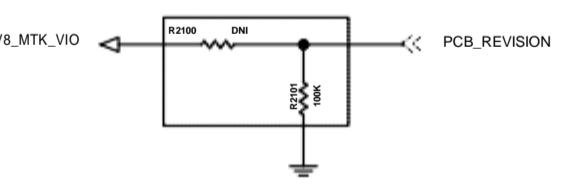
REV_0.1

< 2-3-6-1-2_MT6735_GPIO >

I2C Pull-Up

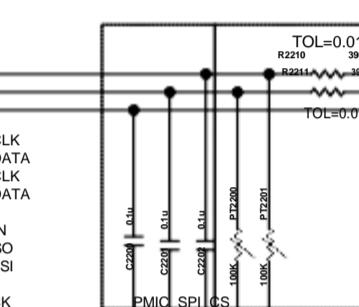
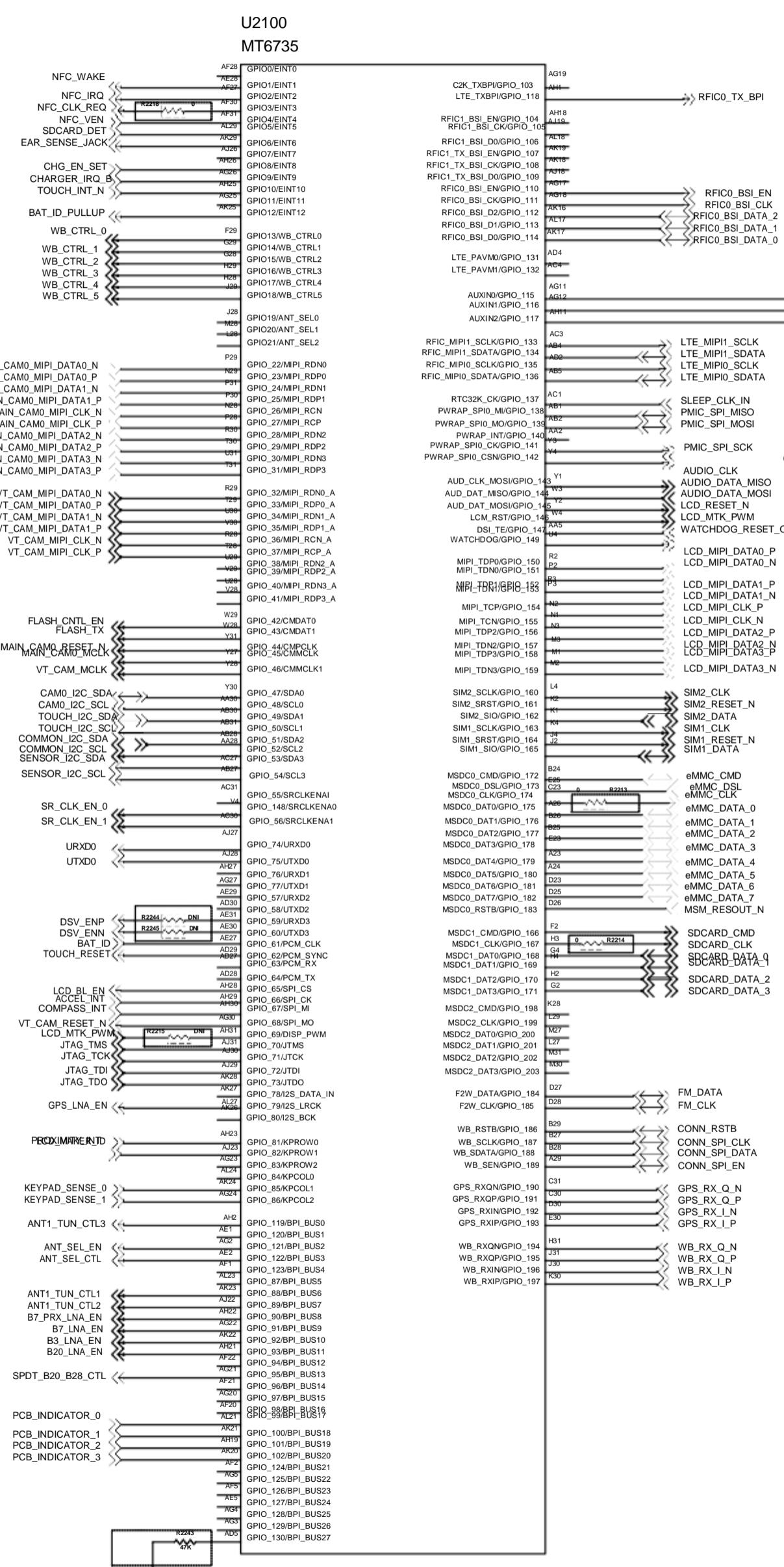


PCB REVISION_GPIO



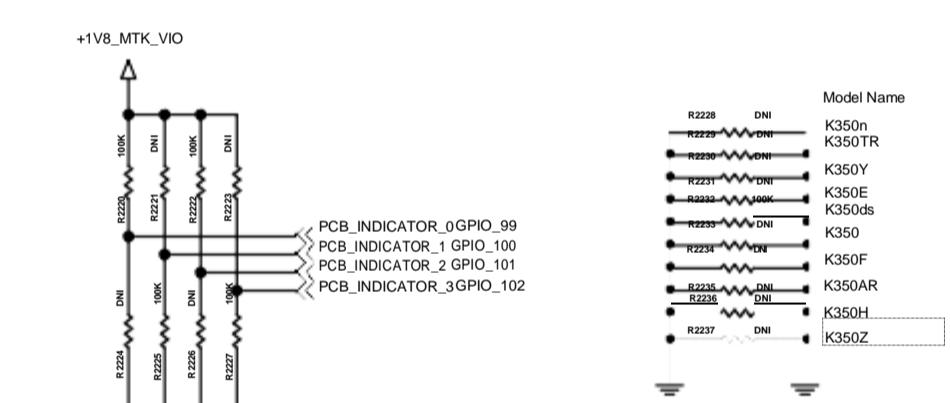
Revision	R2100	R2101	Level
A	100K	20K	0.300
B	100K	39K	0.505
C	100K	51K	0.680
D	100K	100K	0.900
1.0	DNI	100K	0.000
1.1	100K	DNI	1.800

LGE Internal Use Only



PT2201 Keep 5 ~8mm to MT6735P
PT2200 Close to LTE PA
PT2200/PT2201 SIZE CHANGE to 0603, 151019

PCB Indicator Model Indicator



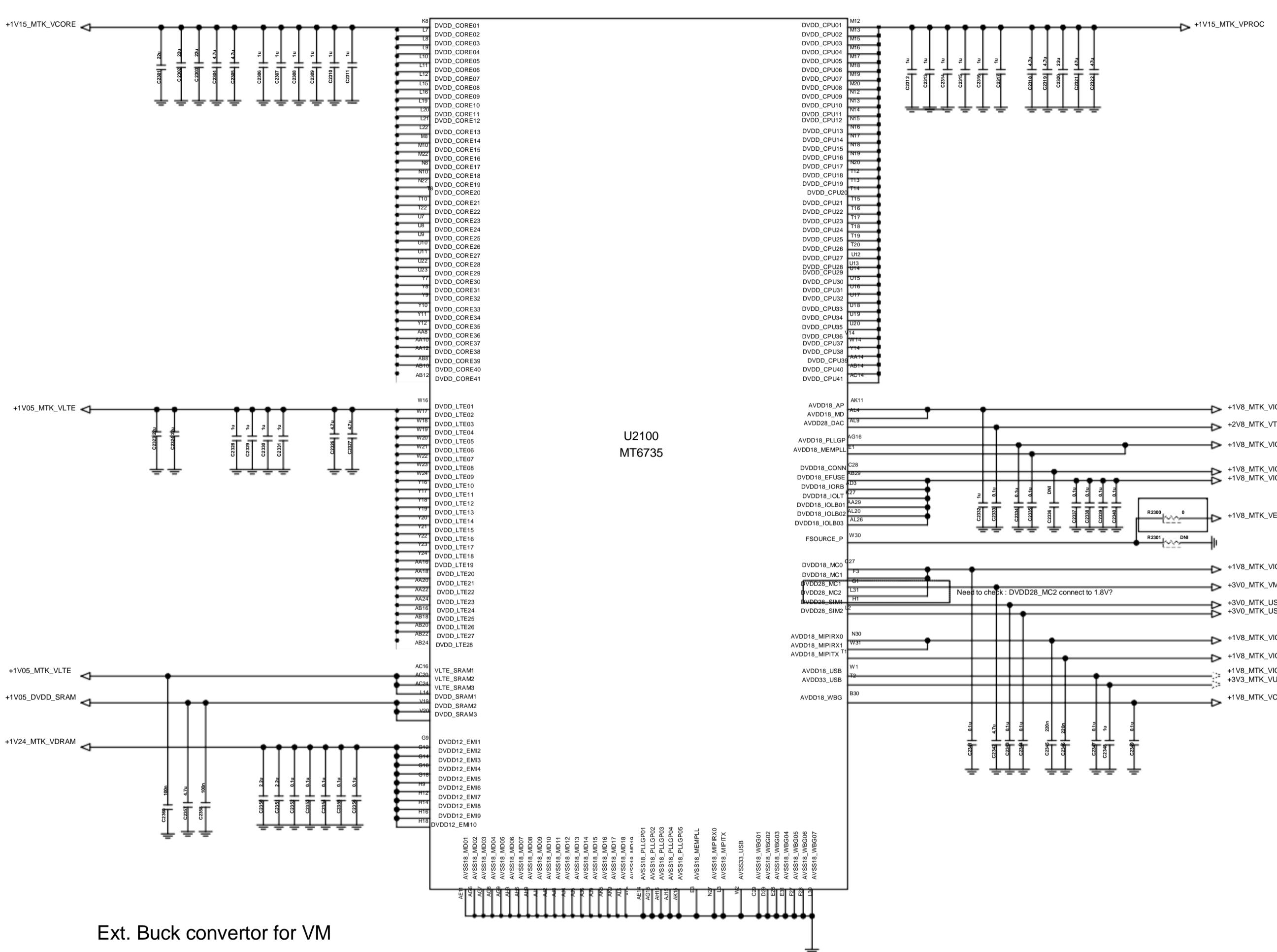
Model	Band	NFC	SIM	GPIO_SUM	GPIO_99	GPIO_100	GPIO_101
K350n	1/3/7/8/20	O	SINGLE	9	1	0	0
K350TR	1/3/7/8/20	X	SINGLE	1	0	0	1
K350Y	3/7/8/40(TDD)	O	SINGLE	2	0	0	1
K350E	3/7/20	X	DUAL	3	0	0	1
K350de	3/7/28	X	DUAL	10	1	0	1
K350	3/7/28	X	SINGLE	5	0	1	0
K350F	2/4/5/7/28	X	SINGLE	6	0	1	1
K350AR	2/4/5/7/28	X	SINGLE	7	0	1	1
K350H	2/4/5/7/17	X	SINGLE	8	1	0	0
K350Z	3/7/20	X	DUAL	11	1	0	1
K350ds(A)	3/7/28	X	DUAL	4	0	1	0
K350n(A)	1/3/7/8/20	O	SINGLE	0	0	0	0

