



CONFIDENTIAL

MOBILE PHONE SERVICE MANUAL

CAUTION

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



MODEL : LG-M320TV

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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  sign.

Following information is ESD handling:

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

2.1 Band Specification

Support Band	TX Freq (MHz)	RX Freq (MHz)
WCDMA(FDD1)	1920 – 1980	2110 – 2170
WCDMA(FDD2)	1850 – 1910	1930 – 1990
WCDMA(FDD5)	824 – 849	869 – 894
WCDMA(FDD8)	880 – 915	925 – 960
LTE(FDD3)	1710 – 1785	1805 – 1880
LTE(FDD7)	2500 – 2570	2620 – 2690
LTE(FDD28)	703 - 748	758 - 803
EGSM	880 - 915	925 – 960
GSM850	824 - 849	869 – 894
DCS1800	1710 - 1785	1805 – 1880
PCS	1850 - 1910	1930 - 1990

2. PERFORMANCE

2.2 HW Features

List	Type / Spec.	
1. Phone Type	DOP Type	
2. Size	154.7mm x 78.1mm x 8.49mm	
3. Weight	164 g (with Battery)	
4. Battery	4,500mAh(Typ) (Li-Polymer) , 4,400mAh(Min.)	
5. Chipset	MT6750 1.5GHz Octa core	
6. Memory	32GB(EMMC) + 2GB(LPDDR3) External Memory(SD Card) : Up to 2TB	
7. LCD	Size	5.5 inch
	Display Type	Active matrix TFT, Transmissive Type
	Color	16.7M colors
	Resolution	1280(H) X 720(V), 267ppi
8. Touch	Type	5.5 inch Capacitive type
9. Main Camera (13M)	Type	CMOS image sensor
	Resolution	4224(H) X 3192(V) pixels.
	Image Scaling Down	13M(4160x3120), 9.7M(4160x2340), 4.9M(2560x1920), 3.7M(2560x1440), 2.1M(1440x1440)
	Format	Image : JPG, Video : MP4

2. PERFORMANCE

2.2 HW Features

10. Audio	Receiver	12 X 06 X 2T 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
14. FM	type	FM Radio, 3.5pi Ear-jack

2.3 RSSI Display

RSSI BAR	GSM	WCDMA	LTE	Comment
BAR 5->4	-91dBm ± 3	-86dBm ± 4	-85dBm ± 3	1. Call Connected & CPIPH Level=-3.3 2. LTE: RSRP
BAR 4->3	-96dBm ± 3	-91dBm ± 4	-95dBm ± 3	
BAR 3->2	-99dBm ± 3	-97dBm ± 4	-105dBm ± 3	
BAR 2->1	-103dBm ± 3	-101dBm ± 4	-115dBm ± 3	
BAR 1->0	-105dBm ± 3	-107dBm ± 4	-127dBm ± 3	

2.4 Current consumption

	Stand by		Voice Call (LTE Data connection)	Measurement Condition
	Bluetooth Off	Bluetooth Connected		
WCDMA Only	10 mA under (DRX=7)	13 mA under (DRX=7)	260 mA under (Tx=10dBm)	LCD off
GSM Only	10 mA under (PP=5)	13 mA under (PP=5)	390 mA under (Lvl=5)	LCD off
LTE	10 mA under (LTE 2.56S)	13 mA under (LTE 2.56s)	400 mA (@TX 10 dBm)	LCD off

2.5 Battery bar

EXCLUSIVO PARA TÉCNICOS

Battery Bar icon	Specification(%)
Level 20	98 ~ 100
Level 19	93 ~ 97
Level 18	88 ~ 92
Level 17	83 ~ 87
Level 16	78 ~ 82
Level 15	73 ~ 77
Level 14	68 ~ 72
Level 13	63 ~ 67
Level 12	58 ~ 62
Level 11	53 ~ 57
Level 10	48 ~ 52
Level 9	43 ~ 47
Level 8	38 ~ 42
Level 7	33 ~ 37
Level 6	28 ~ 32
Level 5	23 ~ 27
Level 4	16 ~ 22
Level 3	13 ~ 15
Level 2	8 ~ 12
Level 1	3 ~ 7
Level 0	0 ~ 2
Low Battery Pop-up	16% → 15% : One Time popup (No call) There is no pop-up until 5% if you delete pop-up.
Critical Low battery pop-up	6% → 5% : One Time popup (No call) There is no pop-up until 3% if you delete pop-up.
Power off	2%-->1%

2. PERFORMANCE

2.6 SW Specification

Function	Detail Item	O / X	Specification	Etc.
OS	OS	O	Android N-OS	
Data	Circuit	X		
	Packet	O		
Connectivity	Infrared (IrDA)	X		
	Bluetooth	O	Ver. 4.2	
	Wi-Fi	O	802.11 b/g/n	
	USB	O	Ver. 2.0	
	USB Mass storage	X	MTP support	
	RS232	X		
	DLNA1.5	X		
Voice Function	Voice Recording	O		
	Voice Command	X	Digit Dial	
		X	Name Dial	
		X	Menu	
		X	Phonebook Searching	
	Answering machine	X	Driving, Meeting, user define(absent)	
Memory	User Memory	O	Total	32GB eMMC/ 2GB DDR + external MicroSD
		O	Total User Memory	23.35GB (TBD) (w/o MicroSD)
		O	MMS	
		O	Pictures (Still Image & Moving Image)	
		O	MP3 (Music Contents)	
		X	Java Contents	
		O	Wallpaper	
		O	Ringtone	
		O	external memory (microSD)	up to 2TB
Camera (Still Capture)	Memory	O	MicroSD	
	Camera Module	O	13M AF	
	Auto Focus	O	Still Mode AF	
	Digital Zoom	O	4x	
	Capture Resolution	O	Rear 4160*2336, 2560*1440, 4160*3120, 2560*1920, 3120*3120, 1440*1440 Front 2560x1920, 2560x1440, 1920x1920	
	Continuous Shot	O		
	Quality	X		
	Preview Image	O	960x720(Normal), 1280x720(Wide))	
	TV-Out	X		
	Flash	O	LED	

2. PERFORMANCE

2.6 SW Specification

Camera (Movie Capture)	Movie Resolution	O	Rear 1920x1080, 1280x720, 320x240, 176x144 Front 1920x1080, 1280x720, 320x240, 176x144	
	Filter	X		
	Quality	X		
	MPEG Visual Bit Rate	X		Default code H.264 And video Bit rate is 17Mbps We can support MPEG-4, but t he bit rate is depend on Applic ation setting
	Audio Encode	O	AAC, , AMR-NB	
	Audio Decode	O	AMR	
	Movie Recode	O	Recode, Stop, Pause, Resume	
	Movie Playback	O	Play, Stop, Pause	
	Stream Format (Mux)	O	mp4, 3gp	mp4 – normal 3gp – mms
	Stream Format (Demux)	O	mp4, 3gp	mp4 – normal 3gp – mms
Audio Multimedia	Recoding Time	O	Real Time Recoding	
	TV-Out	X		
	Voice Codec	O	AMR/ 3gpp	
	AAC /AAC+/ EAAC+	O		
	MP3, WAV	O		
	WMA	O		
	Midi	O	<ul style="list-style-type: none"> ● Type 0 and 1 (.mid, .xm, .mxmf) ● RTTTL/RTX (.rtttl, .rtx) ● OTA (.ota) ● iMelody (.imy) 	
	Music ringtone	O	MP3, AAC, AAC+, eAAC+, AMR, OGG, FLAC , ALAC, PCM, WMA, OPUS	
	AMR-NB	O		
	Music player skin	O	Music Player	
	FM Radio	O		
	Speakerphone	O		

2. PERFORMANCE

2.6 SW Specification

Multimedia	MPEG4/H.263	O	MPEG4 - Decoding : 1080p/30fps/20Mbps H.263 - Decoding : 704*576/30fps/15Mbps	
	H.264	O	Decoding : 1080p/30fps/20Mbps	
	WMV	X		
	Normal View	O	Moving Image Capture & Movie Contents	contents size
	Wide View	O	Full Screen mode	
	Custom DTV Zoom	X		
Other Features	File Viewer	X		Android App can be download ed in Play Store
	Macromedia Flash Lite	X	Not Available	
	e-Book/e-Comic Book	X	*.doc, *.jpg, *.gif	E-book reader program is not i ncluded in ROM. But user can d ownload in internet..
	Flight Mode	O		
Internet Browser	WAP (Windows Mobile 6.0 IE M obile)	X	version 2.0	
		X	WML1.3	
		O	XHTML1.1	
		O	HTML4.01	Partially support - HTML 5
Java	MIDP	X		
	J2ME support	X		
	Game & Contents	X		
	CLDC	X		
Flash	Flash Game	X		
Streaming Service	H.263+AAC/AMR-NB	O	H.263 - Decoding : 704*576/30fps/15Mbps	
	MPEG4+AAC/AMR-NB	O	MPEG4 - Decoding : 1080p/30fps/20Mbps	
	WMV9	X		
DRM	OMA DRM	O	Forward Lock	
		X	Separate Delivery	
OTA	OTA	X	Combined Delivery - Count-only	
		O	OTA 1.0	
Display	RSSI	O	6 level (Include No service)	
	Battery Level	O	with percentage	Yes
	RTC	O		
	Multi Language	O	depending on build language.	
	Quick Access Mode	X		
	PLMN/Service Indicator	O		
	Dimming Clock	X	15s, 30s, 1min, 2min, 5min 10min, 15min	Screen timeout supports

2.6 SW Specification

Normal Features	Last Dialed Number	O		
	Last Received Number	O		
	Last Missed Number	O		
	Scratch Pad Memory	X		
Call Management Management	Call Waiting	O		
	Call Swap	O		
	Call Retrieve	O		
	Auto Answer	O		
	Automatic Redial	X		
	Calling Line Identification	O		
	Full Call divert	O		
	Speed Dialing	O		
	Last Number Redial	X		
	Multiparty Call (Conference Call)	O		
Network	Automatic Network Selection	O		
	Manual Network Selection	O		
	Network Service Status	O		
DTMF	DTMF Signaling	O		
	DTMF Enable & Disable	X		
Audio	Key Tone Volume	O	16 Level (Include Mute)	
	Ring Tone Volume	O	16 Level (Include Mute)	
	Ring Tone Pattern	O	ogg	
	Ring Type Silent	O	Vibrator & Ring (Indicator)	
	Earpiece Volume	O	16 Level (Include Mute)	
	Mute	O		
Cell Broadcast	Read Cell Broadcast	O		
	Cell Broadcast Categories	X		
	Cell Broadcast Message Language	O	Supports filtering with language IDs (German, Italian, French, Spanish, Dutch, Swedish, Danish, Portuguese, Finnish, Norwegian, Greek, Turkish, Hungarian, Polish, Czech)	

2. PERFORMANCE

2.6 SW Specification

Phone Book	Entry	O	Name, Phone, Email, Groups, Postal address, Ringtone, Notification Sound, Phonetic name, Organization, IM, Notes, Nickname, Website, Event	
	Field	O	Phone(Mobile,Work,Home,Main, Work Fax ,Home Fax,Pager, Other, Custom) Email(Home,Work,Other,Custom) Groups(Coworkers,Family,Friends) Postal address(Home,Work,Other,Custom) Organization(Company,Title) IM(AIM,Windows Live,Yahoo,Skype,QQ,Hangouts,ICQ,Jabber,Custom) Event(Birthday,Anniversary,Other, Custom)	
	Numeric Store and Recall	O		
	Alphabetic Store	O		
	Alphabetic Recall	X		
	Scroll by alphabetic or numeric order	O		
	Last Number Dialed	O		
	Last Number Missed	O		
	Last Number Received	O		
	Copy & Move	X	Move not support	
	Fixed Dial Number	O		
	Barred Dial Number	X		
	Service Dial Number	X	It depends on SIM card	
	Email Entry	O		
Call Cost	Picture ID	O	Relating Photo caller ID	
	My Name card	O	Bluetooth transmission (OPP)	
	Last Call Timer	X		
	Last Call Charge Units	X		
	Total Call Timer	X		
Supp. Services	Total Charge Units	X		
	Visible, Audible Call Time /Cost Indication	X		
	Call Forwarding	O	All Incoming Calls,	
		O	No Reply	

2. PERFORMANCE

2.6 SW Specification

SIM	Plug In Type	O		
	SIM Lock	O		
	SIM Toolkit	O		
	Prepaid SIM Operation	O		
Short Messaging	Read Message	O	EMS Not Support	
	Write and Edit Message	O		
	Send and Receive Message	O		
	Reply to Message	O		
	Forward Message	O		
	Extract Number from Message	O		
	Message Status	O		
	Message Unread Indicator	O		
	Settable Message Center Number,	O		
	Reply Path and Validity	X		
	Visible and Audible Message Receive Alerting	O		
	Voice Mail	O		
	Settable Voice Mail Center Number	X		
	Message Protocol	X		
Multimedia Messaging	Message Overflow Indicator	O		
	Message Center Number	O		
	Help Menu	X		
	Picture Attachable	O		Max bytes is it, According to inserted usim
	Moving Picture Attachable	O	Video MMS	Max bytes is it, According to inserted usim
	Voice Attachable	O	AMR	
	Help Menu	X		

2. PERFORMANCE

2.6 SW Specification

Instant Messaging Service	IM	X		Android App can be downloaded in Play Store
	PC Compatable	X		
	Menu Option	X		
E-Mail	Protocol	O	IMAP4	
		O	SMTP	
		O	POP3	
		X	Help Menu	
Voice Instant Messaging Service	PTT	X	Full Duplex	
		X	Half Duplex	
	Menu Option	X	Grouping	
		X	Status List	
		X	Help	
		X	Others	
Sound Contents	Wallpaper	X		
	Screen Saver	X		
	Ringtones	O		
	Karaoke	X		
	Stutter Sound	O		
	Flip tone	X		
	Button tone	O	can be enable or disable button press sound.	
Calendar	Others	X		
	New Event	O		
	Edit Event	O		
	Agenda	O		
	Reminder	O		
Miscellaneous Function	Google sync	O		
	Development & Test Facility	O		
	Field Test Facility	X		
	Display Software Version	O		
	IMEI	O	*#06#	
Text Input	Language	O		
	Predictive word input	O	T9 predictive supported.	
Scheduler	Schedule	O		
	To Do List	O		
	Memo	O		
	D-day counter	X		
	Send via Bluetooth	O		
World Time	Setting Local Time	O		
	Display Two Number of Cities Time	X		

2. PERFORMANCE

2.6 SW Specification

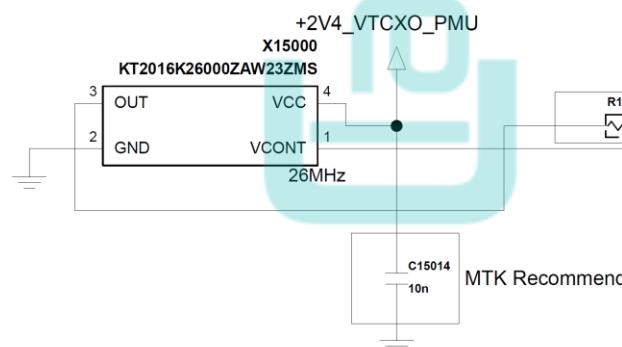
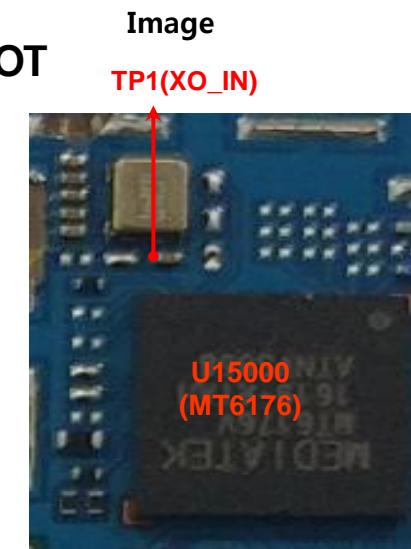
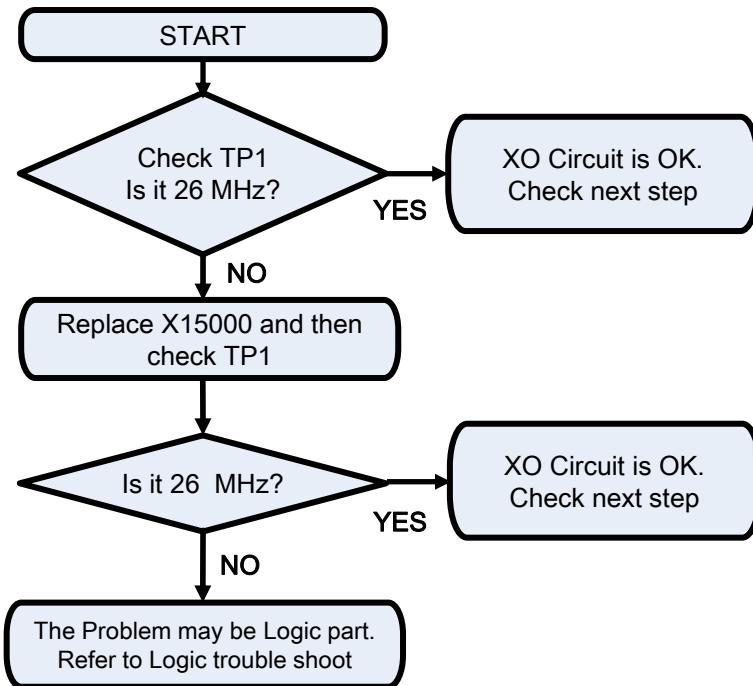
Unit converter		X		
Stop watch		O		
Calculator	Calculation	O		
PC Sync	Phone Book Sync	X	PC Bridge supports backup and restore (not sync)	
	Message Sync	x	PC Bridge supports backup and restore (not sync)	
	Multimedia Contents Sync	x	PC Bridge supports backup and restore (not sync)	
	Scheduler Sync	X	PC Bridge supports backup and restore (not sync)	
Sync ML	DS	X		
	DM	X		
Game		X	TBD	
Menu	Quick Access Mode (Profile)	O		
External Interface	Electrical Man Machine Interface	X		
	Development and Test Facility	X		
Handset	Restore Factory Setting	O		
	Read Software Version	O		
	Battery Charging Mode	O	USB/ TA Charging	USB/ TA Charging
Security	Emergency Call	O		
	Handset Lock	O		
	Security Code	O		
	SIM Lock	O		
	Key guard	X		
Real Time Clock	12/24 hour	O		
	Calendar	O		
	Time Zone	O		
	Alarm Manager	O		
	Dimming Clock	X	Battery power 15s, 30s, 1min, 2min, 5min, 10min, 15min External power 15s, 30s, 1min, 2min, 5min, 10min, 15min	Screen timeout supports
	Power-off Alarm	X		
	On Alarm Event	O	Display	

3. TROUBLE SHOOTING

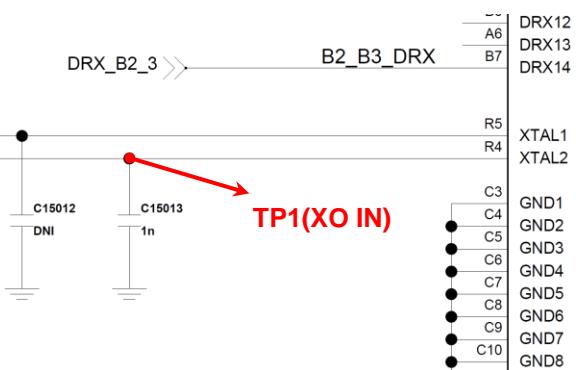
3.1 Checking XO Block

The output frequency(26MHz) of XO(X15000) is used as the reference one of MT6176 and MT6353 internal VCO

Checking Flow



Circuit Diagram

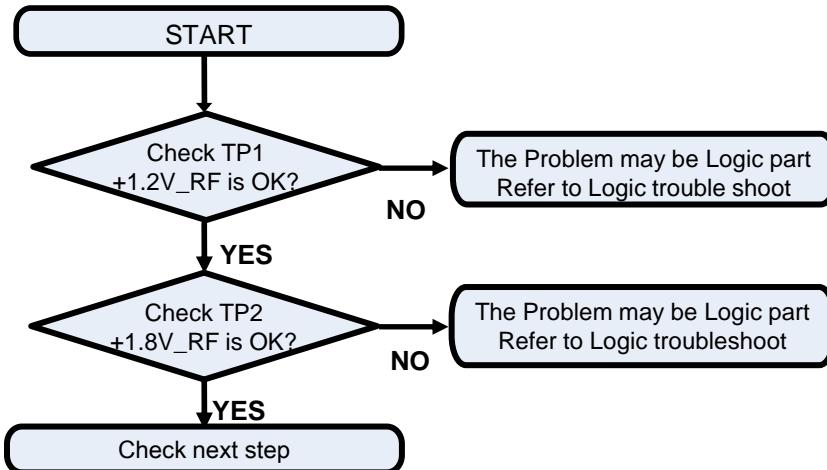


3. TROUBLE SHOOTING

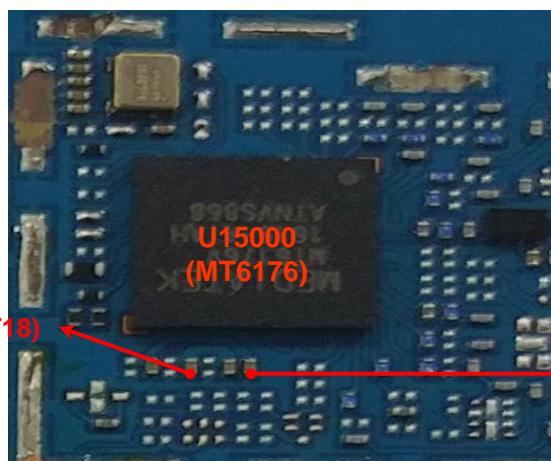
3.2 MT6176 RFIC (U15000) Circuit

Checking MT6176 RFIC (U15000) Circuit

Checking Flow

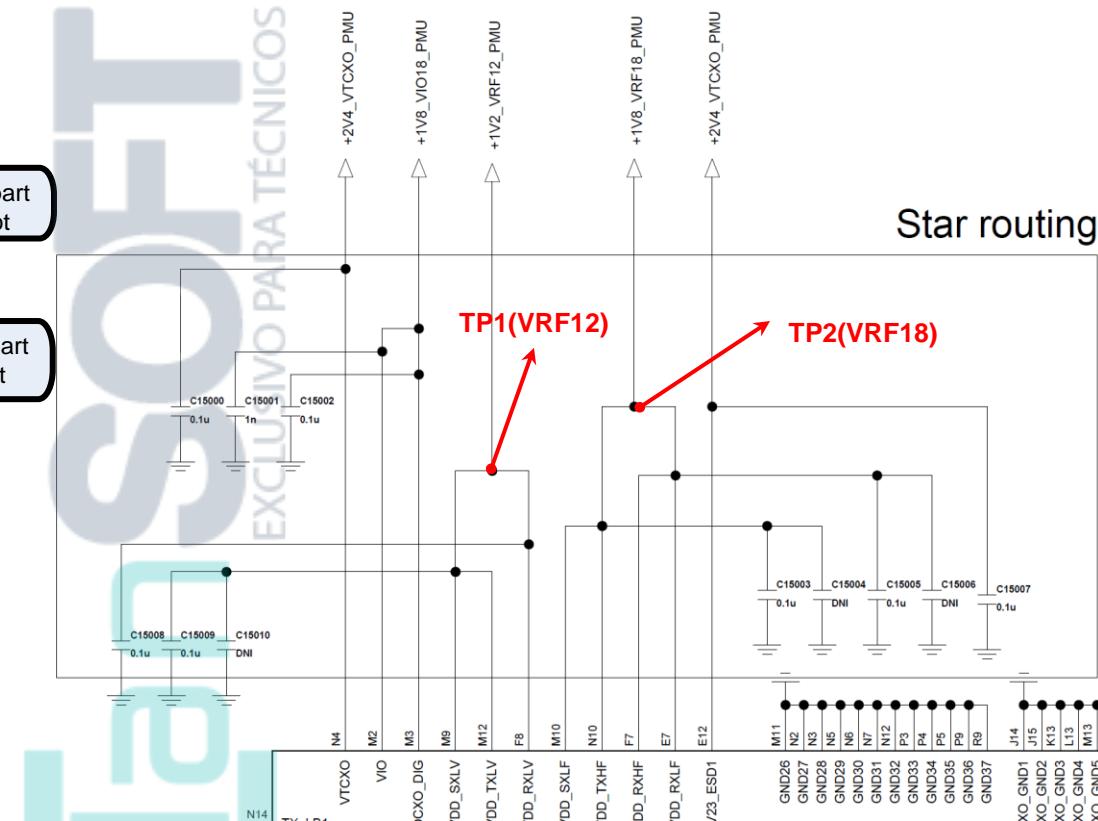


Image



LGE Internal Use Only

Circuit Diagram

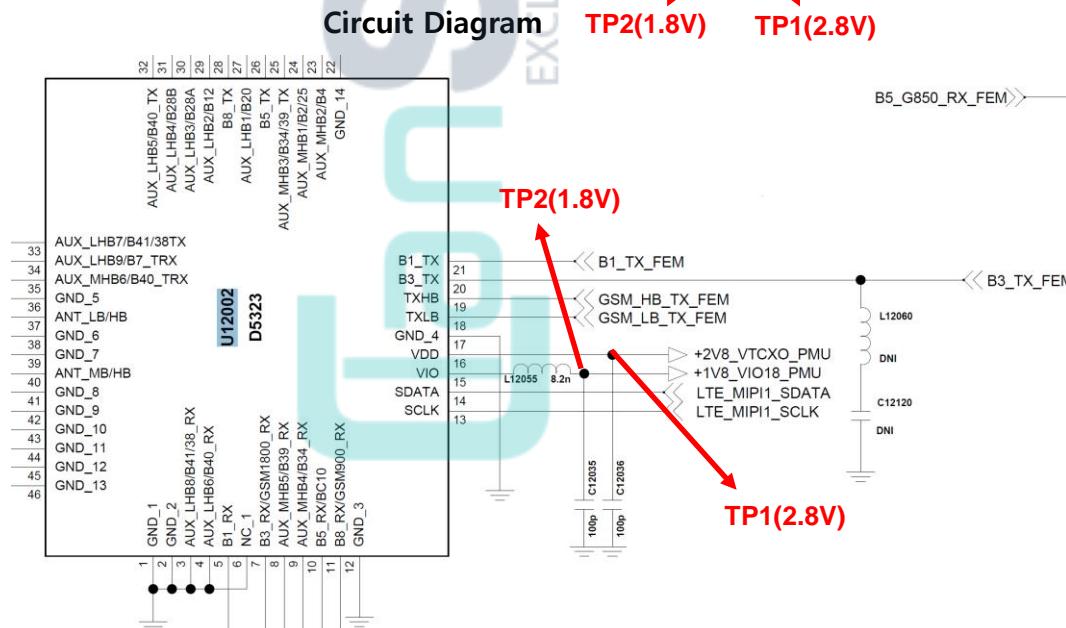
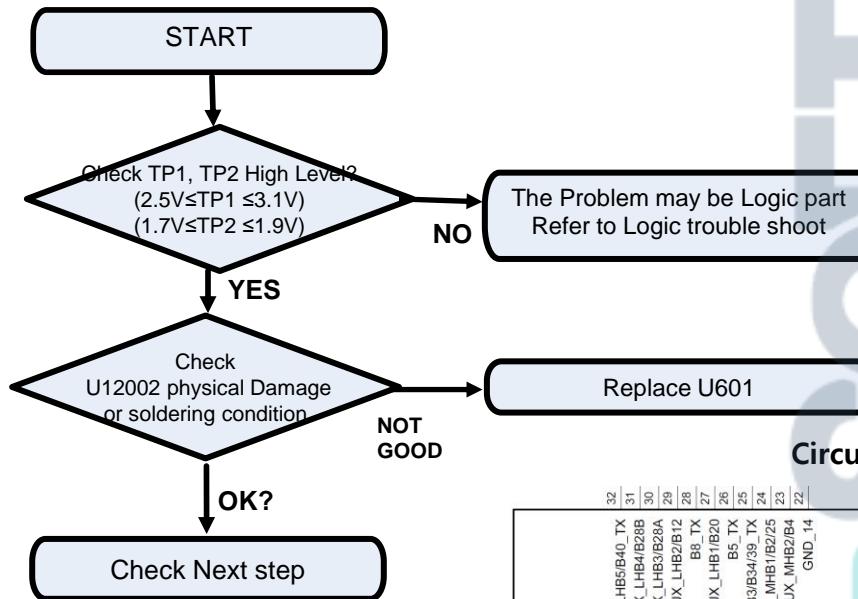


3. TROUBLE SHOOTING

3.3 FEMiD (D5323) Block

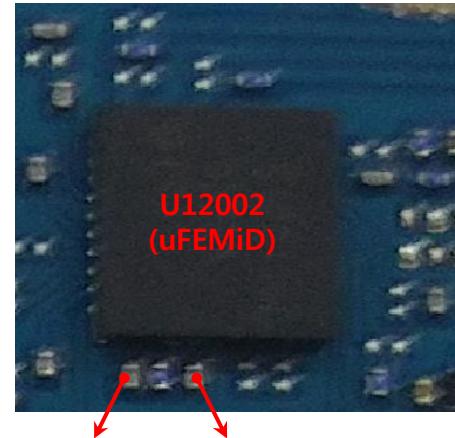
Checking FEMiD Block

Checking Flow



Image

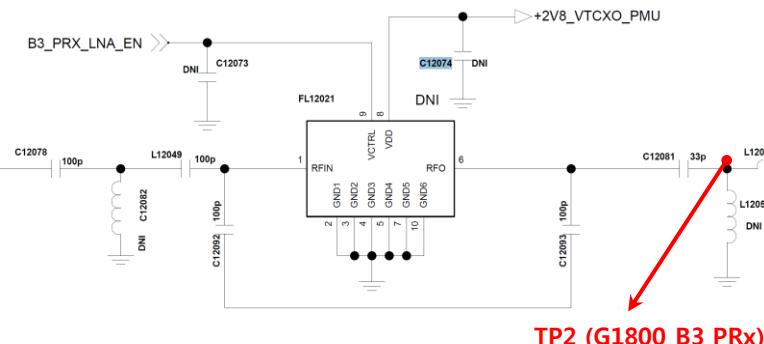
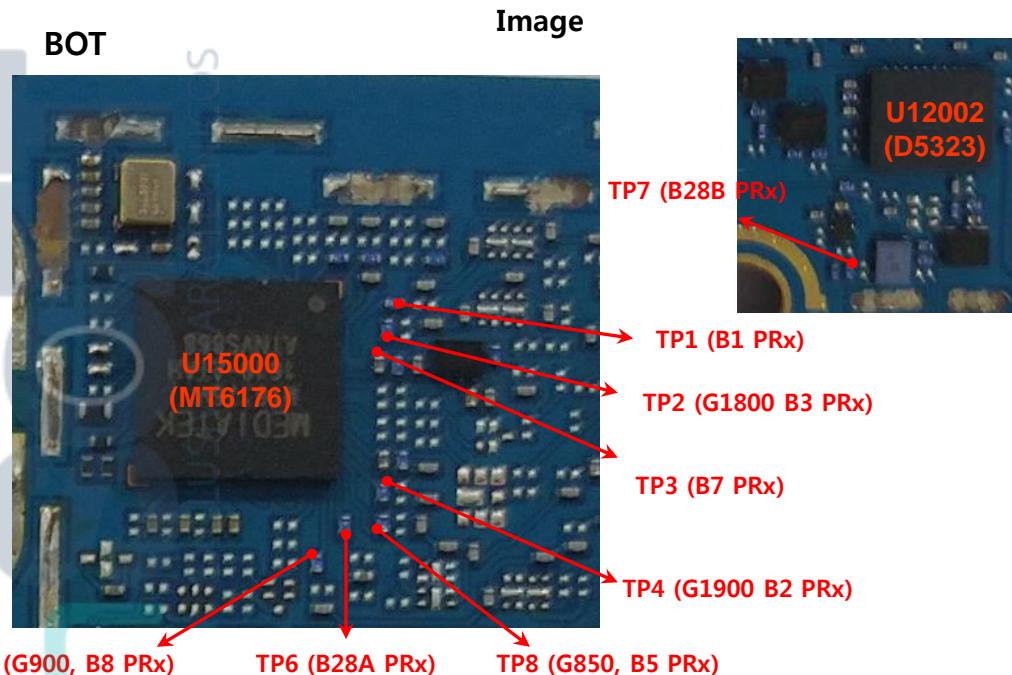
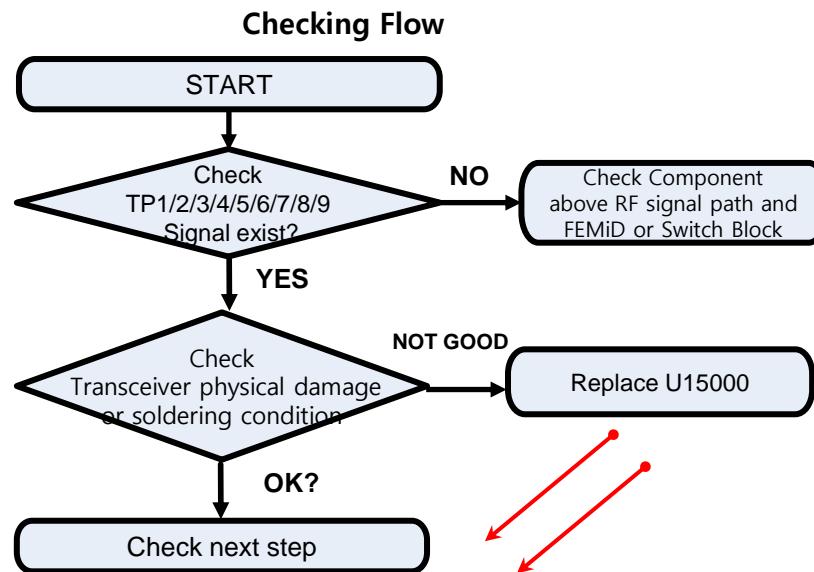
BOT



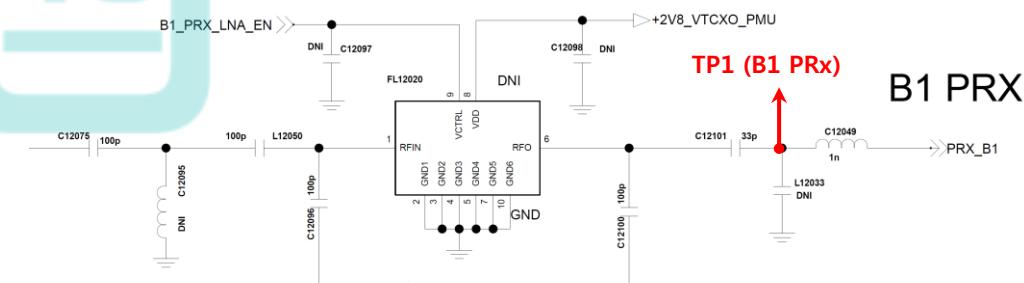
3. TROUBLE SHOOTING

3.4.1 GSM, WCDMA, LTE PART - PRx

Checking Rx signal path (GSM 850/900/1800/1900, WCDMA B1/B2/B5/B8, LTE B3/B7/B28)



B3, G1800 PRX

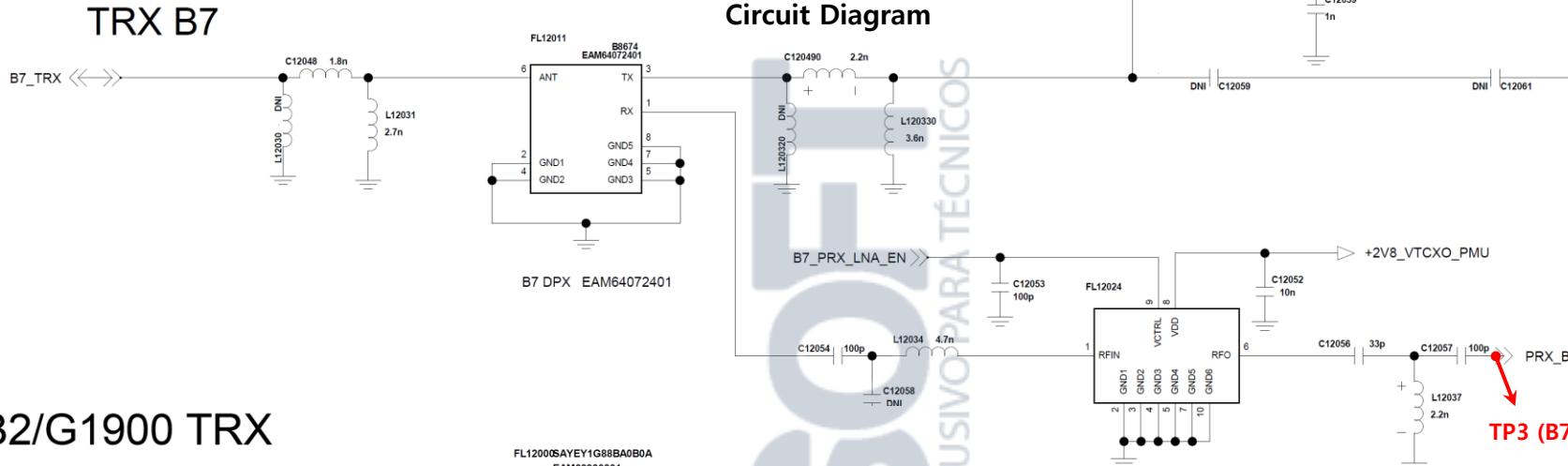


3. TROUBLE SHOOTING

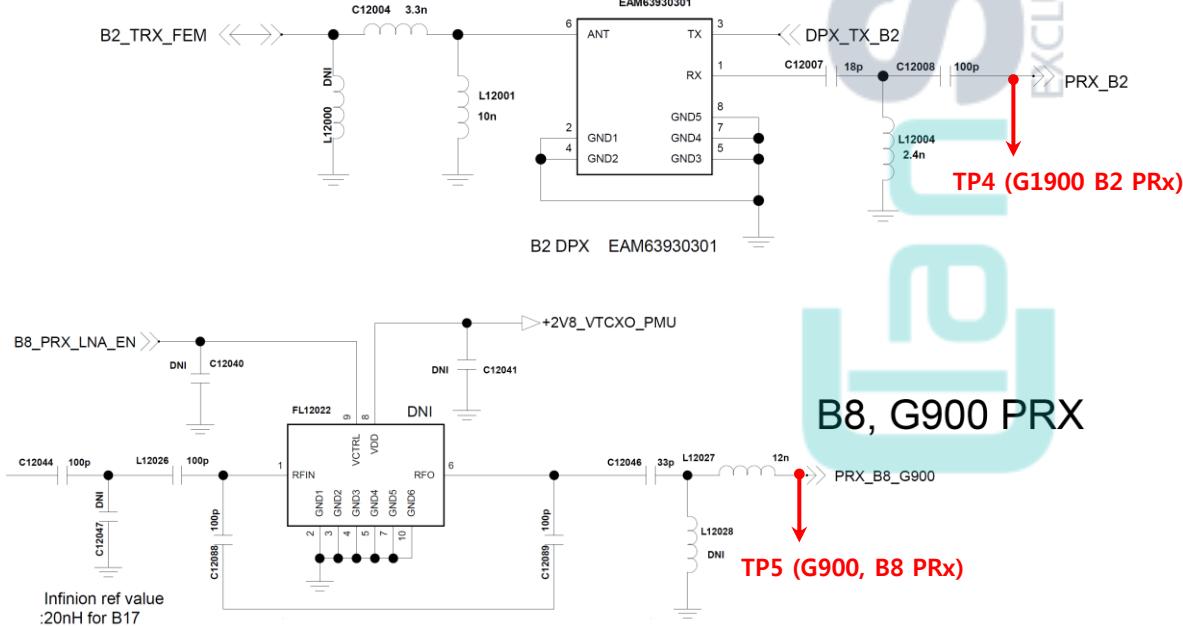
3.4.1 GSM, WCDMA, LTE PART - PRx

(GSM 850/900/1800/1900 WCDMA B2/B4/B5 LTE B2/B4/B5/B12)

TRX B7



B2/G1900 TRX

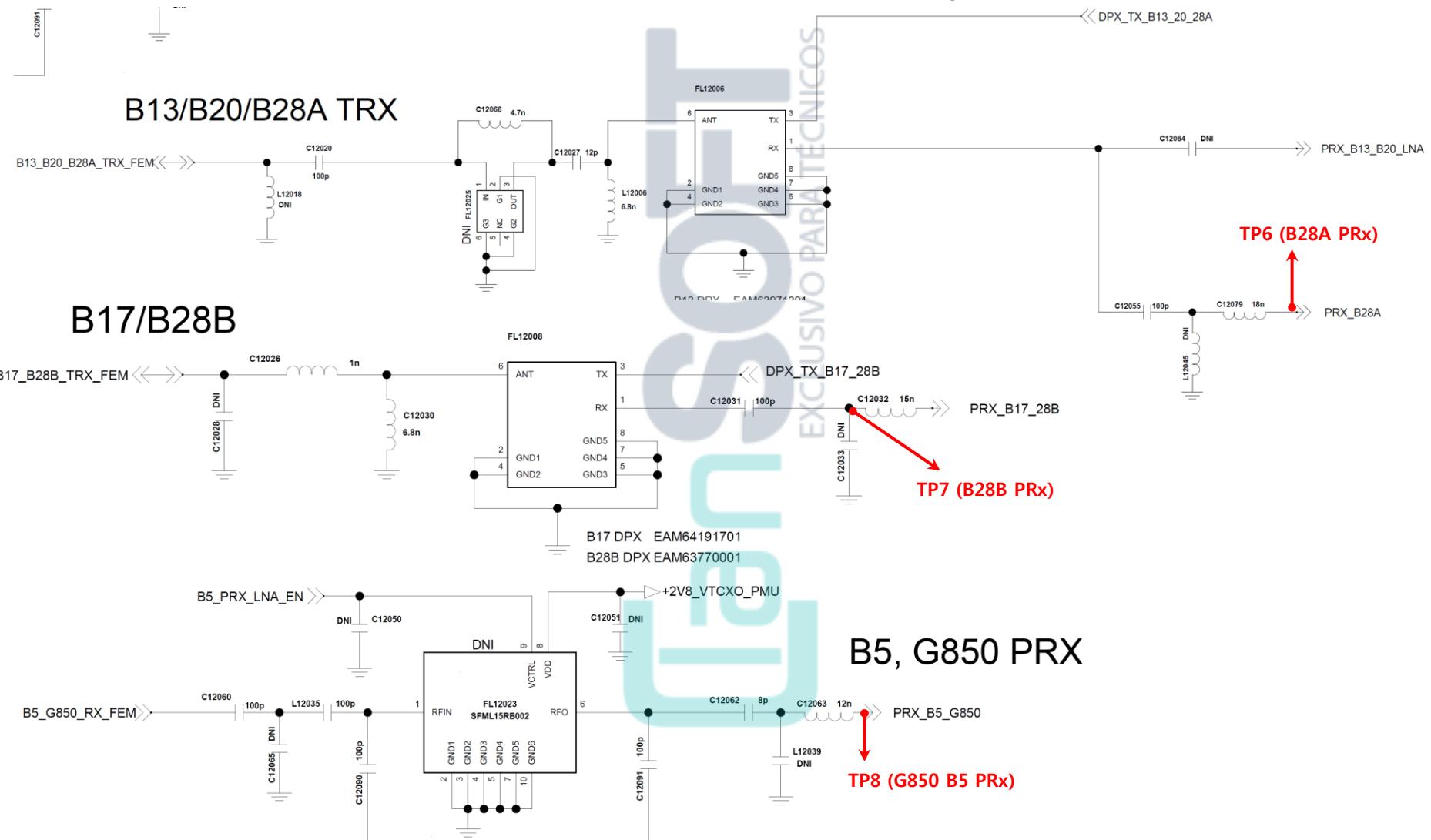


3. TROUBLE SHOOTING

3.4.1 GSM, WCDMA, LTE PART - PRx

(GSM 850/900/1800/1900 WCDMA B2/B4/B5 LTE B2/B4/B5/B12)

Circuit Diagram

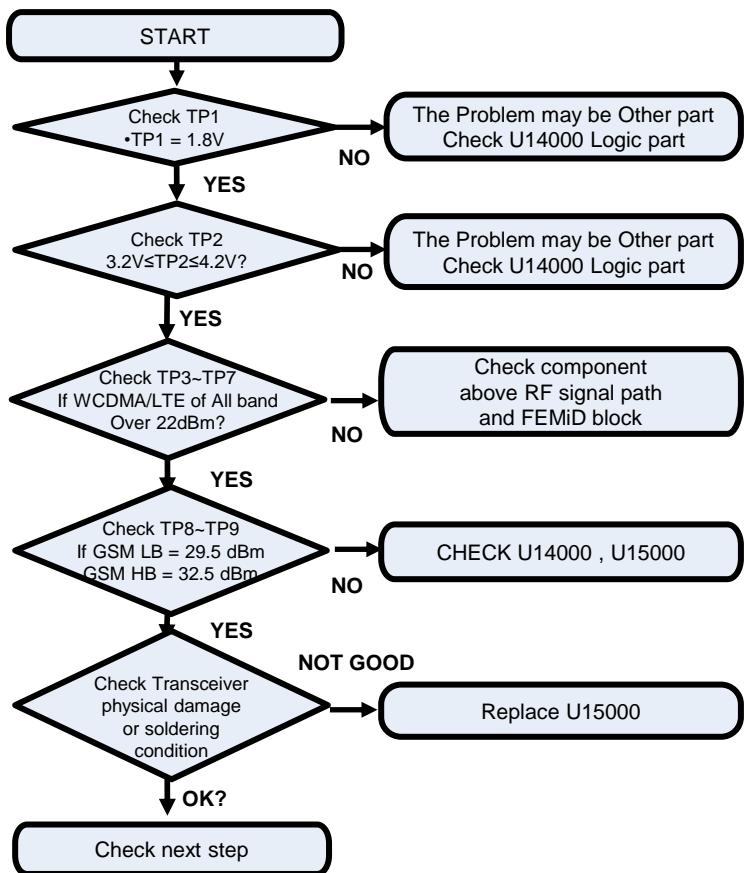


3. TROUBLE SHOOTING

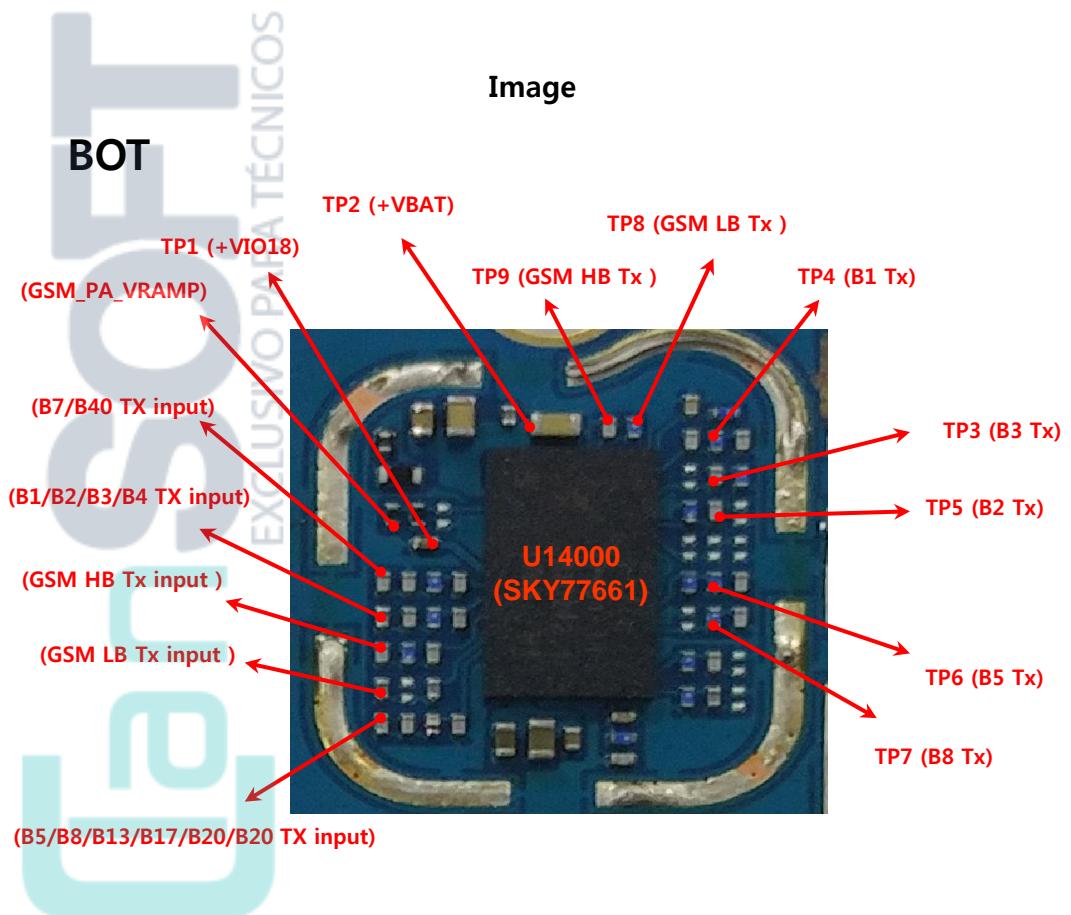
3.4.2.1 WCDMA, LTE PART - Tx

Checking Tx signal path(WCDMA B1/B2/B5/B8 LTE B3/B7/B28)

