Service Manual

Model : KM900

Internal Use Only

Service Manual

KM900

Date: February, 2009 / Issue 1.0

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1. INTRODUCTION

1.1 Purpose

This manual provides the information necessary to repair, calibration, description and download the features of the KM900.

1.2 Regulatory Information

A. Security

Toll fraud, the unauthorized use of telecommunications system by an unauthorized part (for example, persons other than your company's employees, agents, subcontractors, or person working on your company's behalf) can result in substantial additional charges for your telecommunications services. System users are responsible for the security of own system.
There might be risks of toll fraud associated with your telecommunications system. System users are responsible for programming and configuring the equipment to prevent unauthorized use. LGE does not warrant that this product is immune from the above case but will prevent unauthorized use of common carrier telecommunication service of facilities accessed through or connected to it. LGE will not be responsible for any charges that result from such unauthorized use.

B. Incidence of Harm

If a telephone company determines that the equipment provided to customer is faulty and possibly causing harm or interruption in service to the telephone network, it should disconnect telephone service until repair can be done. A telephone company may temporarily disconnect service as long as repair is not done.

C. Changes in Service

A local telephone company may make changes in its communications facilities or procedure. If these changes could reasonably be expected to affect the use of the KM900 or compatibility with the net work, the telephone company is required to give advanced written notice to the user, allowing the user to take appropriate steps to maintain telephone service.

D. Maintenance Limitations

Maintenance limitations on the KM900 must be performed only by the LGE or its authorized agent. The user may not make any changes and/or repairs expect as specifically noted in this manual. Therefore, note that unauthorized alternations or repair may affect the regulatory status of the system and may void any remaining warranty.

E. Notice of Radiated Emissions

This model complies with rules regarding radiation and radio frequency emission as defined by local regulatory agencies. In accordance with these agencies, you may be required to provide information such as the following to the end user.

F. Pictures

The pictures in this manual are for illustrative purposes only; your actual hardware may look slightly different.

G. Interference and Attenuation

KM900 may interfere with sensitive laboratory equipment, medical equipment, etc. Interference from unsuppressed engines or electric motors may cause problems.

H. Electrostatic Sensitive Devices

ATTENTION

Boards, which contain Electrostatic Sensitive Device (ESD), are indicated by the  sign. Following information is ESD handling:

- Service personnel should ground themselves by using a wrist strap when exchange system boards.
- When repairs 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 boards or parts like EEPROM to the factory, use the protective package as described.

1.3. ABBREVIATION

For the purposes of this manual, following abbreviations apply:

- **APC** Automatic Power Control
- **BB** Baseband
- **BER** Bit Error Ratio
- **CC-CV** Constant Current – Constant Voltage
- **CLA** Cigar Lighter Adapter
- **DAC** Digital to Analog Converter
- **DCS** Digital Communication System
- **dBm** dB relative to 1 milli-watt
- **DSP** Digital Signal Processing
- **EEPROM** Electrical Erasable Programmable Read-Only Memory
- **EGPRS** Enhanced General Packet Radio Service
- **EL** Electroluminescence
- **ESD** Electrostatic Discharge
- **FPCB** Flexible Printed Circuit Board
- **GMSK** Gaussian Minimum Shift Keying
- **GPIB** General Purpose Interface Bus
- **GPRS** General Packet Radio Service
- **GSM** Global System for Mobile Communications
- **IPUI** International Portable User Identity
- **IF** Intermediate Frequency
- **LCD** Liquid Crystal Display
- **LDO** Low Drop Output
- **LED** Light Emitting Diode
- **LGE** LG Electronics
- **OPLL** Offset Phase Locked Loop
- **PAM** Power Amplifier Module
- **PCB** Printed Circuit Board
- **PGA** Programmable Gain Amplifier
- **PLL** Phase Locked Loop
- **PSTN** Public Switched Telephone Network

◆ **RF**	Radio Frequency
◆ **RLR**	Receiving Loudness Rating
◆ **RMS**	Root Mean Square
◆ **RTC**	Real Time Clock
◆ **SAW**	Surface Acoustic Wave
◆ **SIM**	Subscriber Identity Module
◆ **SLR**	Sending Loudness Rating
◆ **SRAM**	Static Random Access Memory
◆ **STMR**	Side Tone Masking Rating
◆ **TA**	Travel Adapter
◆ **TDD**	Time Division Duplex
◆ **TDMA**	Time Division Multiple Access
◆ **UART**	Universal Asynchronous Receiver/Transmitter
◆ **VCO**	Voltage Controlled Oscillator
◆ **VCTCXO**	Voltage Control Temperature Compensated Crystal Oscillator
◆ **WAP**	Wireless Application Protocol
◆ **8PSK**	8 Phase Shift Keying

2. PERFORMANCE

2.1 Supporting Standard

Item	Feature	Comment
Supporting Standard	WCDMA 900 / WCDMA 2100/HSDPA GSM850/EGSM/DCS/PCS1 with seamless handover Phase 2+(include AMR) SIM Toolkit : Class 3	
Frequency Range	GSM850 TX : 824 - 849MHz GSM850 RX : 869 - 894MHz EGSM TX : 880 - 915 MHz EGSM RX : 925 - 960 MHz DCS TX : 1710 - 1785 MHz DCS RX : 1805 - 1880 MHz PCS TX : 1850 - 1910 MHz PCS RX : 1930 - 1990 MHz WCDMA900 TX : 880 - 915 MHz WCDMA900 RX : 925 - 960 MHz WCDMA2100 TX : 1920 - 1980 MHz WCDMA2100 RX : 2110 - 2170 MHz HSDPA TX : 880 - 915 MHz 1920 - 1980 MHz HSDPA RX : 925 - 960 MHz 2110 - 2170 MHz WLAN 802.11g : 2400 – 2483.5 MHz	
Application Standard	WAP 2.0, JAVA 2.1	

2.2 Main Parts : Solution

Item	Part name	Comment
Digital Baseband	PMB8878 (Infineon)	
Analog Baseband	PMB8878 (Infineon)	
RF chip	TQ7M5005 (TriQuent))	

2.3 H/W features

Item	Feature	Comment
Form Factor	Color LCD – Bar Type	
Battery	1)Capacity Standard : Li-Ion, 10000mAh	
	2) Packaging Type : Soft Pack	

Item		Feature	Comment
Size		105.9 × 55.3 × 11.97mm	
Weight		105g	With Battery
Stand-by time	GSM	227 hours	@paging period 5
	WCDMA	227hours	@DRX=7
Talk time	GSM	170min	@ Power Level 5
	WCDMA	170min	@Tx=12dBm
Charging time		3 hours 20min	@power OFF/1000mAh
Rx sensitivity		EGSM900 : -105 dBm DCS1800 : -105 dBm PCS1900 : -105 dBm WCDMA2100 : -106.7 dBm	
TX output power	GSM/ GPRS	EGSM900 : 33 dBm DCS1800 : 30 dBm PCS1900 : 30 dBm	Class4 (EGSM900) Class1(DCS) Class1(PCS)
	EDGE	EGSM900 : 27 dBm DCS1800 : 26 dBm PCS1900 : 26 dBm	E2 (EGSM900) E2 (DCS) E2 (PCS)
GPRS compatibility		GPRS Class 12	
EDGE compatibility		EDGE Class 12	
Display		Main LCD(3”, 480 x 800)/TFT	
Built-in Camera		5 Mega pixel	
ANT		Main : Internal Fixed Type	
System connector		18 Pin	
Ear Phone Jack		18pin, 4 Pole, Stereo	
PC synchronization		Yes	
Speech coding		FR, EFR, HR, AMR	
Vibrator		Built in Vibrator	
Blue Tooth		V1.2, A2DP	
Voice Recording		Yes	

Speaker Phone mode Support	Yes	
Travel Adapter	Yes	
CDROM	No	
Stereo Headset	Yes	
Data Cable	No	
T-Flash	Yes	Not Equipped

2.4 HW Spec.

2.4.1 GSM Transmitter/Receiver spec.

Item	Specification
Frequency	GSM 850 TX : 824 - 849 MHz RX : 869 - 894 MHz EGSM TX : 880 - 915 MHz RX : 925 - 960 MHz DCS TX : 1710 - 1785 MHz RX : 1805 - 1880 MHz PCS TX : 1850 - 1910 MHz RX : 1930 - 1990 MHz
Phase Error	Rms : 5° Peak : 20 °
Frequency Error	GSM : 0.1 ppm DCS/PCS : 0.1 ppm
EMC(Radiated Spurious Emission Disturbance)	GSM/DCS : < -28dBm
Transmitter Output power and Burst Timing	GSM : 5dBm – 33dBm ± 3dB DCS/PCS : 0dBm – 30dBm ± 3dB
Burst Timing	<3.69us
Spectrum due to modulation out to less than 1800kHz offset	200kHz : -36dBm 600kHz : -51dBm/-56dBm
Spectrum due to modulation out to larger than 1800kHz offset to the edge of the transmit band	GSM : 1800-3000kHz :< -63dBc(-46dBm) 3000kHz-6000kHz : <-65dBc(-46dBm) 6000kHz < : < -71dBc(-46dBm) DCS : 1800-3000kHz :< -65dBc(-51dBm) 6000kHz < : < -73dBc(-51dBm)
Spectrum due to switching transient	400kHz : -19dBm/-22dBm(5/0), -23dBm 600kHz : -21dBm/-24dBm(5/0), -26dBm
Reference Sensitivity – TCH/FS	Class II(RBER) : -105dBm(2.439%)

Usable receiver input level range	0.012(-15 - -40dBm)
Intermodulation rejection – Speech channels	± 800kHz, ± 1600kHz : -98dBm/-96dBm (2.439%)
AM Suppression – GSM : -31dBm - DCS : -29dBm	-98dBm/-96dBm (2.439%)
Timing Advance	± 0.5T

2.4.2 WCDMA Transmitter spec.

Item	Specification
Transmit Frequency	WCDMA900 : 880 – 915MHz WCDMA2100 : 1920 MHz ~ 1980 MHz
Maximum Output Power	+24 dBm / 3.84 MHz, +1 / -3 dB
Frequency Error	within ±0.1 PPM
Open Loop Power Control	Normal Conditions : within ±9 dB, Extreme Conditions : within ±12 dB
Minimum Transmit Power	< -50 dBm /3.84 MHz
Occupied Bandwidth	< 5 MHz at 3.84 Mcps (99% of power)
Adjacent Channel Leakage Power Ratio (ACLR)	> 33 dB @ ±5 MHz, > 43 dB @ ±10 MHz
Spurious Emissions |f-fc| > 12.5 MHz	< -36 dBm / 1 kHz RW @ 9 kHz ≤ f < 150 kHz < -36 dBm / 10 kHz RW @ 150 KHz ≤ f < 30 MHz < -36 dBm / 100 kHz RW @ 30 MHz ≤ f < 1 GHz < -30 dBm / 1 MHz RW @ 1 GHz ≤ f < 12.75 GHz < -41 dBm / 300 kHz RW @ 1893.5 MHz < f < 1919.6 MHz < -67 dBm / 100 kHz RW @ 925 MHz ≤ f ≤ 935 MHz < -79 dBm / 100 kHz RW @ 935 MHz < f ≤ 960 GHz < -71 dBm / 100 kHz RW @ 1805 MHz ≤ f ≤ 1880 MHz
Transmit Intermodulation	< -31 dBc @ 5 MHz & < -41 dBc @ 10 MHz when Interference CW Signal Level = -40 dBc
Error Vector Magnitude	< 17.5 %, when Pout ≥ -20 dBm
Peak Code Domain Error	< -15 dB at Pout ≥ -20 dBm

2.4.3 WCDMA Receiver spec.

Item	Specification
Receive Frequency	WCDMA900 : 925 MHz ~ 960 MHz WCDMA2100 : 2110 ~2170 MHz
Reference Sensitivity Level	BER < 0.001 when Îor = -106.7 dBm / 3.84 MHz
Maximum Input Level	BER < 0.001 when Îor = -25 dBm / 3.84 MHz
Adjacent Channel Selectivity (ACS)	ACS > 33 dB where BER < 0.001 when Îor = -92.7 dBm / 3.84 MHz & Ioac = –52 dBm / 3.84 MHz @ ±5 MHz
Blocking Characteristic	BER < 0.001 when Îor = -103.7 dBm / 3.84 MHz & Iblocking = -56 dBm / 3.84 MHz @ Fuw(offset) = ±10 MHz or Iblocking = -44 dBm / 3.84 MHz @ Fuw(offset) = ±15 MHz
Spurious Response	BER < 0.001 when Îor = -103.7 dBm / 3.84 MHz & Iblocking = -44 dBm
Intermodulation	BER < 0.001 when Îor= -103.7 dBm / 3.84 MHz & Iouw1 = -46 dBm @ Fuw1(offset) = ±10 MHz & Iouw2 = -46 dBm / 3.84 MHz @ Fuw2(offset) = ±20 MHz
Spurious Emissions	< -57 dBm / 100 kHz BW @ 9 kHz ≤ f < 1 GHz < -47 dBm / 1 MHz BW @ 1 GHz ≤ f ≤ 12.75 GHz
Inner Loop Power Control In Uplink	Adjust output(TPC command) cmd 1dB 2dB 3dB +1 +0.5/1.5 +1/3 +1.5/4 0 -0.5/+0.5 -0.5/+0.5 -0.5/+0.5 -1 -0.5/-1.5 -1/-3 -1.5/-4 group(10equal command group) +1 +8/+12 +16/+24

2.4.4 HSDPA Transmitter Spec.

<table>
<tr><th>Item</th><th>Specification</th></tr>
<tr><td>Transmit Frequency</td><td>880 MHz ~ 915 MHz 1920MHz ~ 1980 MHz</td></tr>
<tr><td>Maximum Output Power</td><td>Sub-Test
1=1/15, 2=12/15 21~25dBm / 3.84 MHz
3=13/15 4=15/8 20~25dBm / 3.84 MHz
5=15/7 6=15/0 19~25dBm / 3.84 MHz</td></tr>
<tr><td>HS-DPCCH</td><td>
<table>
<tr><th>Sub-test in table C.10.1.</th><th>Power step</th><th>Power step slot boundary</th><th>Power step size, P [dB]</th><th>Transmitter power step tolerance [dB]</th></tr>
<tr><td rowspan="4">5</td><td>1</td><td>Start of Ack/Nack</td><td>6</td><td>+/- 2.3</td></tr>
<tr><td>2</td><td>Start of CQI</td><td>1</td><td>+/- 0.6</td></tr>
<tr><td>3</td><td>Middle of CQI</td><td>0</td><td>+/- 0.6</td></tr>
<tr><td>4</td><td>End of CQI</td><td>5</td><td>+/- 2.3</td></tr>
</table>
</td></tr>
<tr><td>Spectrum Emission Mask</td><td>Sub-Test : 1=1/15, 2=12/15, 3=13/15, 4=15/8, 5=15/7, 6=15/0
<table>
<tr><th>Frequency offset from carrier △f</th><th>Minimum requirement</th><th>Measurement Bandwidth</th></tr>
<tr><td>2.5 ~ 3.5 MHz</td><td>-35-15×(△f-2.5)dBc</td><td>30 kHz</td></tr>
<tr><td>3.5 ~ 7.5 MHz</td><td>-35-1×(△f-3.5)dBc</td><td>1 MHz</td></tr>
<tr><td>7.5 ~ 8.5 MHz</td><td>-35-10×(△f-7.5)dBc</td><td>1 MHz</td></tr>
<tr><td>8.5 ~ 12.5 MHz</td><td>-49dBc</td><td>1 MHz</td></tr>
</table>
</td></tr>
<tr><td>Adjacent Channel Leakage Power Ratio (ACLR)</td><td>Sub-Test : 1=1/15, 2=12/15, 3=13/15, 4=15/8, 5=15/7, 6=15/0
> 33 dB @ ±5 MHz
> 43 dB @ ±10 MHz</td></tr>
<tr><td>Error Vector Magnitude</td><td>3GPP Not Complete</td></tr>
</table>

2.4.5 HSDPA Receiver Spec.

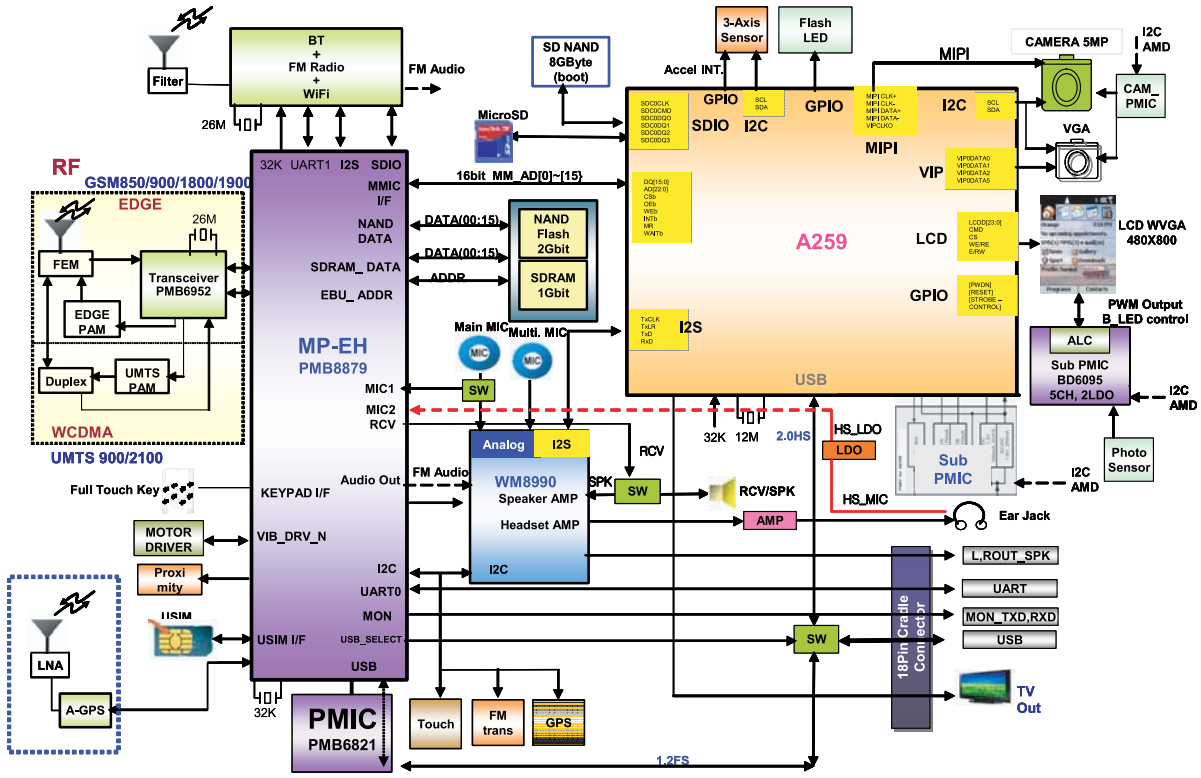
Item	Specification
Receive Frequency	925 MHz ~ 960 MHz 2110 MHz ~2170 MHz
Maximum Input Level (BLER or R), 16QAM Only	Sub-Test : 1=1/15, 2=12/15, 3=13/15, 4=15/8, 5=15/7, 6=15/0 BLER < 10% or R >= 700kbps

2.4.6 WLAN 802.11g Transmitter and Receiver Spec.

Item	Specification
Transmit Frequency	2400 MHz ~ 2483.5 MHz (CH1~CH13)
Tx Power Level	≤ 20dBm under (Europe), ≤ 30dBm under (USA)
Frequency Tolerance	within ±25 PPM
Chip clock Frequency Tolerance	within ±25 PPM
Spectrum Mask	≤ -20 @ ±11MHz offset (9Mhz ~ 11MHz) ≤ -28 @ ±20MHz offset (11MHz ~ 20Mhz) ≤ -40 @ ±30MHz offset (20MHz ~ 30Mhz)
Transmitter constellation error (rms EVM)	≤ -5dB
Spurious Emissions	< -36 dBm @ 30MHz ~ 1GHz < -30 dBm above @ 1GHz ~ 12.75GHz < -47 dBm @ 1.8GHz ~ 1.9GHz < -47 dBm @ 5.15GHz ~ 5.3GHz
Rx Min input Sensitivity	PER ≤ 10% -82dBm@6Mbps, -81dBm@9Mbps, -79dBm@12Mbps -77dBm@18Mbps, -74dBm@24Mbps, -70dBm@36Mbps -66dBm@48Mbps, -65dBm@54Mbps
Rx Max input Sensitivity	≥ -20dBm(6,9,12,18,24,36,48,54Mbps) @ PER ≤ 10%
Rx Adjacent Channel Rejection	PER ≤ 10%, ACR ≥ 16dB@6Mbps, ACR ≥ 15dB@9Mbps, ACR ≥ 13dB@12Mbps, ACR ≥ 11dB@18Mbps, ACR ≥ 8dB@24Mbps, ACR ≥ 4dB@36Mbps ACR ≥ 0dB@48Mbps, ACR ≥ -1dB@54Mbps ※ACR shall be measured by setting the desired signal's strength 3 dB above the rate-dependent sensitivity specified in min input sensitivity

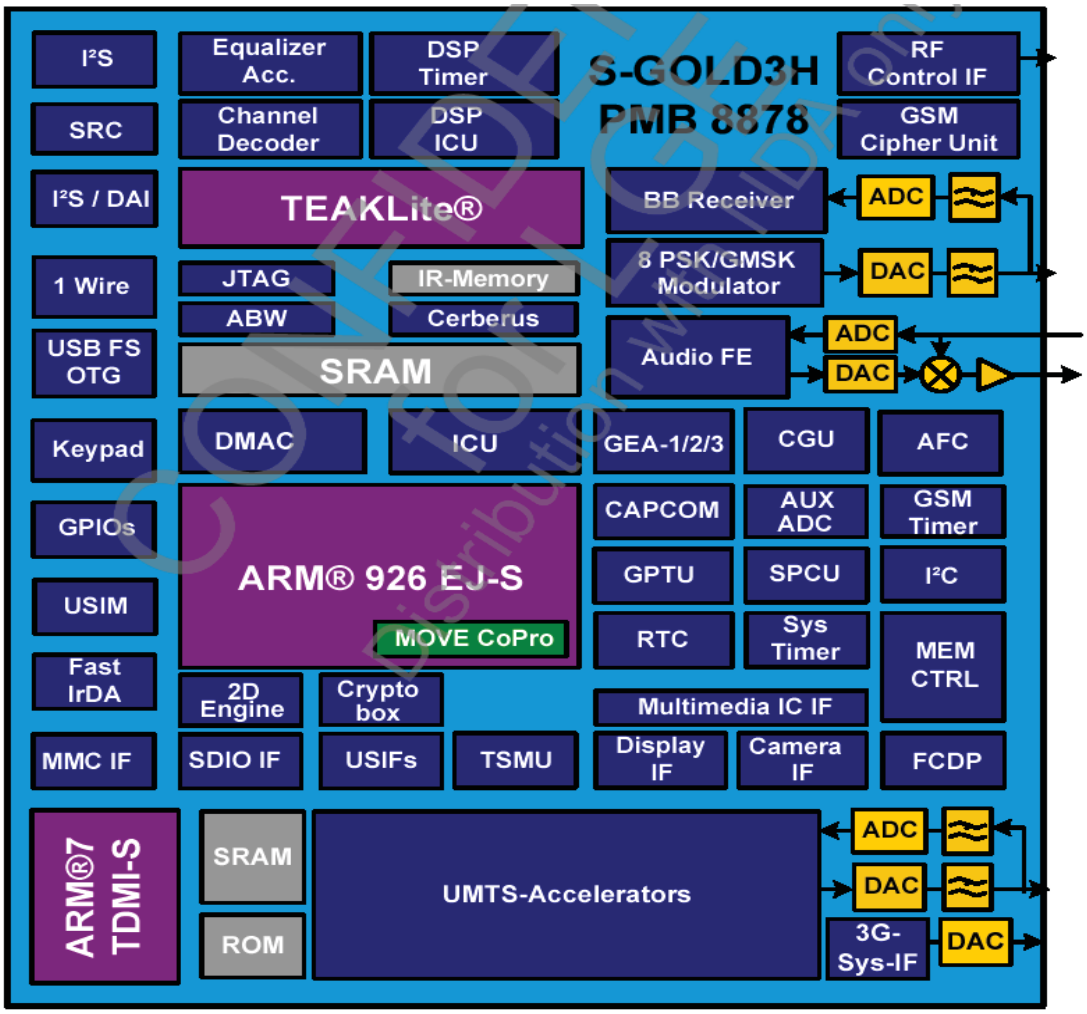
3. TECHNICAL BRIEF

3.1 Functional Block Diagram



[Figure 3.1] Functional Block Diagram

3.2 Baseband Processor Introduction



[Figure 3.2] Top level block diagram of S-GOLD®3H(PMB8878)

3.2.1 General description

S-GOLD®3H is a HSDPA/WCDMA/EDGE/GPRS/GSM system in package solution consisting of a mixed signal baseband IC combined with a 3G coprocessor IC, providing all analog and digital functionality for a dual mode mobile phone in a single chip.

Both ICs building up the **S-GOLD®3H** SiP are manufactured in infineon Technologies` 1.35V 90nm CMOS technology to meet the ever increasing demands of the market for feature rich and high performance terminals at low costs.

The chip will support the FR, EFR, HR and AMR-NB vocoding.

S-GOLD®3H support multi-slot operation modes HSCSD (up to class 10), GPRS for high speed data application (up to class 12), EGPRS (up to class 12) and DTM(class11) without additional external hardware.

3.2.2. Block Description

- **Processing core**

  - ARM926EJ-S 32 bit processor core for controller functions. The ARM926EJ-S includes an MMU, and the Jazelle Java extension for Java acceleration and a MOVE co-processor to accelerate Motion Estimation algorithms with based video encoding schemes..

  - TEAKLite DSP core

- **ARM9-Memory**

  - 32k Byte Boot ROM on the AHB
  - 128k Byte SRAM on the AHB, flexibly usable as program or data RAM
  - 32k Byte Instruction Cache
  - 32k Byte Data Cache
  - 8k Byte Instruction Tightly coupled Memory (I-TCM)
  - 8k Byte Data tightly coupled memory (D-TCM)

- **TEAKLite®-Memory**

  - 120k x 16bit Program ROM
  - 8k x 16bit Program RAM
  - 72k x 16bit Data ROM
  - 48k x 16bit Data XRAM
  - 5k x 16bit Data YRAM
  - Incremental Redundancy(IR) Memory of 35904 words of 16bit

- **Shared Memory Block**

  1.5K x 32bit Shared RAM(dual ported) between controller system and TEAKLite®.

- **Controller Bus system**

  The processor cores and their peripherals are connected by powerful buses.

  - Multi-layer AHB for connecting the ARM and the other master capable building blocks with the internal and external memories and with the peripheral buses.
  - An FPI-Bus for connecting GSM peripherals, called hereafter FPI3 bus.
  - A controller FPI bus for connecting the low performance controller peripherals such as keypad etc. called hereafter fPI2 bus.
  - FPI2 and FPI3 are connected asynchronously to the AHB buses. 1 DMA controller with 8channels offloads the controller from data transfers.
  - 2 AHB Lite buses for connecting multi-media and high performance peripherals, called AHB_PER1 and AHB_PER2 hereafter. These peripheral buses are connected to the multi-layer AHB 'backbone' by asynchronous, burst capable AHB2AHB bridges which are shared between accessing masters.

- The DMA controller is enabled to access AHB_PER1 by use of its first master interface and AHB_PER2 by its second master interface.

- **TEAKLite® Bus System**

- 1 TEAKLite® data bus for connecting the TEAKLite® data memory and the TEAKLite® peripherals. Also the data bus is connected into the controller system via shared RAMs to the FPI3 bus.
- 1 TEAKLite® program bus for connecting the TEAKLite® program memory to the TEAKLite®.

- **Clock system**

The clock system allows widely independent selection of frequencies for the essential parts of the S-GOLD®3H. Thus power consumption and performance can be optimized for each application.

- **Functional Hardware block**

- CPU and DSP Timers
- MOVE coprocessor performing motion estimation for video encoding algorithms (H.263, MPEG-4)
- Programmable PLL with four additional phase shifters for system clock generation
- GSM Timer Module that off-loads the CPU from radio channel timing
- GMSK / 8-PSK Modulator according to GSM-standard 05.04 (5/2000)
  · GMSK Modulator: gauss-filter with B*T=0.3
  · EDGE Modulator: 8PSK-modulation with linearized GMSK-Pulse-Filter
- Hardware accelerators for equalizer and channel decoding.
- Incremental Redundancy memory for EDGE class 12 support
- A5/1, A5/2, A5/3 Cipher unit
- GEA1, GEA2, GEA3 Cipher Unit to support GPRS data transmission
- f8 and f9 Cipher unit
- Advanced static and dynamic power management features including TDMA-Frame synchronous low-power mode and enhanced CPU modes(idle and sleep modes)
- 2D engine for support of image processing and 2D graphics applications. The 2D engine is tightly coupled to the display interface. The resulting building block consisting of 2D engine and Display interface is called Display Content Controller (DCC)
- Security crypto box supporting
  · AES, DES, 3 DES
  · Hash function
  · RSA acceleration
  · Secret Root Key (e-fuse) and Key Management
  · True Random Number Generator
- Sample Rate Converter (SRC) for audio up-sampling
- Comprehensive static and dynamic Power Management
  · Various frequency options during operation mode

· 32 kHz clock in standby mode
· Sleep control in standby mode
· RAMs and ROMs in power save mode during standby mode
· Additional leakage current reduction in standby mode possible by switching off for the TEAKLitre® subsystem.

- Extensive debug support for the controller and the DSP system
· OCDS level 2+ (run control, non-intrusive program flow trace and limited data flow trace) for ARM
· OCDS level 1+ (run control, limited program flow trace) for the TEAKLite®
· Multi-core debug support
· 4 Monitor pins for important internal signals and most pad signals
· Cerberus debugging unit
- 2 General Purpose Timers with 3 32-bit timers
- Serial number
- A real time clock with alarm functions
- 2 capture/compare units with 16 channels. One channel active during sleep mode.

● **3G Coprocessor Subsystem**
- ARM7 TRMI-S
· 240 kByte Instruction RAM
· 64 kByte Data RAM
· 8 kByte Boot ROM
- 20kByte Communication RAM
- HW accelerators for
· Transmit Path
· Inner and Outer Receiver for Release5 incl. HSDPA

3.2.3 RF Interface(T_OUT)

S-Gold® 3H uses this interface to control RF IC and Peripherals.

[Table 3.2.3-1] RF Interface Spec.

T_OUT		
Resource	**Interconnection**	**Description**
T_OUT0	TXON_PA	PAM Power on
T_OUT1		-
T_OUT2	ANT_SEL1	
T_OUT3	2G_ANT_SELECT	
T_OUT4	CHG_EOC	
T_OUT5	GPS_IRQ	
T_OUT6	PA_MODE	PAM Mode select
T_OUT7	ANT_SEL2	
T_OUT8	ANT_SEL3	
T_OUT9	DSR	
T_OUT10	JACK_DETECT	
T_IN0	WLAN_RESET_N	
T_IN1	WLAN_REG_ON	

3.2.4 ADC channel

ADC block is composed of 11 external ADC channel. This block operates charging process and other related process by reading battery voltage and other analog values.

[Table 3.2.4-1] S-Gold3 ADC channel usage

ADC channel		
Resource	**Interconnection**	**Description**
M0	BAT_ID	Battery temperature measure
M1	RF_TEMP	RF block temperature measure
M2	N.C	
M3	JACK_TYPE	Accessory type detect
M4	SENSOR_ADC	
M5	N.C	
M6	N.C	
M7	N.C	
M8	VBAT	Battery supply voltage measure
M9	N.C	
M10	N.C	

3.2.5 GPIO map

Over a hundred allowable resources, KM900 is using as follows except dedicated to SIM and Memory. KM900 GPIO(General Purpose Input/Output) Map, describing application, I/O state, and enable level, is shown in below table

[Table 3.2.5-1] S-Gold®3H GPIO pin Map

Port Function	*Net Name*	*Description*
KEY MATRIX		
KP_IN0	KEYIN0	
KP_IN1	KEYIN1	
KP_IN2	KEYIN2	
KP_IN3	GPS_ON	
KP_IN4	GPS_RST	
KP_IN5	MAIN_VOICE_REC_SW	
KP_IN6	LED_ON	
KP_OUT0	KEYOUT0	
KP_OUT1	KEYOUT1	
KP_OUT2	N.C	
KP_OUT3	MAIN_VOICE_MIDI_SW	
USIF1		
USIF1_RXD_MRST	UART_RX	UART Data
USIF1_TXD_MTSR	UART_TX	UART Data
USIF1_RTS_N	USB_ DAT_VP	USB Data
USIF1_CTS_N	USB_SE0_VM	USB Data
USIF2		
USIF2 _RXD_MRST	MMP_WAIT	
USIF2 _TXD_MTSR	RPWRON	
USIF2_RTS_N	BT_UART_RTS	Bluetooth RTS
USIF2_CTS_N	BT_UART_CTS	Bluetooth CTS
USIF3		
USIF3 _RXD_MRST	BT_UART_RX	
USIF3 _TXD_MTSR	BT_UART_TX	
USIF3_SCLK	LIN_INVERTER	
CLK		
CLK32K	CLK32k	For FM Radio, BT CLK32K
GPIO_22		Not used
CAMERA I/F		

CIF_D0	MM_AD0	Camera DATA[0]
CIF_D1	MM_AD1	Camera DATA[1]
CIF_D2	MM_AD2	Camera DATA[2]
CIF_D3	MM_AD3	Camera DATA[3]
CIF_D4	MM_AD4	Camera DATA[4]
CIF_D5	MM_AD5	Camera DATA[5]
CIF_D6	MM_AD6	Camera DATA[6]
CIF_D7	MM_AD7	Camera DATA[7]
CIF_PCLK	HP_AMP_SHDN	Camera pixel clock
CIF_HSYNC	USB_SELECT	Camera H sync
CIF_VSYNC	WLAN_WAKEUP	Camera V sync
CLKOUT2	26M_GPS	Camera main clock
CIF_PD	_CHG_EN	Camera power down(active high)
CIF_RESET	LIN_PWM_FREQ	Camera reset
LCD I/F		
DIF_D0	MM_AD8	LCD data[0]
DIF_D1	MM_AD9	LCD data[1]
DIF_D2	MM_AD10	LCD data[2]
DIF_D3	MM_AD11	LCD data[3]
DIF_D4	MM_AD12	LCD data[4]
DIF_D5	MM_AD13	LCD data[5]
DIF_D6	MM_AD14	LCD data[6]
DIF_D7	MM_AD15	LCD data[7]
DIF_D8	TA_DETECT	LCD data[8]
DIF_DS1	MMP_CS1_N	MAIN LCD chip select
DIF_DS2	WLAN_HOST_WAKEUP	FM radio interrupt
DIF_CD	MM_A16	Command Data switch
DIF_WR	MMP_WR_N	LCD Write
DIF_RD	MMP_RD	VT camera reset
DIF_HD	HOOK_DET	LCD Reset
DIF_VD	MMP_RESET_N	LCD Vsync
DIF_RESET1	MMP_INT	LCD Reset
DIF_RESET2	A_RESET	3G reset
I2C		
I2C1_SCL	SCL_PMIC	For PMIC
I2C1_SDA	SDA_PMIC	For PMIC
PM_INT (EINT)	PM_INT	For PMIC
I2C2_SCL	I2C_SCL	

I2C2_SDA	I2C_SDA	
SIM I/F		
CC_IO	SIM_IO	SIM CARD DATA
CC_CLK	SIM_CLK	SIM CARD CLOCK
CC_RST	SIM_RST	SIM CARD RESET
I2S2		
I2S2_CLK0	FMT_RST	
I2S2_CLK1	EN_BAR	
I2S2_RX	LIN_PWM_MAG	
I2S2_TX	BT_HOST_WAKEUP	
I2S2_WA0	TOUCH_INT	
I2S2_WA1	N.c	
External Memory		
MMCI1_CMD	WLAN_CMD	
MMCI1_DAT[0]	WLAN_SDIO[0]	
MMCI1_CLK	WLAN_CLK	
MMCI1_DAT[1]	WLAN_SDIO[1]	
MMCI1_DAT[2]	WLAN_SDIO[2]	
MMCI1_DAT[3]	WLAN_SDIO[3]	
MMCI2_CMD		
MMCI2_DAT[0]	TOUCH_LDO_EN	
MMCI2_CLK	LIN_MOTOR_EN	Vibrator enable
IrDA		
IRDA_TX	USB_OEn	For USB
IRDA_RX	JACK_DETECT_3.5	
I2S1		
I2S1_CLK0	BT_PCM_CLK	For Bluetooth
I2S1_CLK1		
I2S1_RX	BT_PCM_IN	For Bluetooth
I2S1_TX	BT_PCM_OUT	For Bluetooth
I2S1_WA0	BT_PCM_SYNC	For Bluetooth
Audio I/F		
EPN1	REC_N	For Receiver
EPP1	REC_P	For Receiver
EPPA1	EAR_SPK_P	For Headset
EPREF		Reference
EPPA2	EAR_SPK_N	For Headset

MICN1	MAIN_MIC_N	For Main Mic
MICP1	MAIN_MIC_P	For Main Mic
MICN2	HS_MIC_N	For Headset Mic
MICP2	HS_MIC_N	For Headset Mic
VMICP	VMIC_P	Power for MIC
VMICN	GND	Ground for MIC
ADC		
M0	BAT_ID	Battery temperature measure
M1	RF_TEMP	RF block temperature measure
M2 ,M6,M9,M10	N.C	
M3	JACK_TYPE	Accessory type detect
M4	SENSOR_ADC	H/W version detect
M5	TA_DETECT	Battery supply voltage measure
M7	N.C	
M8	VBAT	
Reference		
VREFP	VREFN	
IREF	GND with resistor	22K(1%)
JTAG I/F		
JTAG0_TDO	TDO	
JTAG0_TDI	TDI	
JTAG0_TMS	TMS	
JTAG0_TCK	TCK	
JTAG0_TRST_N	TRSTn	
JTAG0_RTCK	RTCK	
JTAG1_TDO	A_TDO	
JTAG1_TDI	A_TDI	
JTAG1_TMS	A_TMS	
JTAG1_RTCK	A_RTCK	
RST_N	A_RESTET	
ETM I/F		
TRIG_IN	TRIG_IN	
MON1	2V62_VIO	ETM
MON2	WITH RESISTOR	ETM
TRACESYNC	TRACESYNC	
TRACECLK	TRACECLK	
PIPESTAT[2]	PIPESTAT2	
PIPESTAT[1]	PIPESTAT1	

PIPESTAT[0]	PIPESTAT0	
TRACEPKT[0]	TRACEPKT0	
TRACEPKT[1]	TRACEPKT1	
TRACEPKT[2]	TRACEPKT2	
TRACEPKT[3]	TRACEPKT3	
TRACEPKT[4]	TRACEPKT4	
TRACEPKT[5]	TRACEPKT5	
TRACEPKT[6]	TRACEPKT6	
TRACEPKT[7]	TRACEPKT7	
Memory		
MEM_AD[0]	DATA(0)	
MEM _AD[1]	DATA(1)	
MEM _AD[2]	DATA(2)	
MEM _AD[3]	DATA(3)	
MEM _AD[4]	DATA(4)	
MEM _AD[5]	DATA(5)	
MEM _AD[6]	DATA(6)	
MEM _AD[7]	DATA(7)	
MEM _AD[8]	DATA(8)	
MEM _AD[9]	DATA(9)	
MEM _AD[10]	DATA(10)	
MEM _AD[11]	DATA(11)	
MEM _AD[12]	DATA(12)	
MEM _AD[13]	DATA(13)	
MEM _AD[14]	DATA(14)	
MEM _AD[15]	DATA(15)	
MEM _WR_n	_WR	
MEM _RD_n	_RD	
MEM _BC0_n	_BC0	
MEM _BC1_n	_BC1	
MEM _BC2_n	LDQS	
MEM _BC3_n	UDQS	
MEM _A[0]	ADD(0)	
MEM _A[1]	ADD(1)	
MEM _A[2]	ADD(2)	
MEM _A[3]	ADD(3)	
MEM _A[4]	ADD(4)	
MEM _A[5]	ADD(5)	

MEM _A[6]	ADD(6)	
MEM _A[7]	ADD(7)	
MEM _A[8]	ADD(8)	
MEM _A[9]	ADD(9)	
MEM _A[10]	ADD(10)	
MEM _A[11]	ADD(11)	
MEM _A[12]	ADD(12)	
MEM _A[13]	ADD(13)	
MEM _A[14]	ADD(14)	
MEM _A[15]	ADD(15)	
MEM _A[16]	ADD(16)	
MEM _A[17]	ADD(17)	
MEM _A[18]	ADD(18)	
MEM _A[19]	ADD(19)	
MEM _A[20]	ADD(20)	
MEM _A[21]	ADD(21)	
MEM _A[22]	ADD(22)	
MEM _A[23]	ADD(23)	
MEM _A[24]	ADD(24)	
MEM _A[25]	ADD(25)	
MEM _A[26]	ADD(26)	
MDM_CSA0_N	ADD(27)	
MDM_ CSA1_N	ADD(28)	
MDM_ CSA2_N	ADD(29)	
MDM_CSA3_N	BA0	
MEM _CS0_n	_NAND_CS	INTEL NOR (64MB)
MEM _CS1_n	_RAM_CS	INTEL SDRAM (64MB)
MEM _CS2_n		
MEM _CS3_n	_CS3	
MEM _ADV_n	BA1	
MEM _RAS_n	_RAS	
MEM _CAS_n	_CAS	
MEM _WAIT_n	_WAIT	
MEM _SDCLK0	SDCLKO	For Burst mode
MEM _BFCLK01	BFCLKO	For Burst mode
MEM _BFCLK02	SDCLK1	For Burst mode
MEM _CKE	CKE	
Memory		

FCDP_RBn	FCDP	
GPIO_60	RPWRON_DBB	
TDMA I/F		
T_OUT0	TXON_PA	PAM
T_OUT1		
T_OUT2	ANT_SEL1	
T_OUT3	2G+ANT_SELECT	
T_OUT4	_EOC	Charging terminate signal
T_OUT5	GPS_IRQ	
T_OUT6	PA_MODE	PAM
T_OUT7	ANT_SEL2	
T_OUT8	ANT_SEL3	
T_OUT9	DSR	
T_OUT10	JACK_DETECT	Jack detect
DIF_D8	TA_DETECT	Charger detect
CIF_PD	CHG_EN	Charging enable
RF I/F		
RF_STR0	2G_EN	
RF_STR1	_PPR	Charger detect
RF_DATA	2G_DATA	
RF_CLK	2G_CLK	
GPIO[7]	3G_LD	
GPIO[10]	3G_MASTER_ON	
GPIO[15]	3G_PA_MODE1	
GPIO[16]	ANT_SEL4	
GPIO[17]	ANT_SEL5	
GPIO[18]]	ANT_SEL6	
System Port		
AFC	PIN 6 WITH NC7SZ4L8X	
CLKOUT0 [<=26MHz]	PIN 7 WITH NC7SZ4L8X	Not used
F26M	26MHZ	26M Main Clock
F32K		to 32k crystal
OSC32K		to 32k crystal
RESET_n	_RESET	
TRIG_OUT	TRIG_OUT	
RTC_OUT	RTC_OUT	
SPUC_RQ_IN2	PM_VCXO_EN	

DSP		
DSPIN0	CLK32K	
DSPOUT1	WDOG	Navi key LED Backlight Control
DSPIN1	BT_WAKEUP	

3.3 Power management IC

3.3.1 General Description

SM-POWER is a highly integrated Power and Battery Management IC for mobile handsets. It has been specially designed for usage with S-Gold3. Although optimized for usage with the Infineon SGOLD baseband device it is suitable for the S-GOLD lite and the E-GOLD+ baseband devices as well.
It also supports the cellular RF devices like SMARTi-DC, SMARTi-DC+, SMARTi-SD and the Bluemoon Single, Infineon's single chip solution for Bluetooth. If used with S-GOLD3 it provides all power supply functions (except for the RF PA) for a complete advanced GSM Edge smart phone minimizing external device count.