16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

L

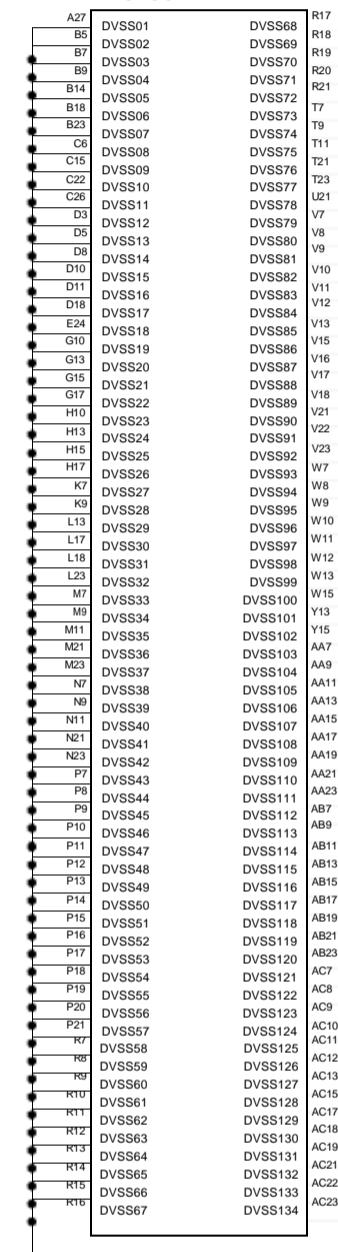
< 2-x-x-x-3_MT6735_POWER >

REV_0.1



< 2-x-x-x-4_MT6735_GND_NC > Rev_0.1

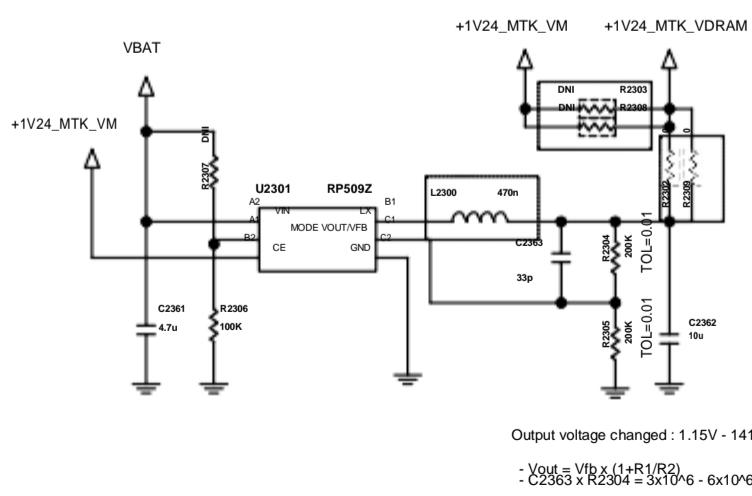
U2100
MT6735



U2100
MT6735

A1	NC1	NC7
A2	NC2	NC8
A3	NC3	NC9
A31	NC4	NC10
B1	NC5	NC11
B31	NC6	

Ext. Buck converter for VM



LG Electronics

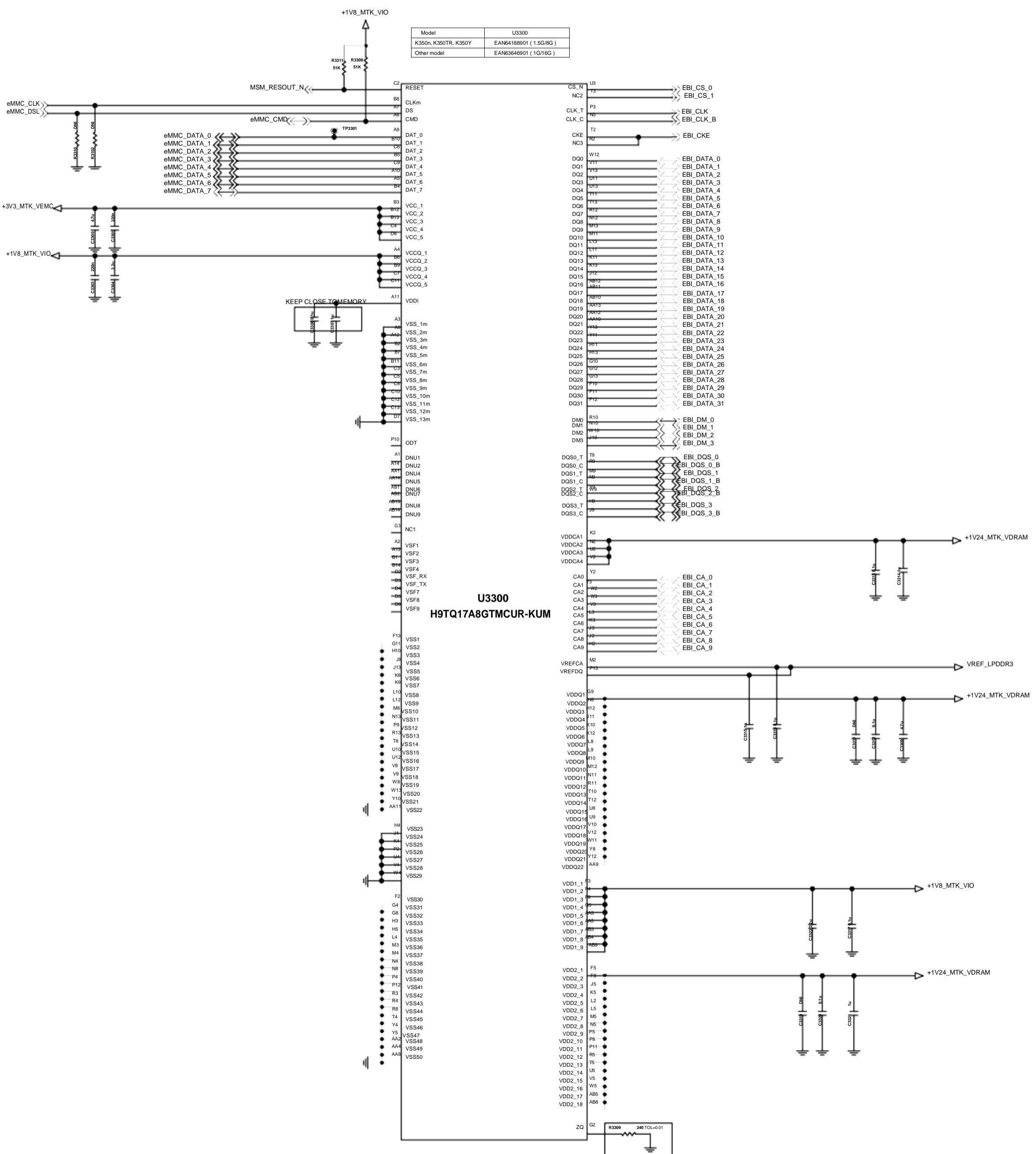
Schematic1

A2 PDM NUMBER Rev
 DRAWN BY User Name 3 3 Date Drawing Date

LGE Internal Use Only

16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

< 3-3-3-3-1_MCP_eMMC_5_0_16G_DDR3_8G_HYNIX > Rev_0.3



16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

L

K

J

I

H

G

F

E

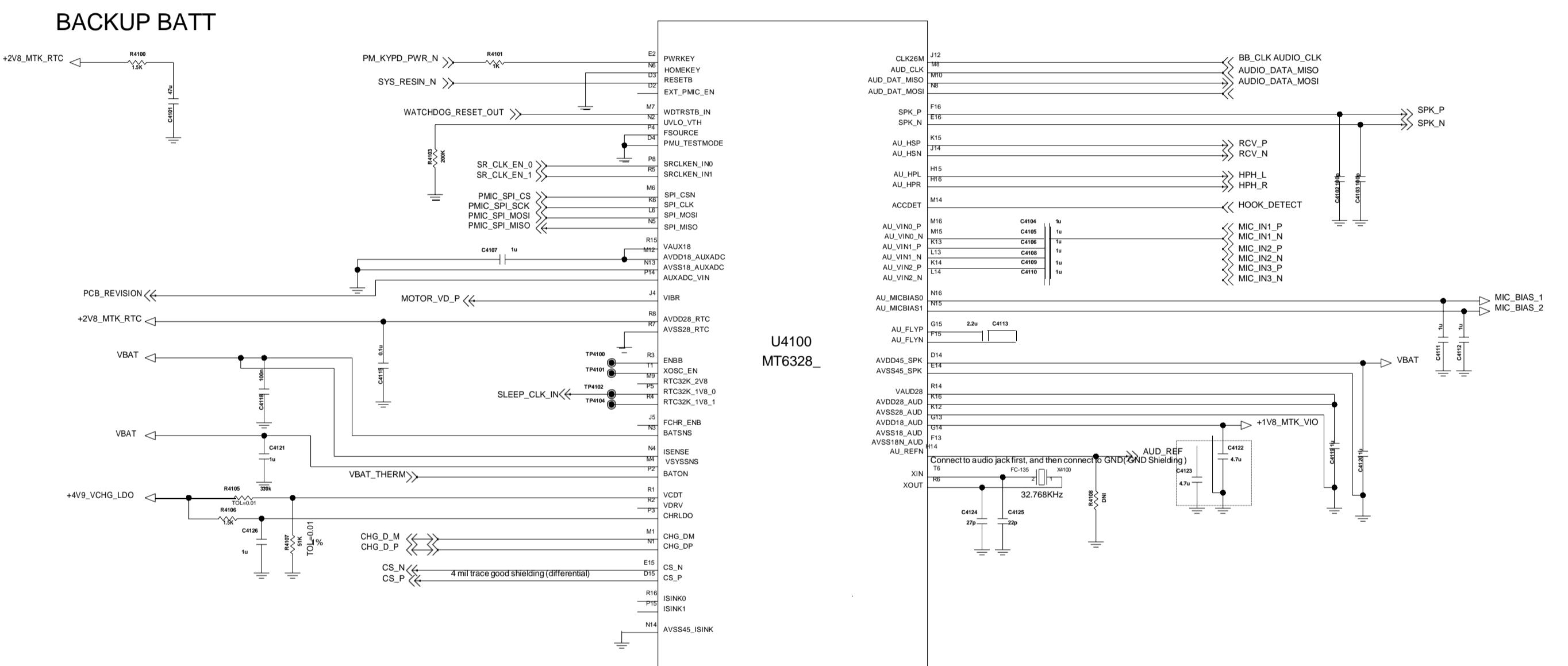
D

C

B

A

<4-1-15-1_PMIC_MT6328_DATA> Rev_0.3

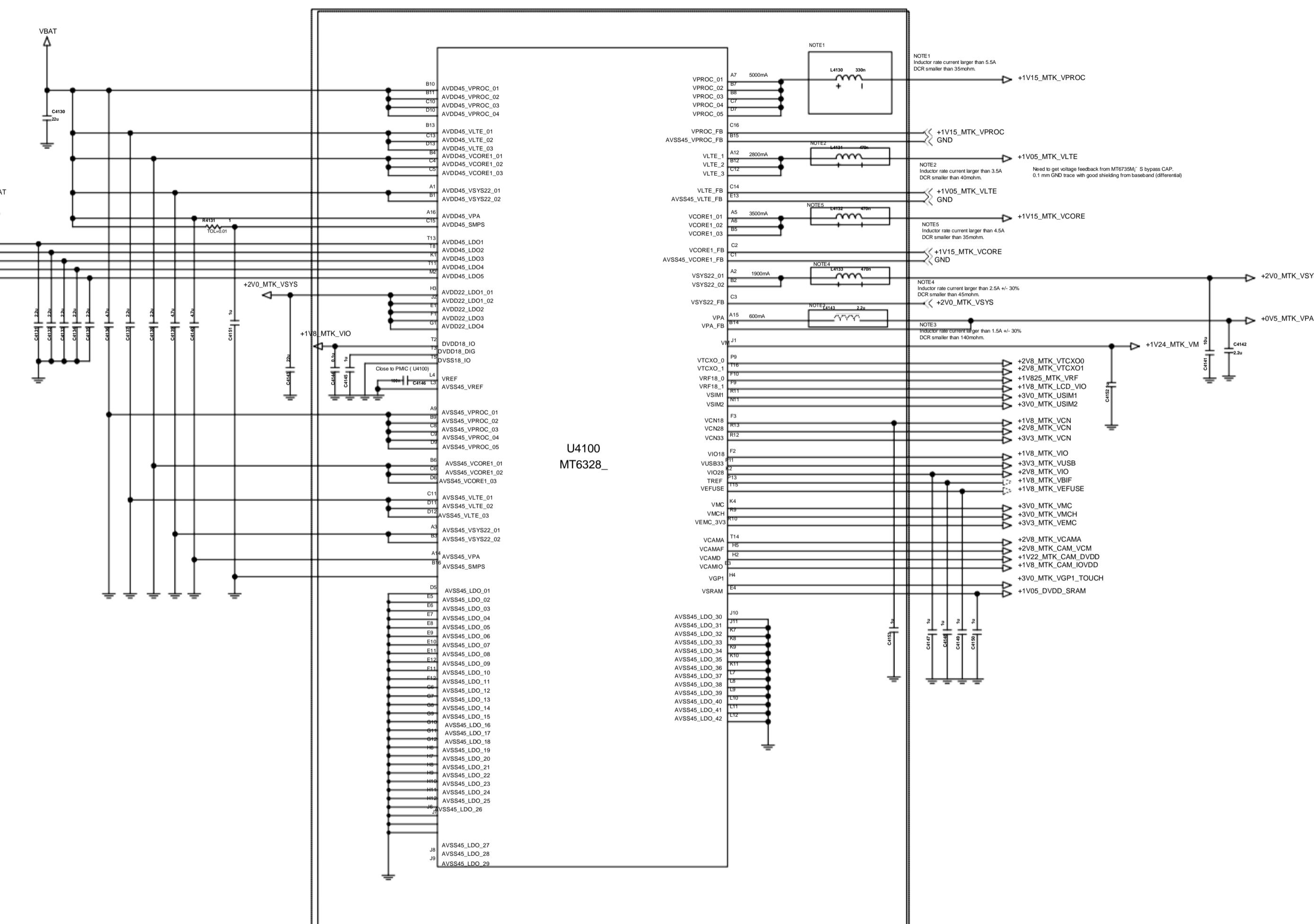


LGE Internal Use Only

16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

<4-1-15-2_PMIC_MT6328_POWER> Rev_0.3



Name	Output Current	Input Cap(μF)	Output Decoupling
VPROC	5000	4.7	0.33uH +47uF*2 +22uF
VCORE	3500	2.2	0.47uH +47uF *2
VLTE	2800	2.2	0.47uH +22uF*2
VSYS	1900	2.2	0.47uH +22uF +10uF
VPA	600	4.7	2.2uH +2.2uF +2.2uF

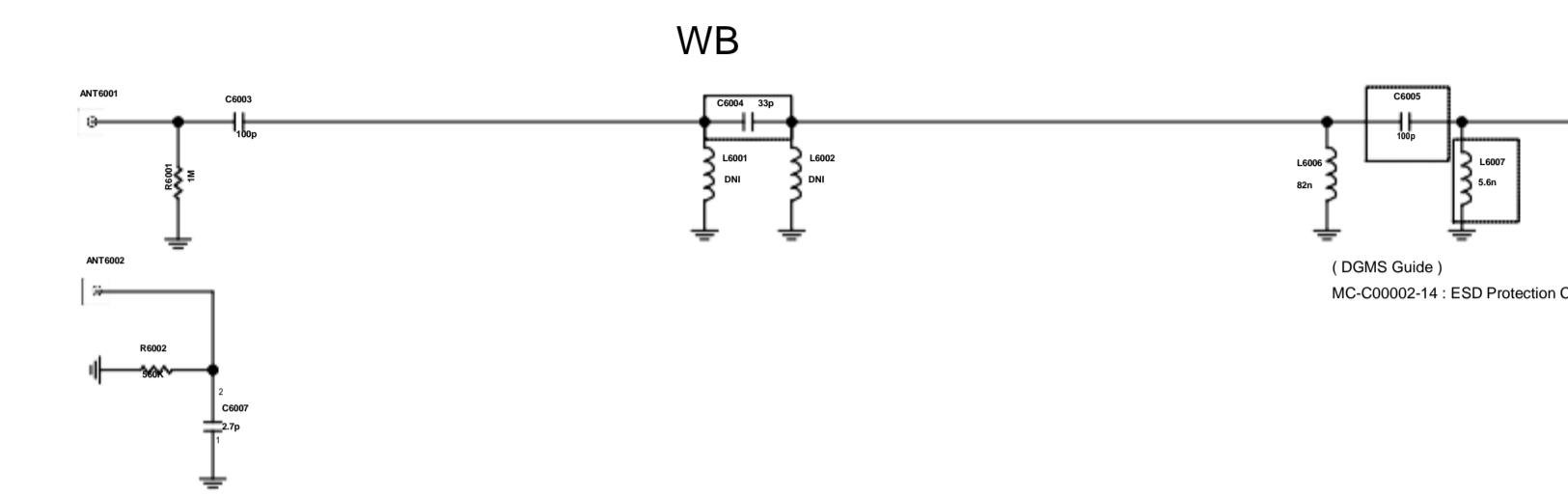
Name	Voltage(V)	Setting Voltage(V)	I Max (mA)	Layout Length/width(mil)
VTCXO_0	2.8	2.8	40	LW =2800/6
VTCXO_1	2.8	2.8	40	LW =2800/6
VCN33	3.0/3.1/3.2/3.3/3.4/3.5/3.6	3.3	350	LW =2800/12
VCN28	2.8	2.8	40	LW =2800/6
VCAMA	1.5/1.8/2.8	2.8	200	LW =2800/10
VAUX18	1.8	1.8	40	LW =2800/6
VAUD28	2.8	2.8	40	LW =2800/6
VRF18_0	1.825	1.825	350	LW =2800/10
VRF18_1	1.2/1.3/1.5/1.825	1.825	300	LW =2800/10
VMCH	3.0/3.3	3.3	800	LW =2800/20
VIO28	2.8	2.8	200	LW =2800/10
VMC	1.8/3.0/3.3	3.0	200	LW =2800/10
VCAM_AF	1.2/1.3/1.5/1.8/2.0/2.8/3.0/3.3	2.8	200	LW =2800/10
VGP1	1.2/1.3/1.5/1.8/2.0/2.8/3.0/3.3	3.0	200	LW =2800/10
VIBR	1.2/1.3/1.5/1.8/2.0/2.8/3.0/3.3	3.3	100	LW =2800/8
VUSB33	3.3	3.3	20	LW =2800/6
VSIM1	1.7/1.8/1.86/2.76/3.0/3.1	1.8	50	LW =2800/6
VSIM2	1.7/1.8/1.86/2.76/3.0/3.1	1.8	50	LW =2800/6
VEFUSE	1.8/1.9/2.0/2.1/2.2	1.8	200	LW =2800/10
VEMC33	3.0/3.3	3.0	400	LW =2800/12
VM	1.2/1.3/1.5/1.8/2.0/2.8/3.0/3.3	1.24	1000	LW =1500/25
VCAM_IO	1.2/1.3/1.5/1.8	1.8	200	LW =2800/10
VSRAM	0.6 -- 1.31	1.05	200	LW =1500/18
VIO18	1.8	1.8	600	LW =2800/20
VCAMD	0.9/1.0/1.1/1.22/1.3/1.5	1.22	500	LW =2800/16
DVDD18_DIG	1.8	1.8	20	LW =800/4
VRTC	2.8	2.8	2	LW =800/4

16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

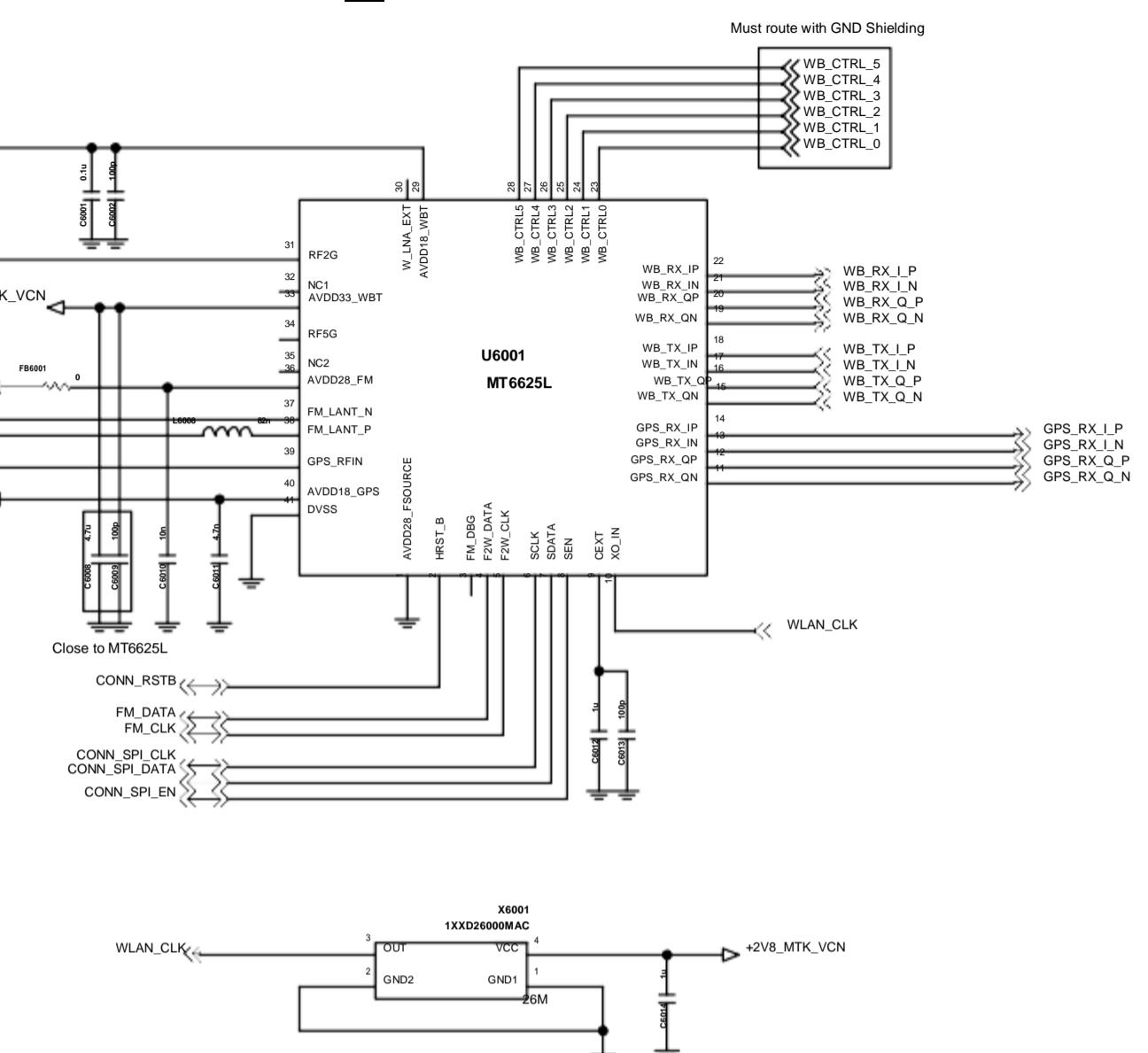
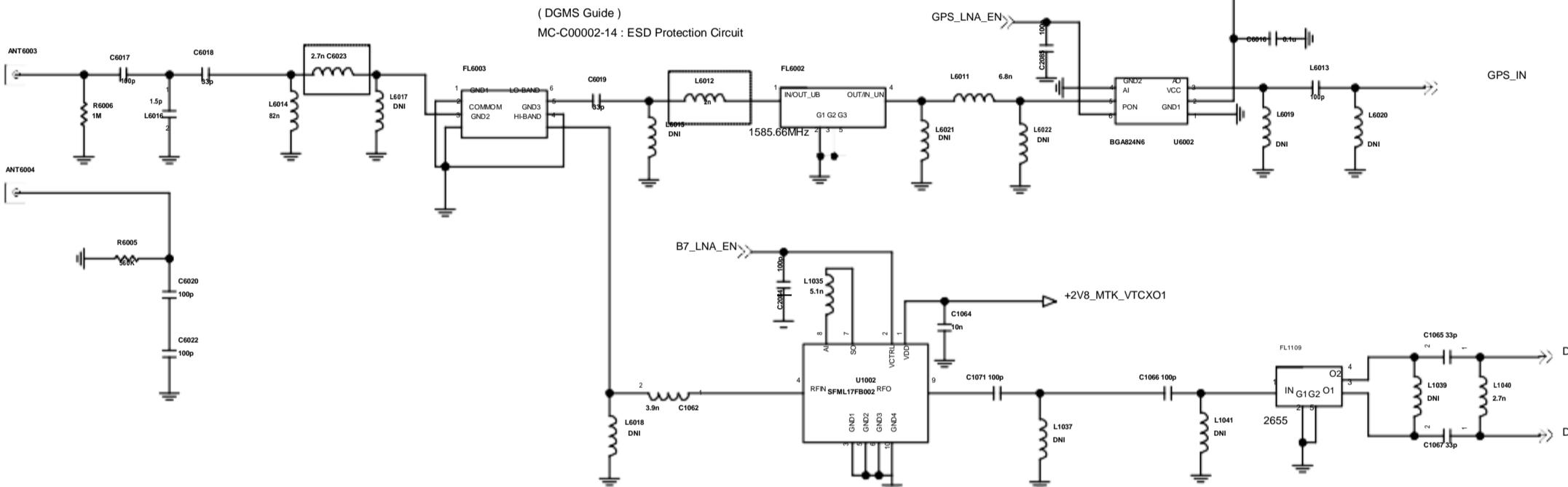
<5-1-1-18_MT6625L_WiFi_BT_GPS_FM>

Rev_0.3

ANT5 (WiFi)



ANT6 (GPS)