Checking Flow

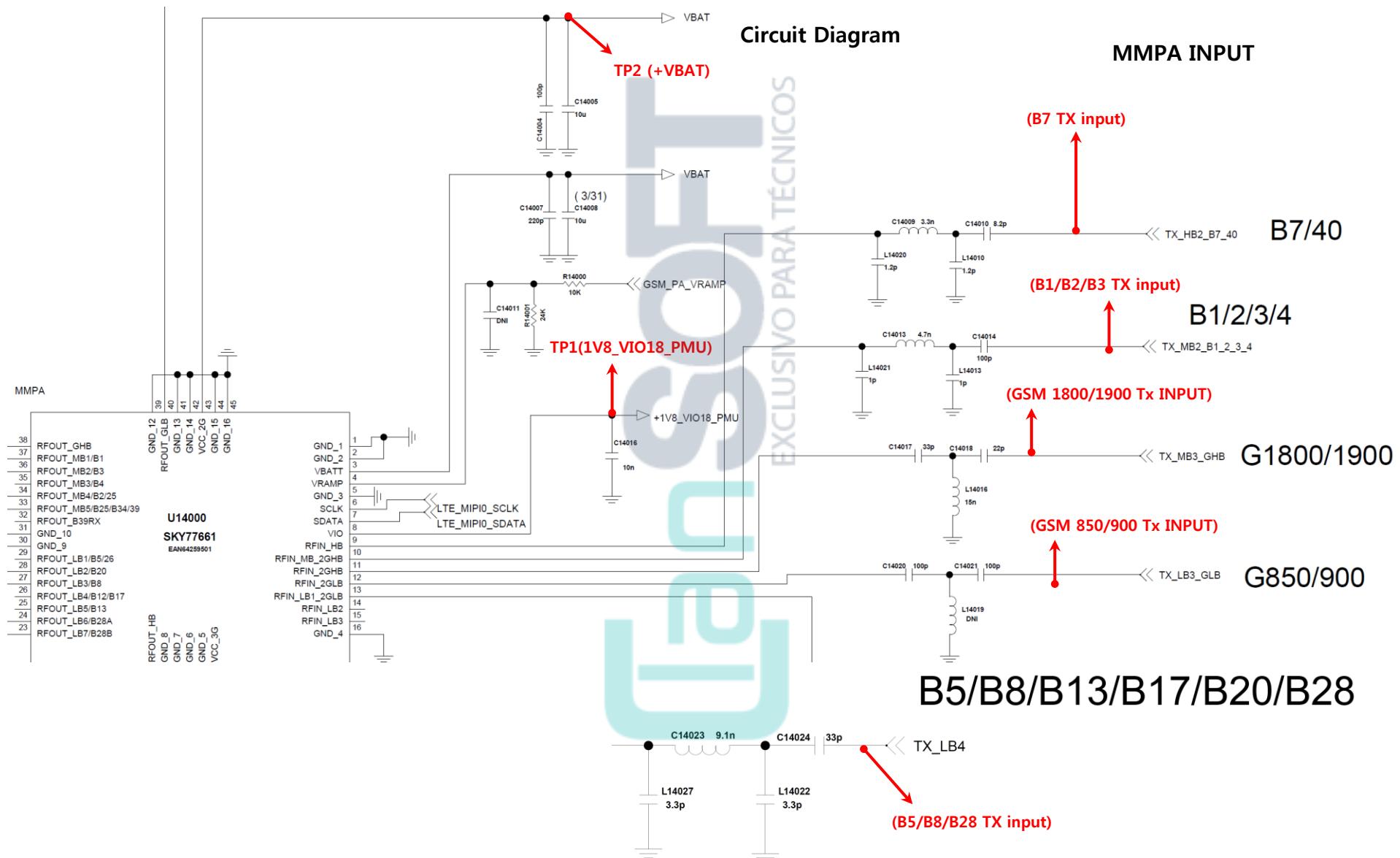


Image



3. TROUBLE SHOOTING

3.4.2.1 WCDMA, LTE PART - Tx



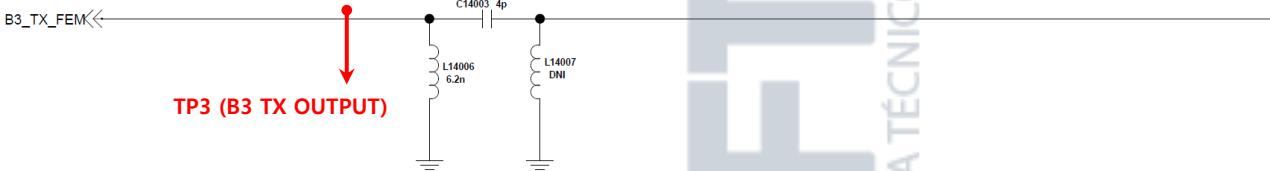
3. TROUBLE SHOOTING

3.4.2.2 GSM PART - TX

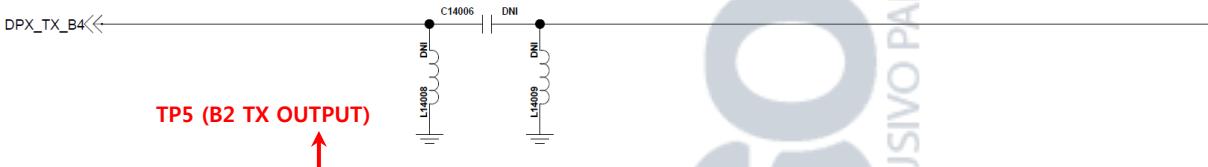
B1



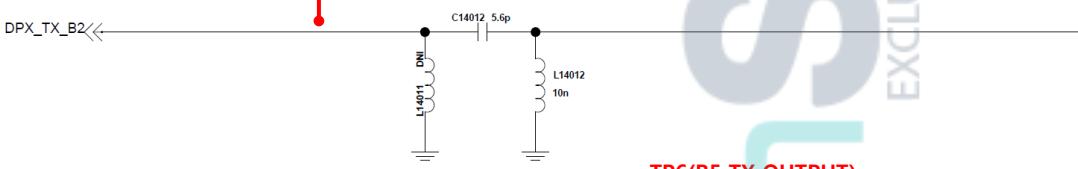
B3



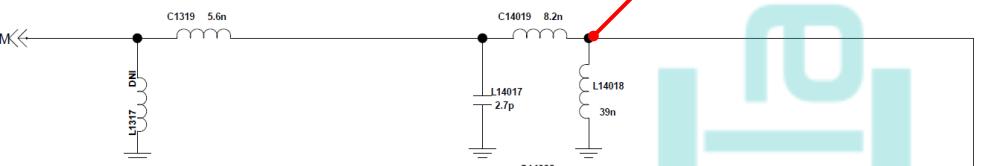
B4



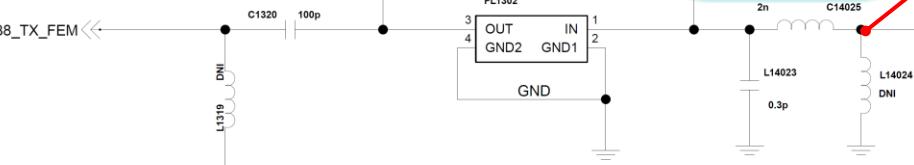
B2



B5

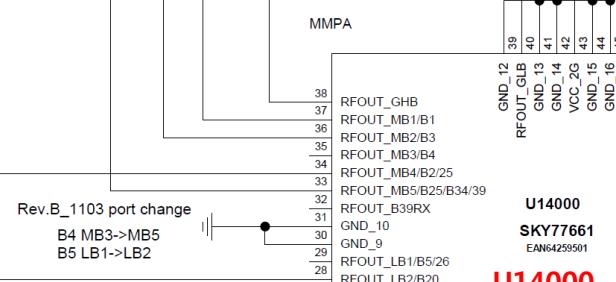


B8



EXCLUSIVO PARA TÉCNICOS

MMPA Output



U14000

SKY77661

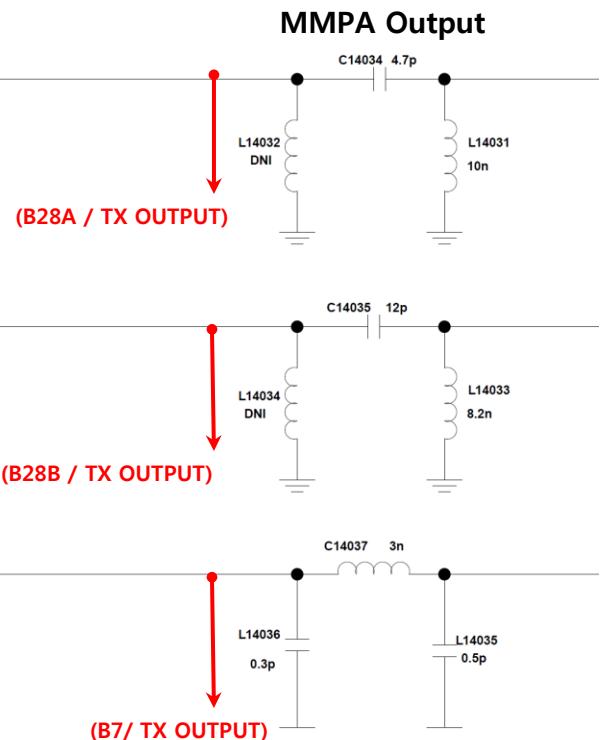
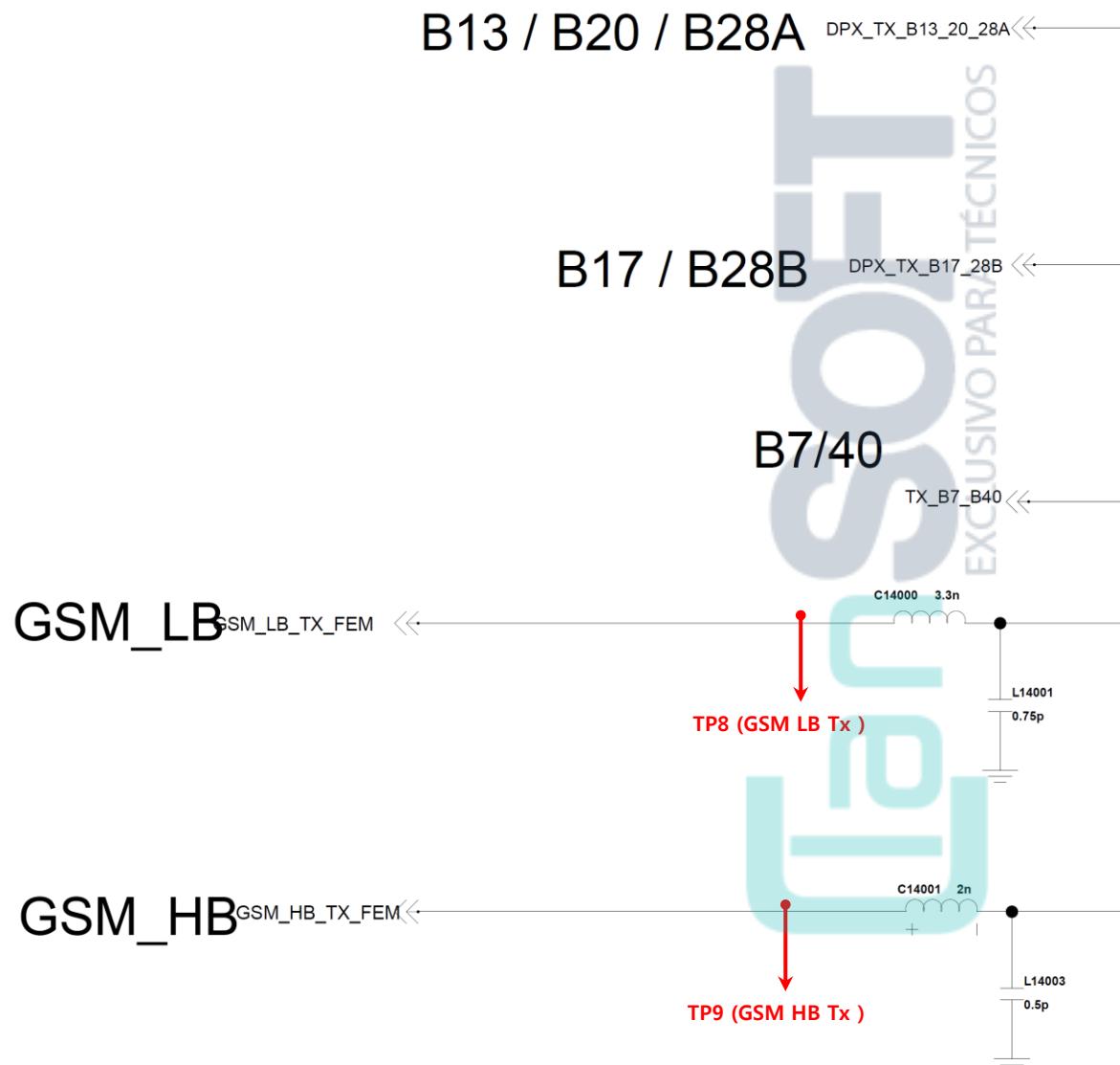
EAN64299901

U14000
(MMPA)
U14000

3. TROUBLE SHOOTING

3.4.2.2 GSM PART - TX

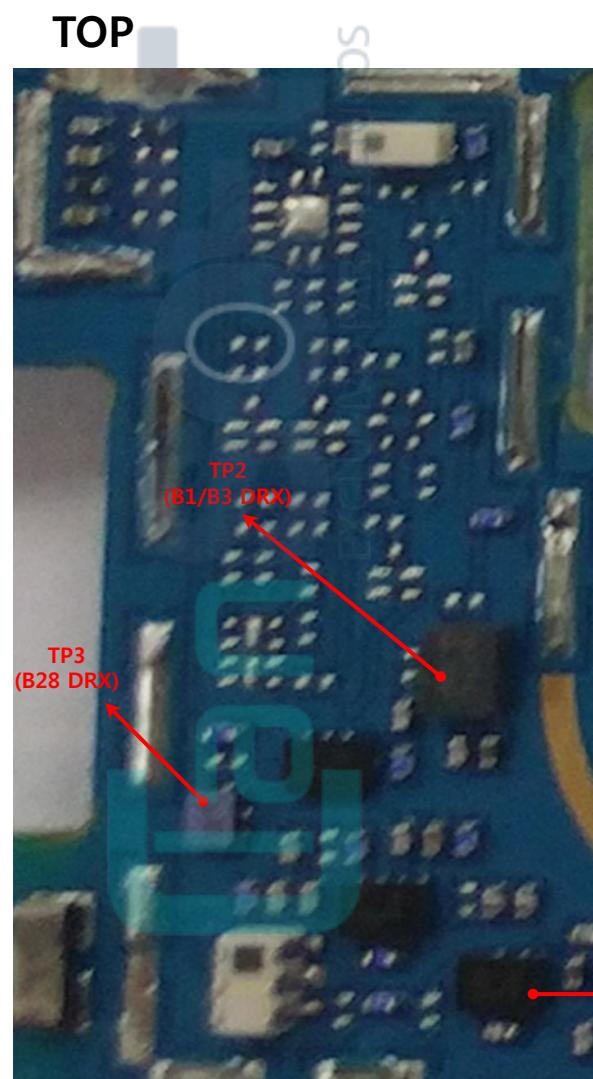
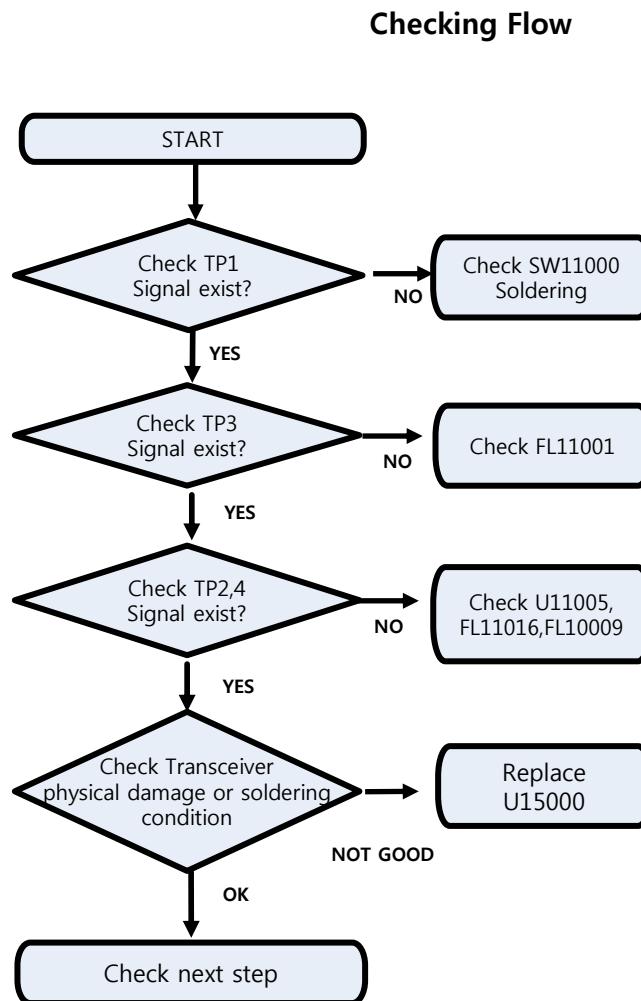
Circuit Diagram



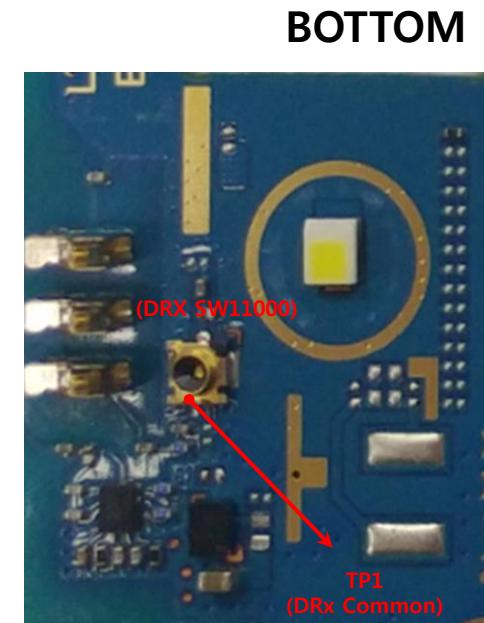
3. TROUBLE SHOOTING

3.4.3 GSM,WCDMA, LTE PART - DRX

Checking DRX RF signal path (B3/B7/B28)



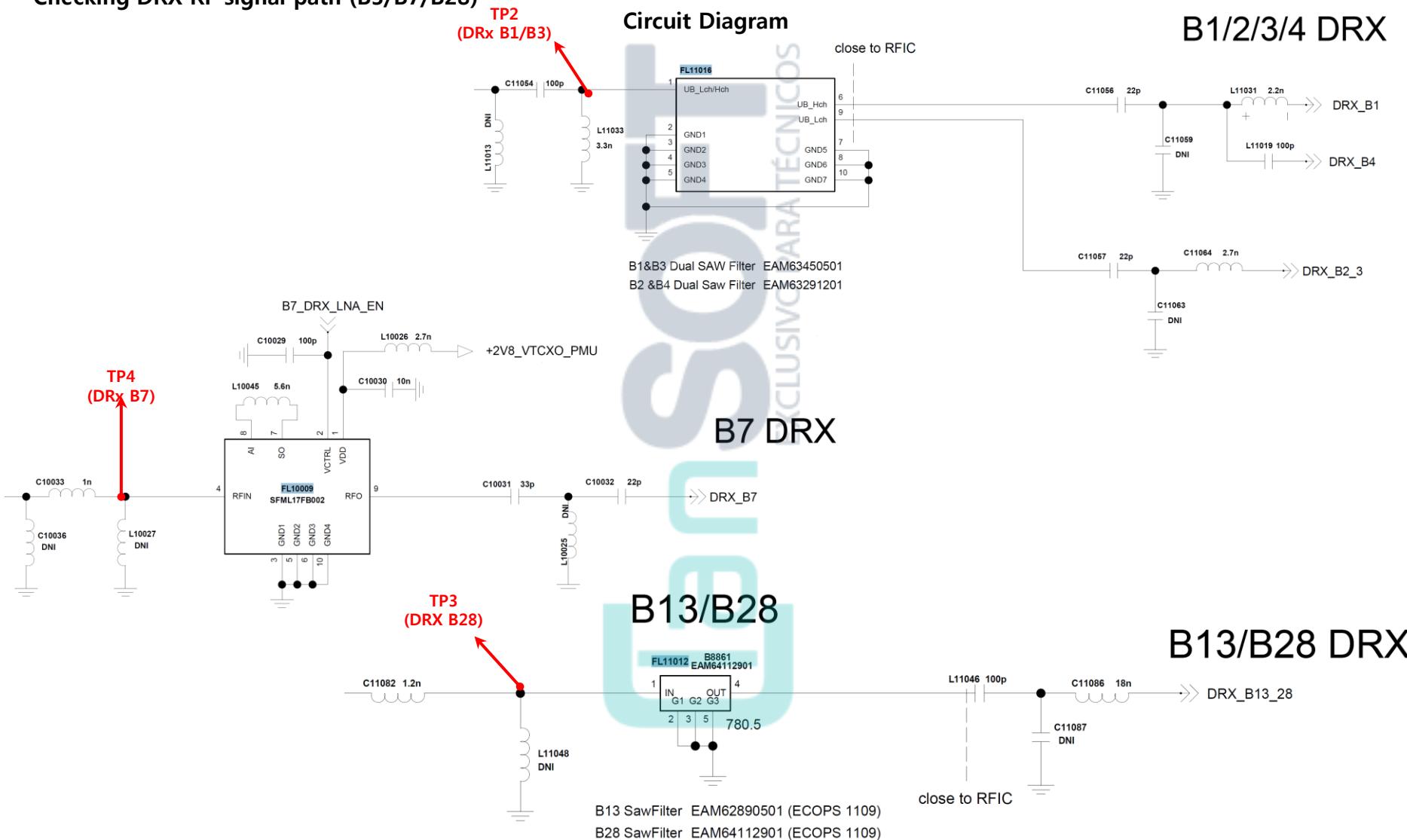
Image



3. TROUBLE SHOOTING

3.4.3 GSM,WCDMA,LTE PART - DRX

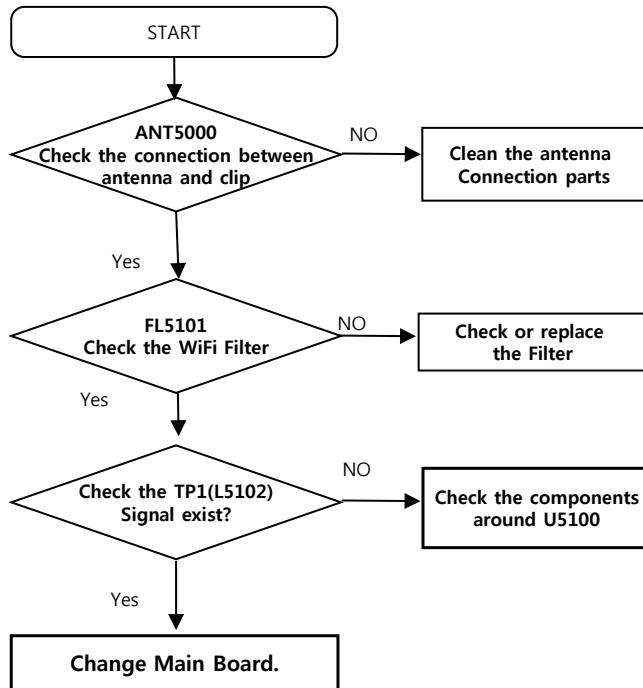
Checking DRX RF signal path (B3/B7/B28)



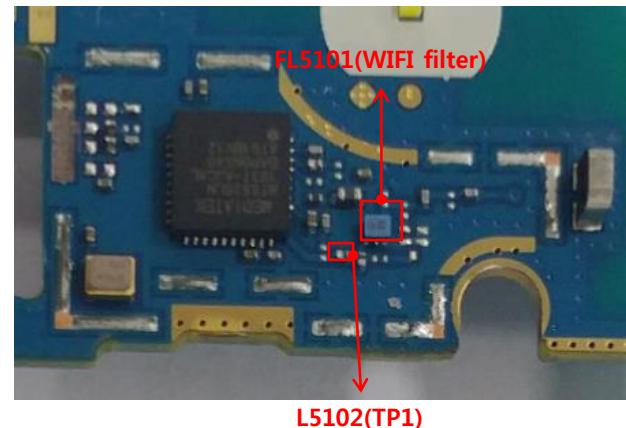
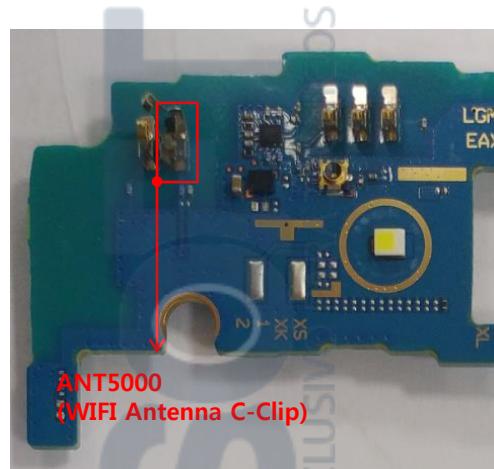
3. TROUBLE SHOOTING

3.5 BT/WIFI

Checking Flow



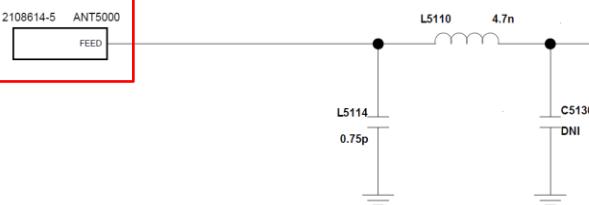
Image



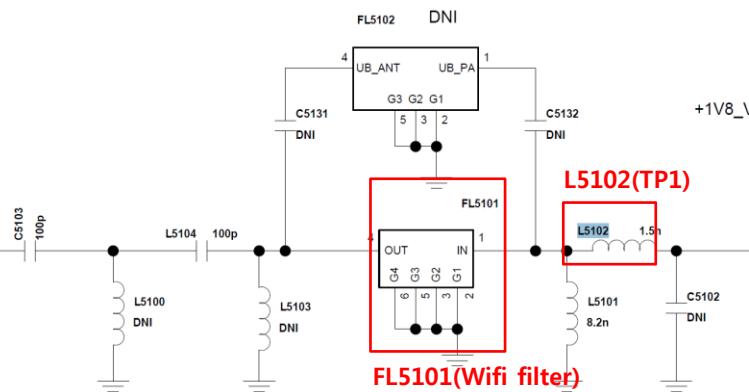
Circuit Diagram

ANT (BT, WiFi)

ANT5000 WIFI Antenna C-Clip



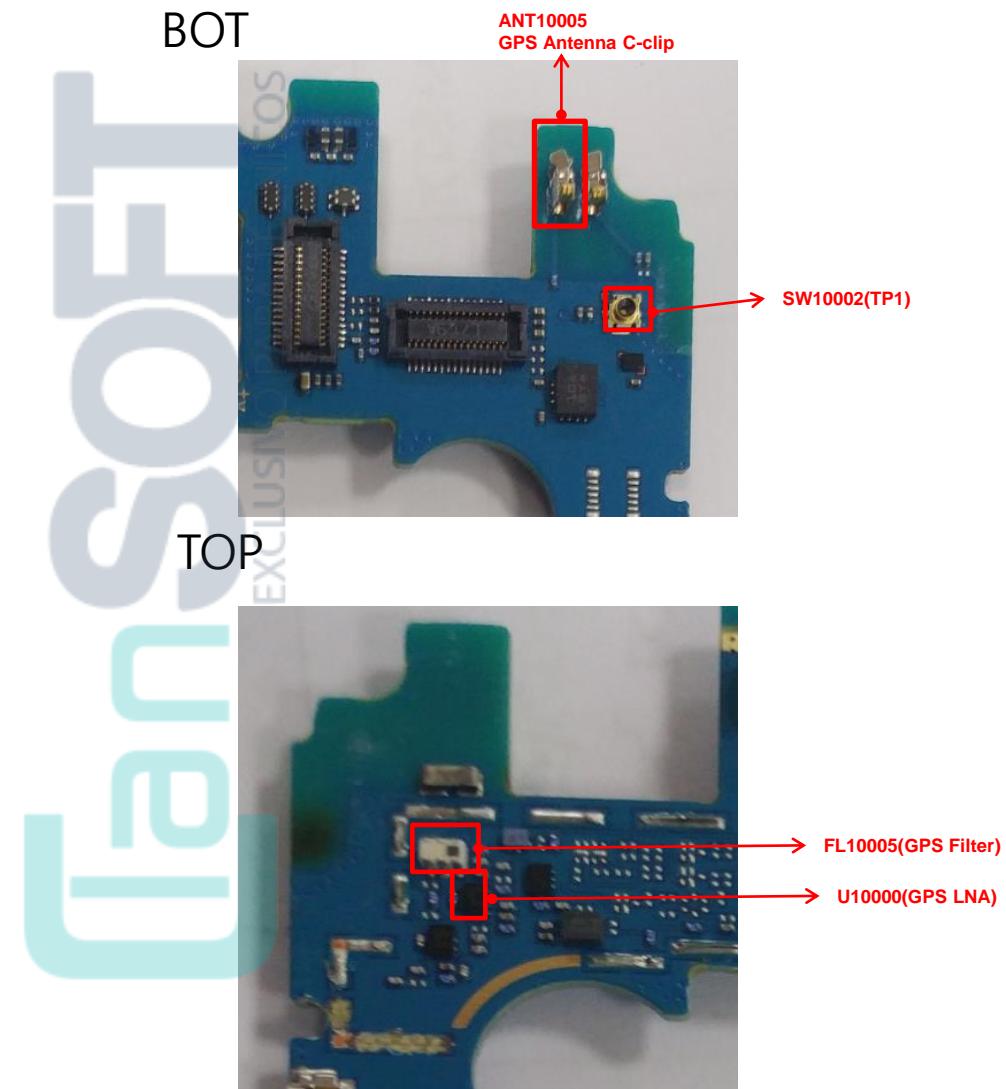
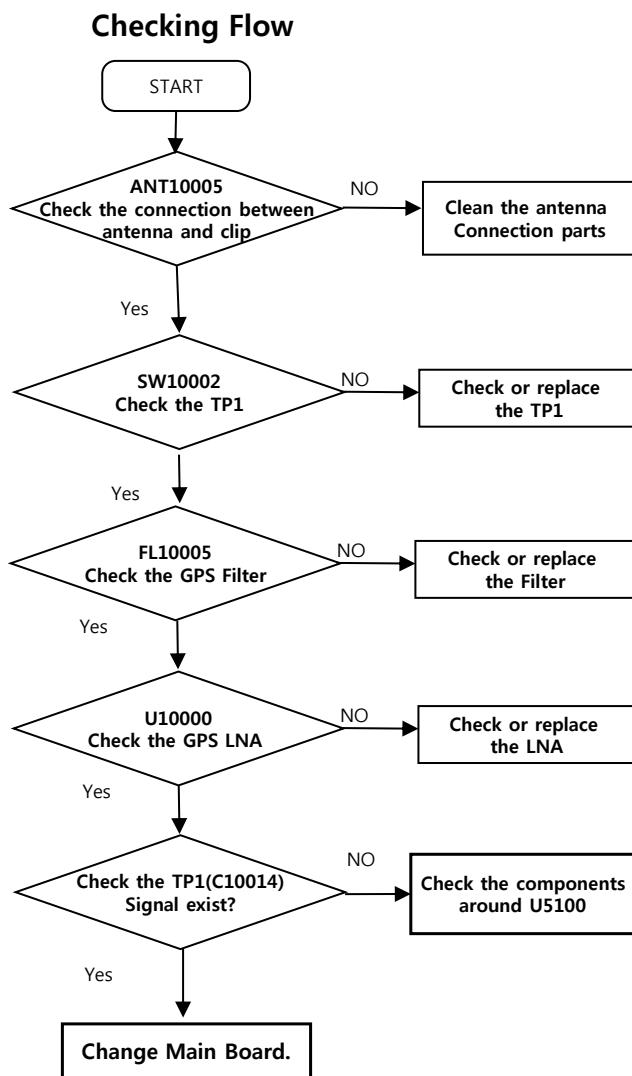
LGE Internal Use Only



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3. TROUBLE SHOOTING

3.6 GPS PART



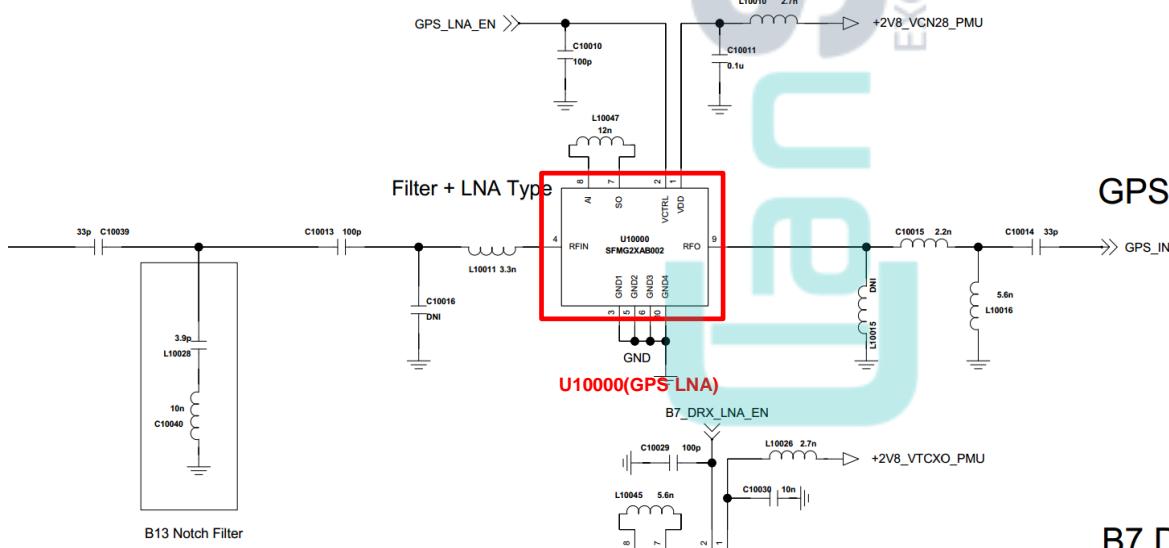
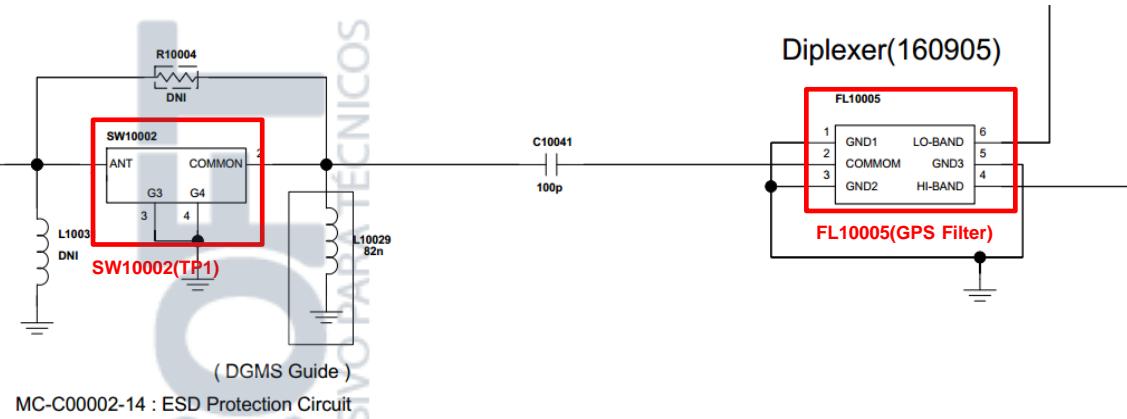
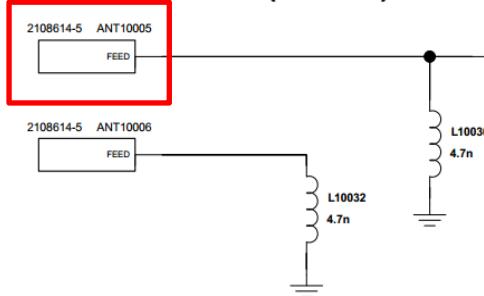
3. TROUBLE SHOOTING

3.6 GPS PART

Circuit Diagram

ANT10005
GPS Antenna C-clip

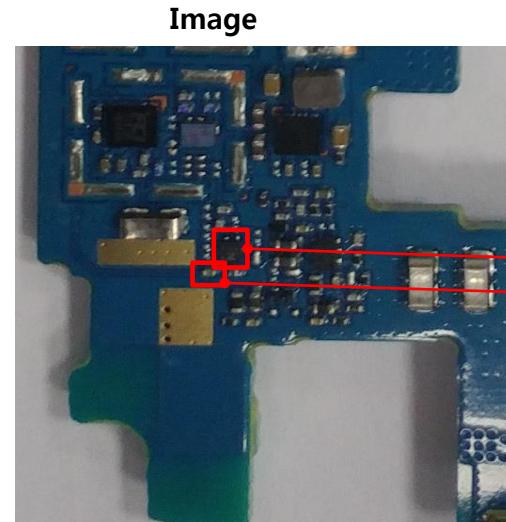
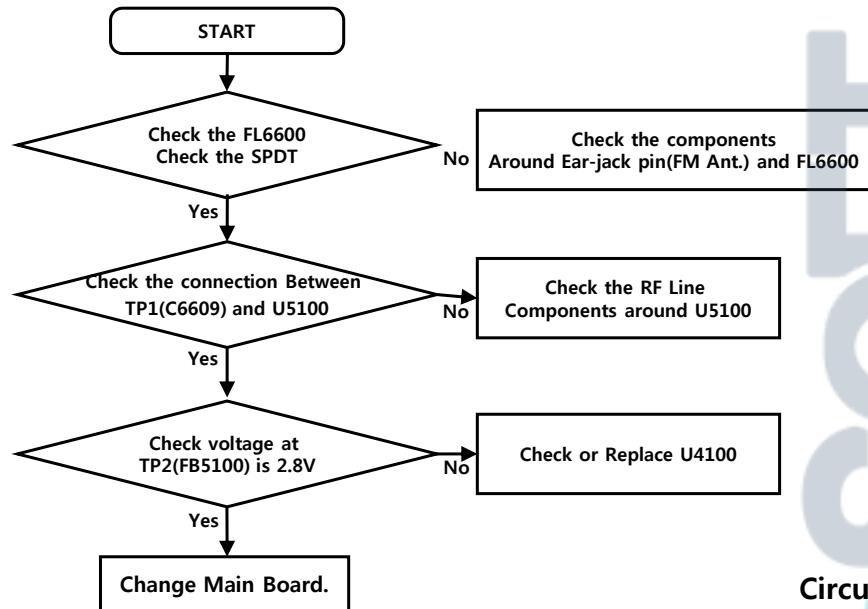
ANT #3 (GPS)



3. TROUBLE SHOOTING

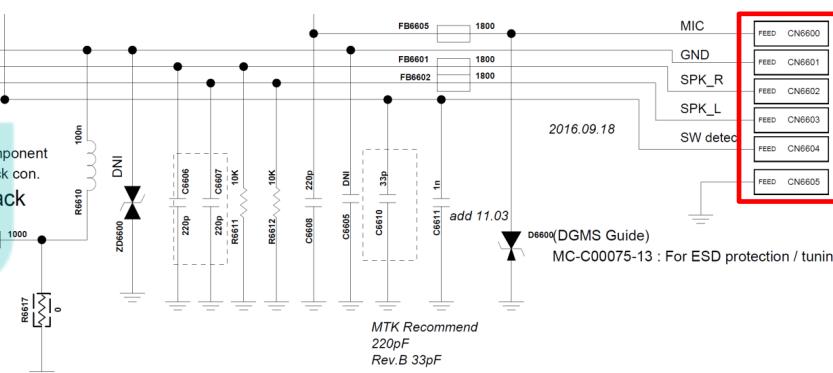
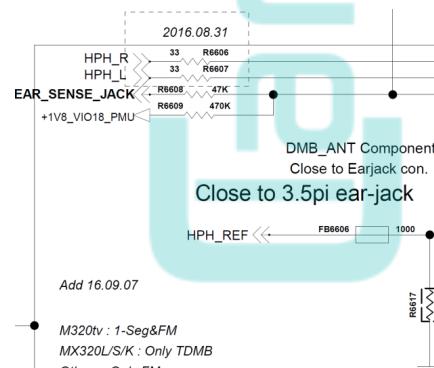
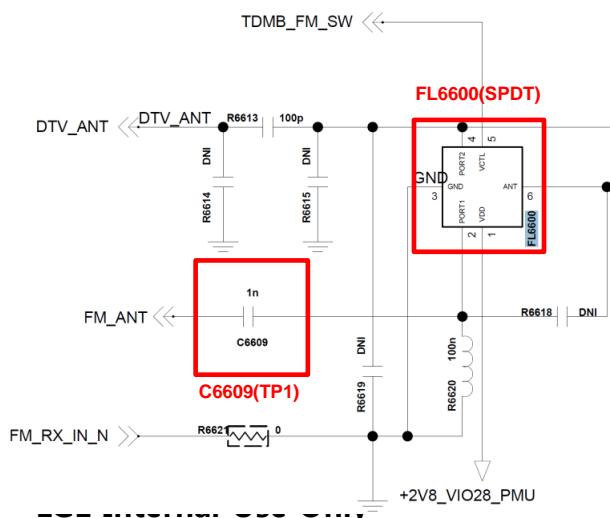
3.7 FM Part

Checking Flow



TOP
EXCLUSIVO PARA TÉCNICOS

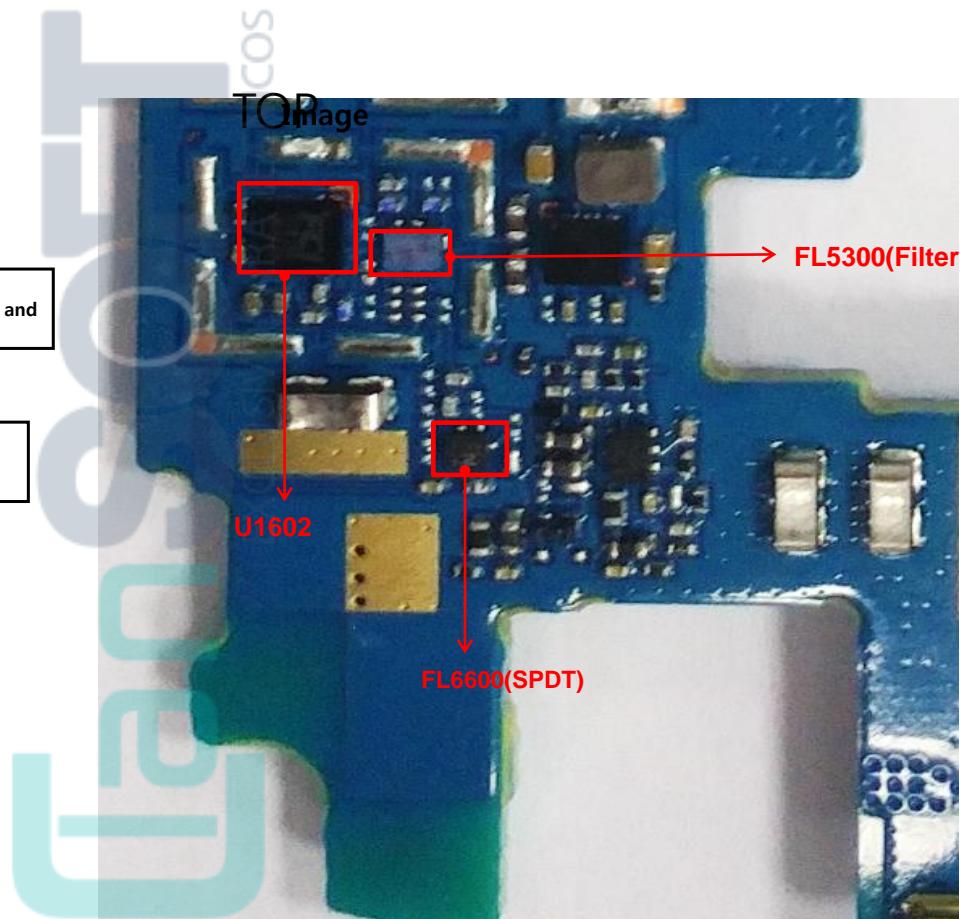
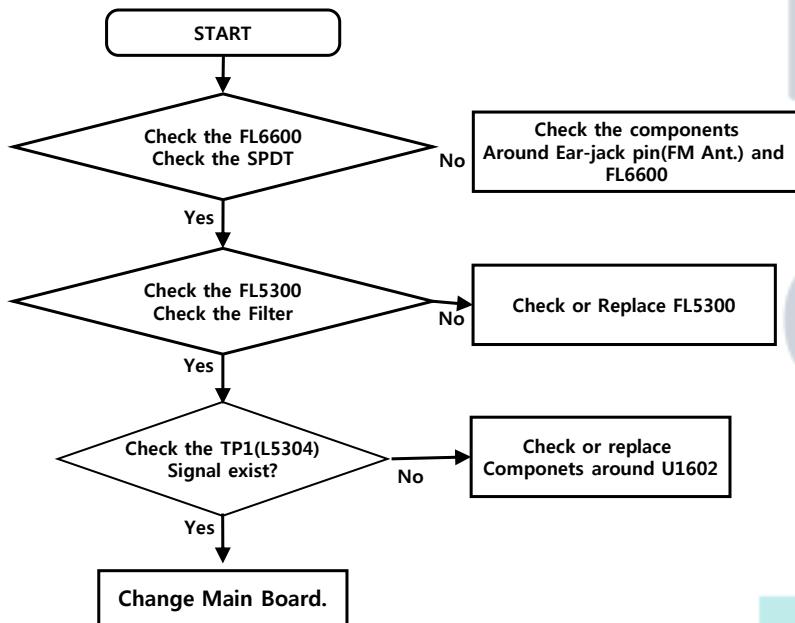
Circuit Diagram



3. TROUBLE SHOOTING

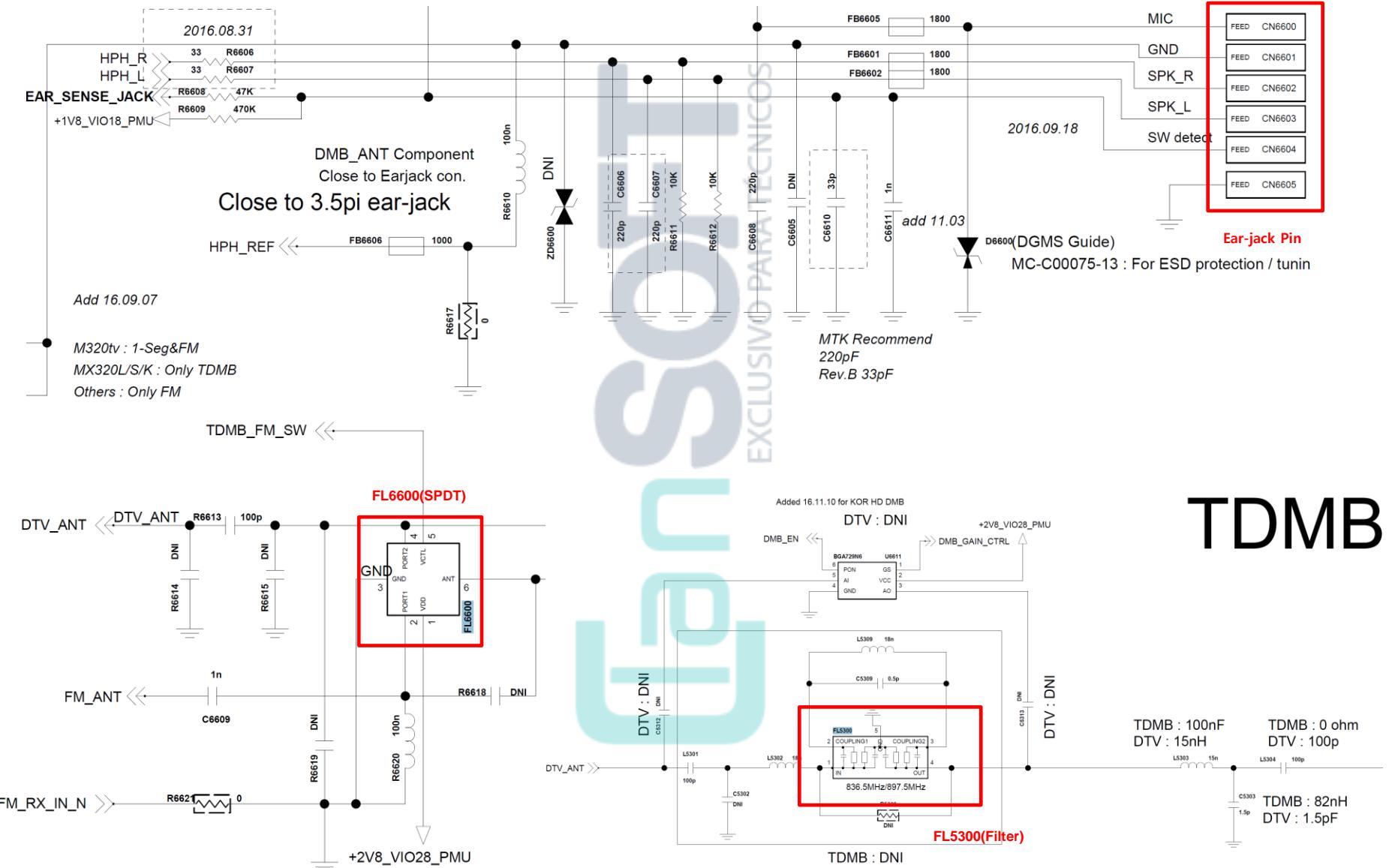
3.8 DTV Part

Checking Flow



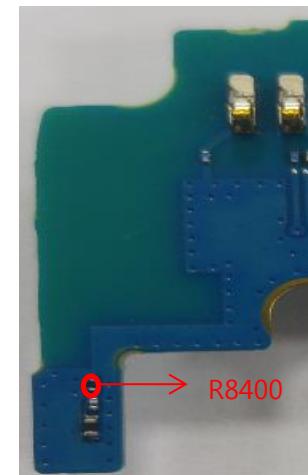
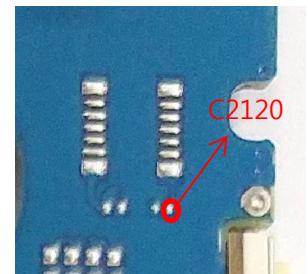
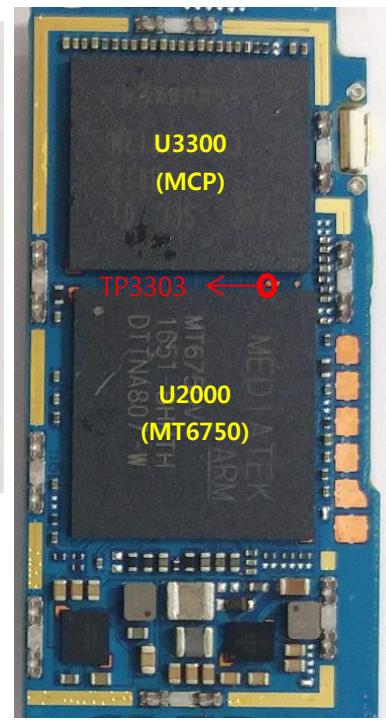
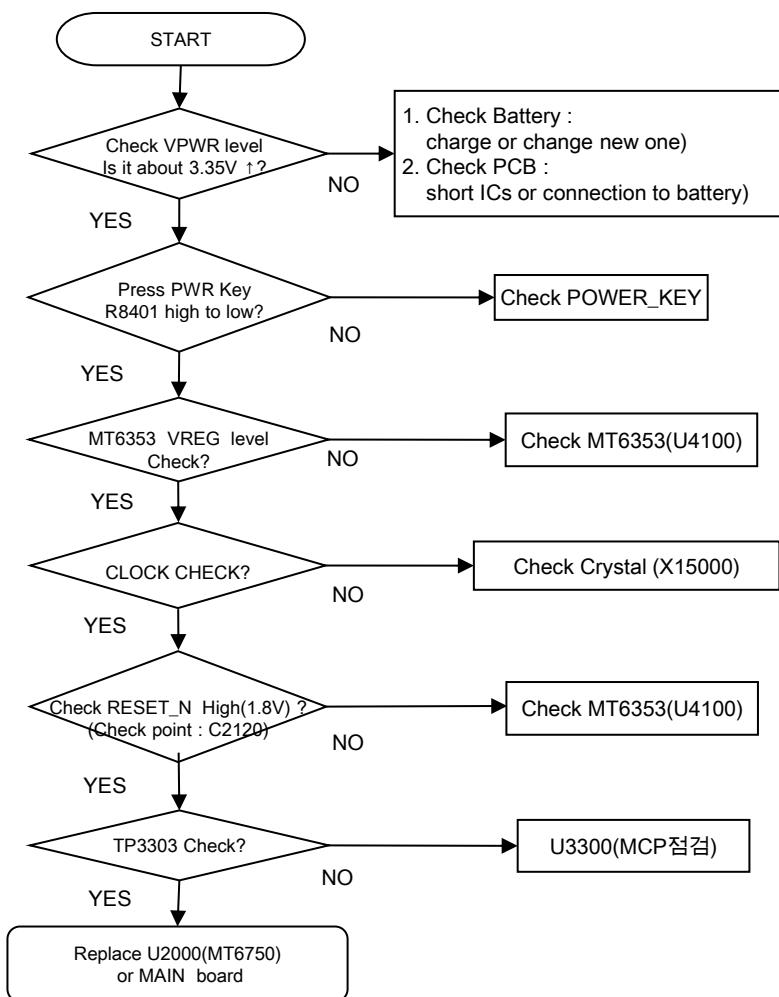
3. TROUBLE SHOOTING

3.8 DTV Part

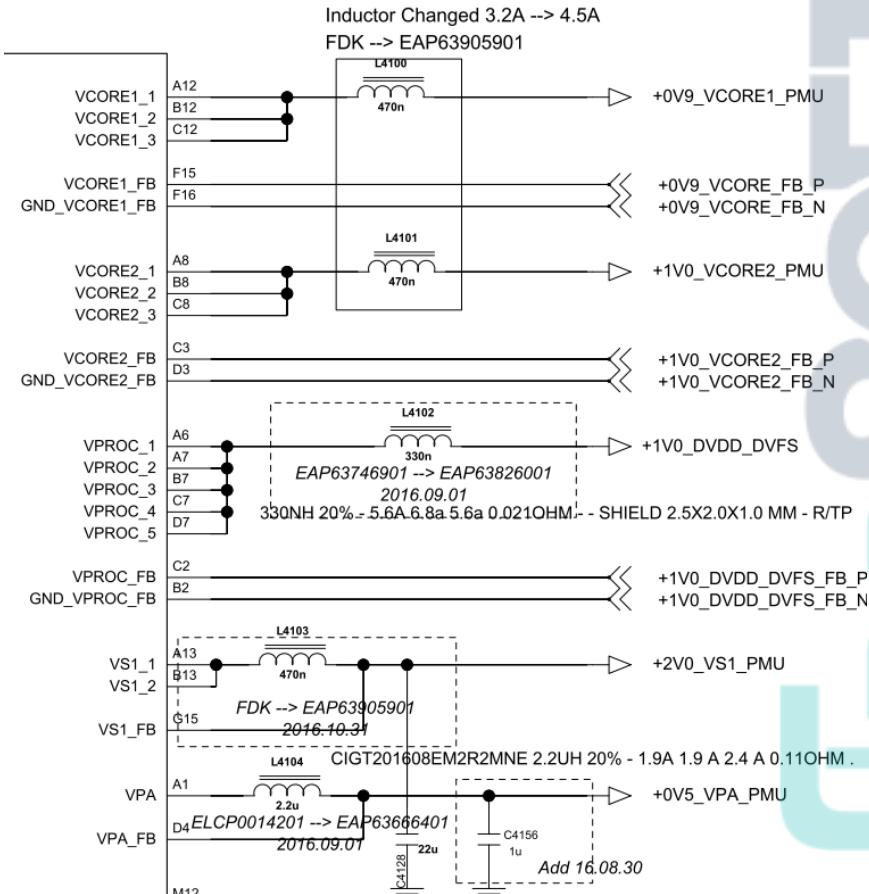


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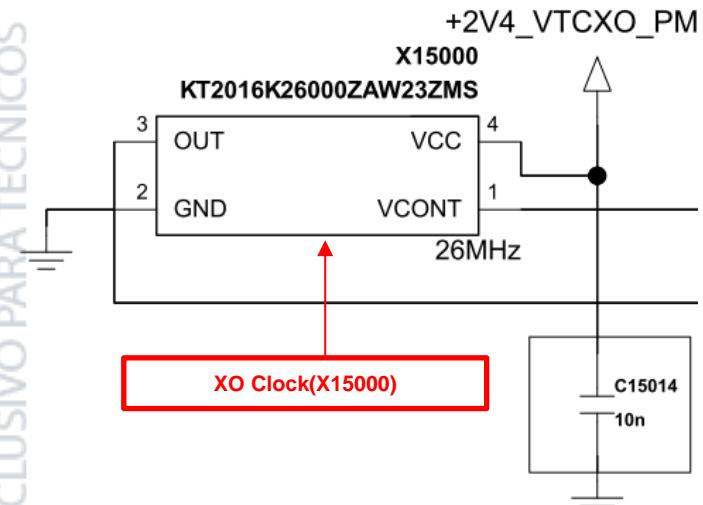
Checking Power signal (Battery connector, Power Key, PMIC Regulator, MSM, Memory)