Block Description

• Highly efficient step-down converter for main digital baseband supply including Core, DSP and memory interface (External Bus Unit).
• Support of S-GOLD standby power-down concept
• Low-drop-out (LDO) regulators for Flash and mobile RAM memory devices
• Voltage independent switching of two SIM cards
• LDO regulators for baseband I/O supply
• LDO regulator for analog mixed-signal section of S-GOLD
• Low-noise LDO regulators for RF devices
• Supply for Bluemoon Single, Infineon's single chip solution for Bluetooth
• Audio amplifier 8 Ohms for handsfree operation and ringing
• Charge Control for charging Li-Ion/Polymer batteries under software control
• Pre-charge current generator with selectable current level
• RTC regulator with ultra-low quiescent current
• USB interface support for peripheral and mini-host mode

• Backlight LEDs driver with current selection and PWM dimming function
• Two single LED driver outputs for signaling
• Vibrator driver with adjustable voltage
• Fully controlable by software via I2C - Bus
• Temperature and battery voltage sensors
• Interrupt channels for peripherals
• System debug mode
• VQFN 48 package with heat sink and non-protruding leads
• Compatible with the Infineon E-GOLD+ V2 and V3

SM-POWER is a further step on the successful E-Power product line with enhanced and optimized functionality.

SM-POWER features a baseband supply concept with a DC/DC step-down converter cascaded by two linear regulators

- SM-POWER's DC/DC converter makes up to 40 % reduction of battery current for smart phone functions (e.g. organizer functions, games, MP3 decoding) possible.
- SDBB has high efficiency up to 95% and also a power save mode.
- Memory Interface is directly supported by the SDBB
- SDBB can also act as main supply voltage for E-GOLD+ or S-GOLDlite baseband devices.
- For S-GOLD two linear regulators for DSP and Core are cascaded after the SDBB.

SM-POWER supports the standby power-down concept of S-GOLD by temporarily switching off the linear regulator for the DSP during mobile standby whenever this subsystem is not used. In this phase the ARM controller and most peripherals including parts of the on-chip SRAM are kept powered-up withpower being supplied by the other linear regulator.

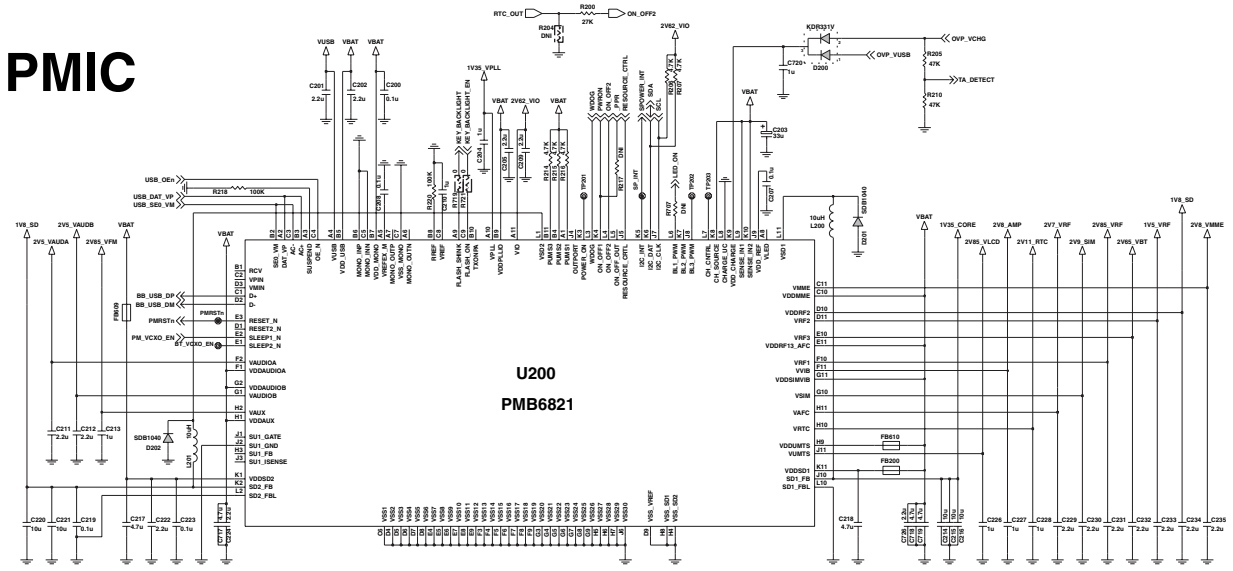
SM-POWER includes a fully differential audio amplifier able to drive loads down to a nominal value of 8 Ohm for usage in hands-free phones and for ringing

- 450 mW maximum output power
- adjustable gain
- mute switch SM-POWER also integrates a charging function for Li-Ion, Li-Polymer batteries
- click and pop -protection SM-POWER also integrates a charging function for Li-Ion, Li-Polymer batteries
- Precharge current source with two current levels
- Constant current / constant voltage charging with 3 different termination voltages
- Programable charge current limitation for use with different batteries

- Freely programable pulse charging to reduce the thermal power dissipation in the constant voltage charging phase
- Top-off charge current sensing SM-POWER completes the USB interface of S-GOLD
- Regulated voltage for S-GOLD USB interface including reverse current and overvoltage protection
- Switch to supply USB pull-up resistor
- Mini-host pull down resistor functionality
- Charge pump with internal switching capacitor for USB host VBUS supply voltage SM-POWER fully supports LED and Vibra Motor functionality
- no external components needed
- driver for backlight LEDs adjustable in steps up to 140mA and with soft turn on and off by PWM dimming
- two driver outputs for single LEDs for precharge indication and signaling with i.e. change of colour
- driver for Vibra Motor with adjustable voltages, soft startup / shutdown and current limitation SMPOWER offers several control functions
- Power-on Reset Generator with logic state machine
- I2C bus interface
- I2C bus configurable mode control logic with ON (push-button or RTC), VCXOEN and LRF3EN (wake-up by Bluetooth) inputs
- Programable interrupt channels to handle peripherals like SIM, MMC and USB
- Monitoring of charging functions
- Undervoltage Shut-Down
- Errorflags (volatile or non-volatile) from many power-supply functions and thermal sensor in order to debug system
- Overtemperature Shut-Down
- Overtemperature Warning
- Support of S-GOLD standby power-down concept
- Support of S-GOLD Power-Down Pad Tristate Function

[Table 3.3.1-1] LDO Output Table of SM-Power3

LDO	Net name	Output Voltage	Output Current	Usage
SD1	1V35_Core	1.35V	600mA	Core & for LDO
SD2	1V8_SD	1.8V	300mA	Memory
VAUX	2V85_VFM	2.85V	100mA	FM RADIO
VIO	2V62_VIO	2.62V	100mA	Peripherals
VSIM	2V9_SIM	2.9V	70mA	SIM card
VMME	2V8_VMME	2.9V	150mA	u-SD
VUMTS	2V85_VLCD	2.85V	110mA	LCD
VAUDIOa	2V5_VAUDA	2.5V	200mA	Stereo headset, Mono earpiece
VAUDIOb	2V5_VAUDB	2.5V	50mA	Analog parts of S-Gold
VRF1	2V85_VRF	2.85V	150mA	2.85 V supply for SMARTi-PM RF transceiver
VRF2	1V5_VRF	1,53V	100mA	1.5 V supply for SMARTi-PM RF transceiver
VRF3	2V65_VBT	2.7V	150mA	Bluetooth
VPLL	1V35_VPLL	1.35V	30mA	S-GOLD3H PLL
VRTC	2V11_RTC	2.11V	4mA	Real Time Clock
VAFC	2V7_VRF	2.65V	5mA	Not used
VVIB	2V8_VAMP	2.8V	140mA	AUDIO AMP



[Figure3.3.1-1] SM-Power 3 Circuit Diagram

3.3.2 Charging control

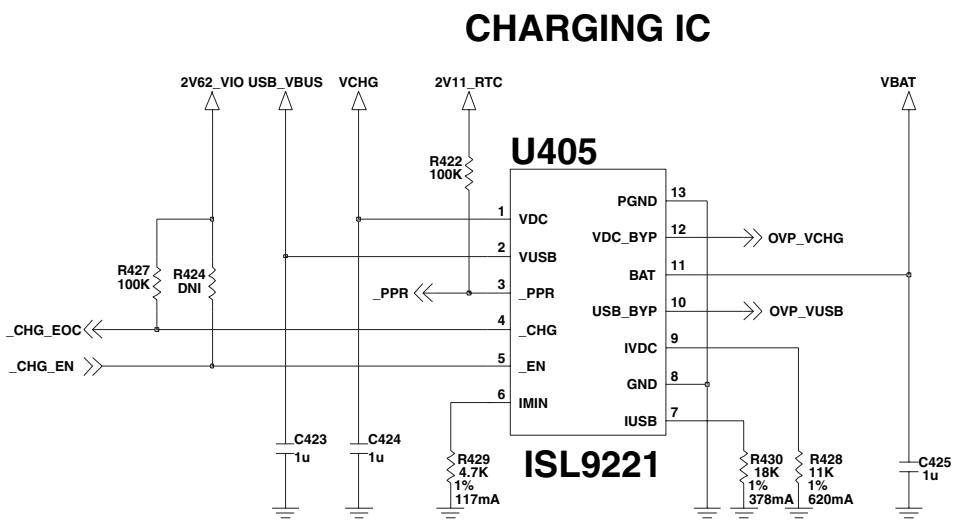
- KM900 uses external charging IC which is ISL9221

1. Charging method : CC-CV
2. Charger output voltage : 5.1 V
3. Charging time : 2h 20m
4. Charging current : 620 mA
5. CV voltage : 4.2 V
6. Cutoff current : 117 mA
7. Full charge indication current (icon stop current) : 117 mA
8. Recharge voltage : 4.15 V
9. Low battery alarm
   a. Idle : 3.45 V ~ 3.31 V
   b. Dedicated : 3.45 V ~ 3.3 V
10. Low battery alarm interval
    a. Idle : 3 min
    b. Dedicated : 1 min
11. Switch-off voltage : 3.31 V
12. Charging temperature adc range

a. ~ -20℃ : low charging voltage operation (3.6 V ~ 3.9 V) .

b. -20℃ ~ 60℃ : standard charging (up to 4.2 V)

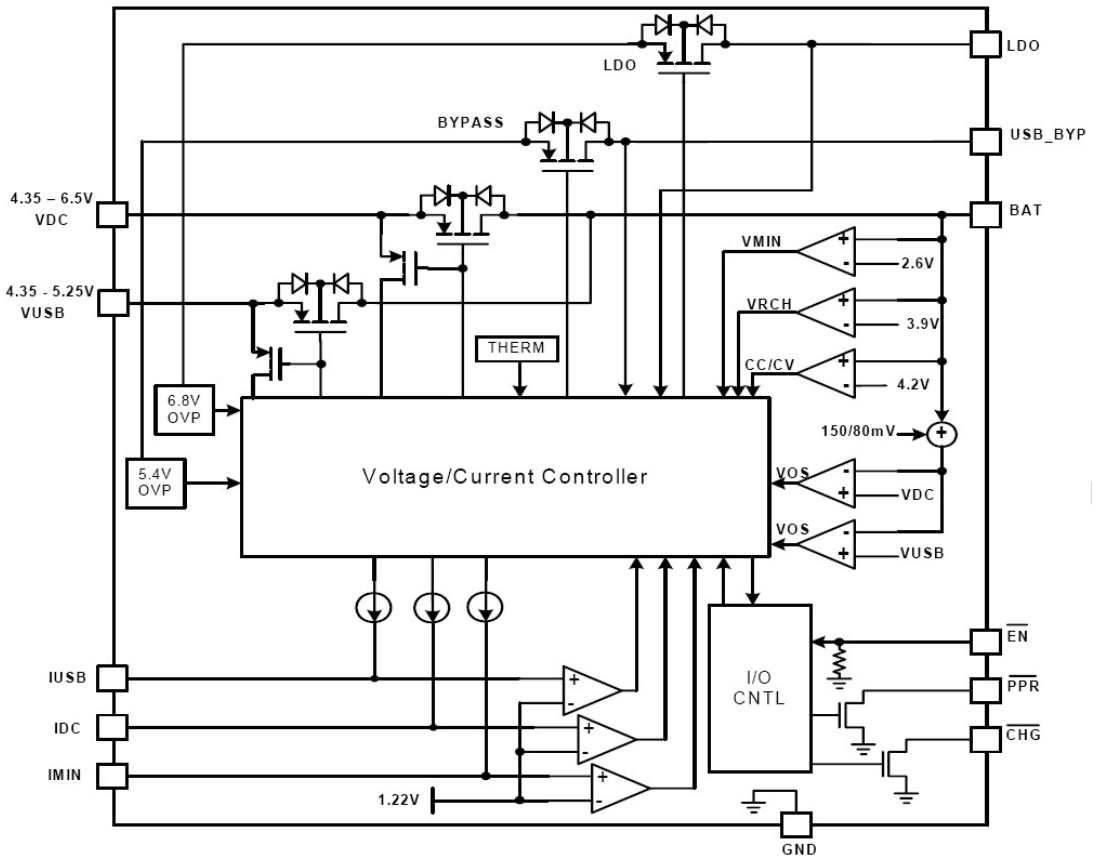
c. 60℃~ : low charging voltage operation (3.6V ~ 3.9V)



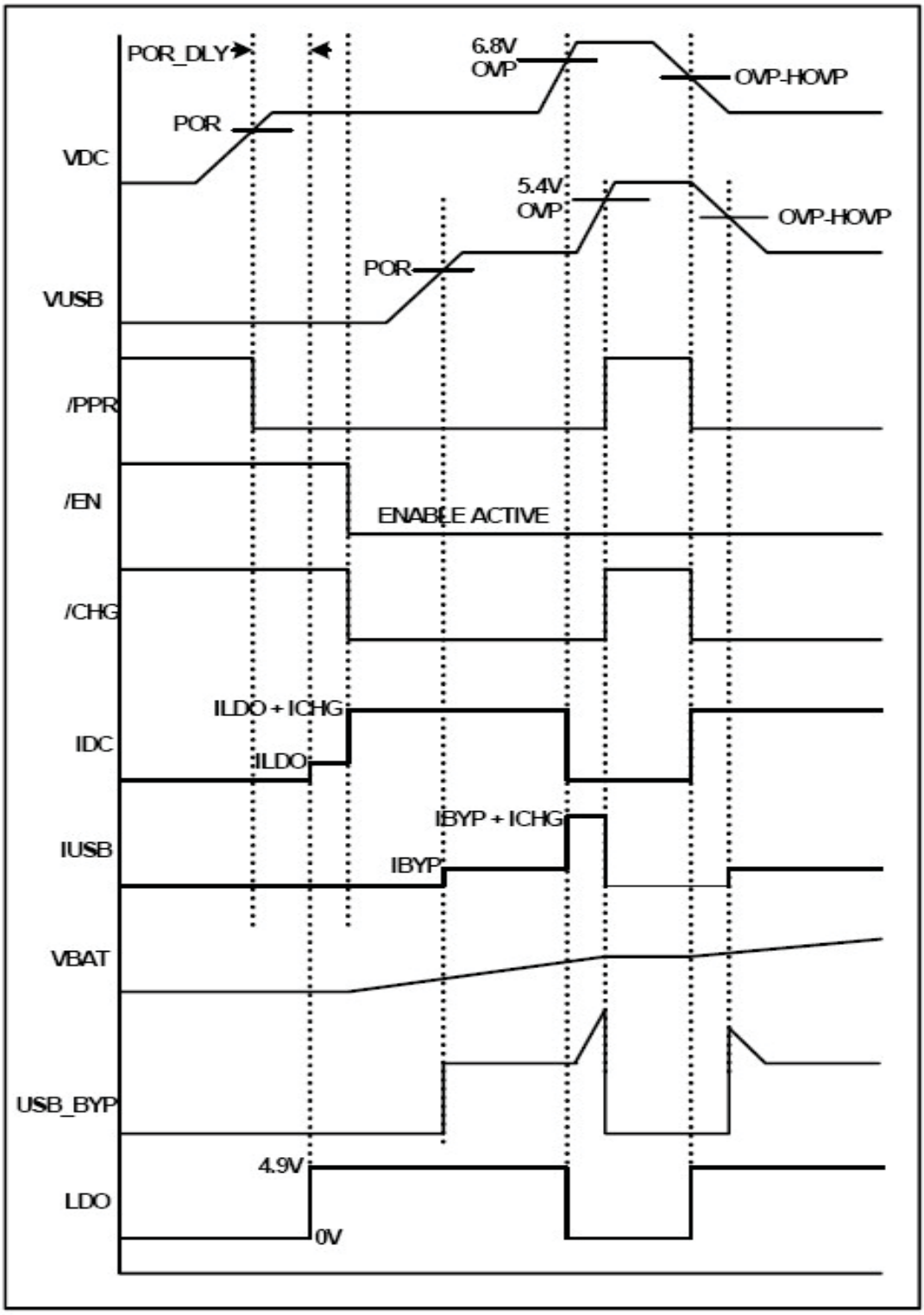
[Figure 3.3.2-1] Charging IC (ISL9221)

NAME	PIN	TYPE	DESCRIPTION
VDC	1	AI	Input pin from car adapter or AC/DC adapter
VUSB	2	AI	Input pin from USB host device
VDC_LDO	12	AO	Output pin of Linear Regulator
USB_BYP	10	AO	Output pin from USB bypass circuitry
IVDC	9	AI	Battery current setting pin for adapter power
IUSB	7	AI	Current setting pin for USB power
IMIN	6	AI	End-of-charge current setting pin
BAT	11	AO	Output pin to battery
$\overline{EN}$	5	DI	Active low charge enable pin
$\overline{PPR}$	3	OD	Active low power present indicator pin
$\overline{CHG}$	4	OD	Active low charging indication pin
GND	8	G	Ground pad

[Table 3.3.2-1] PIN description of Charging IC

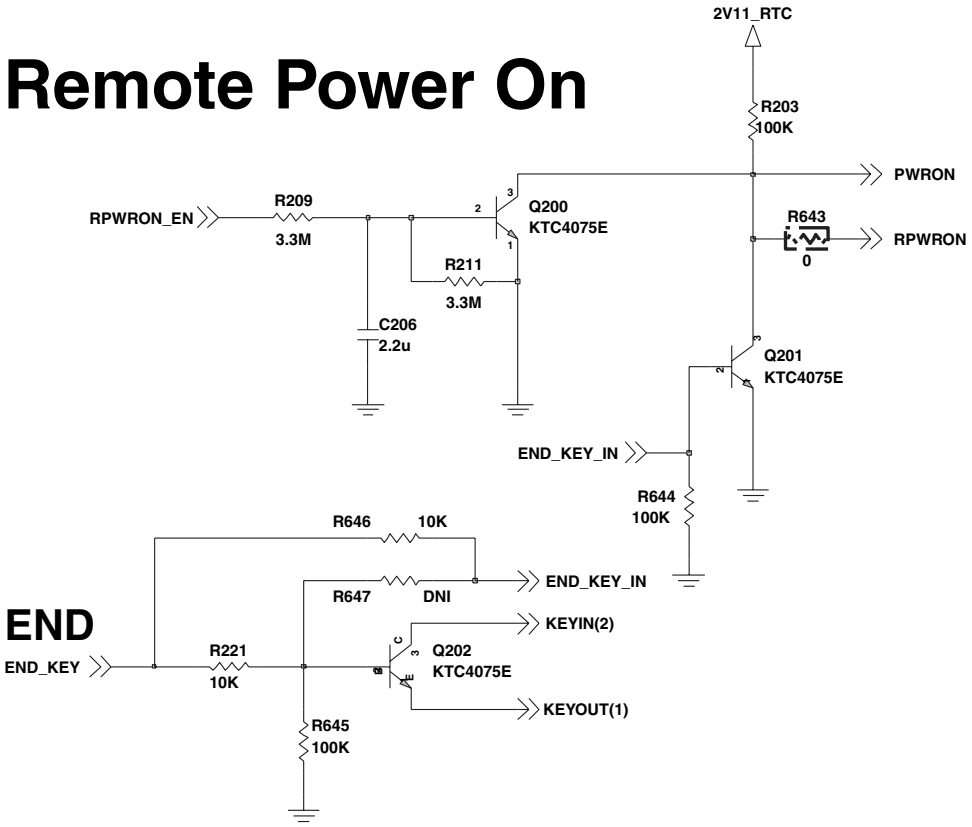


[Figure 3.3.2-1] Block diagram of Charging IC



[Figure 3.3.2-2] Charging Profile

3.4. Power ON/OFF



[Figure 3.4-1] Remote power on and End-key power on circuit

Voltage level of PWRON pin is high before push the END_KEY button.

If push the END_KEY button, voltage level of PWRON pin is change from high to low.

ON_OFF1 is a power-on input for SM-POWER3 with active low levels.

3.5 SIM Interface

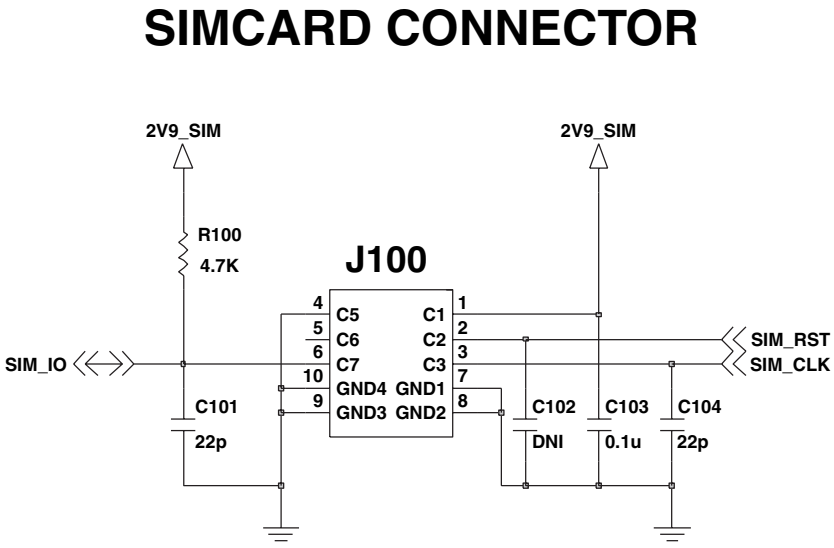
KM900 supports 1.8V & 2.9V plug in SIM. SIM_IO, SIM_CLK, SIM_RST ports are used to communicate with S-Gold3H-LC and the SIM power supply enabled by PMIC.

SIM Interface

SIM_CLK : SIM card reference clock

SIM_RST : SIM card Async /sync reset

SIM_IO : SIM card bidirectional reset



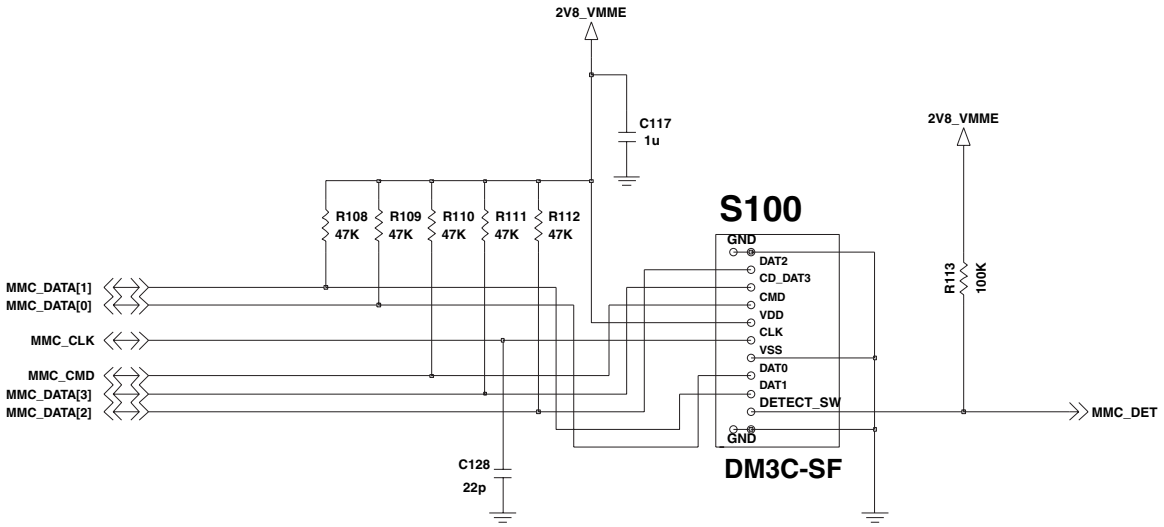
[Figure 3.5-1] SIM Circuit

3.6 T - Flash connector

The Micro SD Memory Module has eight exposed contacts on one side.

The A259 connected to the module using a dedicated eight-pin connector

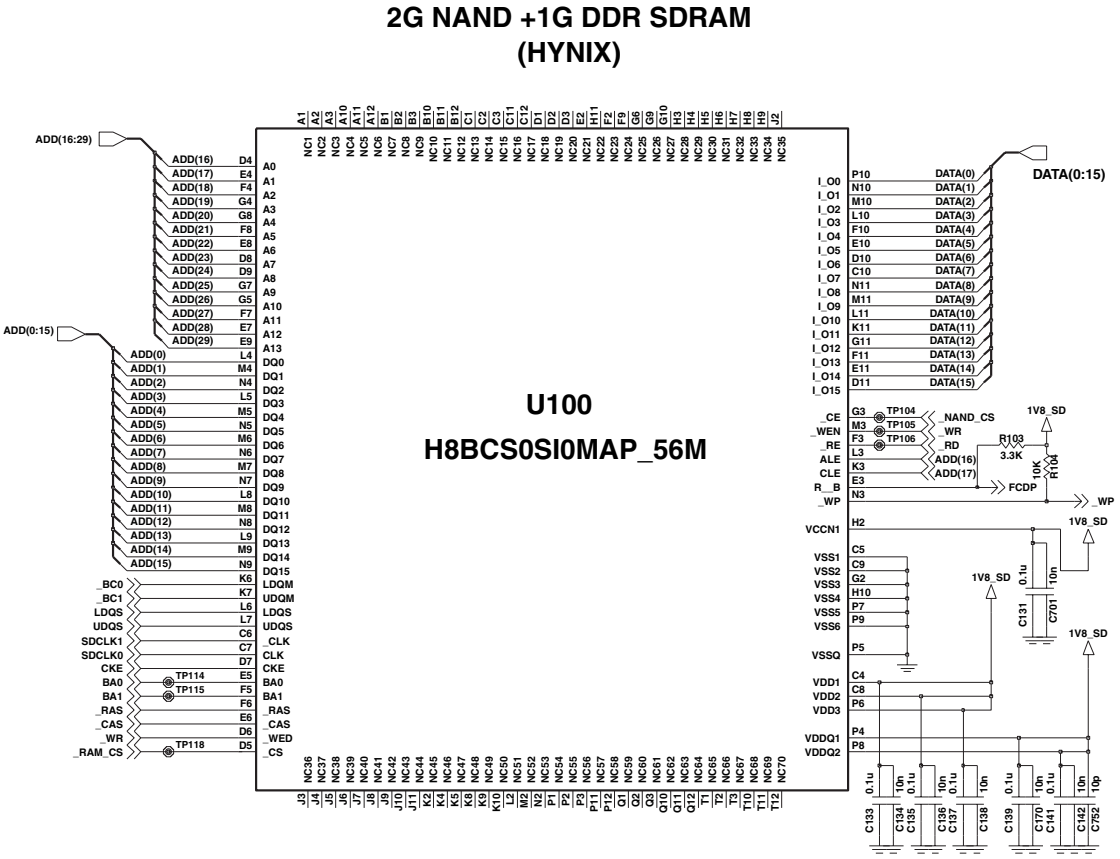
T-Flash CONNECTOR



[Figure 3.6-1] T-Flash Connector

3.7 Memory

2Gbit NAND Flash & 1Gbit DDR SDRAM employed on KM900 with 16 bit parallel data bus thru ADD(0) ~ ADD(24). The 2Gbit NAND Flash memory with DDR SDRAM stacked device family offers multiple high-performance solutions.

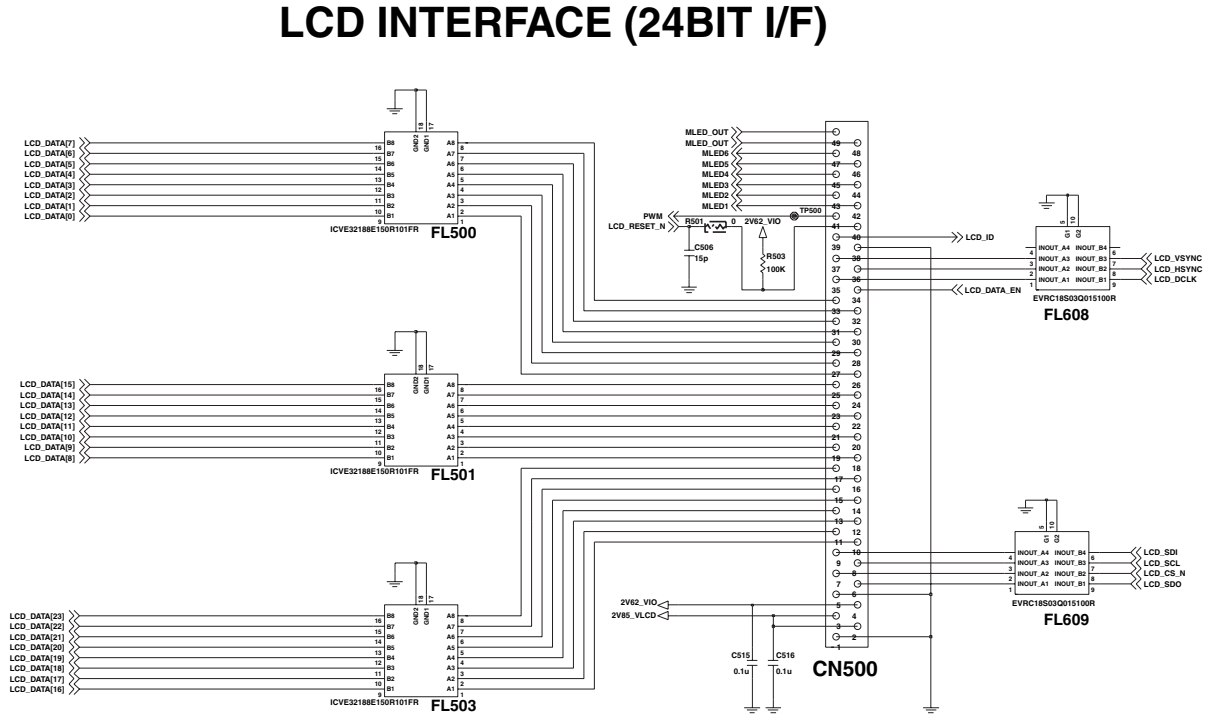


[Figure 3.7-1] Memory circuit diagram

3.8 LCD Display

LCD module include:

- Main LCD: 3.0″ 480x800 WVGA, 1677K True color TFT
- Backlight : 6 white LEDs are parallel connection

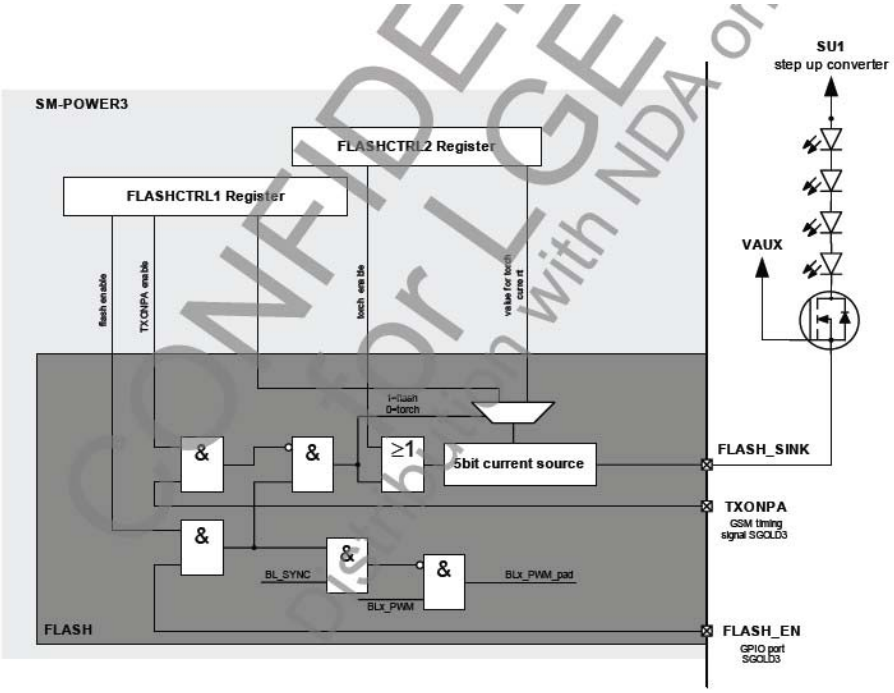


[Figure3.8-1] LCD circuit diagram

3.9 keypad back-light illumination

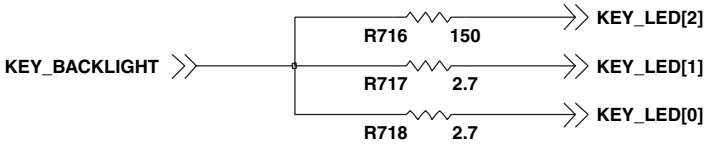
3.9.1 Number keypad back-light illumination

There are 2 snow white color LEDs on Key for keypad illumination. Keypad Back-light is controlled by SM-Power3 Flash LED port which has constant current control function. The whole configuration of the SM-POWER3 Flash LED drivers is shown in below Figure.



[Figure 3.9.1-1] LED driver in the SM-POWER3

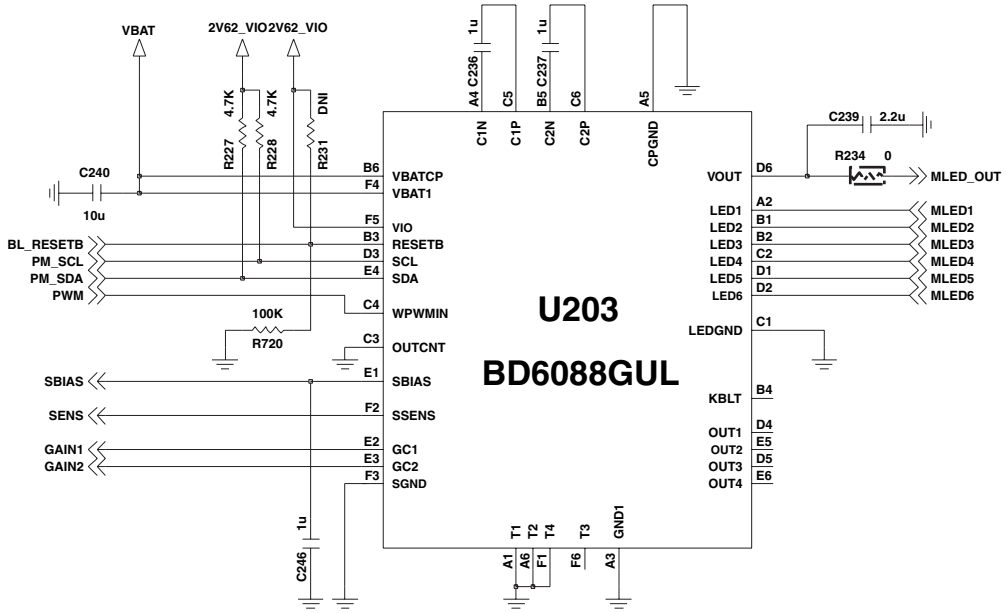
THREE BUTTON KEY BACKLIGHT



[Figure 3.9.1-2] Number key back-light LED circuit diagram

3.10 LCD back-light illumination

BD6088GUL is "Intelligent LED Driver" That is the most suitable for the cellular phone.
It has 6LED driver for LCD Backlight and GPO 4port, ALC function that is "Low Consumption System" realized.