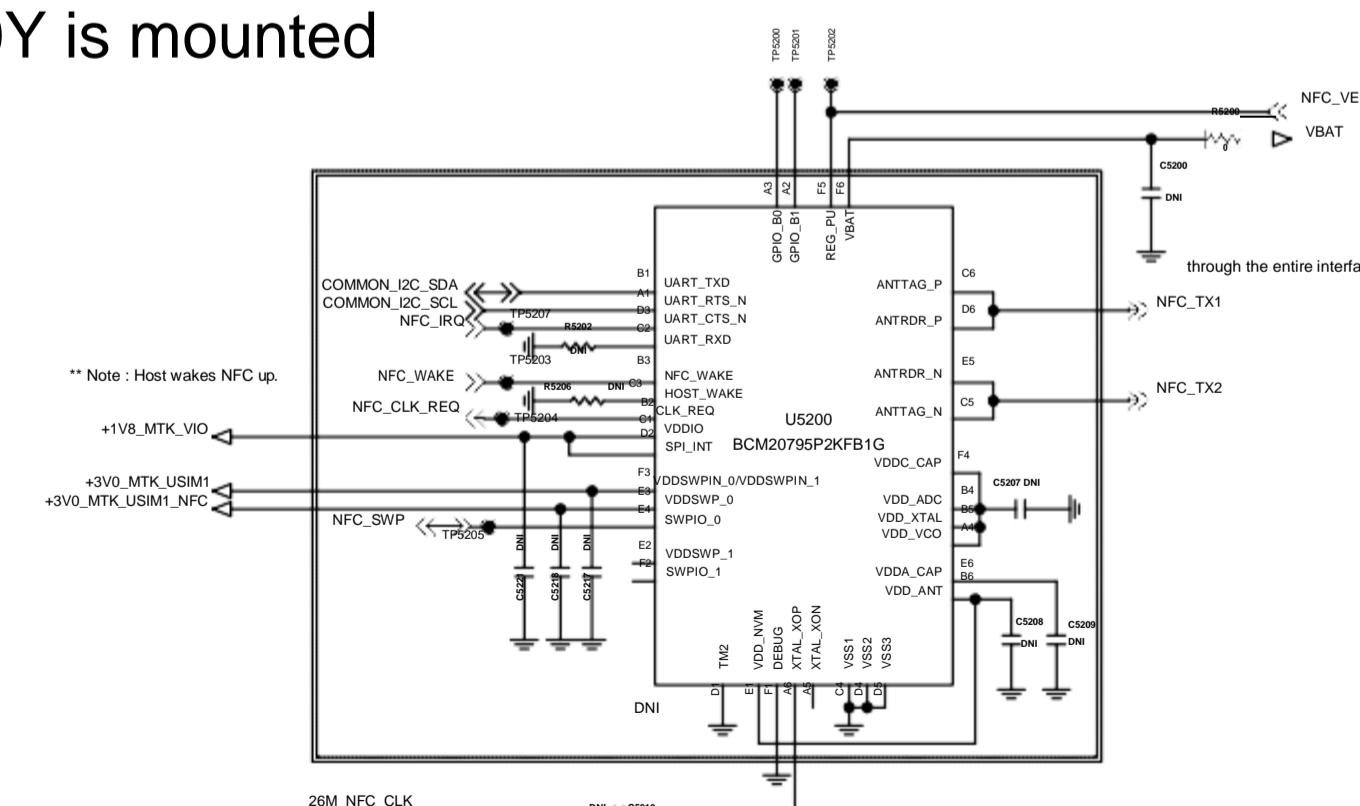
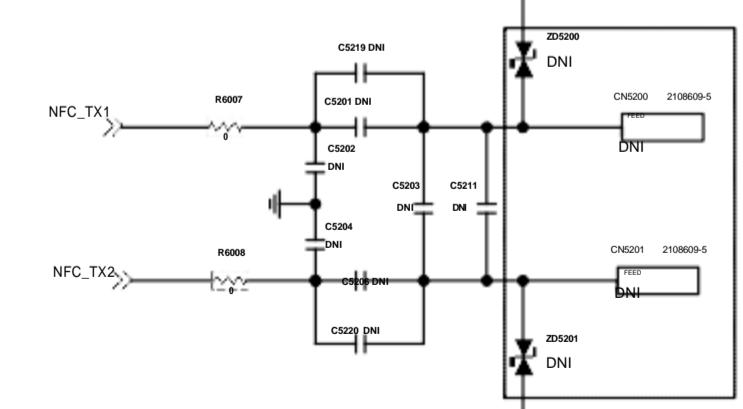


B7 DRX

<5-2-1-8_BCM20795F> Rev_1.0

K350n, K350Y is mounted

NFC Antenna



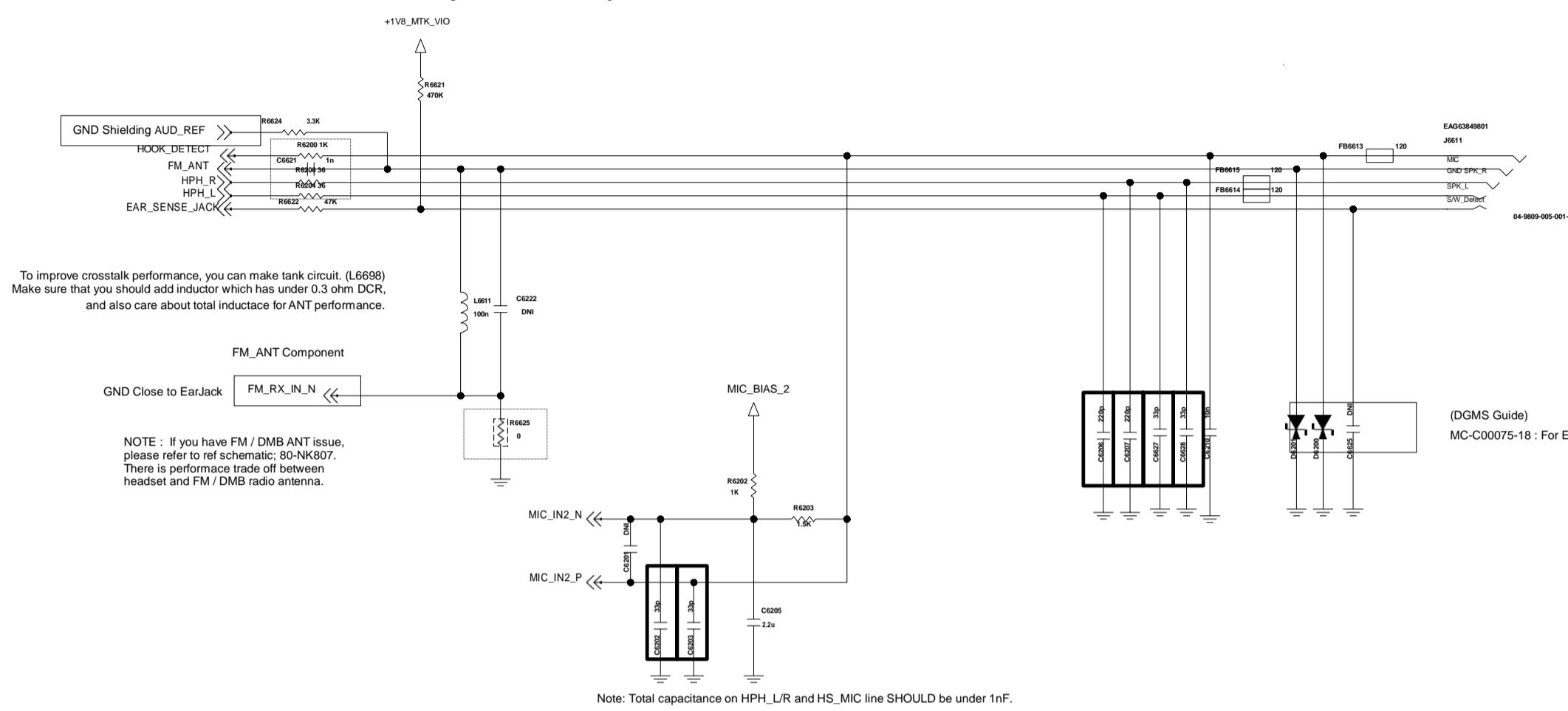
LGE Internal Use Only

16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

< 6-6-1_Earjack >

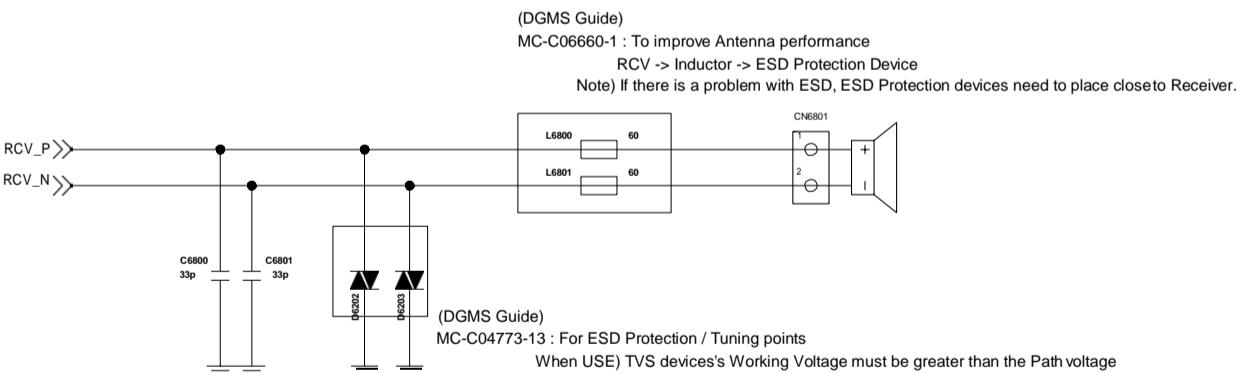
Rev_0.9

Circuit 2. Ear jack_3.5pi with MBHC



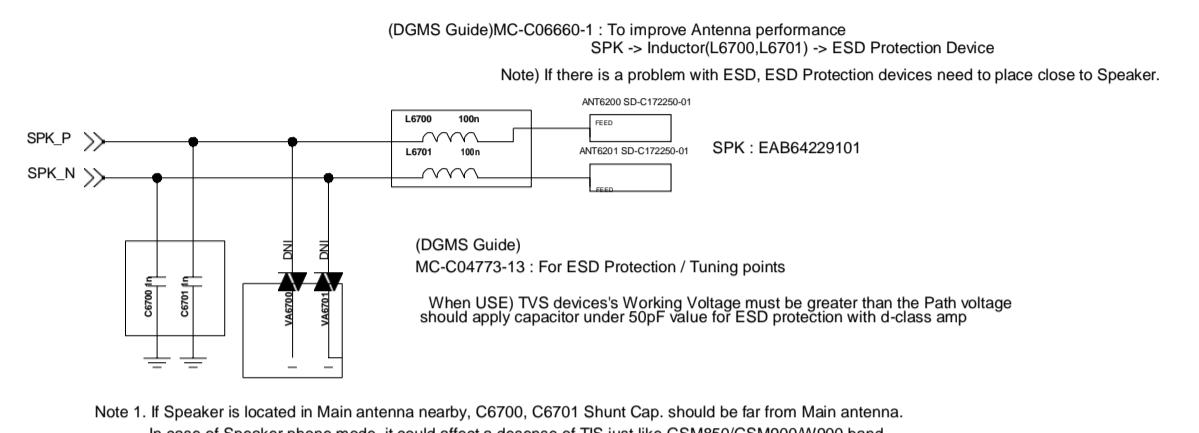
< 6-8-1_Receiver > Rev_1.1

Circuit 1. Receiver without T-Coil



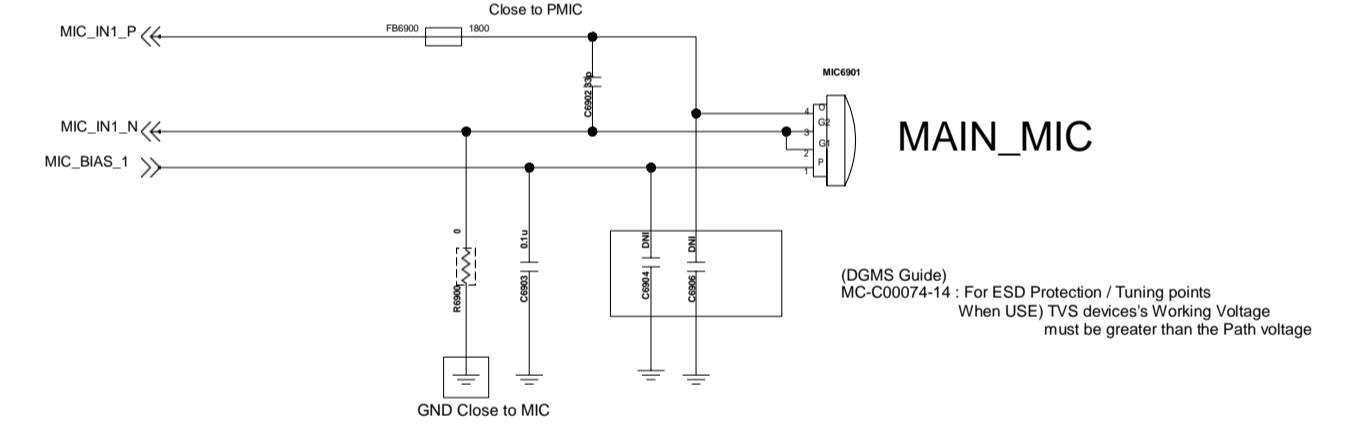
<6-7-1_Speaker> Rev_1.2

Speaker

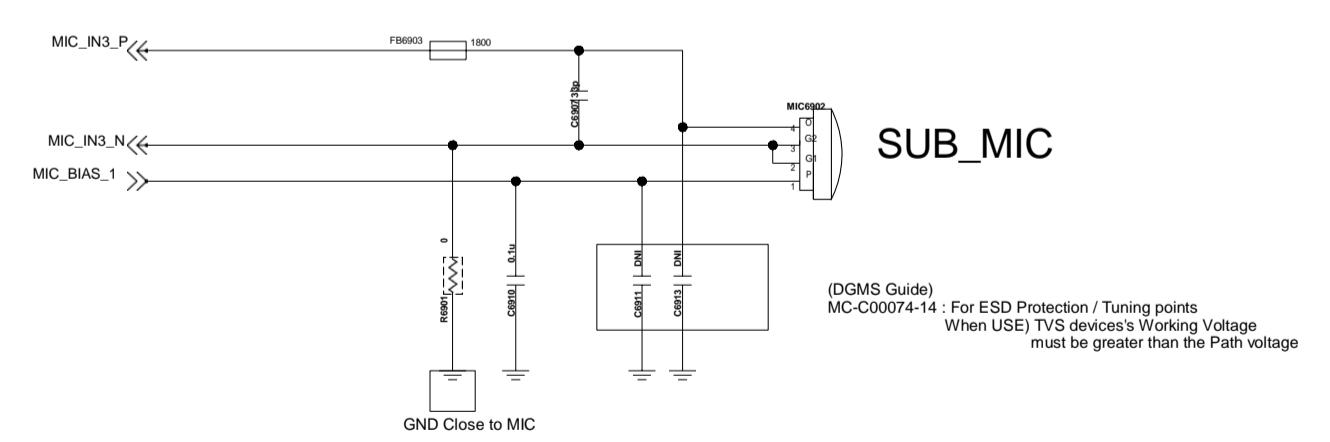


< 6-9-1_MIC > Rev_1.0

Circuit 1. Top Type MEMS MIC



1. The value of the component can be changed after test.
2. Developer should change parameter setting by according to existence of shunt capacitor
ex) WCD9310 // 80-N1622-91 Rev. E



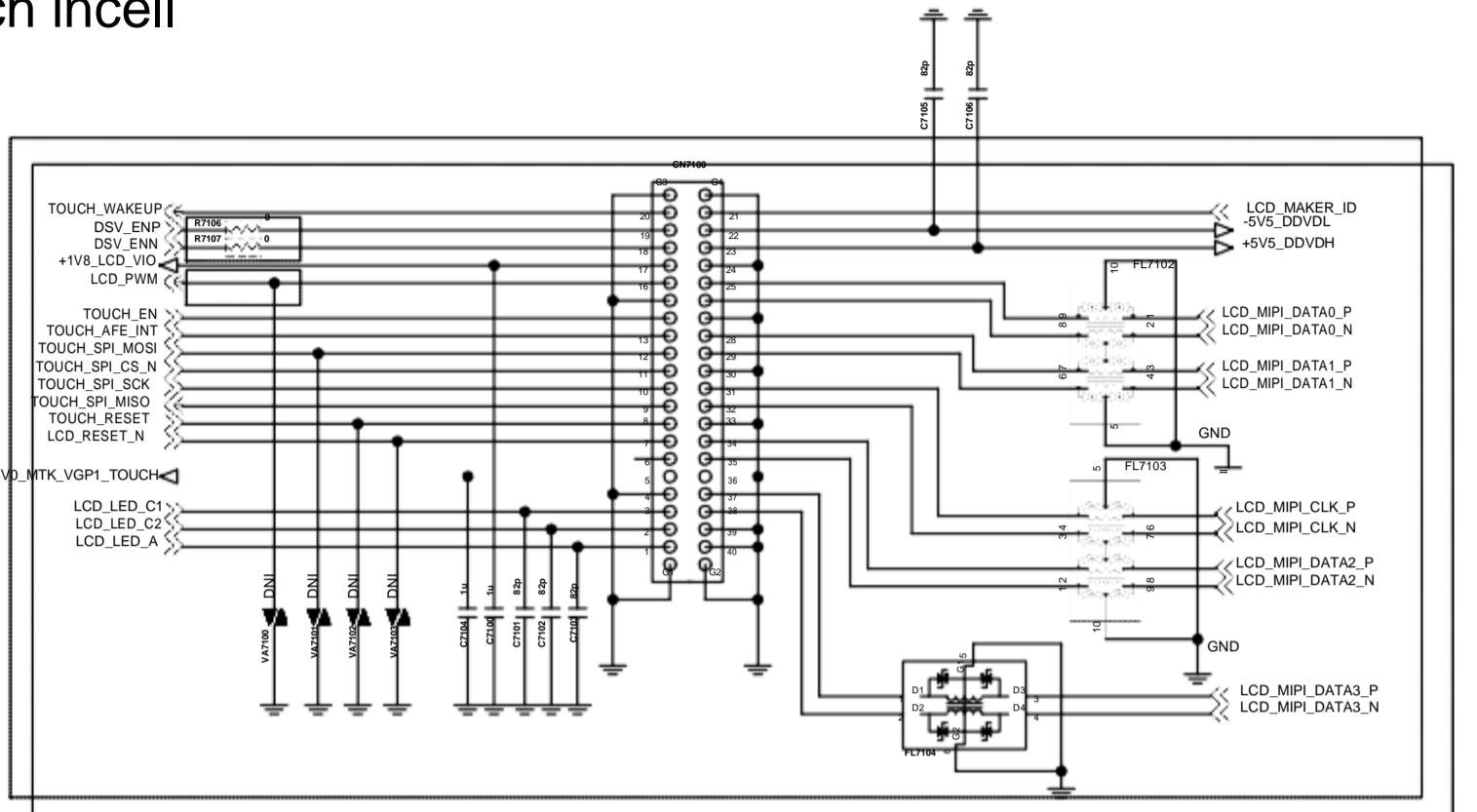
1. The value of the component can be changed after test.
2. Developer should change parameter setting by according to existence of shunt capacitor
ex) WCD9310 // 80-N1622-91 Rev. E