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

Circuit Diagram

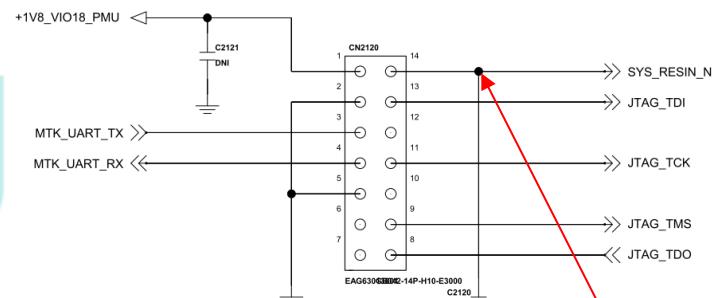
MT6353 (U4100)



XO Clock(X15000)

[JTAG]

Sync. LV5

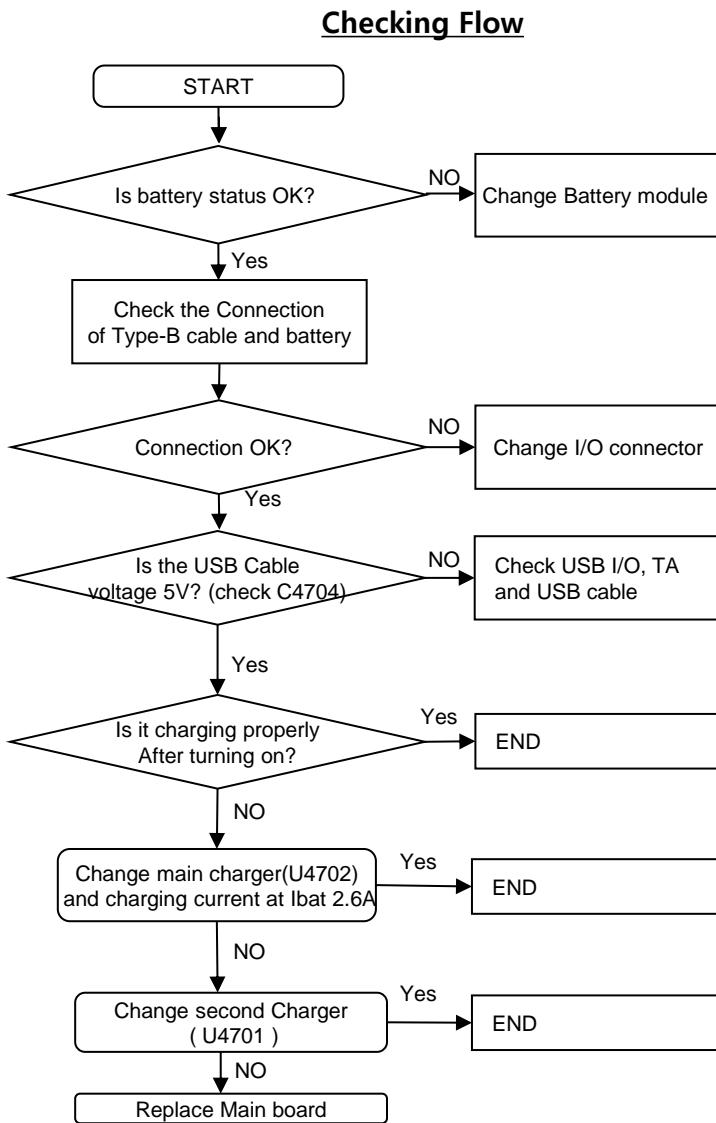


SYS_RESET_N(C2120)

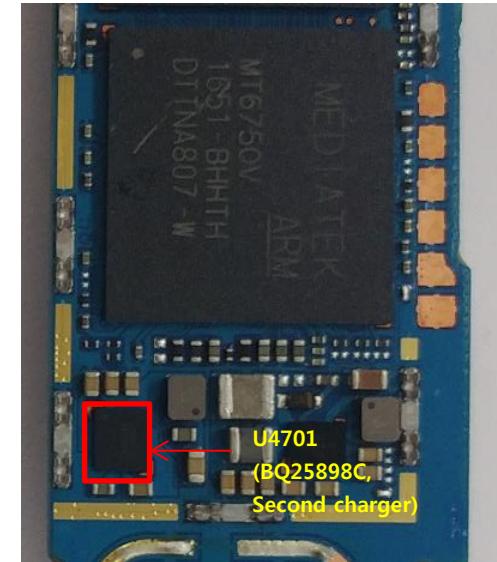
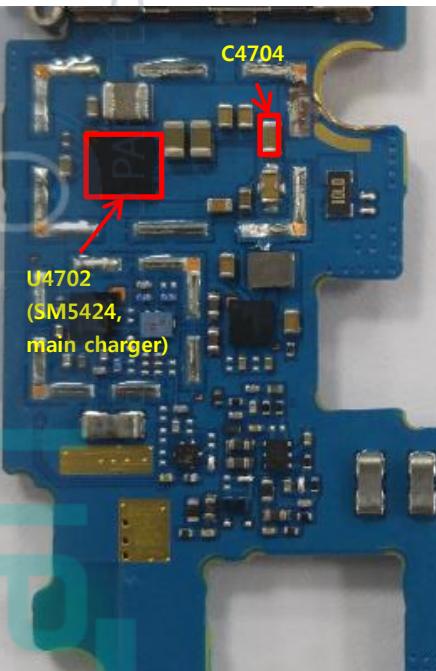
3. TROUBLE SHOOTING

3.10 Charger

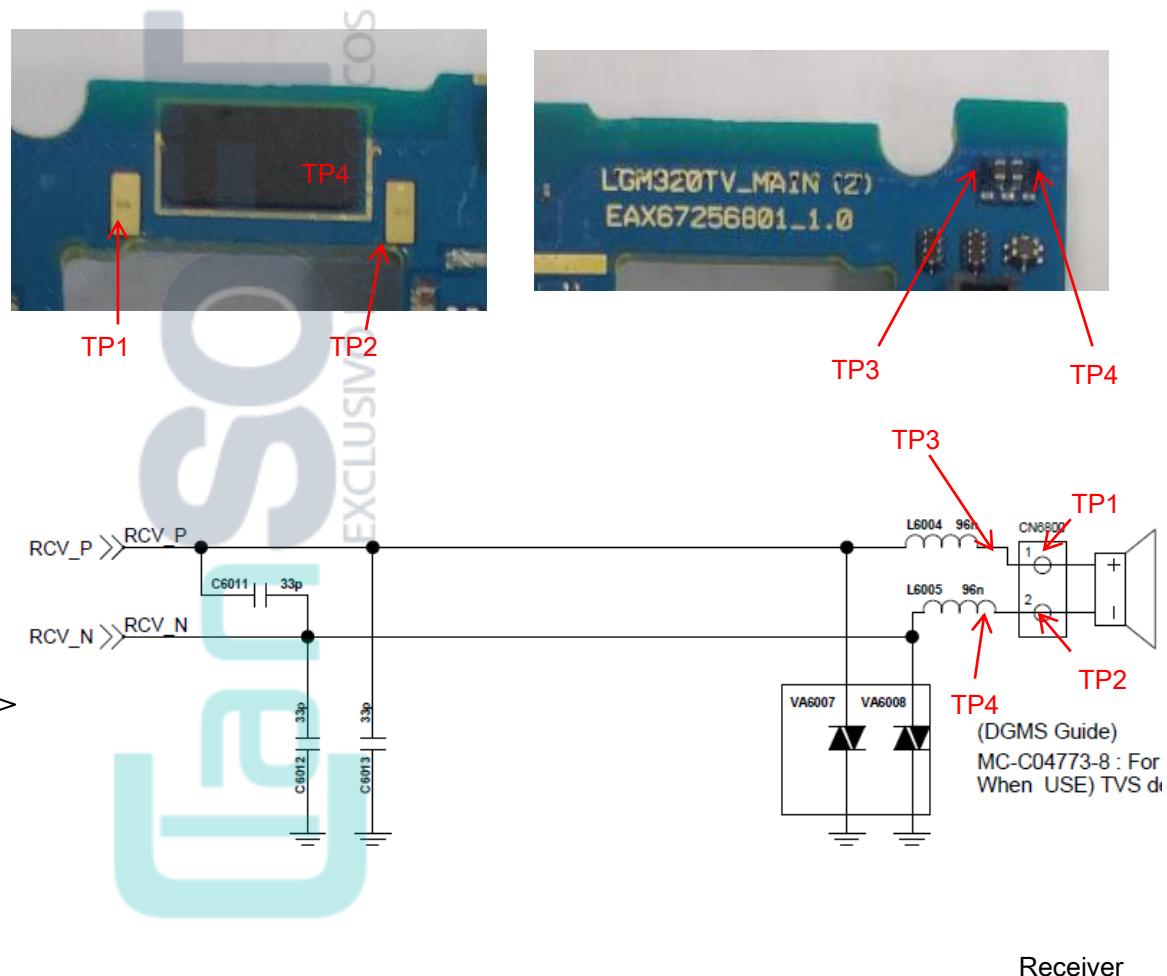
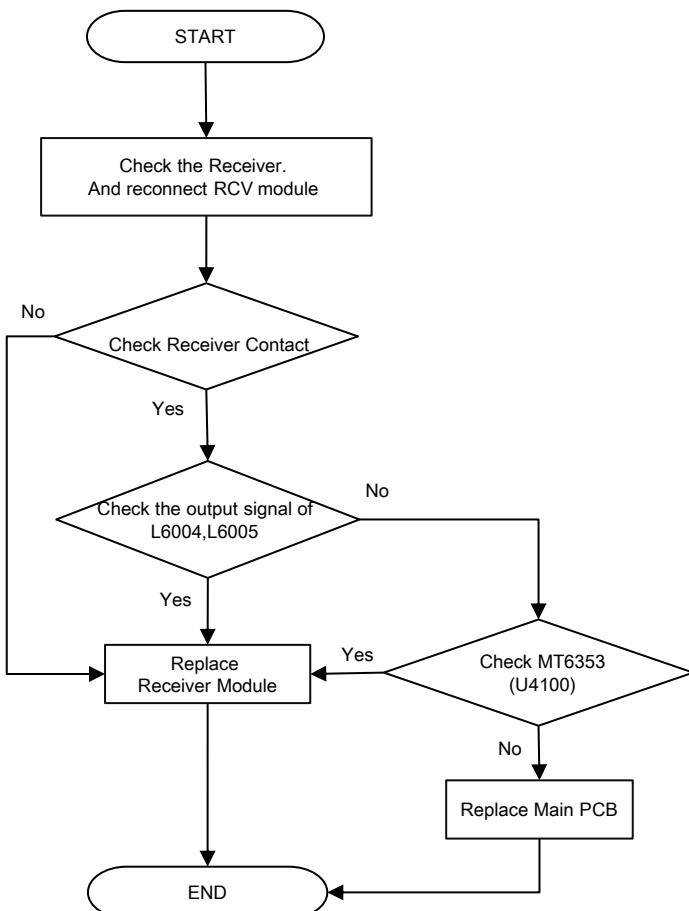
There are two charger ICs for dual charging.



Image



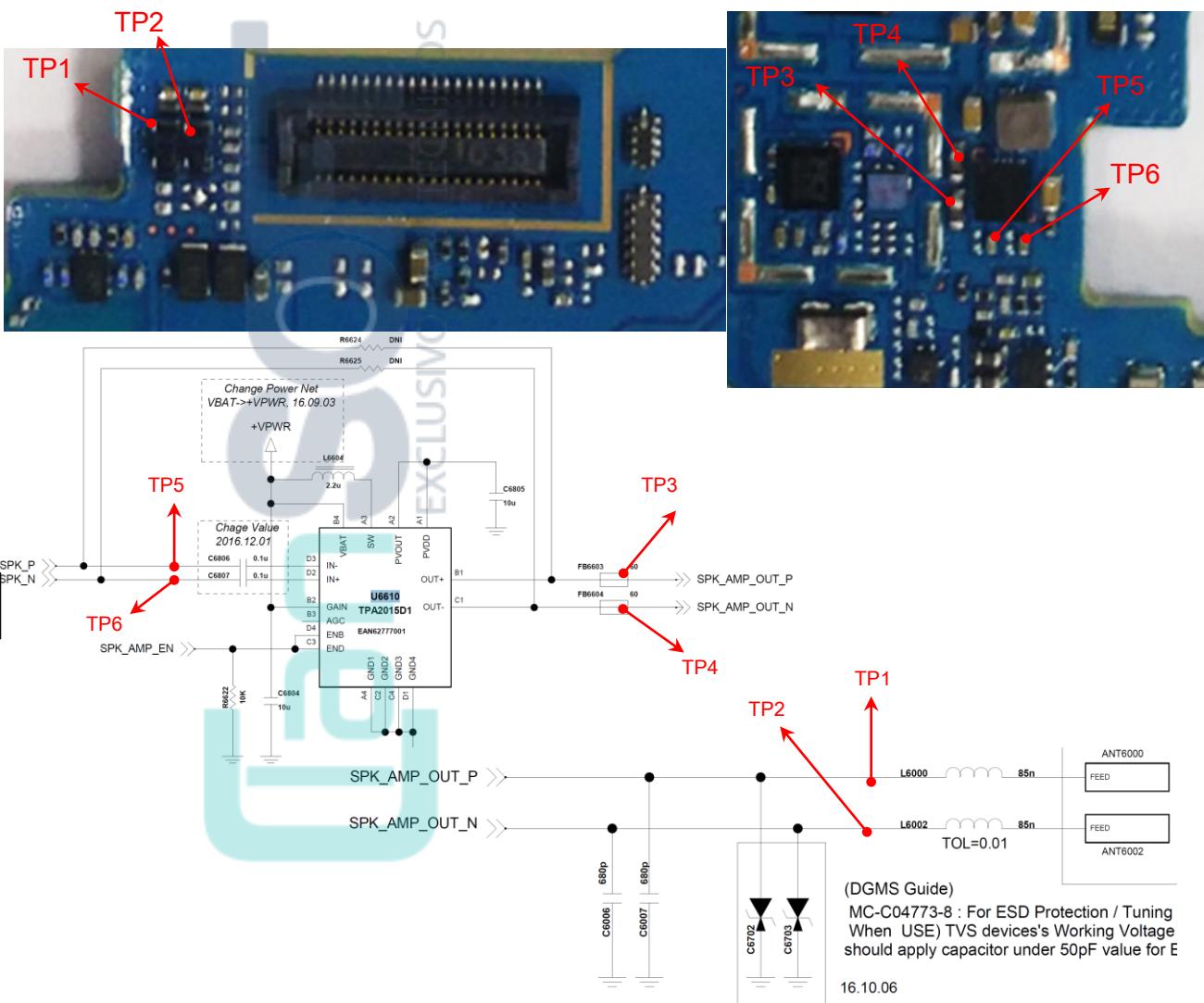
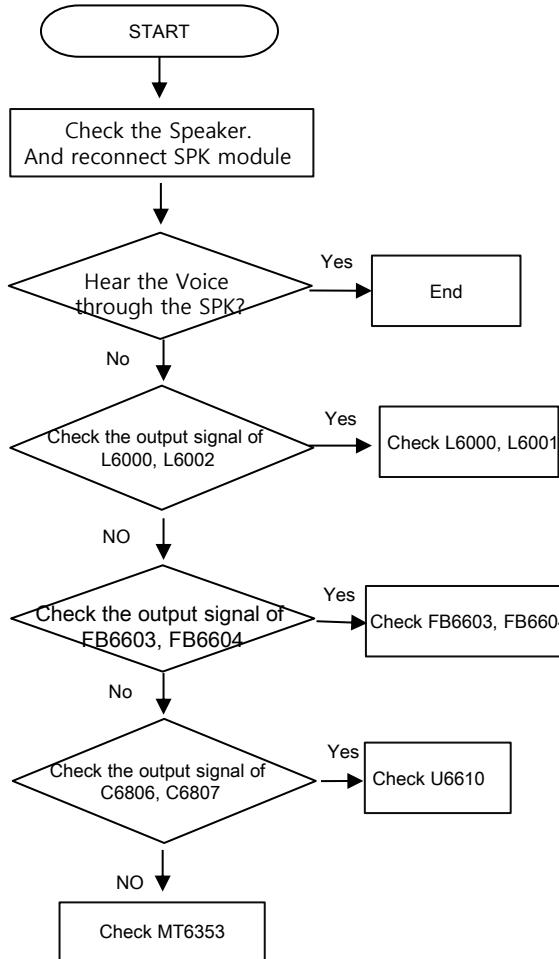
The receiver control signals are generated by PM8937(U4100), the chipset and the receiver are to be checked out.



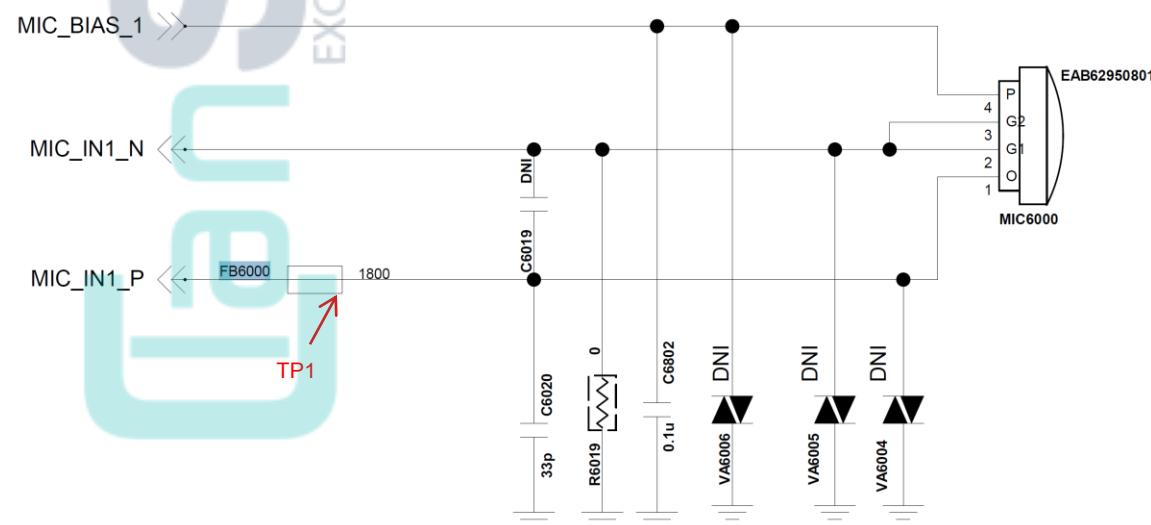
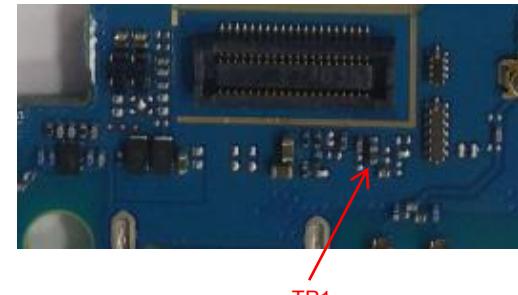
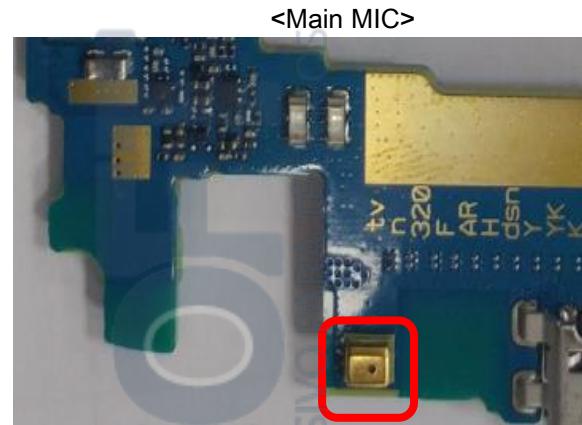
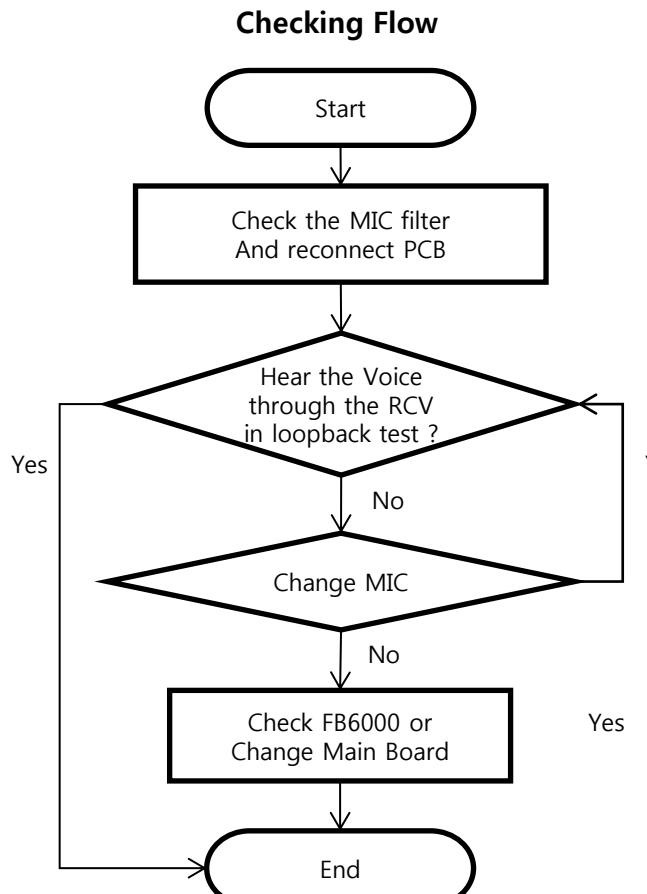
3. TROUBLE SHOOTING

3.11.2 Audio speaker

The Speaker control signals are generated by MT6353(U4100) and TPA2051(U6610) chipset and the speaker are to be checked out.



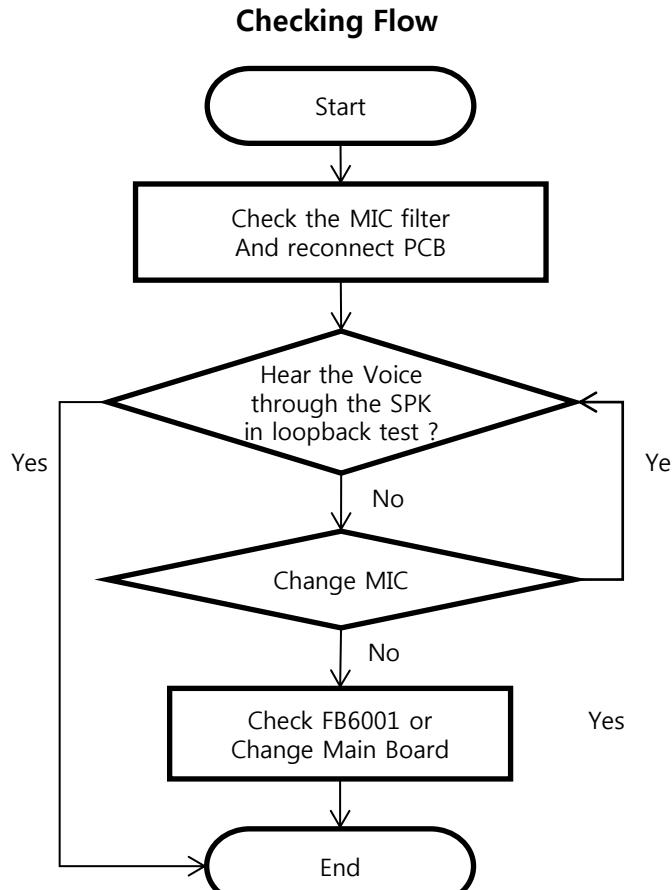
It's operating voice call(except speakerphone), voice recording, camcorder recording.



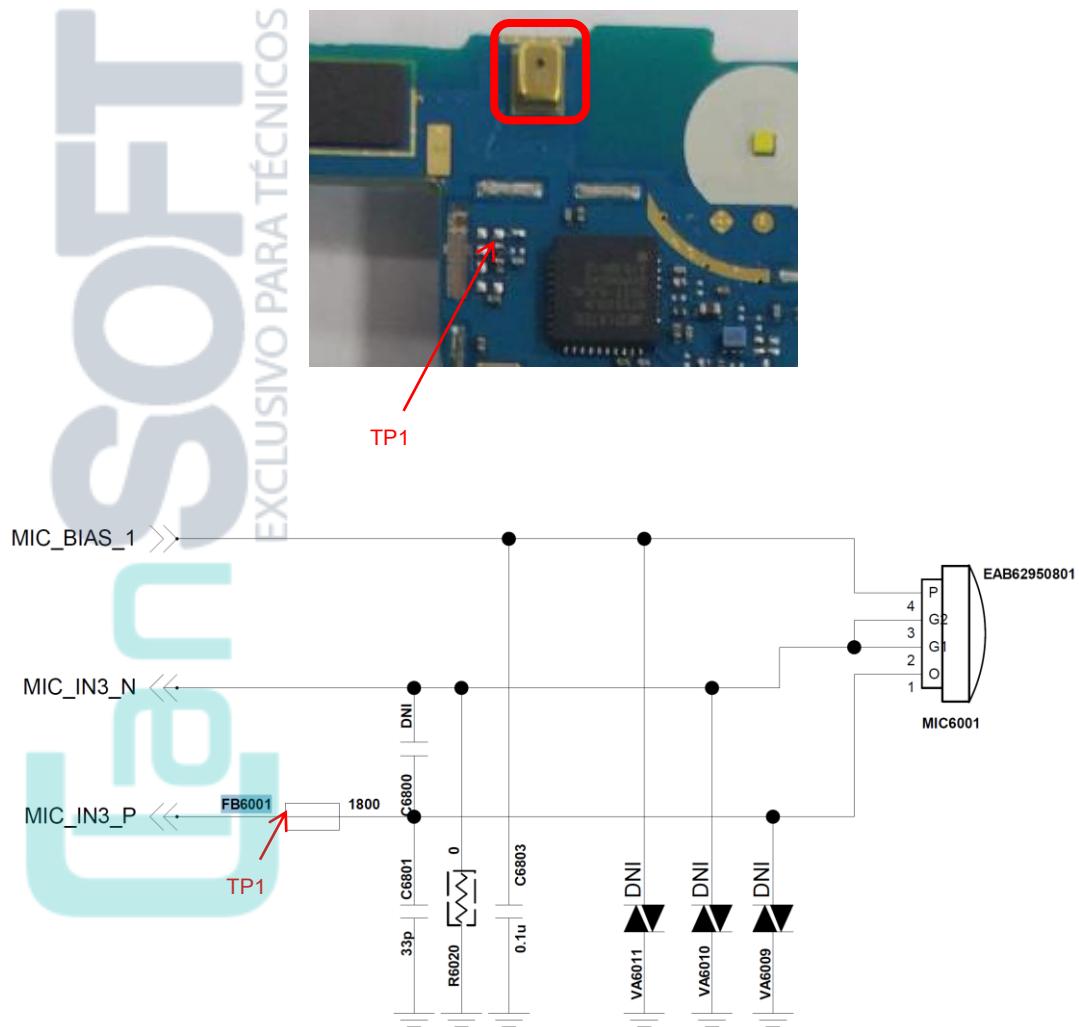
3. TROUBLE SHOOTING

3.11.4 Audio sub(2nd) MIC

It's operating Speakerphone call.



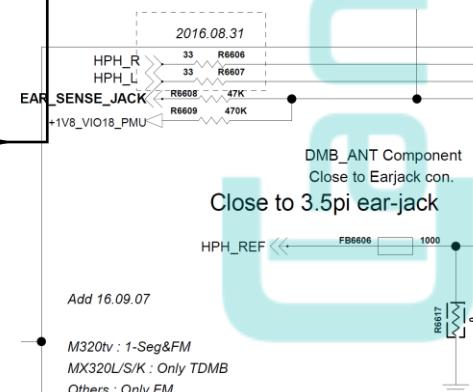
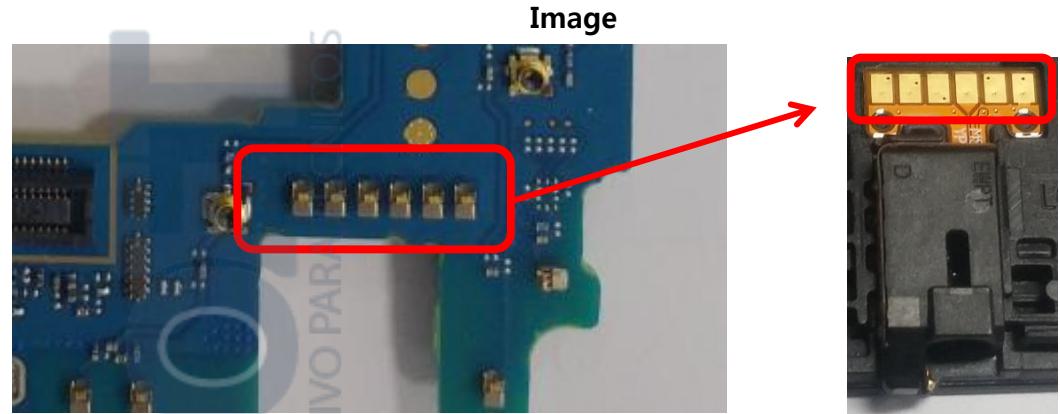
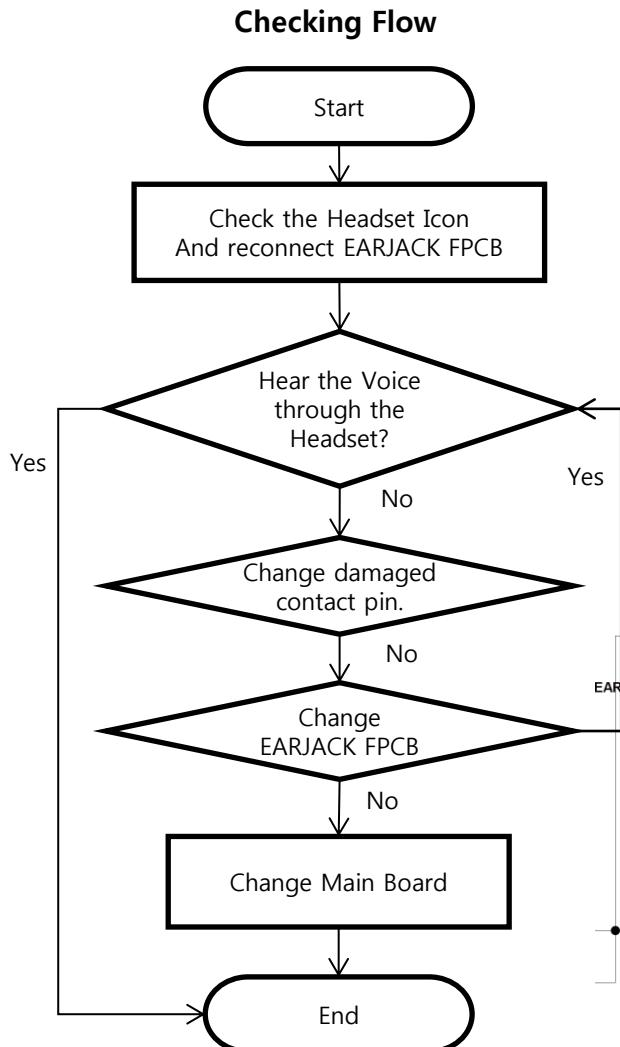
<Sub MIC>



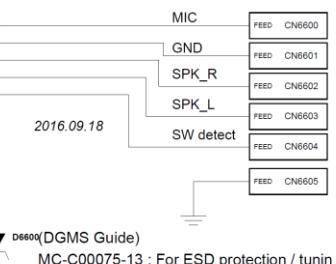
3. TROUBLE SHOOTING

3.11.5 Audio Ear MIC Jack

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



FPCB Image



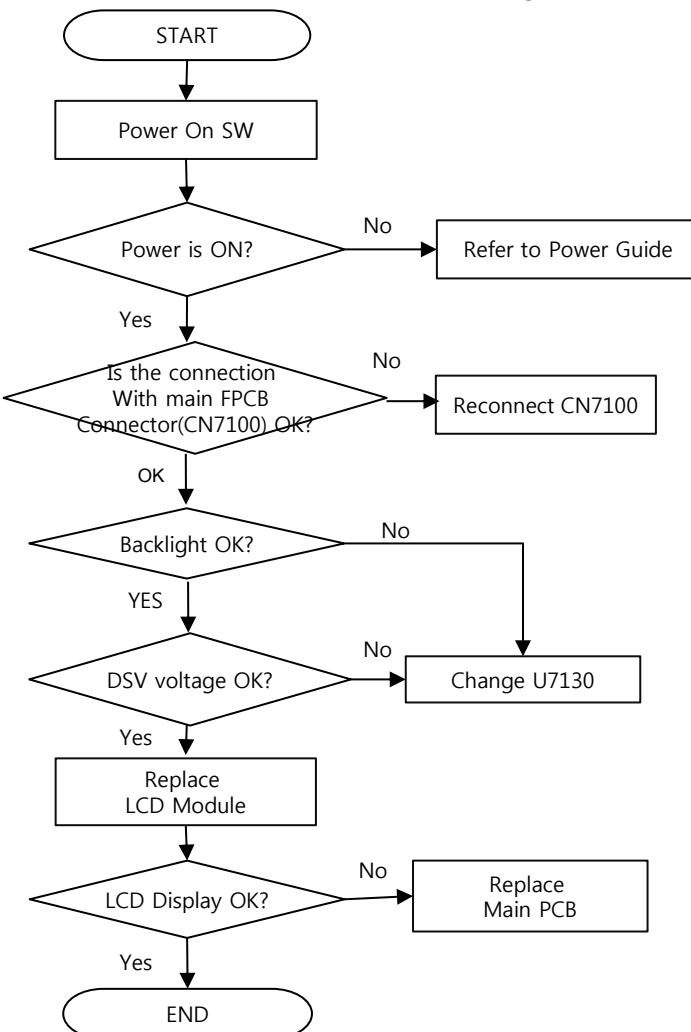
Circuit Diagram

3. TROUBLE SHOOTING

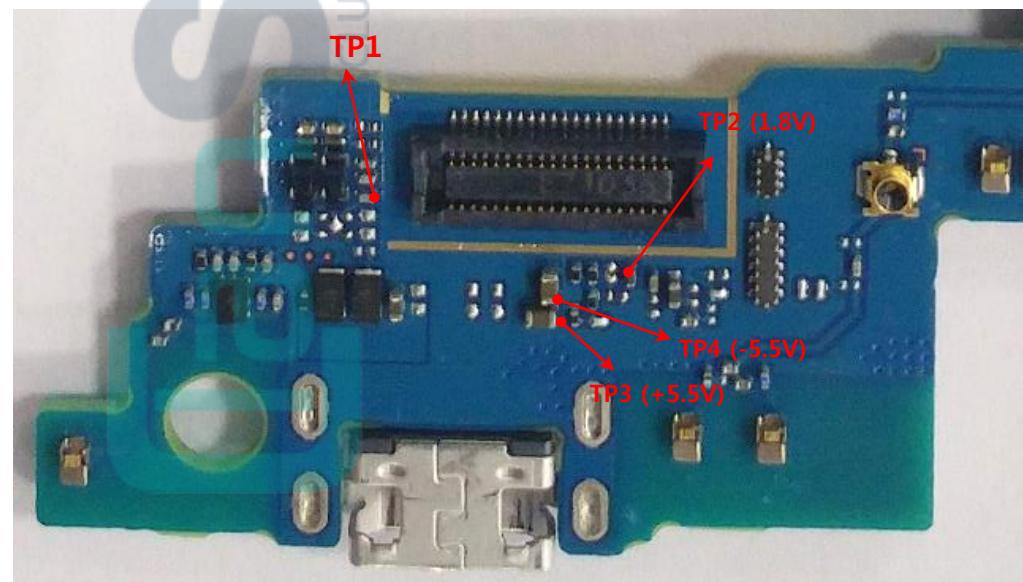
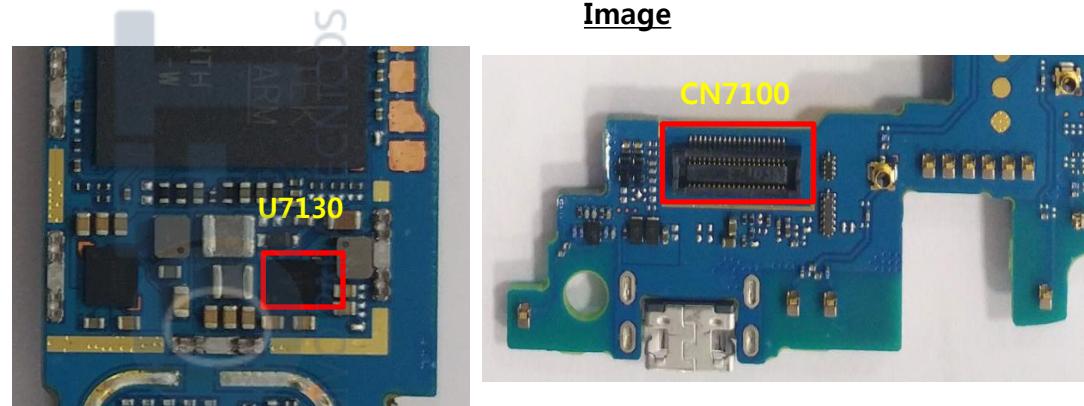
3.12 Display

When Main display doesn't work well, check CN7100 and TP Voltage.

Checking Flow



Image



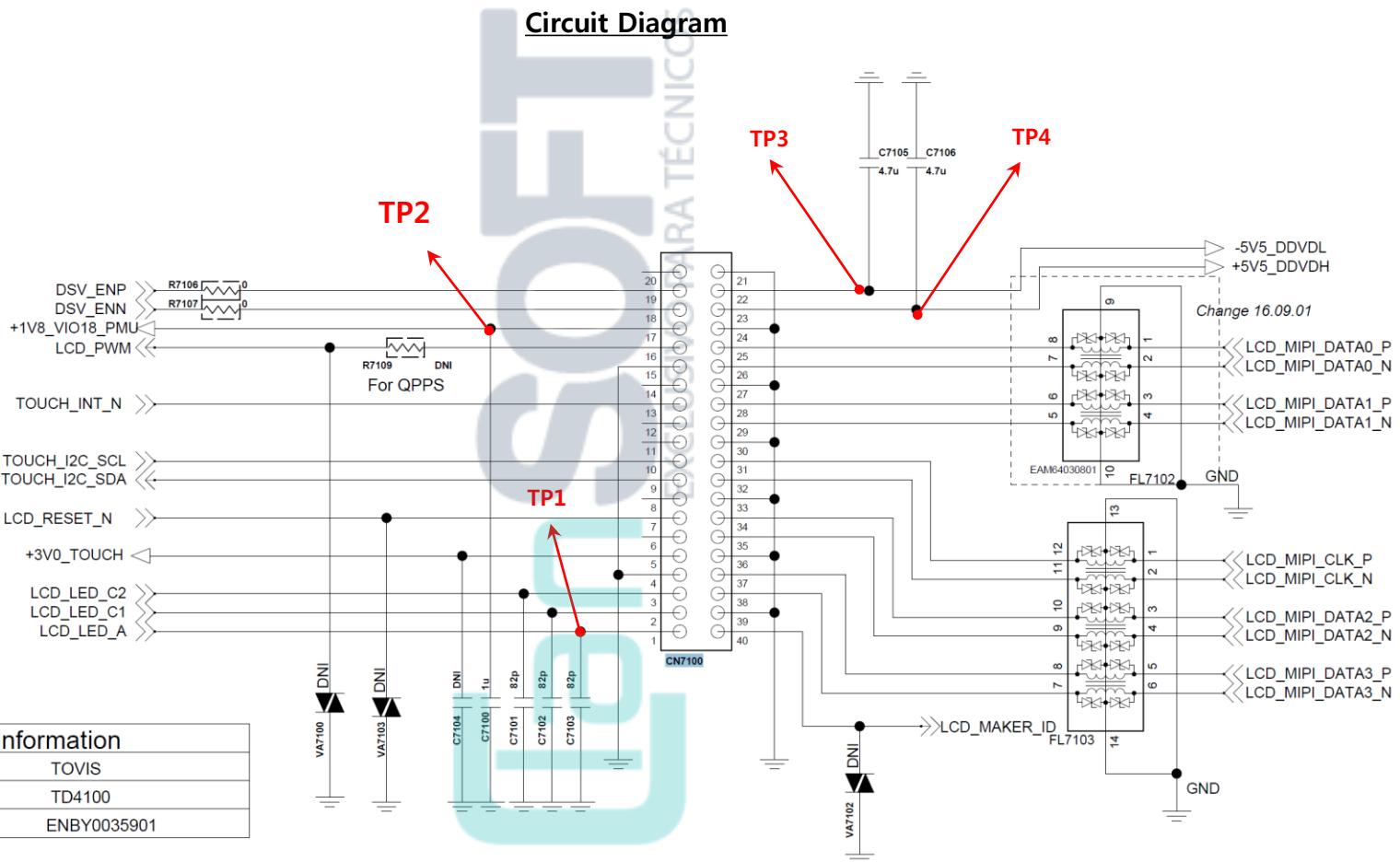
TP1 : LED_A
TP2 : VIO
TP3 : DSV+
TP4 : DSV-

3. TROUBLE SHOOTING

3.12 Display

use the separate power

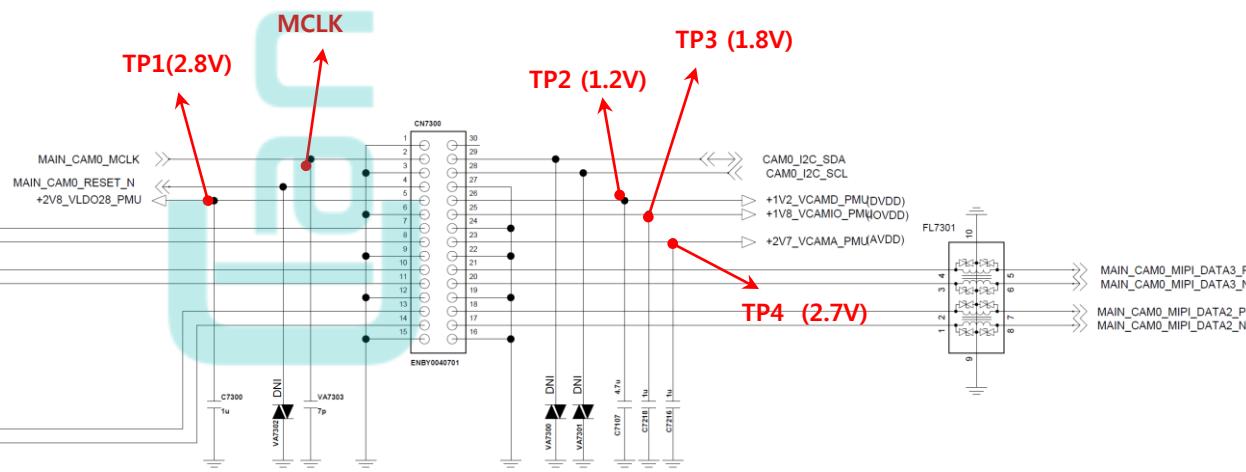
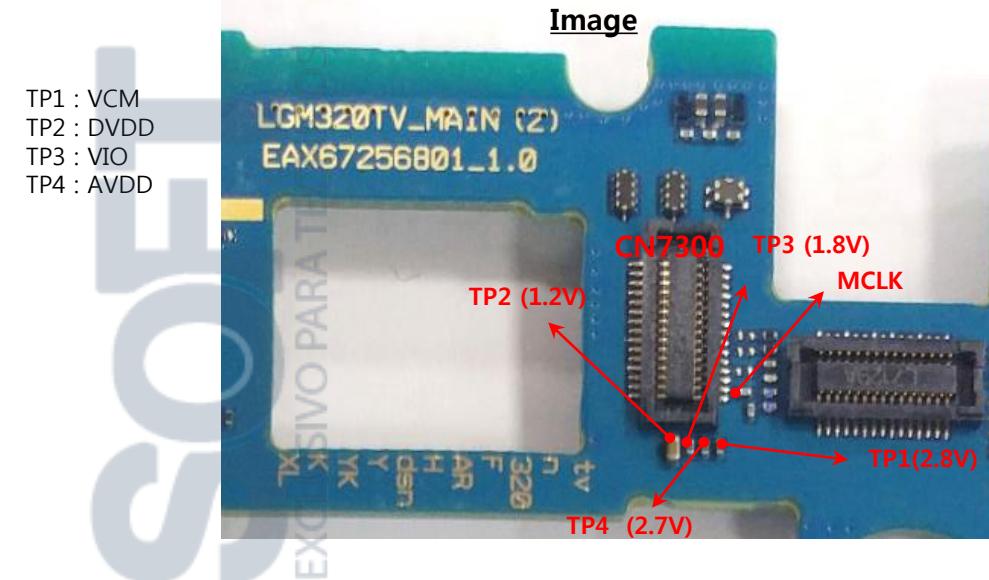
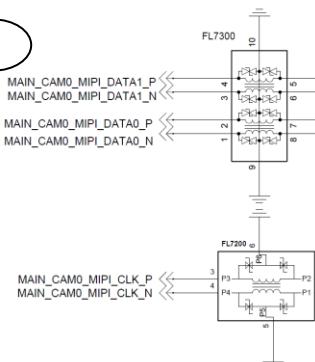
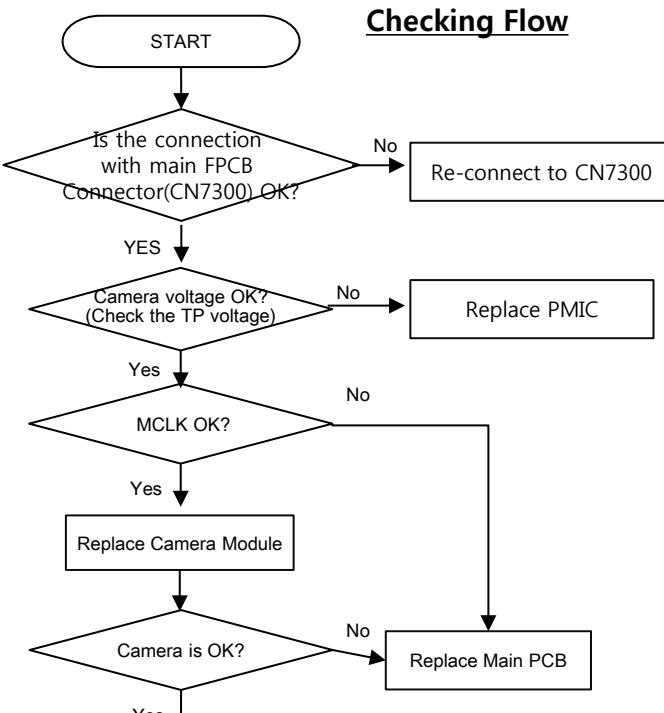
LCD Information	
Maker	TOVIS
Driver IC	TD4100
Connector	ENBY0035901



3. TROUBLE SHOOTING

3.13.1 13M Rear camera

When 13M Rear Camera doesn't work, check CN7304 and TP Voltage.

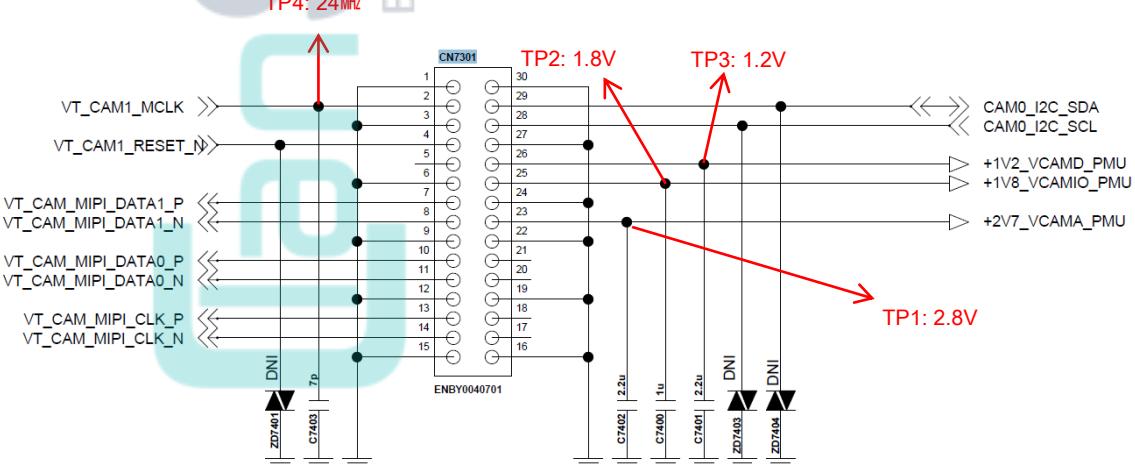
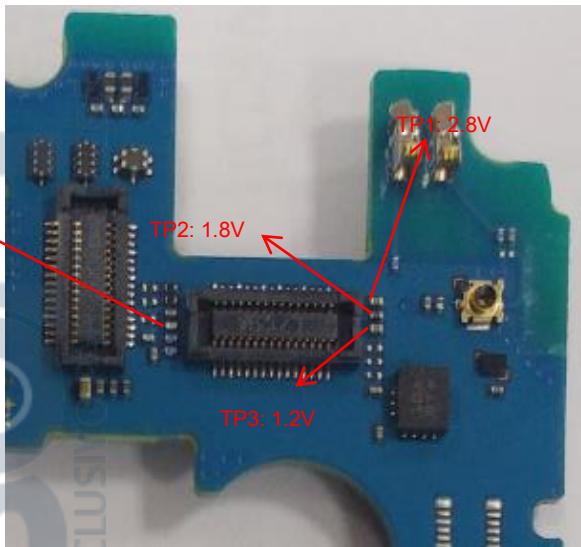
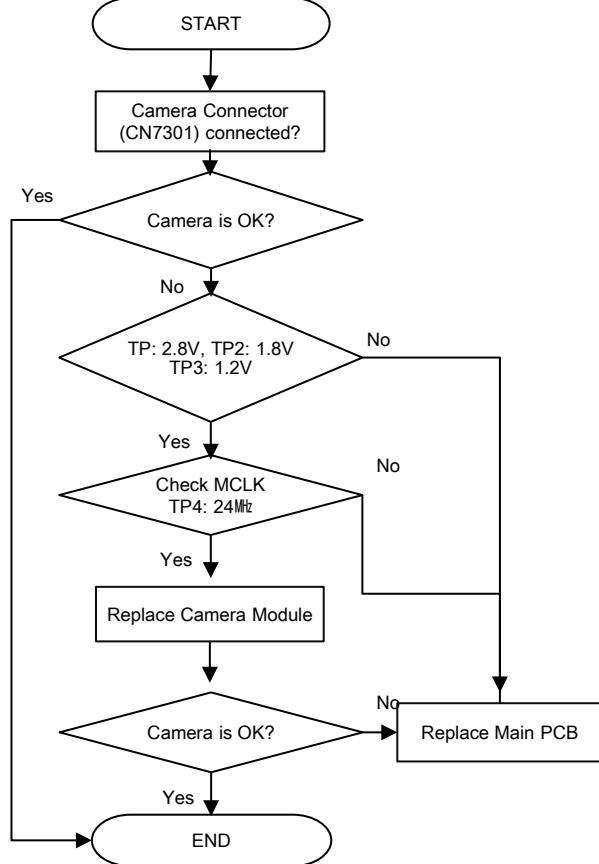


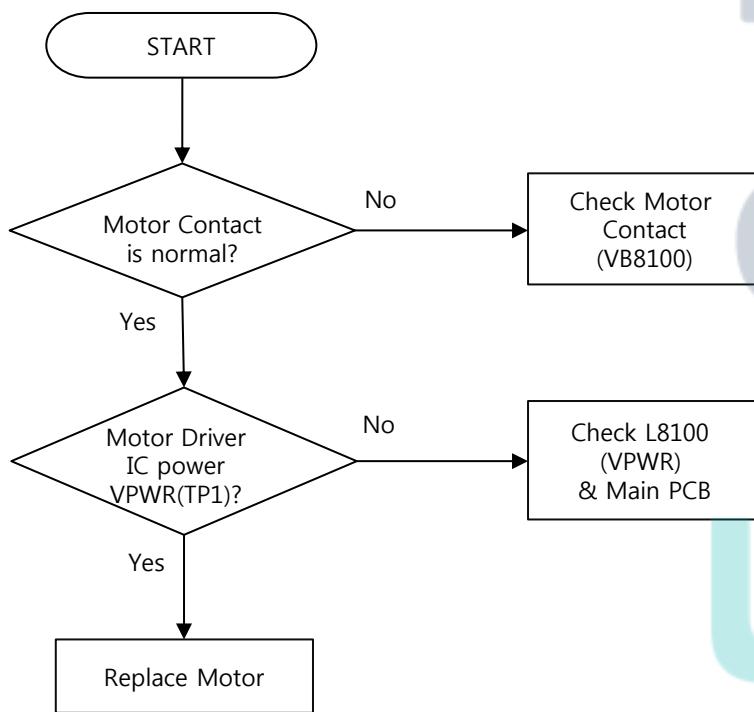
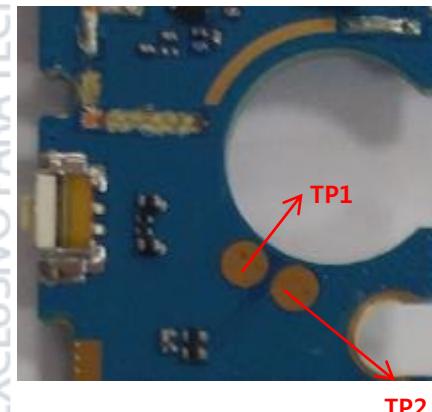
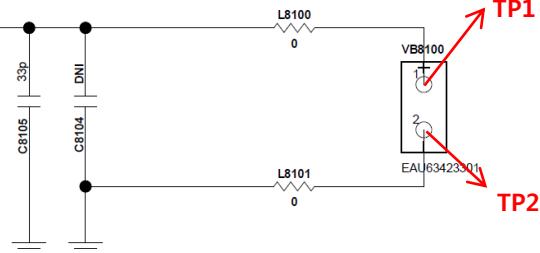
3. TROUBLE SHOOTING

3.13.2 5M Front camera

When 5M Front camera is not working, check CN7301 and TP Voltage.