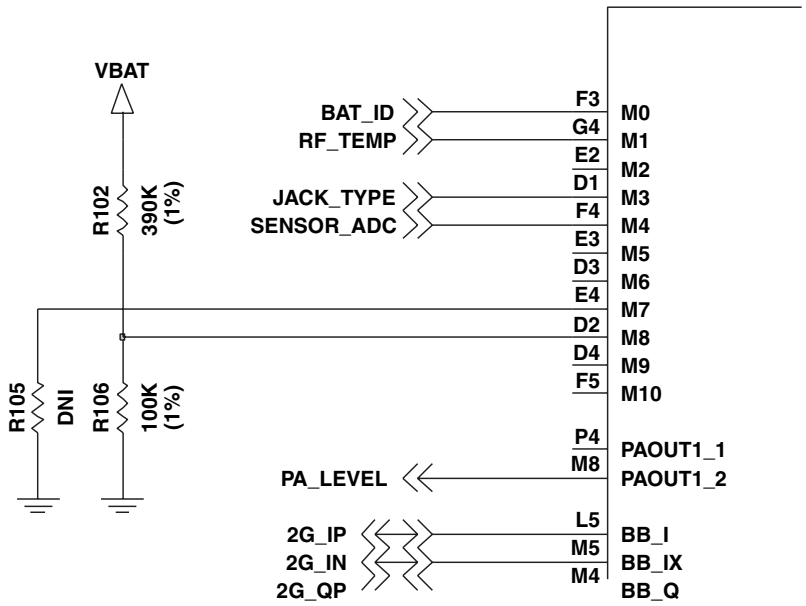


ALC Charge-pump

[Figure 3.10-1] LCD charge pump circuit diagram

3.11 Battery voltage monitor

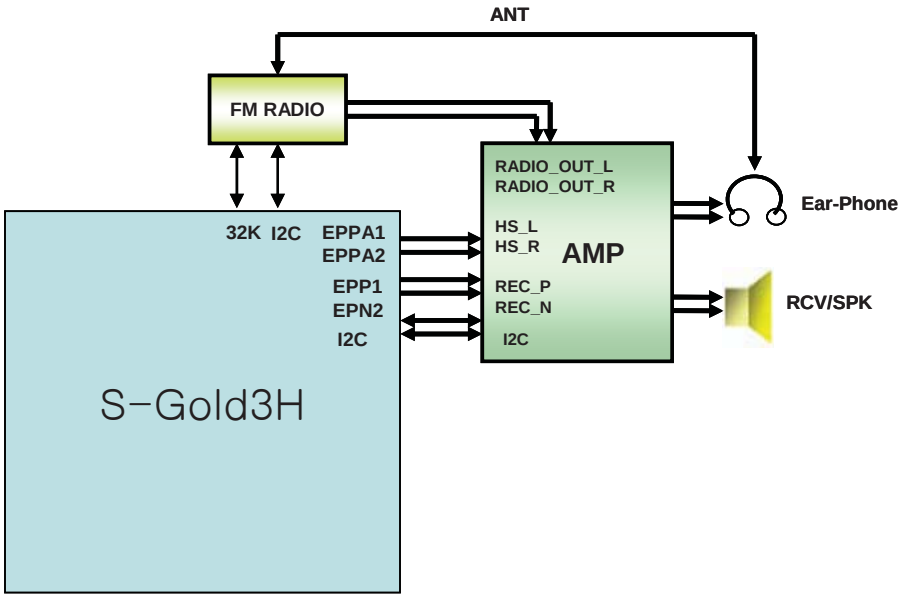
S-Gold3H(PMB8878) is monitor battery capacity with ADC port.



[Figure3.11-1] Battery voltage monitor circuit diagram

3.12 Audio

KM900 Audio signal flow diagram as following diagram.



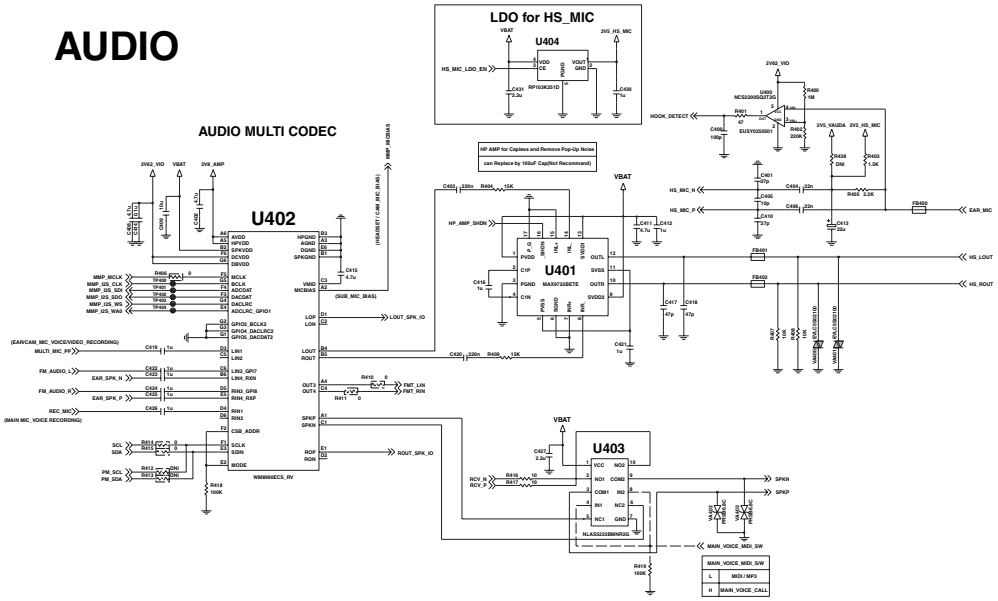
[Figure 3.12-1] Audio signal flow diagram

3.12.1 Audio amplifier

KM900 use external AMP(MAX9722BETE).

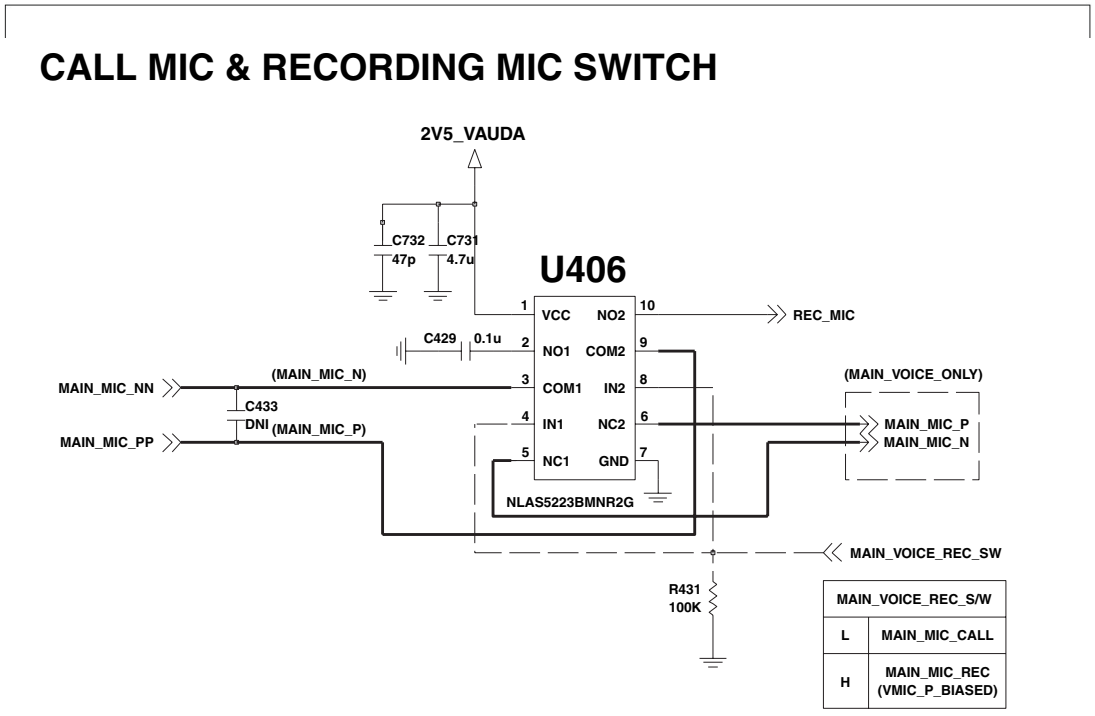
MAX9722BETE combines a high efficiency Class D audio power amplifier with a stereo Class AB capacitor-less Direct Drive headphone amplifier.

MAX9722BETE delivers up to 70mW from a 3.7V supply into an 16ohm load and up to 130mW into a 32ohm with 87% efficiency to extend battery life.



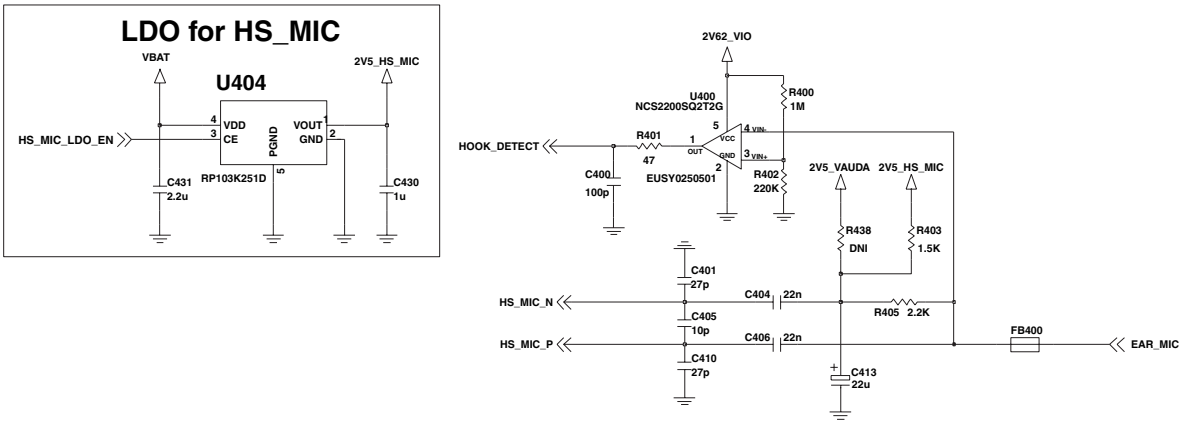
[Figure 3.12.1-1] Audio circuit diagram

3.12.2 Call MIC & Recording MIC Switch



[Figure 3.12.2-1] Call MIC & Recording MIC Switch diagram

3.12.3 Headset circuit

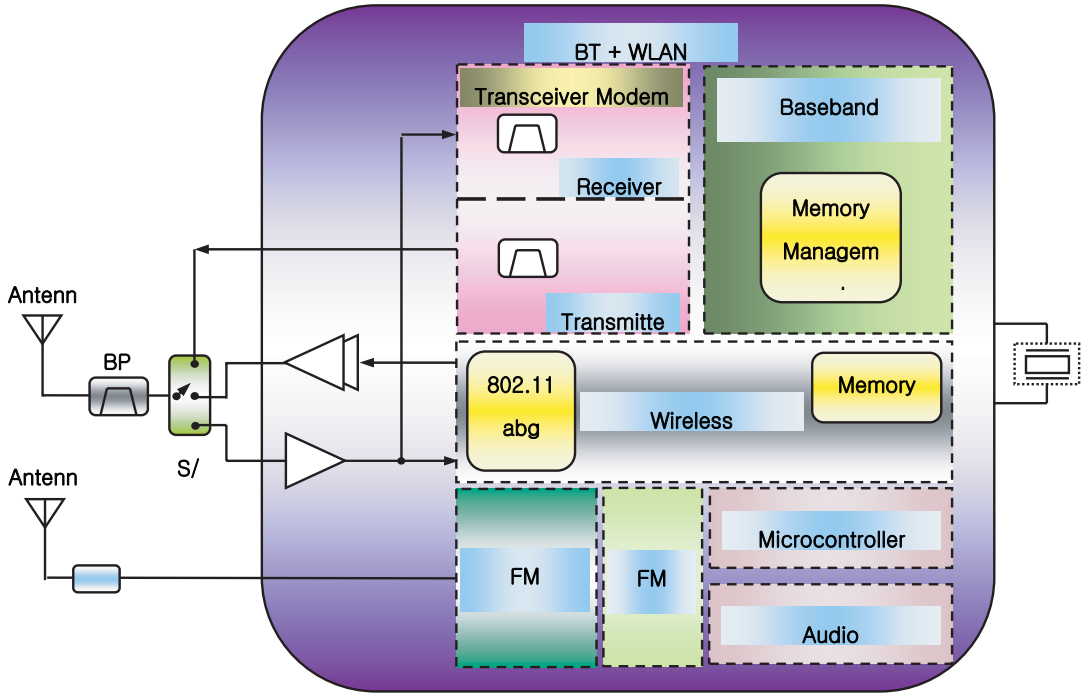


[Figure 3.12.3-1] Headset circuit diagram

3.13 WLAN/Bluetooth/FM (LBEH19UNBC)

General Description

The KM900 device provides the highest level of integration for a mobile wireless system, with integrated IEEE802. 11 b/g(MAC/baseband/radio), Bluetooth 2.0, and FM reveiver. The LBEH19UNBC that is included of BCM4325 solution is supported three kinds of functions. It is the one antenna structure which is supported of WLAN/Bluetooth in 2.4GHzand



[Figure 3.13] WLAN/Bluetooth System Architecture

3.13.1 WLAN

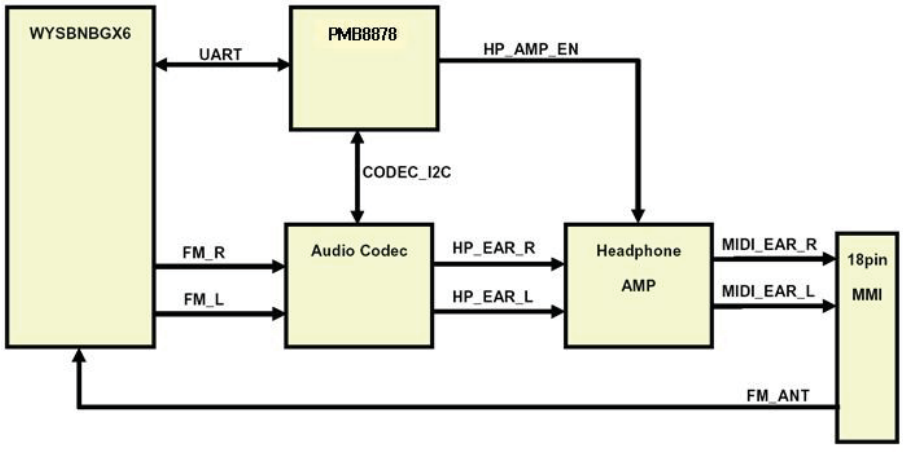
The KM900 supports single-band 2.4GHz IEEE802.11b/g standardization. The WLAN module which is consisted of the BCM4325 single chip device provides for the highest level of integration for a mobile or handheld wireless system, with integrated IEEE802.11TM b/g (MAC/baseband/radio). The BCM4325's integrated CMOS WLAN 2.4GHz power amplifier provide sufficient output power to meet the need of most WLAN devices. The interface between PMB8878 and WLAN module is the standard interfaces SDIO v1.2 (4-bit and 1-bit).
[Figure3.13] shows the WLAN system architecture in the KM900

3.13.2 Bluetooth

The KM900 provides the Bluetooth 2.0 specification. The Bluetooth module is the optimal solution for any voice or data application that requires the Bluetooth SIG standard Host Controller Interface (HCI) using a high-speed UART and PCM. The Bluetooth solution has an integrated radio transceiver that has been optimized for 2.4GHz Bluetooth wireless systems. It has been designed to provided low power, low-cost, robust communications for applications operating in the globally available 2.4GHz unlicensed ISM band. It is fully compliant with the Bluetooth Radio Specification and meets or exceeds the requirements to provide the highest communication link quality of service. [Figure3.13] also shows the Bluetooth system architecture in the KM900.

3.13.3 FM Radio

This FM is a function of WYSBNBGX6 module, electronically tuned, FM stereo radio with RDS/RBDS demodulator and decoder for low voltage applications, with fully integrated IF selectivity and demodulation. This equipment supports the European Radio Data System (RDS) and the North American Radio Broadcast Data System (RBDS) modulations. The FM unit supports I2C for communications, stereo analog output, as well as I2S and PCM interfaces. [Figure3.13.3] shows the FM Radio system architecture in the KM900.



[Figure 3.13.3] FM Radio system architecture.

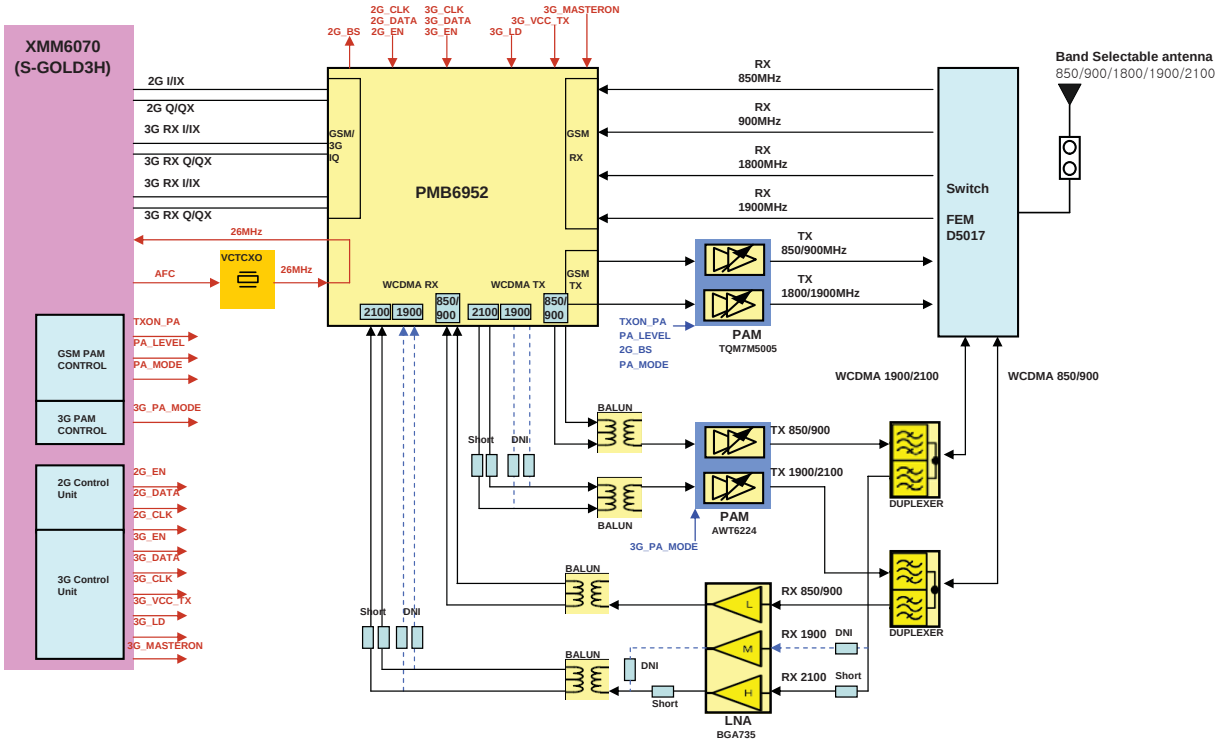
3.14 18PIN Interface connector

[Table 3.14-1] PIN assign

	Pin Function	Description
1	GND	Power GND
2	Open	Open
3	TV_OUT	Accessory type detect
4	LOUT_SPK_IO	Headset left sound
5	ROUT_SPK_IO	Headset Right sound
6	USB_DP	USB
7	USB_DM	USB
8	JACK_DETECT	Headset detect (active low)
9	VBAT	Battery voltage
10	VABT	Battery voltage
11	RPWRON_EN	Remote power on (active high. 2.8V)
12	VCHG	Charger voltage
13	VCHG	Charger voltage
14	DSR	DSR
15	USB_VBUS	USB VBUS
16	UART_TX	UART TX data
17	UART_RX	UART RX data
18	GND	Power GND

3.15 General Description

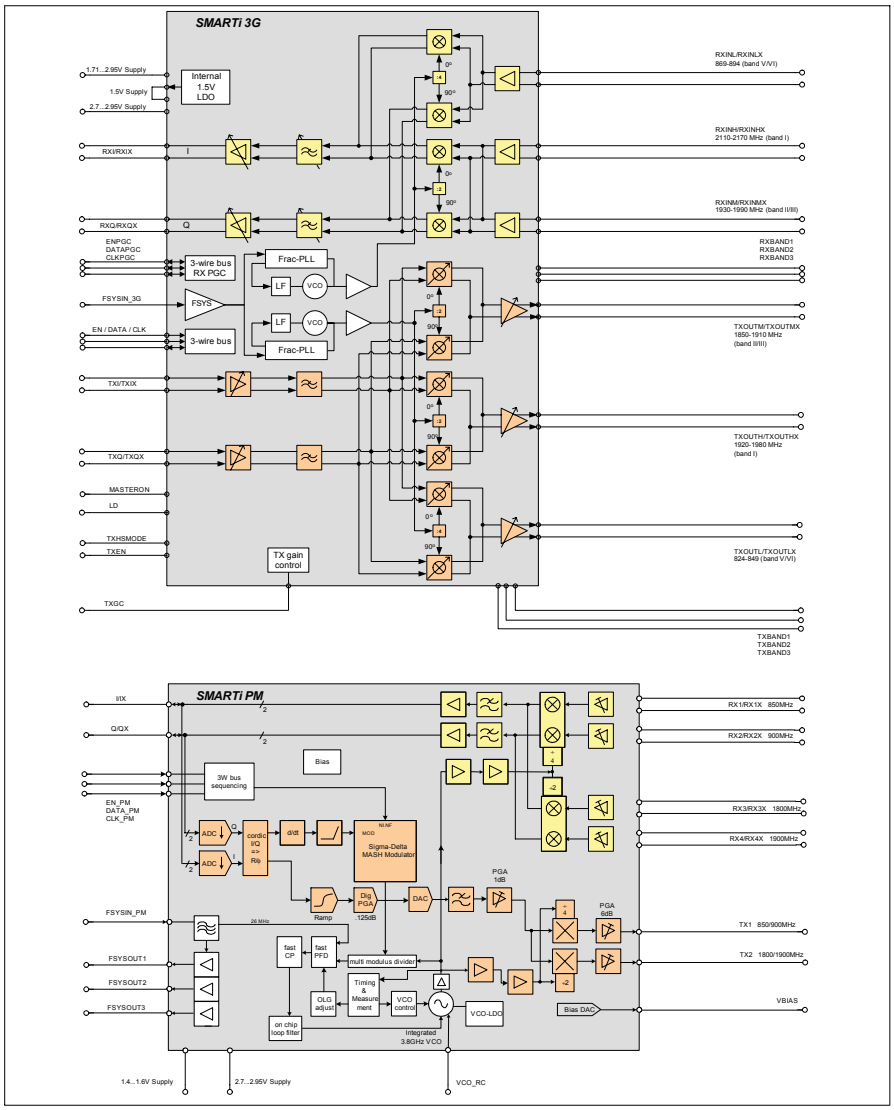
The PMB 6952 SMARTi 3GE combines the SMARTiPM quad-band GSM/EDGE and SMARTi3G triple-band W-CDMA transceivers in a laminate based PG-TFSGA-121-2 package. A significant circuit board area reduction is achieved compared to using separately packaged transceivers. SMARTiPM is a quad-band transceiver for GSM850/GSM900/ GSM1800/GSM1900 voice and data applications. SMARTiPM features a direct conversion receiver and a quad-band polar modulator transmitter for



[Figure 3.15-1] Block Diagram of RF part

GSM and EDGE. An analog I/Q baseband interface is provided. The HSCSD and GPRS/EDGE capable synthesizer is fully integrated, including all RF oscillators. A reference oscillator buffer amplifier with three outputs is provided to simplify clock distribution.

A three wire bus interface is used for control and programming. SMARTi3G is a triple-band W-CDMA transceiver for voice and high speed data applications. SMARTi3G features a direct conversion receiver and a direct modulation transmitter. Analog I/Q baseband interfaces are supported. A three wire bus interface is provided for control and programming. A second three wire bus may optionally be used for fast control of the receiver programmable gain amplifier. Fractional-N PLL RF synthesizers including separate TX and RX VCOs are fully integrated. Programmable logic outputs are provided to control external low noise amplifiers, power amplifiers, and antenna switches. To avoid interference between the 2.5G and 3G transceivers, simultaneous operation of SMARTiPM and SMARTi3G is not permitted.



[Figure 3.15-2] RF Functional Block Diagram

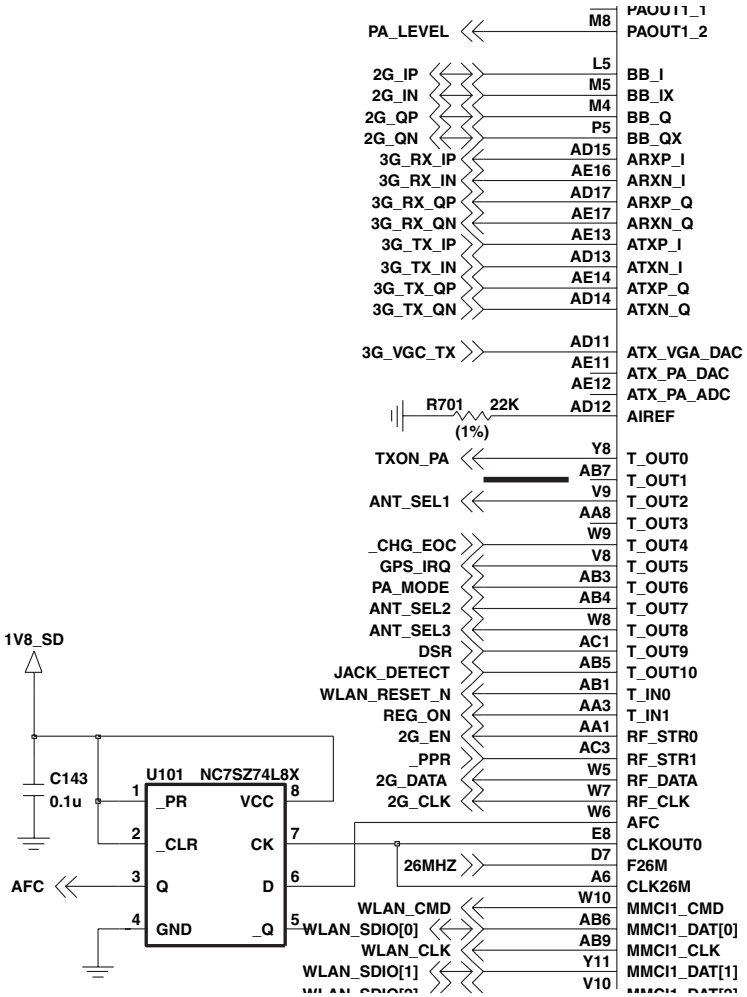
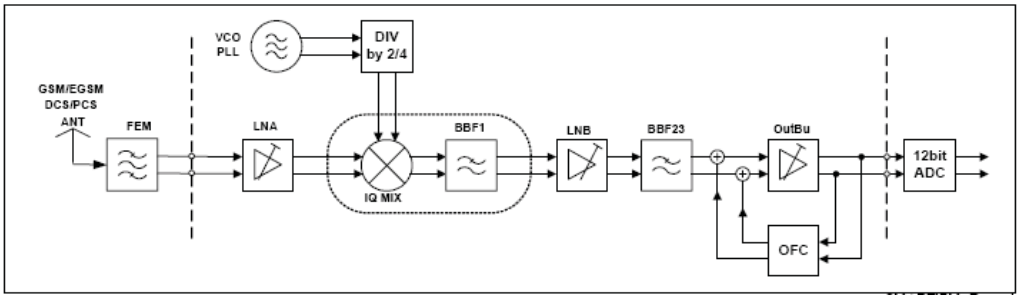


Figure 3.15-3] Schematic of RF Control Signals

3.16 GSM Part

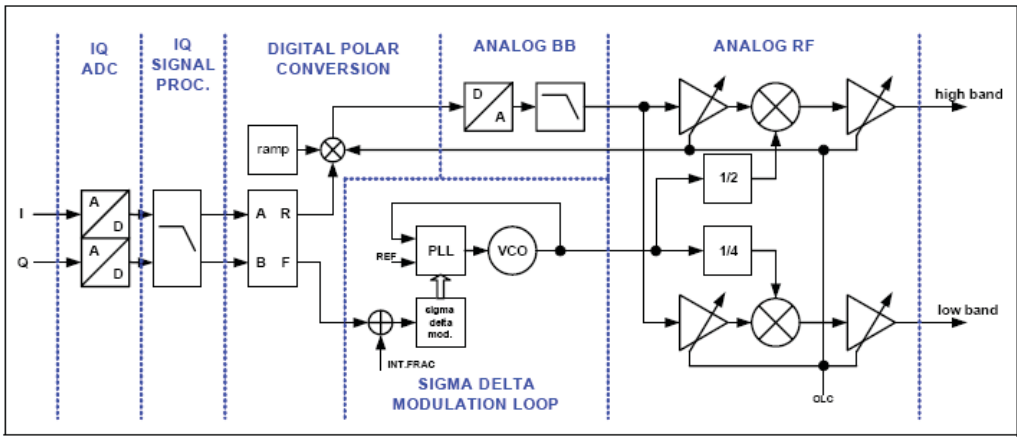
3.16.1 GSM Receiver



[Figure 3.16.1-1] GSM Receiver Part Block Diagram

The constant gain direct conversion receiver contains all active circuits for a complete receiver chain for GSM/GPRS/EDGE (see [Figure 3.16.1-1]). The GSM850/900/DCS1800/ PCS1900 LNAs with balanced inputs are fully integrated. No interstage filtering is needed. The orthogonal LO signals are generated by a divider-by-four for GSM850/900 band and a divider-by-two for the DCS1800/PCS1900 band.Down conversion to baseband domain is performed by low/high band quadrature direct down conversion mixers. The baseband chain contains a LNB (low noise buffer), channel filter, output buffer and DC-offset compensation. The 3rd order lowpass filter is fully integrated and provides sufficient suppression of blocking signals as well as adjacent channel interferers and avoids anti-aliasing through the baseband ADC. The receive path is fully differential to suppress on-chip interferences. Several gain steps are implemented to cope with the dynamic range of the input signals. Depending on the baseband ADC dynamic range, single- or multiple gain step switching schemes are applicable. Furthermore an automatic DC-offset compensation can be used (depending on the gain setting) to reduce the DC-offset at baseband-output. A programmable gain correction can be applied to correct for front end- and receiver gain tolerances.

3.16.2 GSM Transmitter



[Figure 3.16.2-1] GSM Transmitter Part Block Diagram

The GMSK transmitter supports power class 4 for GSM850 and GSM900 as well as power class 1 for DCS1800 and PCS1900. The digital transmitter architecture is based on a very low power fractional-N Sigma-Delta synthesizer without any external components (see [Figure 3.16.2-1]). The analog I/Q modulation data from the baseband is converted to digital, filtered and transformed to polar coordinates. The phase/frequency signal is further on processed by the Sigma-Delta modulation loop. The output of its associated VCO is divided by four or two, respectively, and connected via an output buffer to the appropriate single ended output pin. This configuration ensures minimum noise level.

The 8PSK transmitter supports power class E2 for GSM850 and GSM900 as well as for DCS1800 and PCS1900. The digital transmitter architecture is based on a polar modulation architecture, where the analog modulation data (rectangular I/Q coordinates) is converted to digital data stream and is subsequently transformed to polar coordinates by means of a CORDIC algorithm. The resulting amplitude information is fed into a digital multiplier for power ramping and level control. The ready processed amplitude signal is applied to a DAC followed by a low pass filter which reconstructs the analog amplitude information. The phase signal from the CORDIC is applied to the Sigma-Delta fractional-N modulation loop. The divided output of its associated VCO is fed to a highly linear amplitude modulator, recombining amplitude and phase information. The output of the amplitude modulator is connected to a single ended output RF PGA for digitally setting the wanted transmit power.

The PA interface of SMARTi 3GE supports direct control of standard dual mode power amplifiers (PA's) which usually have a power control input VAPC and an optional bias control pin VBIAS for efficiency enhancement. In GMSK mode, the PA is in saturated high efficiency mode and is controlled via its VAPC pin directly by the baseband ramping DAC. In this way both up- / down-ramping and output power level are set. In 8PSK mode, the ramping functionality is assured by an on-chip ramping generator, whereas output power is controlled by the PGA's as described above.

3.16.3 GSM RF Synthesizer

The SMARTi 3GE contains a fractional-N sigma-delta synthesizer for the frequency synthesis in the RX operation mode. For TX operation mode the fractional-N sigma-delta synthesizer is used as Sigma-Delta modulation loop to process the phase/frequency signal. The 26MHz reference signal is provided by the internal crystal oscillator. This frequency serves as comparison frequency of the phase detector and as clock frequency for all digital circuitry.

The divider in the feedback path of the synthesizer is carried out as a multi-modulus divider (MMD). The loop filter is fully integrated and the loop bandwidth is about 100 kHz to allow the transfer of the phase modulation. The loop bandwidth is automatically adjusted prior to each slot (OLGA^2). To overcome the statistical spread of the loopfilter element values an automatic loopfilter adjustment (ALFA) is performed before each synthesizer startup.

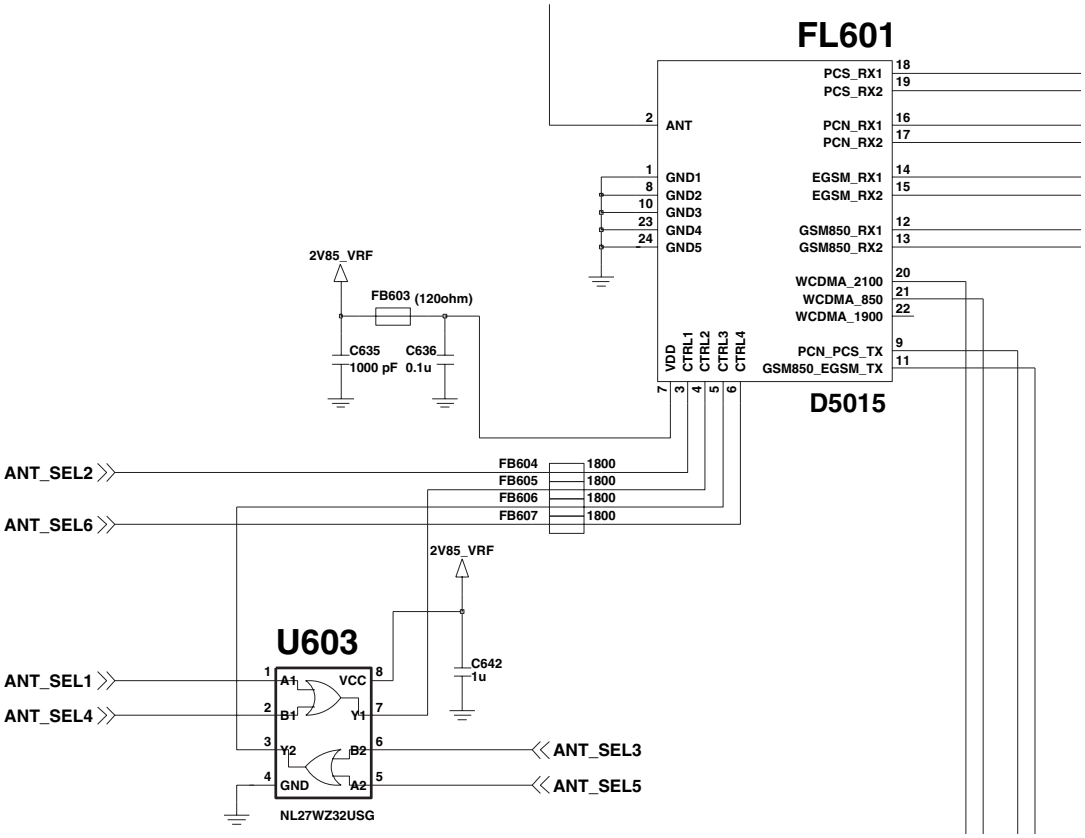
The fully integrated quad-band VCO is designed for the four GSM bands (850, 900, 1800, 1900 MHz) and operates at double or four times transmit or receive frequency. To cover the wide frequency range the VCO is automatically aligned by a binary automatic band selection (BABS) before each synthesizer startup.

3.16.4 Reference Oscillator

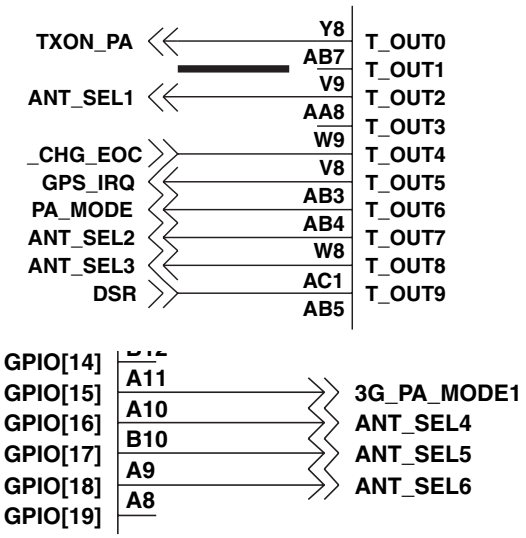
The SMARTi 3GE comprises three 26MHz reference frequency outputs for the GSM baseband, for the 3G RF and for other subsystems (GPS, Bluetooth, etc.) as well as an reference frequency input for application of an external VCXO module.

3.16.5 Front End Module Control

Implemented in the SMARTi 3GE are two outputs for direct control of GSM front end modules with two logic input pins to select RX- and TX-mode as well as low- and highband operation.



[Figure 3.16.5-1] KM900 Front End Control (FEM input)



[Figure 3.16.5-2] KM900 Front End Control (Control signal from Baseband IC)

CONTROL LOGIC

Mode	Vc1	Vc2	Vc3	Vc4	Vdd
GSM850/900 Tx	High	High	Low	Low	2.65-2.85V
GSM1800/1900 Tx	High	Low	Low	Low	2.65-2.85V
GSM850 Rx	Low	High	High	Low	2.65-2.85V
GSM900 Rx	Low	Low	High	Low	2.65-2.85V
GSM1800 Rx	Low	High	Low	Low	2.65-2.85V
GSM1900 Rx	Low	Low	Low	Low	2.65-2.85V
UMTS1	Low	Low	High	High	2.65-2.85V
UMTS2	Low	High	Low	High	2.65-2.85V
UMTS3	Low	Low	Low	High	2.65-2.85V

High : 1.4 - Vdd (V)
Low : 0 - 0.4 (V)

[Figure 3.16.5-3] KM900 Front End Control Logic Table

3.17 WCDMA Part

The single-chip transceiver is designed to fulfill the W-CDMA UTRA FDD system requirements for bands I, II, III, IV, V, VI and IX. It contains all active circuits required to simultaneously modulate an analog W-CDMA I/Q signal to the TX RF frequency and demodulate a RX RF W-CDMA signal to an I/Q baseband signal.

3.17.1 WCDMA Receiver

The direct conversion receiver for each band consists of:

•fully differential signal path

•RF low noise amplifier (LNA2)

•I/Q demodulator including LO buffer and I/Q divider

•LO including on-chip VCO and synthesizer

•DC offset compensation without external components

•analog channel filter including auto calibration circuit (w/o external components)

•programmable gain control (PGC) controlled by 3-wire bus programming and gain setting unit on-chip

•allpass filter (auto calibrated)

•configurable output drivers (programmable DC voltages and driver currents for different load impedances)

RX Front-End

An external low noise amplifier as well as duplex and interstage filters are needed to form a complete receive chain for each band.

Baseband Processing (analog)

The amplified RF signal is converted by a quadrature demodulator to I and Q signals at baseband frequency. The resulting inphase and quadrature signals are fed into the analog baseband low pass filter (Chebyshev type). An optional, additional filter stage can be activated in order to provide the required selectivity for narrowband blockers. The filter corner frequency is controlled by an on-chip filter alignment circuit. This filter also provides the overall baseband PGC functionality.

The differential offset voltage after the demodulator is reduced by an on-chip DC compensation loop. The subsequent last PGC amplifier stage provides 1 dB gain steps. All gains are selected by 3-wire bus programming.