16 15 14 13 12 11 10 9 ↓ 8 7 6 5 4 3 2 1

< 7-1-5_LCD_HD > Rev_1.1

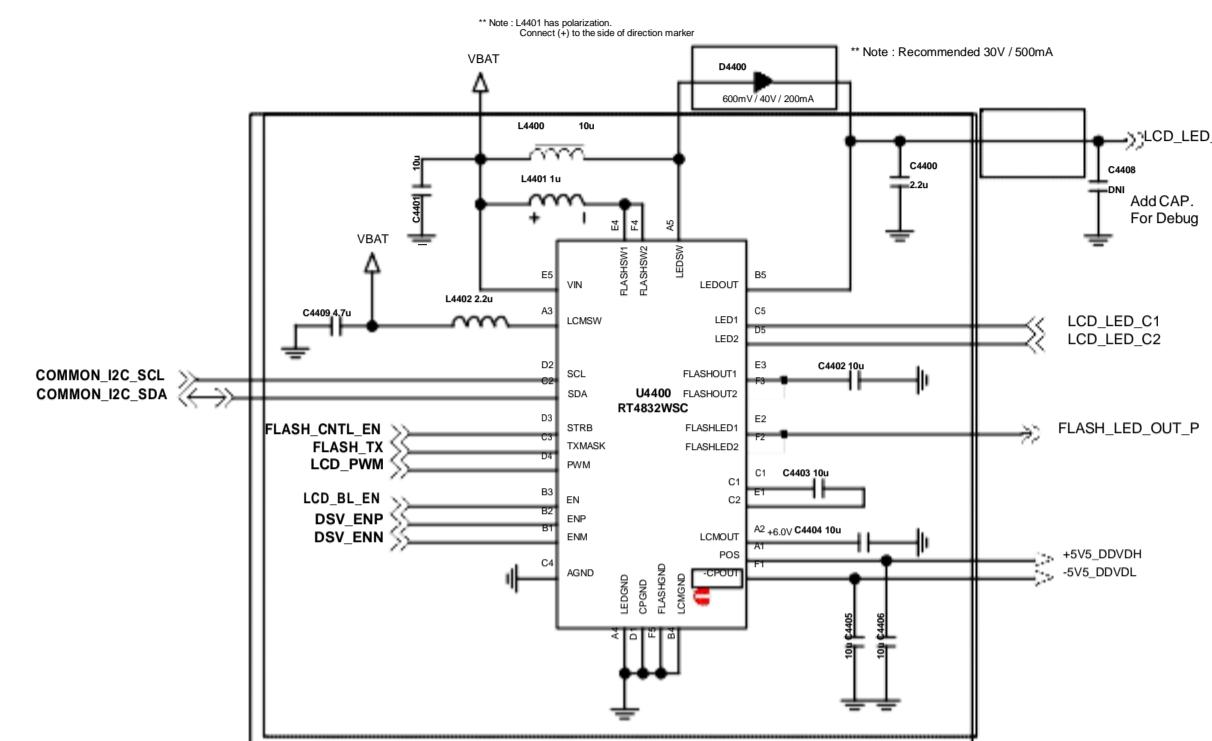
LCD 2.5.0 Inch incell

LCD Information		
Maker	LGD	
Driver IC	DB7400	
Connector	EAG64751201	



[DGMS Guide]
MC-C00057-16
1- Components for ESD Protection should be located nearby at LCD Data, Control and Power line.
2- Basically, DNI_PAD for ESD Protection components should be used.
2-LCD RESET should be allocated with dedicated GPIO for the purpose of Reset function.

<4-4-7_LCD_Backlight_Flash_DSV_IC_RT4832> Rev_0.1

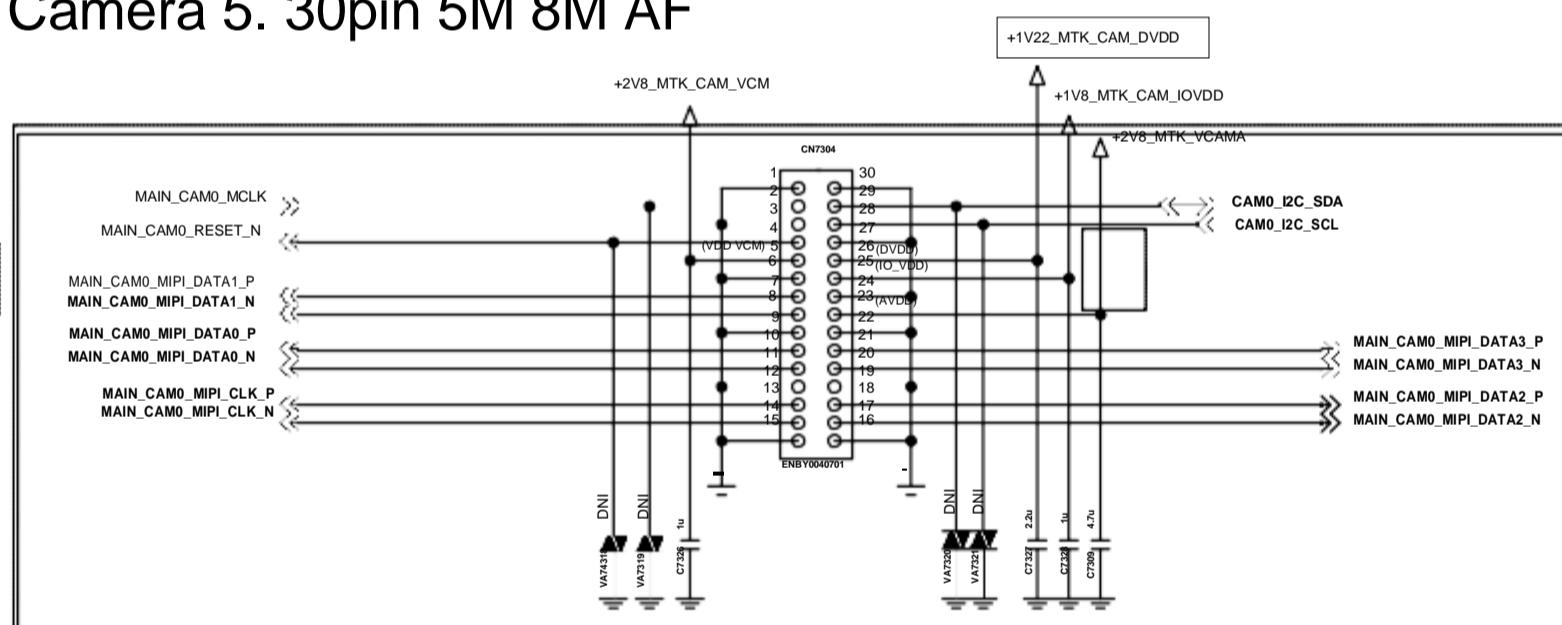


< 7-3_Main_Camera > Rev_1.1

Camera 5. 30pin 5M 8M AF

8M AF

- .EBP62702201 (IM Tech)

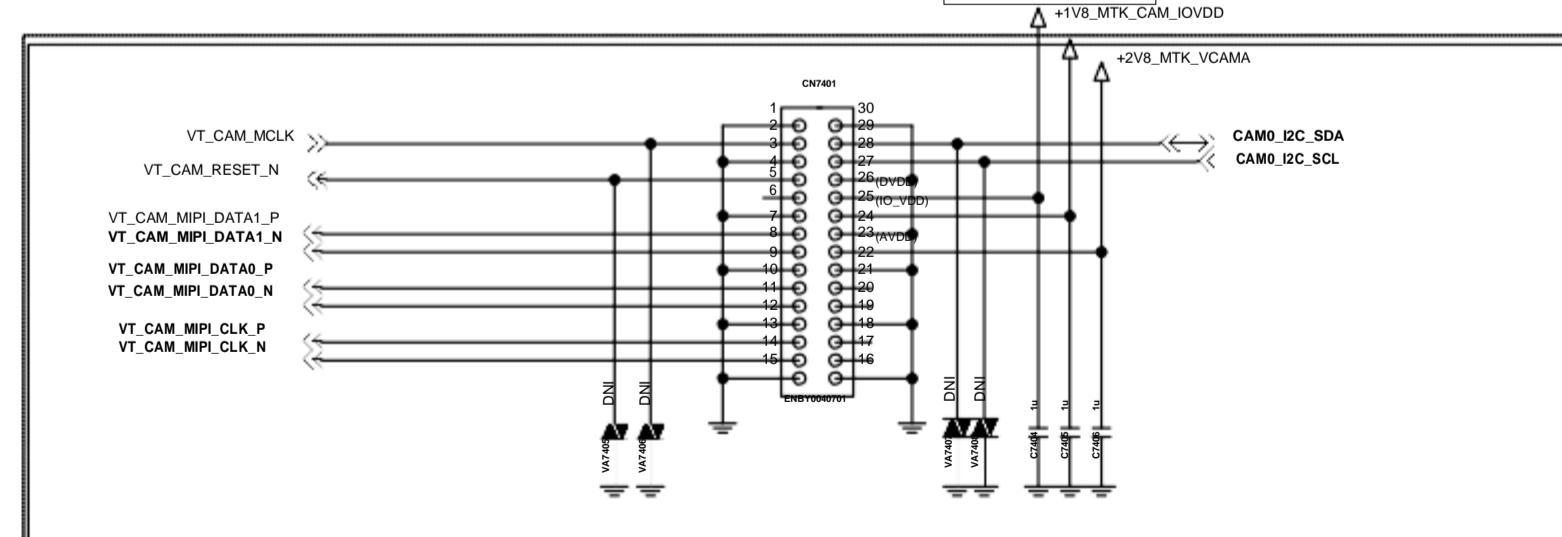


< 7-4_VT_Camera > Rev_1.2

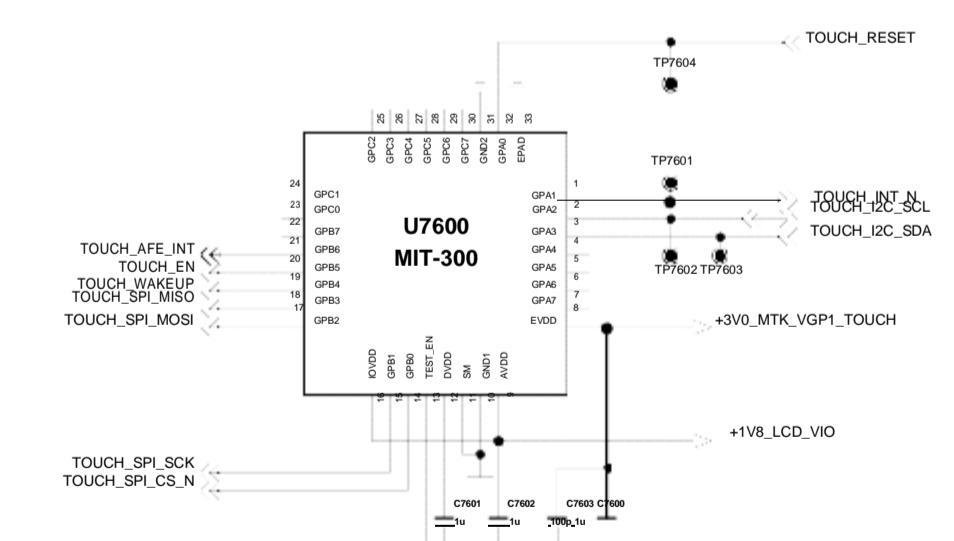
Camera 5. 30pin 5M FF

5M FF

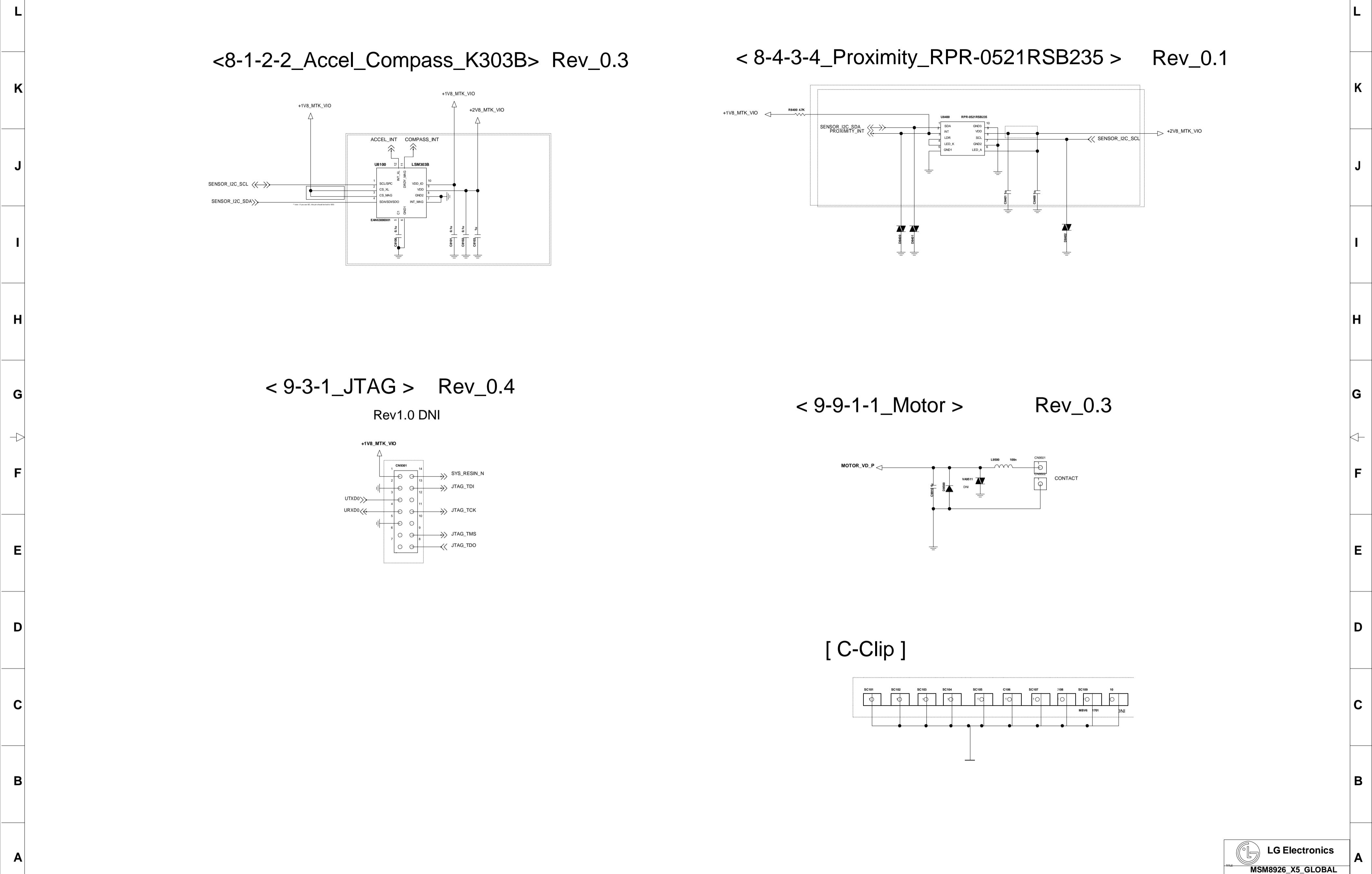
- .EBP62722501 (BYD)



TOUCH MCU MIT-300



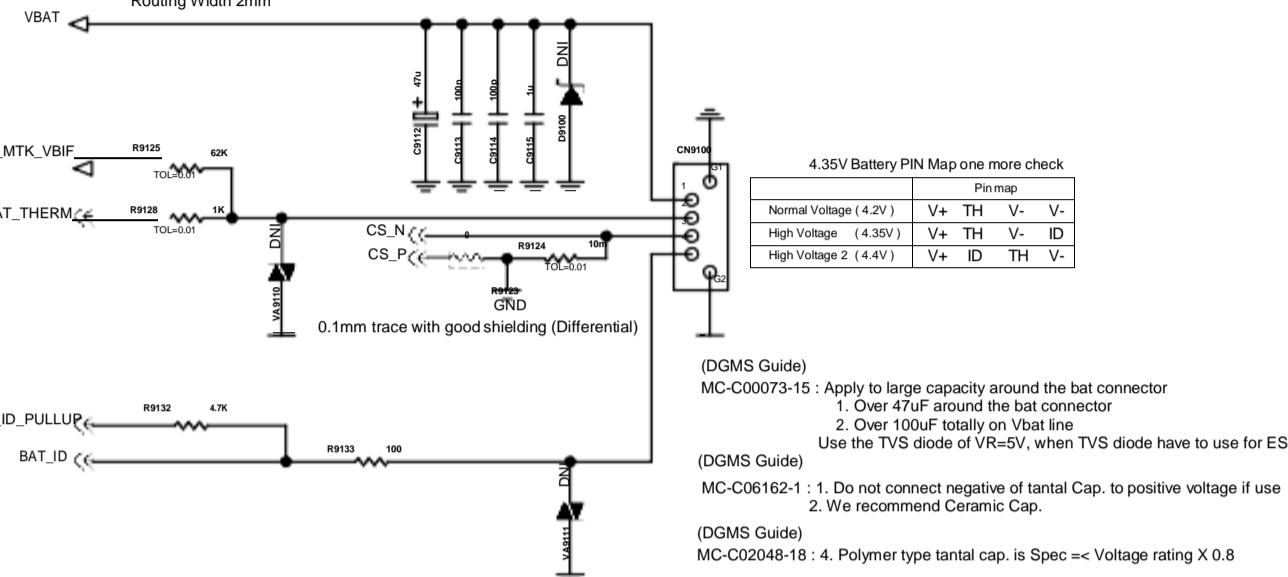
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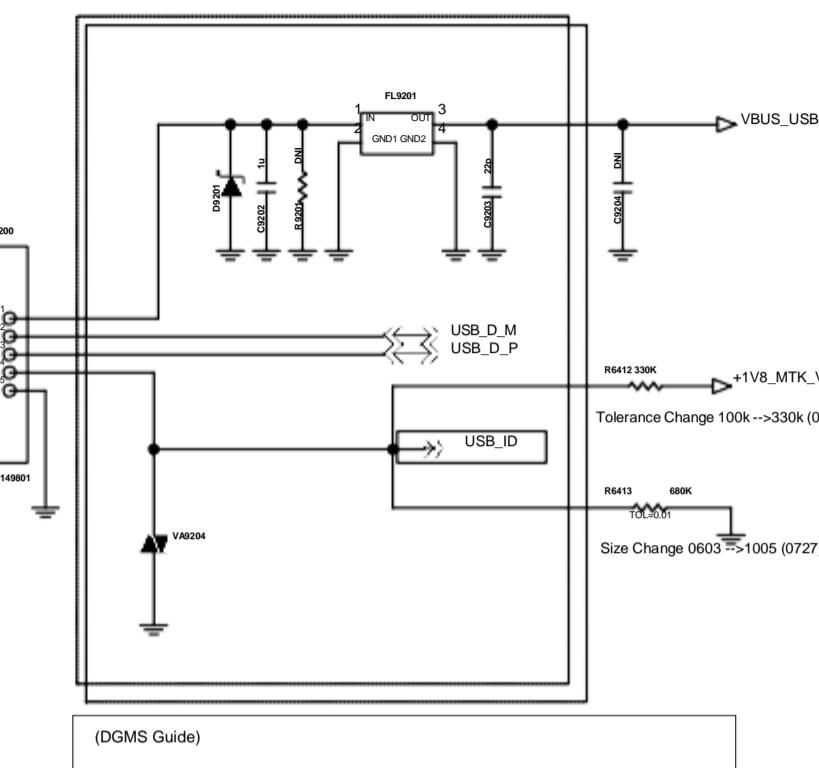
16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