Checking Flow



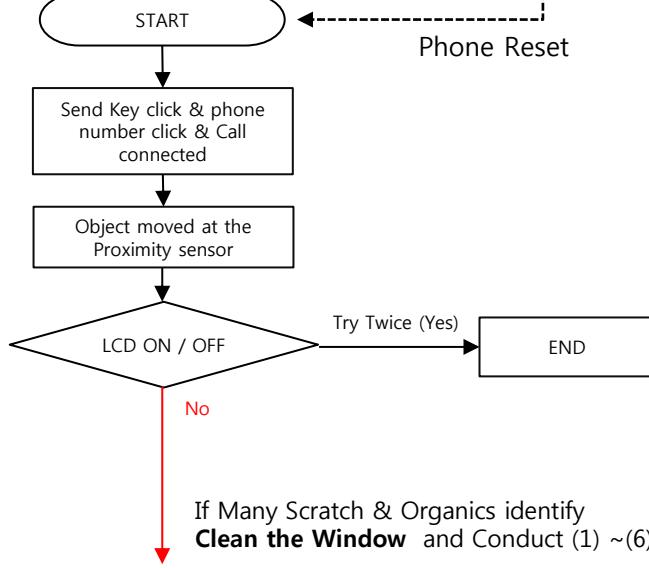
Motor is not workingChecking FlowImageCircuit Diagram

3. TROUBLE SHOOTING

3.15.1 Sensor – Proximity(case1)

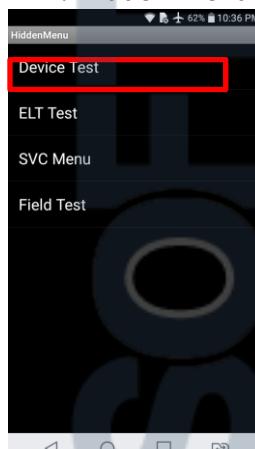
When LCD ON/OFF is not working automatically check proximity sensor.

Checking Flow



EXCLUSIVO PARA TECNICOS

1. Hidden Menu Start



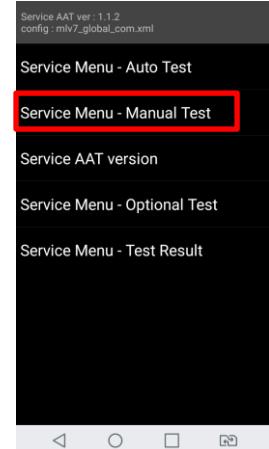
- Start shortcut key : *#546368#*320#
- Hidden Menu List : Choose Device Test

2. Device Test : SAAT choose

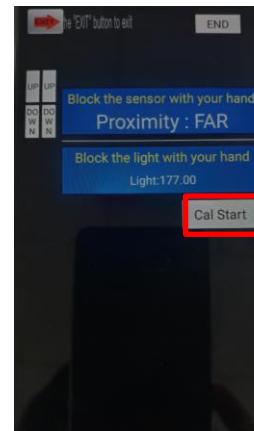
Service Menu Tests



3. Device Test : Service Menu Manual Test



4. Service Menu : Key Press Test



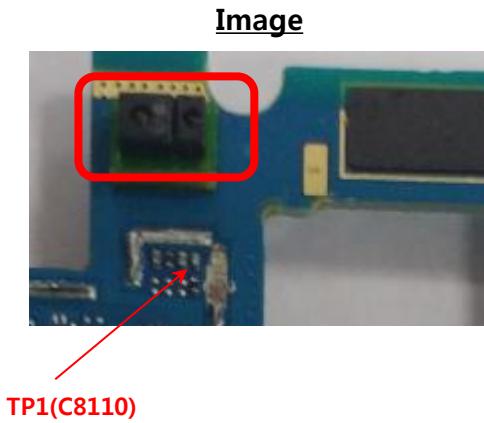
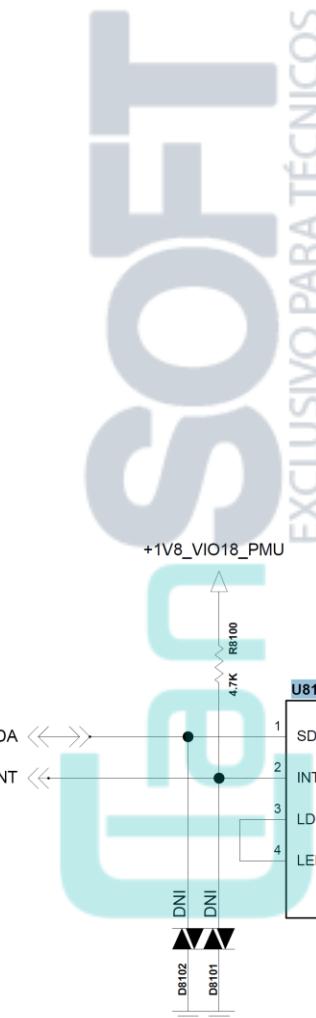
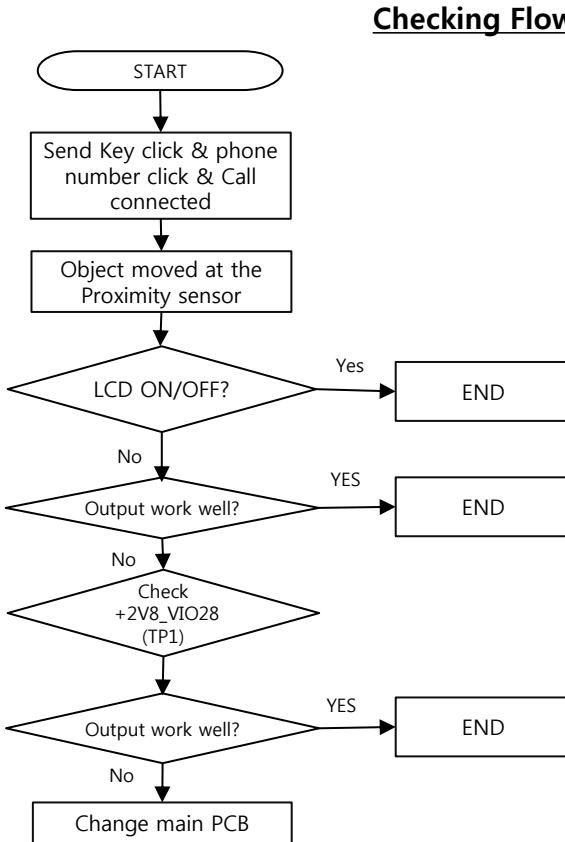
6. After Calibration – Progress, Attach your Finger the Proximity Operation Near ← → Far Check!

5. Choose : Calibration start

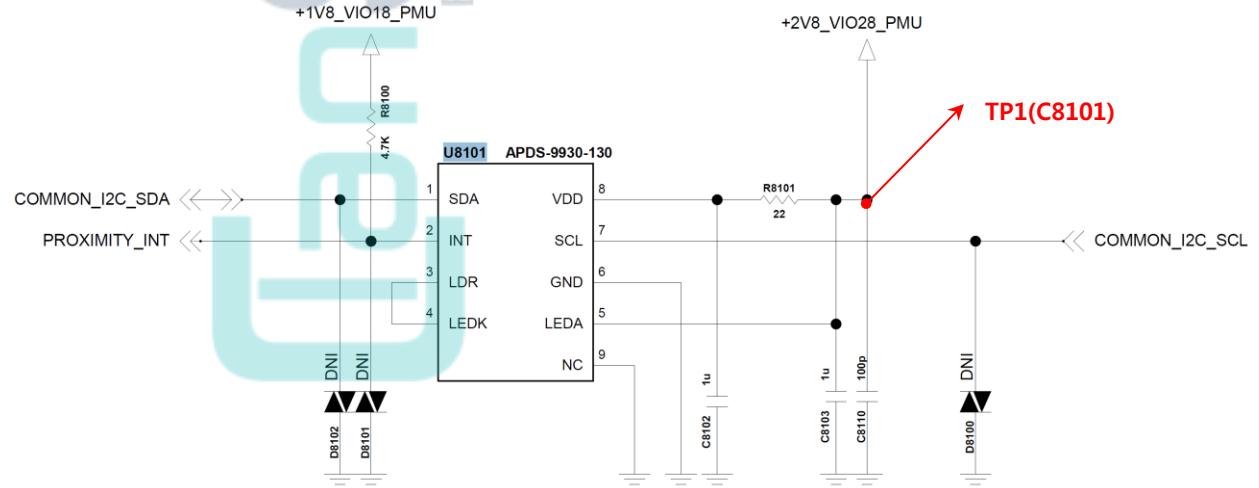
3. TROUBLE SHOOTING

3.15.1 Sensor – Proximity(case2)

When LCD ON/OFF is not working automatically check proximity sensor.



Circuit Diagram

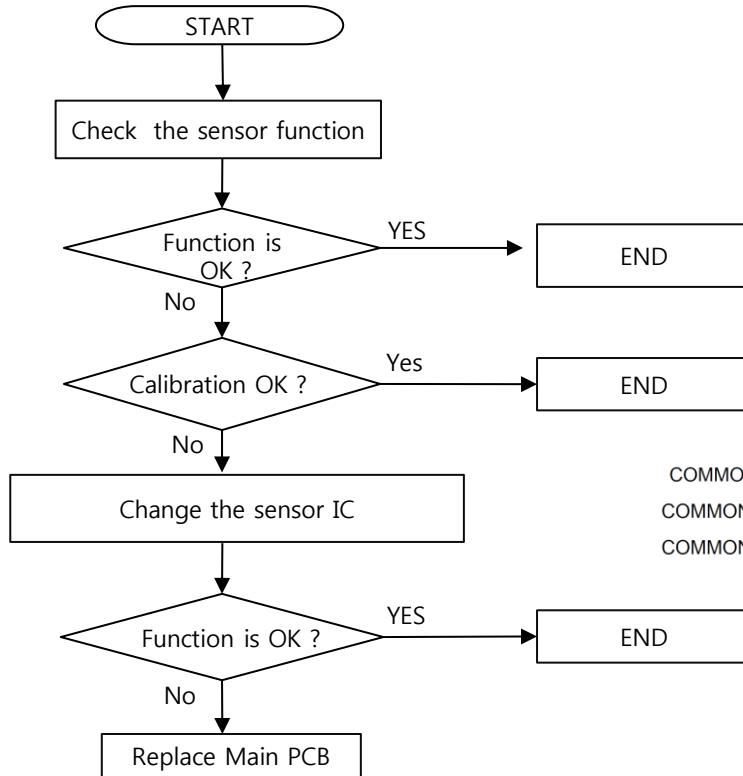


3. TROUBLE SHOOTING

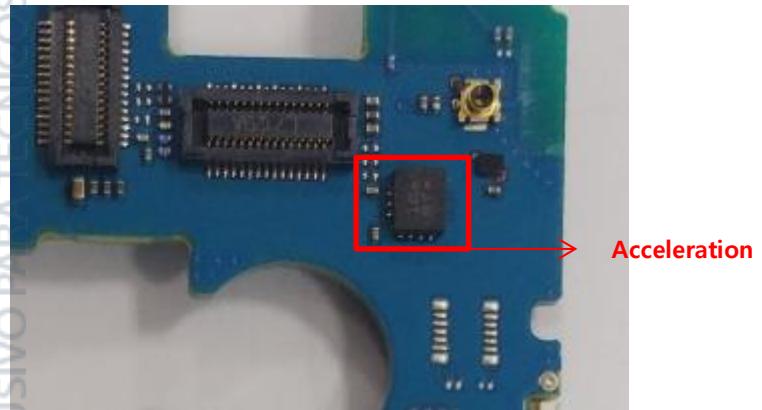
3.15.2 Sensor – acceleration

The Accl. is calibrated by using SW algorithm.

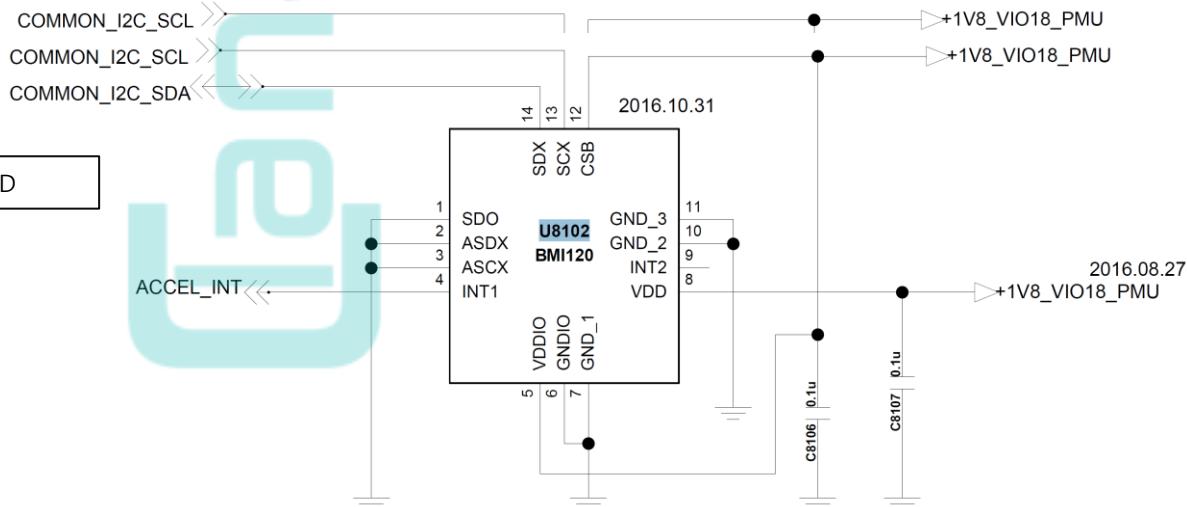
Checking Flow



Image



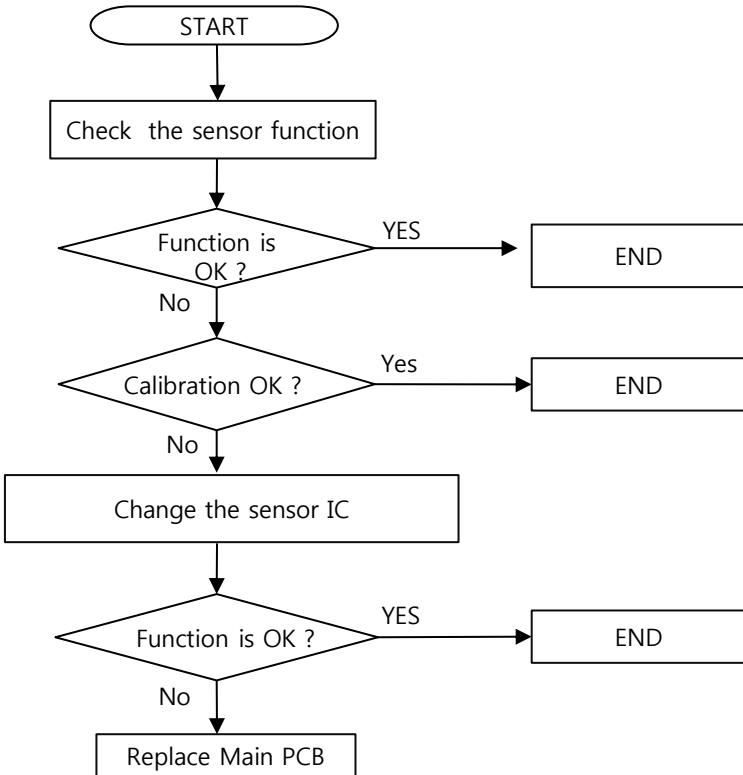
Circuit Diagram



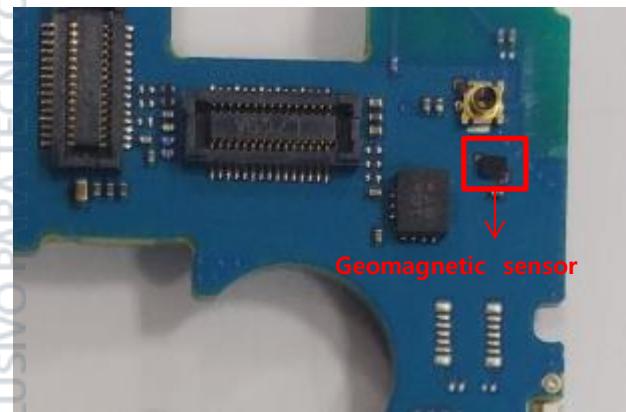
3. TROUBLE SHOOTING

3.15.3 Sensor – Geomagnetic

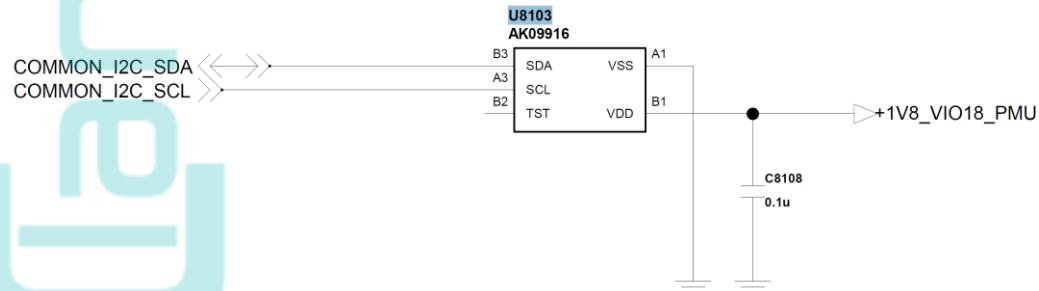
Checking Flow



Image

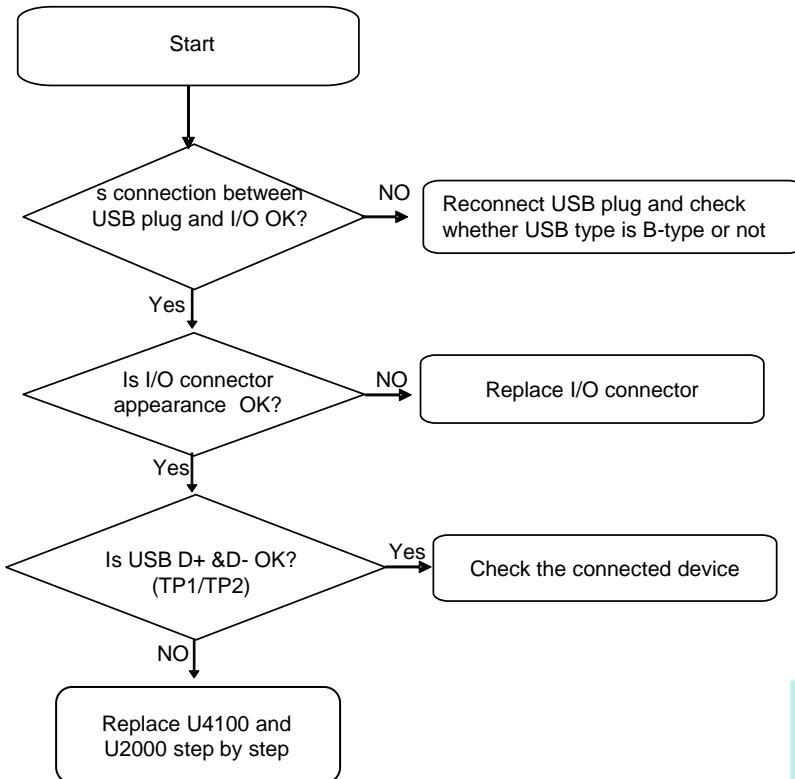


Circuit Diagram

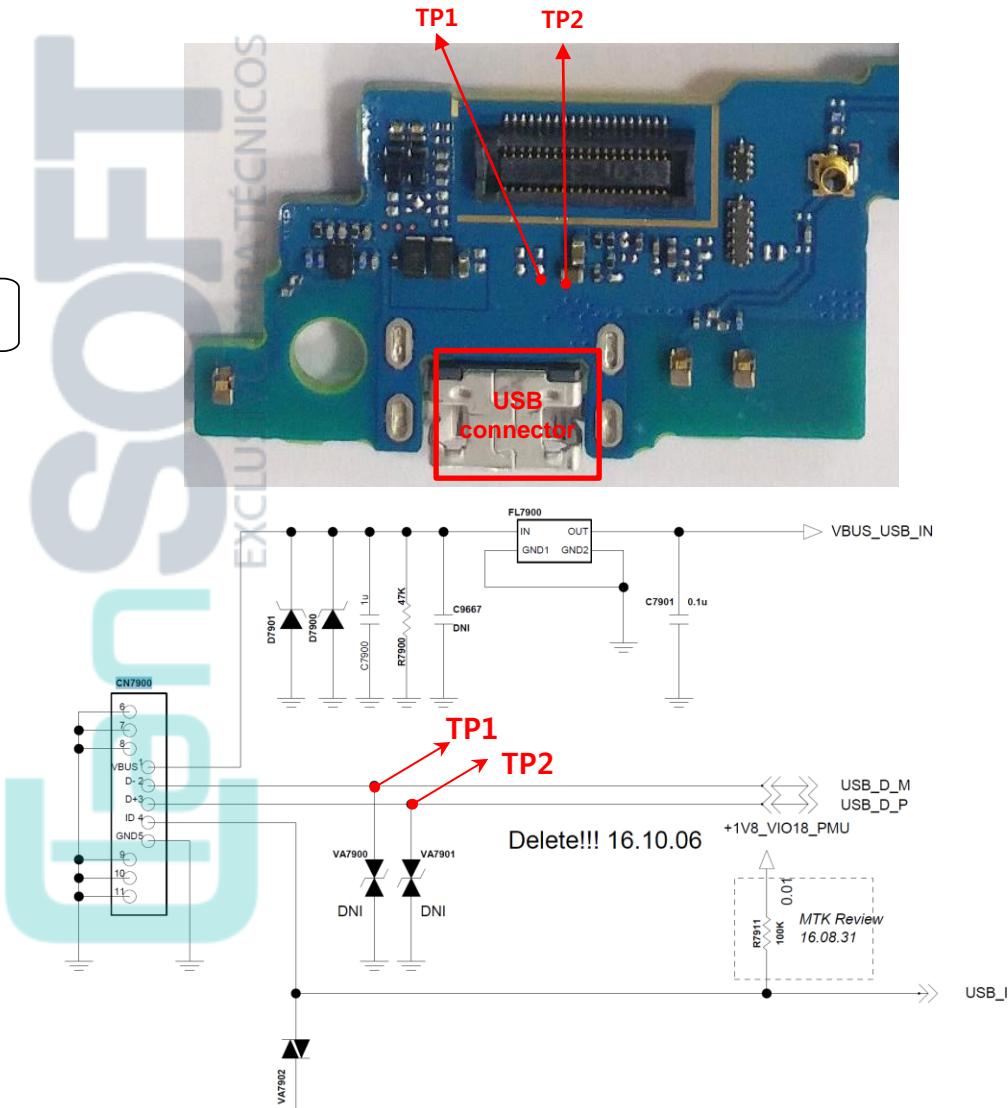


I/O USB connector is for data transportation and charging battery. (Please refer to charge page about charging)