3.17.2 Transmitter

The direct-up conversion transmitter for each band consists of:

•fully differential signal path

•configurable input stages (programmable AC and DC input voltages)

•analog channel filter including auto calibration circuit (w/o external components)

•automatic carrier adjustment also featuring compensation of residual I/Q DC offsets

•I/Q modulator including LO buffer and I/Q divider

•LO including on-chip VCO and synthesizer

•RF voltage-controlled gain amplifier (VGA)

For each band, the modulator performs a direct quadrature modulation of the baseband input signals at I and Q. The internally divided RF VCO signal is split into two orthogonal carriers. The gain of the VGA is controlled by the voltage at the control pin TXGC. The robustness against PCB and baseband processor spurious as well as noise is improved by an integrated baseband filter (Butterworth type).

The RF output signal is available at the differential outputs TXOUTH,/TXOUTHX, TXOUTM/TXOUTMX, and TXOUTL/TXOUTLX. The modulator supply voltage must also be applied to these open drain differential outputs.

TX Output Power

The voltage at the VGA control pin TXGC (VGC) should be limited to ensure that the specified maximum output power (minimum Poutmax) is not exceeded. The VGC value at which the specified minimum Poutmax is reached varies from device to device. ACLR and other specifications are only valid for output power levels below the specified minimum Poutmax.

TX Front End

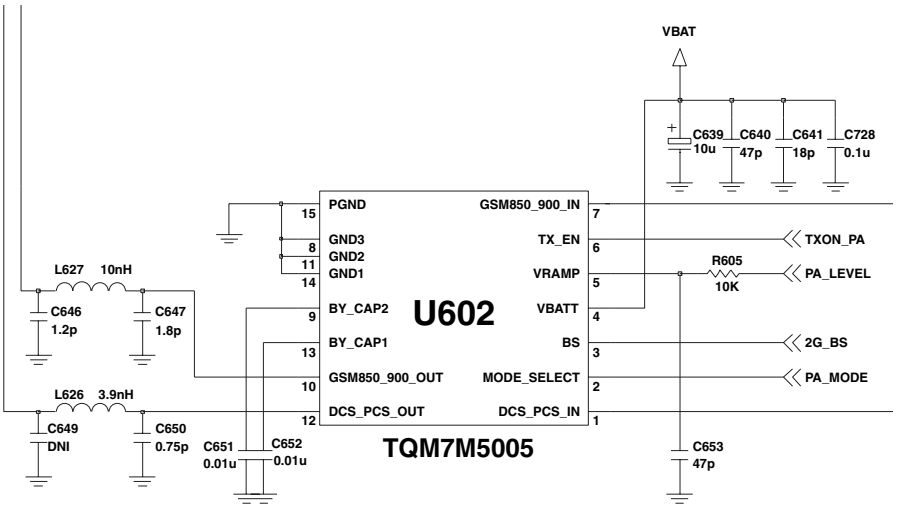
An external power amplifier as well as duplex and interstage filters are needed to form a complete transmit chain for each band.

3.17.3 Synthesizer

The receiver and the transmitter contain each a complete fractional-N RF synthesizer with fast locking. The VCO's run at 4 GHz and the RX and TX frequencies are obtained through division by two (bands I, II, III and IV) or four (bands V and VI). The PLL loop filters are fully integrated. The reference frequency has to be provided by an external clock.

The total VCO frequency range is divided in 256 subranges, in order to limit the VCO slope. Before the settling process of the PLL starts, a successive approximation algorithm selects the most appropriate subrange.

3.18 GSM Power Amplifier Module

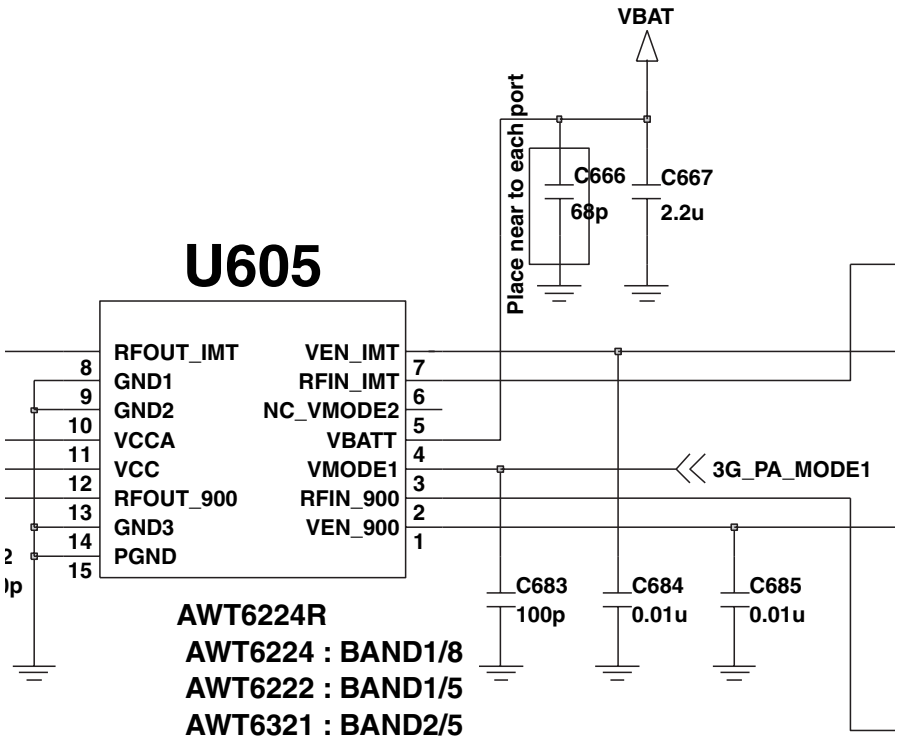


[Figure 3.18-1] Schematic Diagram of 2.5G PAM (TQM7M5005)

Pin #	Description	Function
1	DCS / PCS in	DCS/PCS RF input -- DC blocked
2	MODE SELECT	MODE = High, the PAM operates in EDGE (8PSK) mode MODE = Low, the PAM operates in GMSK mode.
3	BAND SELECT (BS)	BAND SELECT = Low, Low-Band active BAND SELECT = High, High-Band active
4	VBATT	Battery supply voltage, typ. 3.0 – 4.5 V, nom. 1.6A
5	VRAMP	DAC Control Signal (analog). Nominal Vramp range is 0.2 to 1.6V GMSK mode – Controls ramp profile and output power. EDGE mode – Continuous bias adjustment. Reducing Vramp from max of 1.6V reduces current when used at lower power levels.
6	TX_EN	TX_EN = High, PA is enabled for operation. TX_EN = Low, PA is in sleep mode
7	GSM850 / 900 in	GSM850 / GSM900 RF input -- DC blocked
10	GSM850 / 900 out	GSM850 / GSM900 RF output -- DC blocked
12	DCS / PCS out	DCS / PCS RF output -- DC blocked
9, 13	Bypass Cap	Connect 0.01uF bypass capacitor as close to pin as practical
8, 11, 14,	GND	Ground

[Table 3.18-1] TQM7M5005 Pin description

3.19 WCDMA Band1/8 Power Amplifier Module

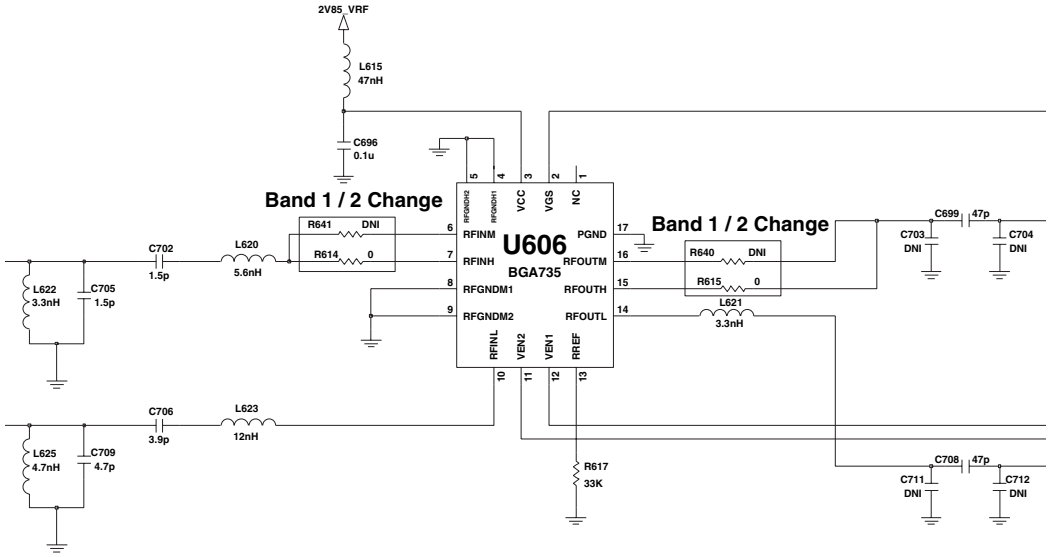


[Figure 3.19-1] Schematic Diagram of WCDMA Band1/8 PAM (AWT6224R)

PIN	NAME	DESCRIPTION
1	V_{EN_900}	Enable Voltage for 900 MHz Band
2	RF_{IN_900}	RF Input for 900 MHz Band
3	V_{MODE1}	Mode Control Voltage 1
4	V_{BATT}	Battery Voltage
5	V_{MODE2} (N/C)	No Connection
6	RF_{IN_IMT}	RF Input for IMT Band
7	V_{EN_IMT}	Enable Voltage for IMT Band
8	RF_{OUT_IMT}	RF Output for IMT Band
9	GND	Ground
10	GND	Ground
11	$V_{CC}A$	Battery Voltage A
12	V_{CC}	Supply Voltage
13	RF_{OUT_900}	RF Output for 900 MHz Band
14	GND	Ground

[Table 4.5-1] AWT6224R Pin description

3.20 WCDMA Band1/8 Low Noise Amplifier

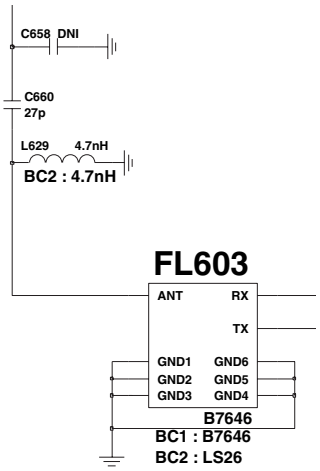


[Figure 3.20-1] Schematic Diagram of WCDMA Band1/8 LNA (BGA735L16)

Pin Number	Symbol	Function
0	GND	Package paddle - RF ground connection for low band (800 MHz) LNA, DC ground for bias and logic circuity
1		n/c
2	VGS	Gain control logic input
3	VCC	Supply voltage
4, 5	RFGNDH	High band (2100 MHz) LNA RF ground
6	RFINM	Mid band (1900 MHz) LNA input
7	RFINH	High band (2100 MHz) LNA input
8, 9	RFGNDM	Mid band (1900 MHz) LNA RF ground
10	RFINL	Low band (800 MHz) LNA input
11	VEN2	Band select logic input
12	VEN1	Band select logic input
13	RREF	Bias current reference resistor
14	RFOUTL	Low band (800 MHz) LNA output
15	RFOUTH	High band (2100 MHz) LNA output
16	RFOUTM	Mid band (1900 MHz) LNA output

[Table 3.20-1] BGA735L16 Pin description

3.21 WCDMA Band1/2 Duplexer



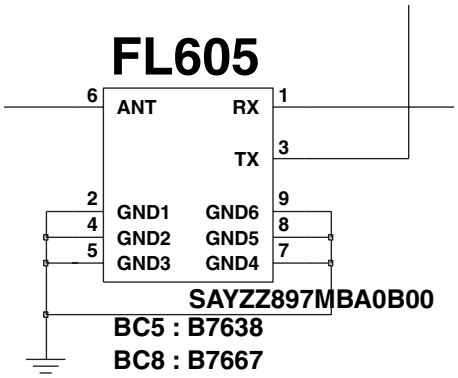
[Figure 3.21-1] Schematic Diagram of WCDMA Band1/2 Duplexer

Pin configuration

8	RX Output
4	TX Input
6	Antenna
2, 3, 5	To be grounded
1, 7, 9	To be grounded

[Table 3.21-1] B7684 Pin description

3.22 WCDMA Band5/8 Duplexer



[Figure 3.22-1] Schematic Diagram of WCDMA Band8 Duplexer

Pin configuration	
1	RX output, single ended
3	TX input, single ended
6	Antenna
2,4,5,7,8,9	Ground

[Table 3.22-1] B7667 Pin description

3.23 KM900 Disassembly & Assembly manual (Disassembly)

1

• Press battery locker at the top and lift the battery cover

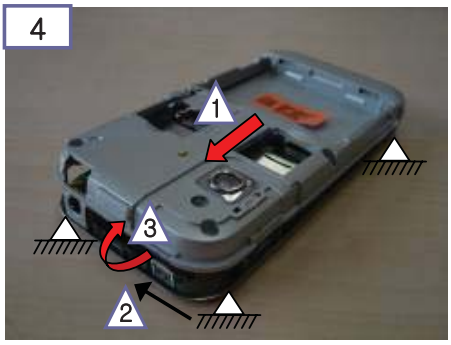
2

• Put your finger in slot at the bottom and lift off the battery

3

• Dismantle 4 screws from the Real Cover.

4



1) Fix the Front and push Rear to upper side
2) Insert Scoop(opened tool of mobile) between PW Key and Front, remove hook by turning it in the direction of hook
3) Hold top edge of the Rear and lift it in the vertical side.

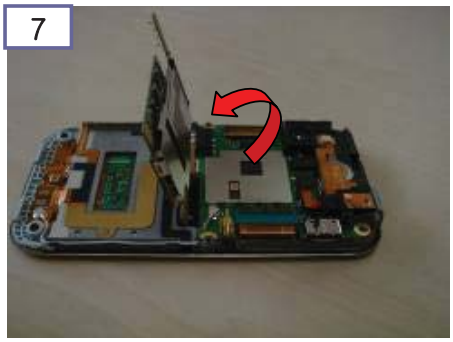
5

• Removal of antenna carrier
(Put one leg of tweezers into the slot and lever it to the opposite side)

6

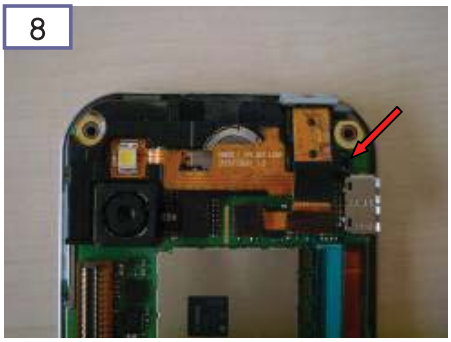
• Dismantle SPK Conn. and ITO Conn.

7



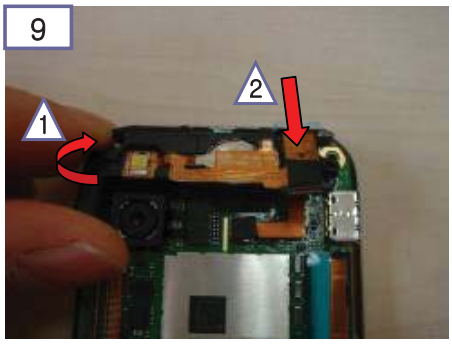
• Detach Main/Sub PCB.

8



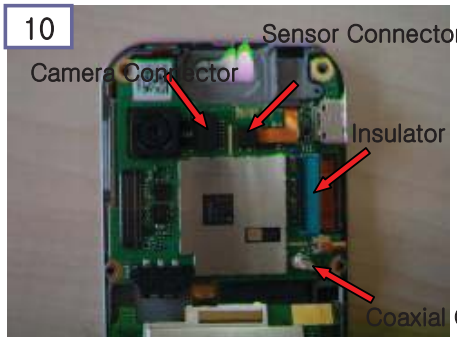
• Dismantle the screw from SPK Module.

9



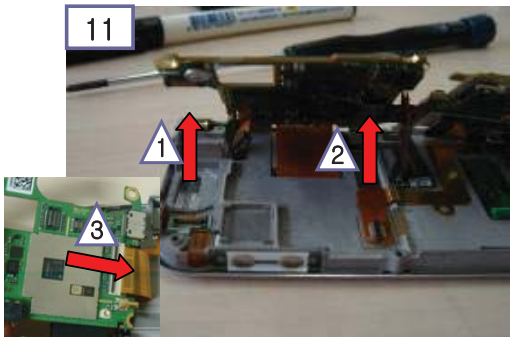
• SPK Module separation (Hold and lift the left side of SPK Module and remove SPK. Drag down 3.5pi Earjack.

10



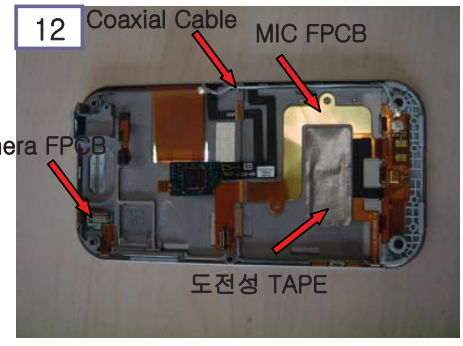
• Dismantle Coaxial cable, Camera Conn. and Sensor Conn.
• Remove Insulator from LCD Conn.

11



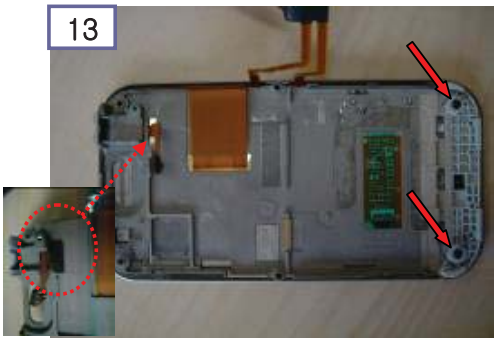
• PCB dismantlement
(Remove BTB connector from the top and bottom side of the left side of Main PCB. Separate LCD Connector)

12



• Remove Coaxial Cable, VT Camera FPCB, MIC FPCB and electric conduction tape.

13



• Remove Sensor FPCB Pad.
• Dismantle 2 screws from the bottom side of the Frame.

14

• Remove the Front from the Frame.(To prevent transformation, life each point slightly)

15

• Window Detachment
→ Set heating gun temperature at 100°C. Heat the Window within the scope of not damaging the phone, separate Window carefully.

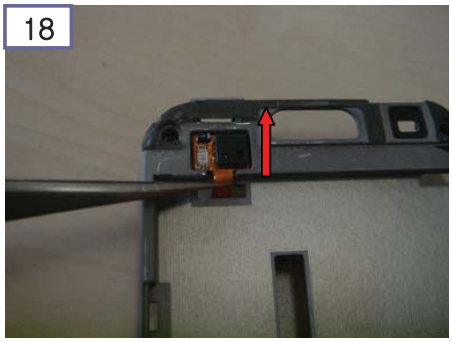
16

• Use tweezers to remove 2 LCD fixed hooks.

17

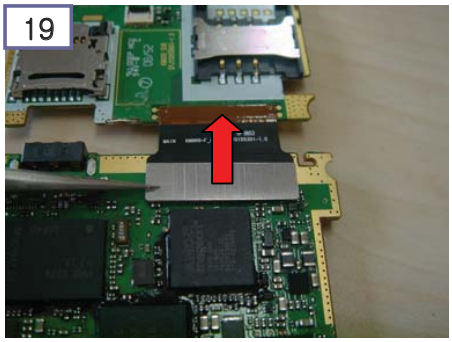
• Remove LCD

18



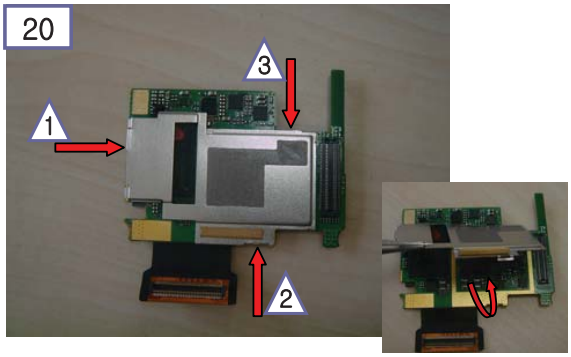
• Remove Sensor FPCB

19



• Remove Main/Sub PCB.

20



• Shieldcan detachment
(Remove hooks in order)

3.24 KM900 Disassembly & Assembly manual (Assembly)

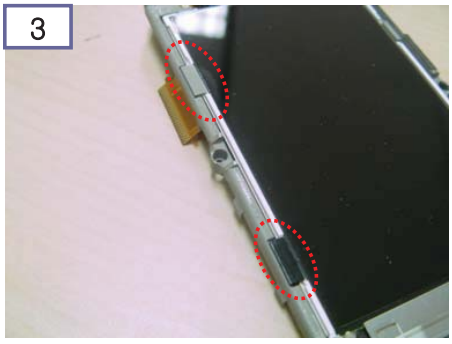
1

• Put together Sensor FPCB and Frame

2

• LCD assembly
1) Slide LCD FPCB into the Frame Hole.
2) Assemble the LCD and right side hook of the Frame by leaning right side of LCD.

3



• Assembly LCD Fixed Hook
∗ Use grey mold for top side, Black hook for bottom side.

4

• Attach dust-proof PAD between Sensor and LCD.

5

• Lighting Guide Plate Assembly
(Align the holes of the Frame)
∗ Caution: Please check if you missed the reflection sheet when you are assembling Light Guide Plate.

6

• Attach Window Tape
(Make alignment with Guide Line of the Frame)

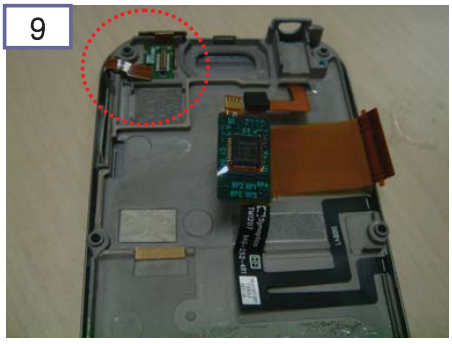
7

• Front-Window Assembly
Put the Front face down, assemble Window with alignment of Window Holes.

8

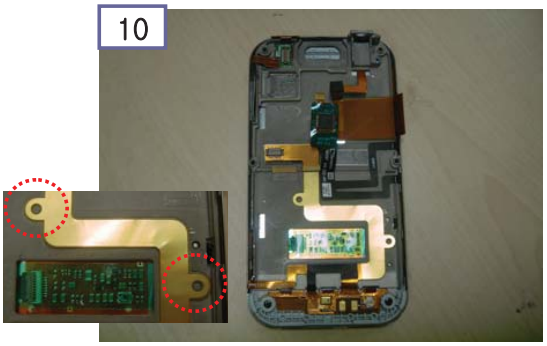
• Front - Frame Assembly
Assemble Front Boss with Guide Hole of the Frame and screw on.

9



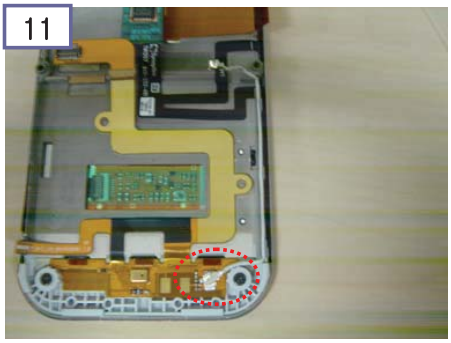
• Fold ITO FPCB in the rear and attach it to Frame
• Assemble VT Camera FPCB into Frame.

10



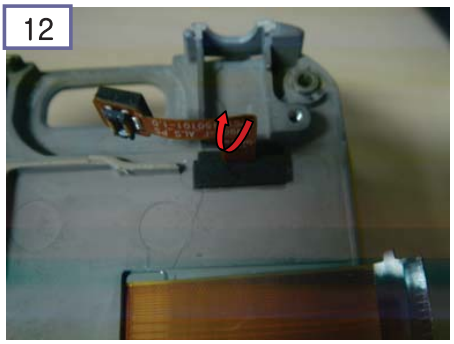
• Assemble MIC FPCB into Frame
* Make alignment 2 Guide Pins of the Frame with the Guide Hole of FPCB first and attach the rest .

11



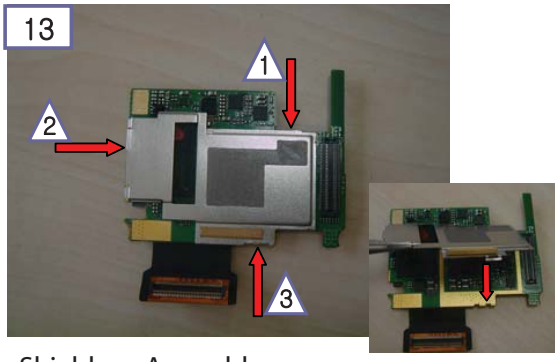
• Assemble MIC FPCB with Coaxial Cable and align with Guide Rib.

12



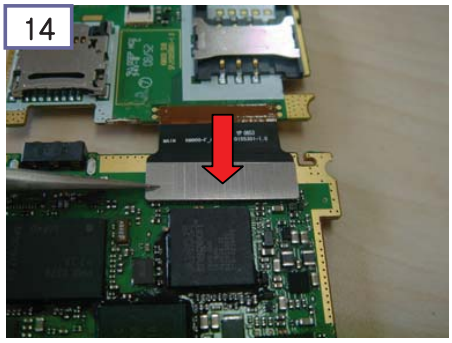
• Push Sensor FPCB to upper side as possible, attach Dust-proof PAD at the very upper side.

13



• Shieldcan Assembly
(Assemble hooks in order)

14

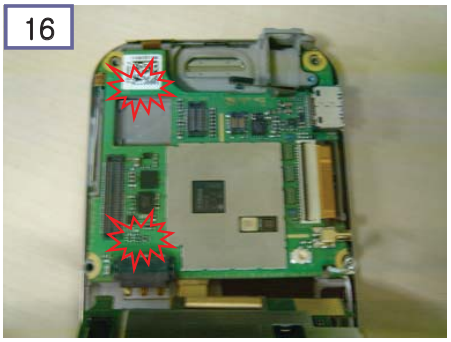


• Assemble Main/Sub PCB

15

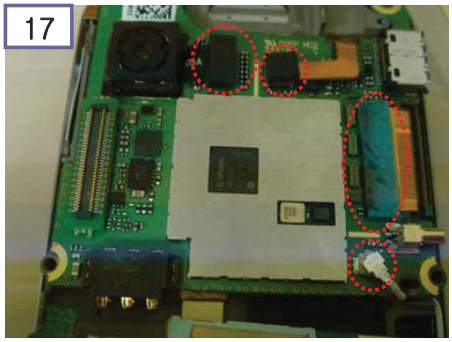
• Main PCB Assembly
Assemble LCD FPCB into the Connector of Main PCB. Assemble Main PCB into the Frame. (Be careful not to put Sensor FPCB or ITO FPCB under PCB)

16



• Push the left side and right side of the PCB and assemble with BTB Connector (until you hear 'Click' sound)

17

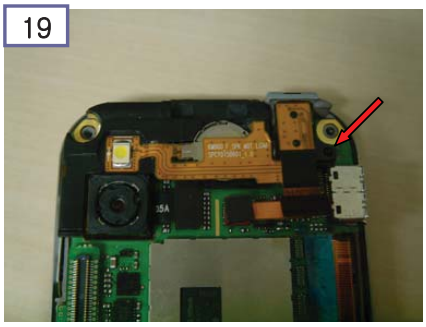


• Assemble Camera (5M)
• Assemble Camera Connector and Sensor Connector
• Attach Insulator on the LCD Connector
• Assemble Coaxial Cable

18

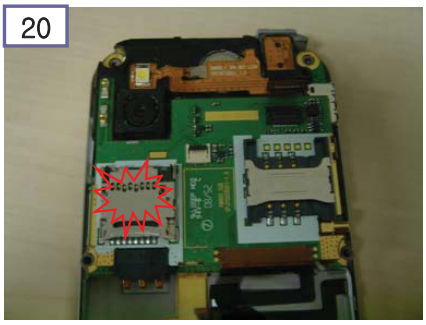
• Assemble BTB Connector with Main PCB

19



• SPK Module Assembly
Push Ear jack into the assembly hole of the Frame , Assemble Speaker Module into the Frame.
• Screw on

20

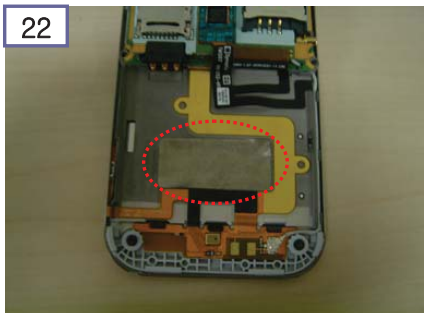


• Main/Sub PCB Assembly
(Push the left side of the Main PCB and assemble BTB Connector)

21

• Assemble ITO Connector and SP Connector

22



• Attach a electric conduction tape at the bottom side of the Frame

23

• Assemble antenna carrier with Rear

24

• Assemble Folder Assy and Rear cover, screw on 4 holes.

25

• Insert the hook of bottom side of the battery cover into the Rear assembly slot at the bottom, push down the upper part of the battery cover until it clicks into place.

4. TROUBLE SHOOTING

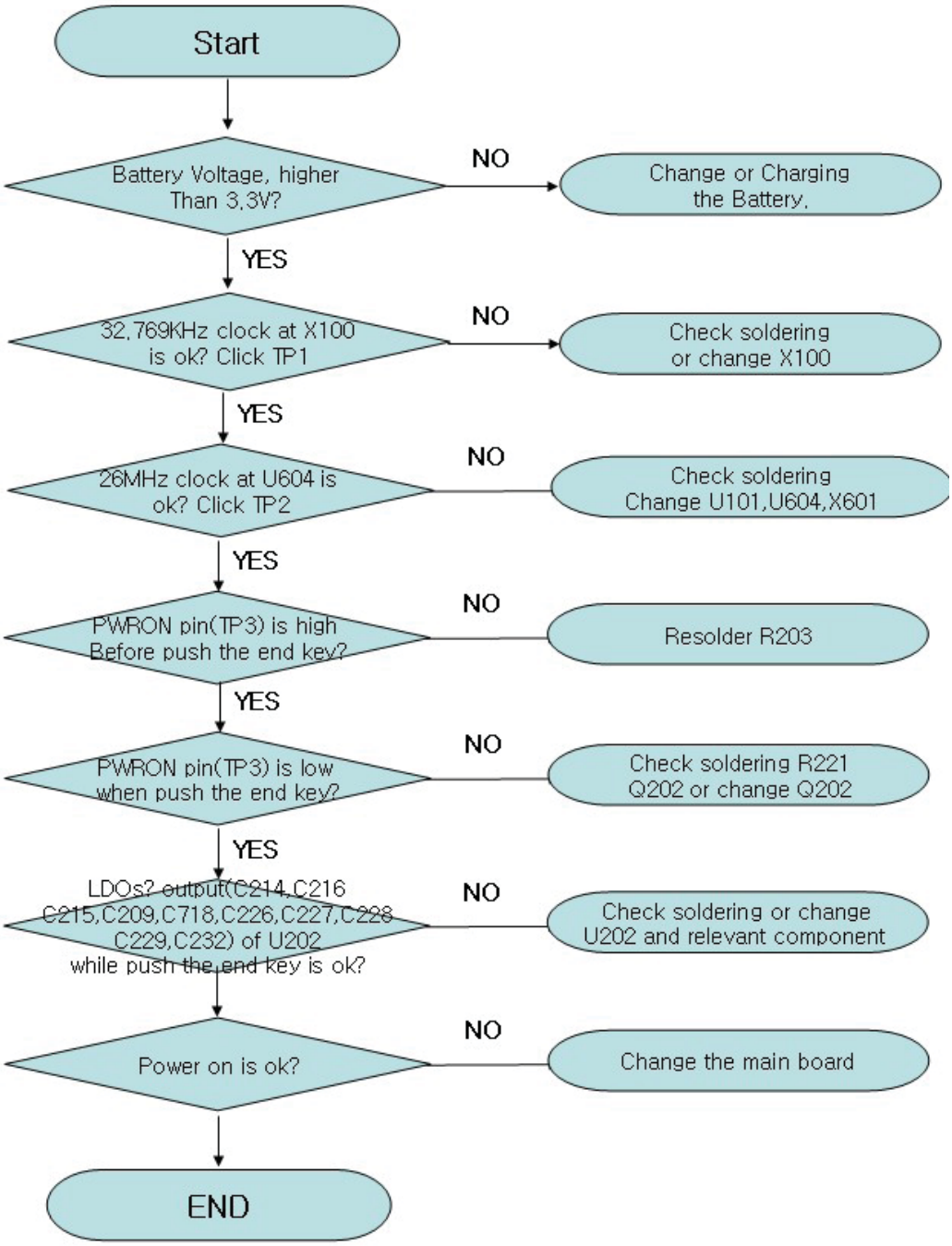
4.1. Trouble shooting test setup

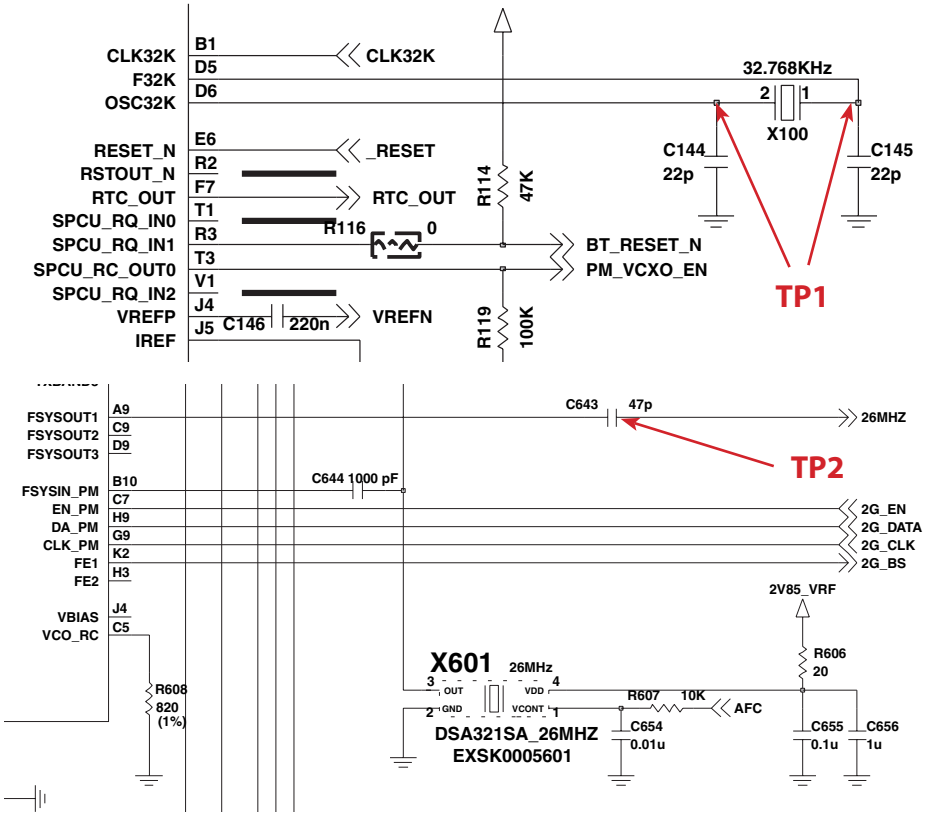
Equipment setup

Power on all of test equipment

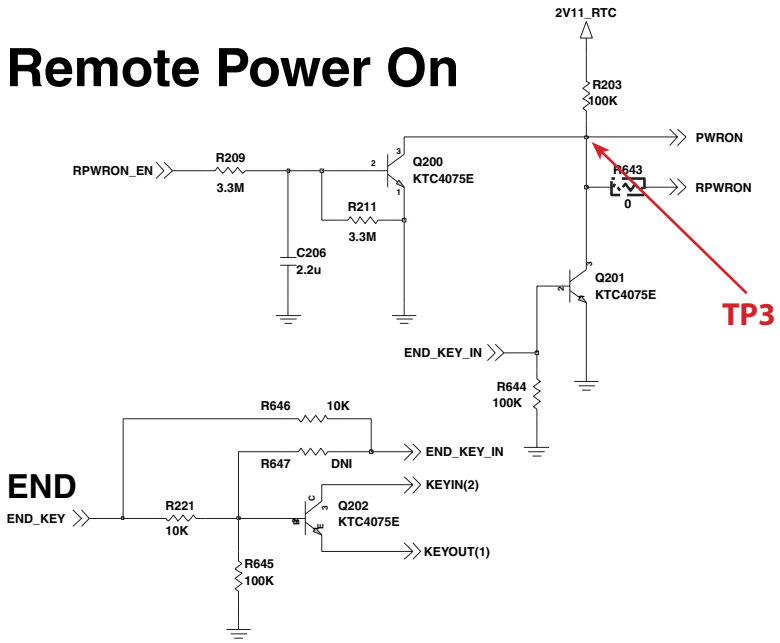
- Connect PIF-UNION JIG or dummy battery to the DUT for power up.
- Connect mobile switch cable between Communication test set and DUT when you need to make a phone call.
- Follow trouble shooting procedure