<9-1_Battery_Connector_4Pin> Rev_1.4

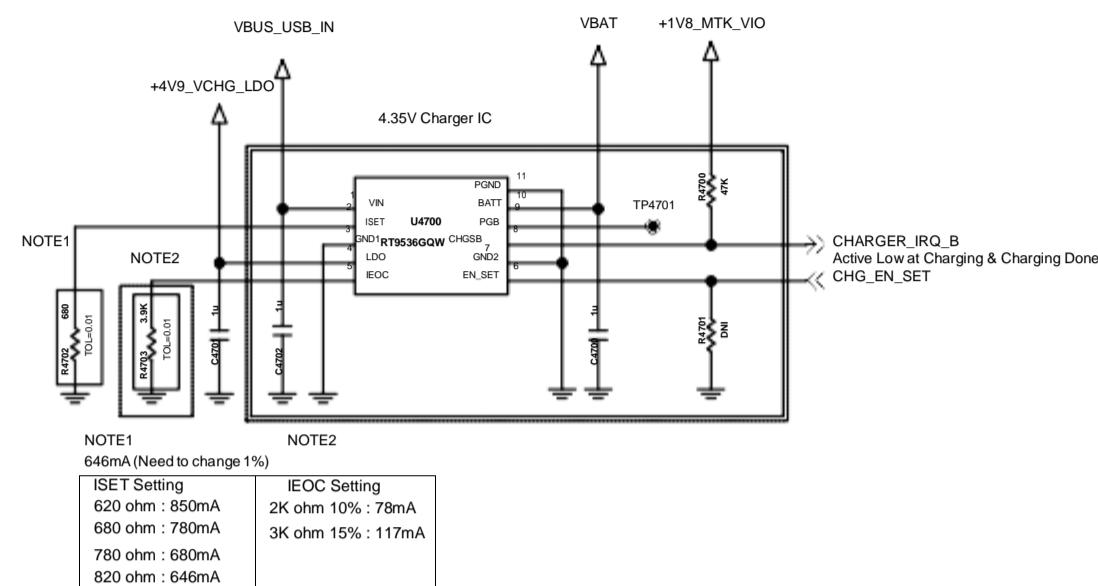
Circuit 5. Batt Conn.(For MTK Platform)



<9-2-1_USB_IO> Rev_1.2

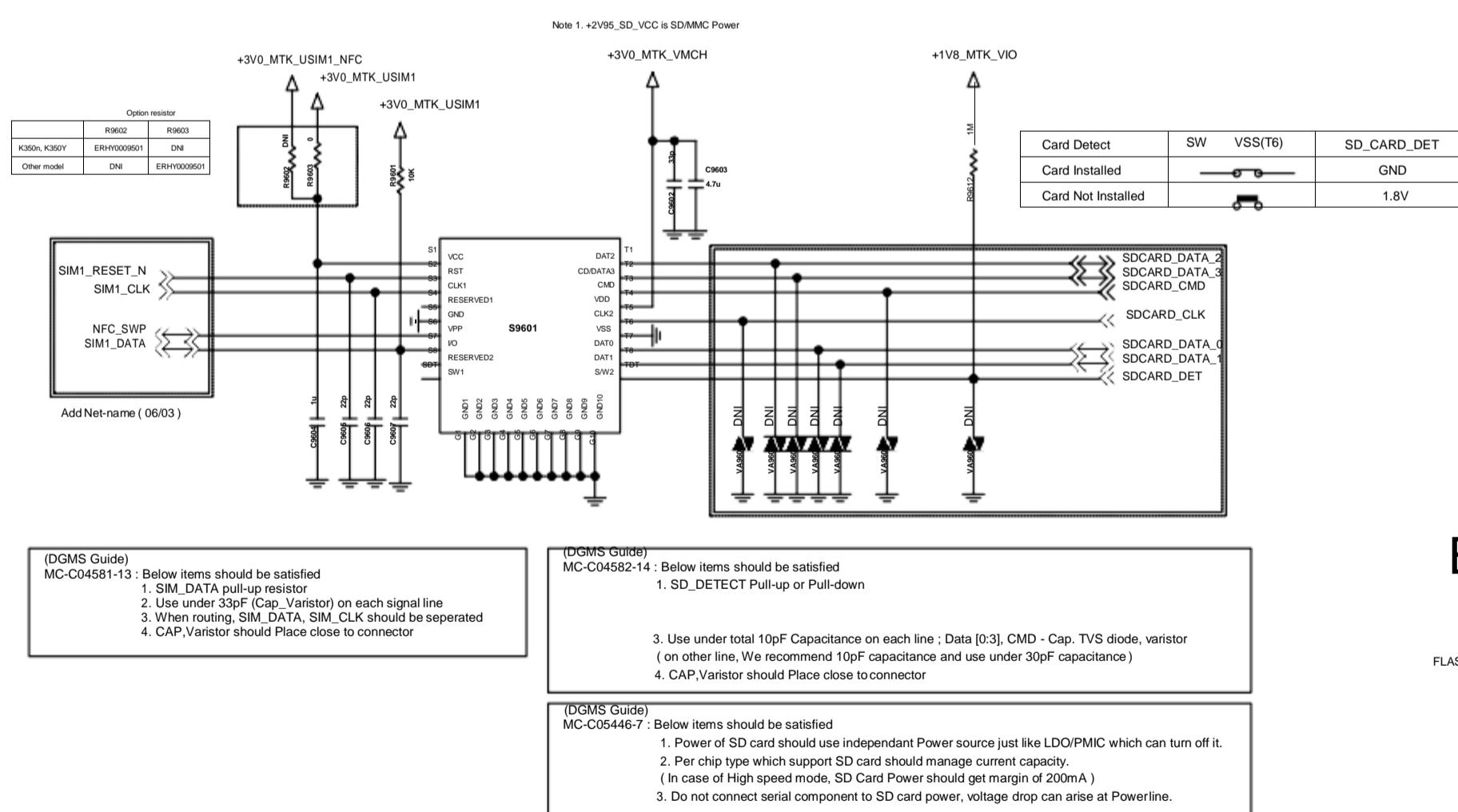


<4-7-1-1_Linear Charger_RT9536> Rev_1.0

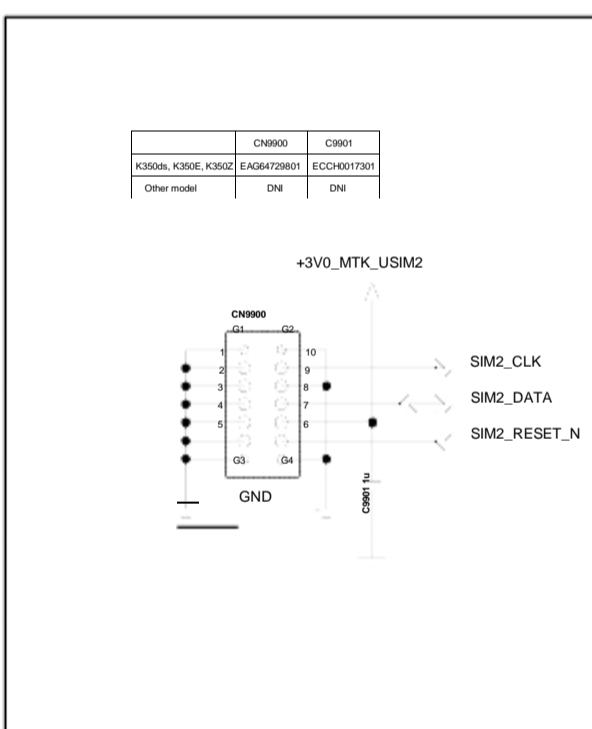


< 9-6_u_SDCARD_Socket > Rev_1.3

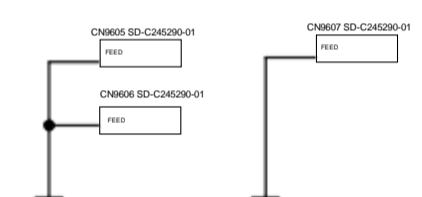
Circuit 1. u-SDCARD SIM Combo for QMC /w Low Detection



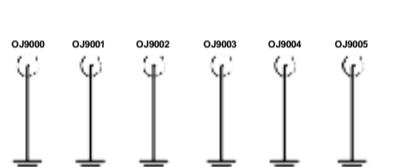
Dual SIM Connector



LCD Contact



Side Contact

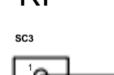


CAN_SHIELD

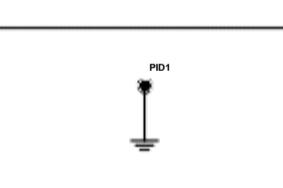
Connectivity



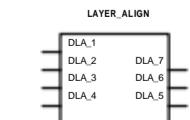
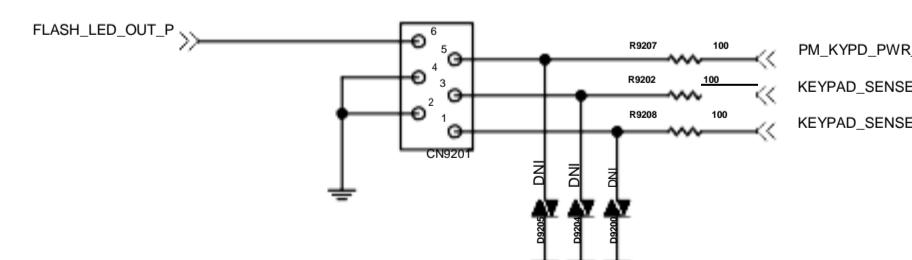
RF



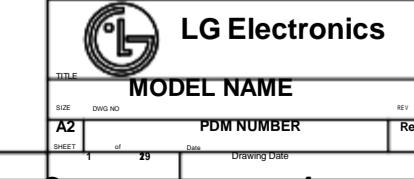
PID Label



BACK KEY CONNECTOR



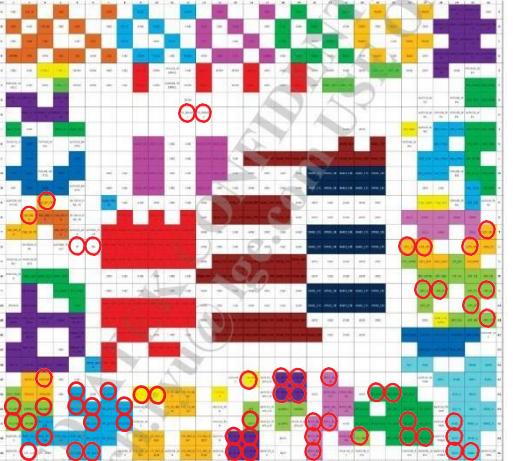
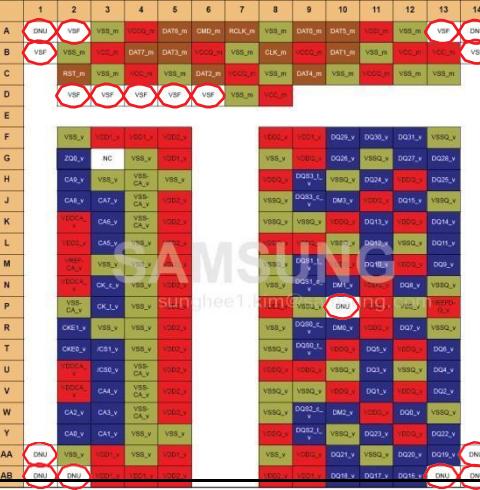
LAYER ALIGN



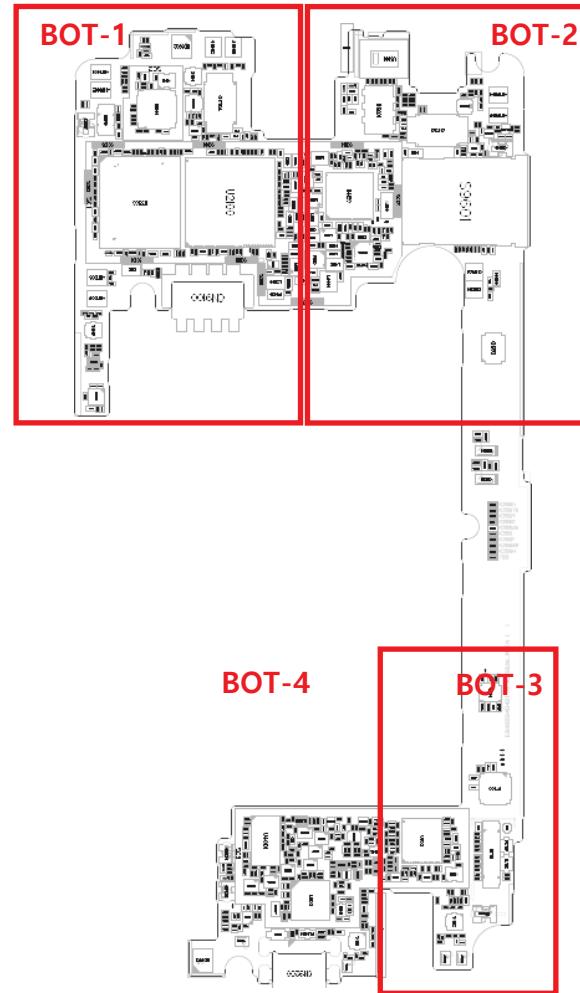
LGE Internal Use Only

16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

6. BGA PIN MAP

U2100_MT6735_IC,Digital Baseband Processor(Top View)																			U3300_H9TQ17A8GTMCUR,IC,MCP.eMMC(Top View)														
																																	
U4100_MT6328_IC,PMIC (Top View)																																	
																																	

LG-K350ds-MAIN_BOT



7. PCB LAYOUT

LG-K350DS-MAIN_BOT 1

U6001 - Connectivity MT6625L

No WiFi/ GPS/ FM Radio/Bluetooth

CN9900 – 2nd SIM connector

SIM2 - No service

U3300 - Memory

No Power on

U2100 – AP MT6735

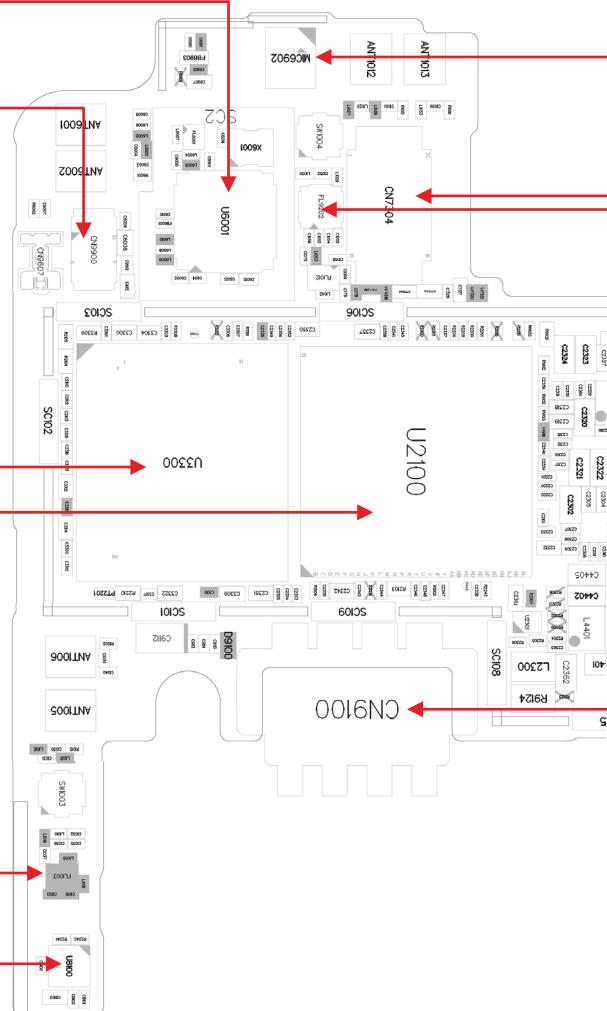
No Power on

FL1003 – B20 LNA

B20 No service

U8100 – Acceleration/Compass

No Sensor



MIC6902 – SUB MIC

No MIC

CN7304 – Main Camera

No Camera(Main)

FL9202 – Switch

No DRX service

CN9100 – Battery Connector

No Power on

7. PCB LAYOUT

LG-K350DS-MAIN_BOT 2

U8400 – Proximity Sensor

No Proximity

CN9201 – Back Key Connector

No Back Key function/ No Flash

U4100 – PMIC MT6328

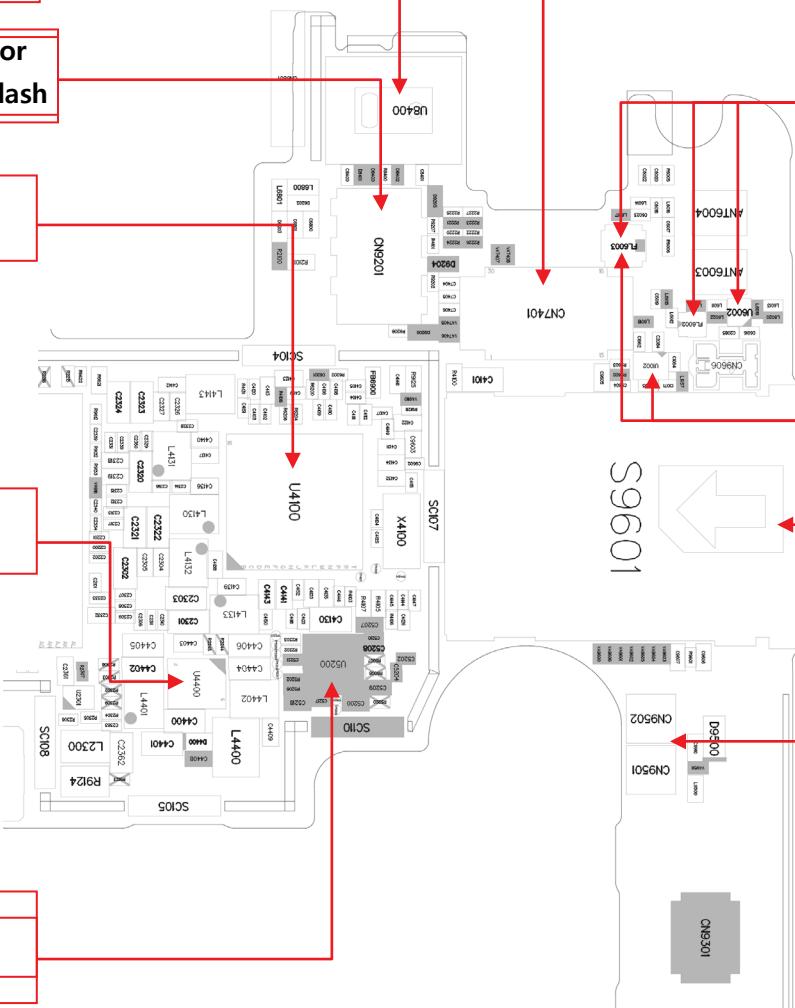
No Power on

U4400 – DSV IC

No LCD/ No Flash

U5200 – NFC IC

No NFC service



CN7401 – VT Camera connector

No Camera(VT)