Checking Flow

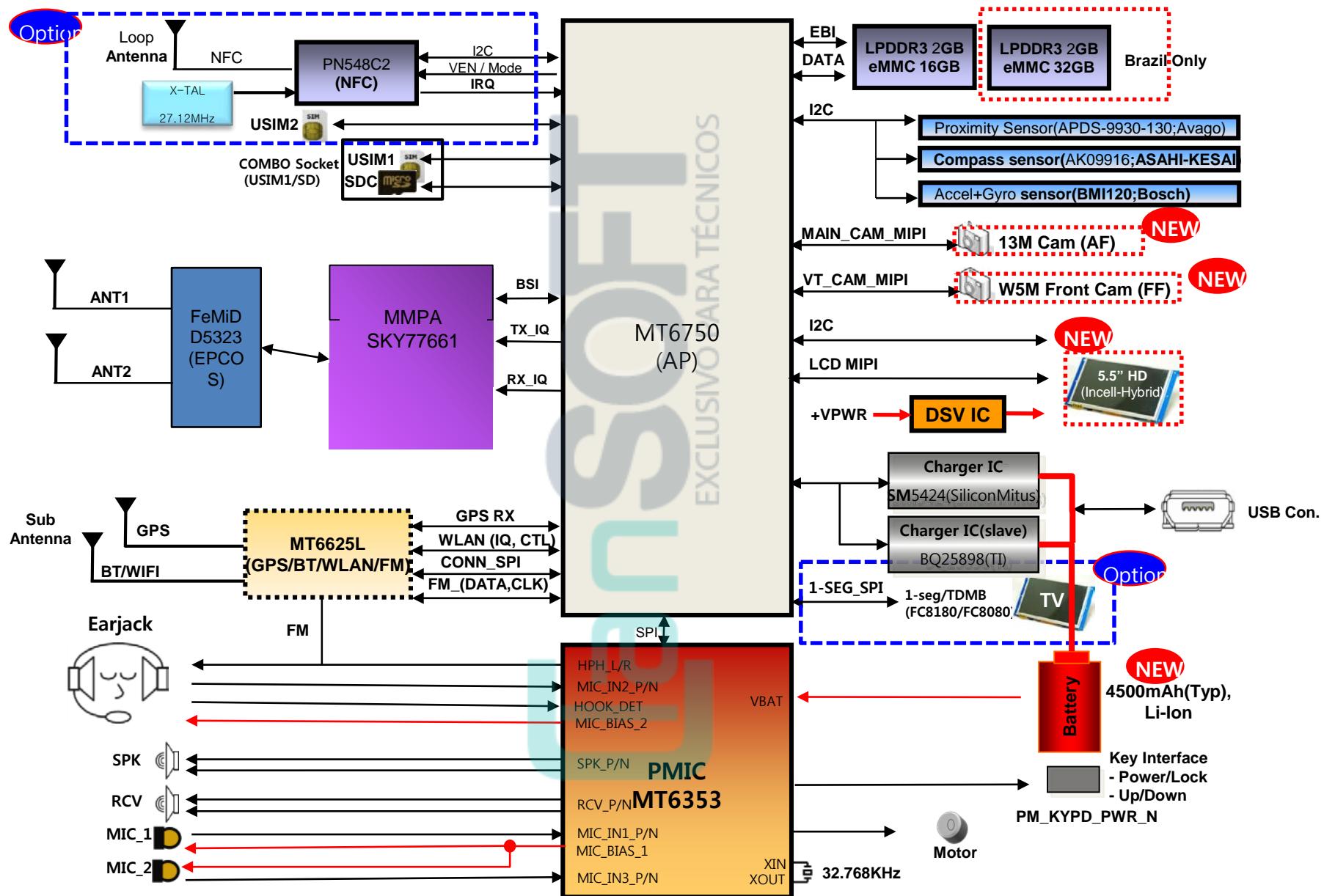


Image



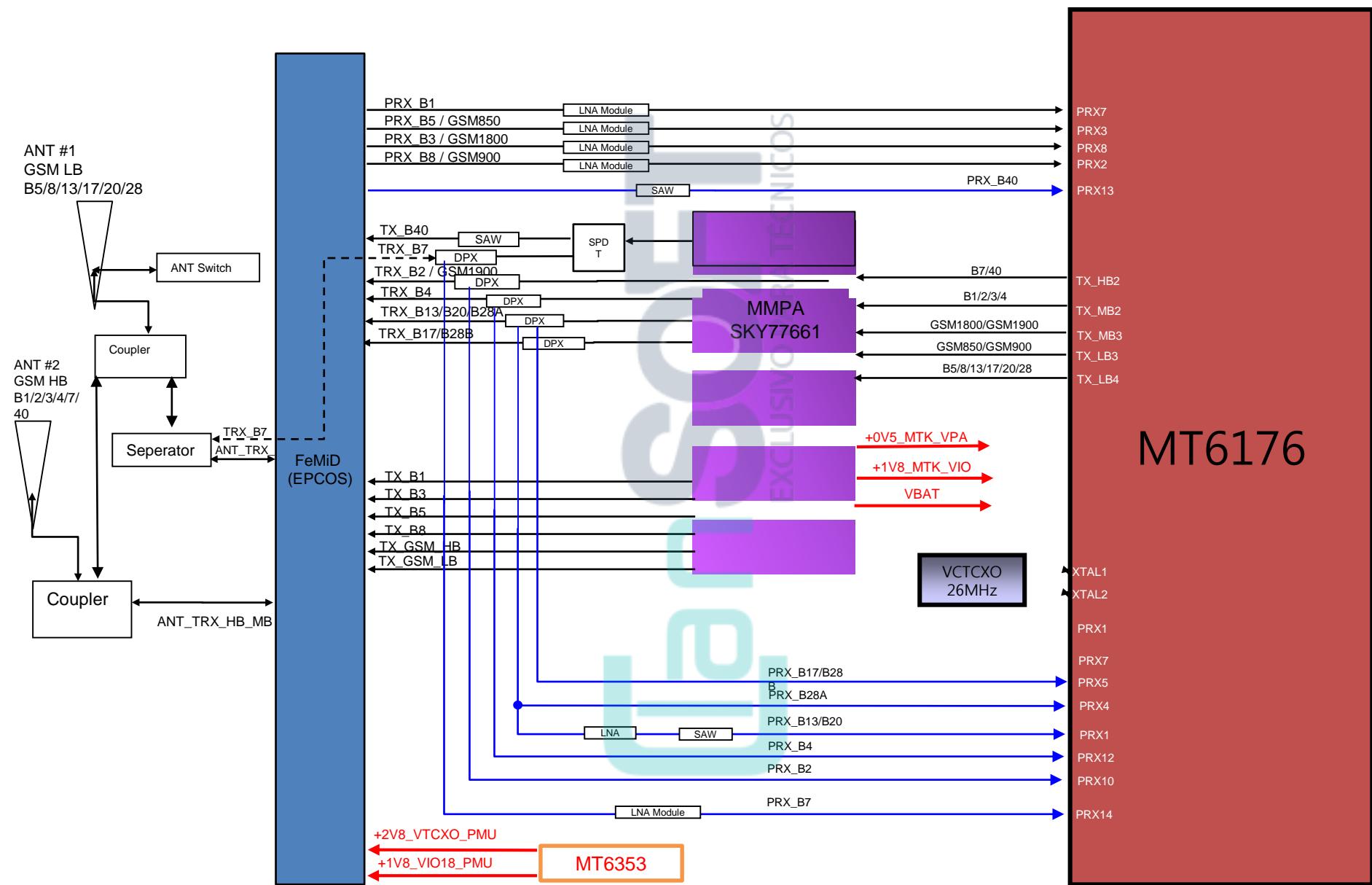
4. Block Diagram

4-1 Total



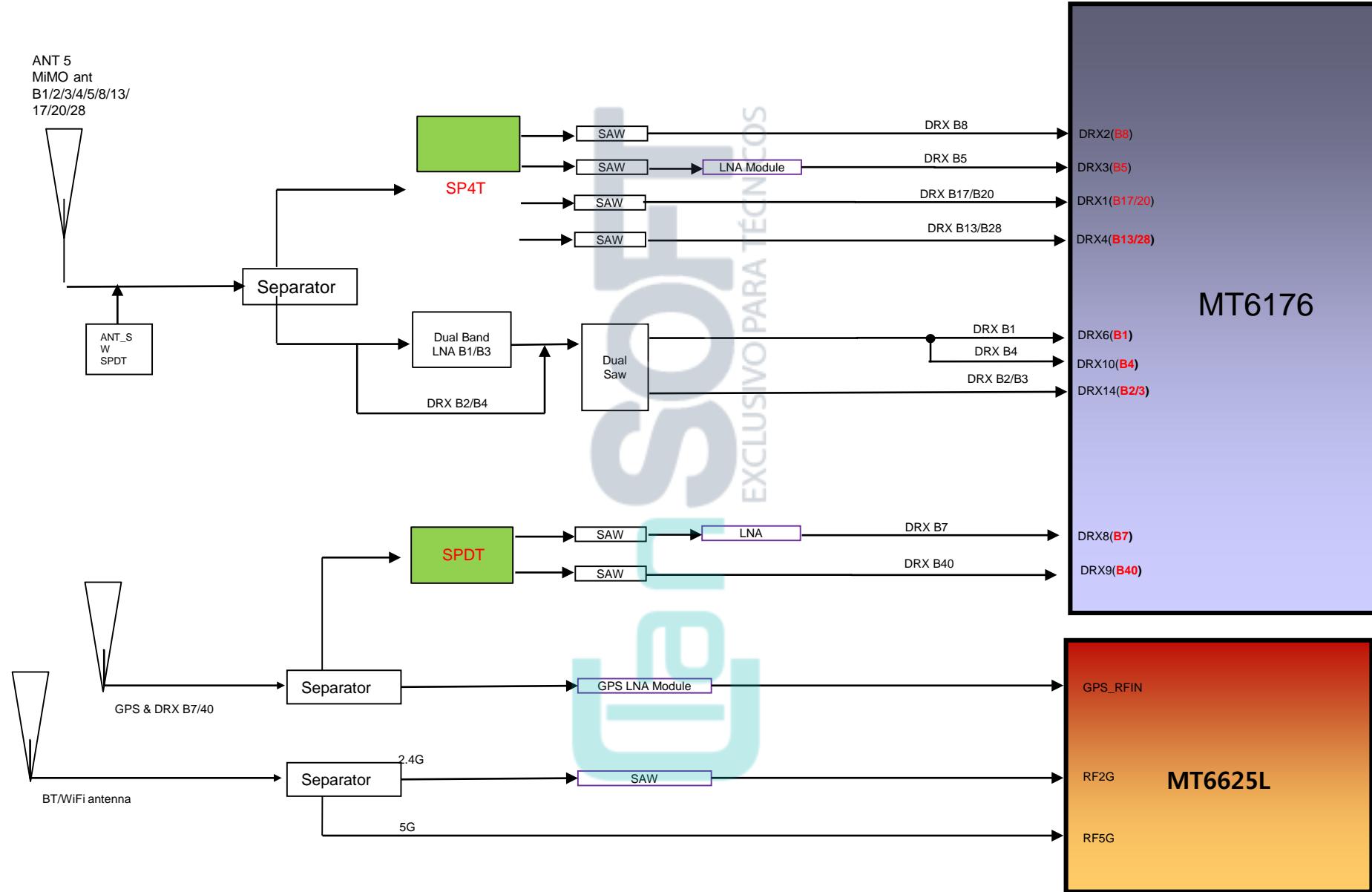
4. Block Diagram

4-2 RF part



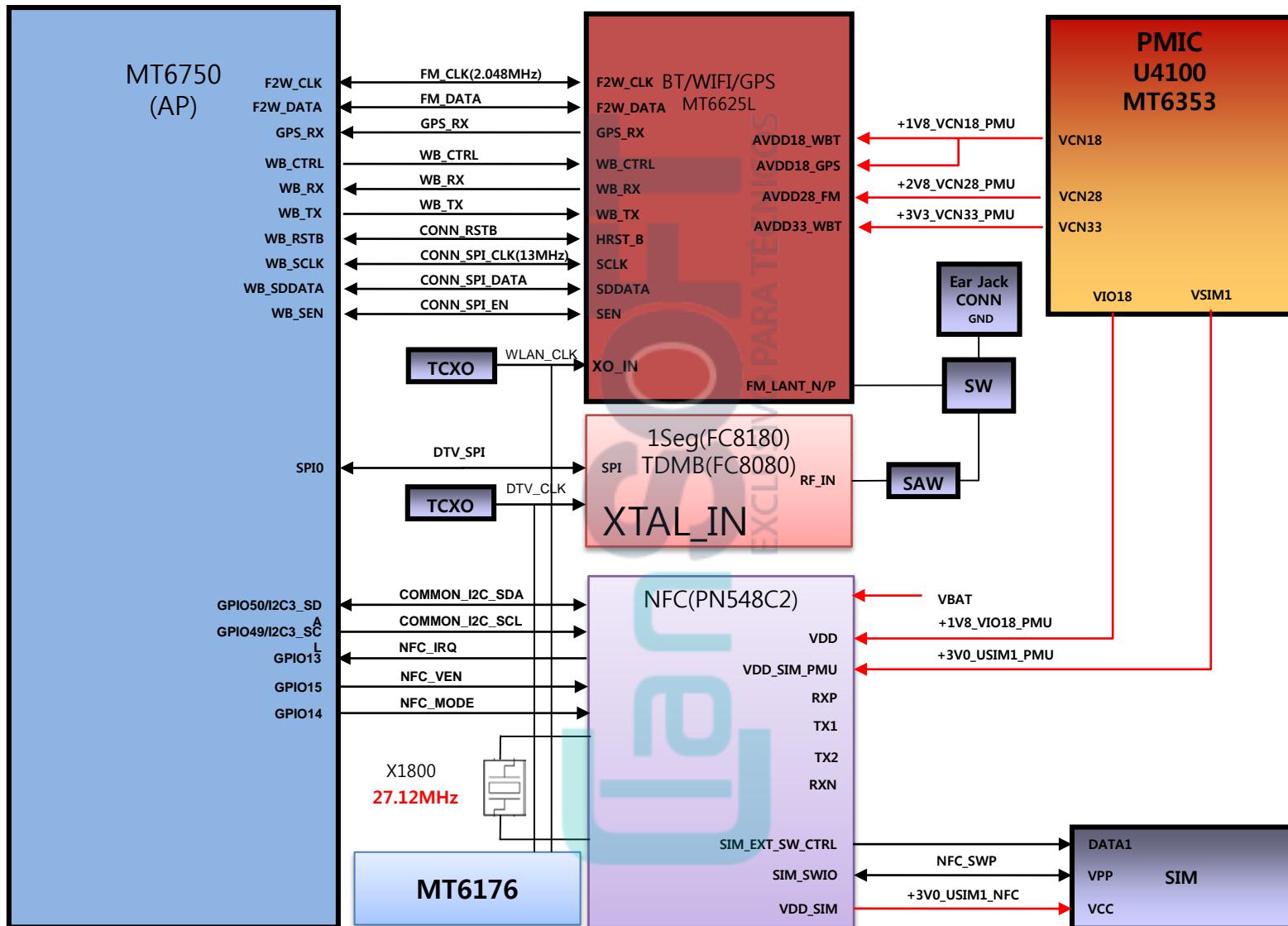
4. Block Diagram

4-2 RF Part : DRX&GPS, BT, WiFi



4. Block Diagram

4-3 Connectivity Part : FM, DTV

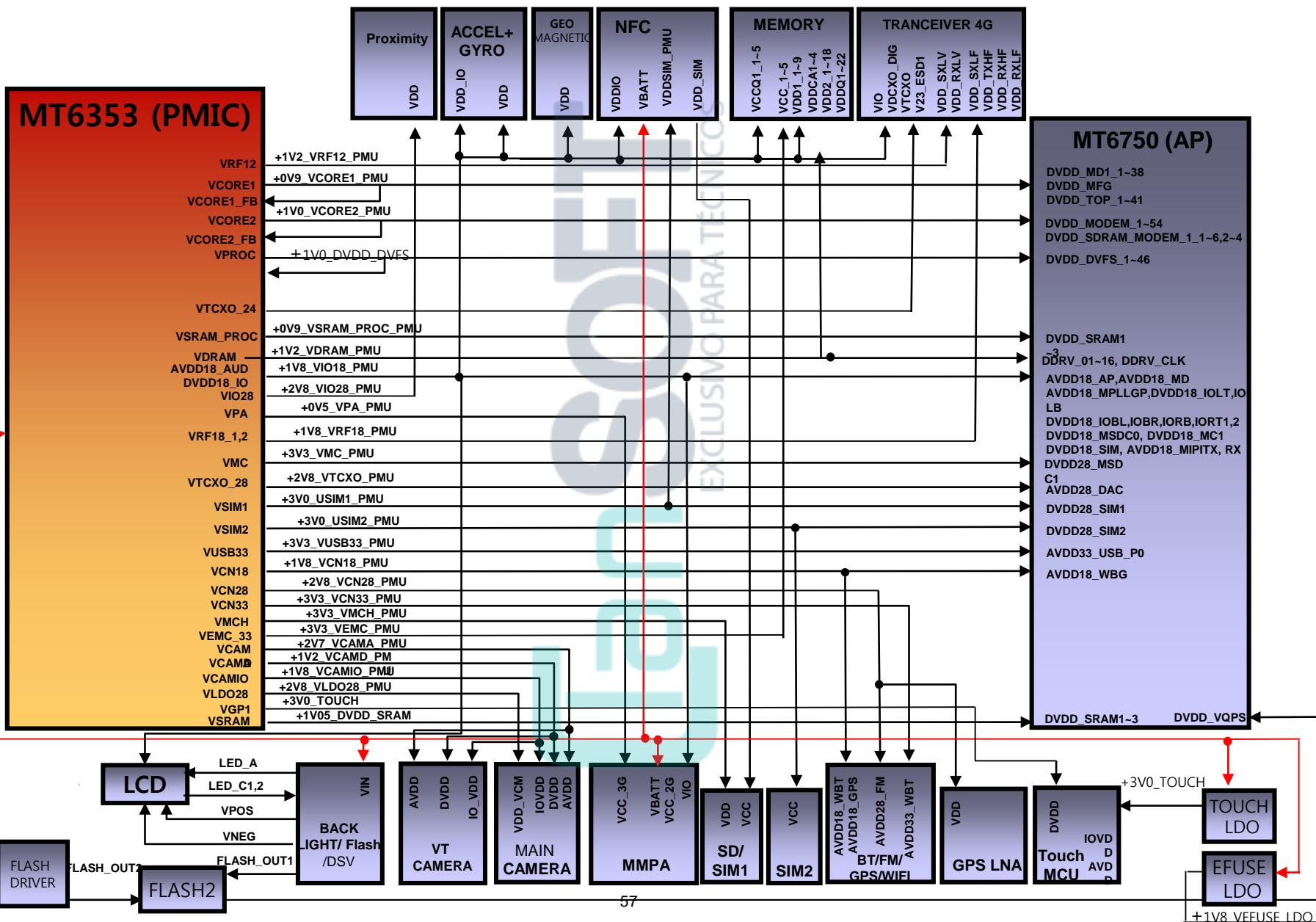


4. Block Diagram

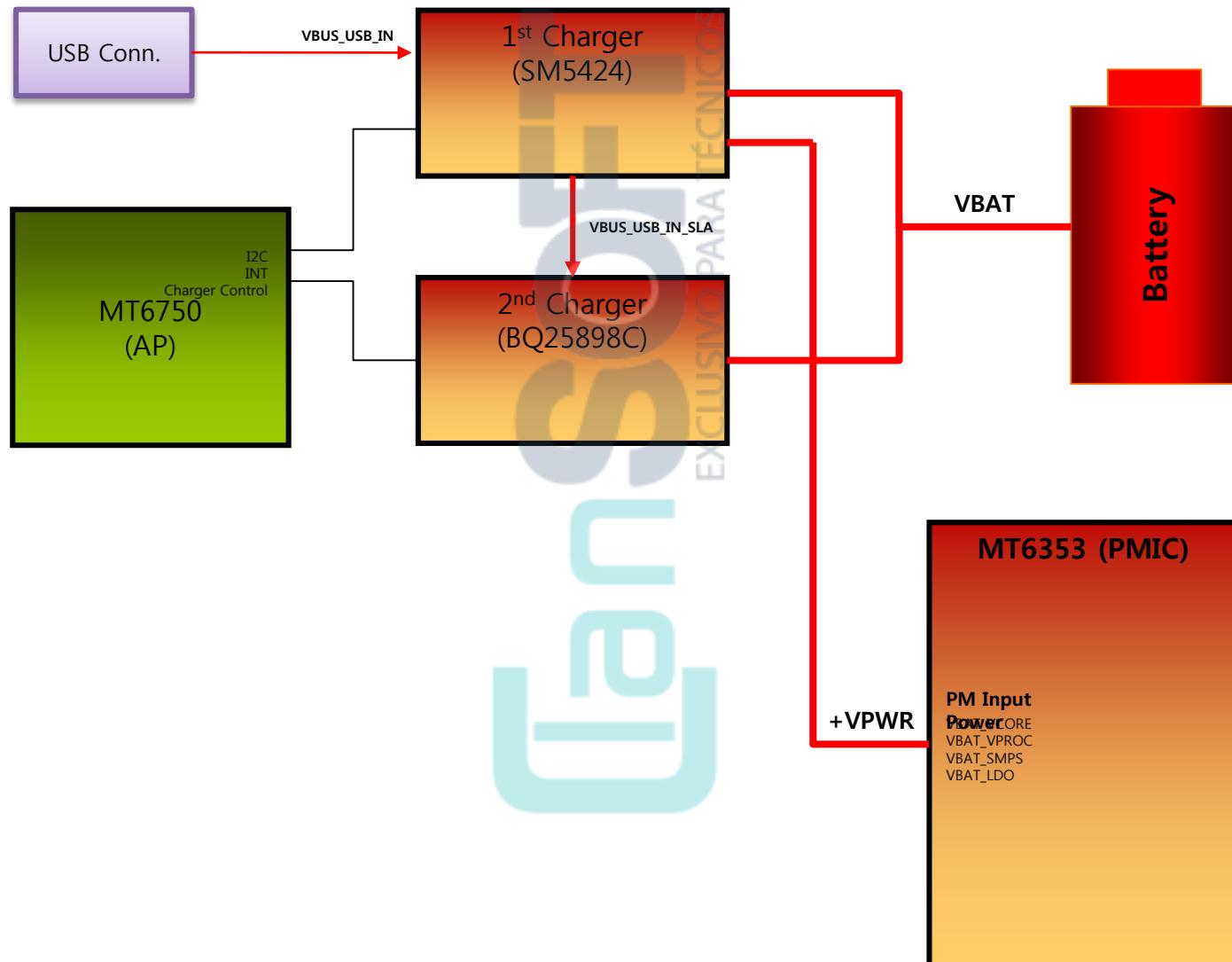
LGE Internal Use Only



4-4 Power Part

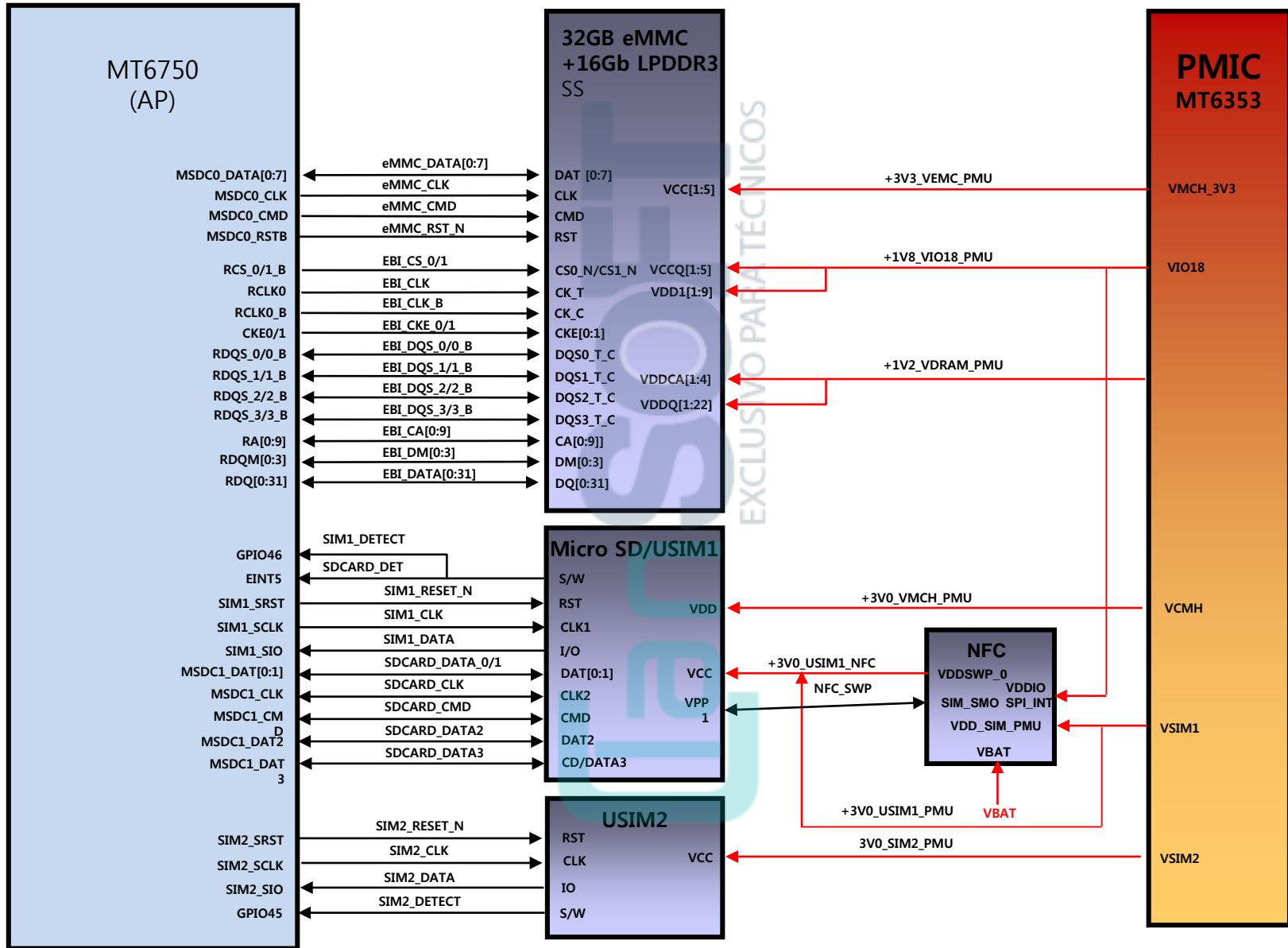


4-4 Power Part: Charging



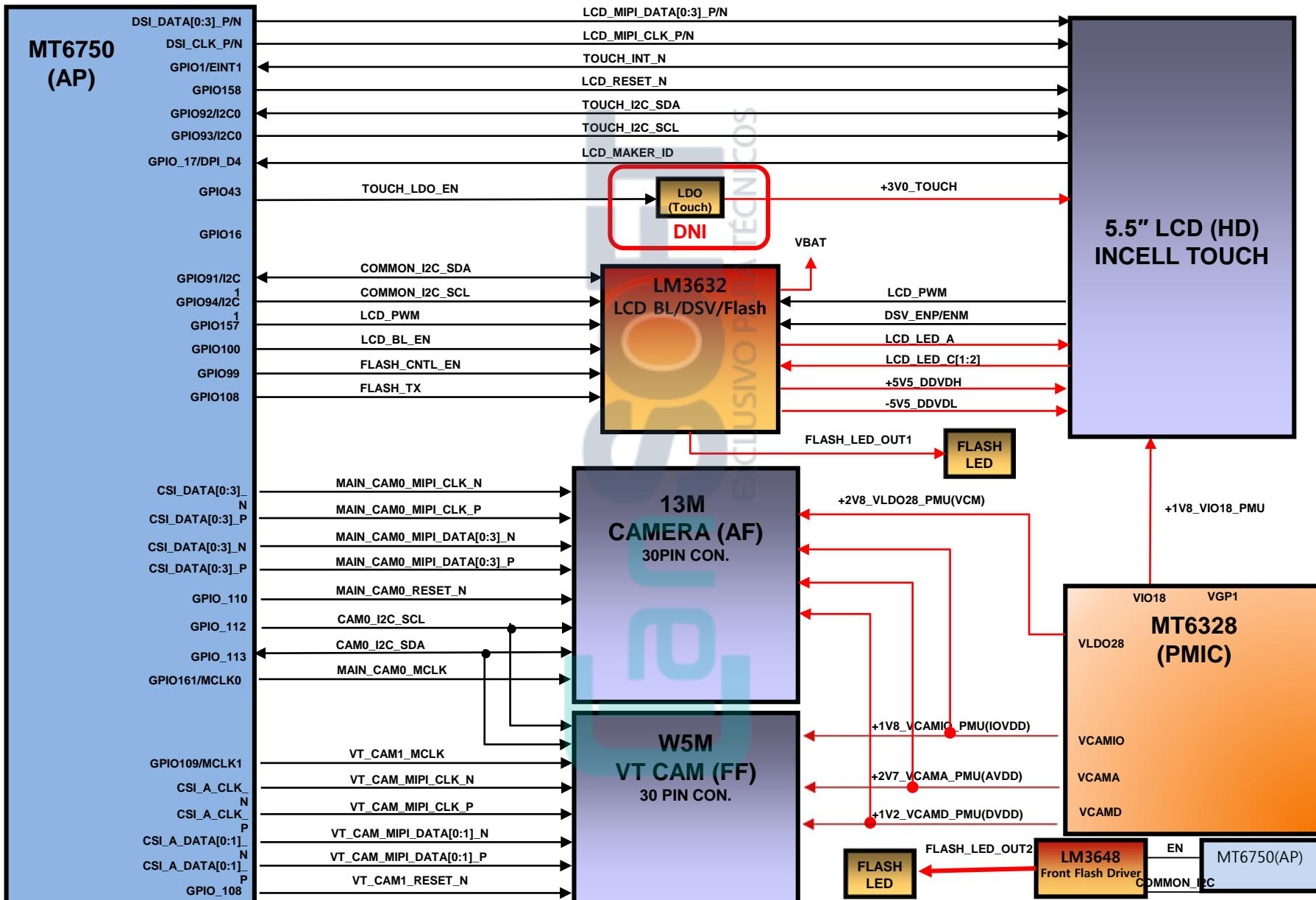
4. Block Diagram

4-5 Memory / Micro SD / USIM1 & USIM2



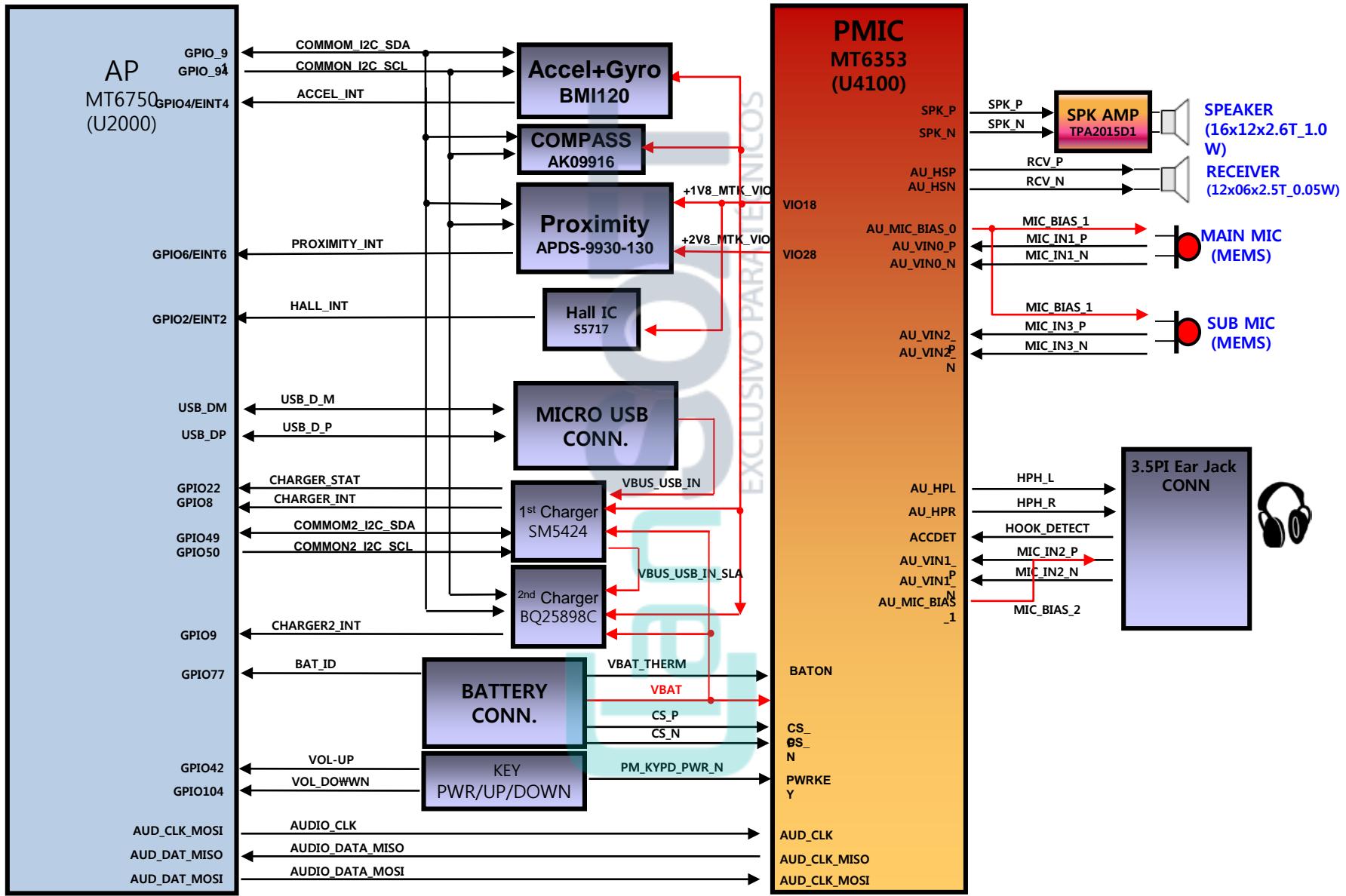
4. Block Diagram

4-6 LCD / Main CAM / VT CAM



4. Block Diagram

4-7 Audio

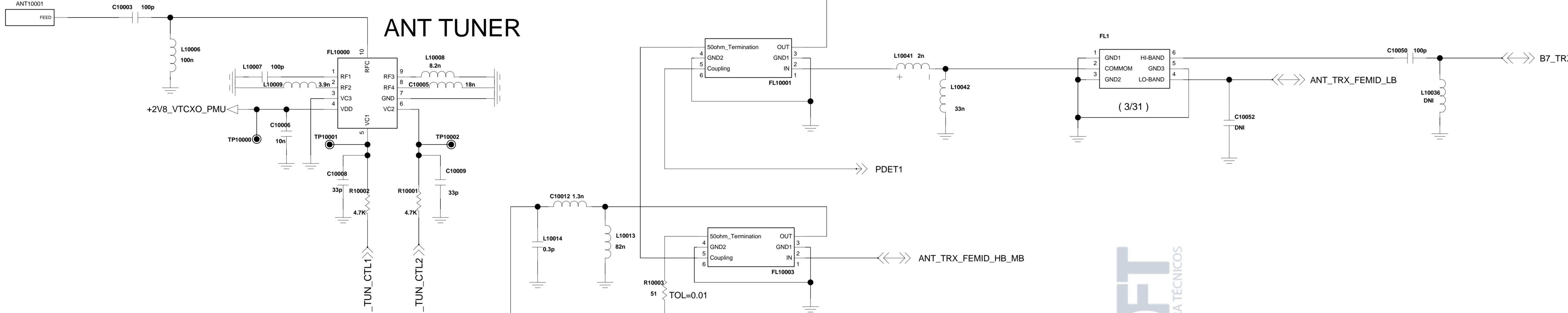
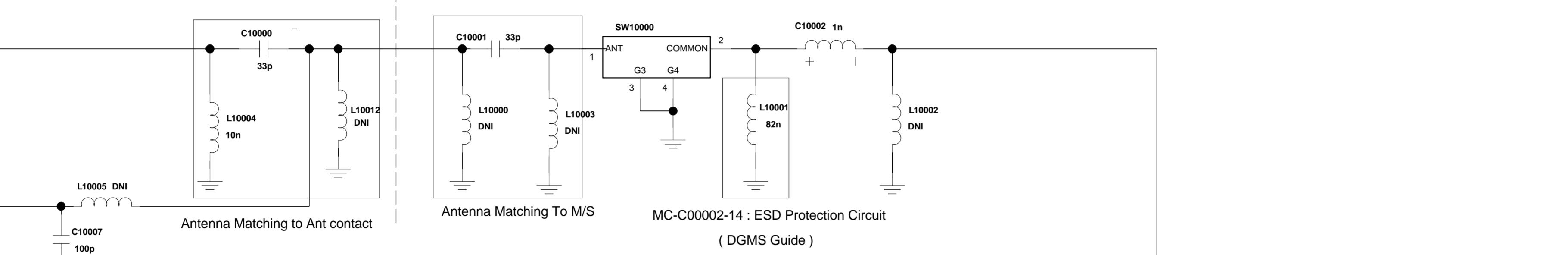


CIRCUIT DIAGRAM

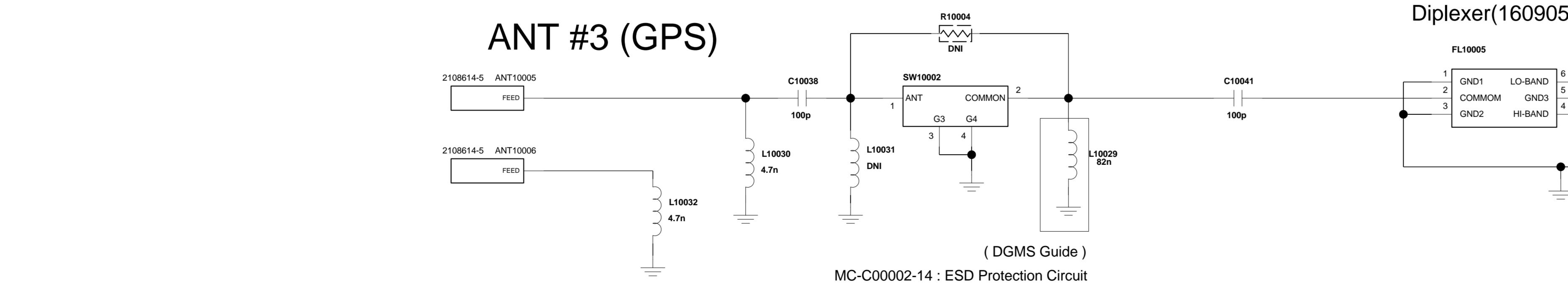
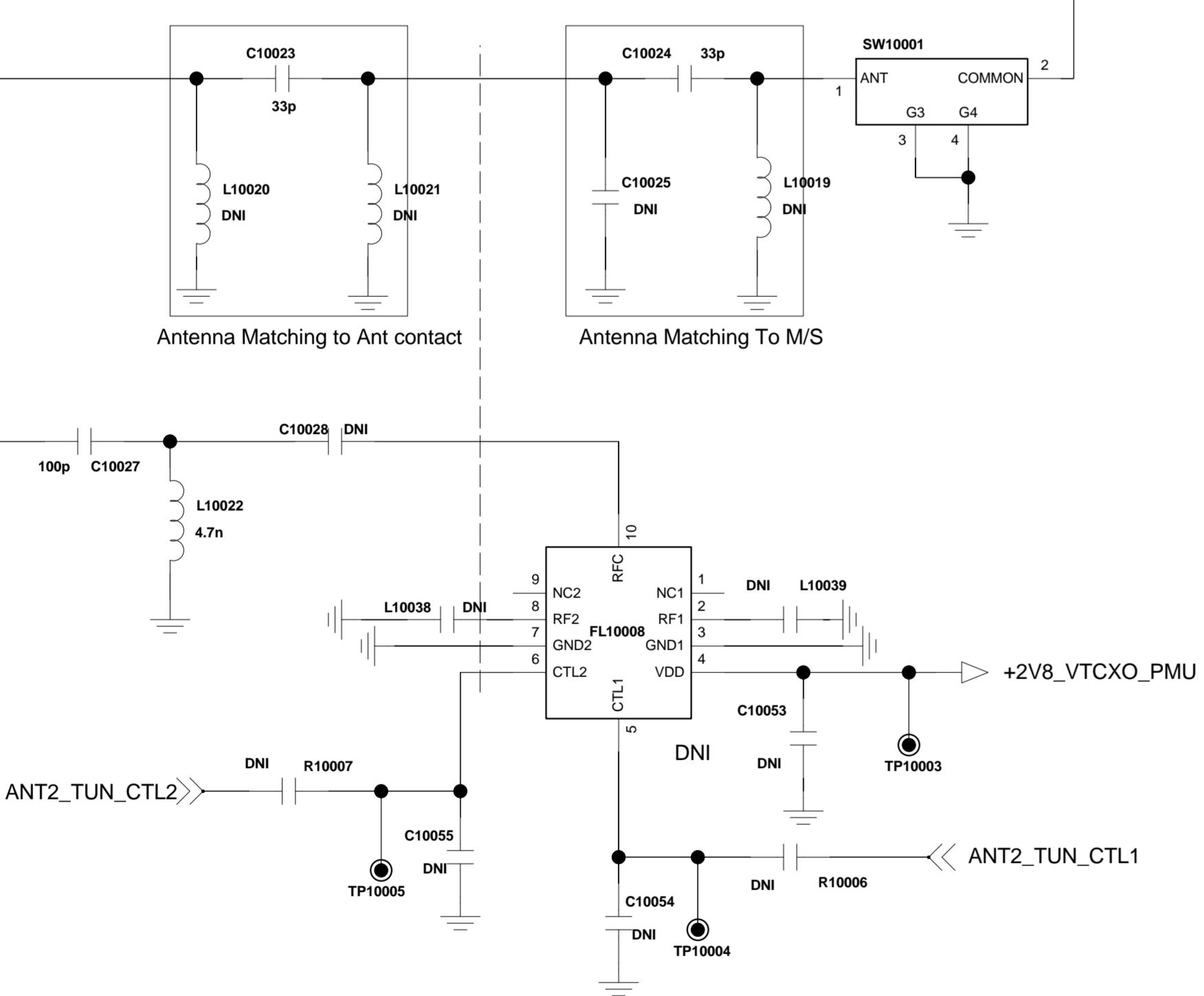


< 1-12-1-1-2_xx_ANT > RDK

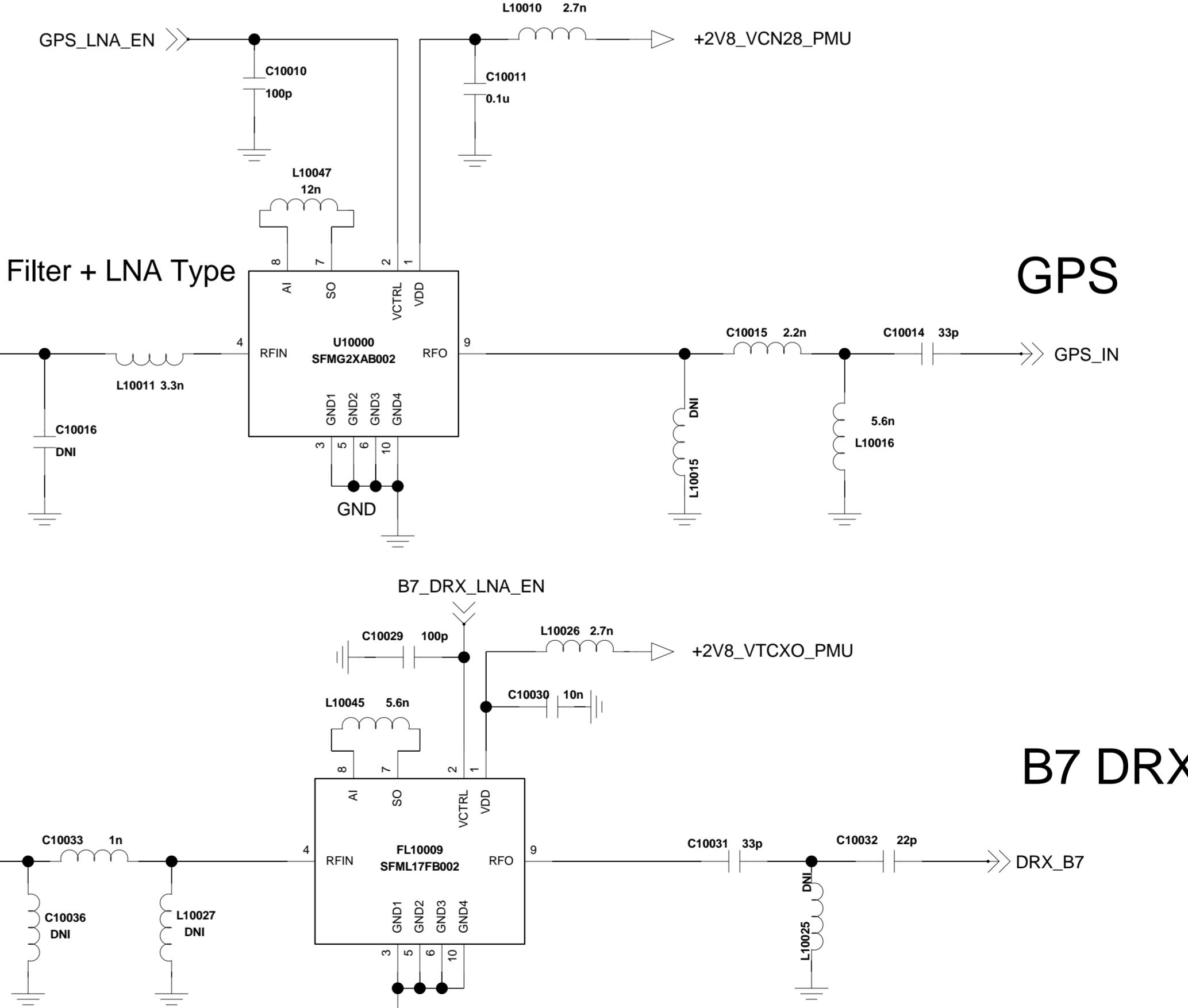
ANT #1 (GSM_LB, B5/B8/B13/B17/B20/B28/B7)



ANT #2 (GSM_HB, B1/B2/B3/B4/B40)

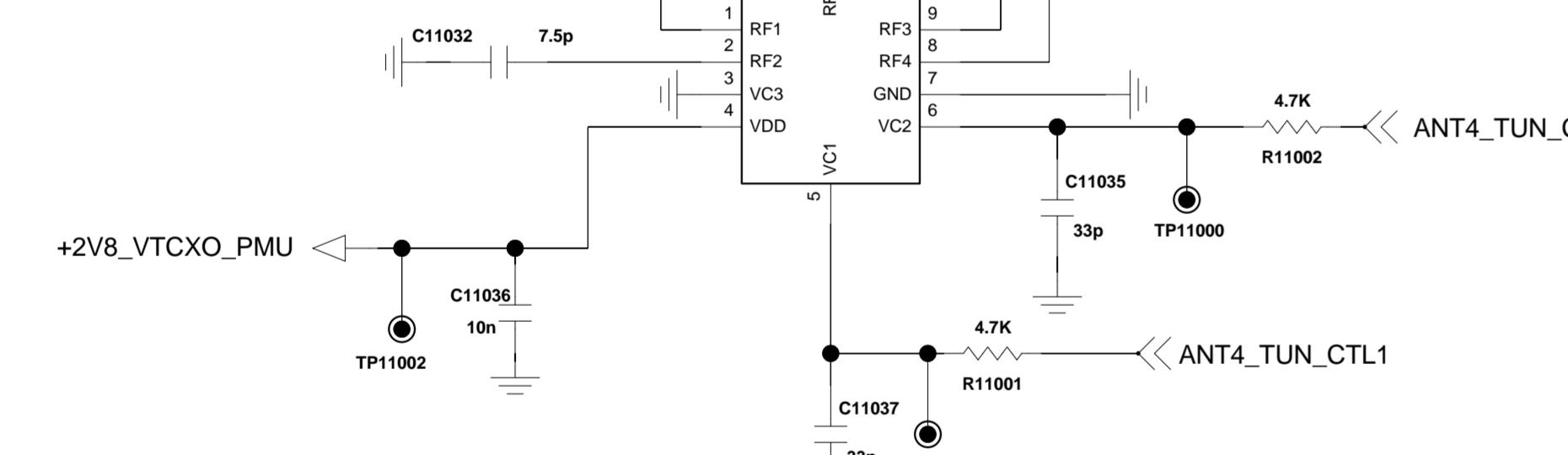
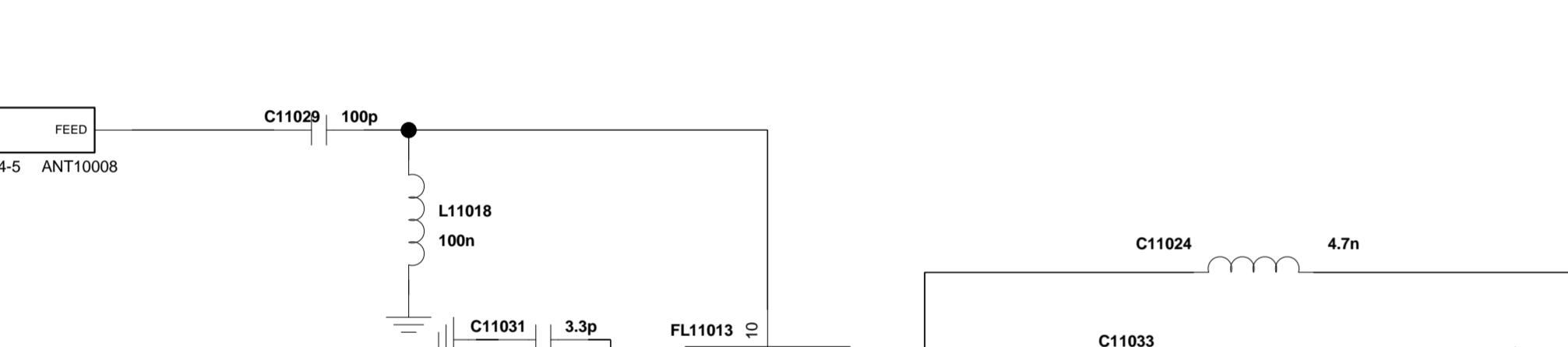
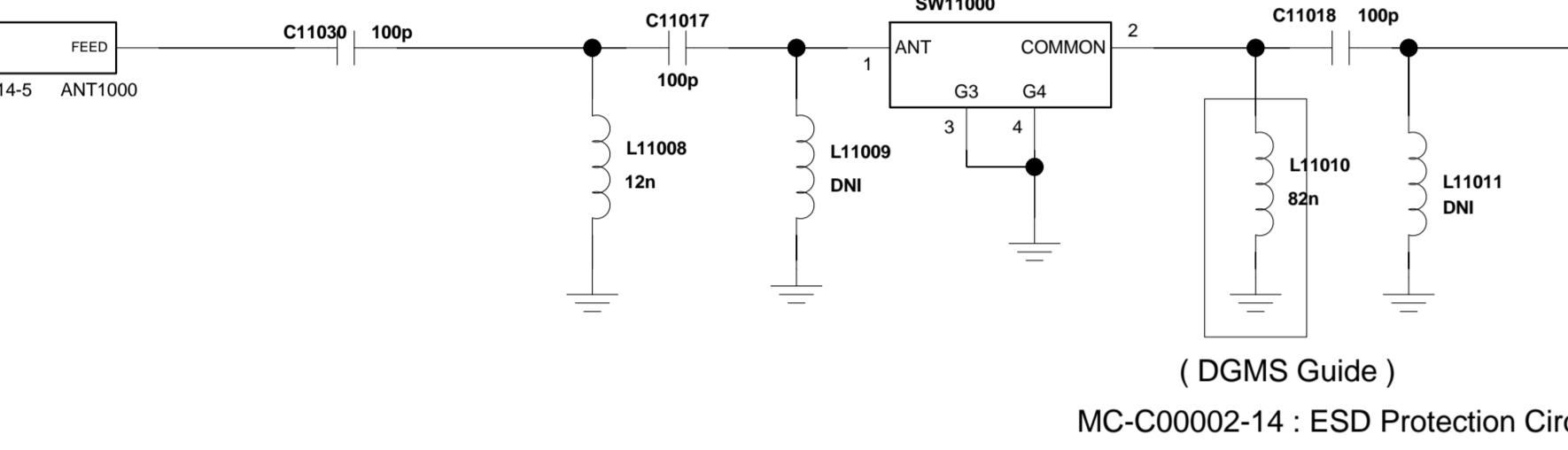


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DRX B40 move from ANT #3 to ANT #4

ANT #4 (B1/2/3/4/5/8/13/17/20/28 MIMO)



+2V8_VTCXO_PMU

ANT4_TUN_CTL1

ANT4_TUN_CTL2

C11036

TP11002

C11037

TP11001

C11038

C11039

C11040

C11041

C11042

C11043

C11044

C11045

C11046

C11047

C11048

C11049

C11050

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C111921

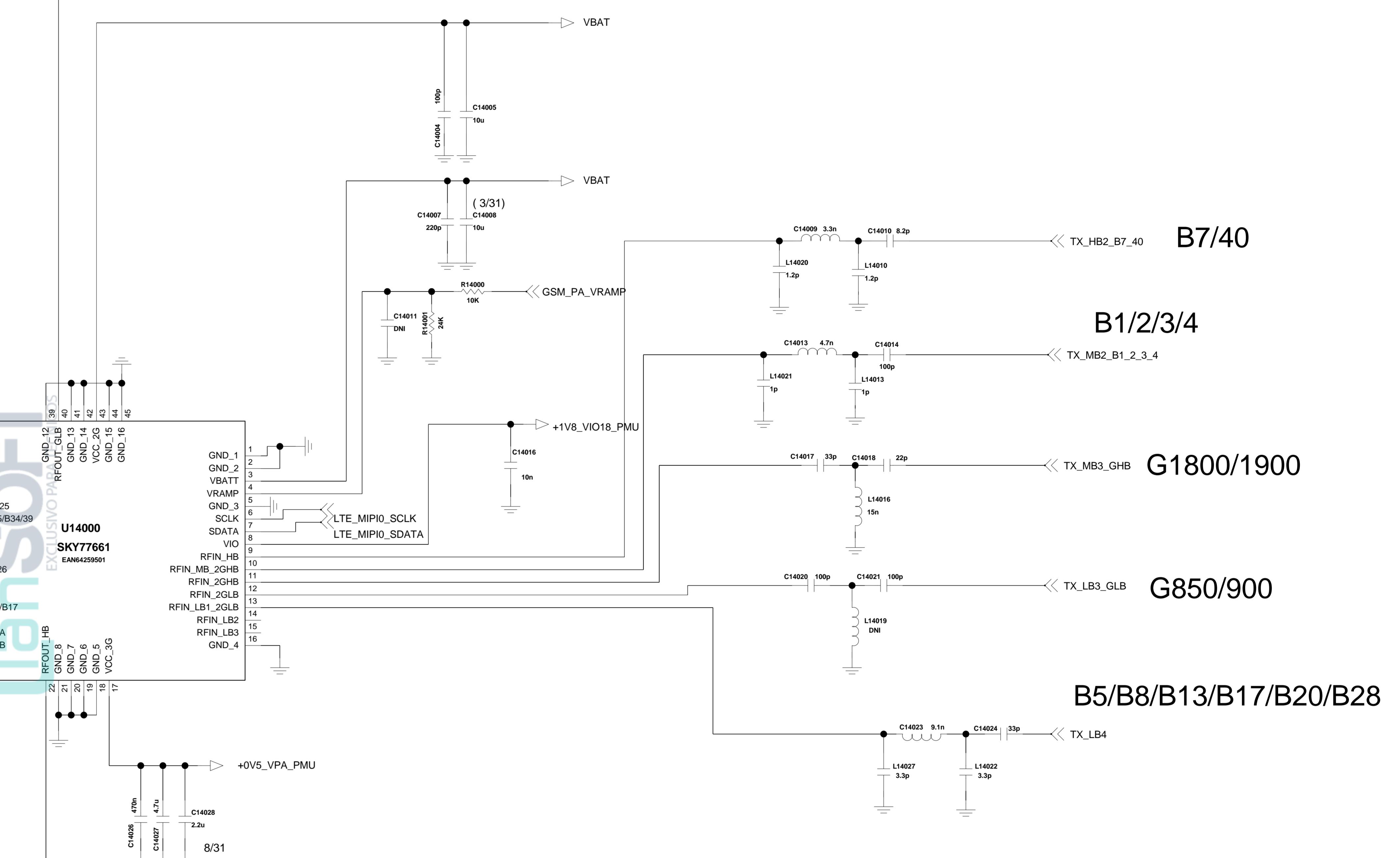
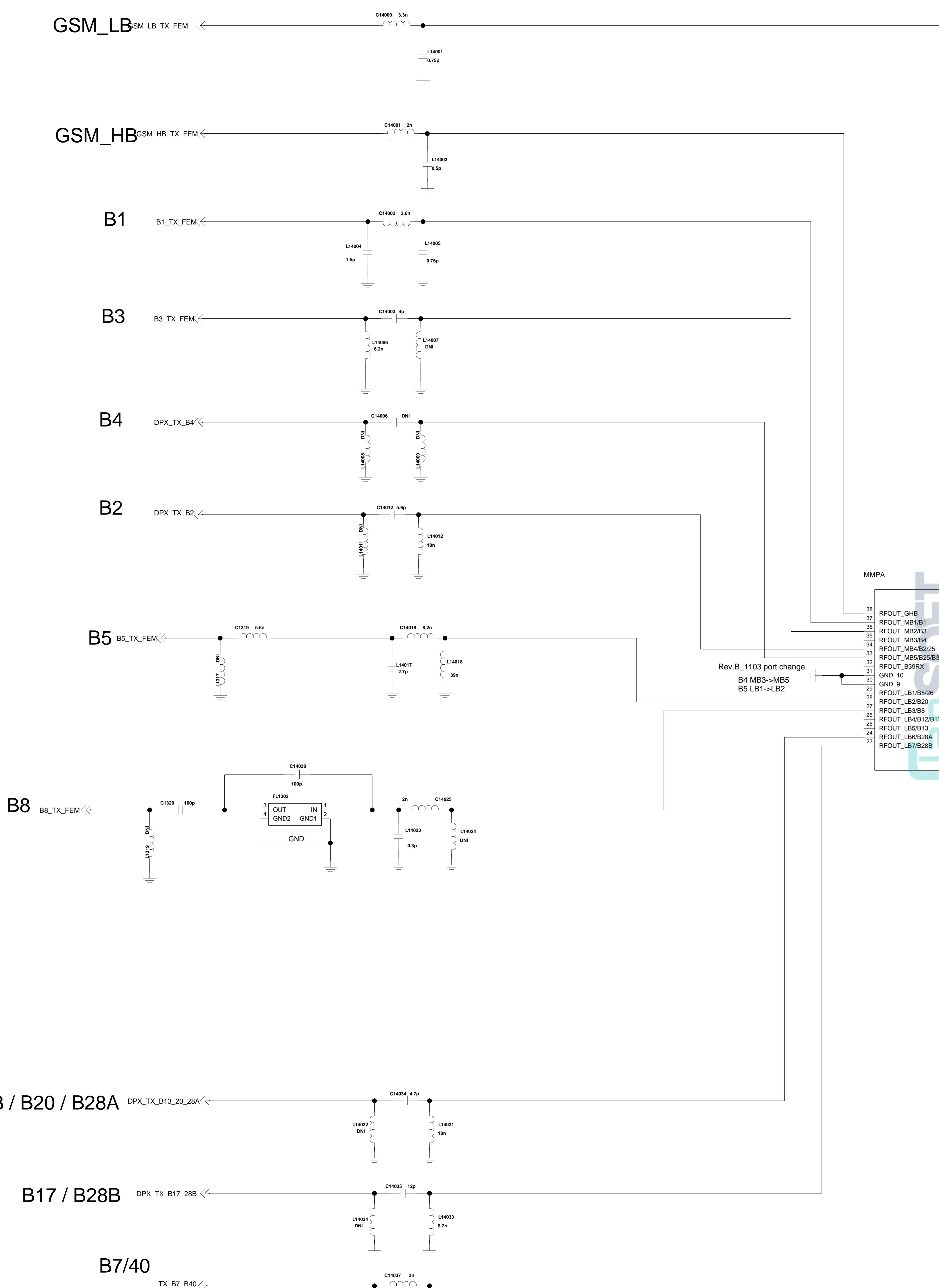
C111922

C111923

C

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

MMPA2.0



< 1-X MT6176 RFIC > RDK

H1,H2 : 7,30,38,40,41
M1,M2,M3,M4 : 1,2,3,4,9,10,11,21,23,24,25,33,34,35,36,37,39/BC 6,1(14),15,4
L1,L2,L3,L4 : 5,6,8,12,13,14,17,18,19,20,16,27,28,44/BC0,10
M3,L3 : 2G : 2,3,5,6

H1,H2 : 2300MHz-2690MHz
M1,M2,M3,M4 : 1427MHz-2025MHz
L1,L2,L3,L4 : 699MHz-915MHz

B5_26/8/12/13/20/28A/28B

HB : 7,30,38,40,41
MB : 1,2,3,4,9,10,11,21,23,24,25,33,34,35,36,37,39/BC 6,1(14),15,4
LB : 5,6,8,12,13,14,17,18,19,20,16,27,28,44/BC0,10

PRX14,13,12 : HB,MB 1475MHz-2690MHz
PRX11,10,9,8 : HB,MB 1475MHz-2690MHz
PRX7,6,5,4 : MB,LB 709MHz-2170MHz
PRX3,2,1 : LB 703MHz-960MHz

+2V4_VTCXO_PMU

KT2016K26000ZAW32ZMS

XTE009

26MHz

VCC

GND

OUT

GND

VCNT

26MHz

GND

C15014

10n

MTK Recommend

C15011

R15011

C15013

1n

C15012

DNI

C15015

C15016

C15017

C15018

C15019

C15020

C15021

C15022

C15023

C15024

C15025

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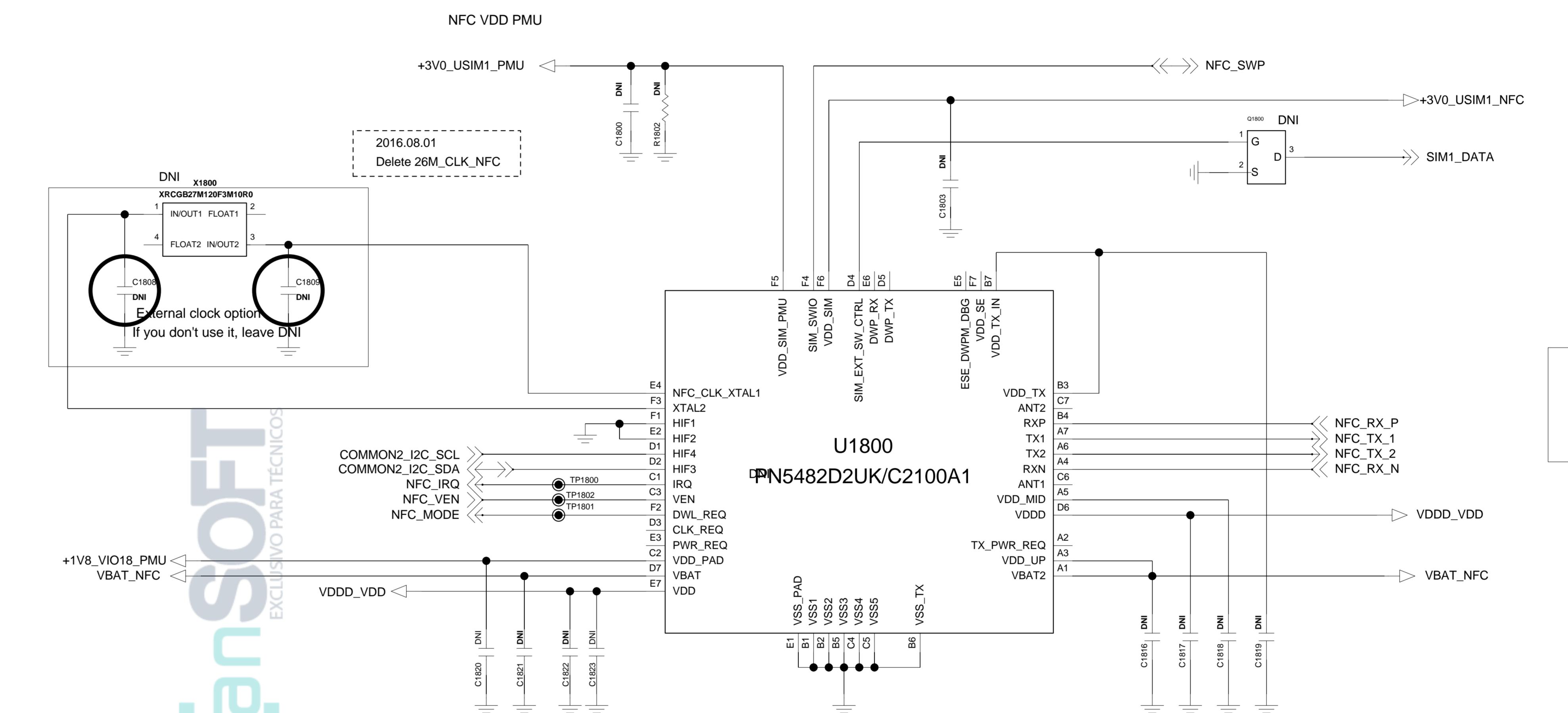
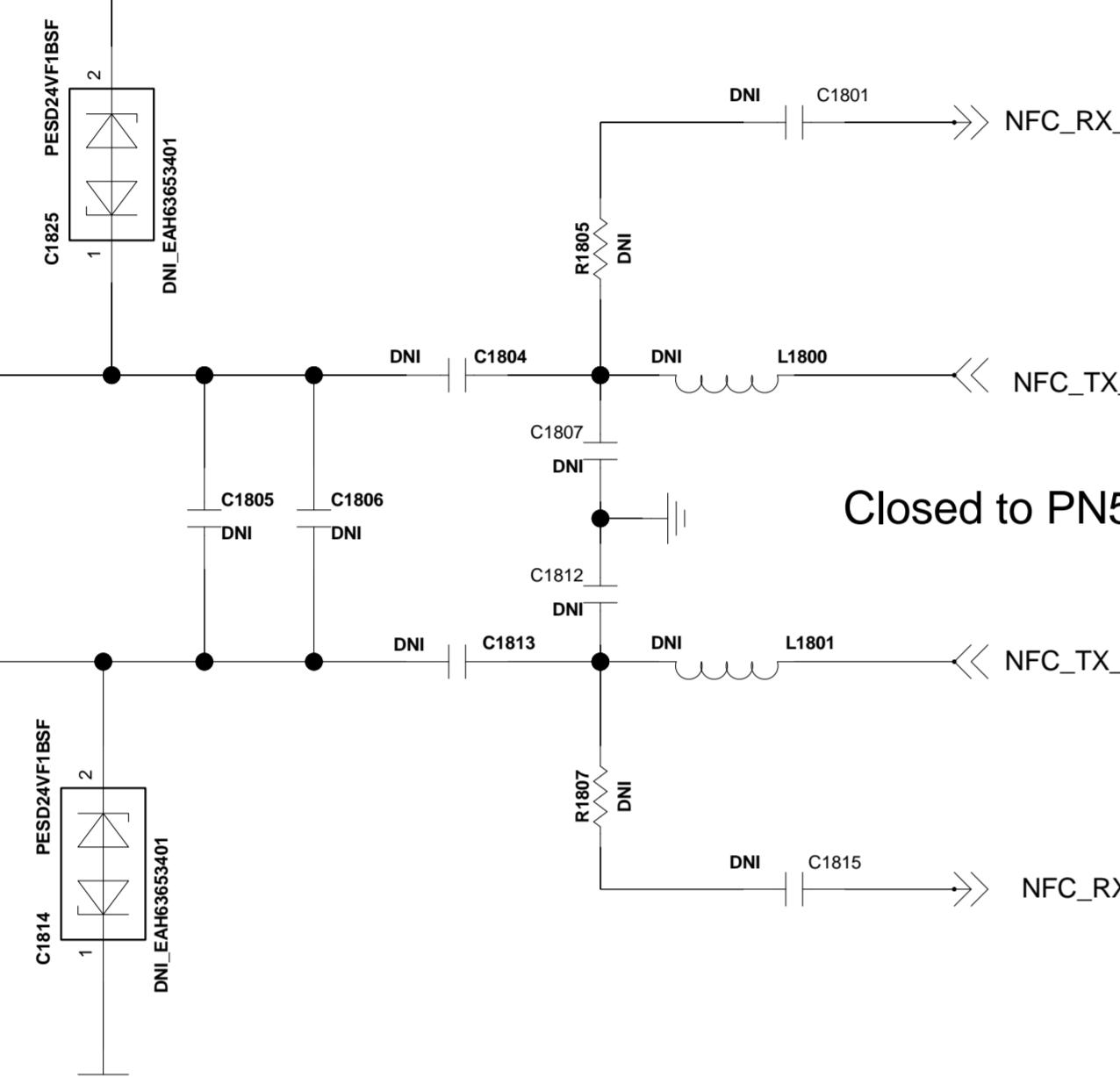
C15096

C15097</div

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PN548_main

NFC Antenna



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
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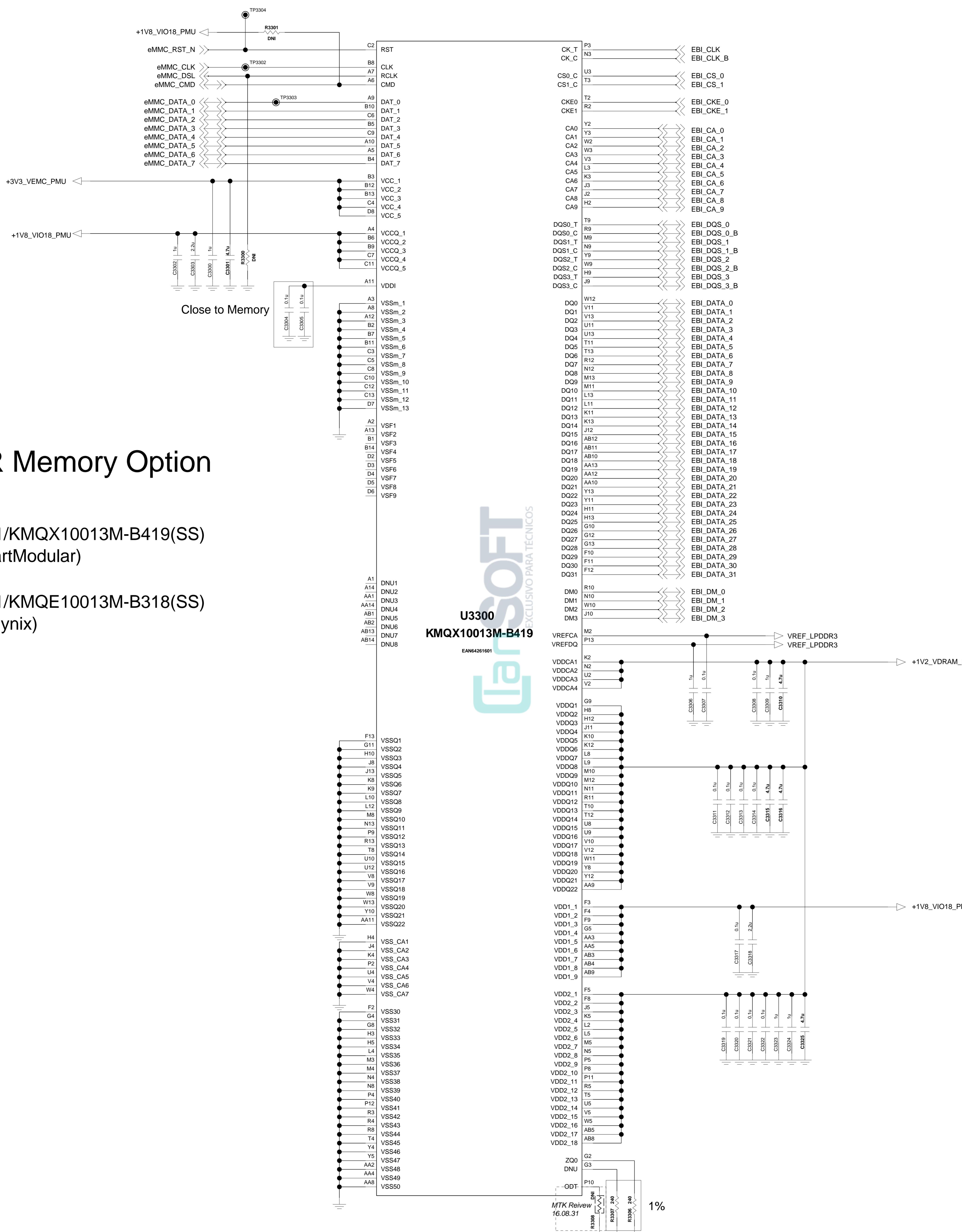
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A

LGE Internal Use Only

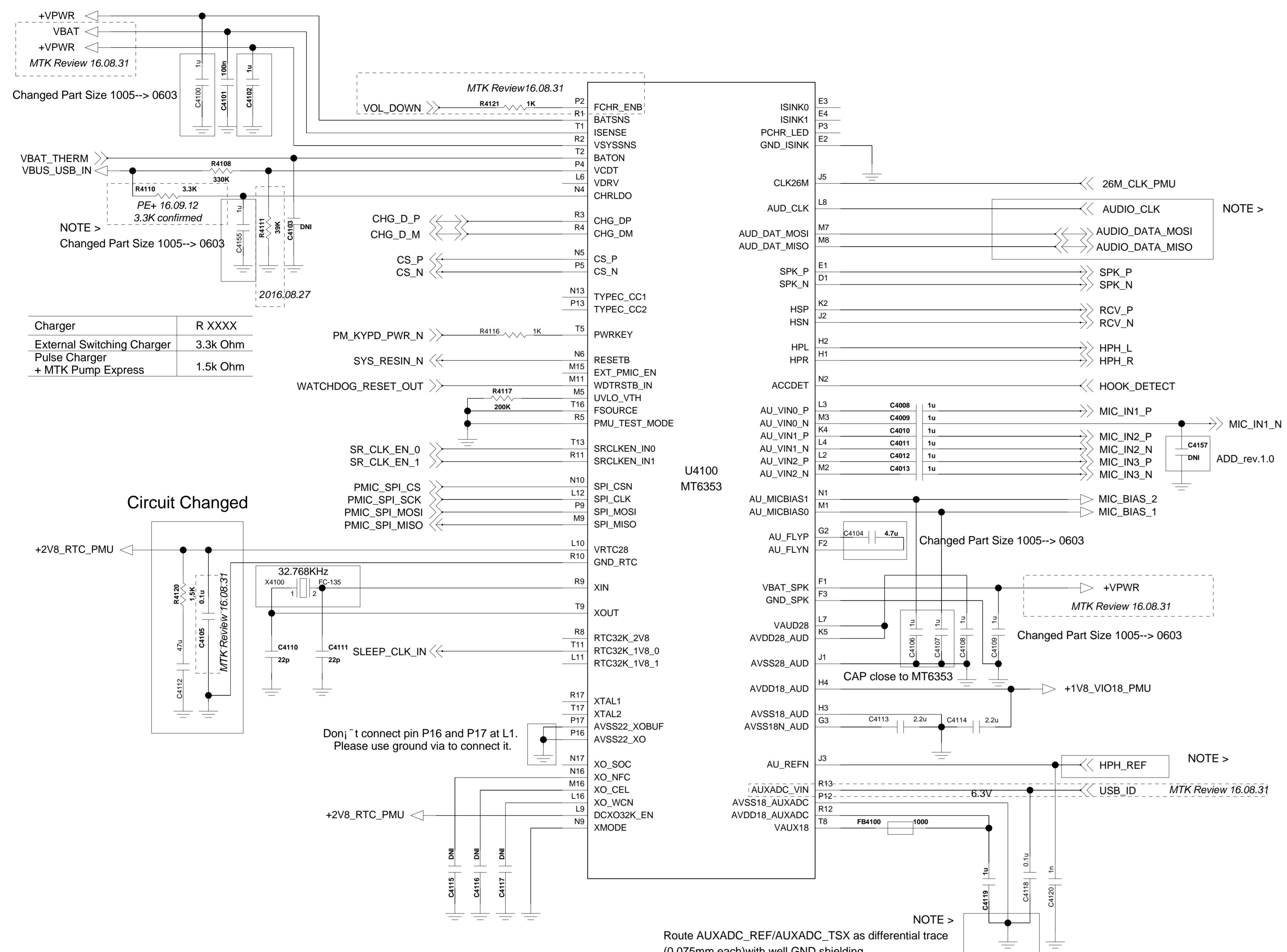


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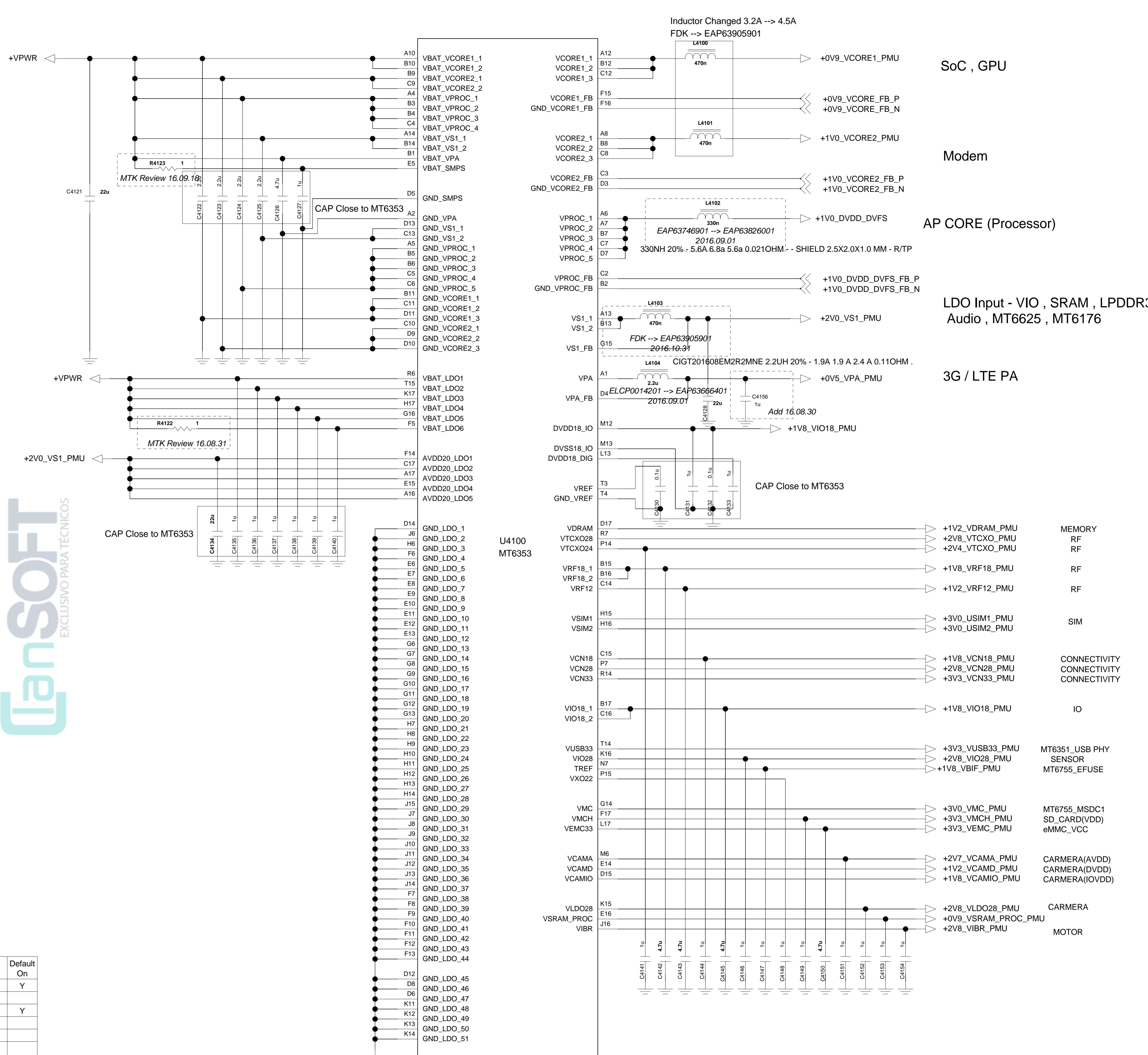