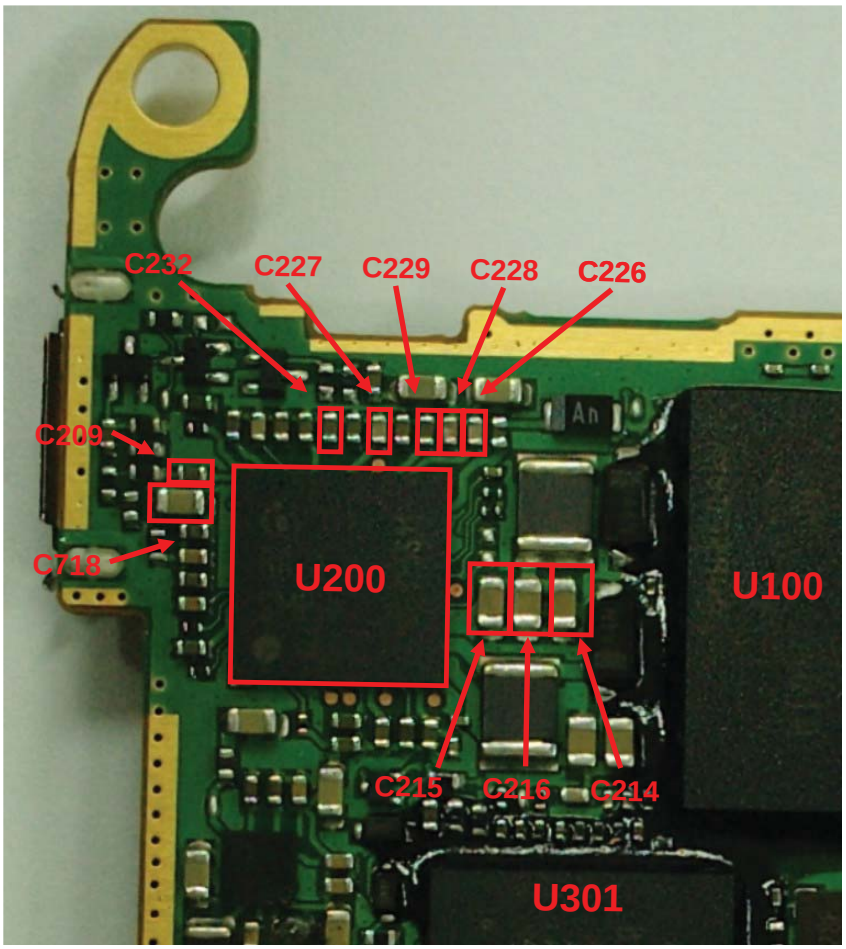
4.2. Power on trouble



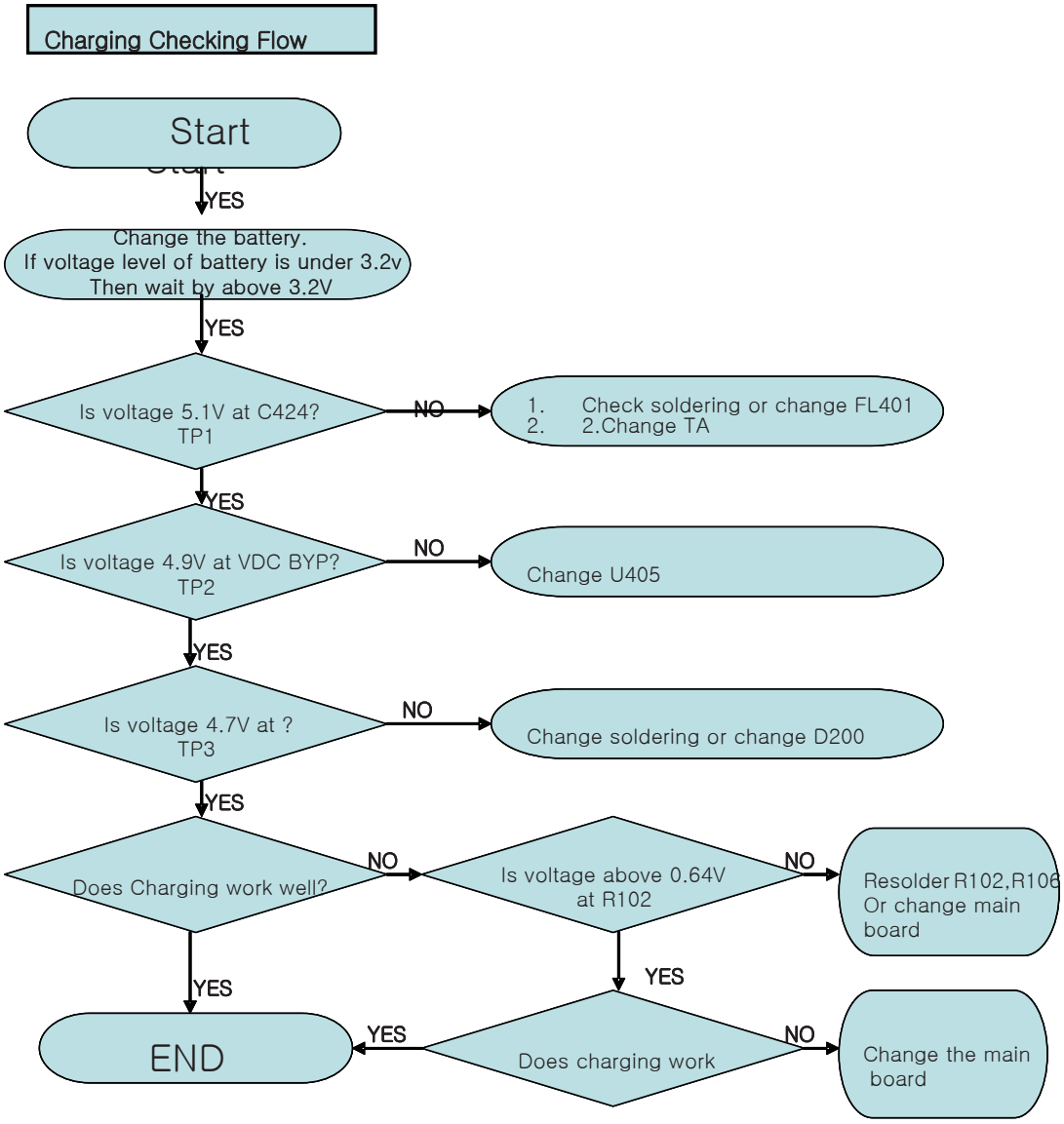


Remote Power On

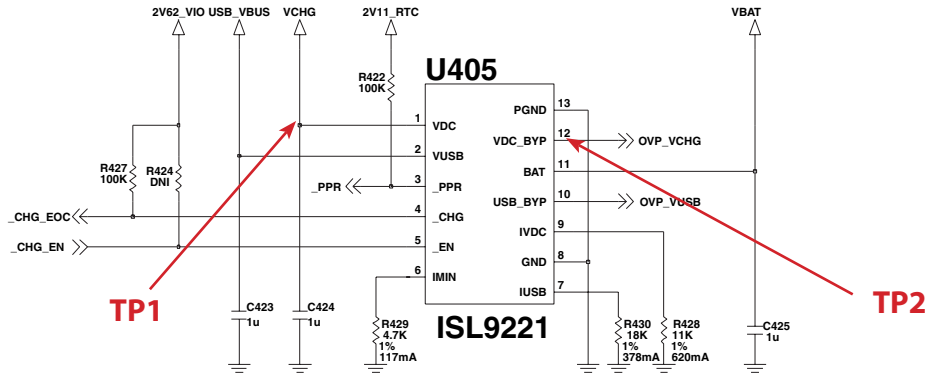


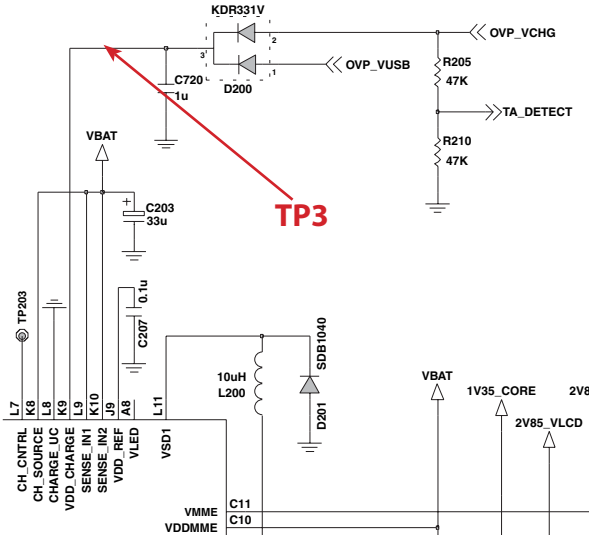


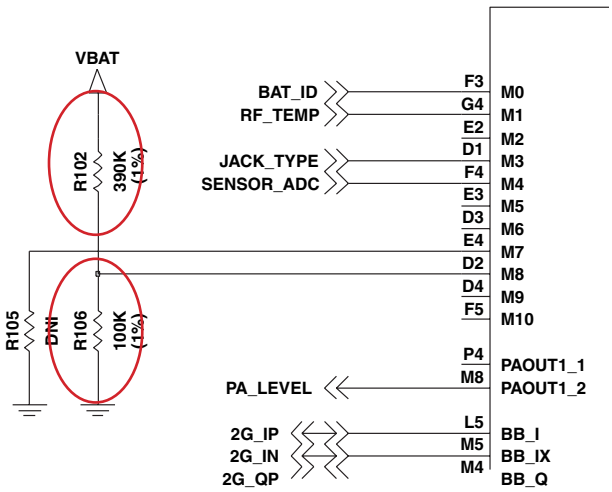
4.3 Charging Trouble

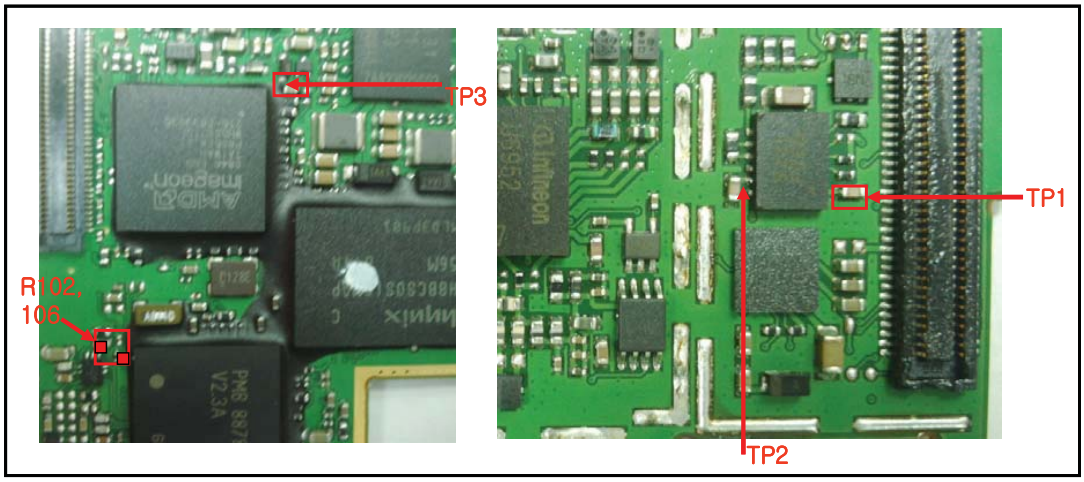


CHARGING IC

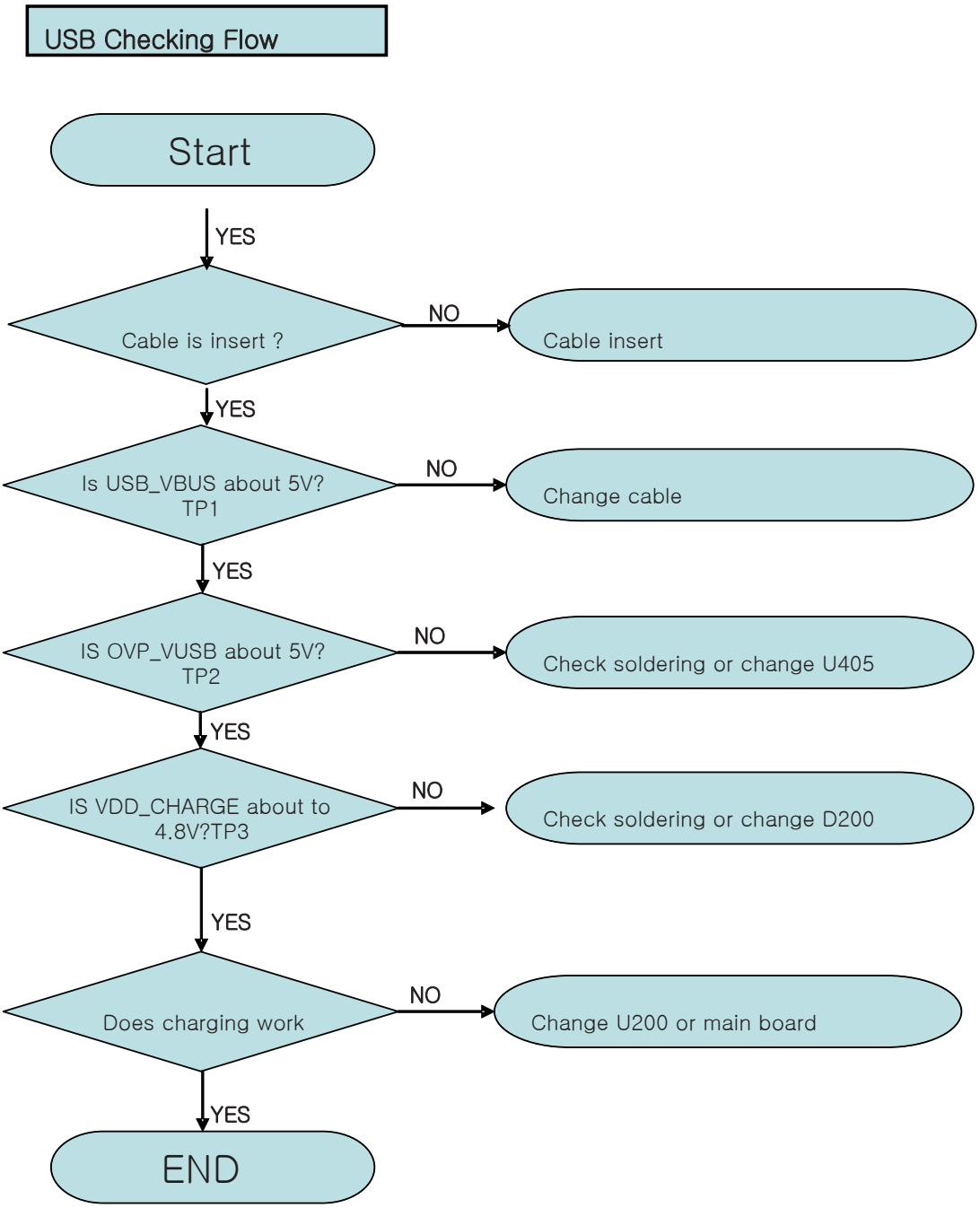




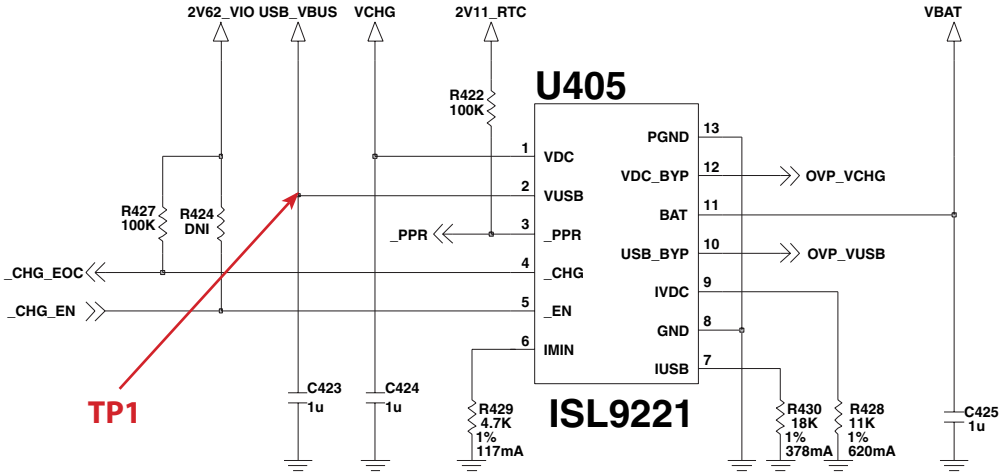


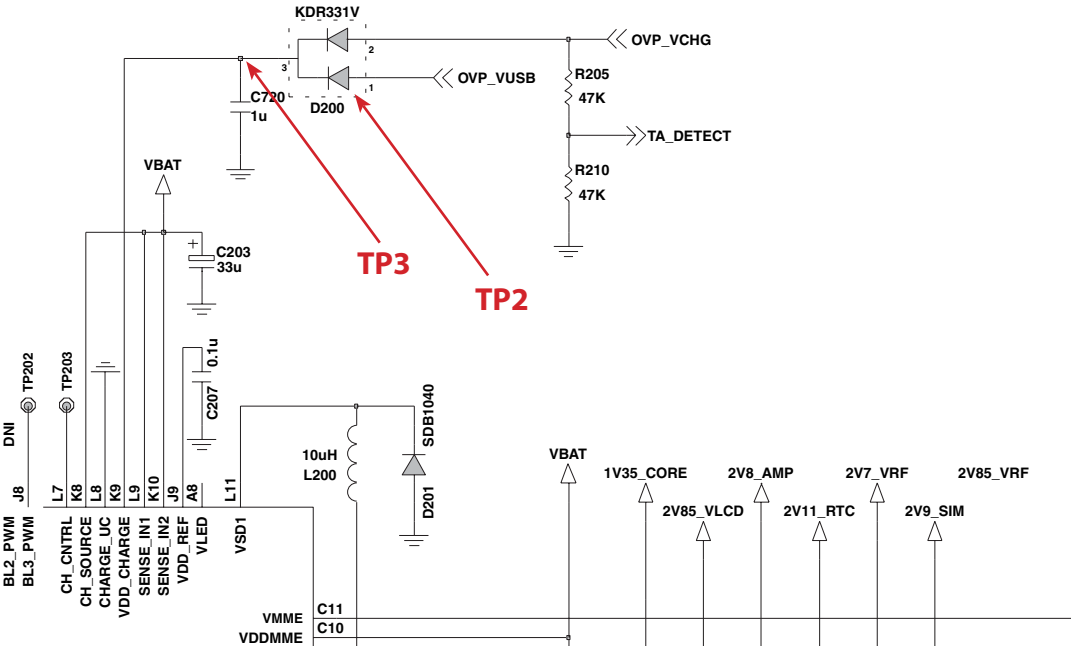


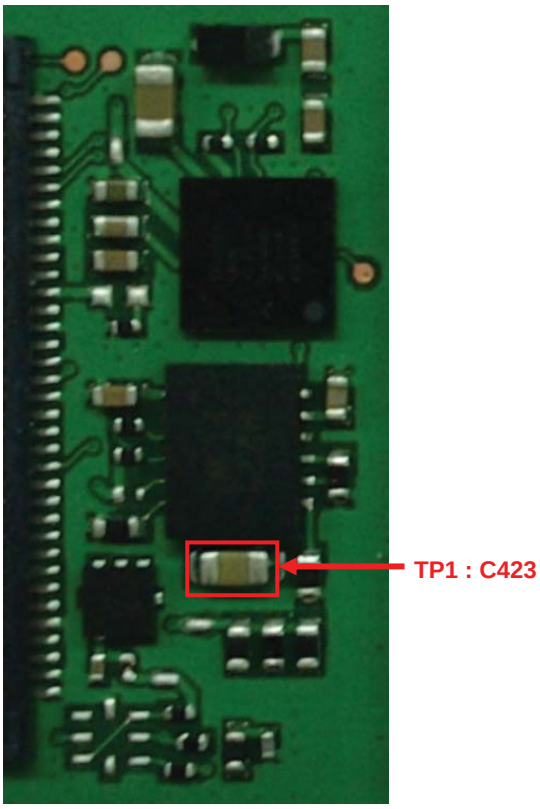
4.4 USB Trouble

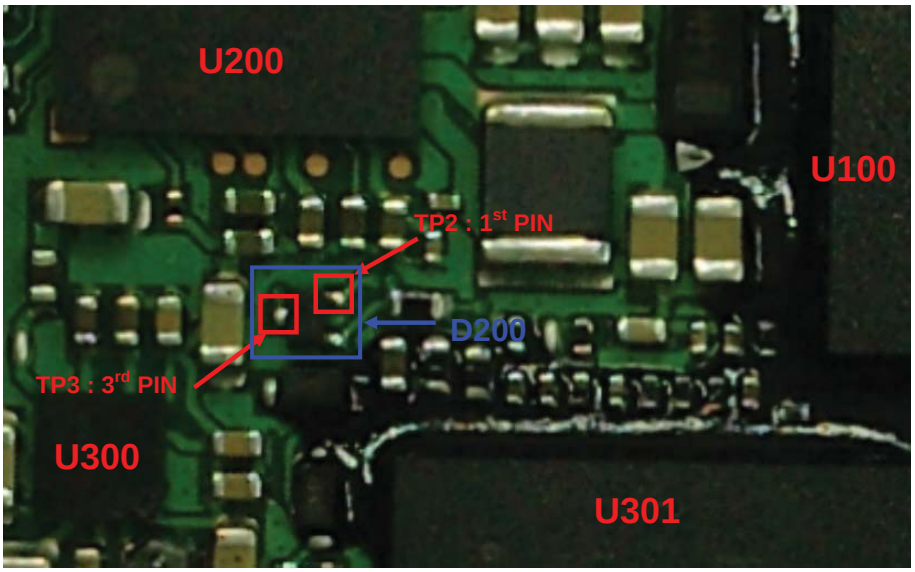


CHARGING IC

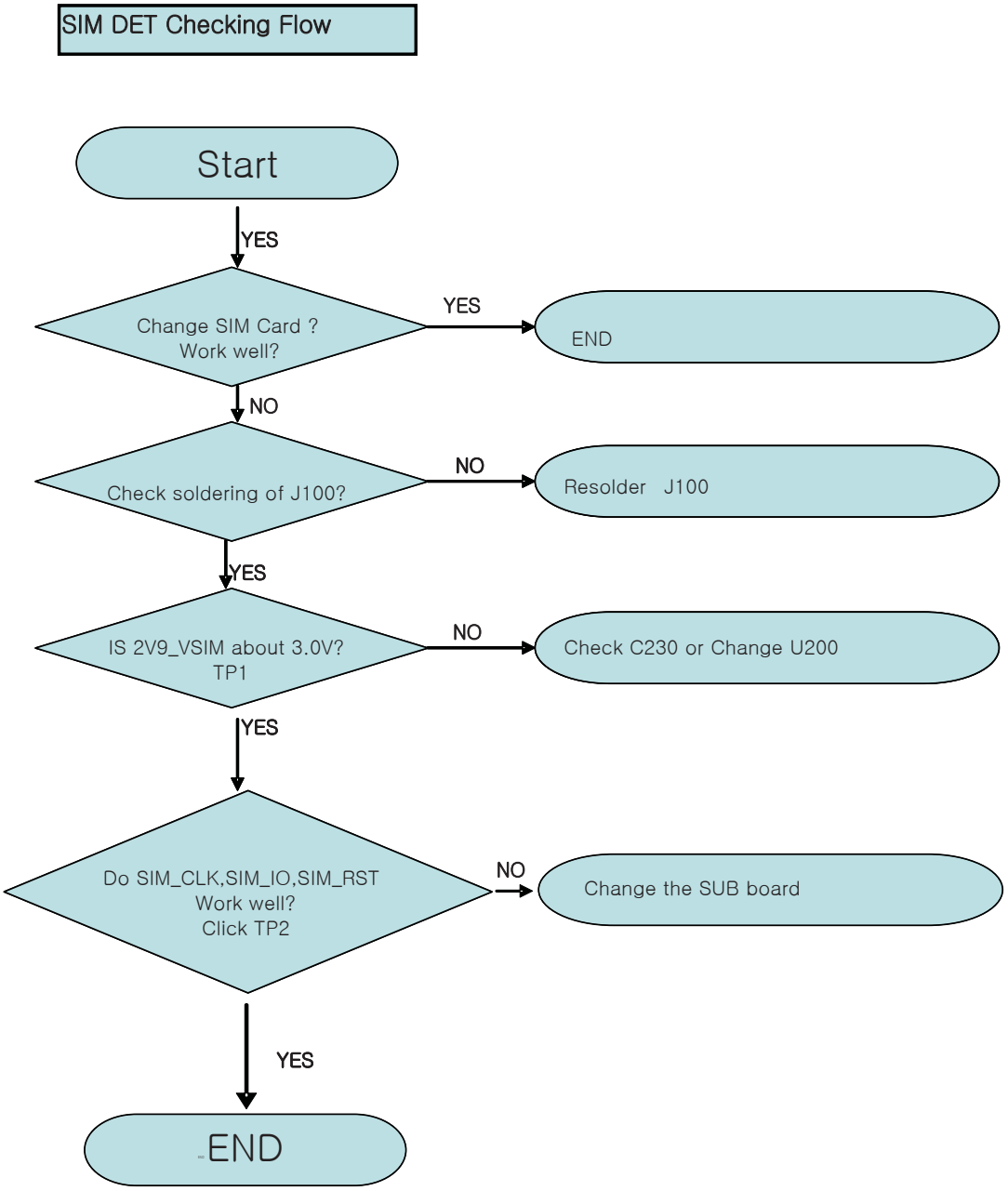


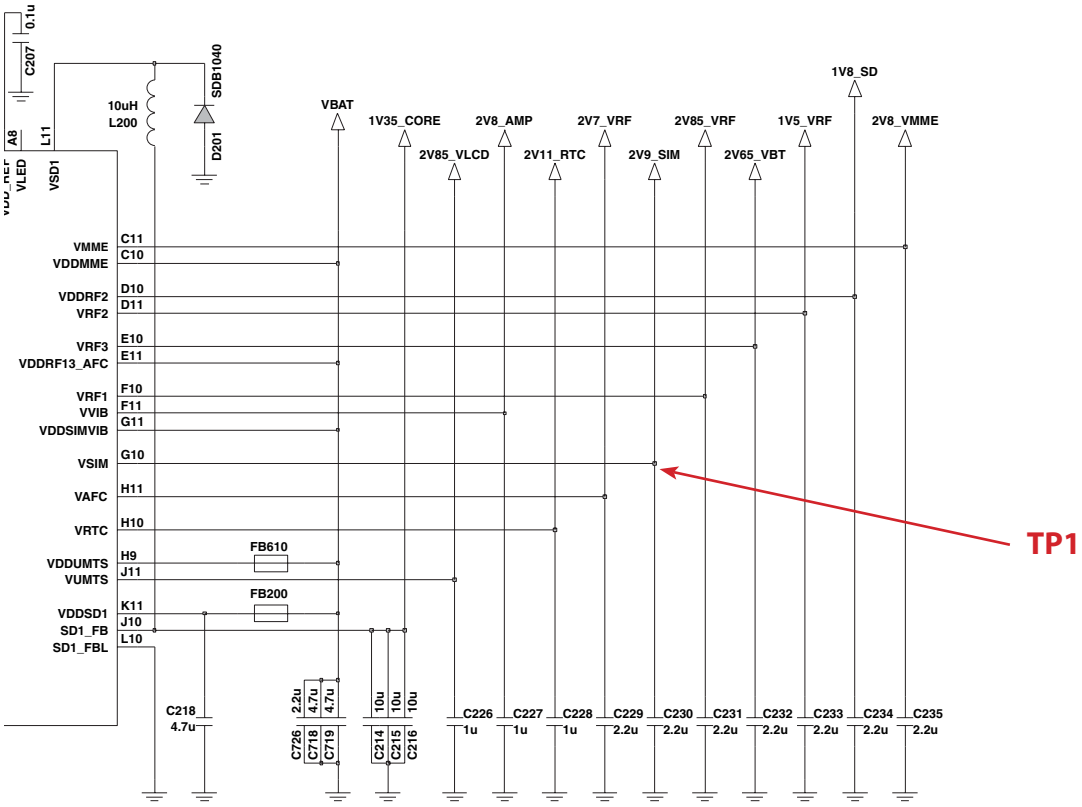




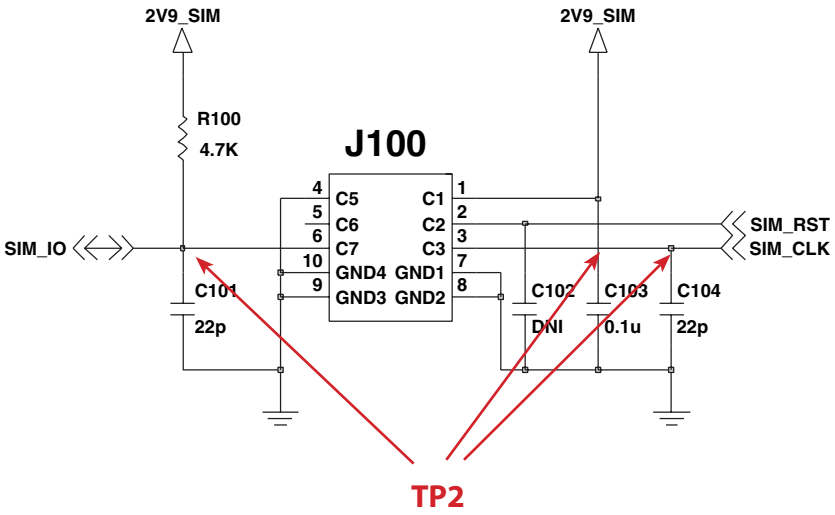


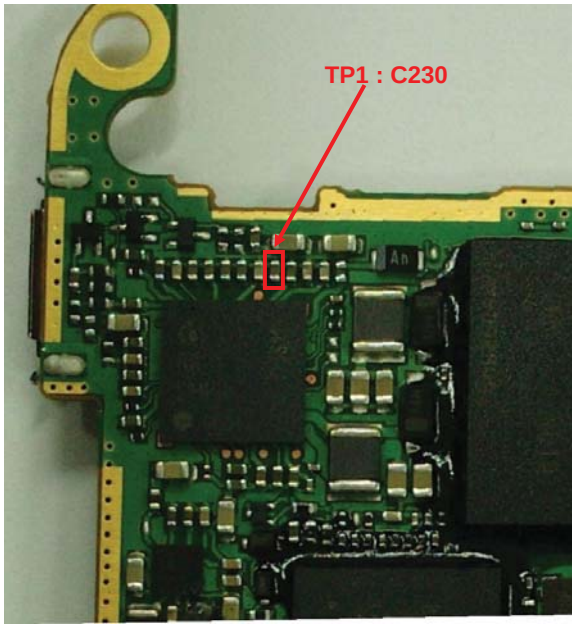
4.5 SIM Detect Trouble

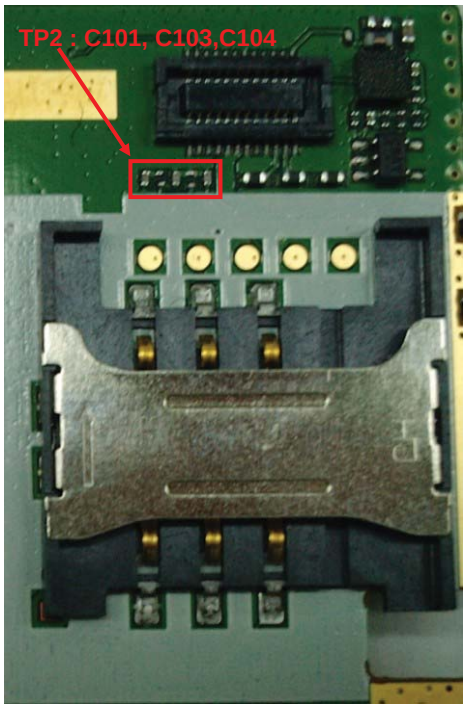




SIMCARD CONNECTOR

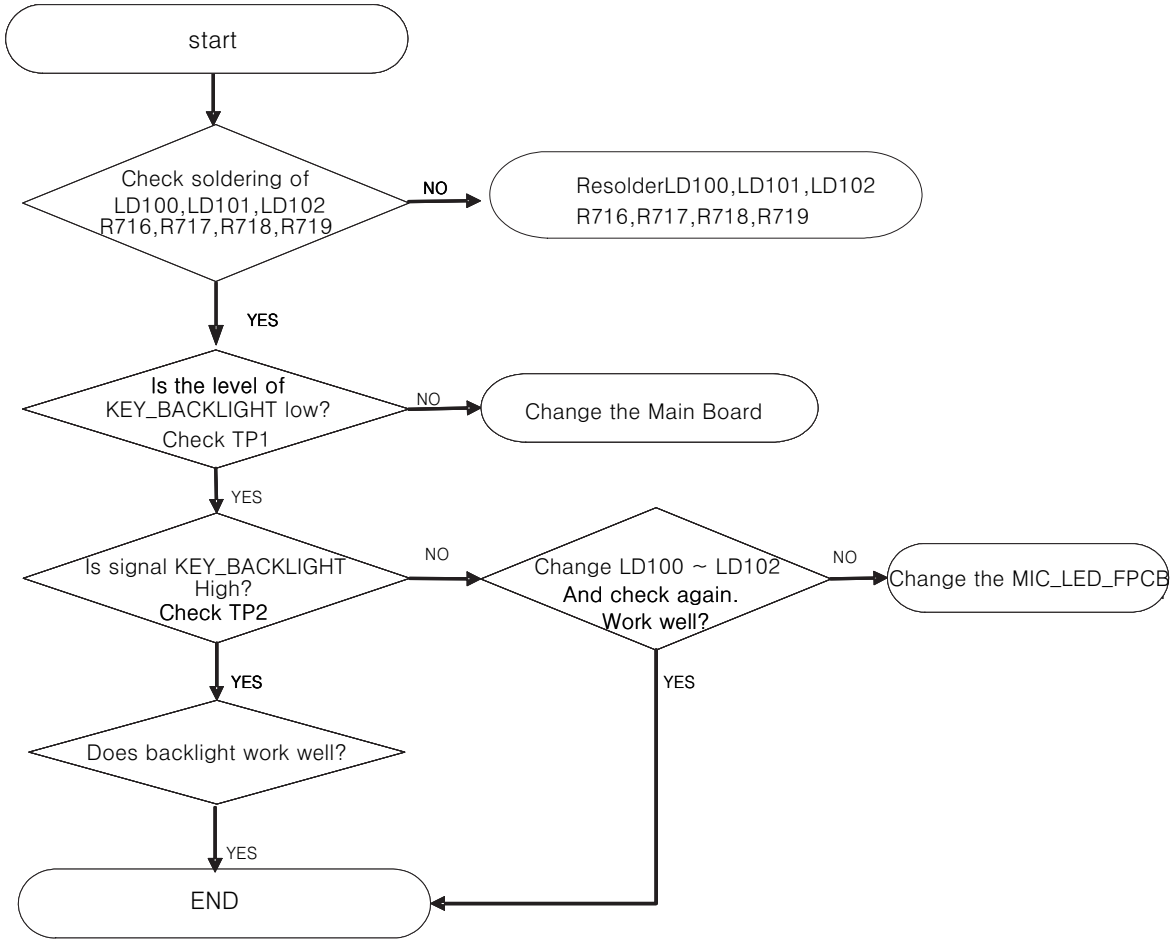


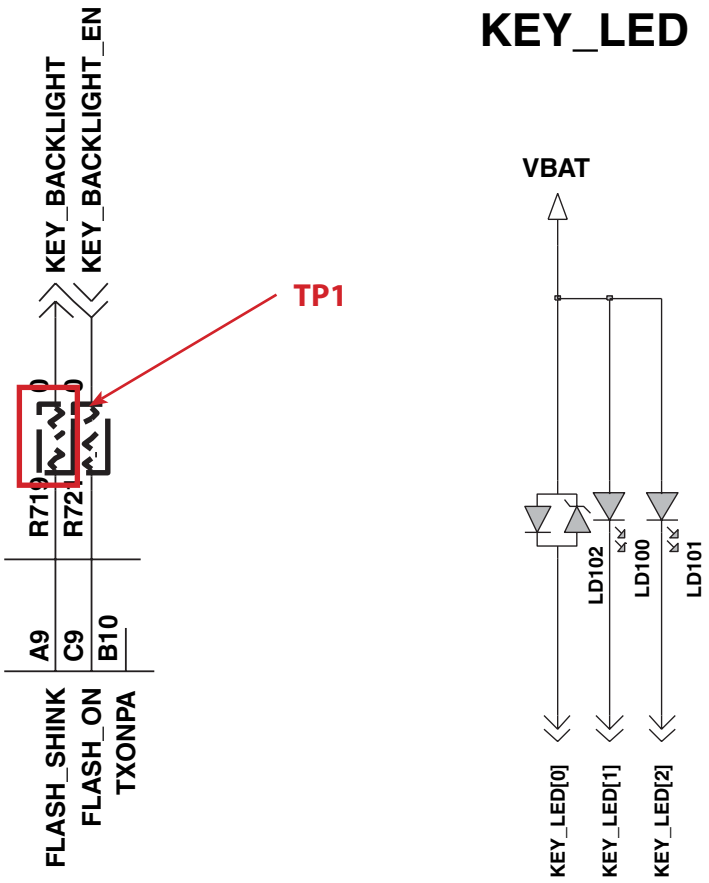




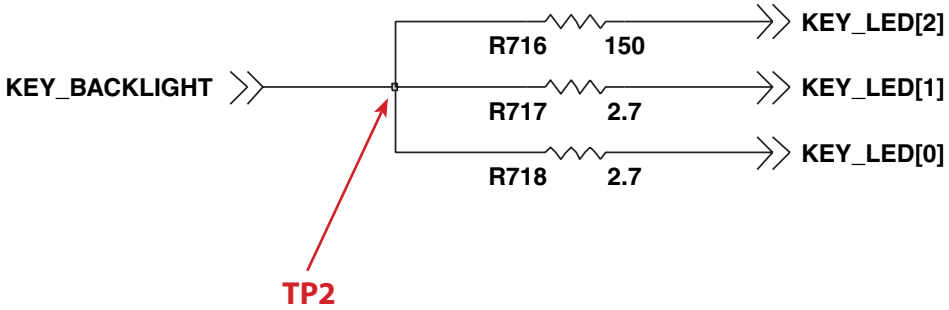
4.6 Three-KEY backlight Trouble

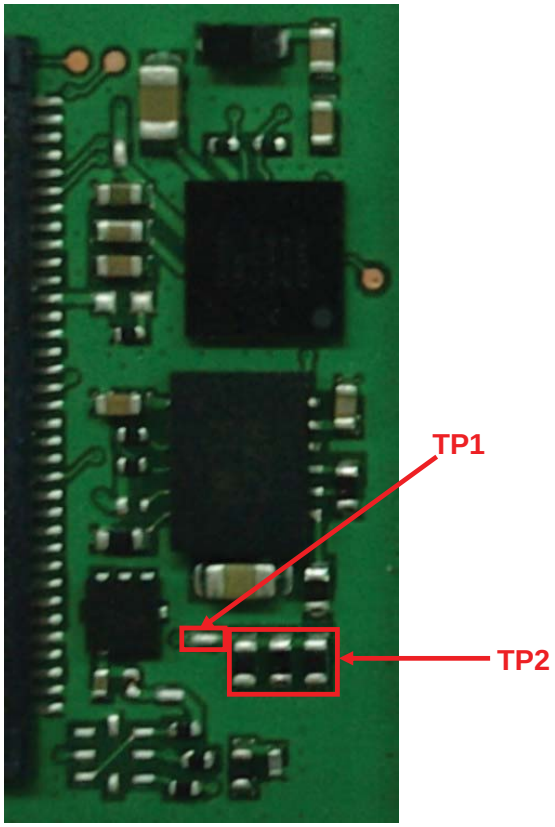
Checking Flow



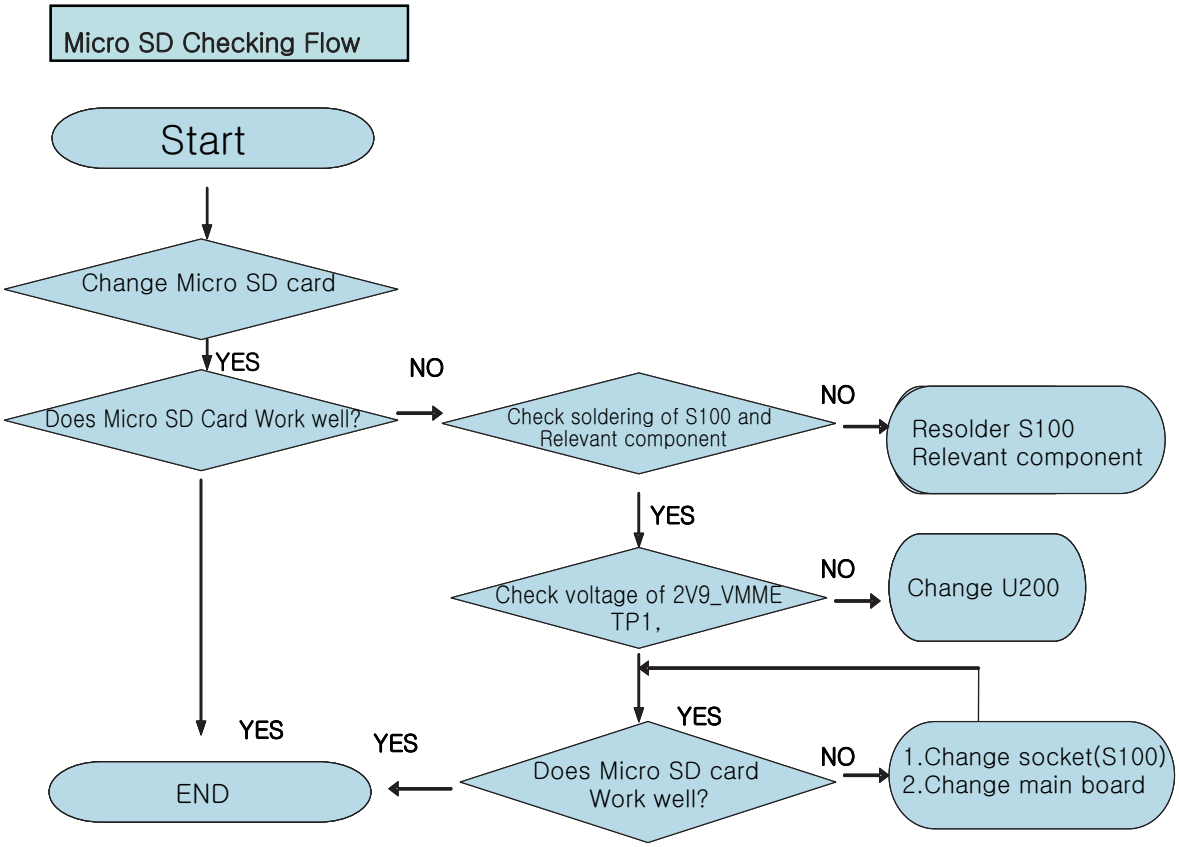


THREE BUTTON KEY BACKLIGHT

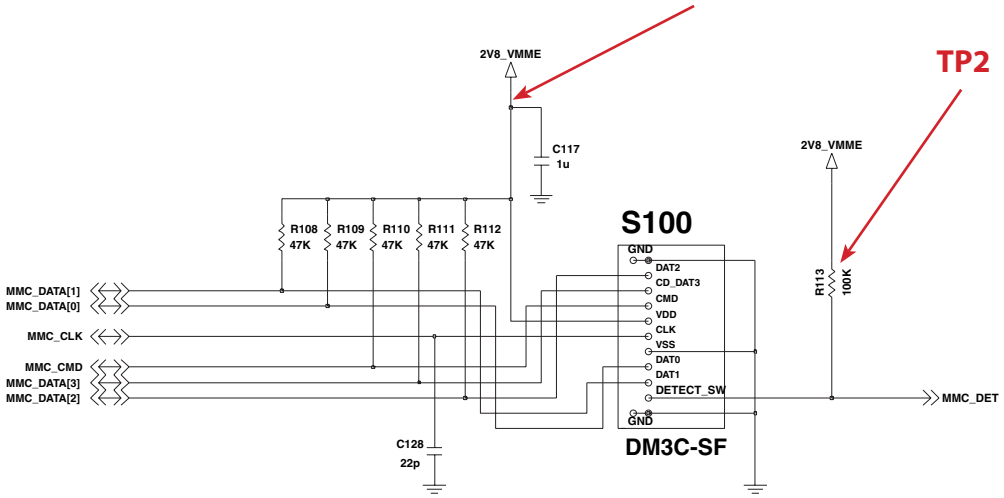


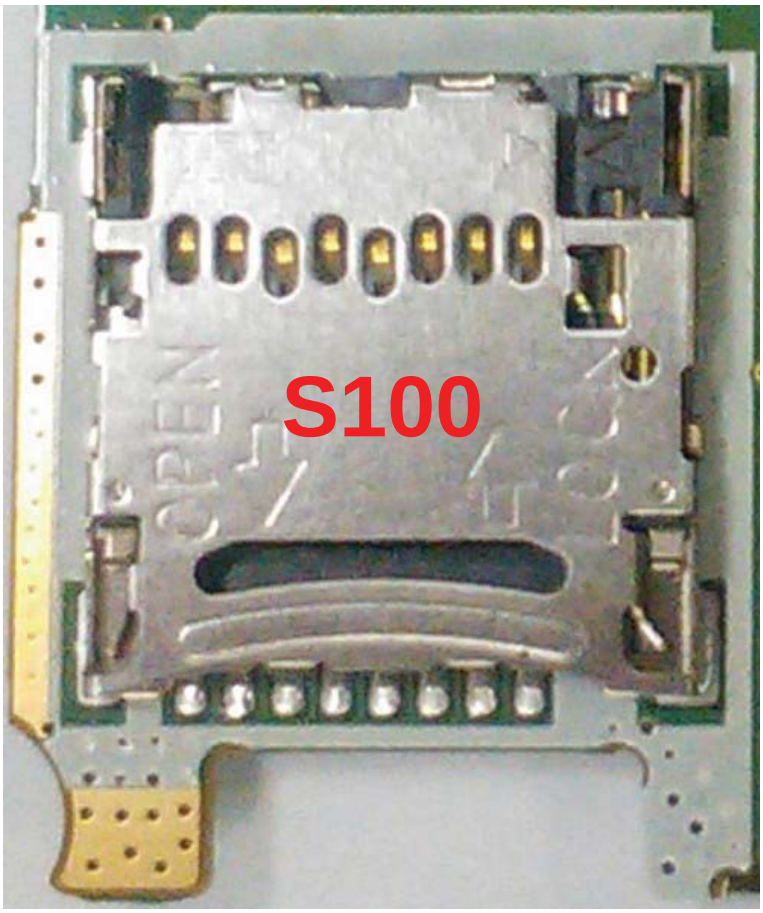


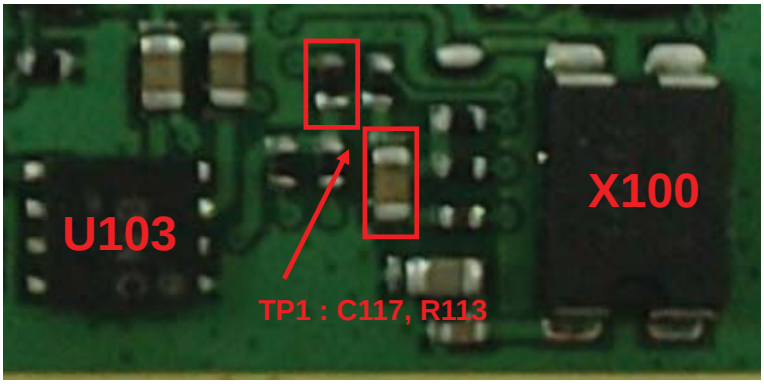
4.7 Micro SD Trouble



T-Flash CONNECTOR

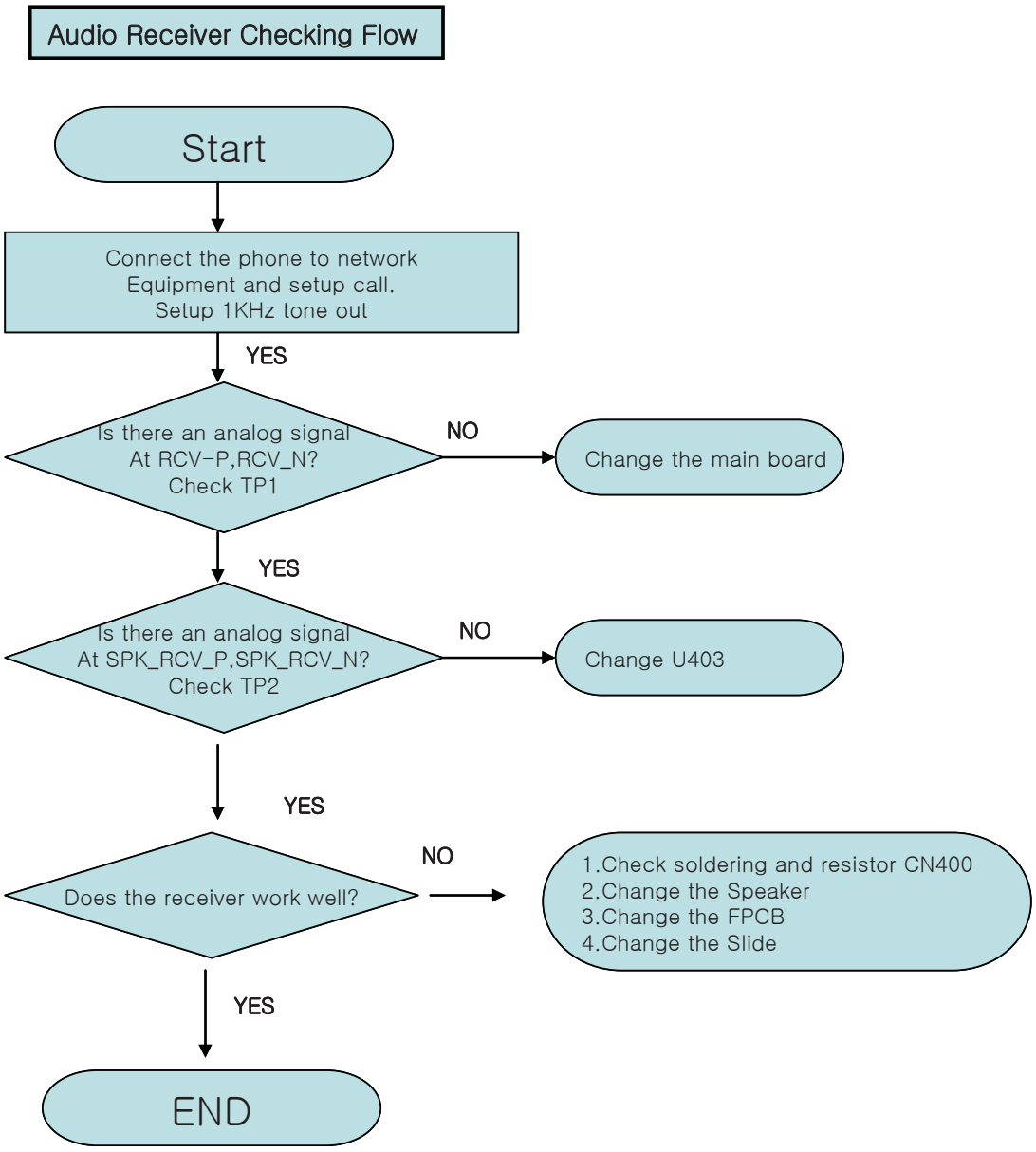


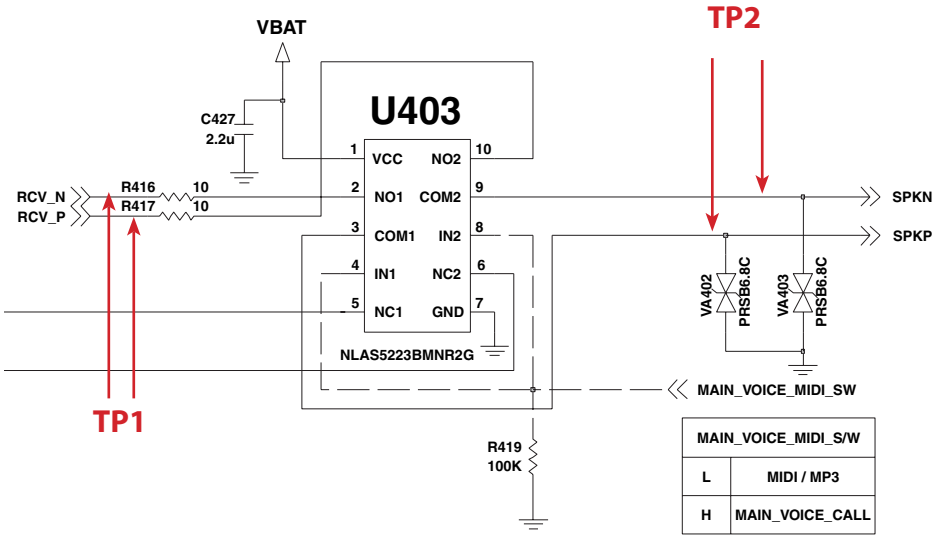


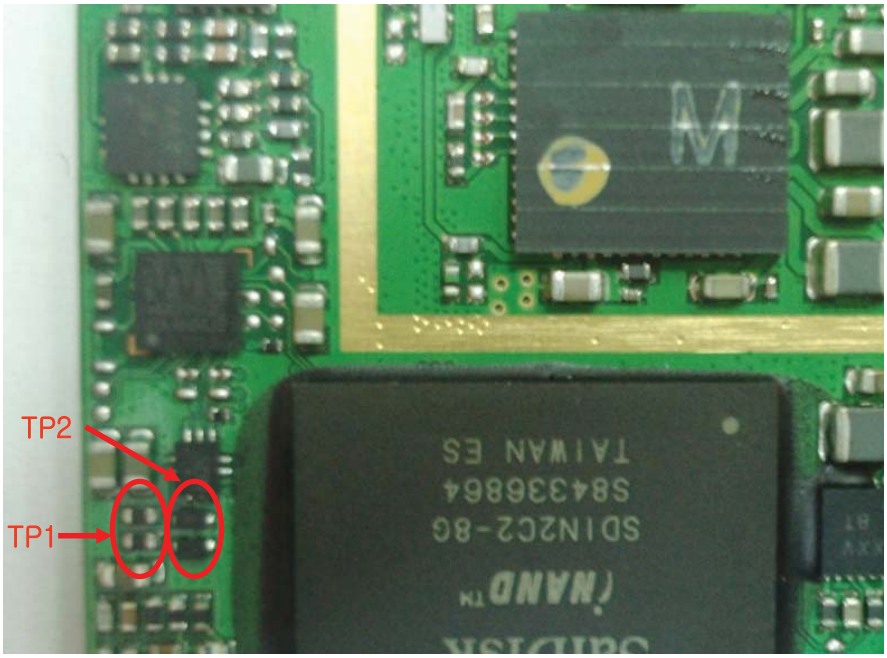


4.8 Audio Trouble

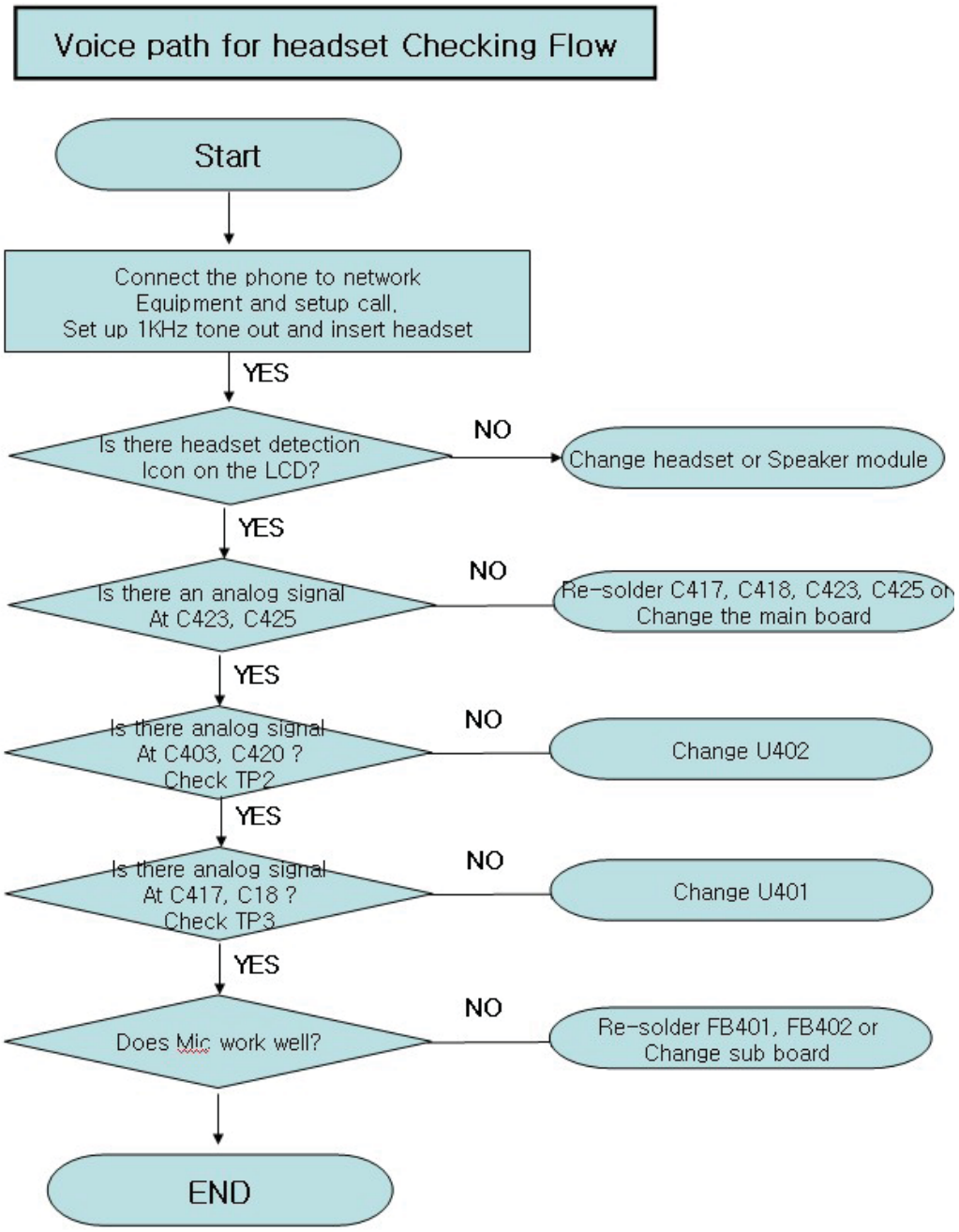