FL6003/ FL6002/ U6002

No GPS service

FL6003/ U1002

No B7 DRX function

S9601 – Combo Socket

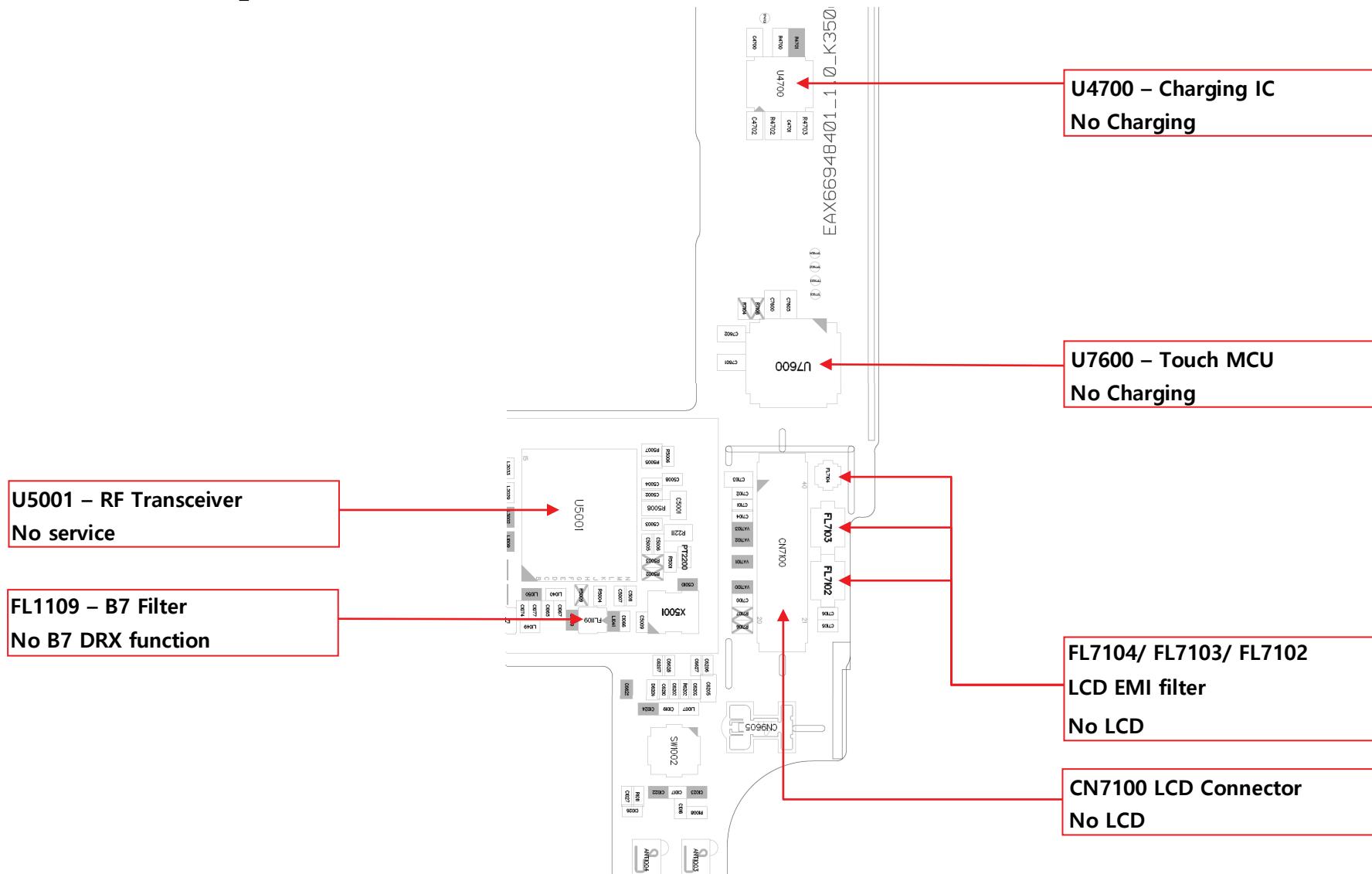
No 1st SIM/ SD card service

CN9501/CN9502 – Motor Contact

No Vibrator fuction

7. PCB LAYOUT

LG-K350DS-MAIN_BOT 3



7. PCB LAYOUT

LG-K350DS-MAIN_BOT 4

U4001 – MMPA

No Service

ANT6200/6201

- Speaker Contact

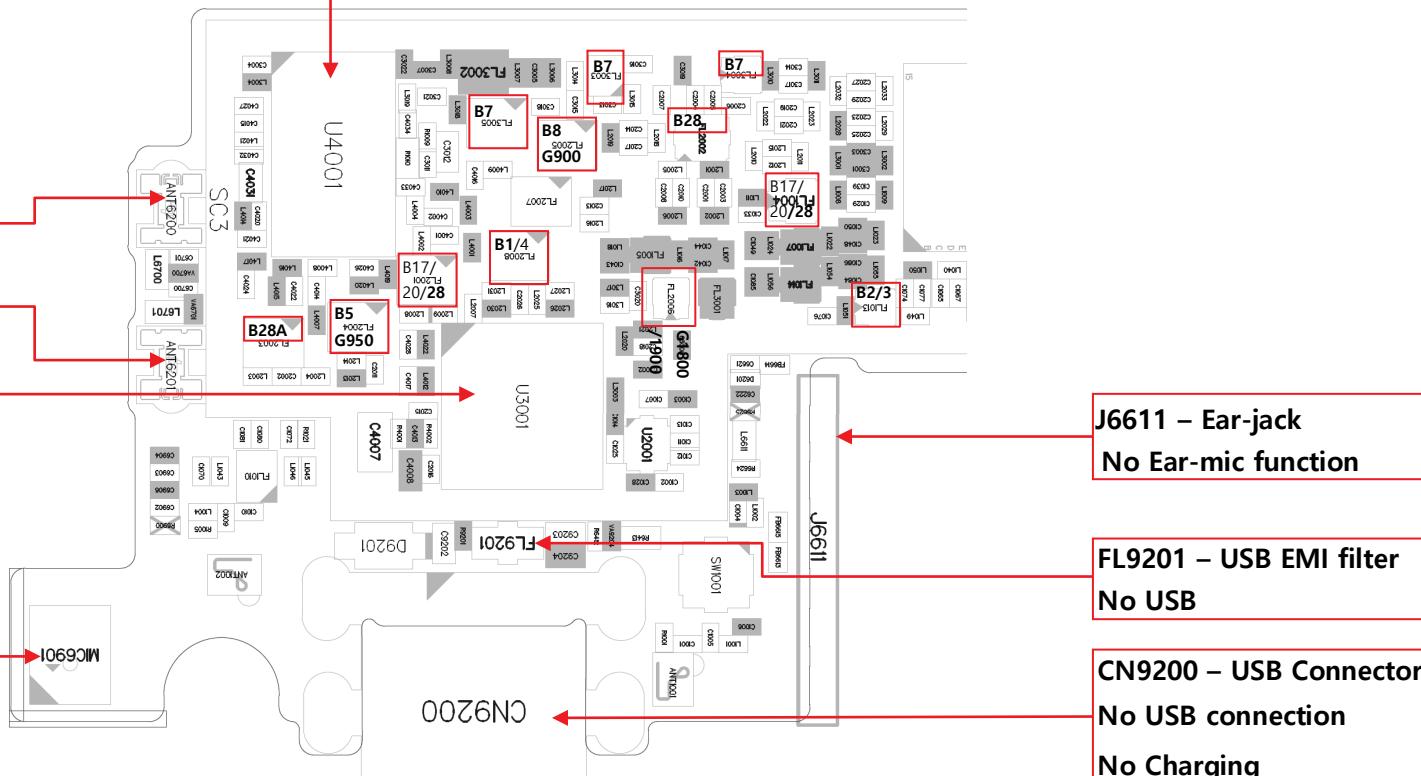
No Sound

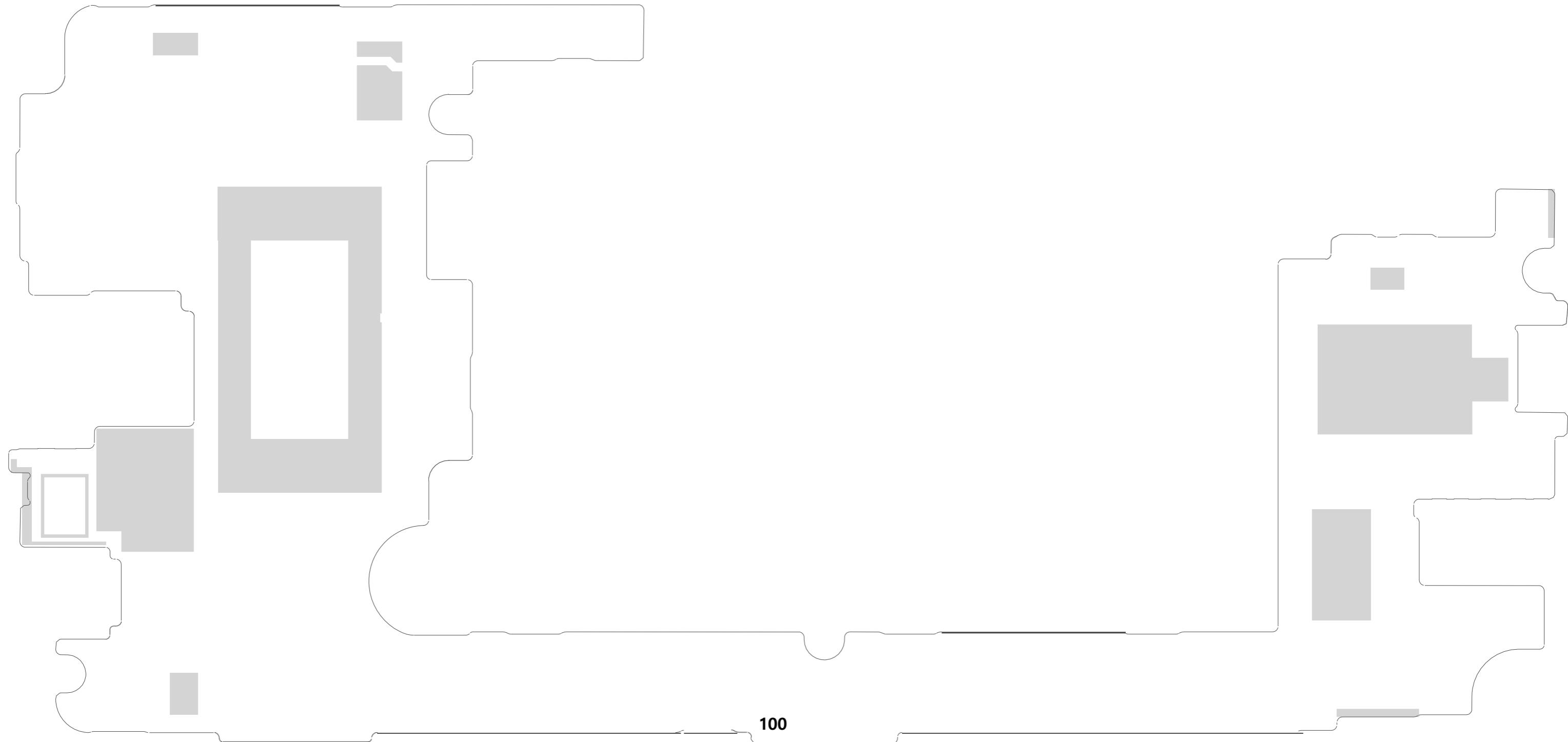
U3001 – Tx Module

No Service

MIC6901 - MIC

No MIC(Main)





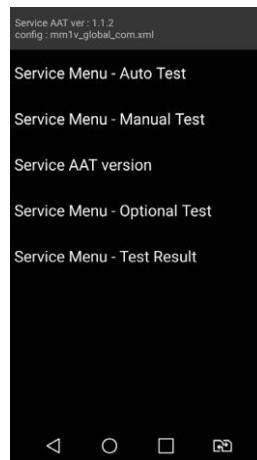


1. Hidden Menu Start



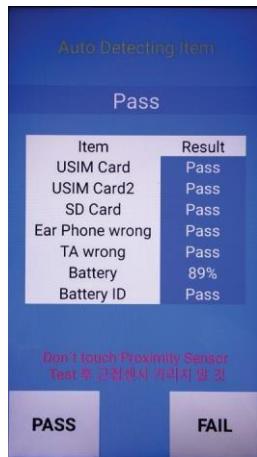
- Start shortcut key:
*#546368#*350#
- Hidden Menu List
: Start the desired menu, click

2. Device Test - SAAT



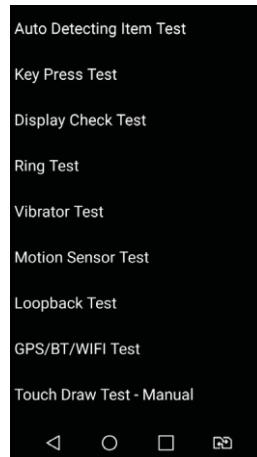
- Service Menu – Auto Test
- Service Menu – Manual Test
- Service AAT version
→ Hidden Menu version Display

2. Device Test



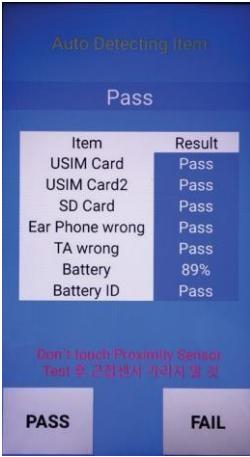
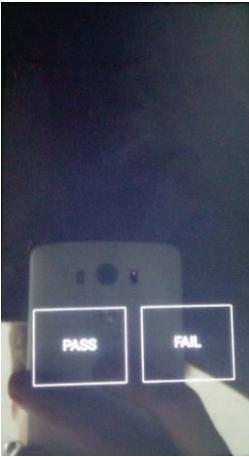
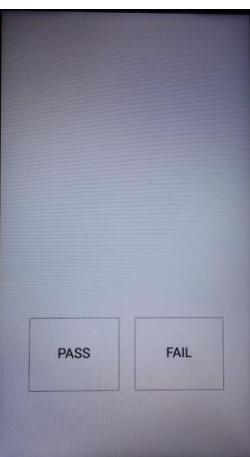
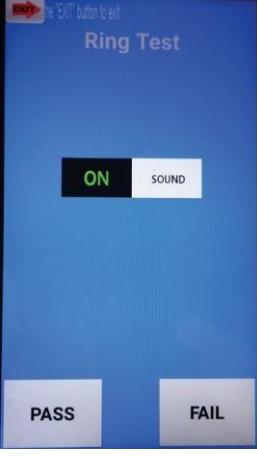
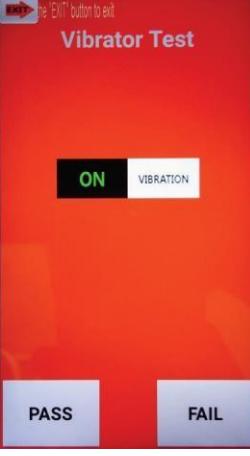
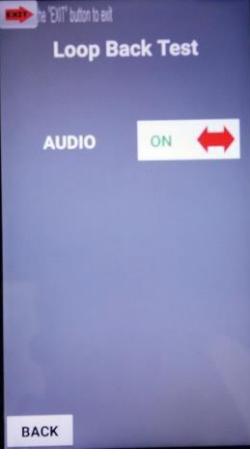
- Service Menu – Auto Test
→ All Test Items are continued one after another.
→ Continuous information on the menu, giving you ability test.