LGE Internal Use Only

<4-1-15-1 PMIC MT6353 DATA>



<4-1-15-1_PMIC_MT6353_POWER> Rev_0.1

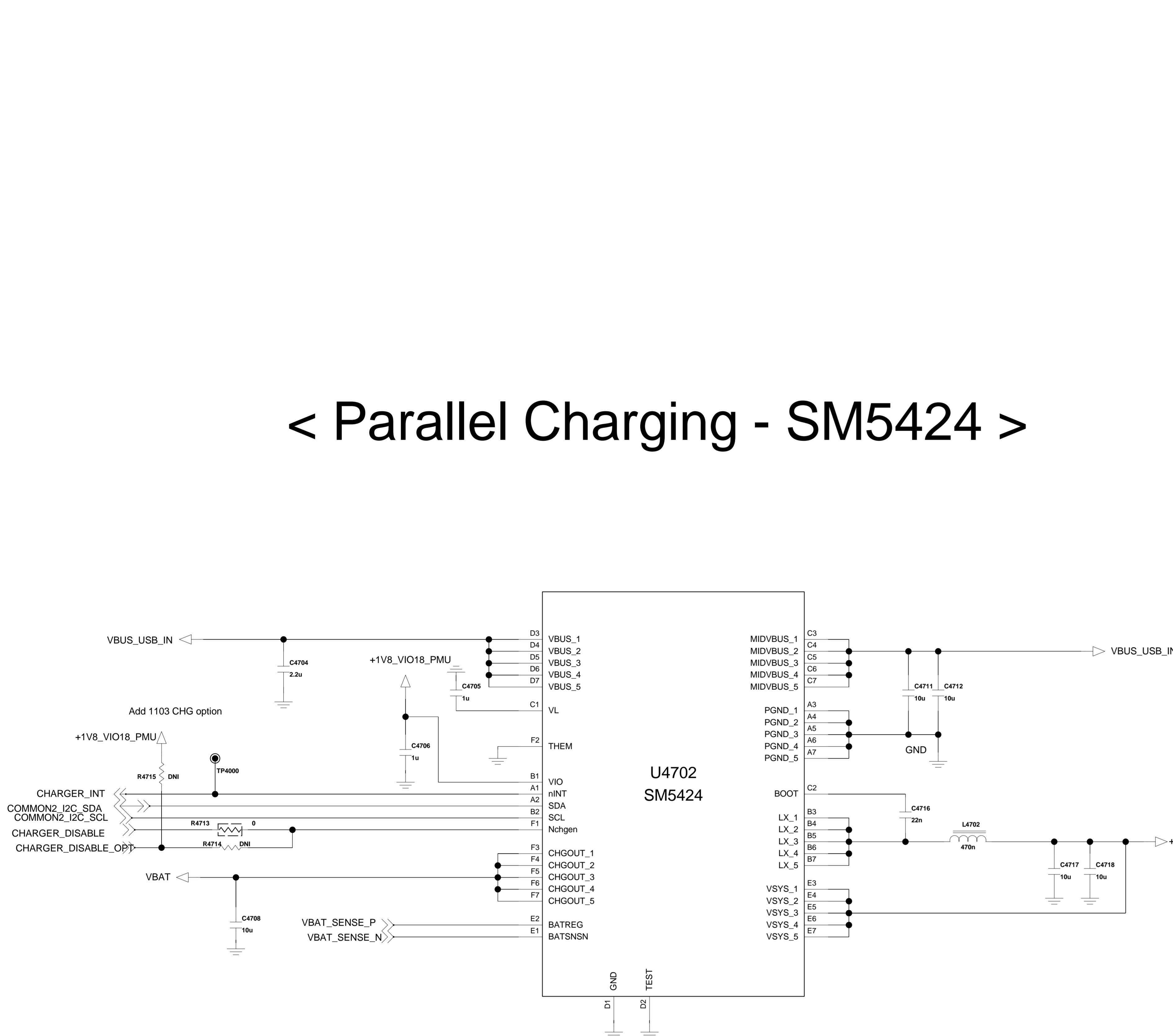


BUCK & LDO

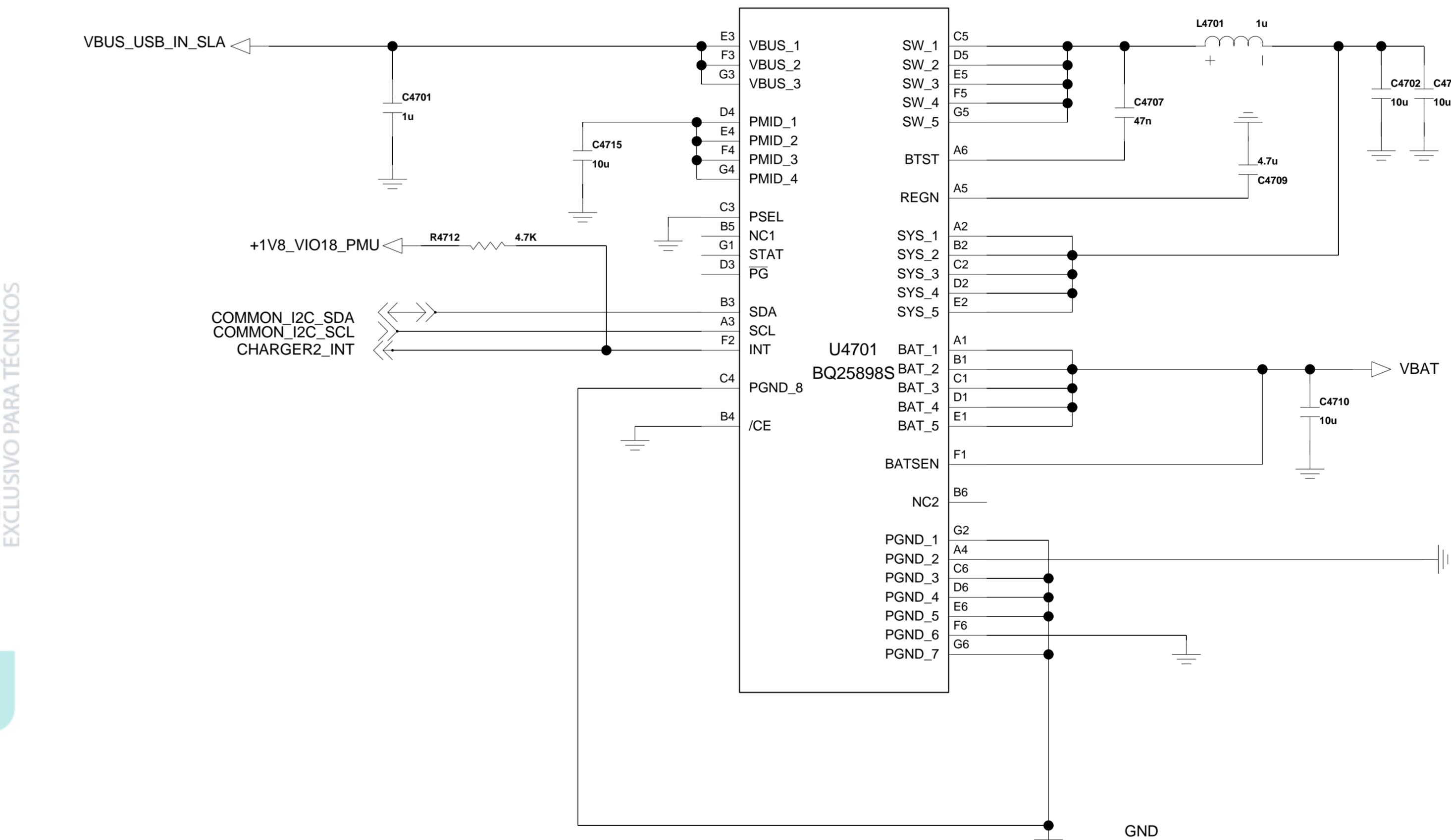
Function	Default Voltage	Vout	Voltage Step [mV]	Rated Current	Default On
VCORE1	0.9V	0.600 - 1.310 V	6.25	3,000mA	Y
VCORE2	1.0V	0.600 - 1.310 V	6.25	3,500mA	Y
VPROC	1.0V	0.600 - 1.310 V	6.25	5,000mA	Y
VS1	2.0V	1.950 - 2.200 V	12.5	1,900mA	Y

Function	Type	Input Power Domain	Default Voltage	Vout	Rated Current	Def C
VDRAM	SLDO	AVDD20_LDO1	1.24 V	1.24 V	1,000mA	✓
VTCXO28	ALDO	VBAT_LDOS1	2.8 V	2.8 V	40mA	✓
VTCXO24	ALDO	VBAT_LDOS2	2.375 V	2.375 V	40mA	✓
VRF18	SLDO	AVDD20_LDO5	1.825 V	1.825 V	400mA	✓
VRF12	SLDO	AVDD20_LDO5	1.2 V	1.2 V	150mA	✓
VSIM1	DLDO	VBAT_LDO4	1.8 V	1.7 / 1.8 / 1.86 / 2.76 / 3.0 / 3.1 V	50mA	✓
VSIM2	DLDO	VBAT_LDO4	1.8 V	1.7 / 1.8 / 1.86 / 2.76 / 3.0 / 3.1 V	50mA	✓
VCN18	SLDO	AVDD20_LDO2	1.8 V	1.8 V	150mA	✓
VCN28	ALDO	VBAT_LDO1	2.8 V	2.8 V	40mA	✓
VCN33	DLDO	VBAT_LDO2	3.3 V	3.3 / 3.4 / 3.5 / 3.6 V	350mA	✓
VIO18	SLDO	AVDD20_LDO3	1.8 V	1.8 V	600mA	✓
VUSB33	DLDO	VBAT_LDO2	3.3 V	3.3 V	50mA	✓
VIO28	DLDO	VBAT_LDO4	2.8 V	2.8 V	200mA	✓
VREF	Power Switch	VBAT_LDO1	1.8 V	1.8 V	1mA	✓
VXO22	ALDO	VBAT_LDOS2	2.2 V	2.2 V	20mA	✓
VMC	DLDO	VBAT_LDO5	3.0 V	1.8 / 2.9 / 3.0 / 3.3 V	200mA	✓
VMCH	DLDO	VBAT_LDO5	3.0 V	2.9 / 3.0 / 3.3 V	800mA	✓
VEMC33	DLDO	VBAT_LDO3	3.0 V	2.9 / 3.0 / 3.3 V	800mA	✓
VCAMA	ALDO	VBAT_LDO1	2.8 V	2.5 / 2.8 V	200mA	✓
VCAMD	SLDO	AVDD20_LDO2	1.3 V	0.9 / 1.0 / 1.1 / 1.22 1.3 / 1.5 / 1.8 V	<=1.5V : 500mA 1.8V : 300mA	✓
VCAMIO	SLDO	AVDD20_LDO2	1.8 V	1.8 V	200mA	✓
VLDO28	DLDO	VBAT_LDO4	2.8 V	2.8 V	300mA	✓
VSRAM_PROC	SLDO	AVDD20_LDO4	1.1 V	0.6 - 1.31 V	400mA	✓
VIBR	DLDO	VBAT_LDO4	2.8 V	1.2 / 1.3 / 1.5 / 1.8 2.5 / 2.8 / 3.0 / 3.3 V	100mA	✓
VAUX18	ALDO	VBAT_LDO1	1.8 V	1.8 V	40mA	✓
VAUD28	ALDO	VBAT_LDO1	2.8 V	2.8 V	40mA	✓
VRTX28	VRTX28	VBAT_LDO1	2.8 V	2.8 V	2mA	✓
VRIC16	RVDD16_RIC	VBAT_LDO2	1.8 V	1.8 V	20 mA	✓

< Parallel Charging - SM5424 >



< SLAVE CHARGER bq25898s >



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LGE Internal Use Only

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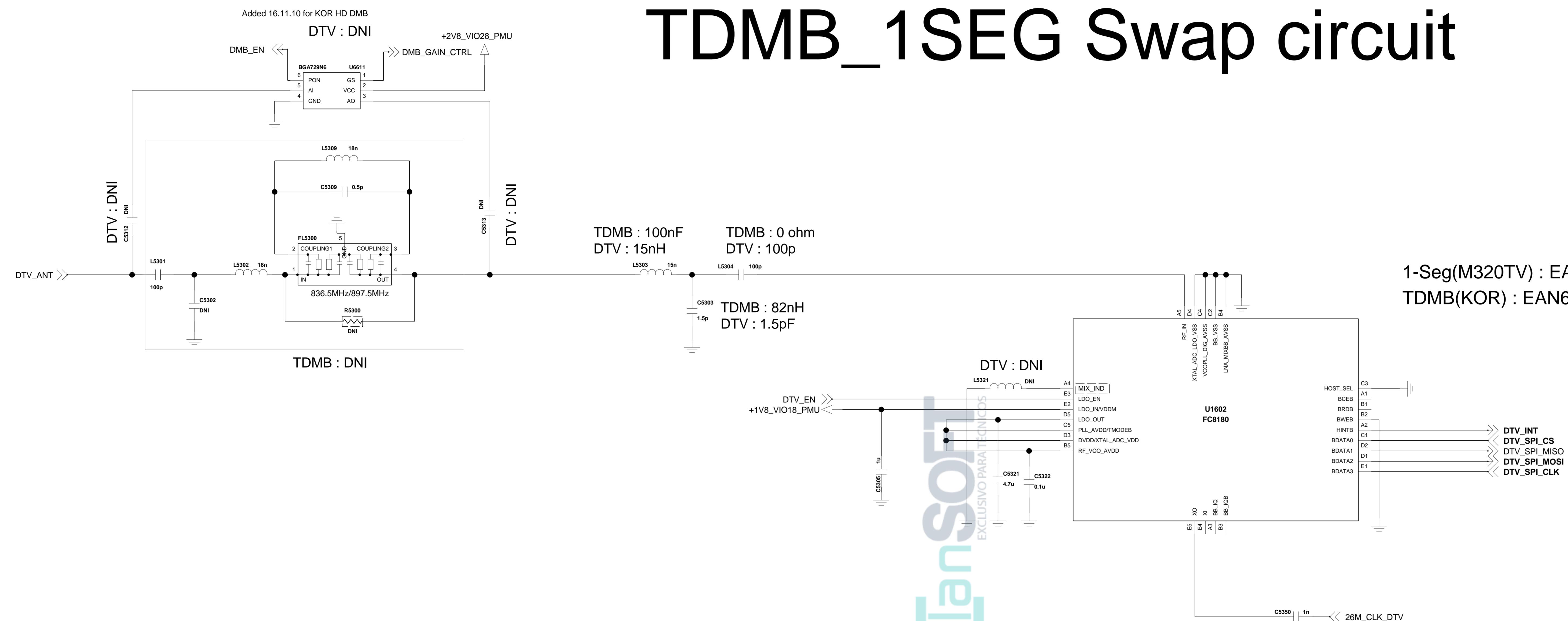
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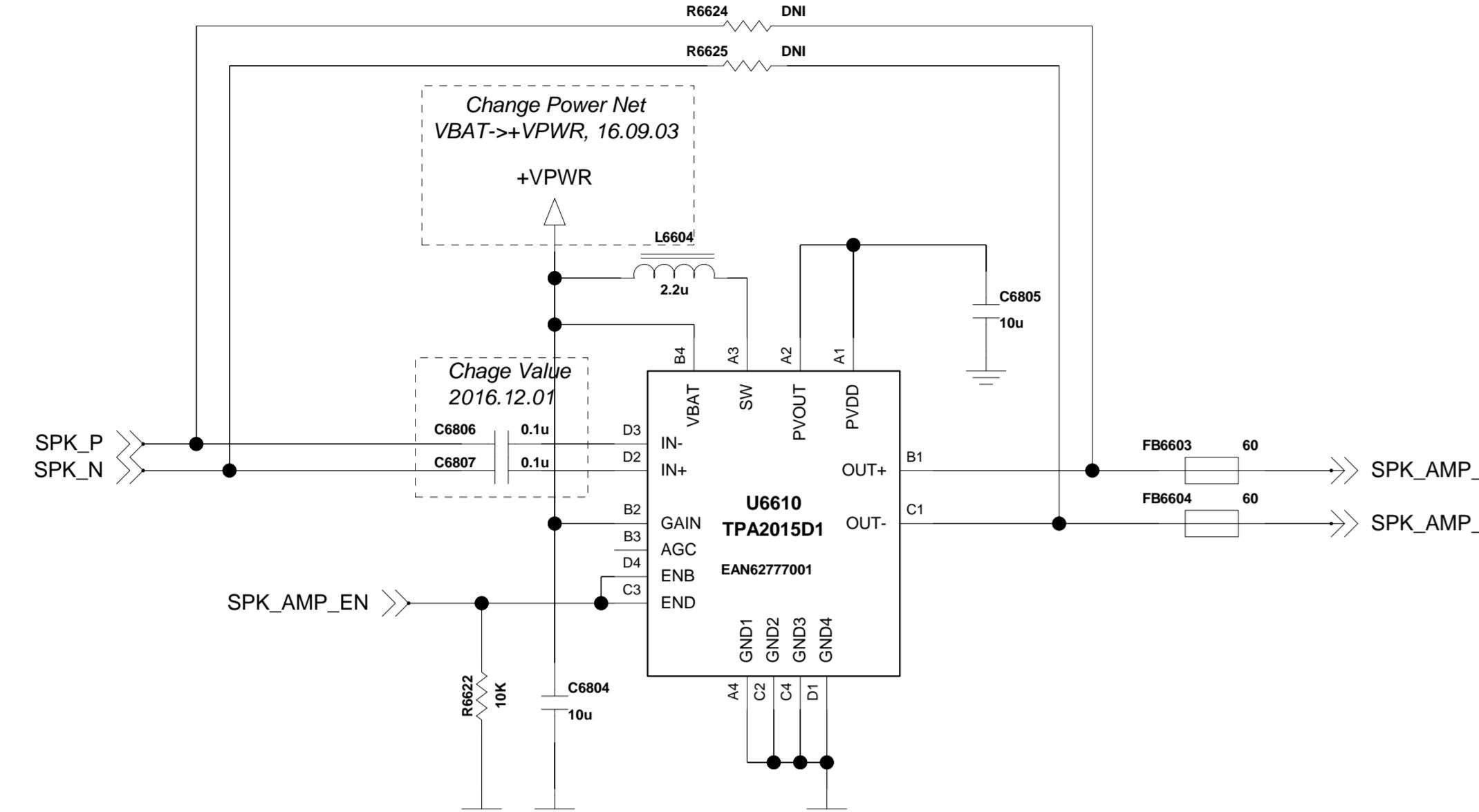
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TDMB_1SEG Swap circuit

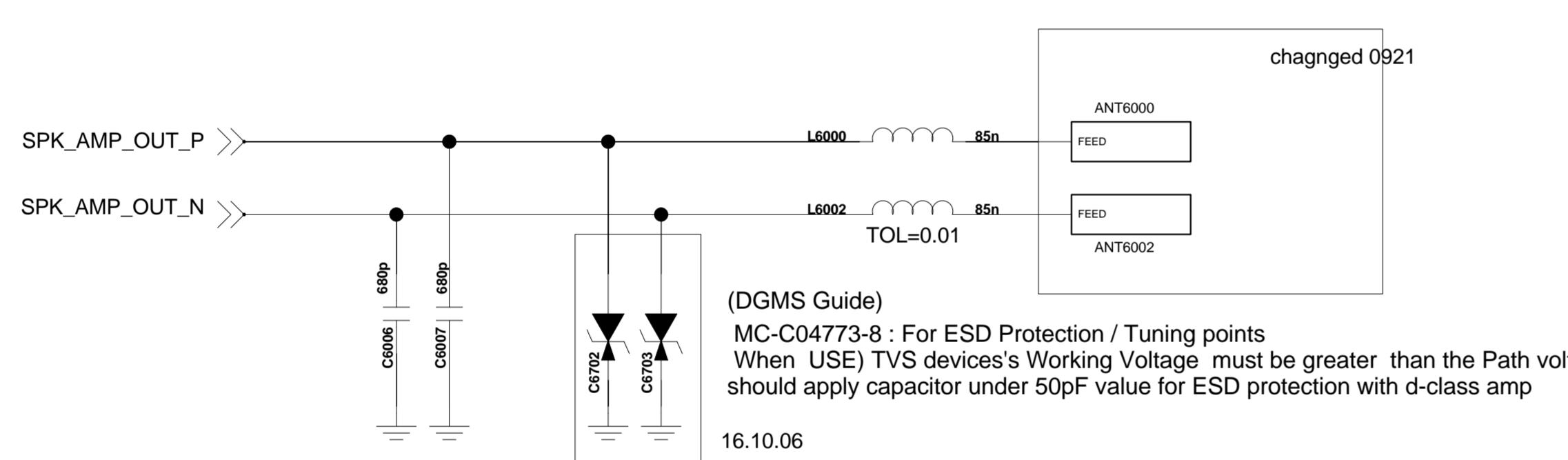


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< SPK AMP >

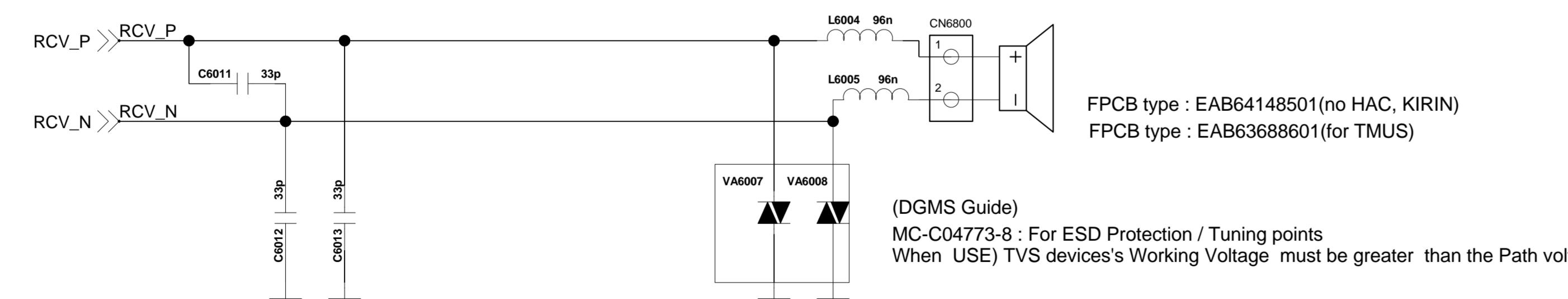


< 6-7-1_Speaker >



< 6-8-2_Receiver >

Rev_0.4



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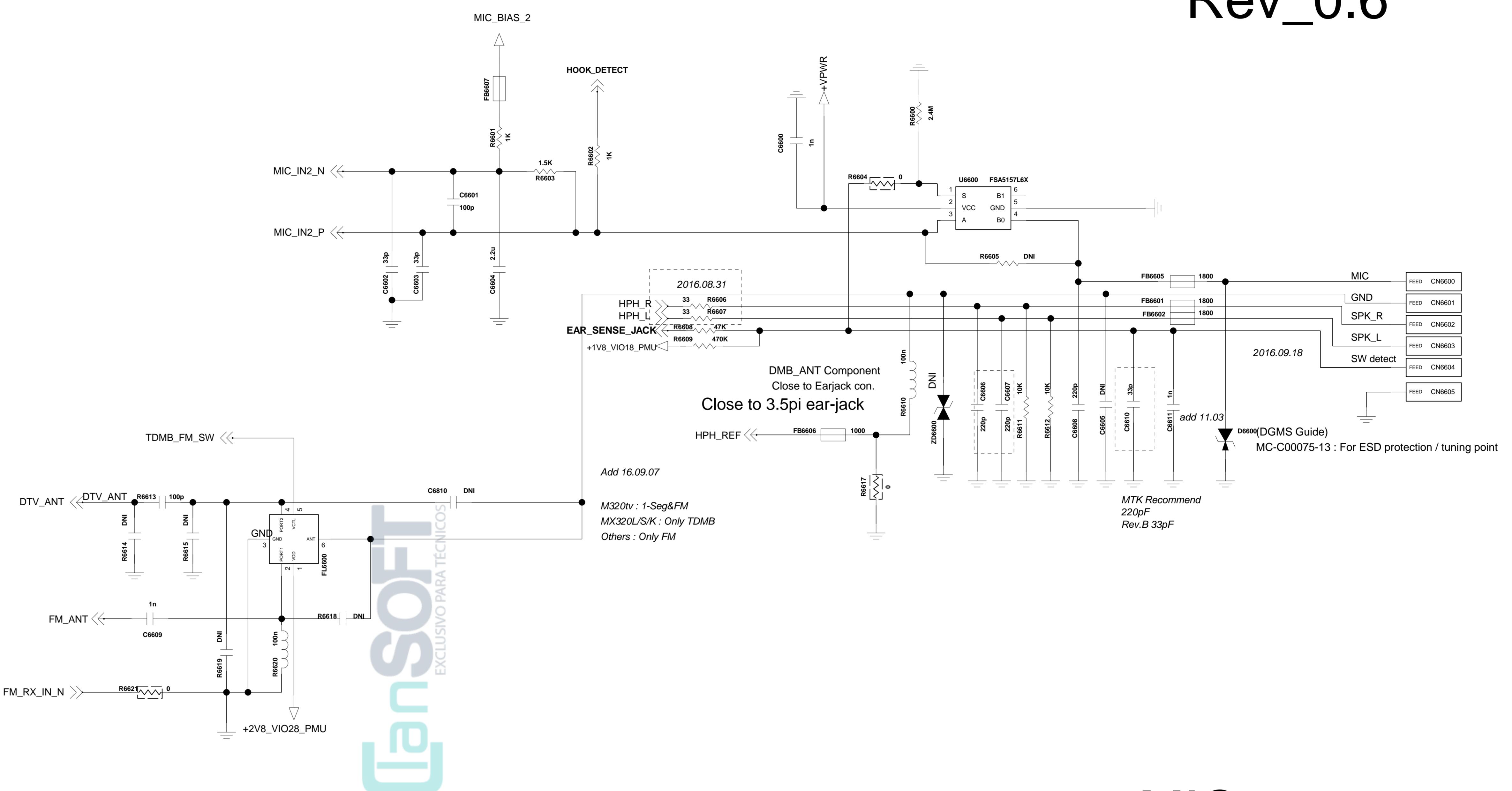
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B

LGE Internal Use Only

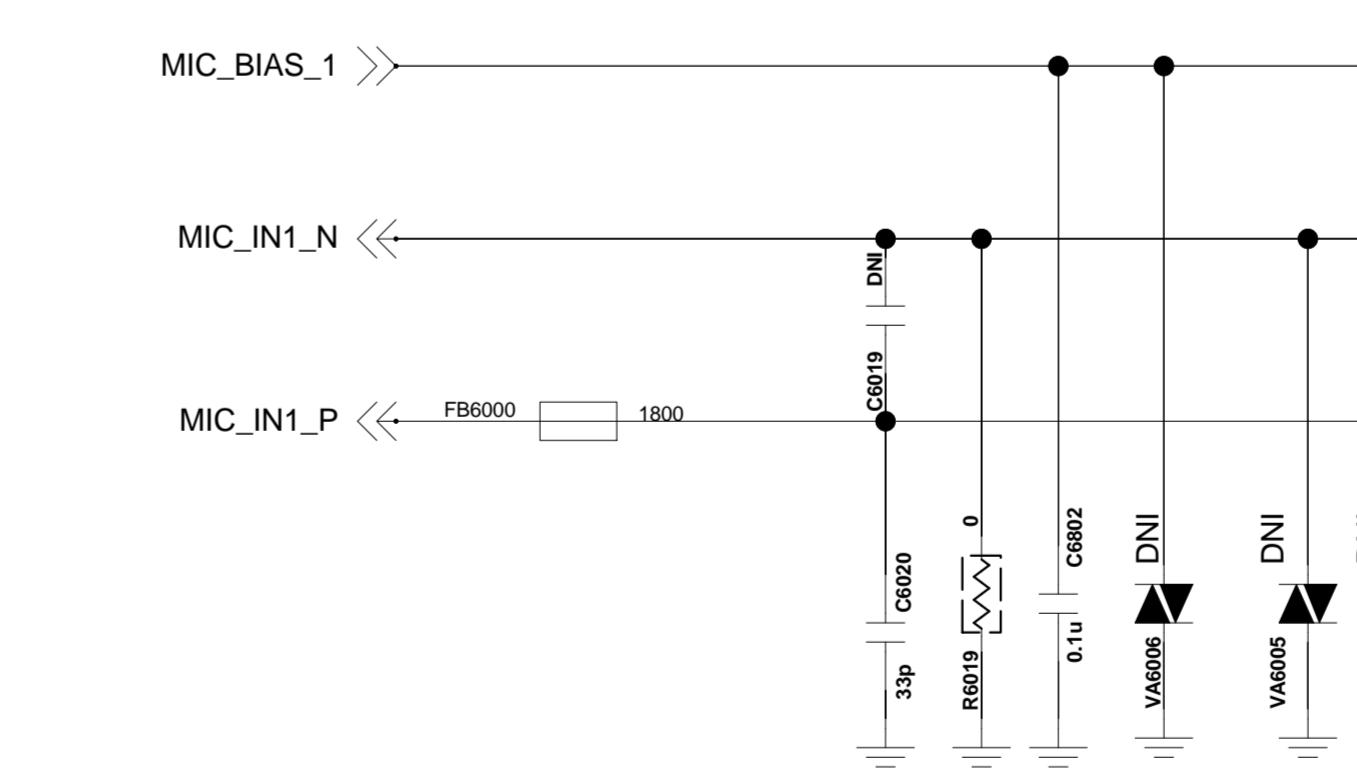
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Rev_0.6

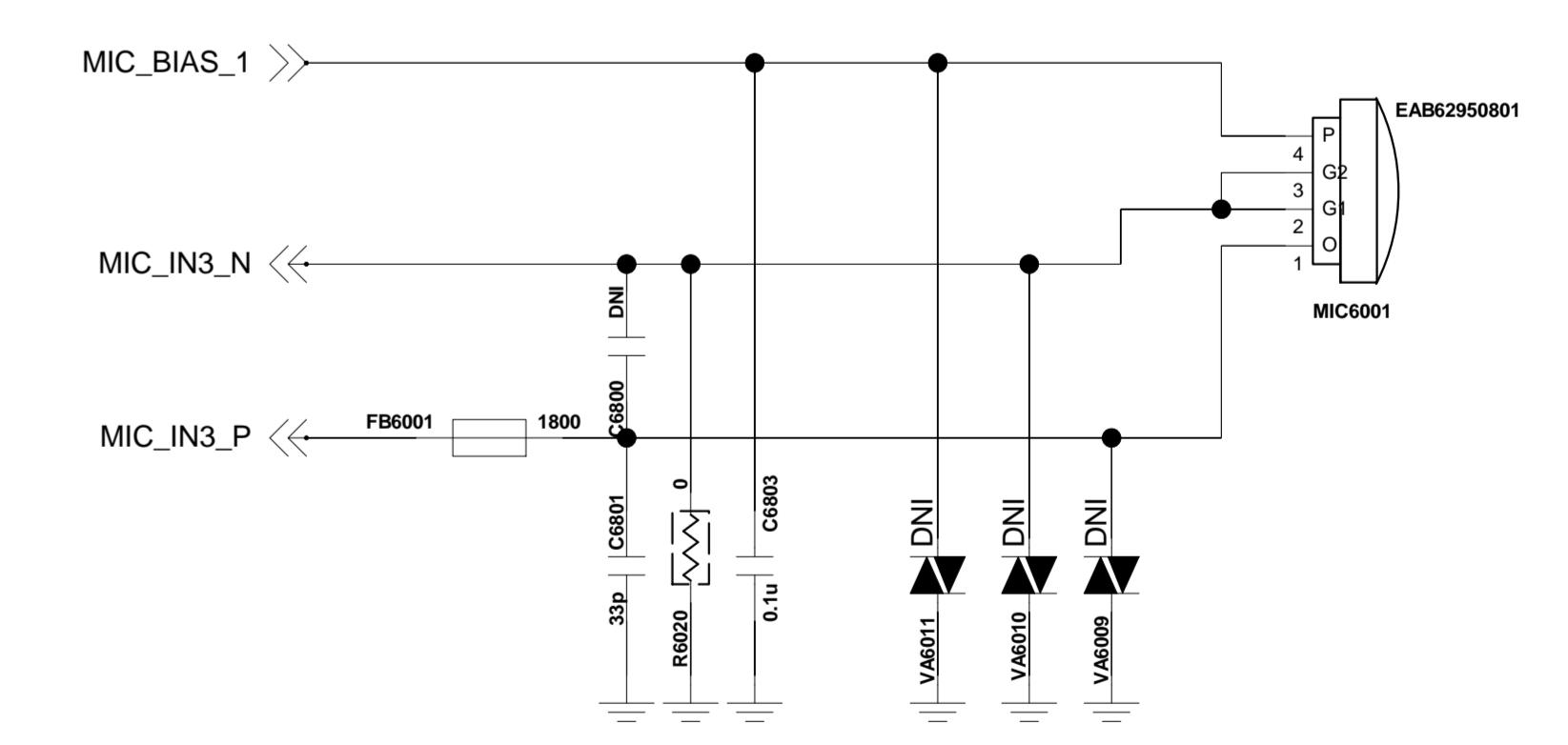


< 6-9-2_2MIC >

Main MIC



Sub_MIC



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

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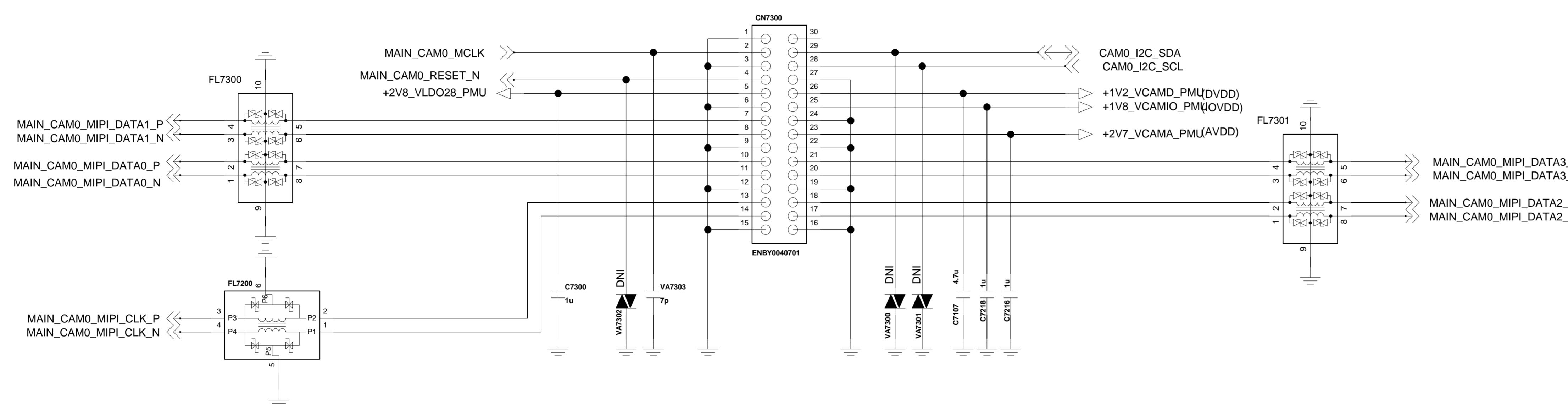
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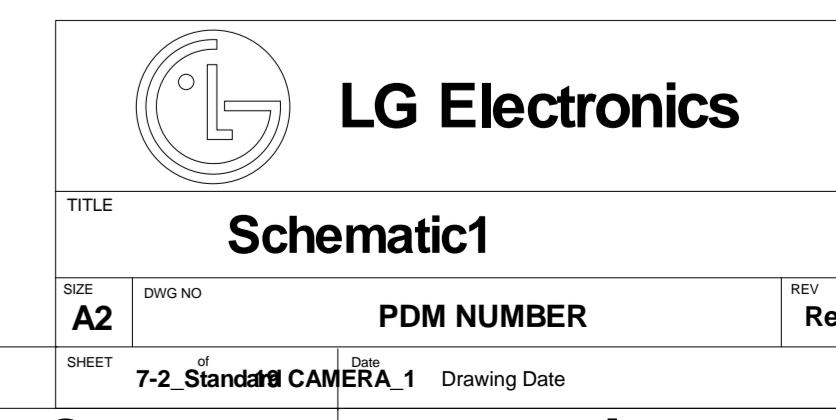
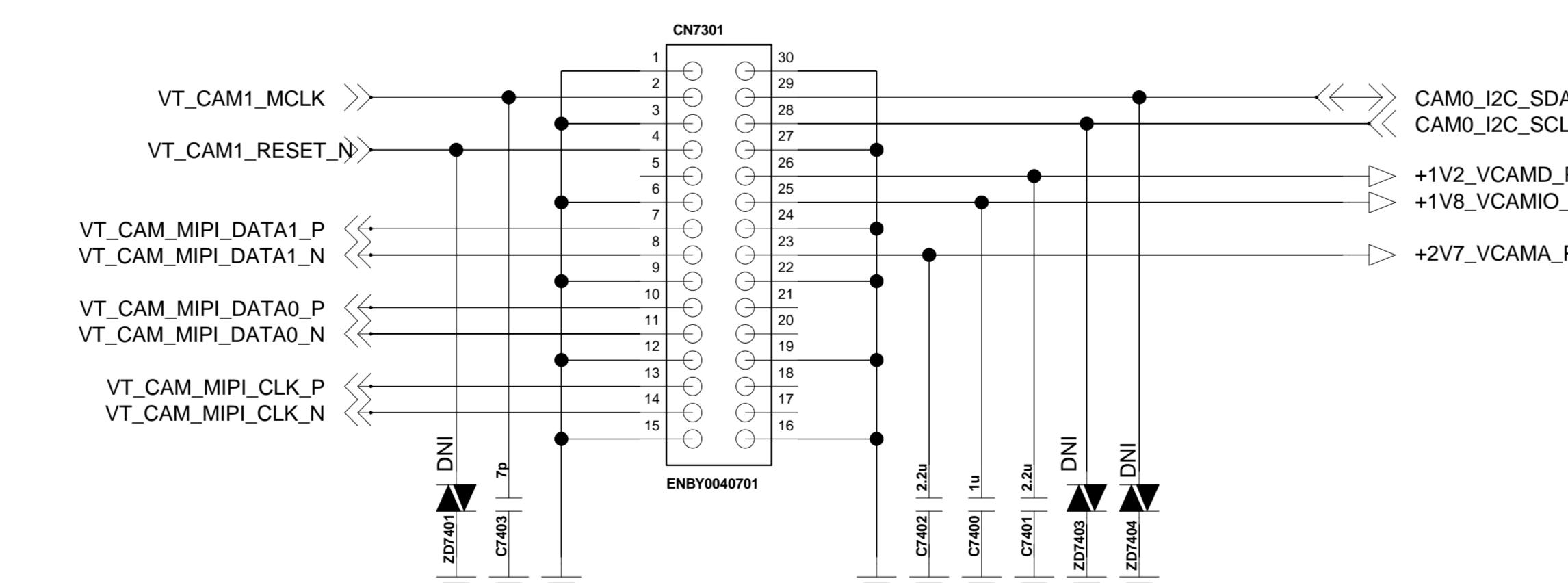
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<7-3-5-1_30pin_5M_8M_13M_AF> Rev_0.3



<7-4-x_Front_Camera_30pin_8M_FF>

[DGMS Guide] MC-C00081-17: 1. Add ESD Protection circuit for Camera signal



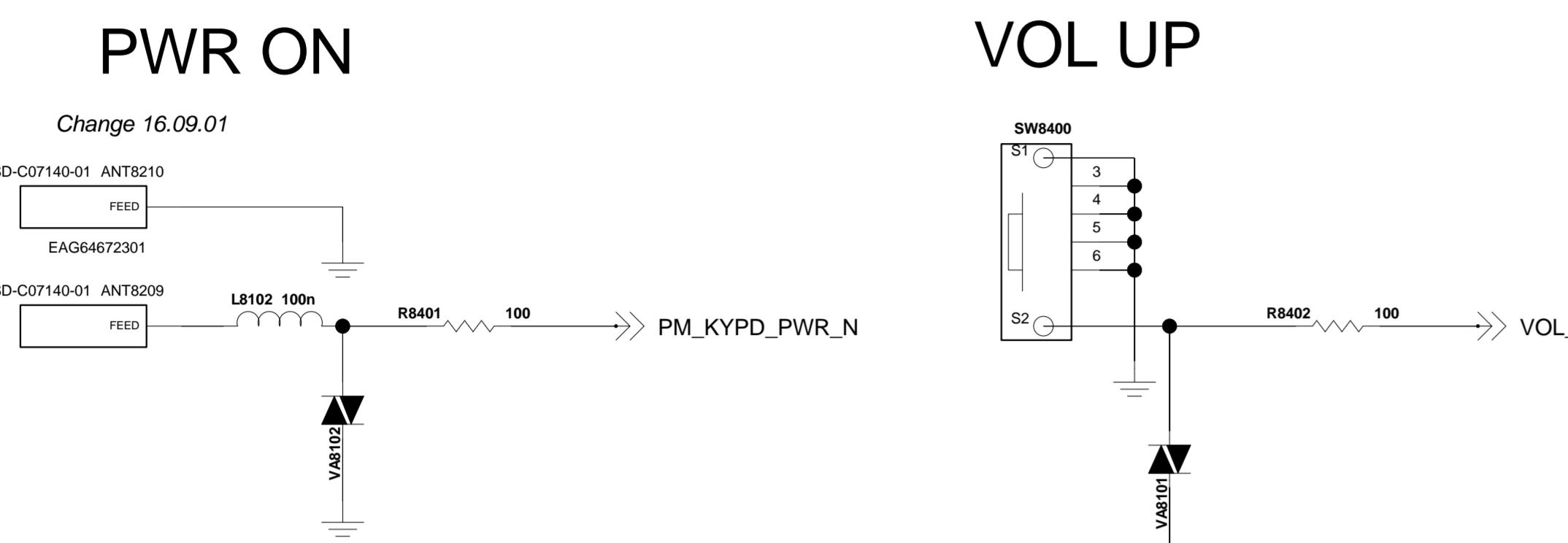
LGE Internal Use Only

10

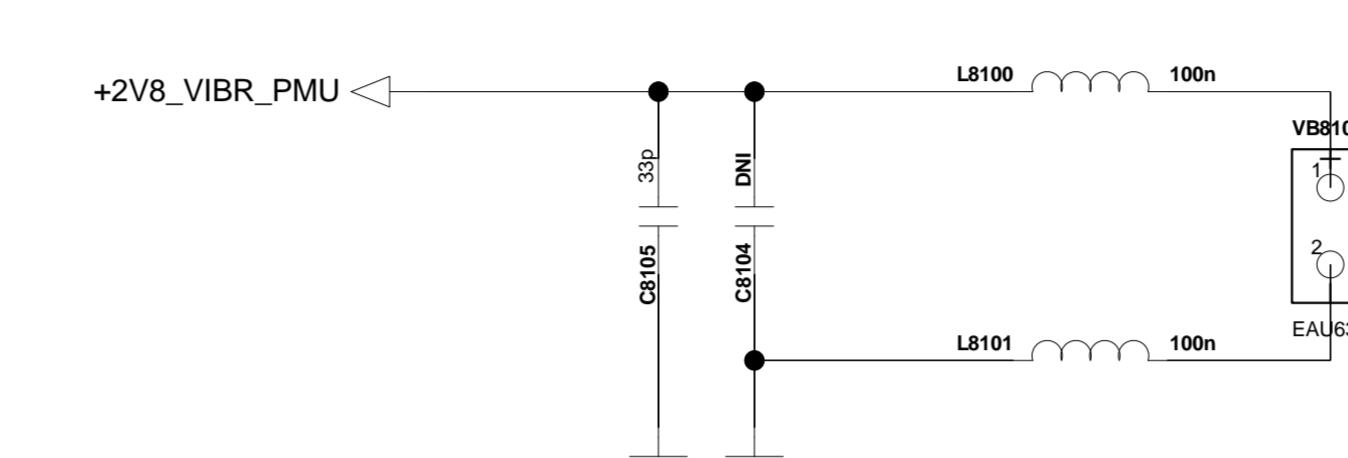
16 **15** **14** **13** **12** **11** **10** **9** **8** **7** **6** **5** **4** **3** **2** **1**

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

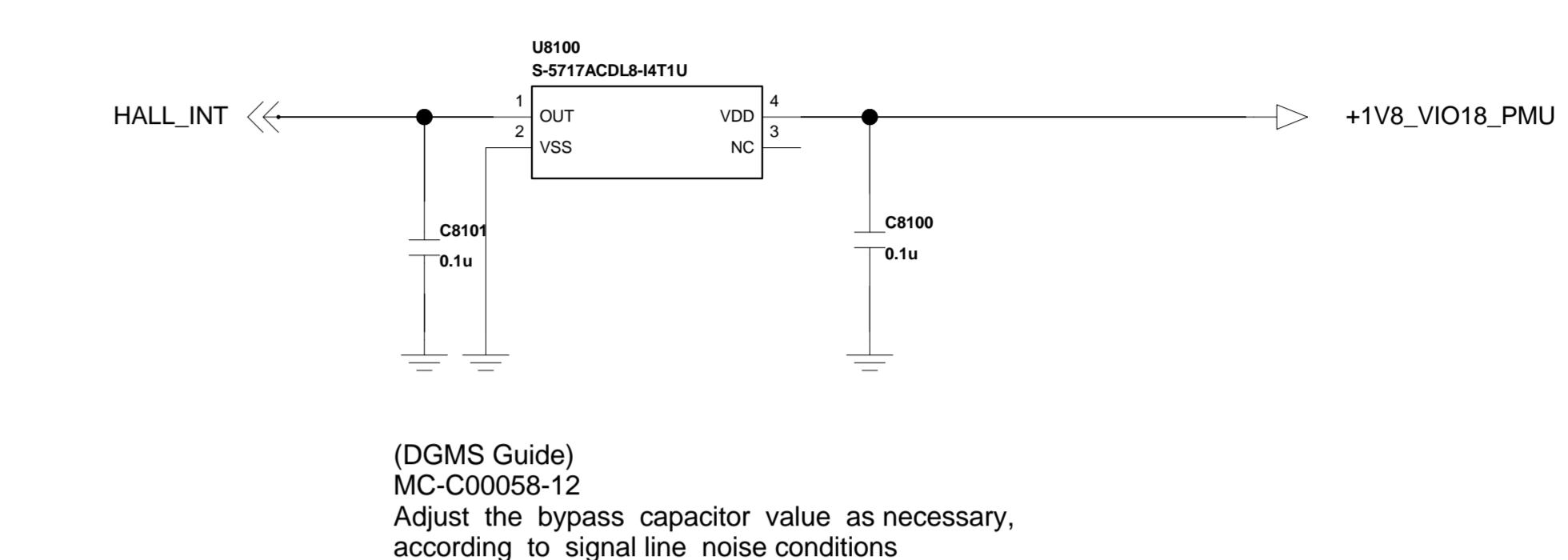
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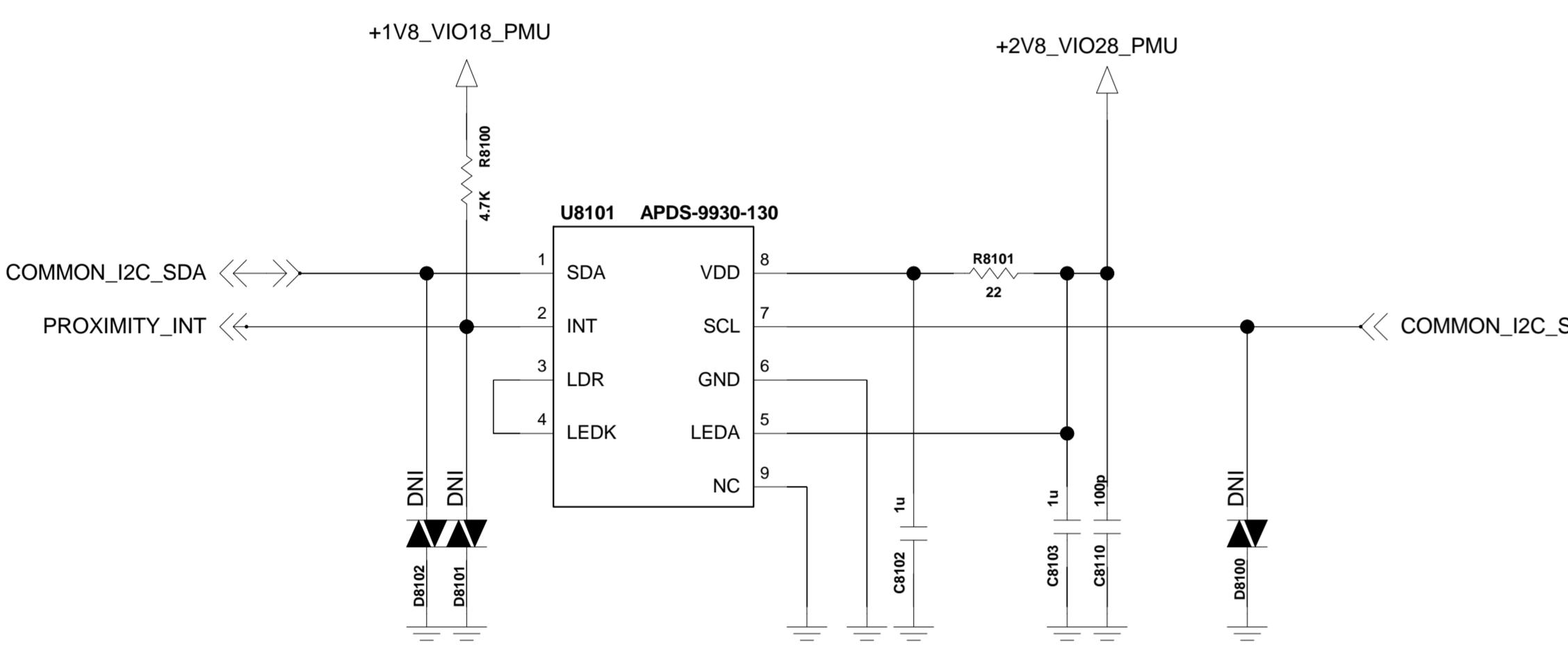
< 9-9-1-1_MOTOR >