4.8.1 Receiver path



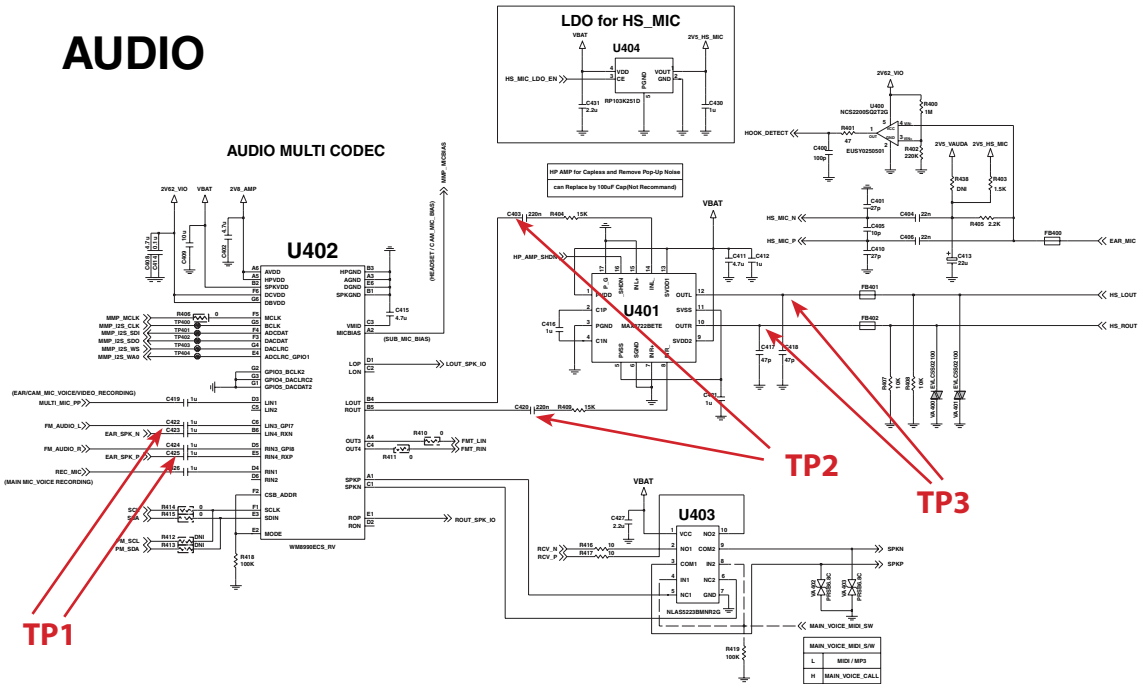


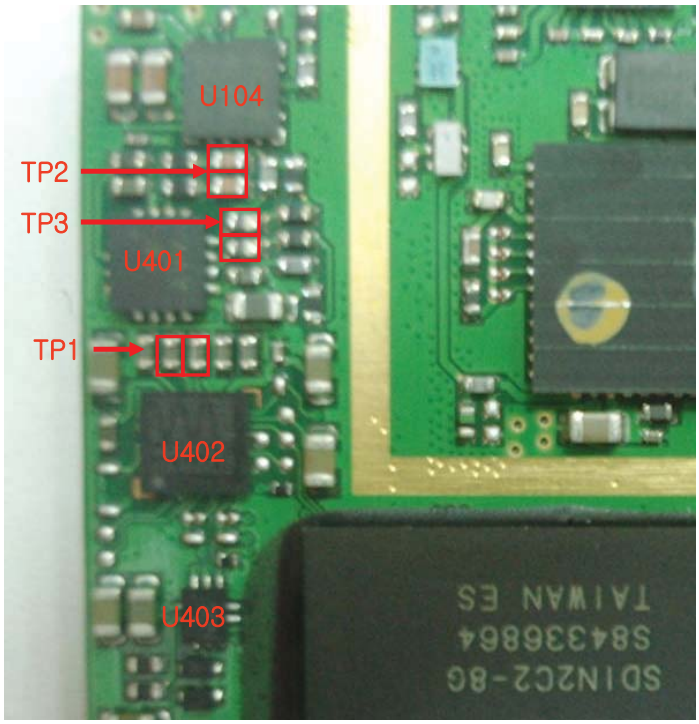


4.8.2 Voice path for headset



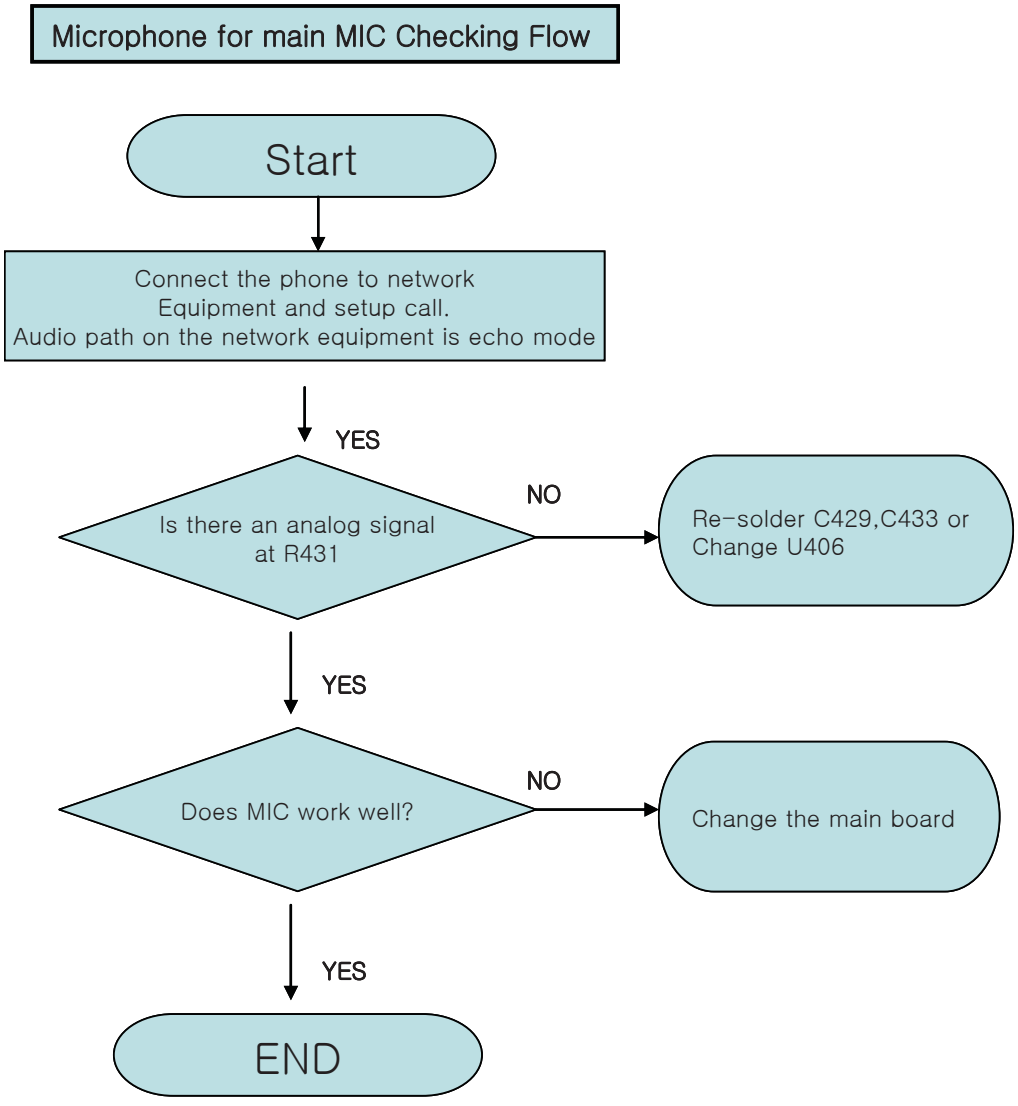
AUDIO



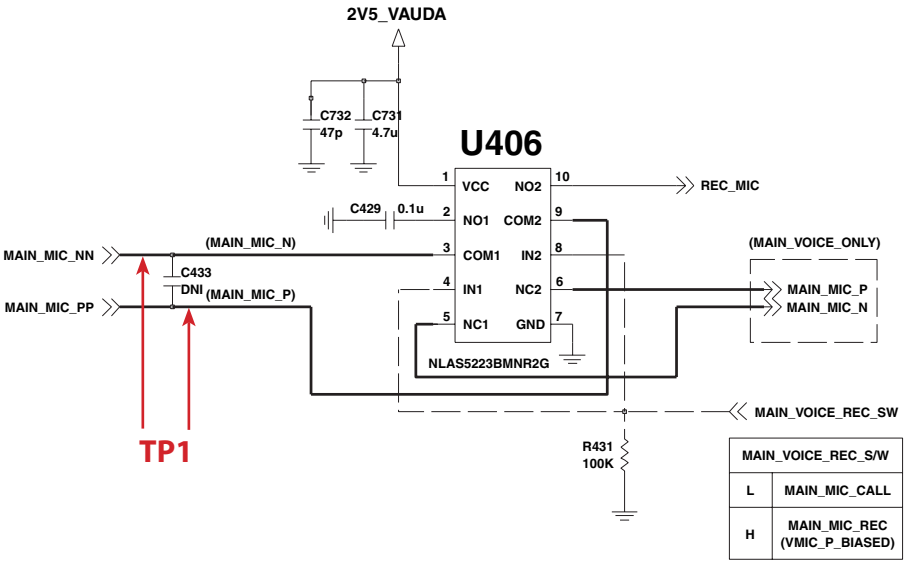


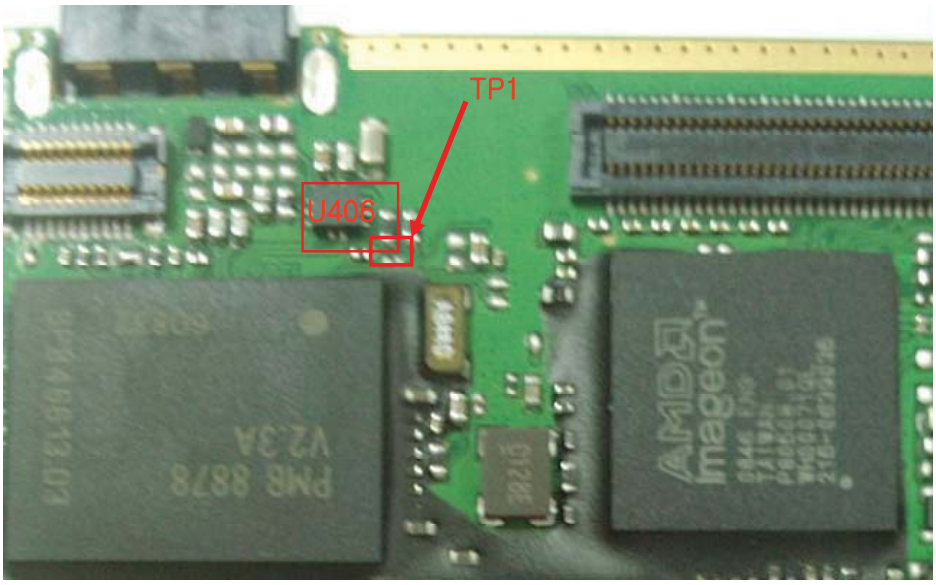
4.9 Microphone Trouble

4.9.1 Microphone for main MIC

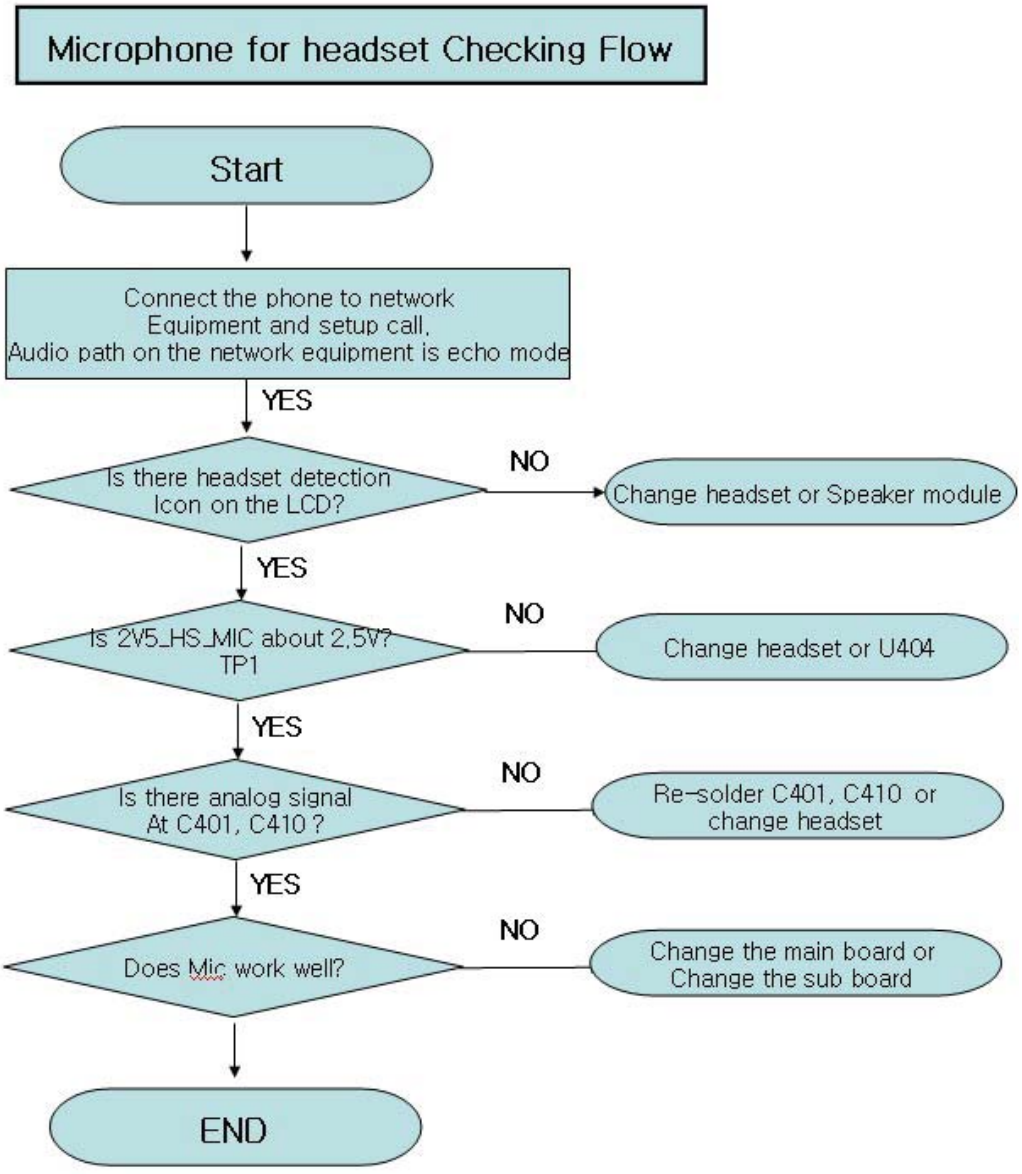


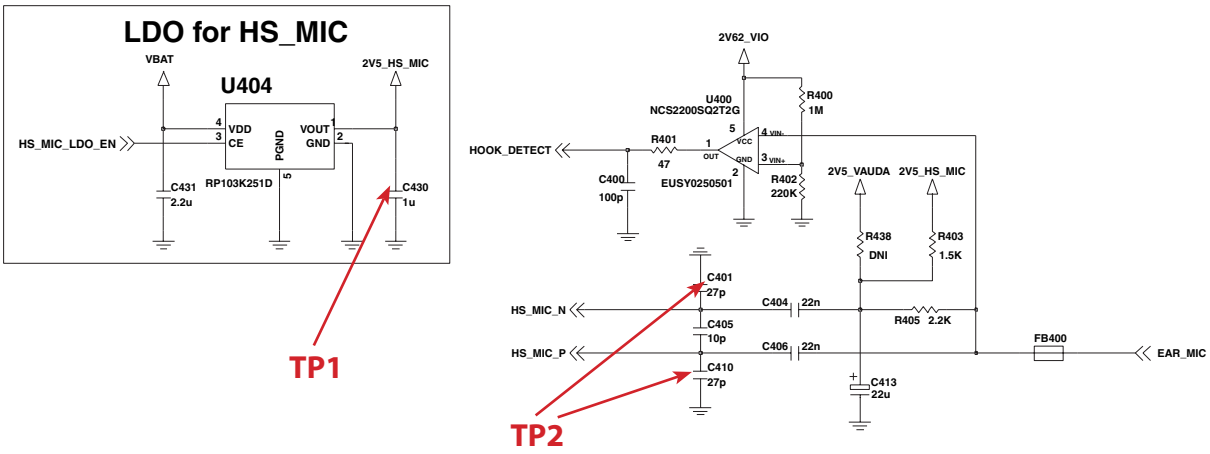
CALL MIC & RECORDING MIC SWITCH

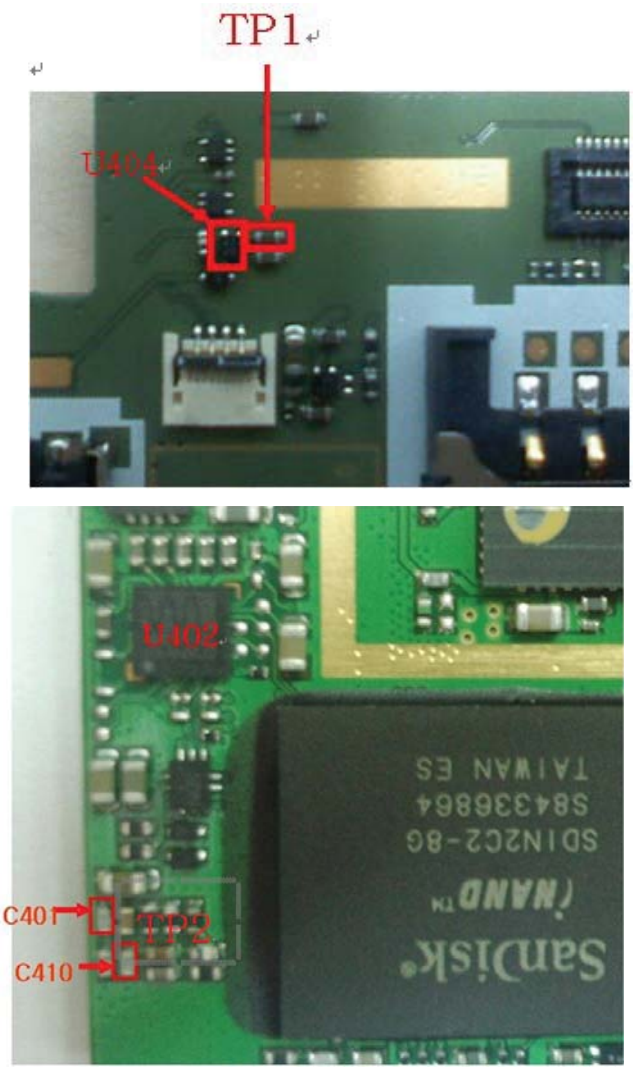




4.9.2 Microphone for headset

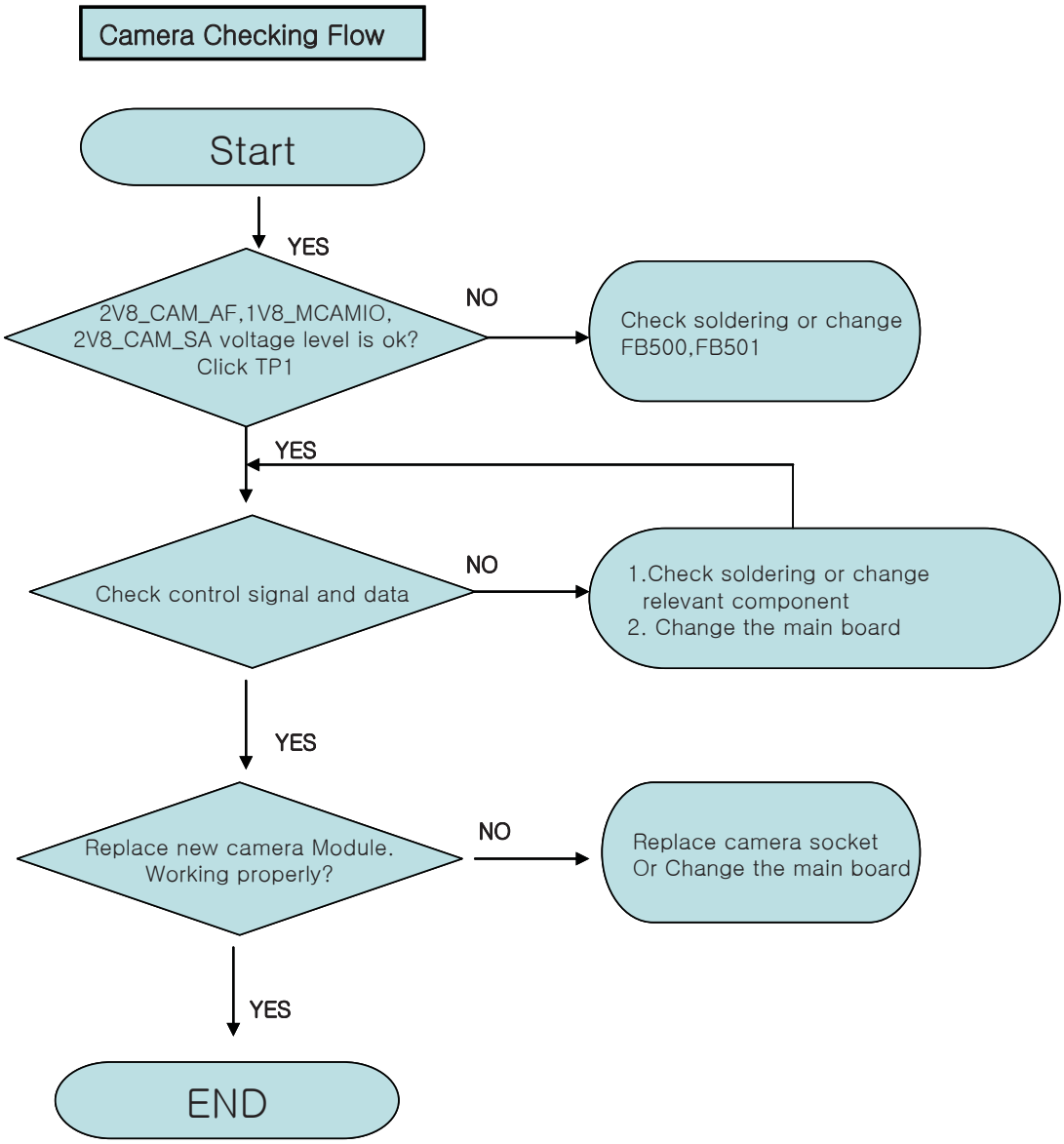




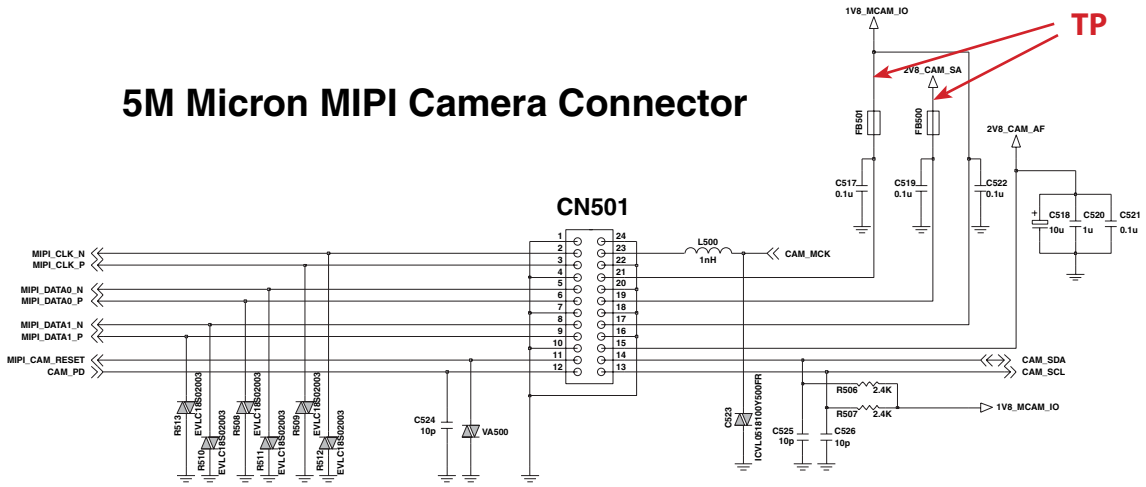


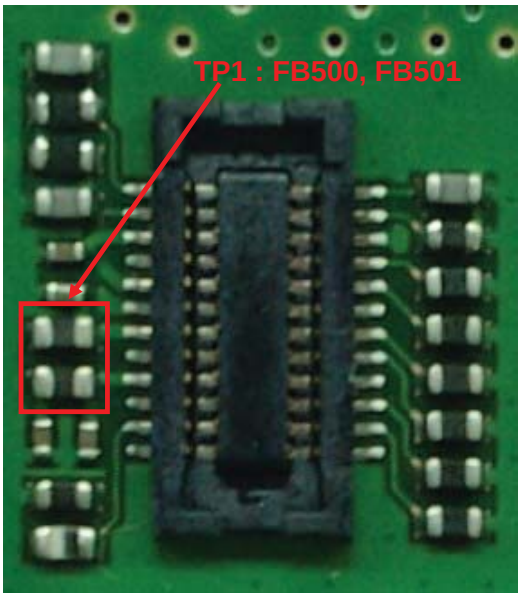
4.10 Camera Trouble

4.10.1 5M Camera

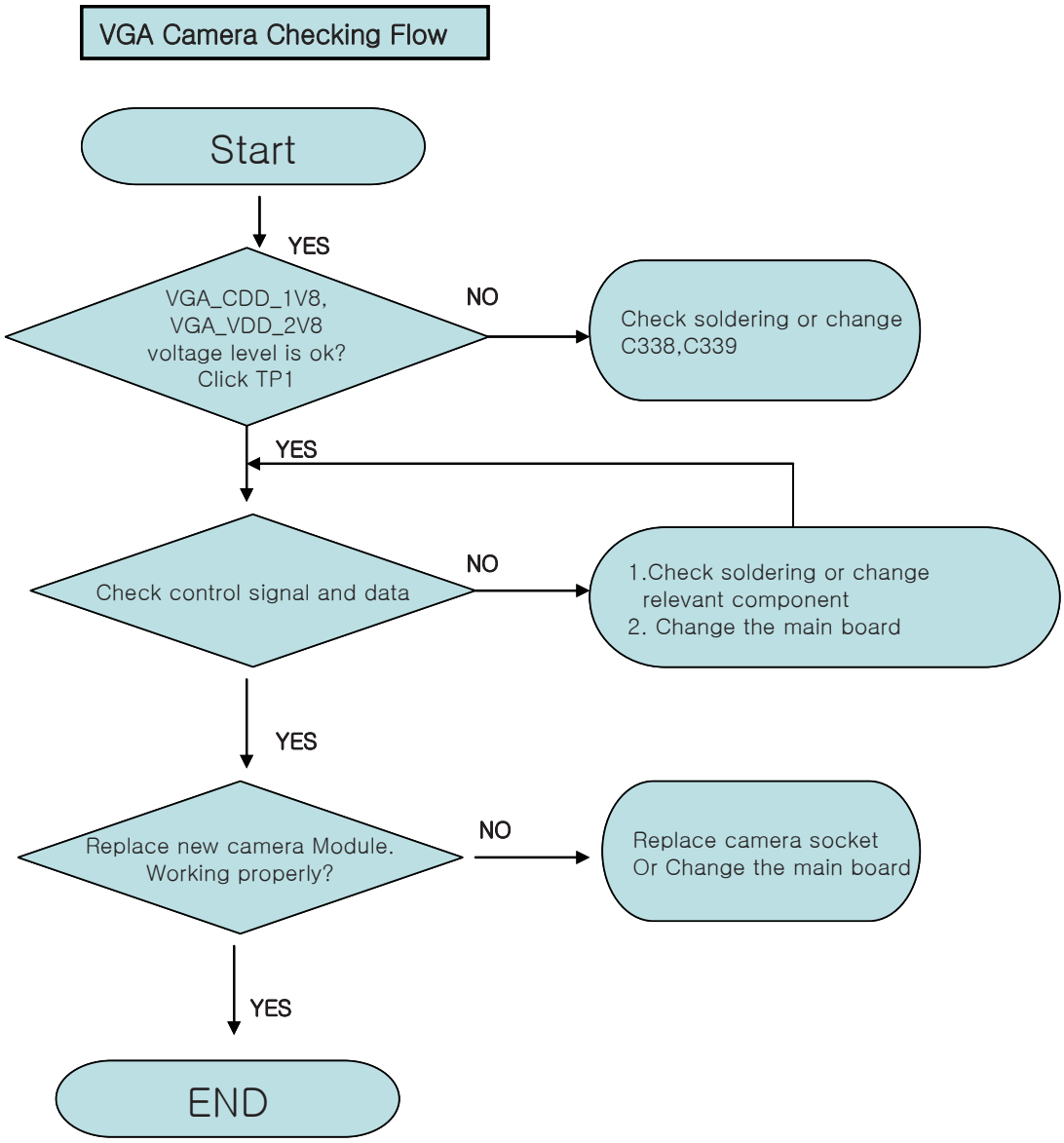


5M Micron MIPI Camera Connector

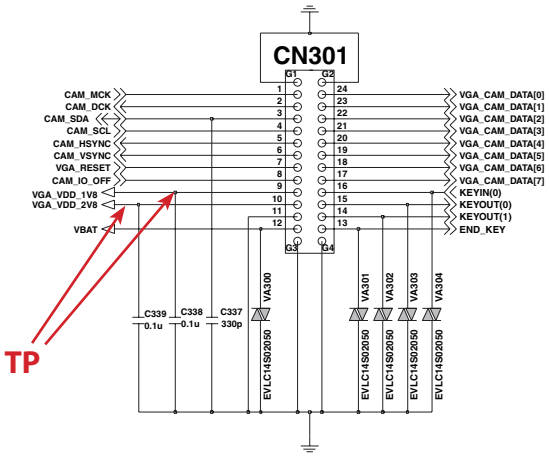


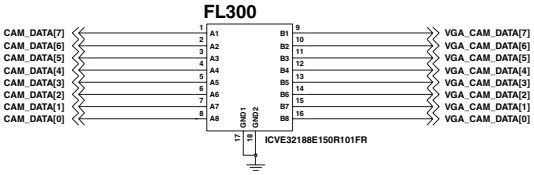


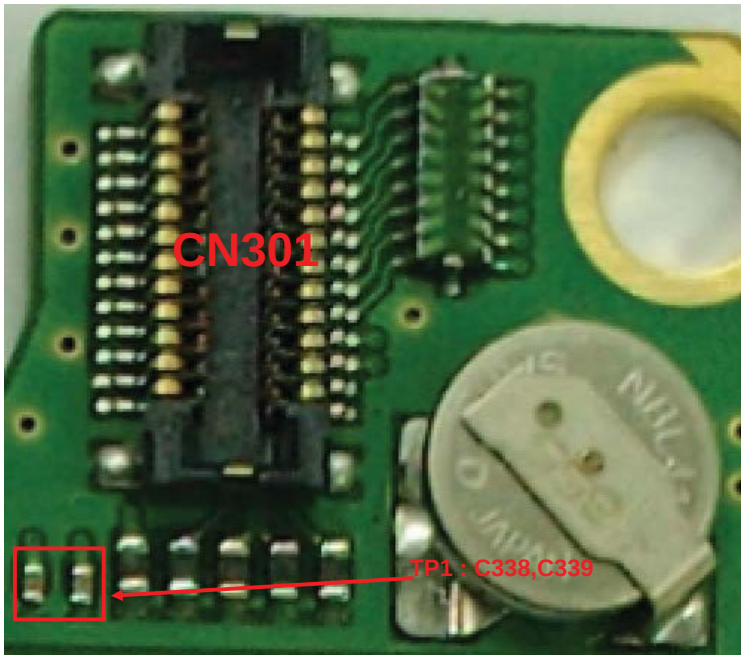
4.10.2 VGA Camera



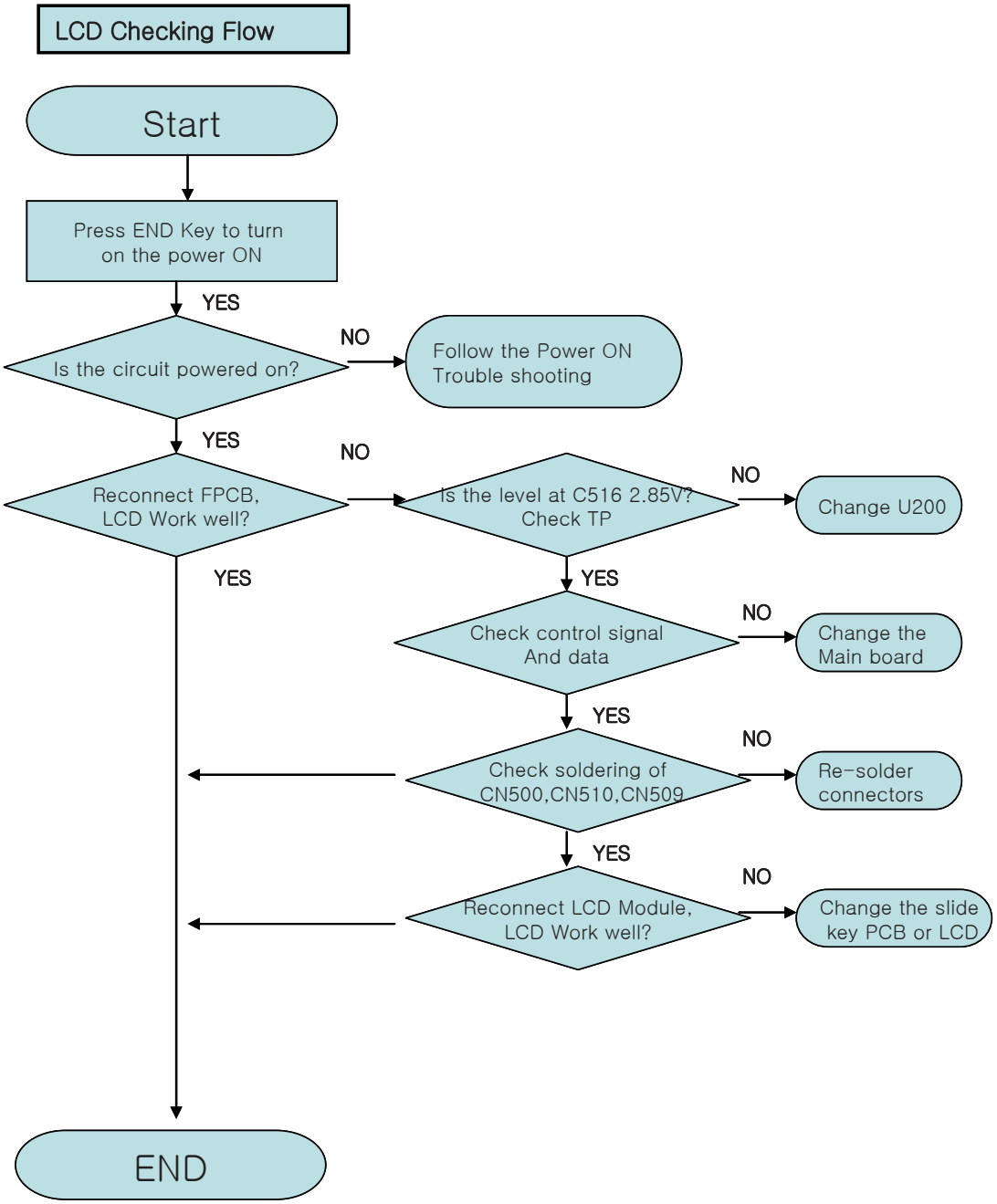
VGA CAMERA_END_VOL_KEY_FPCB CONNECTOR

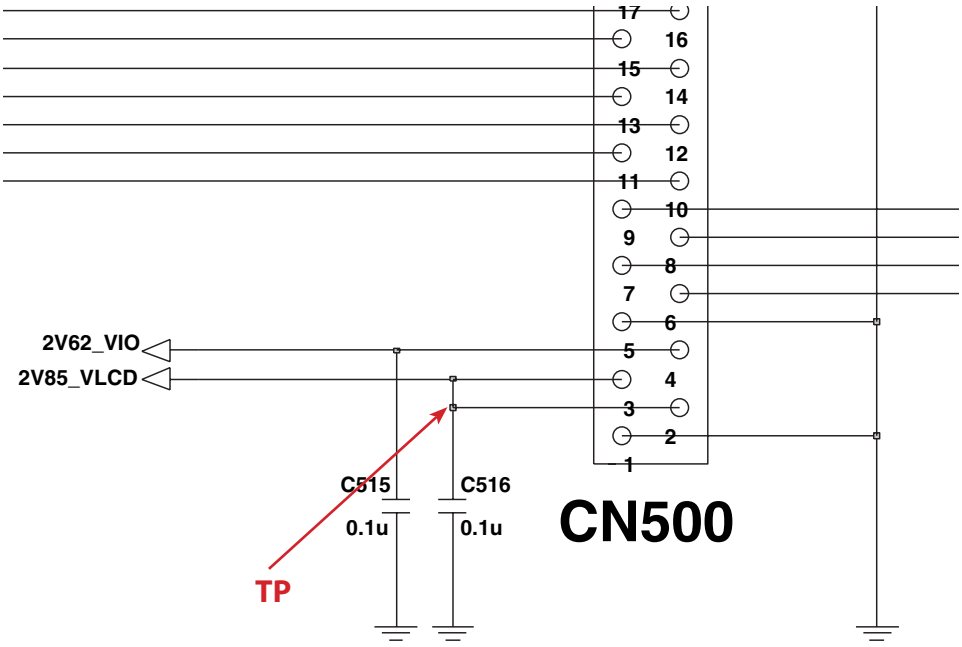


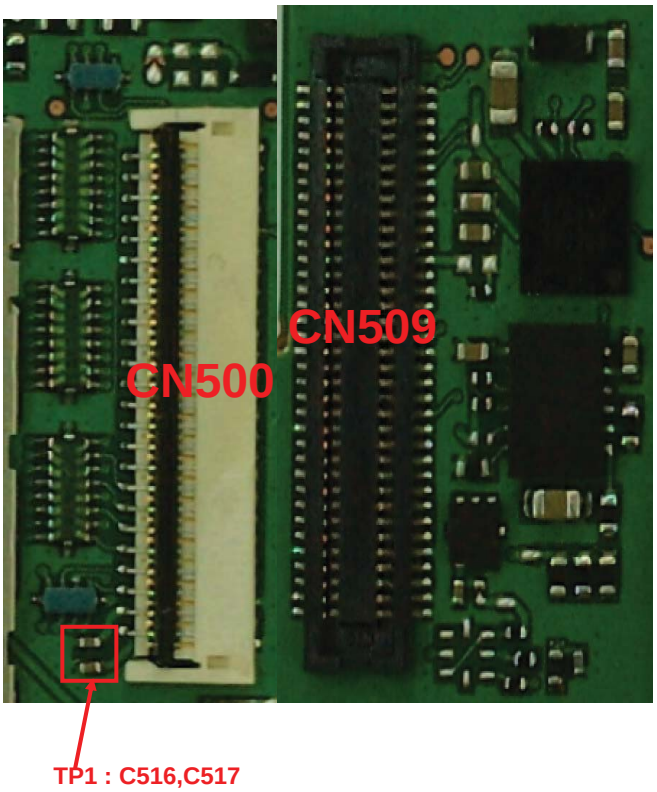


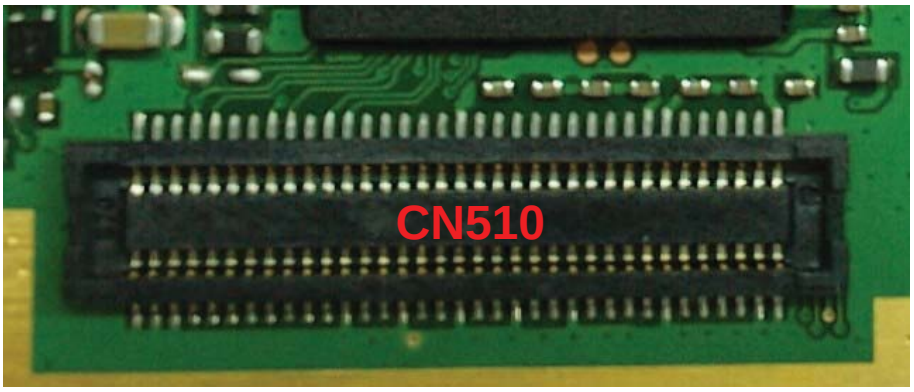


4.11 Main LCD Trouble



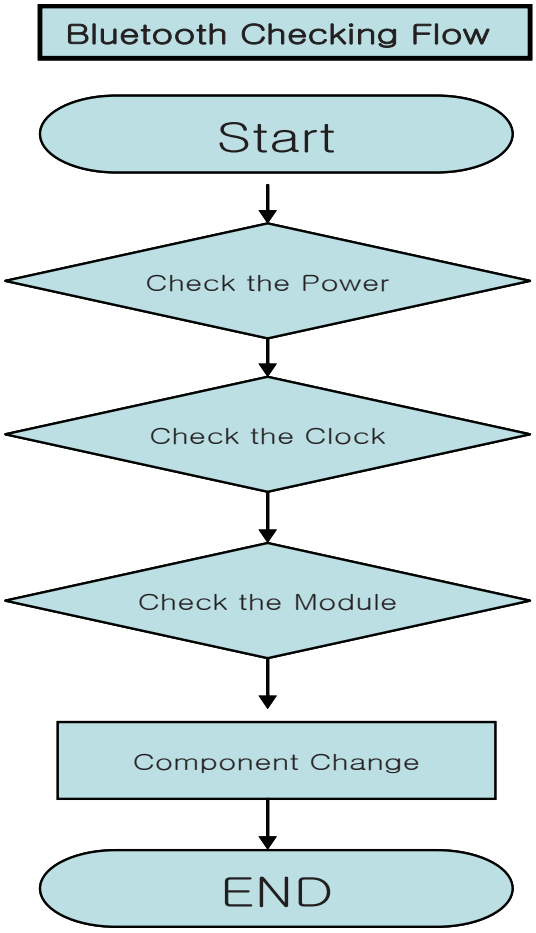




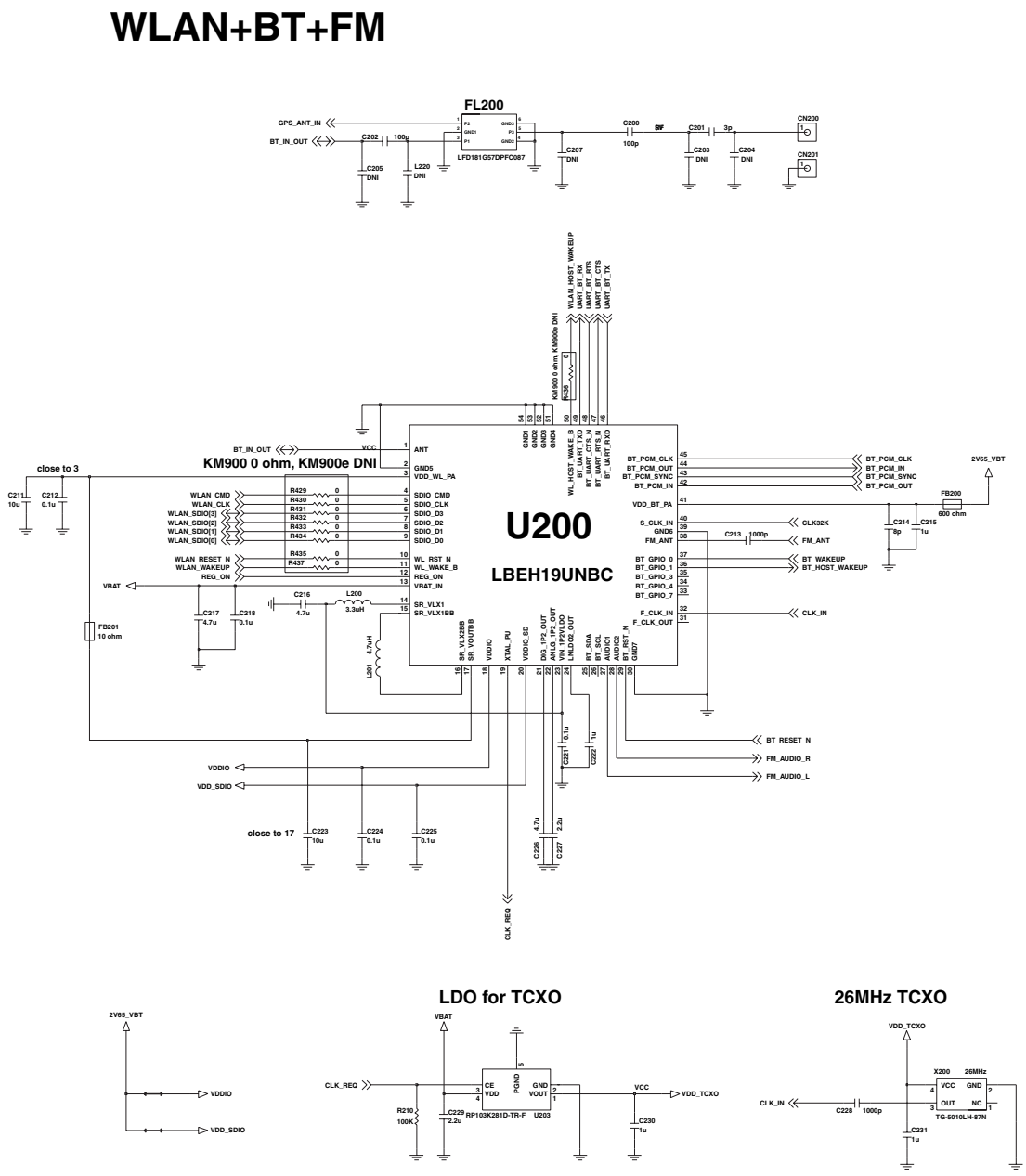


4.12 Trouble Shooting of WiFi /Bluetooth part

Checking Flow



4.12.1 Module Part

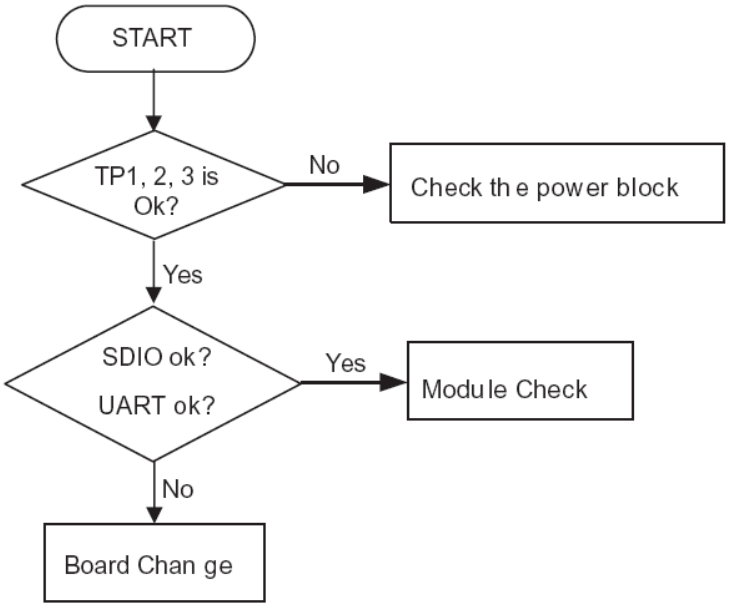


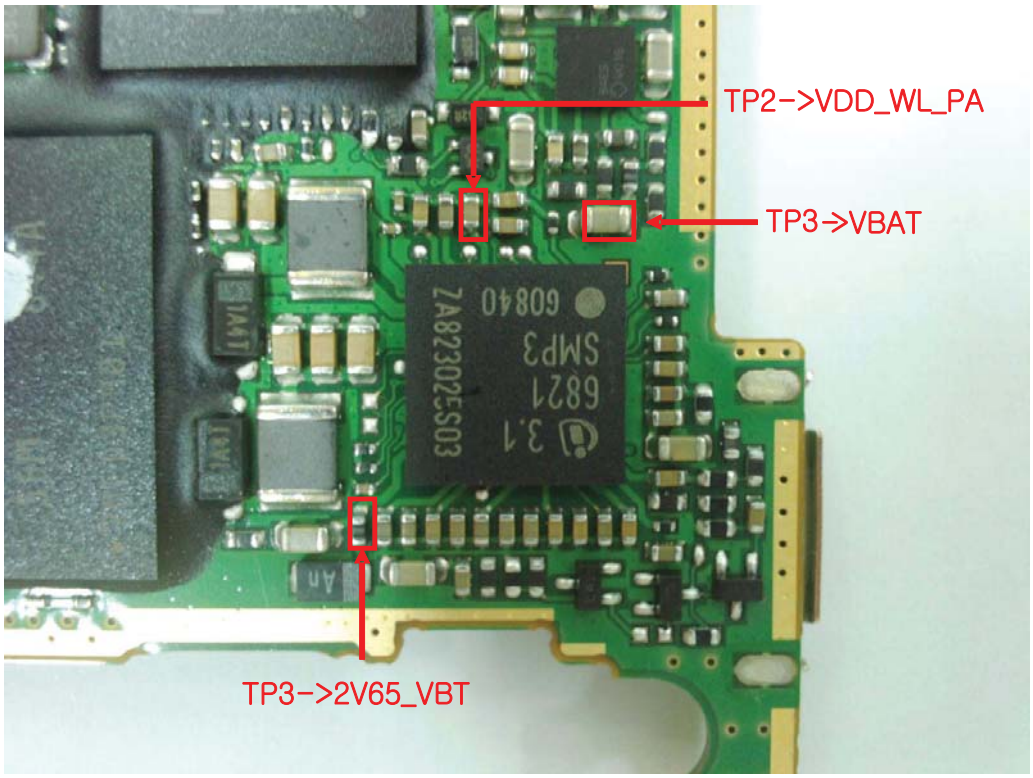
[Figure4.12-1] Schematic of WiFi/BT/FM module

Test Point Description