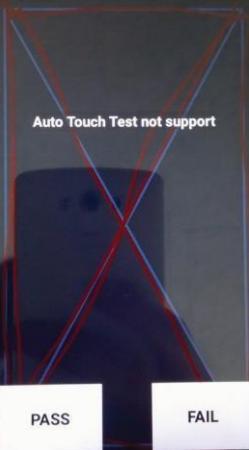
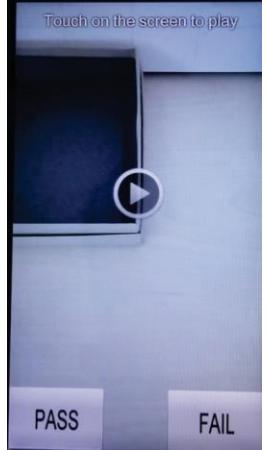
3. Device test List



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

8. Hidden Menu

1. Auto Detecting Item Test	2. Key Press Test	3. Display Check Test (1)	4. Display Check Test (2)																
<p>Auto Detecting Item</p> <p>Pass</p> <table border="1"> <thead> <tr> <th>Item</th><th>Result</th></tr> </thead> <tbody> <tr><td>USIM Card</td><td>Pass</td></tr> <tr><td>USIM Card2</td><td>Pass</td></tr> <tr><td>SD Card</td><td>Pass</td></tr> <tr><td>Ear Phone wrong</td><td>Pass</td></tr> <tr><td>TA wrong</td><td>Pass</td></tr> <tr><td>Battery</td><td>89%</td></tr> <tr><td>Battery ID</td><td>Pass</td></tr> </tbody> </table> <p>Don't touch Proximity Sensor Test 후 근접센서 가리지 말 것</p> <p>PASS FAIL</p> 	Item	Result	USIM Card	Pass	USIM Card2	Pass	SD Card	Pass	Ear Phone wrong	Pass	TA wrong	Pass	Battery	89%	Battery ID	Pass	<p>The 'EXIT' button to exit</p> <p>UP UP DO DO DO DO N/A</p> <p>Proximity : FAR</p> <p>ALC sensor N/A</p> <p>Cal Start</p> <p>PASS FAIL</p> 		
Item	Result																		
USIM Card	Pass																		
USIM Card2	Pass																		
SD Card	Pass																		
Ear Phone wrong	Pass																		
TA wrong	Pass																		
Battery	89%																		
Battery ID	Pass																		
5. Ring Test	6. Vibrator Test	7. Motion Sensor Test	8. Loop Back Test																
<p>The 'EXIT' button to exit</p> <p>Ring Test</p> <p>ON SOUND</p> <p>PASS FAIL</p> 	<p>The 'EXIT' button to exit</p> <p>Vibrator Test</p> <p>ON VIBRATION</p> <p>PASS FAIL</p> 	<p>Magnetic Calibration LV : 1</p> <table border="1"> <thead> <tr><th>X</th><th>Y</th><th>Z</th></tr> </thead> <tbody> <tr><td>0.00</td><td>-32.00</td><td>-18.00</td></tr> <tr><td>0.00</td><td>0.00</td><td>0.00</td></tr> </tbody> </table> <p>Accelerometer</p> <p>Motion Accel(N/A) Gyroscope Sensor(N/A)</p> <p>Stand the phone vertically.</p> 	X	Y	Z	0.00	-32.00	-18.00	0.00	0.00	0.00	<p>The 'EXIT' button to exit</p> <p>Loop Back Test</p> <p>AUDIO ON ↳</p> <p>BACK</p> 							
X	Y	Z																	
0.00	-32.00	-18.00																	
0.00	0.00	0.00																	

9. GPS/BT/WiFi Test	10. Touch Draw Test	11. Camera Test (Main)	12. Camcorder Test
<p>GPS(RF) Test 62 Sec</p> <p>GPS Test GLO Test CNo : 41.2 dB CNo : 27.8 dB</p> <p>Bluetooth Scanning</p> <p>Bluetooth Scanning... B4:B6:76:92:CE:39 Pass</p> <p>WIFI Scanning</p> <p>WIFI Scan Complete. BSSID: c0:a0:bb:f6:f5:b8 Pass</p> <p>PASS Retry FAIL</p>	 <p>PASS FAIL</p>	 <p>PASS Retry FAIL</p>	 <p>PASS FAIL</p>
13. Camera Test (VT)	14. FM Radio Test		
<p>VT Camera Test</p> <p>2560x1920</p>  <p>PASS FAIL</p>	<p>FM Radio Test</p> <p>Connected wired headset. 이어셋이 꽂혔습니다.</p> <p>87.5Mhz</p> <p>Playing FM Radio. 소리를 확인하세요.</p> <p>Press down BACK key after testing. 테스트 후 back 키를 누르세요.</p> <p>PASS FAIL</p>		

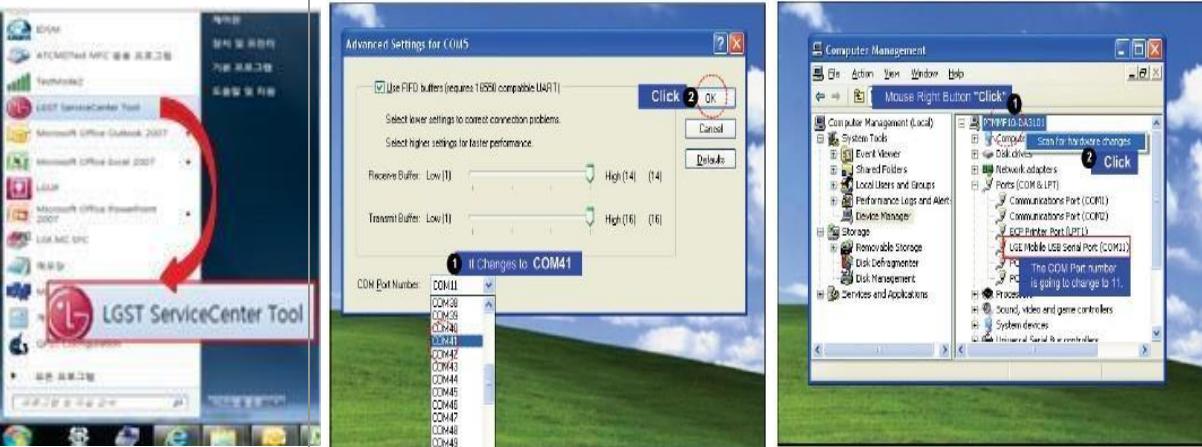
1. Summary

Tool Version	DLL name	USB Driver
LGFlash Tool V201	LGK350ds_20160204_LGFLASHv215_Download.dll	LGUnitedMobileDriver_S52MAN314AP22_ML_WHQL_Ver_3.14.1

Please Check the Version to "LGST ServiceCenter Tool"

H/W	Name	Part No.	SW
D/L Cable	Micro 5P (56-open-910K) USB DLC	RAD3216 7835	KDZ

2. . USB COM port Setting



3. USB D/L Cable setting



4. Flash tool D/L setting

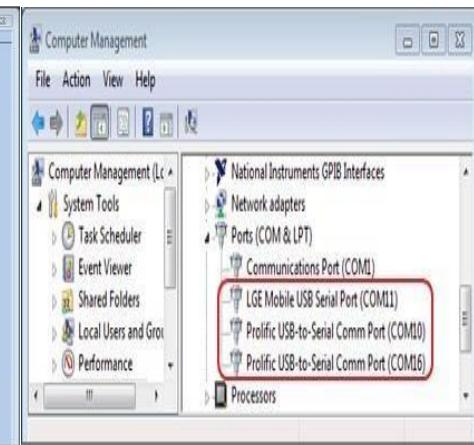
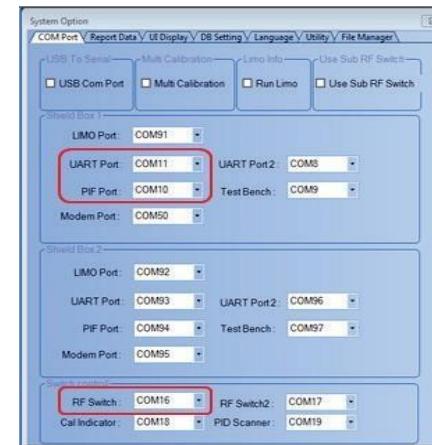
※ If you want more information, please refer LGST ServiceCenter Tool's Notification "Download User Guide".

1. Summary

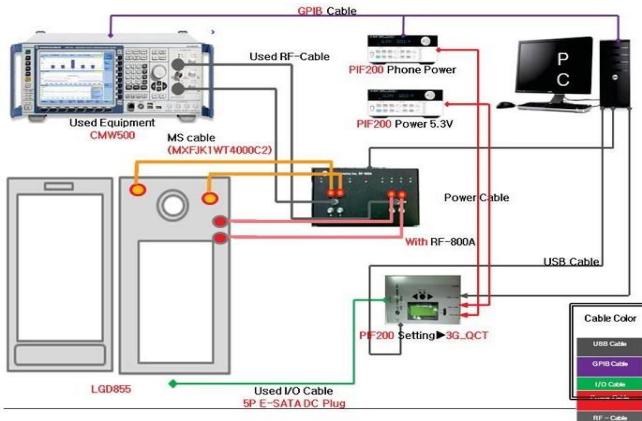
CAL INFORMATION		
S/W VERSION		
Tachyon_509		
Please Check the Version to "B2B"		
H/W	Name	Part No.
PIF	PIF200	BJAY0024021
USB Cable	USB Cable	RAD32247898
Power Cable	DC Power Cable	RAD32247878
I/O Cable	5P E-SATA DC Plug	
RF Cable_Main	MXFJK1WT4000C2	
Power Supply_PIF	DC 5.0V 2.0A	
Power Supply_Phone	Power supply control	
PF Test Equipment		
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		



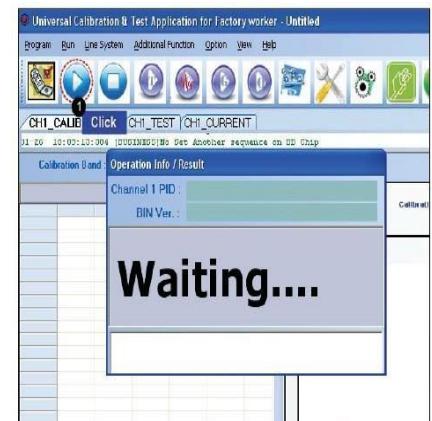
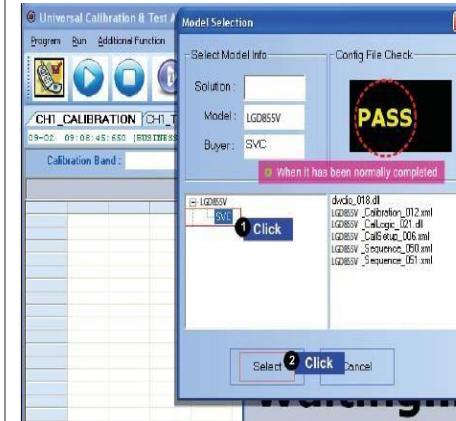
2. . USB COM port Setting



3. Calibration Cable setting



4. Tachyon setting

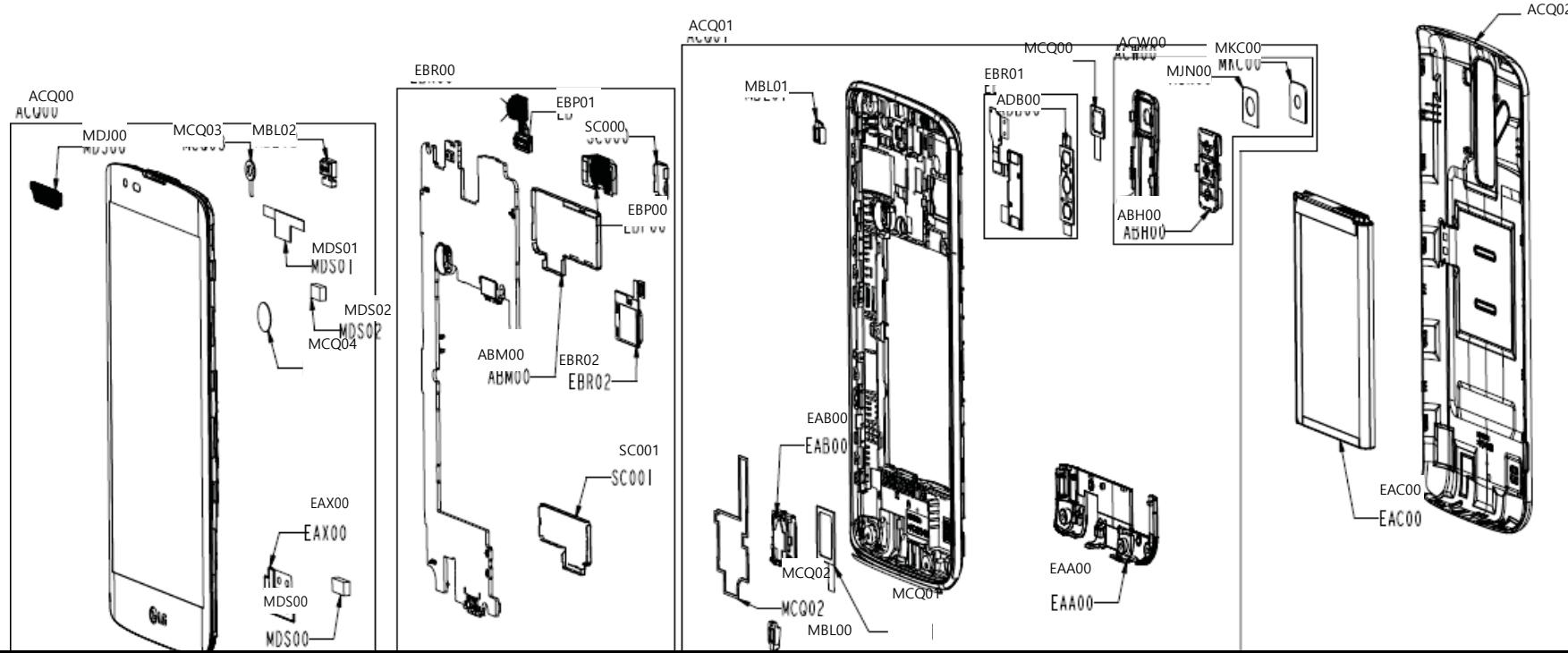


※ If you want more information, please refer LGST ServiceCenter Tool's Notification "RF Calibration User Guide".

11. DISASSEMBLE GUIDE

1. Disassemble Screw (9ea)	2. Disassemble Rear cover	3. Disassemble Main Antenna	4. Disassemble Connector
			
5. Disassemble Main PCB	6. Disassemble HW Parts (4ea)	7. LCD Disassemble (by Heating machine)	8. Complete Disassembling
 Disassemble Hooks			

12. EXPLODED VIEW



Location	Description	Location	Description	Location	Description	Location	Description
ACQ01	Cover Assembly,Rear	MBL00	Cap	MDJ00	Filter	EBR02	PCB Assembly,Flexible
EBR01	PCB Assembly,Flexible	ACW00	Decor Assembly	MDS00	Gasket	EBP01	Camera Module
ADB00	Dome Assembly,Metal	ABH00	Button Assembly	MDS01	Gasket	EBP00	Camera Module
MBL01	Cap	MKC00	Window,Camera	MDS02	Gasket	ABM00	Can Assembly,Shield
MCQ01	Damper,Speaker	MJN00	Tape,Camera	MCQ03	Damper,Camera	SC000	Can,Shield
MCQ02	Damper,Speaker	EAA00	PIFA Antenna,Multiple	EAX00	PCB,Flexible	SC001	Can,Shield
EAB00	Speaker,Dual Mode	ACQ00	Cover Assembly	MBL02	Cap	ACQ02	Cover Assembly,Battery
MCQ00	Damper,Camera	MCQ04	Damper,Motor	EBR00	PCB Assembly,Main	EAC00	Rechargeable Battery,Lithium Ion

13. REPLACEMENT PART LIST

No	P/N	Description	Quantity	Location no
1	AGQ88829601	Phone Assembly	1	AGQ000000
2	GMEY0014301	Screw,Machine	9	FAB010000
3	ACQ88692701	Cover Assembly,EMS	1	ACQ100400
4	ACQ88658801	Cover Assembly,Rear	1	ACQ01
5	ACQ88870801	Cover Assembly,Rear(SVC)	1	ACQ105800
6	EAA64387801	PIFA Antenna,Multiple	1	EAA030100
7	EAA64387901	PIFA Antenna, GPS	1	EAA030103
8	EAA64406901	PIFA Antenna, Multiple	1	EAA030101
9	EBR81943302	PCB Assembly,Flexible	1	EBR01
10	EBR81924702	PCB Assembly,Flexible,Insert	1	EBR070100
11	ADB74718201	Dome Assembly,Metal	1	ADB00
12	MJN69991301	Tape	1	MJN000000
13	MJN69991201	Tape	1	MJN000001
14	EBR81964502	PCB Assembly,Flexible,SMT	1	EBR070400
15	EBR81964602	PCB Assembly,Flexible,SMT Top	1	EBR070300
16	EAX66917901	PCB,Flexible	1	EAX010700
17	EBR81981902	PCB Assembly,Flexible,SMT Bottom	1	EBR070200
18	EAV63412401	LED,Flash	1	LD1001
19	MBL66937001	Cap	1	MBL01
20	MCK69185701	Cover,Rear	1	MCK063300
21	MCQ68765101	Damper,Speaker	1	MCQ01
22	MCQ68825101	Damper,Speaker	1	MCQ02
23	MDJ64944301	Filter	1	MDJ000000
24	EAA64347201	PIFA Antenna,WiFi	1	EAA030102
25	MEZ64319901	Label,After Service	1	MEZ000900
26	MFB64293301	Lens,Flash	1	MFB029600
27	MJN69947901	Tape,Protect	2	MJN061101
28	MJN69987301	Tape	1	MJN000000
29	MJN69947801	Tape,Protect	2	MJN061100
30	EAB64229101	Speaker,Dual Mode	1	EAB00
31	EAU63423201	Motor,DC	1	EAU010000
32	MCQ68765001	Damper,Camera	1	MCQ00
33	MBL66937101	Cap	1	MBL00
34			1	ACW00
35	MCR66527101	Decor	1	MCR000000
36	ABH75839701	Button Assembly	1	ABH00
37	MBG66143401	Button	1	MBG000000
38	MJN69947601	Tape,Protect	1	MJN061100
39	MBG66103501	Button	1	MBG000001
40	MKC66019001	Window,Camera	1	MKC00
41	MJN69947701	Tape,Camera	1	MJN00
42	EAA64347101	PIFA Antenna,Multiple	1	EAA00
43	ACQ88697001	Cover Assembly,Bar	1	ACQ003400
44	ACQ88830201	Cover Assembly	1	ACQ00

13. REPLACEMENT PART LIST

No	P/N	Description	Quantity	Location no
45	ACQ88695101	Cover Assembly,Front	1	ACQ032700
46	ACQ88636101	Cover Assembly,Front(Sub)	1	ACQ033200
47	MICE0016903	Insert,Nut	9	MET099500
48	MCK69165701	Cover,Front	1	MCK032700
49	MCQ68764901	Damper	1	MCQ000000
50	MCQ68824901	Damper,Motor	1	MCQ04
51	MDJ64944201	Filter	1	MDJ00
52	MJN69987101	Tape	1	MJN000000
53	MJN70027001	Tape	1	MJN000001
54	MHK65565801	Sheet	1	MHK000000
55	EAB63888801	Receiver	1	EAB010400
56	EAT63233101	Module,Hybrid Touch LCD	1	EAT130000
57	MDS65593001	Gasket	1	MDS00
58	MDS65634301	Gasket	1	MDS01
59	MDS65634401	Gasket	1	MDS02
60	MCQ68825001	Damper,Camera	1	MCQ03
61	EAG63849801	Jack,Phone	1	EAG140300
62	EAX66949701	PCB,Flexible	1	EAX00
63	MBL66841401	Cap	1	MBL02
64	EBR81969301	PCB Assembly,Main	1	EBR00
65	EBR82558901	PCB Assembly,Main,Insert	1	EBR071500
66	EBR81943301	PCB Assembly,Flexible	1	EBR02
67	EBR81964501	PCB Assembly,Flexible,SMT	1	EBR070400
68	EBR81964601	PCB Assembly,Flexible,SMT Top	1	EBR070300
69	EAX66903401	PCB,Flexible	1	EAX010700
70	EAG64749801	Connector,BtoB	1	CN10001
71	EBR81981901	PCB Assembly,Flexible,SMT Bottom	1	EBR070200
72	EAE62286801	Capacitor,Ceramic,Chip	1	C10001
73	ECCH0009514	Capacitor,Ceramic,Chip	2	C10000,C10002
74	EAG64650901	Socket,DIMM/SIMM	1	J10001
75	EBR81924701	PCB Assembly,Flexible,Insert	1	EBR070100
76	MJN69970501	Tape	1	MJN000000
77	EBP62722501	Camera Module	1	EBP01
78			1	EBP00
79	RAA34549101	Resin,PC	0	RAA050100
80	ABM75356101	Can Assembly,Shield	1	ABM00
81	MBK64774301	Can,Shield	1	MBK070300
82	MEV65913601	Insulator	1	MEV000000
83	MCQ68904601	Damper	1	MCQ000000
84	EBR81969401	PCB Assembly,Main,SMT	1	EBR071800
85	EBR82579601	PCB Assembly,Main,SMT Bottom	1	EBR071600
86	EAM63170001	Filter,EMI/Power	2	FL7102,FL7103
87	EAM63290701	Filter,Duplexer	1	FL2003
88	EAM63390701	Filter,Saw	1	FL2006
89	EAM63431001	Filter,Duplexer	1	FL2001