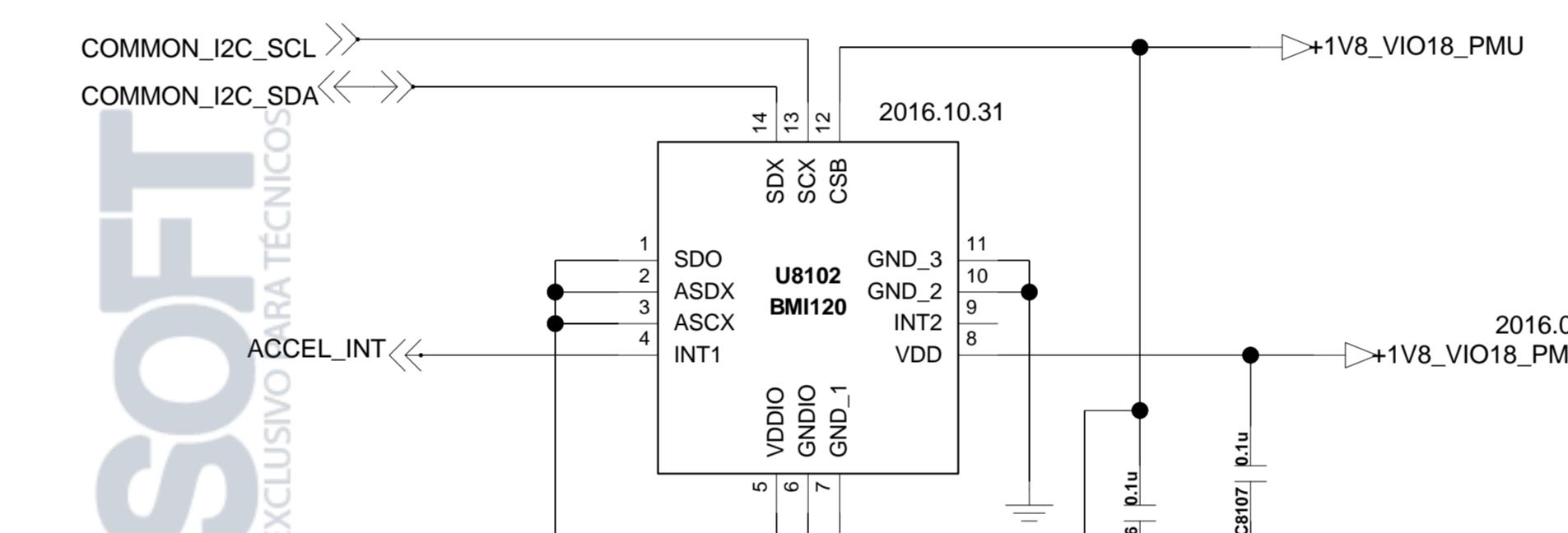
< 8-7-1-5_Hall_IC_S5717 > Rev_1.1



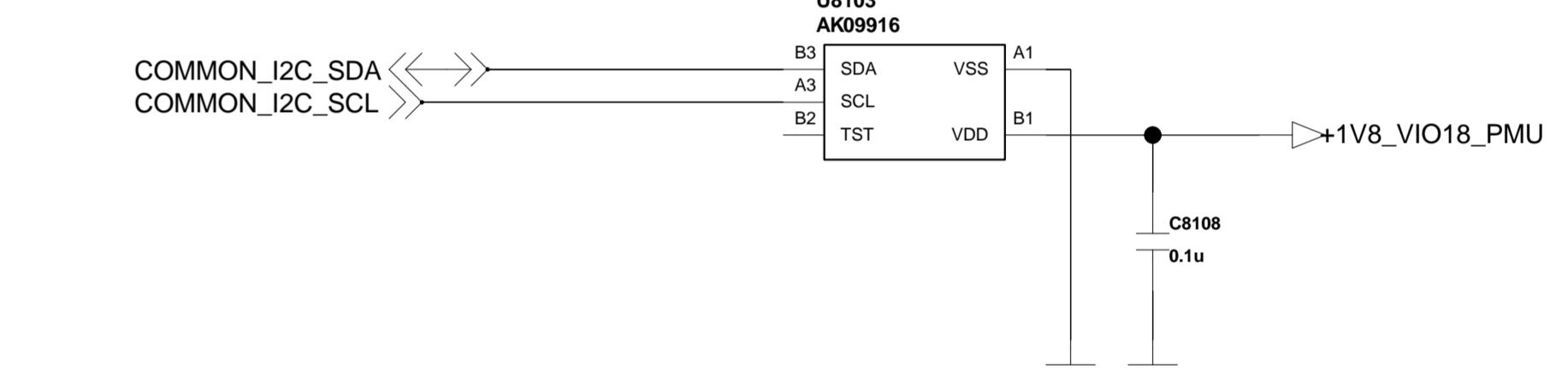
< 8-4-3-4_Proximity_APDS-9930-130 >



< 8-1-2-1_Accel_Gyro_BMI120 >

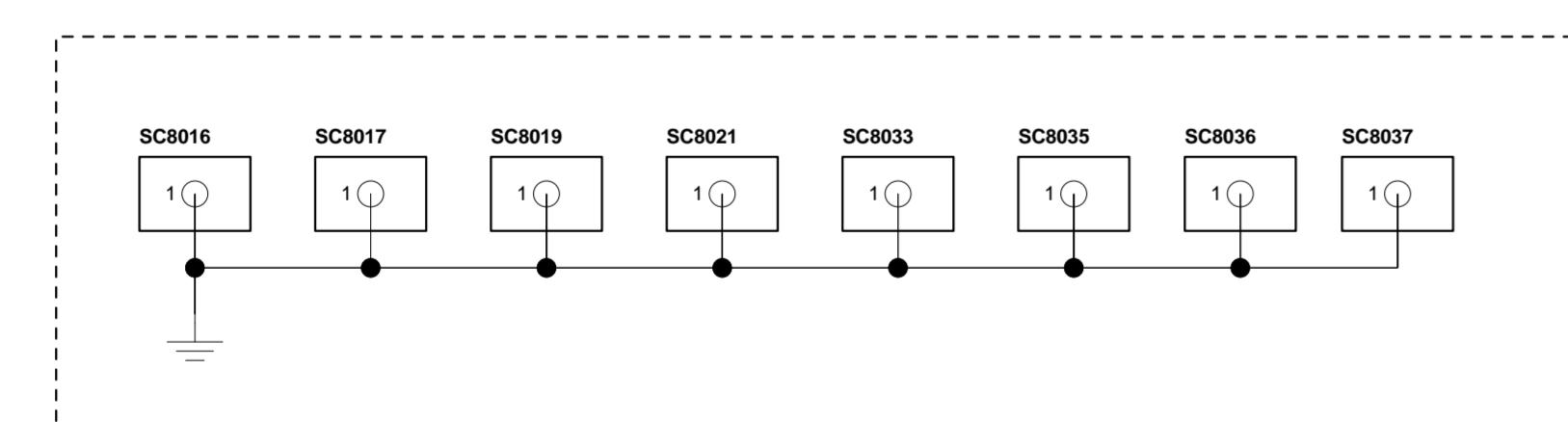


< Geomagnetic_AK09916C >

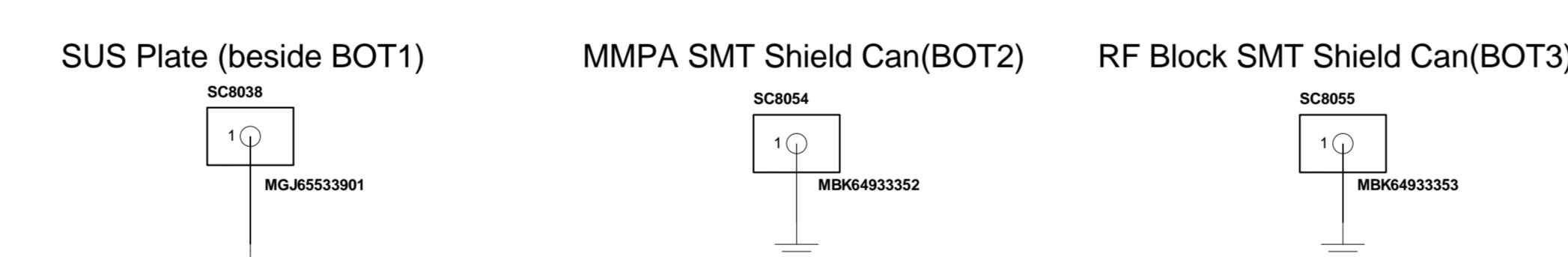


Shield CAN / C-Clip

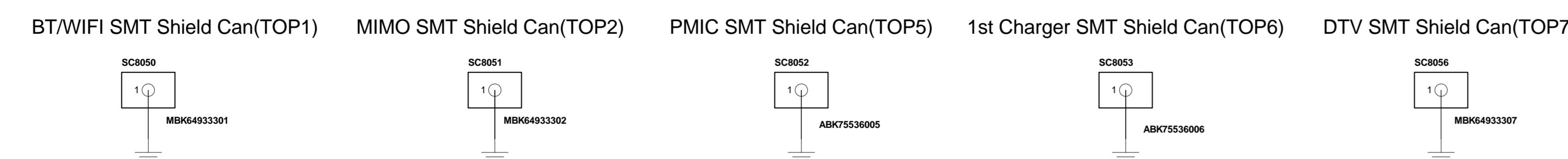
MT6750/MCP Shield Can clip_8ea(BOT1)



BOT SMT Shield Can



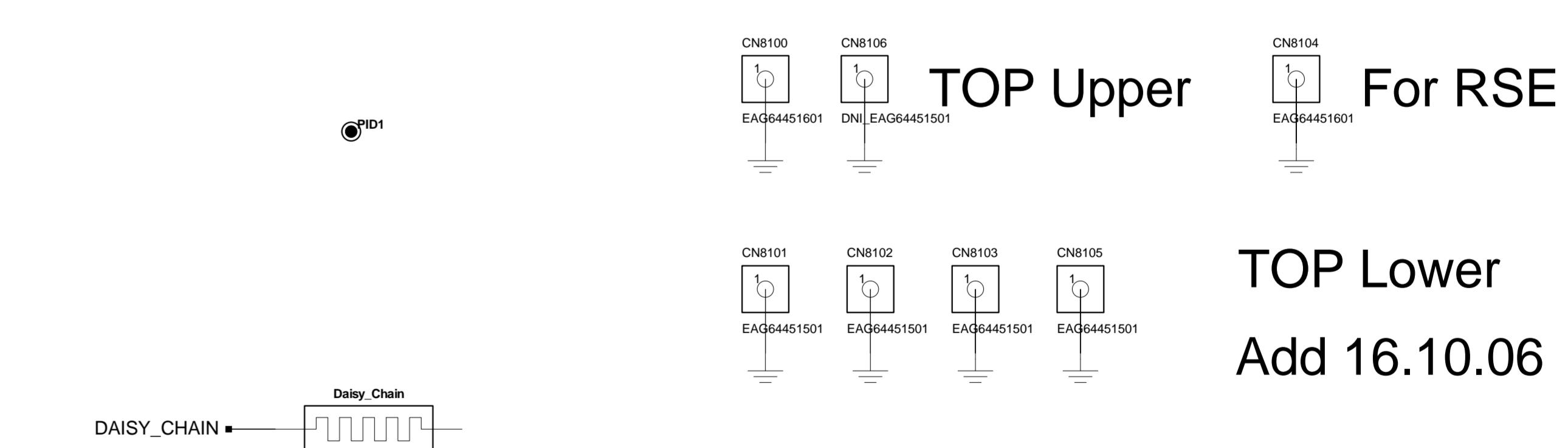
TOP SMT Shield Can



Add 16.09.03

PID 6x6

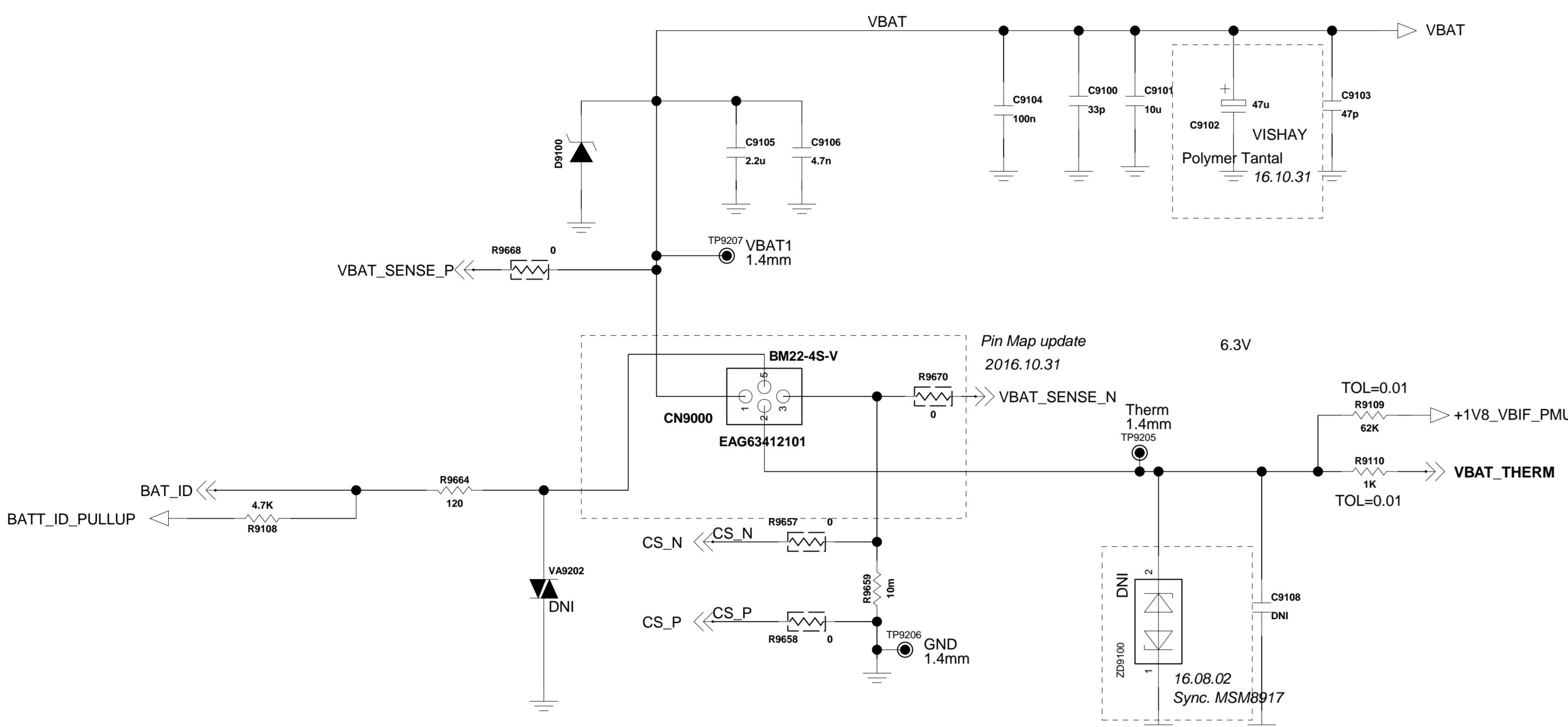
SMT Gasket



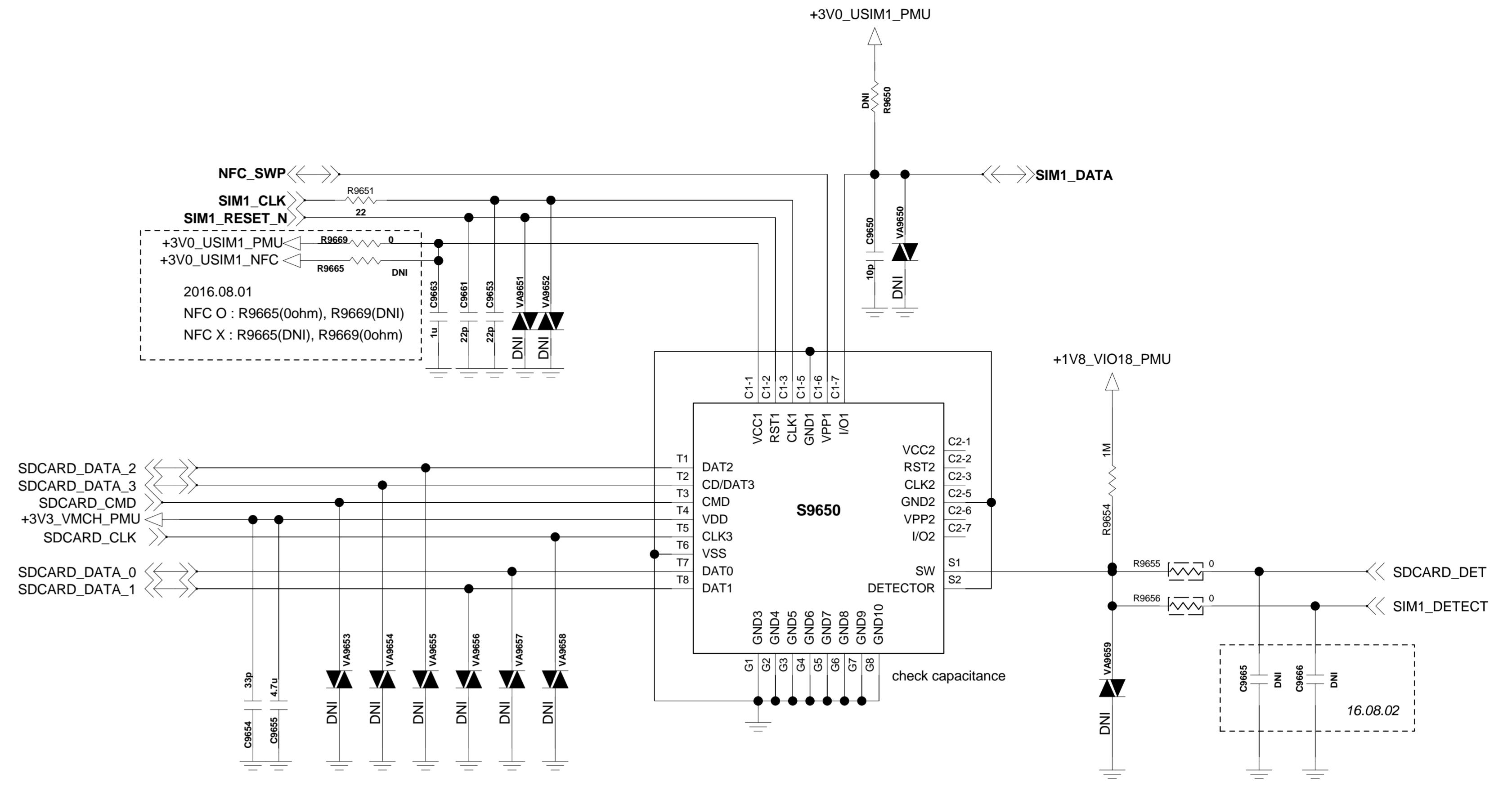
For RSE
TOP Lower
Add 16.10.06

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

Circuit 4. Batt Conn. /w Embedded Batt
<9-1_Battery_Connector_4Pin>_0913



<9-6_u_SDCARD_Socket> Rev.1.1
1st SIM & SD Card

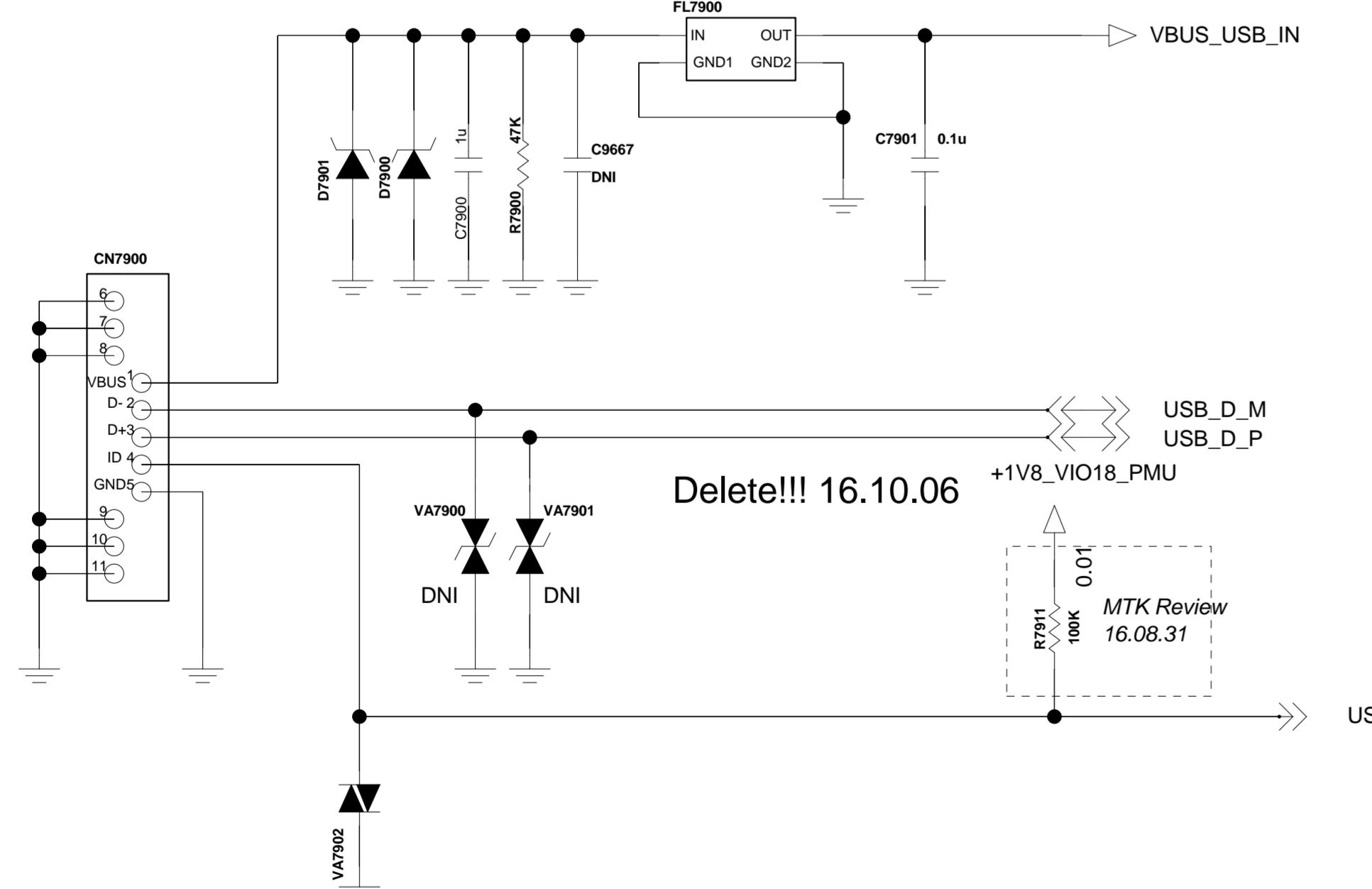


(DGMS Guide)
MC-C04581-13 : Below items should be satisfied
1. SIM_DATA pull-up resistor
2. Use under 33pF (Cap_Varistor) on each signal line
3. When routing, SIM_DATA, SIM_CLK should be separated
4. CAP.Varistor should Place close to connector

(DGMS Guide)
MC-C04582-14 : Below items should be satisfied
1. SD_DETECT Pull-up or Pull-down
2. Data/CMD line should be needed Pull-up resistor
(If chipset has internal Pull-up, comment it on circuit)
3. Use under total 10pF Capacitance on each line : Data [0:3], CMD - Cap. TVS diode, varistor
(on other line, We recommend 10pF capacitance and use under 30pF capacitance)
4. CAP.Varistor should Place close to connector

(DGMS Guide)
MC-C05446-7 : Below items should be satisfied
1. Power of SD card should use independant Power source just like LDO/PMIC which can turn off it.
2. Per chip type which support SD card should manage current capacity.
(In case of High speed mode, SD Card Power should get margin of 200mA)
3. Do not connect serial component to SD card power, voltage drop can arise at Power line.

<9-2-1_USB_IO> Rev.1.0
Connector 1. USB 2.0

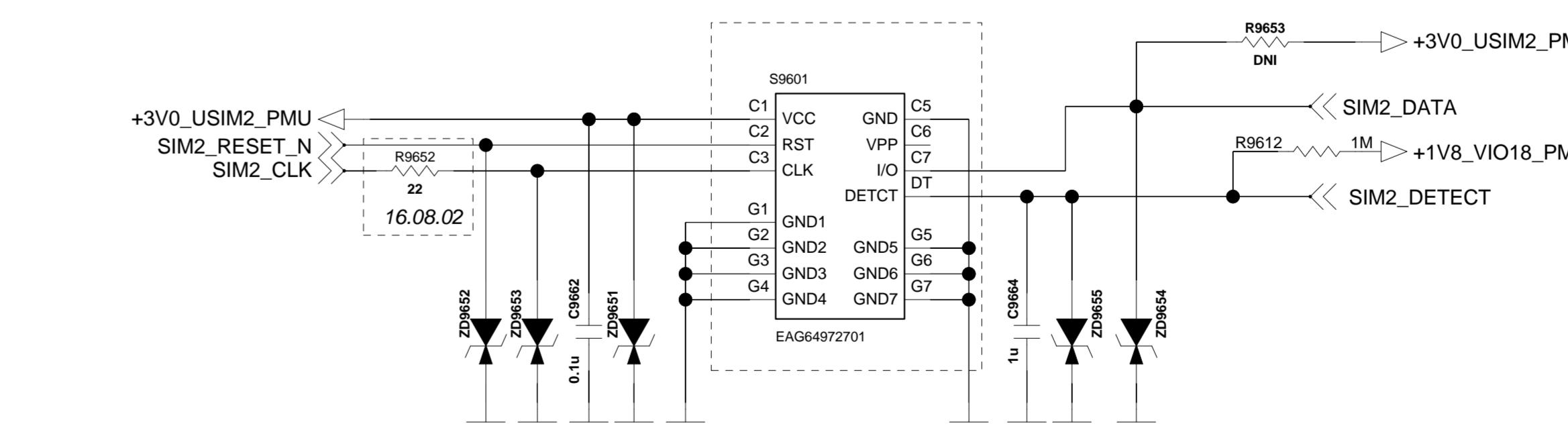


<4-3-3_OVP_RT9718> Rev.0.3

Delete!!! 16.09.03

FACTORY TP
Delete 16.08.30

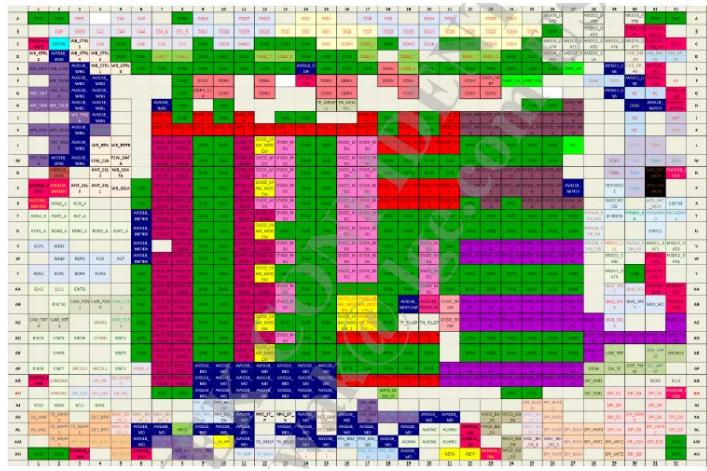
NanoSIM Socket (2nd SIM)



LGE Internal Use Only

6. BGA PIN MAP

U2000_MT6750_IC,Digital Baseband Processor(Top View)



U3300_KMQX10013M-B419_IC, MCP EMMC (Top View)



U4100_MT6353_IC,PMIC (Top View)

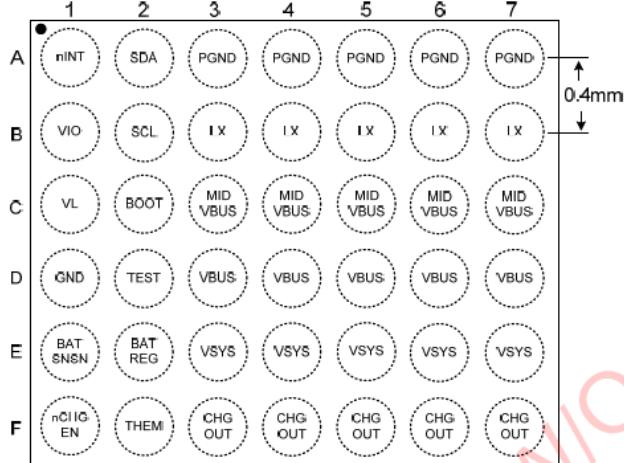
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
A	VPA	GND_VPA			VBAT_VP RDC	GND_VPR DC	VPROC	VPROC	VCCRE2	VBAT_VC ORE	VDORE	VSI	VBAT_VS1	AVIDD2L LD05	AVIDD2L LD05		
B	VBAT_VP	GND_VPR DC_F	VBAT_VP RDC	VPROC	GND_VPR DC	VPROC	VCCRE2	VBAT_VC ORE	VDORE	VSI	VBAT_VS1	VRF18	VRF18	V1018			
C	VPROC_C_F	VCCRE2_F	VBAT_VP RDC	GND_VPR DC	VPROC	VCCRE2	VBAT_VC ORE	VDORE	GND_VSI	VRF12	VCN11	V1018	AVIDD2L LD02				
D	SPH_IN	GND_VCO RE2_F	VPAFB	GND_SMP S	GND_LDO	VPROC	GND_LDO	GND_VCO RE2	GND_VCO RE2	GND_VCO RE2	GND_LDO	GND_VIY	VCAMII	VDRAM			
E	SPK_P	GND_ISINK K	ISINK1	VBAT_3M P	GND_LDO	GND_LDO	GND_LDO	GND_LDO	GND_LDO	GND_LDO	GND_LDO	VICAMD	AVIDD2L LD04	VSRAM_P RDC			
F	VBAT_SPK	AU_FLYN	GND_SPK	VBAT_LD 05	GND_LDO	GND_LDO	GND_LDO	GND_LDO	GND_LDO	GND_LDO	GND_LDO	AVIDD2L LD05	VCOBE_F	GND_VCO RE_F	VCOBE_F	VCOBE_F	
G	AU_FLYP	AVSS18_A	AVD18_U	AUD	GND_LDO	GND_LDO	GND_LDO	GND_LDO	GND_LDO	GND_LDO	GND_LDO	VCOBE_F	GND_VCO RE_F	VCOBE_F	VCOBE_F	VCOBE_F	
H	HFR	HPL	AVSS18_A	AVD18_U	GND_LDO	GND_LDO	GND_LDO	GND_LDO	GND_LDO	GND_LDO	GND_LDO	VCOBE_F	VCOBE_F	VCOBE_F	VCOBE_F	VCOBE_F	
J	AVS28_A	UD	HSP	AU_VINL P	AU_VINL N	AU_VINL P	AU_VINL N	AU_VINL P	AU_VINL N	AU_VINL P	AU_VINL N	VCOBE_F	VCOBE_F	VCOBE_F	VCOBE_F	VCOBE_F	
K	AU_VINZ	AU_VINZ P	AU_VINZ N	AU_VINZ P	AU_VINZ N	AU_VINZ P	AU_VINZ N	AU_VINZ P	AU_VINZ N	AU_VINZ P	AU_VINZ N	VCOBE_F	VCOBE_F	VCOBE_F	VCOBE_F	VCOBE_F	
M	AU_MICB A2D	AU_VIN2	AU_VIN2 N	AU_VIN2	AU_VIN2 N	AU_VIN2	AU_VIN2 N	AU_VIN2	AU_VIN2 N	AU_VIN2	AU_VIN2 N	VCOBE_F	VCOBE_F	VCOBE_F	VCOBE_F	VCOBE_F	
N	AU_MICB A2D	ACDET	CHRDL0	C_S_P	RESETB	TREF											
P	FCH_EN	PCHLLE D	VCO2	C_S_N	VCO28												
R	BAT595	VSYNSNS	CHG_DP	CHG_DM	PWU_TES	TMODE	VBAT_LD Q1	RTC32K_2 VB	XIN	GND_RTC	AVD018_L	AUXADC VIN	VCO28	AVS522_X DUE	XTAL1		
T	ISENSE	BATON	VREF	GND_VREF F	PWRKEY												

U15000_MT6176_IC,RF Transceiver,4G (Top View)

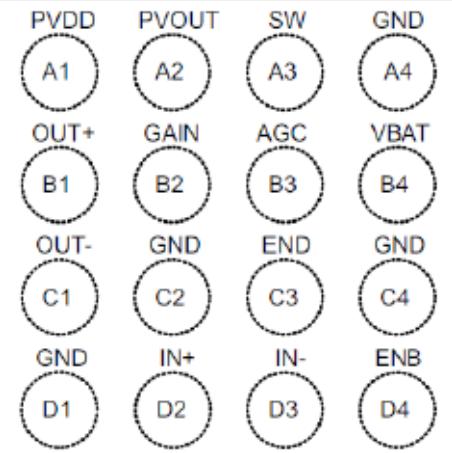
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	IN005	IN005	IN005			DRX11	DRX11			PRDX1	PRDX1			PRDX1	PRDX1
B	DRX11	DRX11	DRX11	DRX11	DRX11	DRX11	DRX11	DRX11	DRX11	DRX11	DRX11	DRX11	DRX11	DRX11	DRX11
C															
D	TXRX1	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND
E															
F	DRX_BB 2_JP	DRX_BB 2_JP	DRX_BB 2_JP	GND	GND	GND	GND	VCO_R XW	VCO_R XW	GND	GND	GND	GND	GND	GND
G	DRX_BB 2_QN	DRX_BB 2_QN	DRX_BB 2_QN	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND
H	PRX_BB 2_JP	PRX_BB 2_QN	PRX_BB 2_QN	GND	GND	GND	GND	VCO_R XW	VCO_R XW	GND	GND	GND	GND	GND	GND
J	PRX_BB 2_QN	PRX_BB 2_QN	PRX_BB 2_QN	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND
K	PRX_BB 2_QP	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND
L	EN_BB	GND	GND	GND	GND	GND	GND	DET_B BIN	DET_B BIN	GND	GND	GND	GND	GND	GND
M	CLK_SE	VCO	VCO	VCO	VCO	VCO	VCO	VCO	VCO	VCO	VCO	VCO	VCO	VCO	VCO
N															
P	XIN	XIN	XIN	XIN	XIN	XIN	XIN	XIN	XIN	XIN	XIN	XIN	XIN	XIN	XIN
R	XIN1	XIN2	XIN3	XIN4	XIN5	XIN6	XIN7	XIN8	XIN9	XIN10	XIN11	XIN12	XIN13	XIN14	XIN15

6. BGA PIN MAP

U4702_SM5424, IC Charger (Top View)

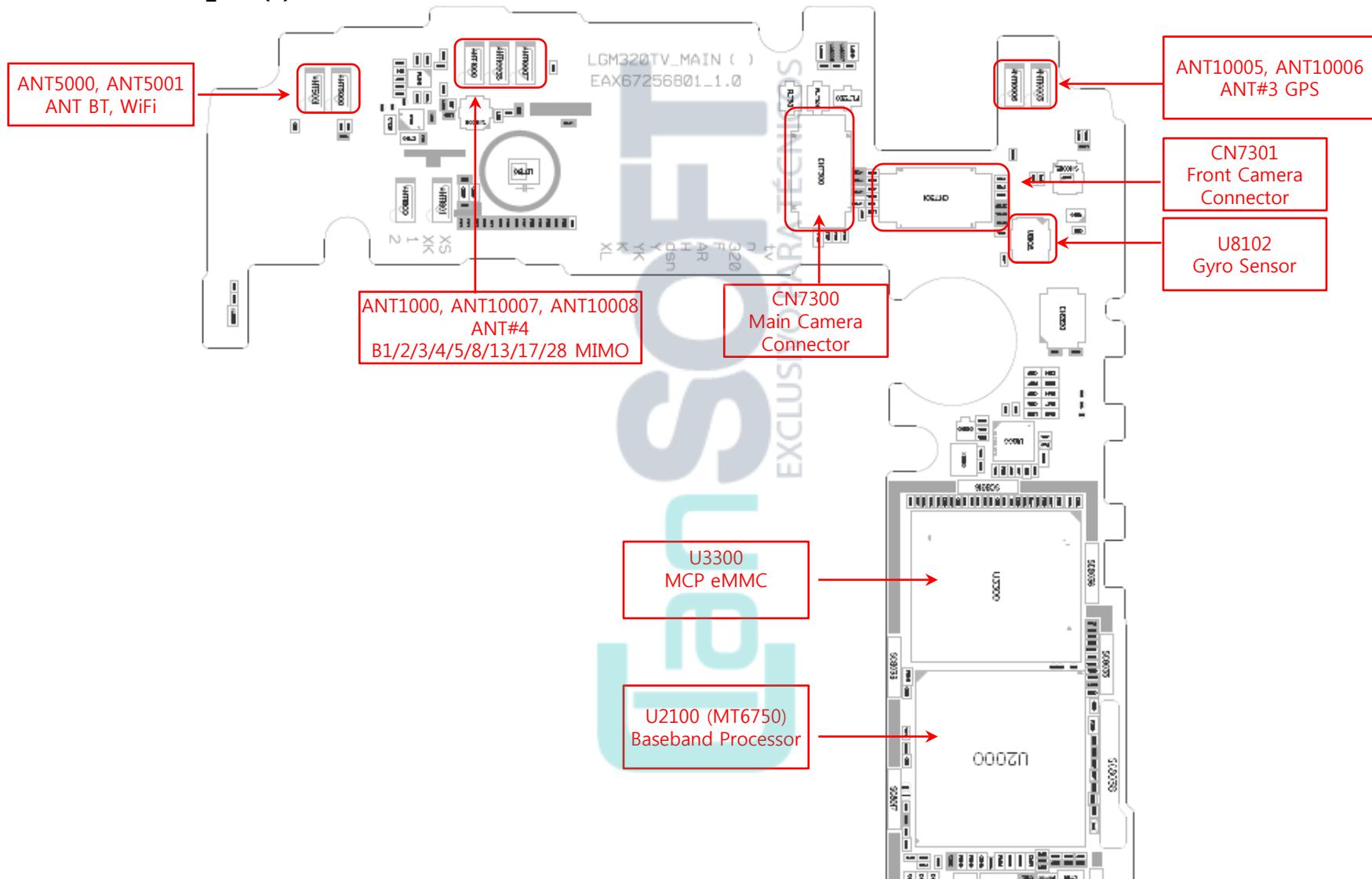


U6610_TPA2015D1, IC, Speaker AMP (Top View)



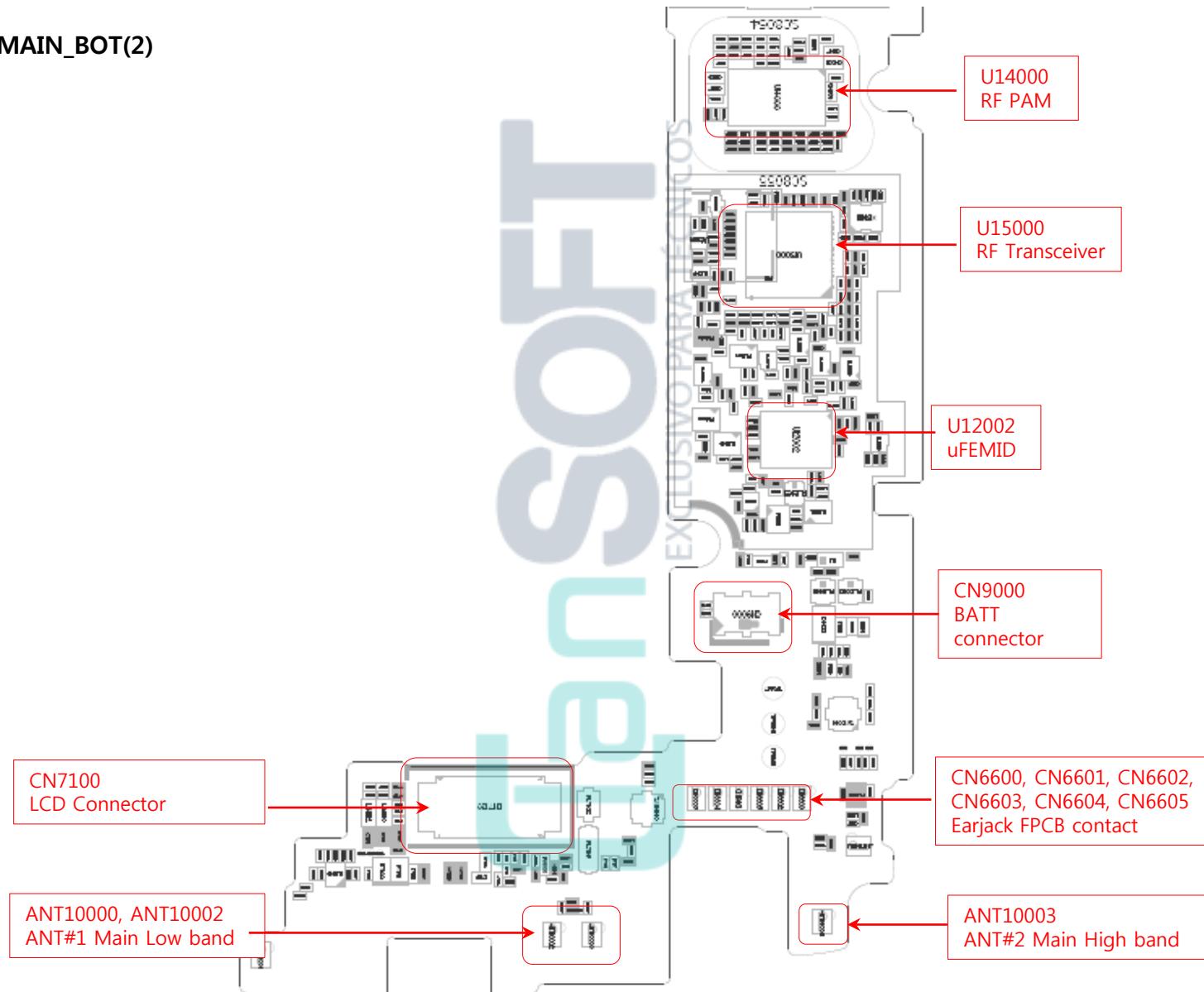
7. PCB LAYOUT

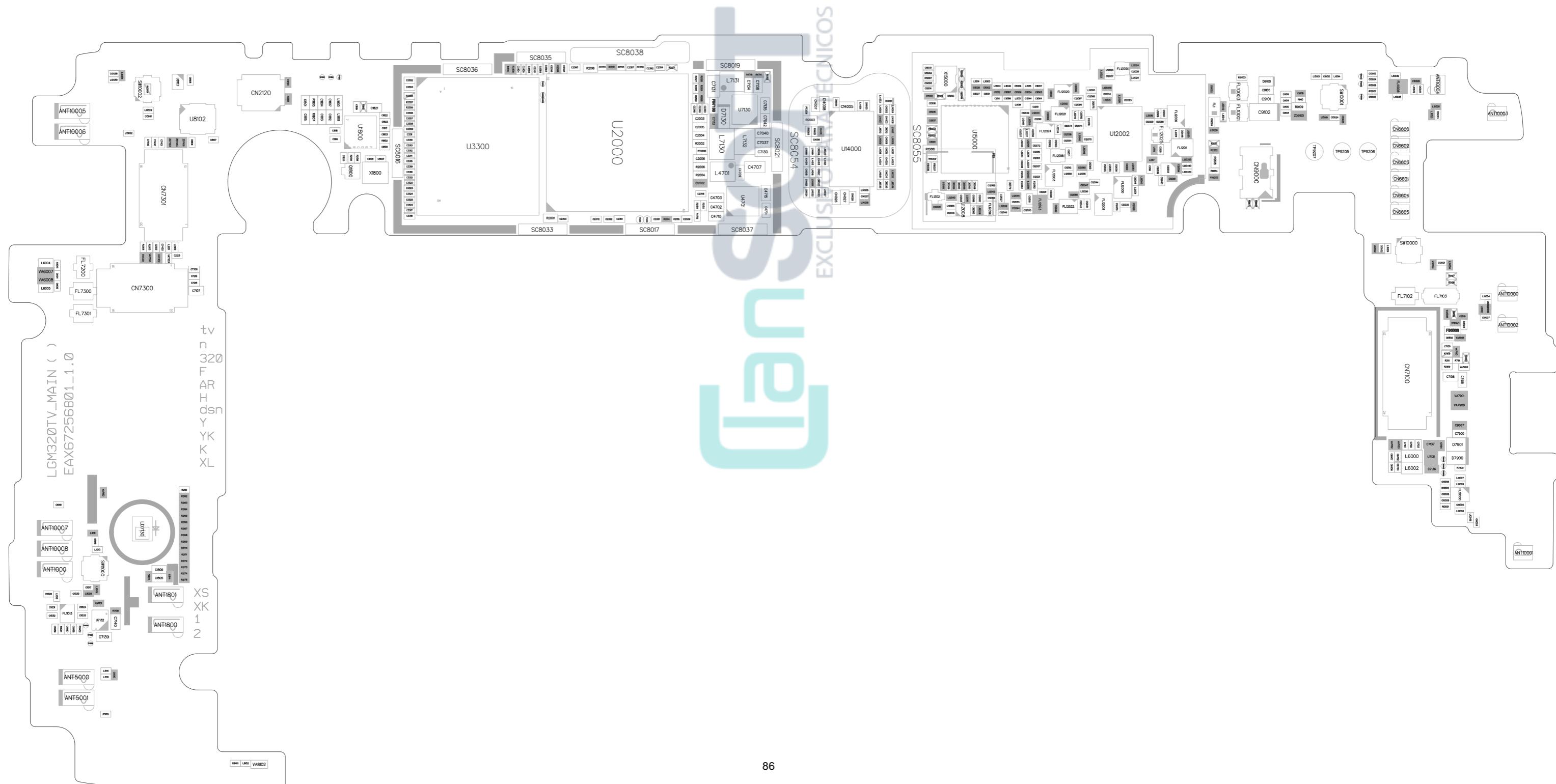
LG-M320TV-MAIN_BOT(1)



7. PCB LAYOUT

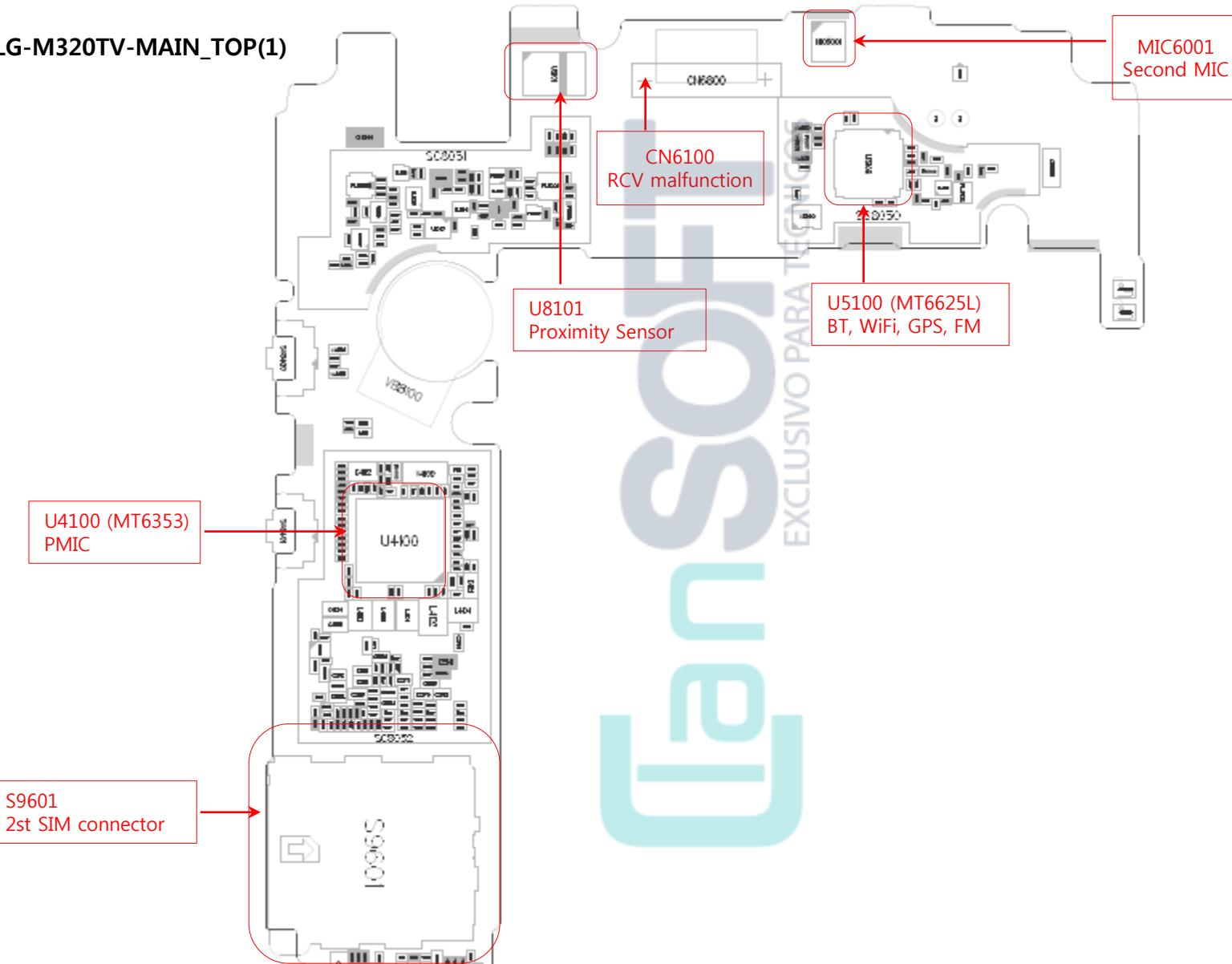
LG-M320TV-MAIN_BOT(2)



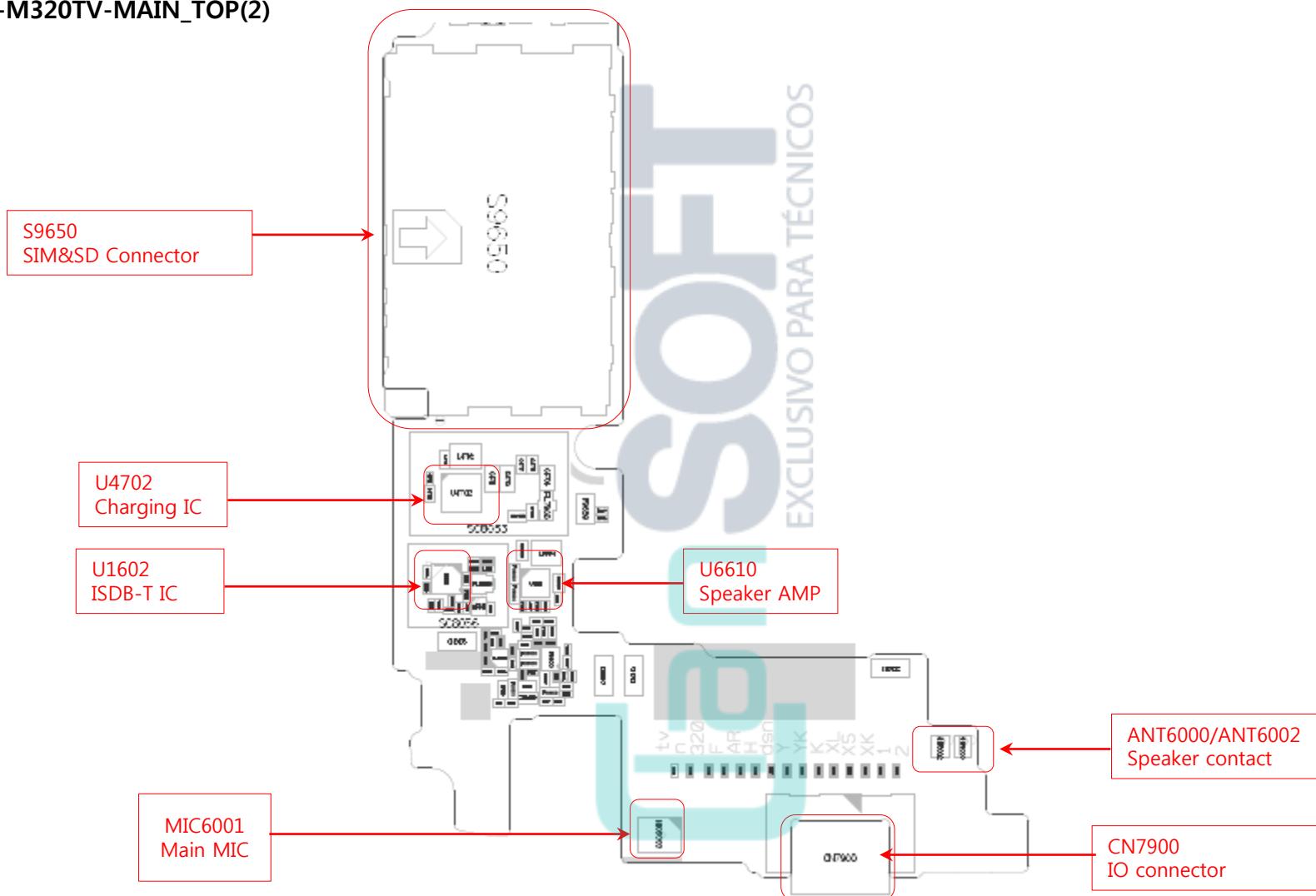


7. PCB LAYOUT

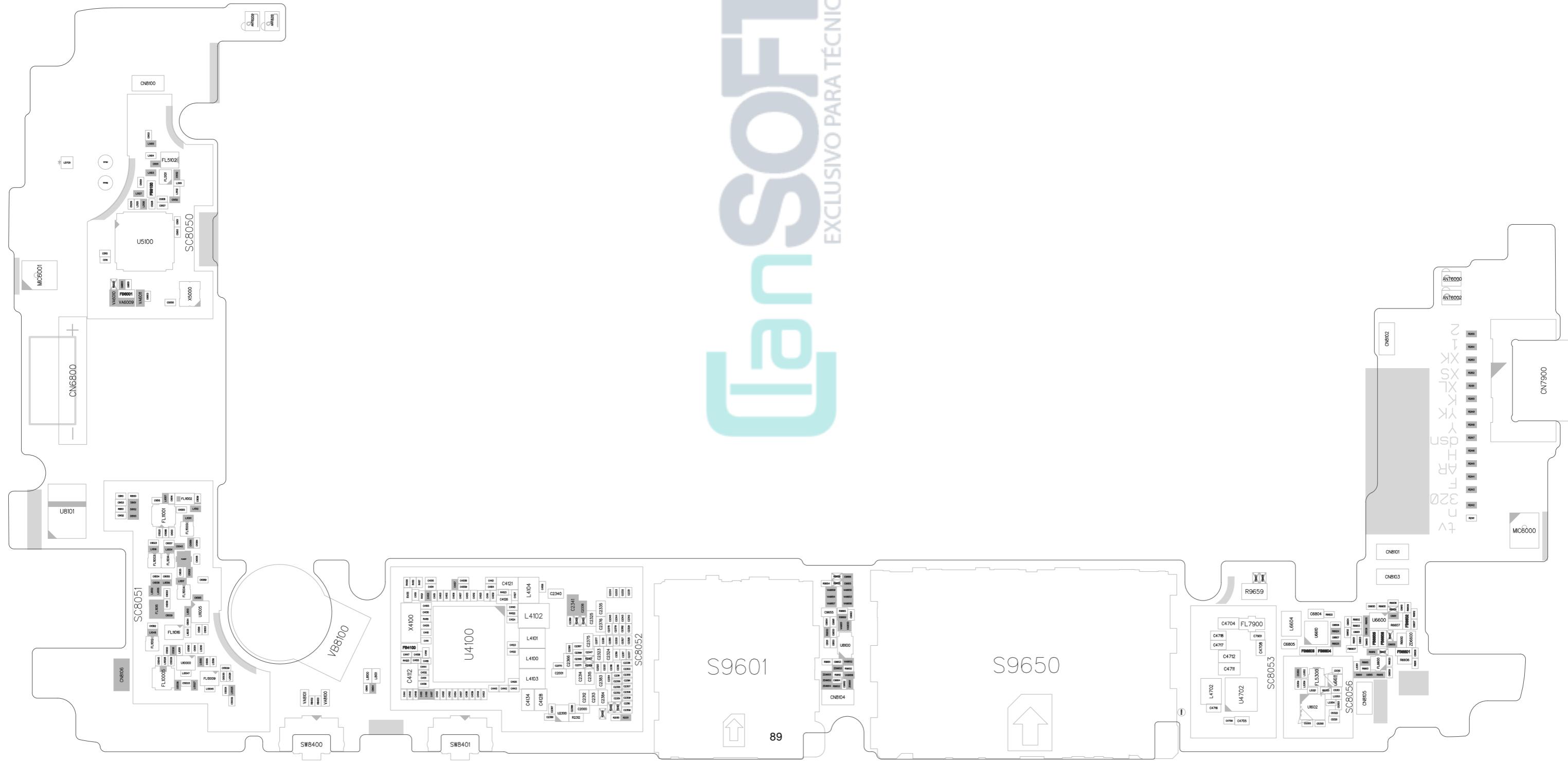
LG-M320TV-MAIN_TOP(1)