Test Point	Net name	Description
TP1	VDD3_3	Power for i nternal PA and RF interfaces (3.3V)
TP2	VDD1_2	Power for WLAN/BT/F M BB co re and AFE/PLL(1.2V)
TP3	VREG_MSMP_ 2.7V	Power for h ost interface (2.7V)

Checking Flow

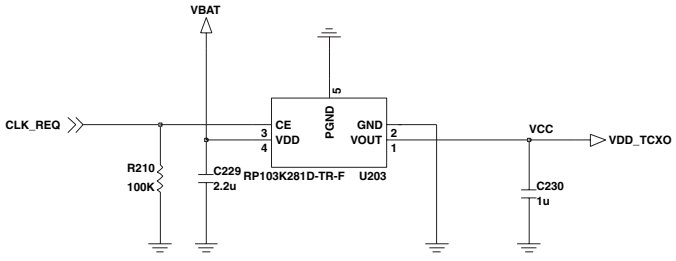




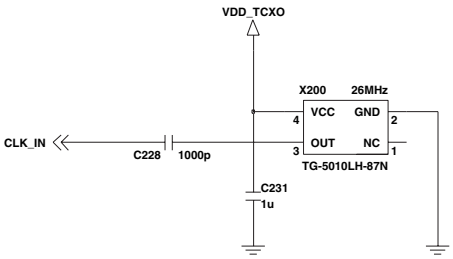
Main Board (Top side)
- PMB6821 block

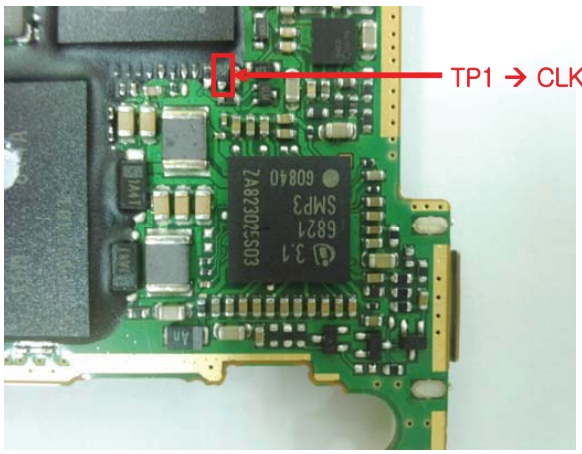
4.12.2 Main Clock Part

LDO for TCXO

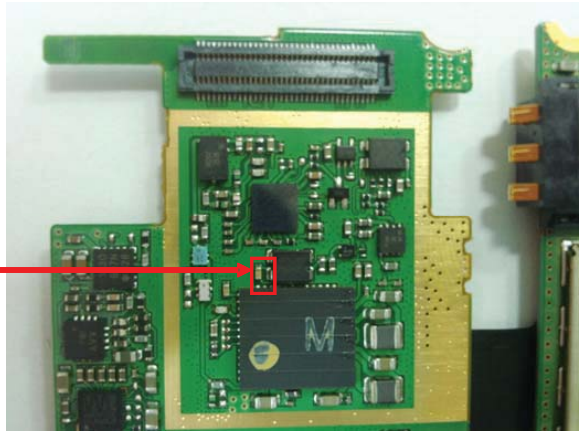


26MHz TCXO





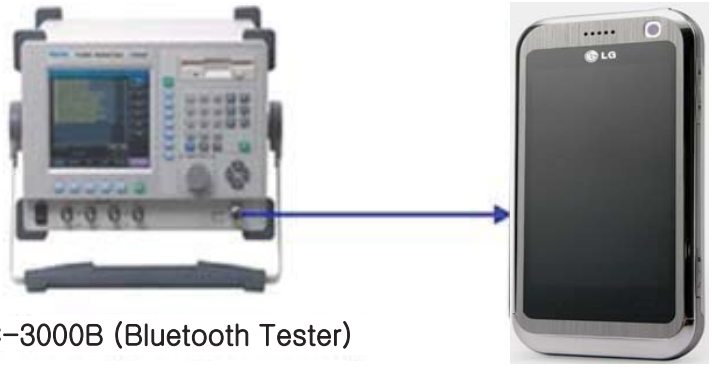
Main Board (Top side)
- PMB6821 block



Sub Board (Top side)
- Bluetooth block

Test Point	Net name	Description
TP1	CLK_REQ	On/Off Control external clock source 0 : TCXO off 1 : TCXO on
TP2	CLK_IN	TCXO outp ut clock : 26MHz

Test Point of TCXO

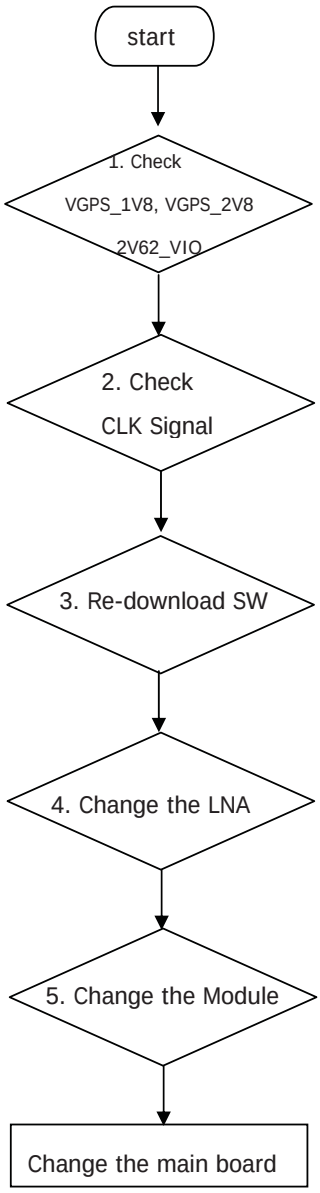


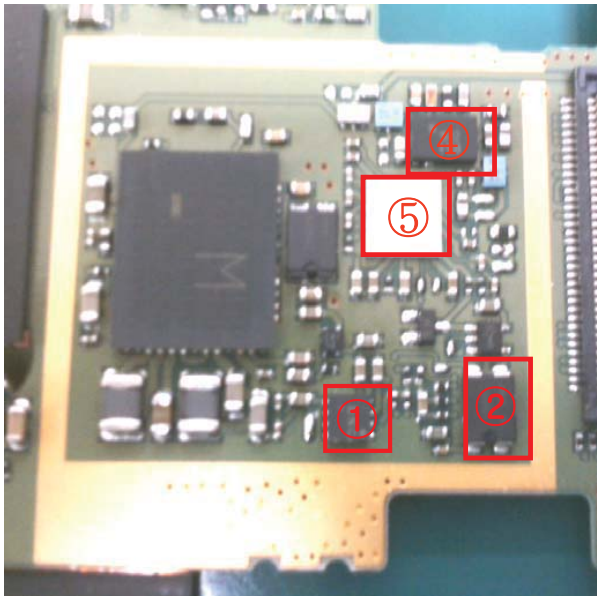
◆ Bluetooth RF Test procedure

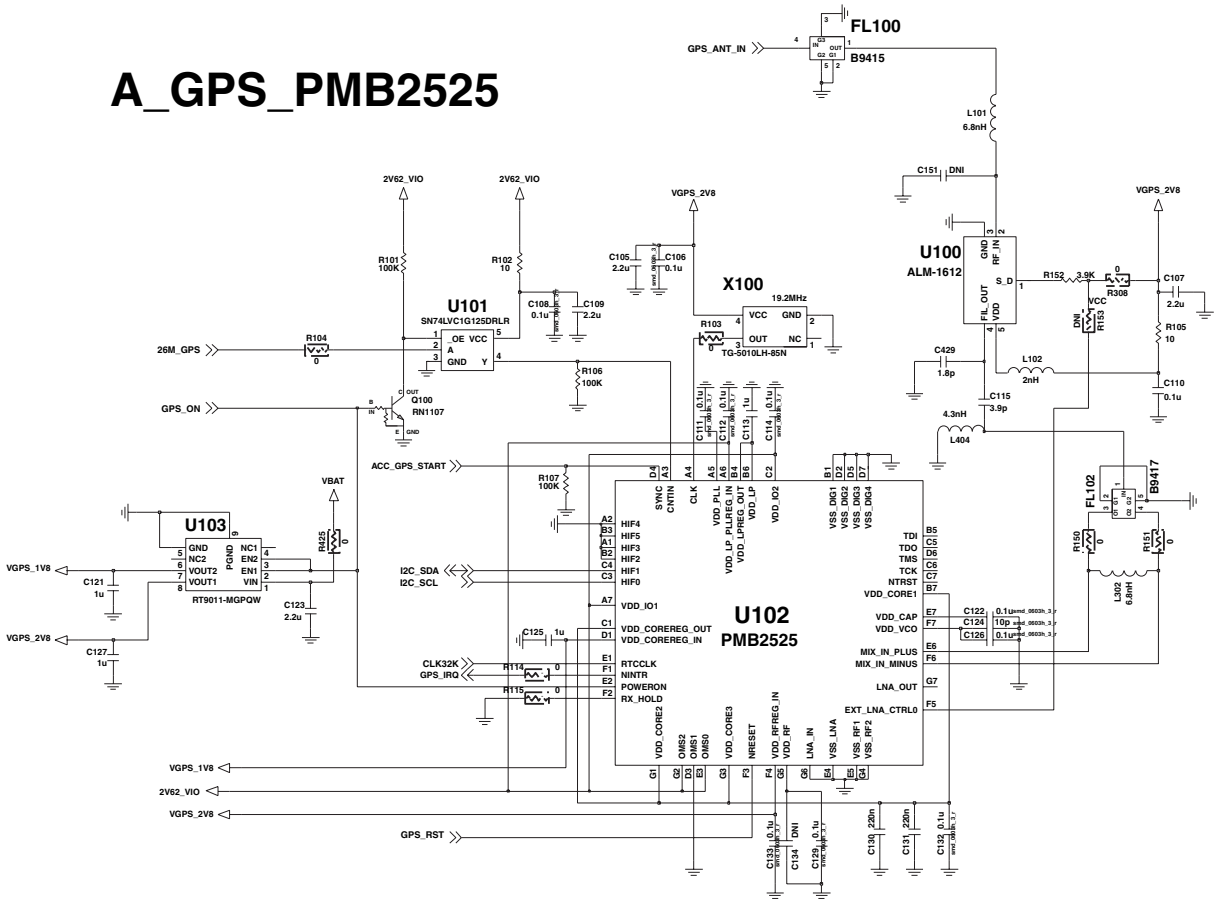
1. Set phone to bluetooth test-mode.
   - Blue tooth ON : Enter Test Mode(1809#*900#) → Eng Mode → BT Testing → RF Test
2. Insert a phone in a TEMCELL (in case of radiation test)
3. Set 'discover' after push menu button of the tester and select the link analyzer .
4. After 'set test mode', confirm the connection state.
5. Measure the power of full channel after hopping mode is selected to 'ON'
6. You can select wanted test cases after getting an optimized power
7. Blue tooth Off
   - Menu(OK key)→setting→4)Connectivity→1)Bluetooth→1)Turn on/Turn off