13. REPLACEMENT PART LIST

No	P/N	Description	Quantity	Location no
90	EAM63651001	Filter,Separator,Switch	1	FL9202
91	EAM63670001	Filter,Saw	1	FL6001
92	EAM63910601	Filter,Saw	2	FL1109,FL3004
93	EAM63930901	Filter,Saw	1	FL1013
94	EAM63950001	Filter,Separator,Switch	1	U2001
95	EAM63950301	Filter,Duplexer	1	FL2008
96	EAM63950701	Filter,Duplexer	1	FL2005
97	EAM63970401	Filter,Duplexer	1	FL3005
98	EAM63990101	Filter,Duplexer	1	FL2007
99	EAM63990501	Filter,Duplexer	1	FL2004
100	EAM63990701	Filter,Saw	1	FL1004
101	EAM63991901	Filter,Separator,Switch	1	FL1010
102	EAN62677301	IC,Charger	1	U4700
103	EAN62736101	IC,RF Amplifier	1	U6002
104	EAN63325801	IC,RF Amplifier	1	FL3003
105	EAN63406501	IC,RF Transceiver,4G	1	U5001
106	EAN63486501	IC,WiFi	1	U6001
107	EAN63646901	IC,MCP,eMMC	1	U3300
108	EAN63748001	IC,PMIC	1	U4100
109	EAN63788301	IC,RF Amplifier	1	U1002
110	EAN63807901	IC,RF Amplifier	1	FL1012
111	EAN63886901	IC,Acceleration Sensor	1	U8100
112	EAN64011501	IC,Capacitive Touch Sensor	1	U7600
113	EAN64028901	IC,Sub PMIC	1	U4400
114	EAN64107501	IC,Power Amplifier	1	U4001
115	EAN64130701	IC,Proximity	1	U8400
116	EAN64153301	IC,Digital Baseband Processor,4G	1	U2100
117	EAP61866301	Inductor,Multilayer,Chip	1	L1035
118	EAP61866601	Inductor,Multilayer,Chip	1	L1004
119	EAP61866701	Inductor,Multilayer,Chip	7	L1002,L1007,L1010,L1028,L6006,L6008,L6014
120	EAP62106301	Inductor,Wire Wound,Chip	1	L4400
121	EAP62108001	Inductor,Multilayer,Chip	2	C2023,C2025
122	EAP62946701	Inductor,Wire Wound,Chip	1	L4143
123			1	L4401
124	EAP63626601	Inductor,Multilayer,Chip	1	L4402
125	EAT63233201	Module,Tx Module	1	U3001
126	EAW62943601	Oscillator,VCTCXO	1	X5001
127	EAW63023701	Oscillator,TCXO	1	X6001
128	EBC61977001	Resistor,Chip	1	R4103
129	EBC62035901	Resistor,Chip	1	R4131
130	EBG62665701	Thermistor,NTC	2	PT2200,PT2201
131	ECCH0000115	Capacitor,Ceramic,Chip	4	C9203,C9605,C9606,C9607
132	ECCH0000127	Capacitor,Ceramic,Chip	1	C7103
133	ECCH0000198	Capacitor,Ceramic,Chip	8	C2350,C2351,C3304,C3322,C4113,C5001,C6205,C7327
134	ECCH0004904	Capacitor,Ceramic,Chip	11	C2332,C3314,C3321,C4148,C4153,C7326,C7600,C7601,C7602,C8103,C9910

13. REPLACEMENT PART LIST

No	P/N	Description	Quantity	Location no
135	ECCH0007804	Capacitor,Ceramic,Chip	10	C3012,C4031,C4131,C4132,C4133,C4134,C4135,C4137,C4138,C4142
136	ECCH0007805	Capacitor,Ceramic,Chip	1	C4141
137	ECCH0009101	Capacitor,Ceramic,Chip	47	C2100,C2101,C2102,C2200,C2201,C2202,C2333,C2334,C2335,C2337,C2338,C2339,C2340,C2341,C2343,C2344,C2347,C2349,C2352,C2353,C2354,C2355,C2356,C3306,C3312,C3313,C3316,C3317,C3320,C4115,C4144,C5002,C5003,C5004,C5005,C5006,C5007,C5008,C5009,C5011,C6001,C6016,C6903,C6910,C8100,C8101,C8102
138	ECCH0009102	Capacitor,Ceramic,Chip	2	C6206,C6207
139	ECCH0009105	Capacitor,Ceramic,Chip	4	C7101,C7102,C7105,C7106
140	ECCH0009107	Capacitor,Ceramic,Chip	2	C1013,C1056
141	ECCH0009216	Capacitor,Ceramic,Chip	2	C4017,C4125
142	ECCH0009217	Capacitor,Ceramic,Chip	1	C4028
143	ECCH0009228	Capacitor,Ceramic,Chip	2	C3011,C6011
144	ECCH0009506	Capacitor,Ceramic,Chip	1	C4124
145	ECCH0017301	Capacitor,Ceramic,Chip	47	C2103,C2306,C2307,C2308,C2309,C2310,C2311,C2312,C2313,C2314,C2315,C2316,C2317,C2328,C2329,C2330,C2331,C2348,C3307,C3315,C4104,C4105,C4106,C4107,C4108,C4109,C4110,C4111,C4112,C4145,C4147,C4149,C4150,C4151,C4152,C6012,C6014,C7100,C7104,C7328,C7404,C7405,C7406,C8400,C8401,C9604,C9901
146	ECCH0017601	Capacitor,Ceramic,Chip	14	C2304,C2305,C2318,C2319,C2326,C2327,C2342,C2357,C3309,C4122,C4123,C6008,C7309,C9603
147	ECCH0032801	Capacitor,Ceramic,Chip	3	C2345,C2346,C3303
148	ECZH0000813	Capacitor,Ceramic,Chip	1	C7603
149	ECZH0000830	Capacitor,Ceramic,Chip	3	C6800,C6801,C6907
150	ECZH0001215	Capacitor,Ceramic,Chip	2	C4700,C4701
151	EDSY0010501	Diode,Switching	1	D9500
152	ELCH0001444	Inductor,Multilayer,Chip	2	L6700,L6701
153	ELCH0003842	Inductor,Multilayer,Chip	1	L6611
154	ELCH0005009	Inductor,Multilayer,Chip	1	L9500
155	ENBY0040701	Connector,BtoB	2	CNT7304,CN7401
156	ENZY0025801	Terminal Block	1	CN9201
157	ERHY0000166	Resistor,Chip	2	R2210,R2211
158	ERHY0009302	Resistor,Chip	1	R9128
159	ERHY0009312	Resistor,Chip	1	R2102
160	ERHY0009316	Resistor,Chip	6	R1002,R1005,R1011,R1016,R6002,R6005
161	ERHY0009501	Resistor,Chip	3	FB6001,R1009,R9603
162	ERHY0009503	Resistor,Chip	6	R5006,R5007,R9133,R9202,R9207,R9208
163	ERHY0009504	Resistor,Chip	5	R4101,R5001,R5004,R6200,R6202
164				
165	ERHY0009507	Resistor,Chip	7	R1001,R1008,R1012,R1015,R6001,R6006,R9612
166	ERHY0009511	Resistor,Chip	2	R4106,R6203
167	ERHY0009516	Resistor,Chip	2	R2202,R2203
168	ERHY0009519	Resistor,Chip	1	R4002
169	ERHY0009522	Resistor,Chip	1	R6624
170	ERHY0009526	Resistor,Chip	8	R2200,R2201,R2204,R2205,R2241,R2242,R8400,R9132
171	ERHY0009527	Resistor,Chip	2	R2243,R6622
172	ERHY0009531	Resistor,Chip	1	R5005
173	ERHY0017901	Resistor,Chip	1	R6412
174	ERHY0035601	Resistor,Chip	1	R9124

13. REPLACEMENT PART LIST

No	P/N	Description	Quantity	Location no
175	ERHY0042406	Resistor,Chip	2	R3308,R3311
176	ERHZ0000220	Resistor,Chip	1	R2103
177	ERHZ0000236	Resistor,Chip	1	R5008
178	ERHZ0000250	Resistor,Chip	1	R3309
179	ERHZ0000278	Resistor,Chip	1	R4703
180	ERHZ0000295	Resistor,Chip	1	R4107
181	ERHZ0000308	Resistor,Chip	1	R9125
182	ERHZ0000310	Resistor,Chip	1	R4702
183	ERHZ0000319	Resistor,Chip	2	R2104,R2105
184	ERHZ0000406	Resistor,Chip	2	R2101,R2232
185	ERHZ0000486	Resistor,Chip	1	R4700
186	ERHZ0000487	Resistor,Chip	1	R6621
187	ERHZ0000529	Resistor,Chip	1	R4100
188	ERHZ0000537	Resistor,Chip	1	R6413
189	ERHZ0000538	Resistor,Chip	1	R4105
190	EXXY0018701	Crystal	1	X4100
191	MBK64732501	Can,Shield	1	SC000
192	MBK64752501	Can,Shield	1	SC001
193	MBV62321701	Clip	9	SC101,SC102,SC103,SC104,SC105,SC106,SC107,SC108,SC109
194	MCE63033001	Contact	2	CN9501,CN9502
195	MEZ65049701	Label	1	PID1
196	SEVY0005201	Varistor	2	D6202,D6203
197	SFBH0008102	Filter,Bead	2	FB6900,FB6903
198	SFEY0015301	Filter,EMI/Power	1	FL9201
199	EAB62911301	Microphone,Condenser	2	MIC6901,MIC6902
200	EAE62286801	Capacitor,Ceramic,Chip	5	C10001
201	EAE62502901	Capacitor,Ceramic,Chip	1	C4403
202	EAE62522101	Capacitor,Ceramic,Chip	1	C4130
203	EAE62685301	Capacitor,Ceramic,Chip	2	C4702,C9202
204	EAE62762301	Capacitor,Ceramic,Chip	5	C4119,C4120,C4121,C4126,C9115
205	EAE62762401	Capacitor,Ceramic,Chip	1	C3301
206	EAE62946601	Capacitor(High Frequency),Ceramic,Chip	2	C1074,C1077
207	EAE63421801	Capacitor,Ceramic,Chip	3	C2321,C2322,C4101
208			1	C4400
209	EAE63621501	Capacitor,Ceramic,Chip	1	C4143
210	EAE64262401	Capacitor,Ceramic,Chip	1	C4007
211	EAE64281701	Capacitor,TA,Polymer	1	C9112
212	EAG63772101	Connector,RF	4	SW1001,SW1002,SW1003,SW1004
213	EAG64149801	Connector,I/O	1	CN9200
214	EAG64651301	C-Clip	4	ANT1001,ANT1002,ANT1003,ANT1004
215	EAG64729801	Connector,BtoB	1	CN9900
216	EAG64751101	Connector,BtoB	1	CN7100
217	EAG64771301	C-Clip	2	ANT6200,ANT6201
218	EAG64771401	C-Clip	3	CN9605,CN9606,CN9607

13. REPLACEMENT PART LIST

No	P/N	Description	Quantity	Location no
219	EAG64850201	Socket,DIMM/SIMM	1	S9601
220	EAG64850601	Connector,Terminal Block	1	CN9100
221	EAH61693001	Diode,TVS	2	D6200,D6201
222	EAH61872601	Diode,TVS	1	D9201
223	EAH61992801	Diode,Schottky	1	D4400
224	EAM62072101	Filter,Bead	2	L6800,L6801
225	EAM62230101	Filter,Bead	3	FB6613,FB6614,FB6615
226	EAM62791701	Filter,Separator	1	FL6003
227	EAM62792601	Filter,Separator,Switch	1	FL2002
228	EAM63130101	Filter,Saw	1	FL6002
229	EAM63150101	Filter,EMI/Power	1	FL7104
230	EAE62282201	Capacitor,Ceramic,Chip	3	C1069,C2007,C6621
231	EAE62506501	Capacitor,Ceramic,Chip	5	C3300,C4136,C4139,C4140,C4409
232	EAE62924201	Capacitor(High Frequency),Ceramic,Chip	1	C4022
233	EAE62945801	Capacitor(High Frequency),Ceramic,Chip	2	L4002,L4004
234	EAE62946501	Capacitor(High Frequency),Ceramic,Chip	2	C2027,C2029
235	EAE62945901	Capacitor(High Frequency),Ceramic,Chip	1	L4007
236	EAE62946001	Capacitor(High Frequency),Ceramic,Chip	1	L4003
237	EAE62946701	Capacitor(High Frequency),Ceramic,Chip	1	C4026
238	EAE62963701	Capacitor(High Frequency),Ceramic,Chip	1	C4015
239	EAE63023601	Capacitor(High Frequency),Ceramic,Chip	1	C6007
240	EAP61747501	Inductor,Multilayer,Chip	2	C1007,C1019
241	EAP61767701	Inductor,Multilayer,Chip	3	C1052,C1070,L2027
242	EAP61767801	Inductor,Multilayer,Chip	1	C2026
243	EAP61925901	Inductor,Multilayer,Chip	4	C2001,C2003,C2008,C2010
244	EAP61946101	Inductor,Multilayer,Chip	1	C1004
245	EAP62107901	Inductor,Multilayer,Chip	2	C1002,L1043
246	EAP62108101	Inductor,Multilayer,Chip	3	C3021,C6023,L1040
247	EAP62108201	Inductor,Multilayer,Chip	1	L3014
248	EAP62108301	Inductor,Multilayer,Chip	2	C1005,C4024
249	EAP62108401	Inductor,Multilayer,Chip	4	L2002,L2006,L2014,L2022
250	EAP62108501	Inductor,Multilayer,Chip	6	C1029,C1039,L4015,L4016,L4019,L4020
251	EAP62108601	Inductor,Multilayer,Chip	2	L2011,L2018
252			1	L1045
253	EAP62109001	Inductor,Multilayer,Chip	3	C2018,C2019,C2021
254	EAP62186301	Inductor,Multilayer,Chip	1	C1075
255	EAP62225901	Inductor,Multilayer,Chip	3	C1025,C6006,L1033
256	EAP62226001	Inductor,Multilayer,Chip	1	C2013
257	EAP62226101	Inductor,Multilayer,Chip	4	C1026,C1062,C1076,L1046
258	EAP62226201	Inductor,Multilayer,Chip	4	C4020,L1049,L2003,L2008
259	EAP62226301	Inductor,Multilayer,Chip	6	C1033,L1025,L2012,L2015,L2016,L6007
260	EAE63162401	Capacitor,Ceramic,Chip	1	C4405
261	EAP63586201	Inductor,Multilayer,Chip	1	R1010
262	EAP62226401	Inductor,Multilayer,Chip	6	C2011,L1042,L2023,L4009,L6004,L6011

13. REPLACEMENT PART LIST

No	P/N	Description	Quantity	Location no
263	EAP62226501	Inductor,Multilayer,Chip	5	C2014,C2017,C4014,L2032,L4021
264	EAP62226601	Inductor,Multilayer,Chip	2	L2029,L2033
265	EAP62526401	Inductor,Multilayer,Chip	2	C4001,L2031
266	EAP62886001	Inductor,Multilayer,Chip	1	L6012
267	EAP62886101	Inductor,Multilayer,Chip	1	C4002
268	EAP63746901	Inductor,Wire Wound,Chip	1	L4130
269	EAP63786501	Inductor,Wire Wound,Chip	3	L4131,L4132,L4133
270	EBC62581901	Resistor,Chip	3	R2106,R6204,R6206
271	ECCH0007803	Capacitor,Ceramic,Chip	4	C4401,C4402,C4404,C4406
272	ECCH0009103	Capacitor,Ceramic,Chip	55	C1001,C1009,C1010,C1011,C1012,C1016,C1017,C1027,C1030,C1031,C1032,C1034,C1035,C1036,C1037,C1040,C1051,C1053,C1054,C1055,C1059,C1066,C1068,C1071,C1079,C2004,C2005,C2006,C2016,C2084,C2085,C3004,C3013,C3016,C3018,C3020,C4021,C4027,C4032,C4033,C4034,C4102,C4103,C6002,C6003,C6005,C6009,C6013,C6017,C6020,C6022,C9114,L1001,L2025,L6013
273	ECCH0009104	Capacitor,Ceramic,Chip	15	C1065,C1067,C1080,C1081,C3014,C3017,C6004,C6018,C6019,C6202,C6203,C6627,C6628,C6902,R1021
274	ECCH0009106	Capacitor,Ceramic,Chip	5	C1064,C1072,C6010,C6210,L3015
275	ECCH0009208	Capacitor,Ceramic,Chip	3	L1030,L3018,L3019
276	ECCH0009502	Capacitor,Ceramic,Chip	3	L3016,L4001,L6016
277	ECCH0017501	Capacitor,Ceramic,Chip	6	C2301,C2302,C2303,C2320,C2323,C2324
278	ECZH0025916	Capacitor,Ceramic,Chip	1	C9602
279	ECZH0025911	Capacitor,Ceramic,Chip	3	C2002,C4016,L2009
280	ECZH0025920	Capacitor,Ceramic,Chip	3	C2015,C6700,C6701
281	ERHY0009506	Resistor,Chip	4	R2220,R2222,R2225,R2227
282	SAFO0000401	Wire Pad,Open	7	R2215,R2244,R2245,R2301,R2302,R2309,R7104
283	SAFP0000401	Wire Pad,Short	19	R2213,R2214,R2218,R2300,R2303,R2308,R5002,R5003,R5009,R5200,R6007,R6008,R6625,R6900,R6901,R7106,R7107,R7108,R9123
284	EBR81986901	PCB Assembly,Main,SMT Top	1	EBR071700
285	EAX66948401	PCB,Main	1	EAX010000
286	RAA34548901	Resin,PC	0	RAA050100
287	SAD35826401	Software,Mobile	1	SAD010000
288	MJN69947501	Tape,Protect	1	MJN061100
289	MEZ66194201	Label,Approval	1	MEZ002100
290	AAD87909501	Addition Assembly	1	AAD000000
291	ACQ88676101	Cover Assembly,Battery	1	ACQ02
292				
293	EAB64228801	Earphone,Stereo	1	EAB010200
294	EAY62751801	Adapters	1	EAY060000
295	EAC63198407	Rechargeable Battery,Lithium Ion	1	EAC00
296	EAD62377902	Cable,Assembly	1	EAD010000
297	MBM65477901	Card,Quick Reference	1	MBM062600
298	MFL69443501	Manual,Operation	0	MFL053800
299	MJN69987201	Tape,USP Film	1	MJN107400
300	AGF78278904	Package Assembly	1	AGF000000