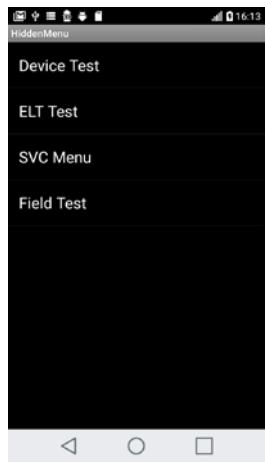
LG-M320TV-MAIN_TOP(2)



EXCLUSIVO PARA TÉCNICOS

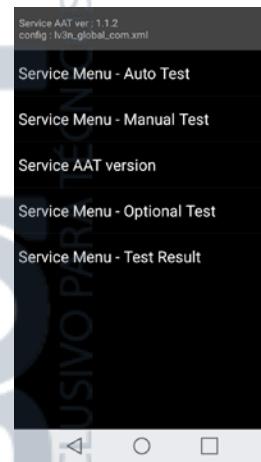


1. Hidden Menu Start



- Start shortcut key:
*#546368#*320#
- Hidden Menu List
: Start the desired menu, click

2. Device Test



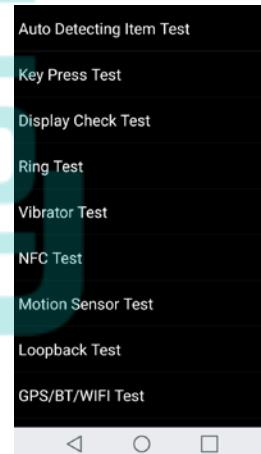
- Service Menu – Auto Test
- Service Menu – Manual Test
- Service AAT version
→ SAAT SW version Display

2. Device Test



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

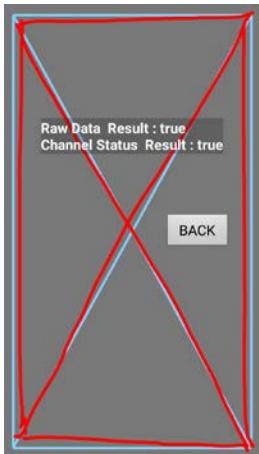
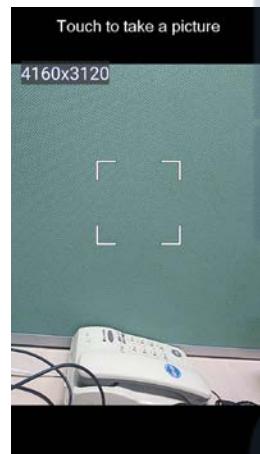
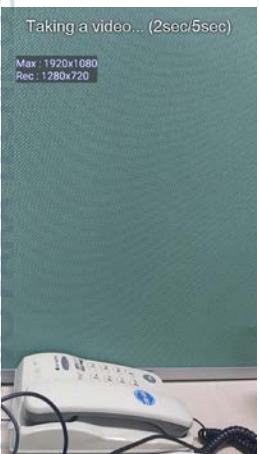
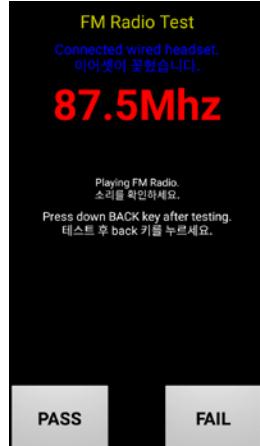
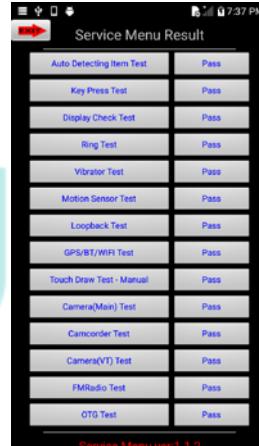
3. Device test List



- 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	4. Ring Test														
<p>Auto Detecting Item</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>SD Card</td><td>Pass</td></tr> <tr> <td>Ear Phone wrong</td><td>Pass</td></tr> <tr> <td>TA wrong</td><td>Fail</td></tr> <tr> <td>Battery</td><td>100%</td></tr> <tr> <td>Battery ID</td><td>Pass</td></tr> </tbody> </table>	Item	Result	USIM Card	Pass	SD Card	Pass	Ear Phone wrong	Pass	TA wrong	Fail	Battery	100%	Battery ID	Pass	<p>The 'EXIT' button to exit</p> <p>END</p> <p>UP UP DOWN DOWN LEFT LEFT RIGHT RIGHT</p> <p>Proximity : FAR</p> <p>Block the sensor with your hand</p> <p>Light:160.00</p> <p>Cal Start</p> <p>PASS FAIL</p>	<p>EXCLUSIVO PARA TÉCNICOS</p> <p>PASS FAIL</p>	<p>The 'EXIT' button to exit</p> <p>Ring Test</p> <p>ON SOUND</p> <p>PASS FAIL</p>
Item	Result																
USIM Card	Pass																
SD Card	Pass																
Ear Phone wrong	Pass																
TA wrong	Fail																
Battery	100%																
Battery ID	Pass																
5. Vibrator Test	6. Motion Sensor Test	7. Loop Back Test	8. GPS/BT/WIFI Test														
<p>The 'EXIT' button to exit</p> <p>Vibrator Test</p> <p>ON VIBRATION</p> <p>PASS FAIL</p>	<p>Magnetic(N/A)</p> <p>Accelerometer X -0.81 Y 0.16 Z 3.62</p> <p>Motion Accel(N/A)</p> <p>Gyroscope Sensor(N/A)</p> <p>Stand the phone horizontal.</p> <p>PASS FAIL</p>	<p>The 'EXIT' button to exit</p> <p>LOOPBACK TEST</p> <p>AUDIO OFF</p> <p>SPEAKER OFF</p> <p>PASS FAIL</p>	<p>GPS(RF) Test 17 Sec</p> <p>GPS Test GLO Test</p> <p>CNo : 0.0 dB CNo : 0.0 dB</p> <p>Bluetooth Scanning</p> <p>BT Scan complete.</p> <p>4D:02:97:02:CD:5B Pass</p> <p>WiFi Scanning</p> <p>WiFi Scan Complete.</p> <p>BSSID: 10:8c:cf:44:5b:57 Pass</p> <p>PASS Retry FAIL</p>														

9. Touch Draw -Manual	10. Camera(Main) Test	11. Camcorder Test	12. VT Camera Test
			
13. FM Radio Test	14. OTG Test	15. SAAT RESULT	
			

9. DOWNLOAD

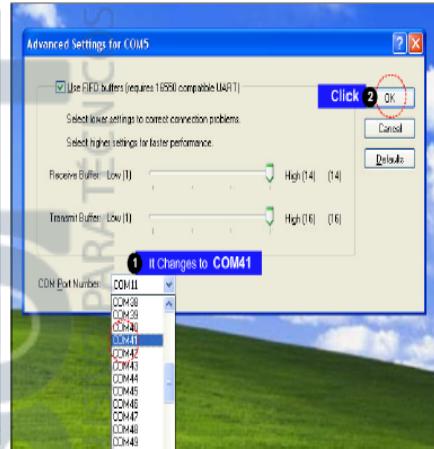
1. Summary

Tool Version	DLL name	USB Driver
LGFLASH v216	LGM320TV_20170117_LGFLASHv216.dll	LGUnitedMobileDriver_S52MAN314AP22_ML_WHQL_Ver_3.14.1

Please Check the Version to "LGST ServiceCenter Tool"



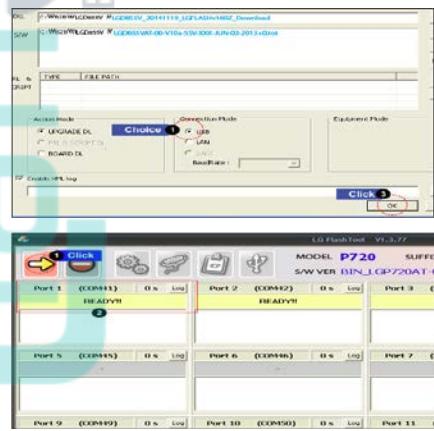
2. . USB COM port Setting



3. USB D/L Cable setting



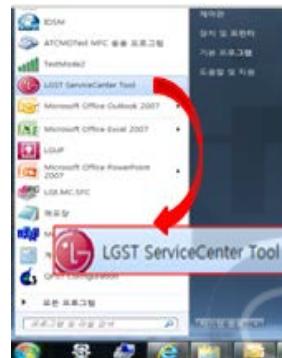
4. Flash tool D/L setting



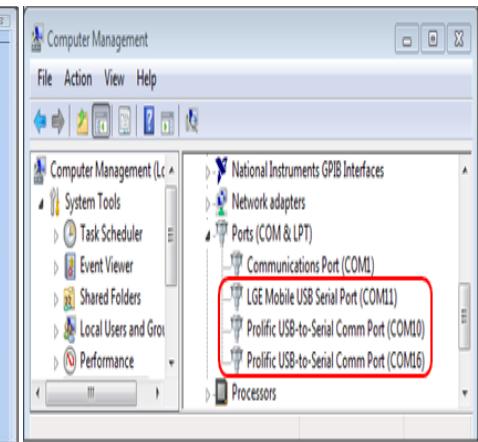
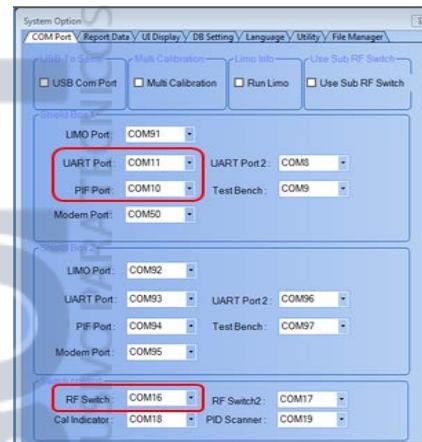
* If you want more information, please refer LGST ServiceCenter Tool's Notification "Download User Guide".

1. Summary

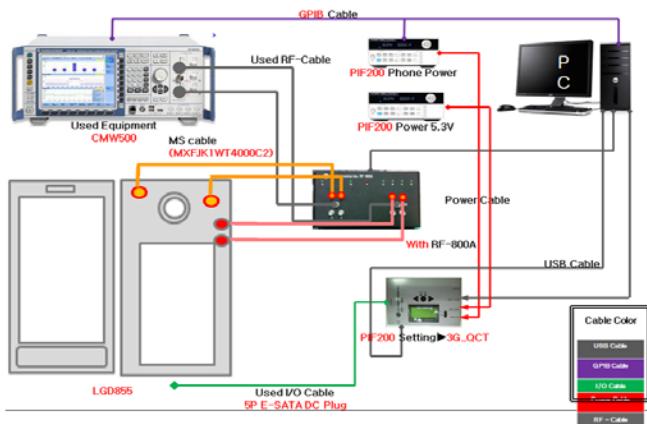
CAL INFORMATION		
S/W VERSION		
Please Check the Version to "B2B"		
H/W	Name	Part No.
PIF	PIF200	BJAY0024021
USB Cable	Micro 5P (56-open-910K) USB DLC	RAD32167835
Power Cable	DC Power Cable	RAD32247878
I/O Cable	5P+SATA Cable(130K)	RAD32847816
RF Cable Main	MXFJM3WX6000	RAD32827895
Power Supply PIF		
Power Supply Phone	Power supply 5.0V	
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		



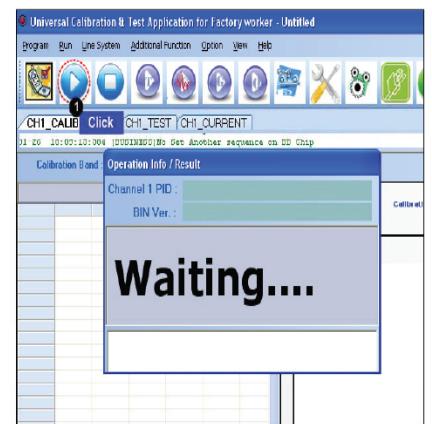
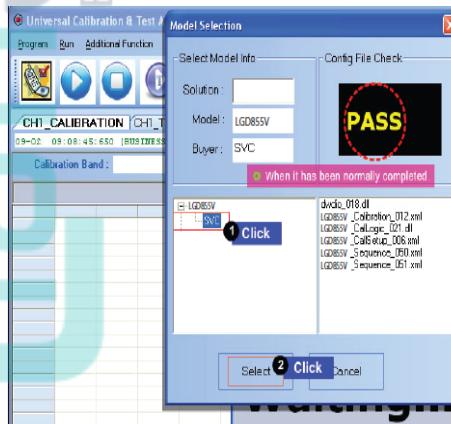
2. . USB COM port Setting



3. Calibration Cable setting

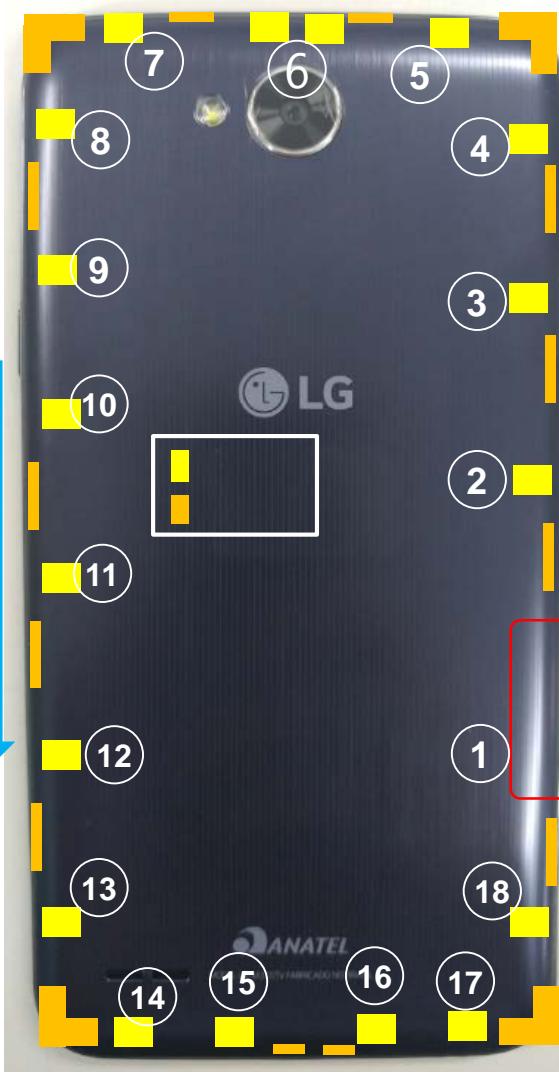


4. Tachyon setting



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

Cover Battery



LGE Internal Use Only

1. SIM TRAY Remove



2. Insert the disassembly tool into the Battery Cover



3. Move the tool and disassemble the hook



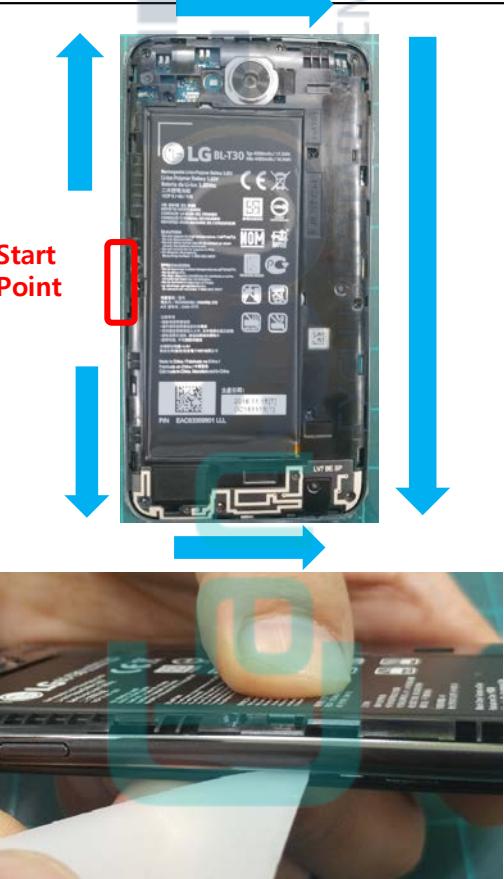
5. Disassemble the Same Method



► Cover Rear



2. Insert the disassembly tool into the Rear



3. Decomposition Complete



11. Disassemble Guide



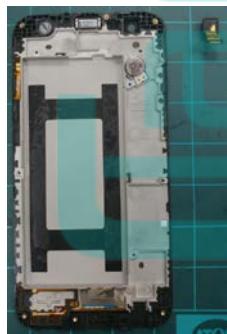
2. Disassemble The PCB



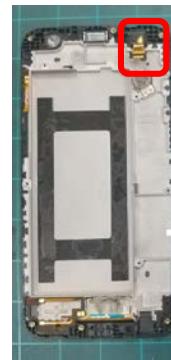
3 Disassemble The Battery

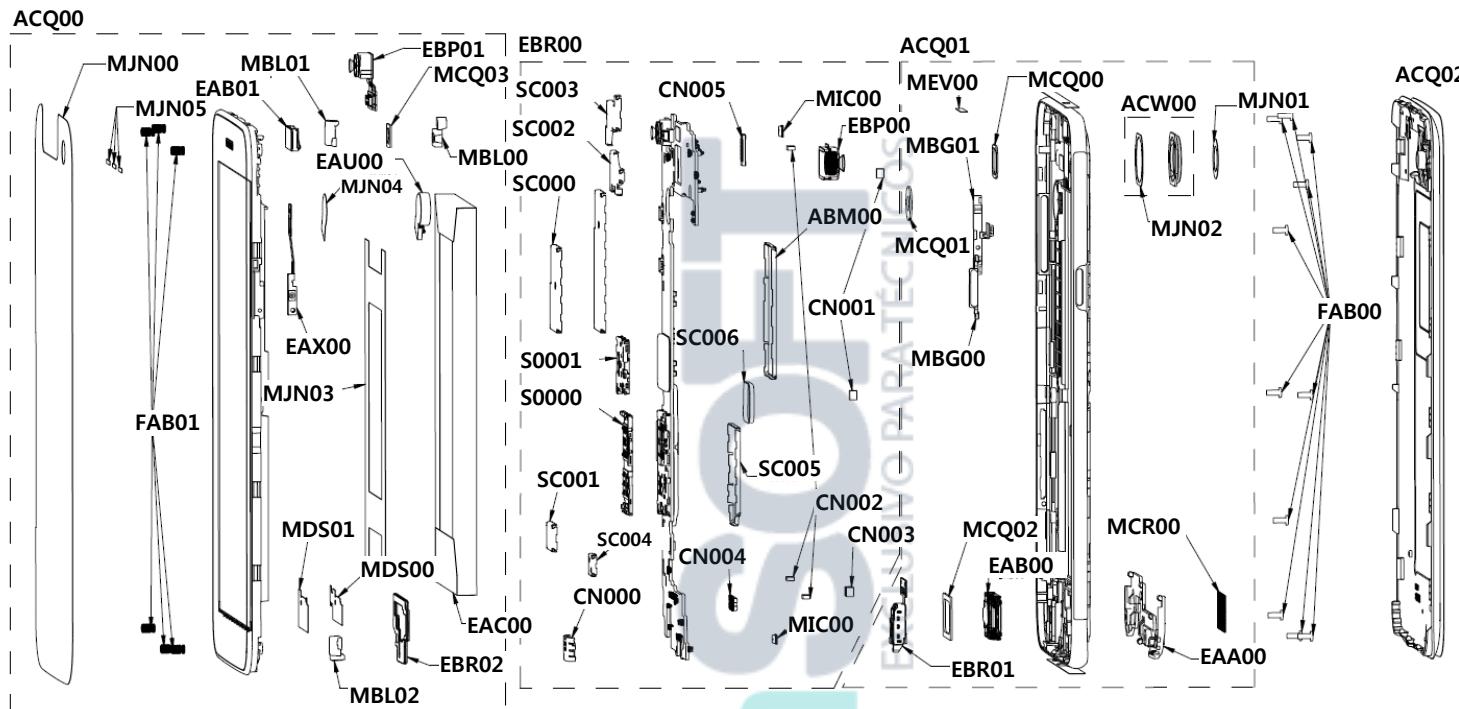


7. Decomposition Complete



6. Disassemble Front Camera





Location no	Description	Location no	Description	Location no	Description	Location no	Description
EBR00	PCB Assembly,Main	CN003	Connector,Terminal Block	MCR00	Decor	MJN05	Tape
ABM00	Can Assembly,Shield	CN004	Connector,BtoB	MEV00	Insulator	EAX00	PCB,Flexible
MIC00	Microphone,Condenser	SC005	Can,Shield	ACW00	Decor Assembly,SVC	MCQ03	Damper,Camera
SC000	Can Assembly,Shield	CN005	Connector,BtoB	MJN02	Tape,Window	MBL00	Cap
SC001	Can Assembly,Shield	SC006	Can,Shield	EAA00	PIFA Antenna,Multiple	MDS00	Gasket
CN000	Connector,I/O	EBP00	Camera Module	EAB00	Speaker,Dual Mode	EAB01	Receiver
CN001	Connector,Terminal	ACQ01	Cover Assembly,Rear(SVC)	EBR01	PCB Assembly,Flexible	EBC02	PCB Assembly,Flexible
CN002	Connector,Terminal	MBG00	Button,Side	ACQ00	Cover Assembly	EAU00	Motor,DC
S0000	Socket,DIMM/SIMM	MBG01	Button,Side	MBL01	Cap	EBP01	Camera Module
S0001	Socket,DIMM/SIMM	MJN01	Tape,Window	MBL02	Cap	MJN00	Tape,Protect
SC002	Can,Shield	MCQ00	Damper,Camera	MJN03	Tape	EAC00	Rechargeable Battery,Lithium Polymer
SC003	Can,Shield	MCQ01	Damper,Camera	MJN04	Tape	FAB01	Screw,Tapping
SC004	Can,Shield	MCQ02	Damper,Camera	MDS01	Gasket	FAB00	Screw,Machine
LGE Internal Use Only		ACQ02	Cover Assembly,Battery	98	Copyright (c) 2017 LG Electronics, Inc. All rights reserved. Only training and service purposes.		

13. REPLACEMENT PART LIST

No	Part No	Description	Qty	Location No.
1	AGQ89450501	Phone Assembly	1	
2	SAD36251401	Software,Mobile	1	
3	ACQ89574601	Cover Assembly,EMS	1	
4	EBR84199601	PCB Assembly,Main	1	
5	EBR84277901	PCB Assembly,Main,Insert	1	
6	ABM75536051	Can Assembly,Shield	1	
7	MBK64933351	Can Assembly,Shield	1	
8	MEV66111051	Insulator	1	
9	MCQ69106901	Damper	1	
10	EBR84218401	PCB Assembly,Main,SMT	1	
11	EBR83824602	PCB Assembly,Main,SMT Top	1	
12	EAB62950801	Microphone,Condenser	2	
13	ABM75536005	Can Assembly,Shield	1	
14	MBK64933305	Can,Shield	1	
15	MEV66111005	Insulator	1	
16	ABM75536006	Can Assembly,Shield	1	
17	MBK64933306	Can,Shield	1	
18	MEV66111006	Insulator	1	
19	EAE62282201	Capacitor,Ceramic,Chip	2	
20	EAE62286801	Capacitor,Ceramic,Chip	1	
21	EAE62502901	Capacitor,Ceramic,Chip	5	
22	EAE62506501	Capacitor,Ceramic,Chip	1	
23	EAE62685201	Capacitor,Ceramic,Chip	1	
24	EAE62685601	Capacitor,Ceramic,Chip	1	
25	EAE62726601	Capacitor,Ceramic,Chip	3	
26	EAE62762301	Capacitor,Ceramic,Chip	10	
27	EAE62767801	Capacitor,Ceramic,Chip	1	
28	EAX67256801	PCB,Main	1	
29	EAE62946501	Capacitor(High Frequency),Ceramic,Chip	1	
30	EAE63162401	Capacitor,Ceramic,Chip	2	
31	EAE63286601	Capacitor,Ceramic,Chip	5	
32	EAE63621501	Capacitor,Ceramic,Chip	13	
33	EAE64061601	Capacitor,Ceramic,Chip	8	
34	EAE64262401	Capacitor,Ceramic,Chip	1	
35	EAG64149901	Connector,I/O	1	
36	EAG64451601	Connector,Terminal	2	
37	EAG64672301	C-Clip	2	
38	EAG64451501	Connector,Terminal	5	
39	EAG64850401	Socket,DIMM/SIMM	1	
40	EAG64972701	Socket,DIMM/SIMM	1	
41	EAG64973401	C-Clip	2	
42	EAH62033201	Diode,TVS	1	

13. REPLACEMENT PART LIST

No	Part No	Description	Qty	Location No.
43	EAM62072101	Filter,Bead	2	FB6603,FB6604
44	EAM62252001	Filter,Bead	1	FB6607
45	EAM62630901	Filter,Bead	1	FB6606
46	EAM62730001	Filter,Separator,Switch	1	FL6600
47	EAM62791701	Filter,Separator	1	FL10005
48	EAM62890601	Filter,Saw	1	FL5300
49	EAM63450501	Filter,Saw,Dual	1	FL11016
50	EAM64030601	Filter,Separator	1	FL11002
51	EAM64112901	Filter,Saw	1	FL11012
52	EAM64230301	Filter,Saw	1	FL5101
53	EAN62578201	IC,Analog Switch	1	U6600
54	EAN62777001	IC,Speaker Amplifier	1	U6610
55	EAN63567401	IC,ISDBT	1	U1602
56	EAN62969801	IC,Hall Effect Switch	1	U8100
57	EAN63106301	IC,RF Amplifier	1	U10000
58	EAN63486501	IC,WiFi	1	U5100
59	EAN63606501	IC,LDO Voltage Regulator	1	U2300
60	EAN63648001	IC,Proximity	1	U8101
61	EAN63788301	IC,RF Amplifier	1	FL10009
62	EAP61866701	Inductor,Multilayer,Chip	1	L5125
63	EAN64294701	IC,PMIC	1	U4100
64	EAN64412601	IC,Charger	1	U4702
65	EAN64426801	IC,RF Amplifier	1	U11005
66	EAP61866601	Inductor,Multilayer,Chip	1	R6620
67	EAP62225901	Inductor,Multilayer,Chip	2	C10033,C11058
68	EAP62108101	Inductor,Multilayer,Chip	2	L10010,L10026
69	EAP62108401	Inductor,Multilayer,Chip	1	L10047
70	EAP62108201	Inductor,Multilayer,Chip	1	L10011
71	EAP62108501	Inductor,Multilayer,Chip	2	L5302,L5309
72	EAP62226601	Inductor,Multilayer,Chip	1	L5303
73	EAP62226501	Inductor,Multilayer,Chip	1	C10040
74	EAP62227101	Inductor,Multilayer,Chip	1	L5102
75	EAP62227301	Inductor,Multilayer,Chip	1	C10015
76	EAP62227701	Inductor,Multilayer,Chip	1	L5101
77	EAP62227501	Inductor,Multilayer,Chip	2	L10016,L10045
78	EAP622266401	Inductor,Multilayer,Chip	1	C11089
79	EAP62526401	Inductor,Multilayer,Chip	1	L11033
80	EAP63067001	Inductor,Multilayer,Chip	1	C11019
81	EAP63106201	Inductor,Wire Wound,Chip	1	L6604
82	EAP63808301	Inductor,Wire Wound,Chip	1	R6610
83	EAP63485901	Inductor,Multilayer,Chip	1	C11082
84	EAP63666401	Inductor,Wire Wound,Chip	1	L4104

13. REPLACEMENT PART LIST

No	Part No	Description	Qty	Location No.
85	EAP63807801	Inductor,Wire Wound,Chip	4	L4100,L4101,L4103,L4702
86	EAP63826001	Inductor,Wire Wound,Chip	1	L4102
87	EAV63531901	LED,Flash	1	LD7131
88	EAW63143601	Oscillator,TCXO	1	X5000
89	EBC61856101	Resistor,Chip	3	R8101,R9651,R9652
90	ECCH0009102	Capacitor,Ceramic,Chip	3	C6606,C6607,C6608
91	EBC61997701	Resistor,Chip	1	R6600
92	ECCH0009103	Capacitor,Ceramic,Chip	17	C10010,C10013,C10029,C11014,C11015,C11054,C11061,C5101,C5103,C5108,C5111,C6601,C8110, L5104,L5301,L5304,R6613
93	EBC62035901	Resistor,Chip	2	R4122,R4123
94	EBF61974601	Switch,Tact	2	SW8400,SW8401
95	ECCH0009106	Capacitor,Ceramic,Chip	4	C10030,C11053,C2388,C5128
96	ECCH0000182	Capacitor,Ceramic,Chip	1	C2000
97	ECCH0004904	Capacitor,Ceramic,Chip	1	C2001
98	ECCH0009101	Capacitor,Ceramic,Chip	22	C10011,C2337,C2347,C2359,C2368,C2369,C2370,C2371,C2389,C2390,C4105,C4118,C4130,C4132, C5100,C5322,C6803,C6806,C6807,C8100,C8101,C9662
99	ECCH0007805	Capacitor,Ceramic,Chip	1	C2366
100	ECCH0009104	Capacitor,Ceramic,Chip	3	C11084,C6602,C6603
101	ECCH0009208	Capacitor,Ceramic,Chip	1	C5309
102	ECCH0009502	Capacitor,Ceramic,Chip	1	C5303
103	ECCH0009216	Capacitor,Ceramic,Chip	5	C10032,C4110,C4111,C9653,C9661
104	ECZH0025920	Capacitor,Ceramic,Chip	3	C4120,C5350,C6611
105	ECCH0009228	Capacitor,Ceramic,Chip	1	C5109
106	ECCH0009514	Capacitor,Ceramic,Chip	1	C9650
107	ECCH0017301	Capacitor,Ceramic,Chip	59	C2300,C2301,C2302,C2303,C2304,C2305,C2306,C2307,C2308,C2309,C2310,C2311,C2316,C2317, C2318,C2319,C2320,C2321,C2377,C2378,C2379,C2380,C2381,C2382,C2386,C2387,C2391,C4008, C4009,C4010,C4011,C4012,C4013,C4106,C4107,C4108,C4109,C4119,C4131,C4133,C4141,C4144, C4146,C4147,C4148,C4149,C4151,C4152,C4153,C4154,C4156,C4706,C5000,C5110,C5305,C8102, C8103,C9663,C9664
108	ECCH0017501	Capacitor,Ceramic,Chip	2	C4128,C4134
109	ERHY0009501	Resistor,Chip	1	R9669
110	ECCH0017601	Capacitor,Ceramic,Chip	1	C9655
111	ECCH0034801	Capacitor,Ceramic,Chip	12	C2327,C2328,C2329,C2330,C2331,C2332,C2333,C2334,C2342,C2343,C2344,C2345
112	ECCH0042301	Capacitor,Ceramic,Chip	1	C4704
113	ECZH0001215	Capacitor,Ceramic,Chip	1	C4705
114	ECZH0025916	Capacitor,Ceramic,Chip	7	C10014,C10031,C10039,C6610,C6801,C8105,C9654
115	ERHY0000278	Resistor,Chip	1	R2312
116	ERHY0009307	Resistor,Chip	1	R6609
117	ERHY0009503	Resistor,Chip	2	R8402,R8403
118	ERHY0009504	Resistor,Chip	4	R4116,R4121,R6601,R6602
119	ERHY0009505	Resistor,Chip	3	R6611,R6612,R6622

13. REPLACEMENT PART LIST

No	Part No	Description	Qty	Location No.
120	ERHZ0000401	Resistor,Chip	2	L8100,L8101
121	ERHY0009506	Resistor,Chip	1	R2141
122	ERHY0009507	Resistor,Chip	2	R9612,R9654
123	ERHY0009511	Resistor,Chip	2	R4120,R6603
124	ERHY0009522	Resistor,Chip	1	R4110
125	ERHY0009526	Resistor,Chip	2	R2130,R8100
126	ERHY0009527	Resistor,Chip	1	R6608
127	ERHY0009547	Resistor,Chip	1	R4117
128	ERHY0009559	Resistor,Chip	1	R4108
129	ERHY0035601	Resistor,Chip	1	R9659
130	ERHZ0000270	Resistor,Chip	2	R6606,R6607
131	ERHZ0000279	Resistor,Chip	1	R4111
132	EXXY0018701	Crystal	1	X4100
133	MBK64933301	Can,Shield	1	SC002
134	MBK64933302	Can,Shield	1	SC003
135	SAFP0000401	Wire Pad,Short	15	R2000,R2301,R2302,R2305,R2306,R2307,R2308,R6020,R6604,R6617,R6621,R9655,R9656,R9657, R9658
136	MBK64933307	Can,Shield	1	SC004
137	SAFO0000401	Wire Pad,Open	1	R5300
138	SEVY0005201	Varistor	2	VA8100,VA8101
139	SFBH0008101	Filter,Bead	1	FB5100
140	SFBH0008102	Filter,Bead	4	FB6001,FB6601,FB6602,FB6605
141	SFBH0008106	Filter,Bead	1	FB4100
142	SFEY0015301	Filter,EMI/Power	1	FL7900
143	E8R83825402	PCB Assembly,Main,SMT Bottom	1	E8R071600
144	EAE62282201	Capacitor,Ceramic,Chip	1	C6600,C6609
145	EAE62286801	Capacitor,Ceramic,Chip	1	C4101
146	EAE62502901	Capacitor,Ceramic,Chip	11	C4708,C4717,C4718,C6804,C6805
147	EAE62506201	Capacitor,Ceramic,Chip	2	L14023,L14036
148	EAE62506501	Capacitor,Ceramic,Chip	4	C4126
149	EAE62524201	Capacitor,Ceramic,Chip	1	C14012
150	EAE62685301	Capacitor,Ceramic,Chip	6	C2003,C2004,C2005,C2006,C4701,C7900
151	EAE62726601	Capacitor,Ceramic,Chip	4	C2338,C4113,C4114
152	EAE64061601	Capacitor,Ceramic,Chip	6	C2367,C4104,C4142,C4143,C4145,C4150,C5107,C5321
153	EAP62906001	Inductor,Wire Wound,Chip	2	L6004,L6005
154	EAP62108201	Inductor,Multilayer,Chip	2	L10011
155	ERHZ0000308	Resistor,Chip	1	R9109
156	ECCH0009101	Capacitor,Ceramic,Chip	36	C10011,C2337,C2347,C2359,C2368,C2369,C2370,C2371,C2389,C2390,C4105,C4118,C4130,C4132, C5100,C5322,C6803,C6806,C6807,C8100,C8101,C9662
157	EAP62906101	Inductor,Multilayer,Chip	1	L12004
158	EAP63586501	Inductor,Wire Wound,Chip	2	L4701,L7131

13. REPLACEMENT PART LIST

No	Part No	Description	Qty	Location No.
159	EAG64973401	C-Clip	11	ANT6000,ANT6002
160	EAH62213401	Diode,TVS	1	D9100
161	ECCH0009504	Capacitor,Ceramic,Chip	1	C12007
162	EAM64072401	Filter,Duplexer	1	FL12011
163	EBG62665701	Thermistor,NTC	2	PT2000,PT2001
164	EAN63807801	IC,RF Amplifier	1	FL12024
165	EAM62291101	Filter,EMI/Power	1	FL7200
166	EAP61866401	Inductor,Multilayer,Chip	1	C14023
167	ERHY0009536	Resistor,Chip	1	R7911
168	EAP62109801	Inductor,Wire Wound,Chip	2	L6000,L6002
169	EBC62595901	Resistor,Chip	1	R15007
170	EAN64187401	IC,Geomagnetic Sensor	1	U8103
171	EAM63730401	Filter,Bead	1	FB7130
172	ECCH0007804	Capacitor,Ceramic,Chip	1	C9105
173	ERHY0009506	Resistor,Chip	5	R2141
174	ECZH0025920	Capacitor,Ceramic,Chip	2	C4120,C5350,C6611
175	ERHZ0000220	Resistor,Chip	1	R2016
176	EAH63092501	Diode,TVS	2	D7900,D7901
177	ERHY0009527	Resistor,Chip	1	R6608
178	ERHY0009311	Resistor,Chip	1	R10003
179	EAT63375201	Module,Rx Module	1	U12002
180	EAM64030501	Filter,Separator	1	FL1
181	EAE64543301	Capacitor,Ceramic,Chip	2	C6006,C6007
182	EAG63412101	Connector,Terminal Block	1	CN003
183	EAE62884201	Capacitor(High Frequency),Ceramic,Chip	1	L14017
184	EAN64345901	IC,Digital Baseband Processor,4G	1	U2000
185	EBC62575901	Resistor,Chip	2	R15008,R15009
186	EAE64383601	Capacitor,Ceramic,Chip	1	C4715
187	ECZH0025917	Capacitor,Ceramic,Chip	1	C9103
188	EAV62991901	LED,Flash	1	LD7130
189	EAE63541901	Capacitor,Ceramic,Chip	1	C7131
190	EAN64261601	IC,MCP,eMMC	1	U3300
191	EAN64086201	IC,RF Transceiver,4G	1	U15000
192	ECCH0017301	Capacitor,Ceramic,Chip	18	C2300,C2301,C2302,C2303,C2304,C2305,C2306,C2307,C2308,C2309,C2310,C2311,C2316,C2317,C2318,C2319,C2320,C2321,C2377,C2378,C2379,C2380,C2381,C2382,C2386,C2387,C2391,C4008,C4009,C4010,C4011,C4012,C4013,C4106,C4107,C4108,C4109,C4119,C4131,C4133,C4141,C4144,C4146,C4147,C4148,C4149,C4151,C4152,C4153,C4154,C4156,C4706,C5000,C5110,C5305,C8102,C8103,C9663,C9664
193	EAE62924001	Capacitor(High Frequency),Ceramic,Chip	2	C7403,VA7303
194	ECZH0001412	Capacitor,Ceramic,Chip	1	C4707
195	EAN64587401	IC,Charger	1	U4701

13. REPLACEMENT PART LIST

No	Part No	Description	Qty	Location No.
196	EAP62886101	Inductor,Multilayer,Chip	2	L12034,L5110
197	EAP63746801	Inductor,Multilayer,Chip	1	C10002
198	ERHZ0000250	Resistor,Chip	1	R2001
199	ECCH0009105	Capacitor,Ceramic,Chip	3	C7101,C7102,C7103
200	ENBY0036001	Connector,BtoB	1	CN004
201	ECCH0000133	Capacitor,Ceramic,Chip	1	C14007
202	MBK64933353	Can,Shield	1	SC005
203	EAE62946901	Capacitor(High Frequency),Ceramic,Chip	1	C14010
204	MEZ65049701	Label	1	PID1
205	EAE62945901	Capacitor(High Frequency),Ceramic,Chip	2	L14010,L14020
206	EBC61856201	Resistor,Chip	2	R3306,R3307
207	ERHY0000166	Resistor,Chip	2	R2002,R2003
208	SFBH0008102	Filter,Bead	1	FB6001,FB6601,FB6602,FB6605
209	EAG63772101	Connector,RF	4	SW10000,SW10001,SW10002,SW11000
210	ERHY0009519	Resistor,Chip	1	R14001
211	EAM63930301	Filter,Duplexer	1	FL12000
212	EAE64061501	Capacitor,Ceramic,Chip	1	C14028
213	EAN64168101	IC,Gyro Sensor	1	U8102
214	ECA30360101	Coupler,RF Directional	2	FL10001,FL10003
215	ENBY0040701	Connector,BtoB	2	CN005
216	ERHZ0000236	Resistor,Chip	1	R15010
217	ERHY0009543	Resistor,Chip	1	R9664
218	ECZH0001217	Capacitor,Ceramic,Chip	1	C14026
219	MBK64933352	Can,Shield	1	SC006
220	EAH63393501	Diode,TVS	2	C6702,C6703
221	EAP63626601	Inductor,Multilayer,Chip	1	L7132
222	EAN64259501	IC,Power Amplifier	1	U14000
223	EAN64286201	IC,LED Driver	1	U7132
224	ERHZ0000406	Resistor,Chip	1	R2006
225	EAW63183901	Oscillator,VCTCXO	1	X15000
226	ECCH0009228	Capacitor,Ceramic,Chip	1	C5109
227	EAE63143201	Acoustic Noise MLCC	2	C7139,C7140
228	EAE64241501	Acoustic Noise MLCC	2	C14005,C14008
229	ERHZ0000286	Resistor,Chip	1	R9108
230	EAM63050001	Filter,Separator,Switch	1	U12003
231	EAM64030801	Filter,EMI/Power	3	FL7102,FL7300,FL7301
232	EAN64586101	IC,Sub PMIC	1	U7130
233	ERHY0009302	Resistor,Chip	2	C15016,R9110
234	EAH61992701	Diode,Schottky	1	D7130
235	ERHY0009505	Resistor,Chip	1	R6611,R6612,R6622
236	EAF61710001	Varistor	1	VA7902
237	EAE64621501	Capacitor,TA,Polymer	1	C9102

13. REPLACEMENT PART LIST

No	Part No	Description	Qty	Location No.
238	EAP62546201	Inductor,Multilayer,Chip	2	C12048,C5105
239	EAP61946101	Inductor,Multilayer,Chip	1	C10012
240	EAP63506101	Inductor,Wire Wound,Chip	1	L7130
241	ERHY0009503	Resistor,Chip	1	R8402,R8403
242	EAM63850001	Filter,EMI/Power	1	FL7103
243	ECCH0017601	Capacitor,Ceramic,Chip	1	C9655
244	EAP63066901	Inductor,Multilayer,Chip	2	C14001,L10041
245	EAP61866701	Inductor,Multilayer,Chip	4	L5125
246	EAM63991901	Filter,Separator,Switch	2	FL10000,FL11013
247	EAE62924101	Capacitor(High Frequency),Ceramic,Chip	1	C11032
248	EAE62924201	Capacitor(High Frequency),Ceramic,Chip	1	C12062
249	EAE62945801	Capacitor(High Frequency),Ceramic,Chip	3	L10012,L14013,L14021
250	EAE62946201	Capacitor(High Frequency),Ceramic,Chip	1	C14003
251	EAE62946401	Capacitor(High Frequency),Ceramic,Chip	3	C11031,L14022,L14027
252	EAE62946601	Capacitor(High Frequency),Ceramic,Chip	1	C14034
253	EAE62962201	Capacitor(High Frequency),Ceramic,Chip	3	L14001,L14005,L5114
254	EAE62963801	Capacitor(High Frequency),Ceramic,Chip	1	L10014
255	EAG63652001	C-Clip	7	ANT1000,ANT10005,ANT10006,ANT10007,ANT10008,ANT5000,ANT5001
256	EAM64333001	Filter,Duplexer	1	FL12008
257	EAM64371301	Filter,Duplexer	1	FL12006
258	EAP61747501	Inductor,Multilayer,Chip	2	C14002,L120330
259	EAP61767701	Inductor,Multilayer,Chip	1	C14037
260	EAP61866601	Inductor,Multilayer,Chip	3	R6620
261	EAP61925901	Inductor,Multilayer,Chip	1	C1319
262	EAP62108301	Inductor,Multilayer,Chip	4	C14019,L10008,L12055,L14033
263	EAP62108401	Inductor,Multilayer,Chip	5	L10047
264	EAP62108501	Inductor,Multilayer,Chip	3	L5302,L5309
265	EAP62108801	Inductor,Multilayer,Chip	1	L10042
266	EAP62186301	Inductor,Multilayer,Chip	1	L12051
267	EAP62225901	Inductor,Multilayer,Chip	2	C10033,C11058
268	EAP62226101	Inductor,Multilayer,Chip	1	L10009
269	EAP62226201	Inductor,Multilayer,Chip	7	C11024,C12066,C14013,L10022,L10030,L10032,L14006
270	EAP62226401	Inductor,Multilayer,Chip	2	C12030,L12006
271	EAP62226501	Inductor,Multilayer,Chip	2	C10040
272	EAP62226601	Inductor,Multilayer,Chip	3	L5303
273	EAP62226701	Inductor,Multilayer,Chip	1	L14018
274	EAP622266401	Inductor,Multilayer,Chip	2	C11089
275	EAP62526201	Inductor,Multilayer,Chip	2	L12001,L14012
276	EAP62526401	Inductor,Multilayer,Chip	1	L11033
277	EAP62109001	Inductor,Multilayer,Chip	2	C12025,C12034
278	EAP62886001	Inductor,Multilayer,Chip	1	C14025

13. REPLACEMENT PART LIST

No	Part No	Description	Qty	Location No.
279	EAP63067001	Inductor,Multilayer,Chip	3	C11019
280	ECCH0009103	Capacitor,Ceramic,Chip	45	C10010,C10013,C10029,C11014,C11015,C11054,C11061,C5101,C5103,C5108,C5111,C6601,C8110,L5104,L5301,L5304,R6613
281	ECCH0009104	Capacitor,Ceramic,Chip	8	C11084,C6602,C6603
282	ECCH0009106	Capacitor,Ceramic,Chip	5	C10030,C11053,C2388,C5128
283	ECCH0009208	Capacitor,Ceramic,Chip	2	C5309
284	ECCH0009216	Capacitor,Ceramic,Chip	3	C10032,C4110,C4111,C9653,C9661
285	ECCH0009502	Capacitor,Ceramic,Chip	1	C5303
286	ECCH0009520	Capacitor,Ceramic,Chip	2	C2122,C2123
287	ECZH0025911	Capacitor,Ceramic,Chip	2	C12027,C14035
288	ECZH0025916	Capacitor,Ceramic,Chip	11	C10014,C10031,C10039,C6610,C6801,C8105,C9654
289	ERHY0009501	Resistor,Chip	2	R9669
290	ERHY0009526	Resistor,Chip	14	R2130,R8100
291	SEVY0005201	Varistor	3	VA8100,VA8101
292	ERHZ0000204	Resistor,Chip	1	R2004
293	MBV62321701	Clip	8	SC8016,SC8017,SC8019,SC8021,SC8033,SC8035,SC8036,SC8037
294	SAFO0000401	Wire Pad,Open	4	R5300
295	SAFP0000401	Wire Pad,Short	15	R2000,R2301,R2302,R2305,R2306,R2307,R2308,R6020,R6604,R6617,R6621,R9655,R9656,R9657,R9658
296	MEZ65049703	Label	0	MEZ000000
297	RAA34548901	Resin,PC	0	RAA050100
298	EBCP62981901	Camera Module	1	EBP00
299	ACQ89418311	Cover Assembly,Rear	1	ACQ063300
300	ACQ89397211	Cover Assembly,Rear(SVC)	1	ACQ01
301	MCK69418011	Cover,Rear	1	MCK063300
302	MBG66283802	Button,Side	1	MBG00
303	MBG66247202	Button,Side	1	MBG01
304	MJN70130602	Tape,Window	1	MJN01
305	MCQ68968701	Damper,Camera	1	MCQ00
306	MCQ68968702	Damper,Camera	1	MCQ01
307	MCQ68968703	Damper,Camera	1	MCQ02
308	MJN70267101	Tape,Protect	1	MJN061100
309	MEV66152301	Insulator	1	MEV000000
310	MCR66806402	Decor	1	MCR00
311	MJN70267102	Tape,Protect	1	MJN061101
312	MEV66152302	Insulator	1	MEV00
313	MJN70267113	Tape,Protect	1	MJN061103
314	ACW75537501	Decor Assembly,SVC	1	ACW00
315	ACW75517401	Decor Assembly	1	ACW000000
316	MCR66848101	Decor	1	MCR000000
317	MJN70288601	Tape,Decor	1	MJN020800
318	MK66279601	Window,Camera	1	MKC009400

13. REPLACEMENT PART LIST

No	Part No	Description	Qty	Location No.
319	MJN70130601	Tape,Window	1	MJN02
320	MJN70267105	Tape,Protect	1	MJN061100
321	MJN70267104	Tape,Protect	1	MJN061102
322	EAA64568601	PIFA Antenna,Multiple	1	EAA00
323	EAB64448601	Speaker,Dual Mode	1	EAB00
324	EBR83733101	PCB Assembly,Flexible	1	EBR01
325	EBR83745701	PCB Assembly,Flexible,SMT	1	EBR070400
326	EBR83733201	PCB Assembly,Flexible,SMT Top	1	EBR070300
327	EAX67219201	PCB,Flexible	1	EAX010700
328	EBR83761901	PCB Assembly,Flexible,SMT Bottom	1	EBR070200
329	EAG64910801	Jack,Phone	1	J1000
330	EBR83733301	PCB Assembly,Flexible,Insert	1	EBR070100
331	MJN70151401	Tape	1	MJN000000
332	ACQ89418211	Cover Assembly,Bar	1	ACQ003400
333	ACQ89397101	Cover Assembly	1	ACQ00
334	ACQ89359001	Cover Assembly,Front	1	ACQ032700
335	ACQ89389901	Cover Assembly,Front(Sub)	1	ACQ033200
336	MCK69396801	Cover,Front	1	MCK032700
337	MDQ65076901	Frame	1	MDQ000000
338	MICE0016909	Insert,Nut	6	MET099500
339	ACW75437101	Decor Assembly	1	ACW000000
340	MFB64433501	Lens,Flash	1	MFB029600
341	MJN70306901	Tape	1	MJN000000
342	MBL67078001	Cap	1	MBL01
343	MBL67078002	Cap	1	MBL02
344	MHK65825801	Sheet	1	MHK000000
345	MJN70286901	Tape	1	MJN03
346	MJN70286902	Tape	1	MJN04
347	MCQ69104901	Damper	1	MCQ000000
348	MDS65910301	Gasket	1	MDS01
349	MEZ65330701	Label	1	MEZ000000
350	MJN70286903	Tape	1	MJN05
351	MHK65887601	Sheet	1	MHK000002
352	MHK65825802	Sheet	1	MHK000001
353	ACW75397701	Decor Assembly	1	ACW000000
354	MCR66707601	Decor	1	MCR000000
355	MJN70287001	Tape,Decor	1	MJN020800
356	EAT63375401	Module,Hybrid Touch LCD	1	EAT130000
357	EAX67219101	PCB,Flexible	1	EAX00
358	MCQ69084501	Damper,Camera	1	MCQ03
359	MBL67078003	Cap	1	MBL00
360	MDS65970201	Gasket	1	MDS00

13. REPLACEMENT PART LIST

No	Part No	Description	Qty	Location No.
361	EAB64369201	Receiver	1	EAB01
362	EBR83781001	PCB Assembly,Flexible	1	EBO2
363	EBR83745801	PCB Assembly,Flexible,SMT	1	EBO70400
364	EBR83745901	PCB Assembly,Flexible,SMT Top	1	EBO70300
365	EAX67219301	PCB,Flexible	1	EAX010700
366	EBR83746001	PCB Assembly,Flexible,SMT Bottom	1	EBO70200
367	EBF61955001	Switch,Tact	1	SW1001
368	EBR83733501	PCB Assembly,Flexible,Insert	1	EBO70100
369	MJN70151101	Tape	1	MJN000002
370	EAU63423301	Motor,DC	1	EAU00
371	EBP62982001	Camera Module	1	EBP01
372	MJN70307001	Tape,Protect	1	MJN00
373	MLAZ0038301	Label	1	MEZ000000
374	EAC63458507	Rechargeable Battery,Lithium Polymer	1	EAC00
375	FAB32218901	Screw,Tapping	0	FAB01
376	GMEY0014301	Screw,Machine	11	FAB00
377	ACQ89418411	Cover Assembly,Battery	1	ACQ02
378	MCK69419811	Cover,Battery	1	MCK004100
379	MJN70287102	Tape,Protect	1	MJN061100
380	EAA64529601	PIFA Antenna,GPS	1	EAA030100
381	EAA64568701	PIFA Antenna,WiFi	1	EAA030101
382	EAA64549301	PIFA Antenna,Multiple	1	EAA030102
383	MFB64433401	Lens,Flash	1	MFB029600
384	MEZ66974904	Label	1	MEZ000001
385	MEZ66675301	Label	1	MEZ002100
386	AGF78708701	Package Assembly	1	AGF000000
387	MAY66007619	Box,Master	0	MAY047100
388	MAY66232701	Box,Carton	0	MAY010800
389	MAY66232703	Box,Carton	0	MAY010801
390	MAY66232702	Box,Carton	0	MAY010802
391	MBEC0002901	Box,Carton	0	MAY010803
392	MEZ63874703	Label,Unit Box	2	MEZ084100
393	MEZ64781708	Label,Master Box	0	MEZ047200
394	MEZ65015204	Label,Unit Box	1	MEZ084101
395	MJN68155201	Tape	0	MJN000000
396	MPCY0019330	Pallet	0	MGA000000
397	AAD88213501	Addition Assembly	1	AAD000000
398	EAY64469120	Adapters	1	EAY060000
399	EAB64468401	Earphone,Stereo	1	EAB010200
400	EAD63769701	Cable,Assembly	1	EAD010000
401	MBM65799901	Card,Quick Reference	1	MBM062600
402	AAA76535001	Accessory Assembly	1	AAA000000

13. REPLACEMENT PART LIST

No	Part No	Description	Qty	Location No.
403	MGJ65068101	Plate	1	MGJ000000
404	MAF63948601	Bag,Vinyl	1	MAF086500
405	MBN64704611	Case	1	MBL063800
406	MBN64704602	Case	1	MBN000001
407	MFL69829801	Manual,Operation	0	MFL053800
408	EBX62208420	Accessory	1	EBX000000
409	MJN70289301	Tape,USP Film	1	MJN107400