4.13 Trouble Shooting of A-GPS part

Checking Flow

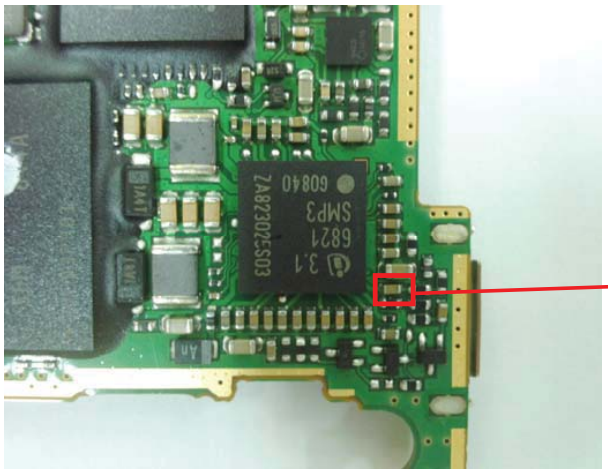


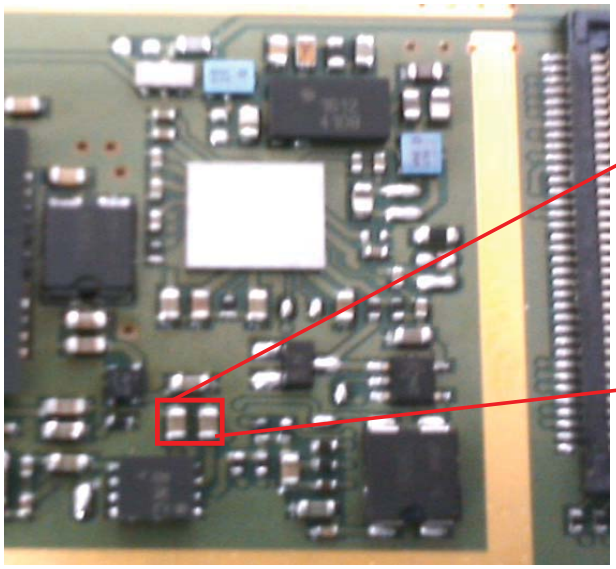




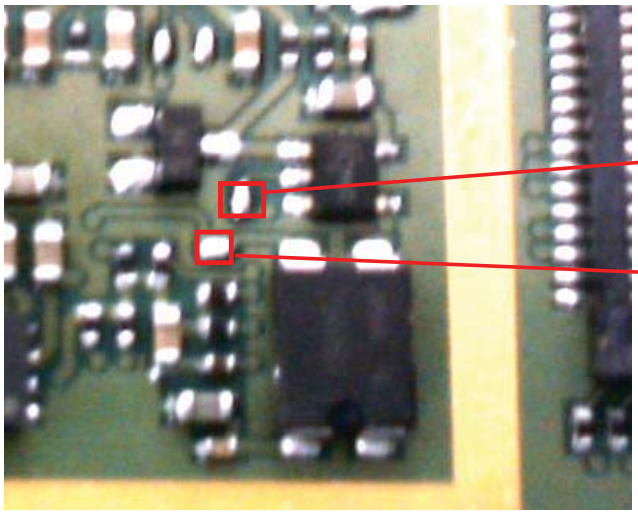
[Figure4.13-1] Schematic of GPS module

4.13.1 Checking power line





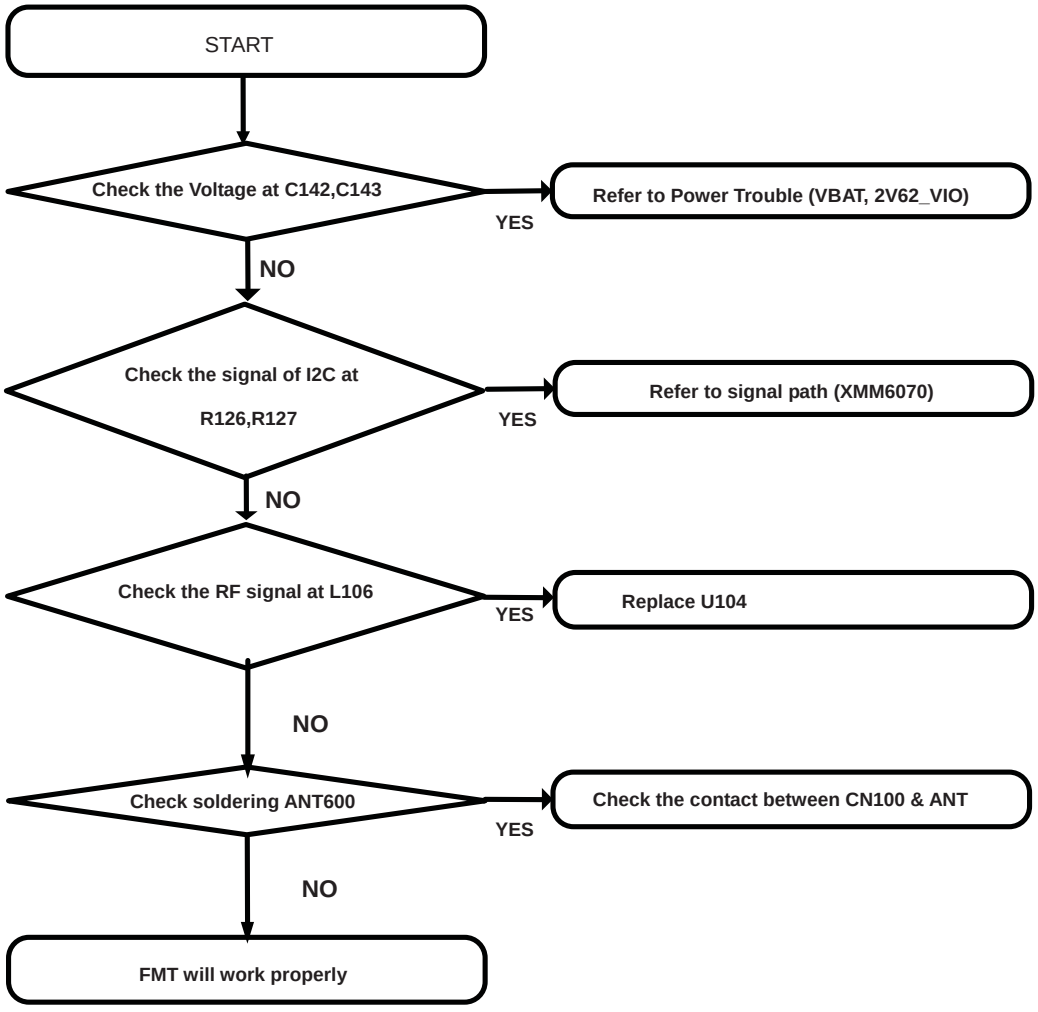
4.13.2 Checking CLK line



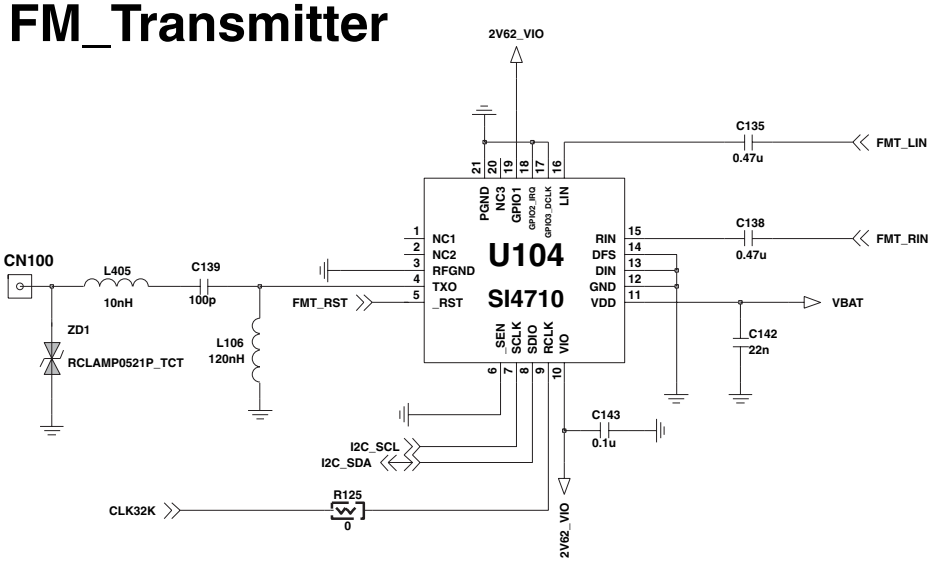
Sub Board (Top side)
- PMB2525 block

4.14 FM Transmitter trouble

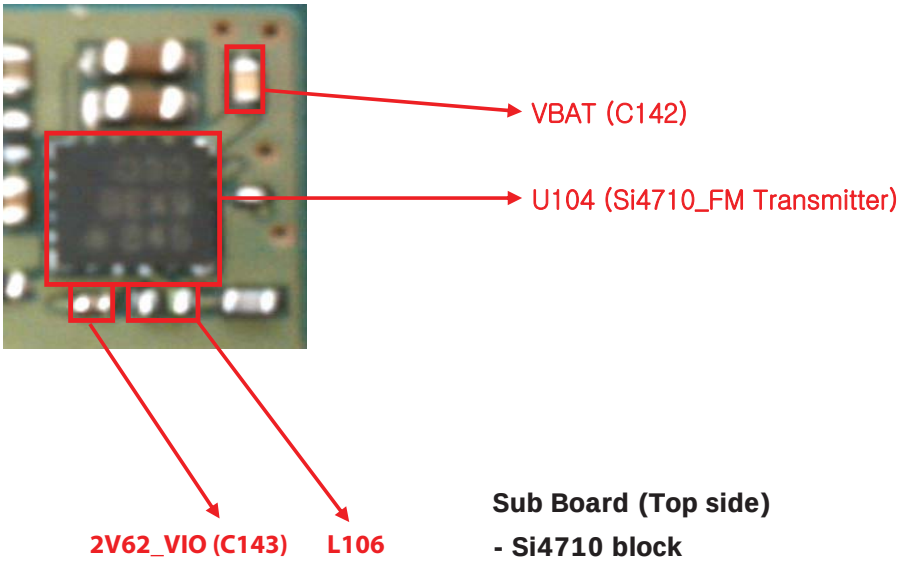
Checking Flow



FM_Transmitter



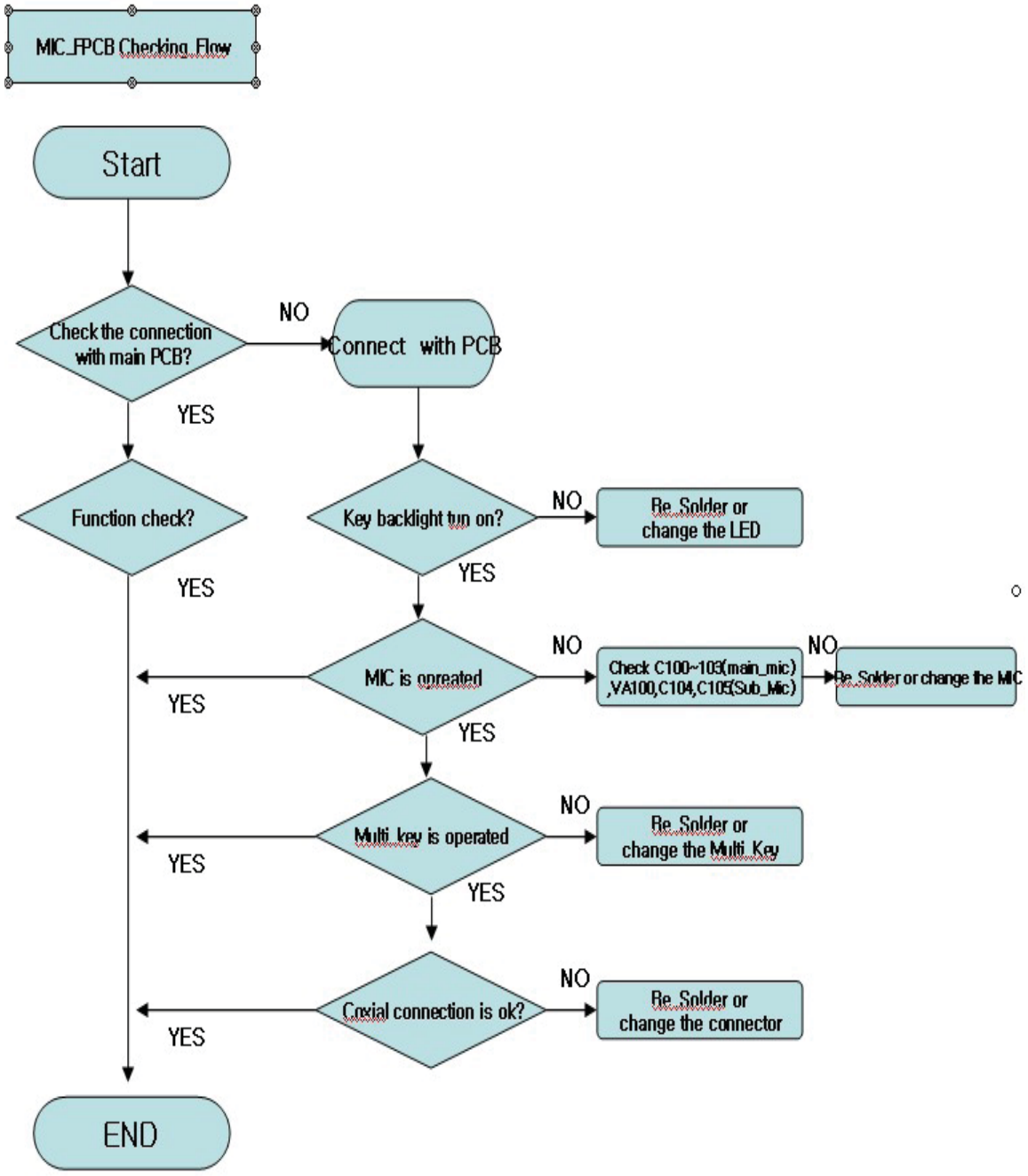
Test Point



Sub Board (Top side)

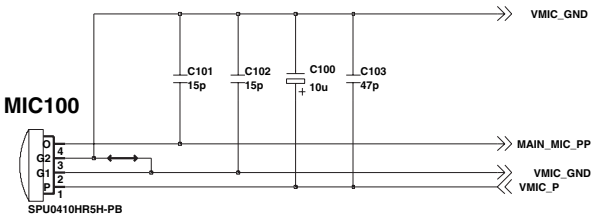
- Si4710 block

4.15 MIC FPCB

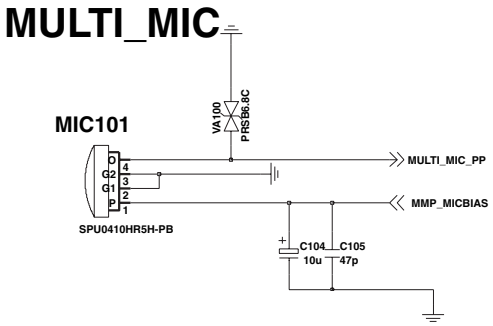


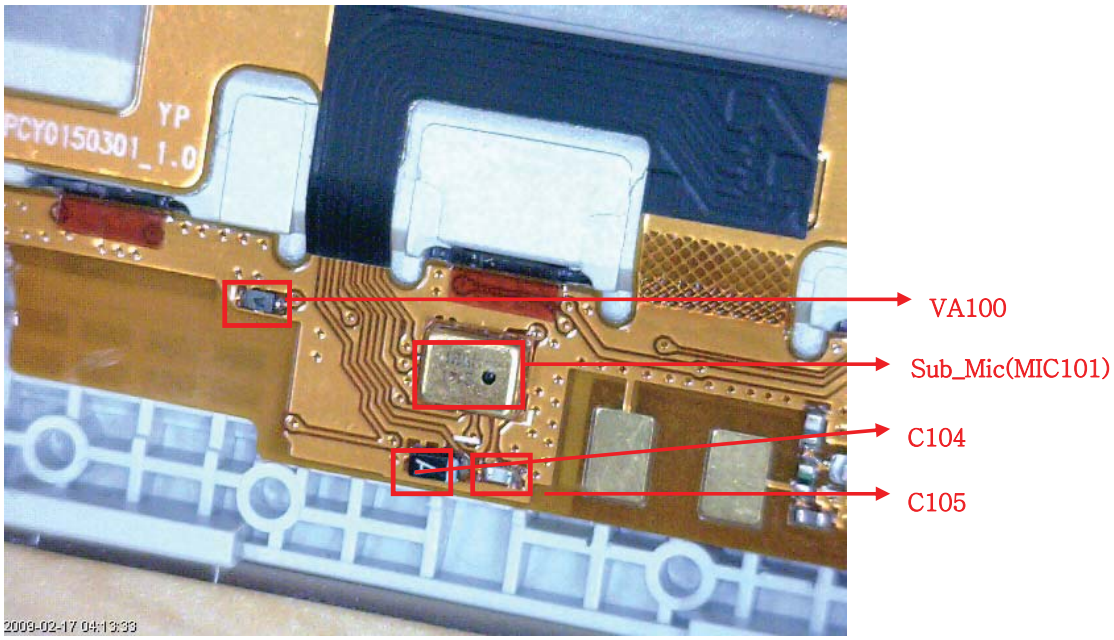
Test Point

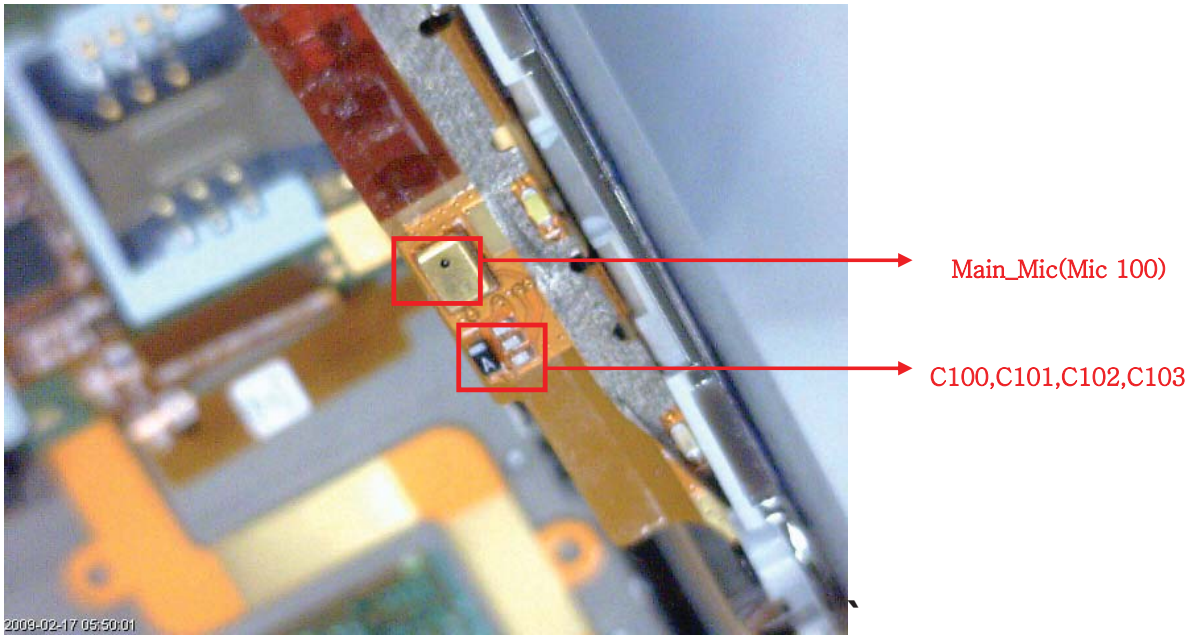
MAIN_MIC



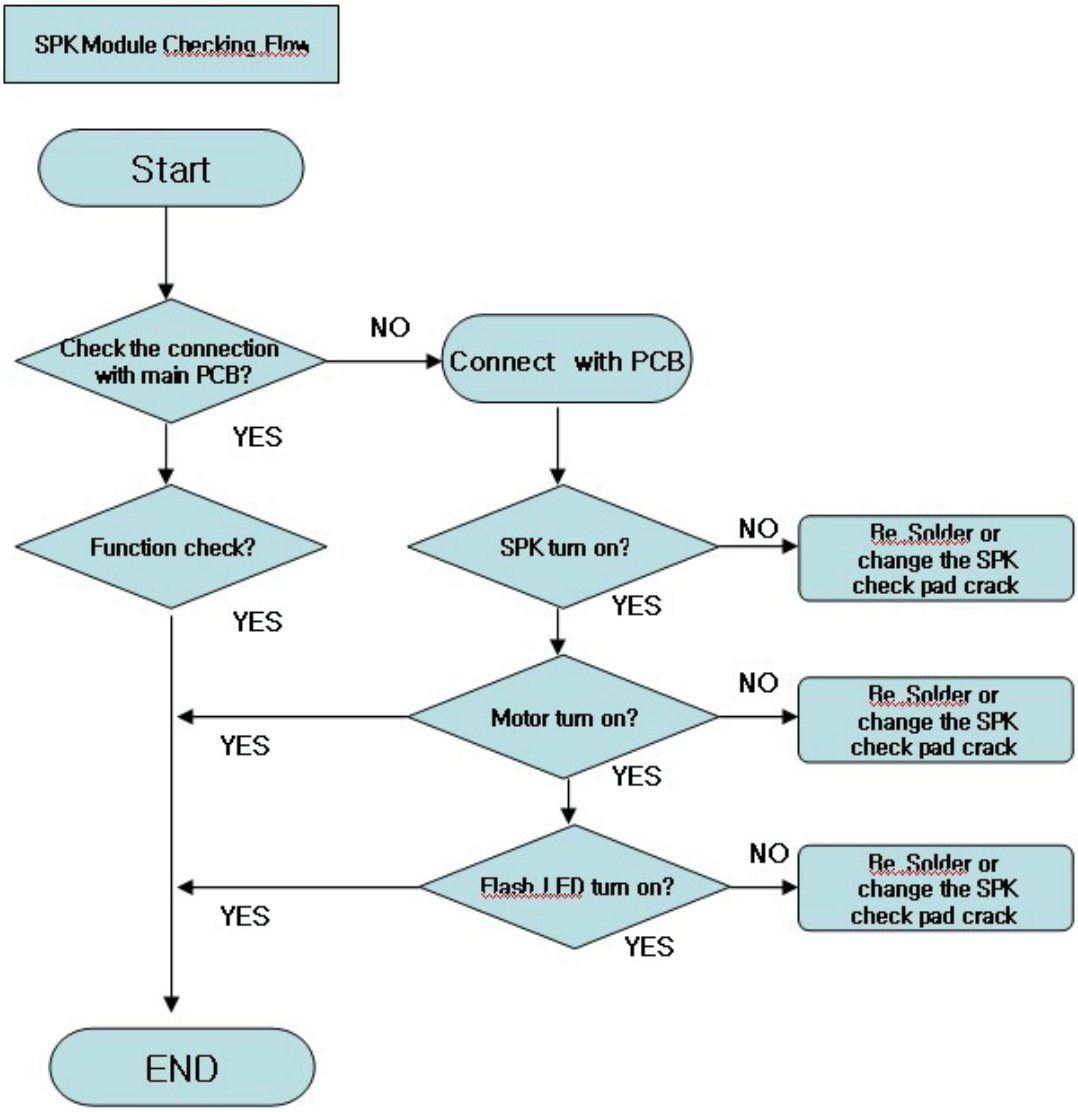
MULTI_MIC



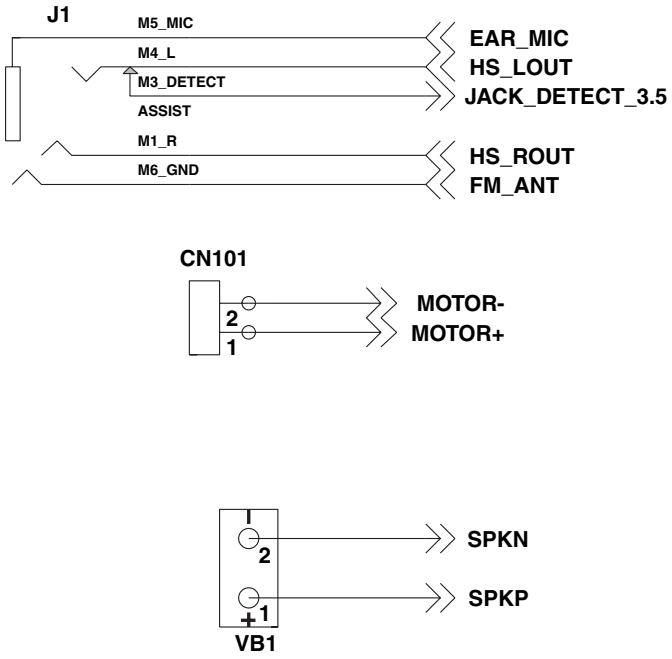


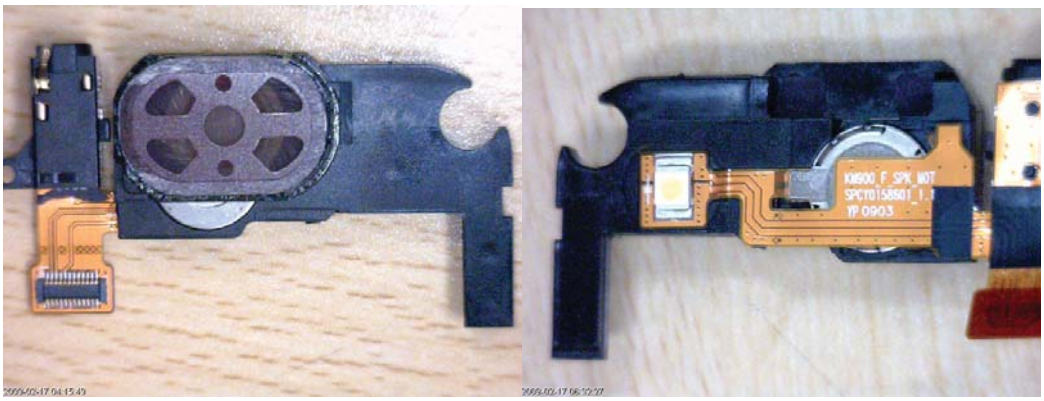


4.16 Speaker Module



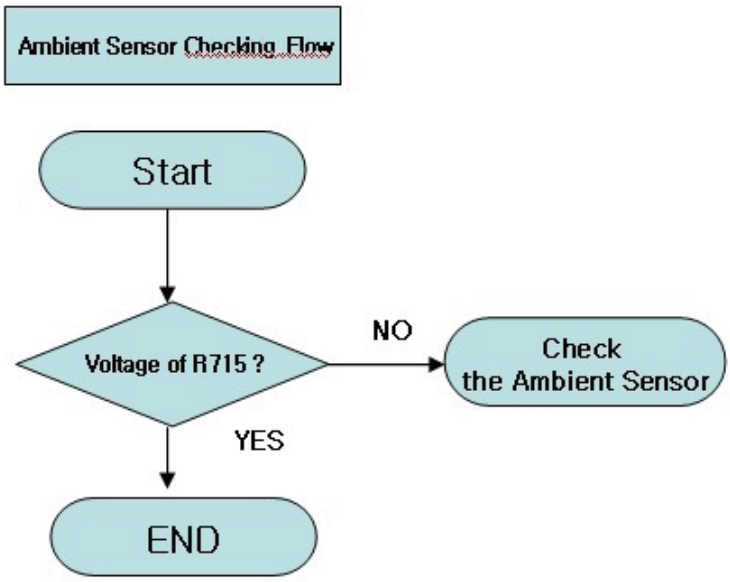
Test Point





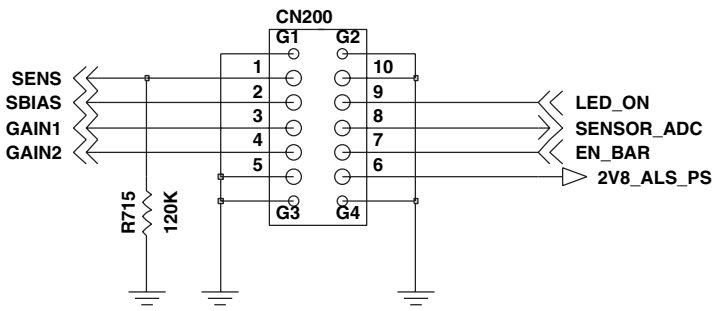
Check Motor/SPK/Flash LED PAD

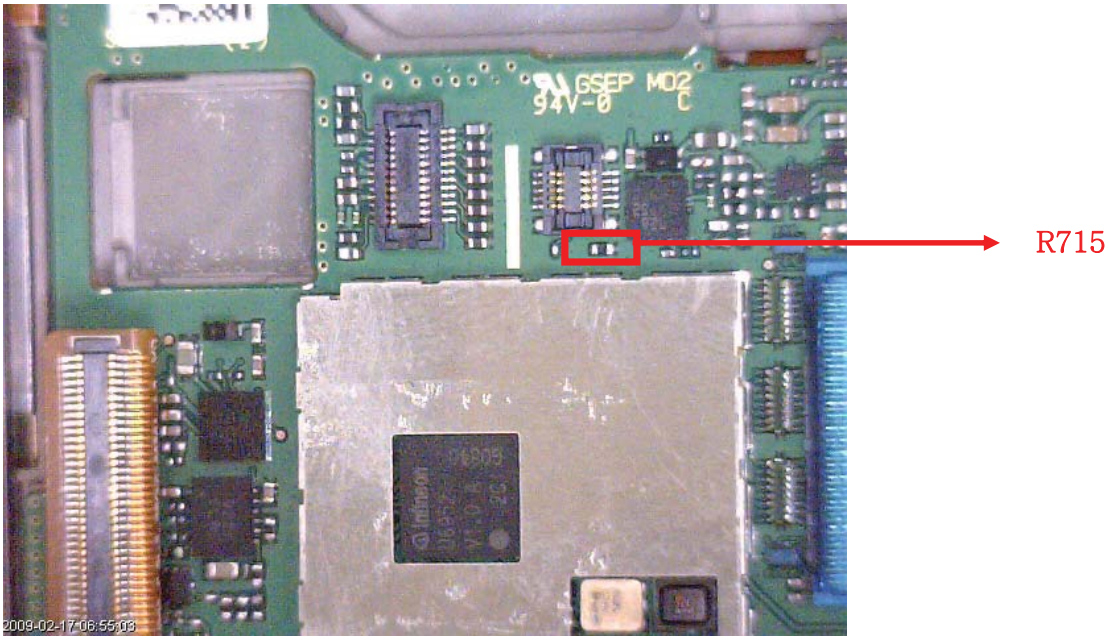
4.17 Ambient Sensor



Test Point

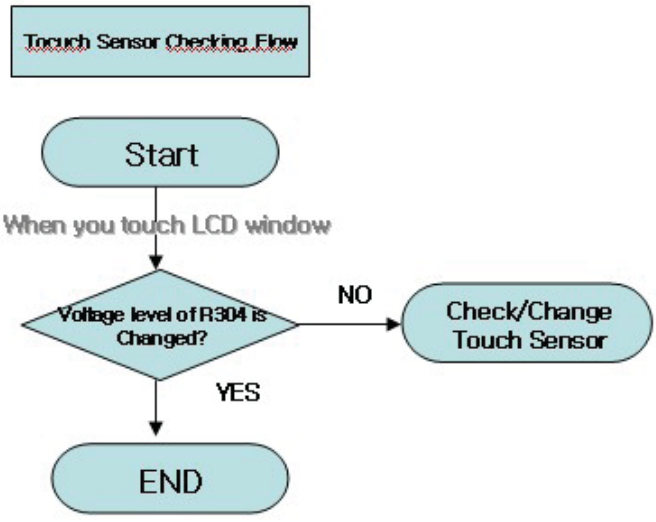
ALS_PS Connector





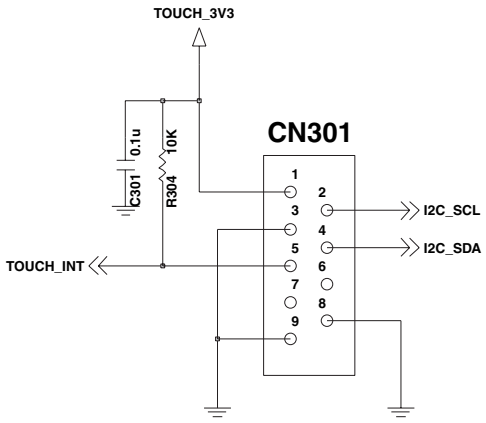
***Output current which is proportionate to the light. Use this pin(R715) between the GND.**

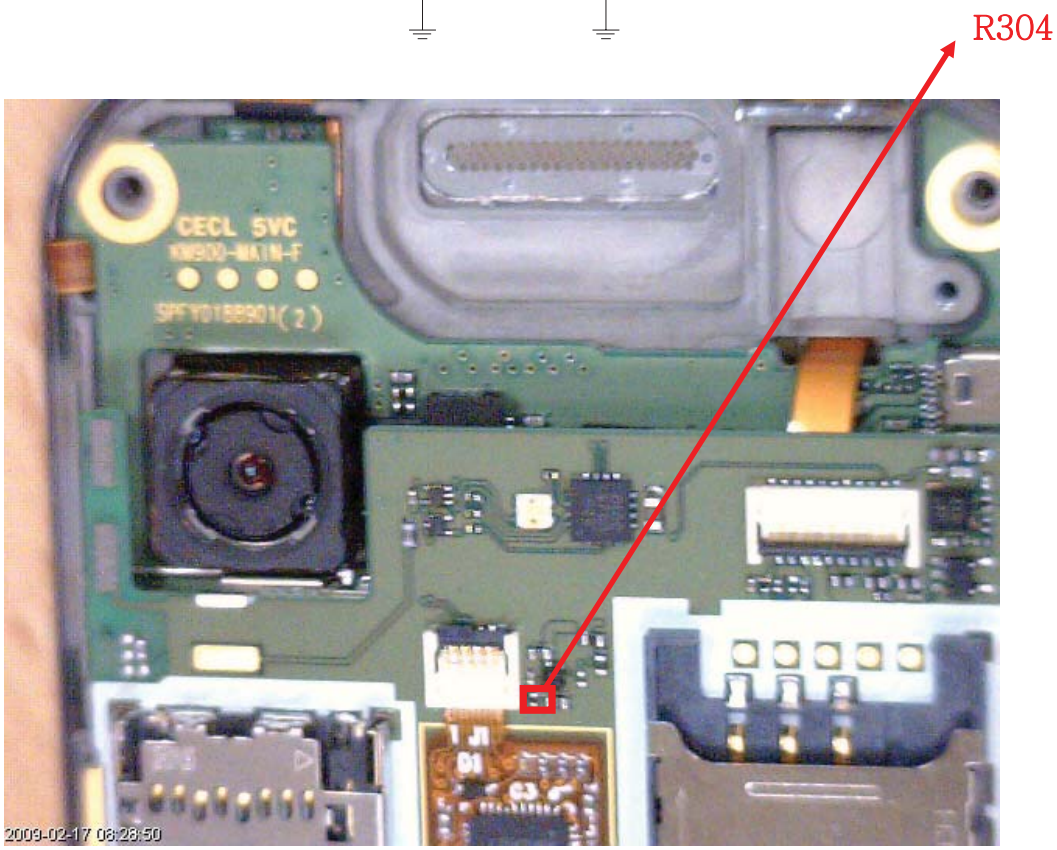
4.18 Touch Sensor



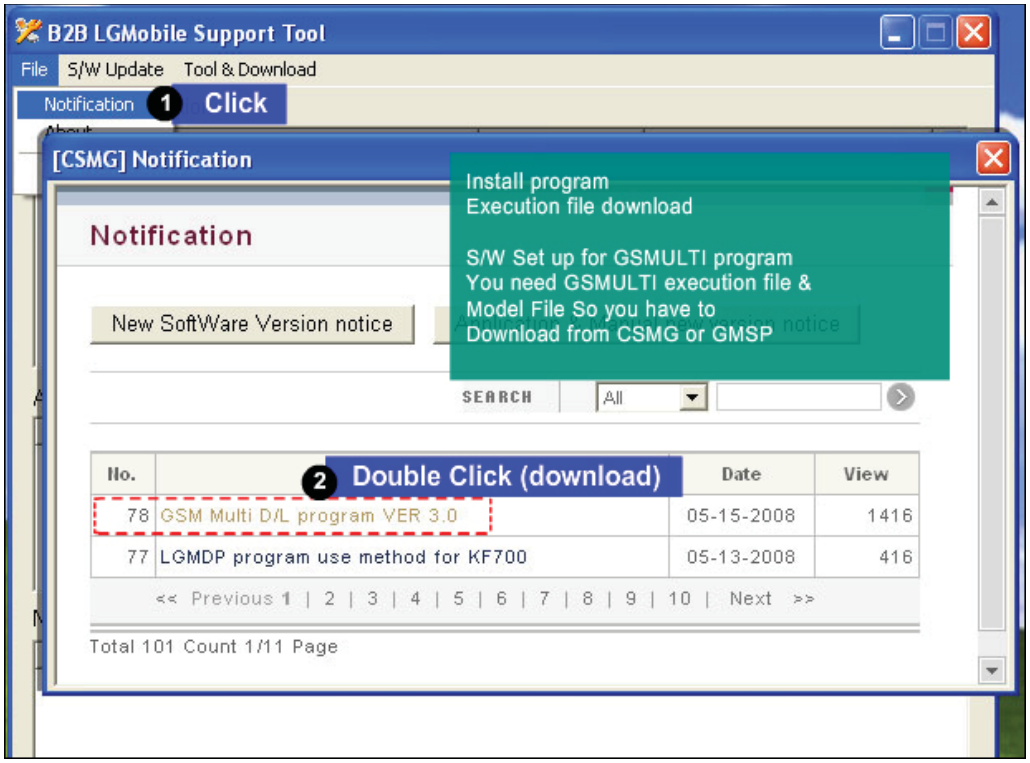
Test Point

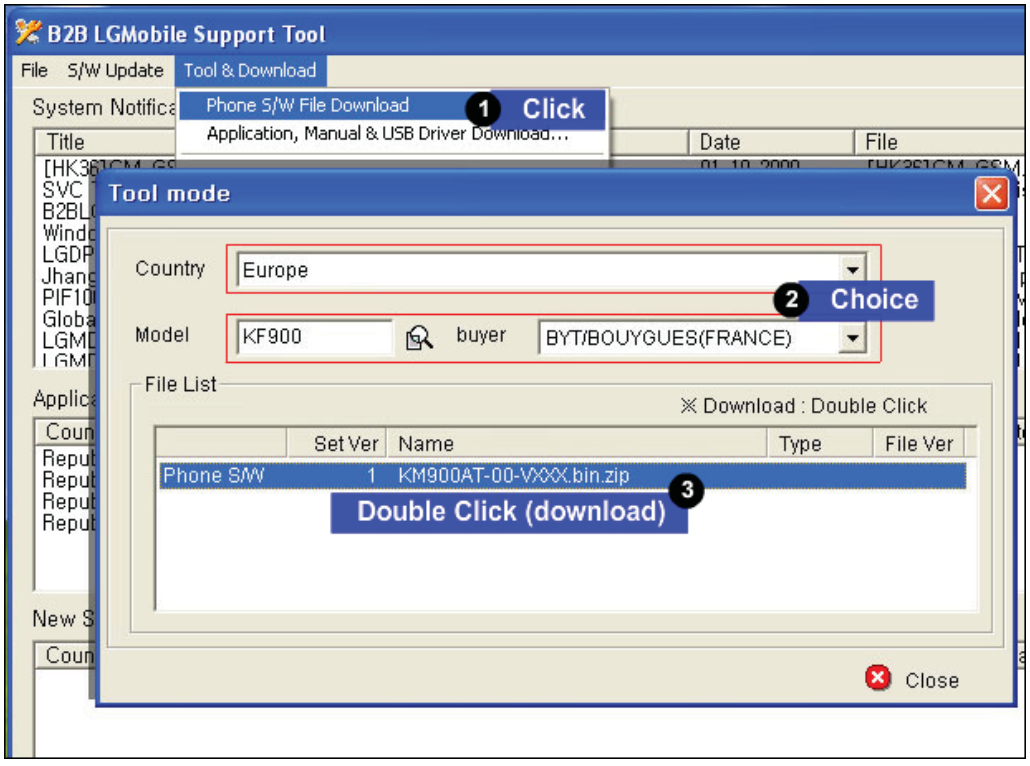
TOUCH_CONNECTOR





5. Download & S/W upgrade





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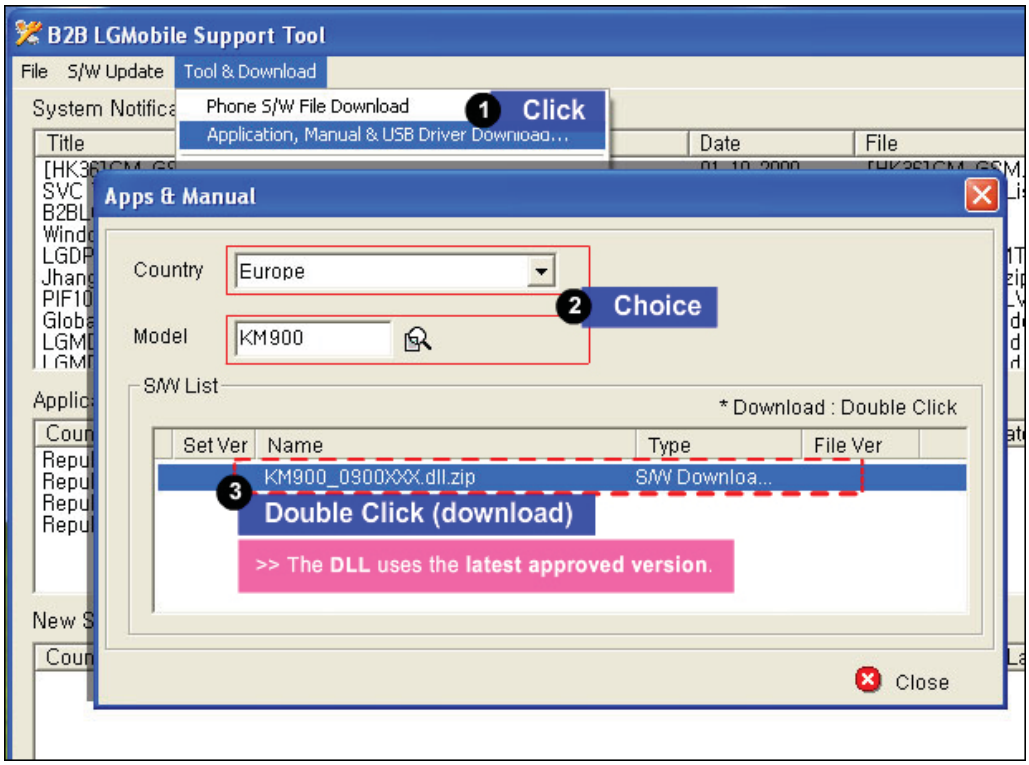

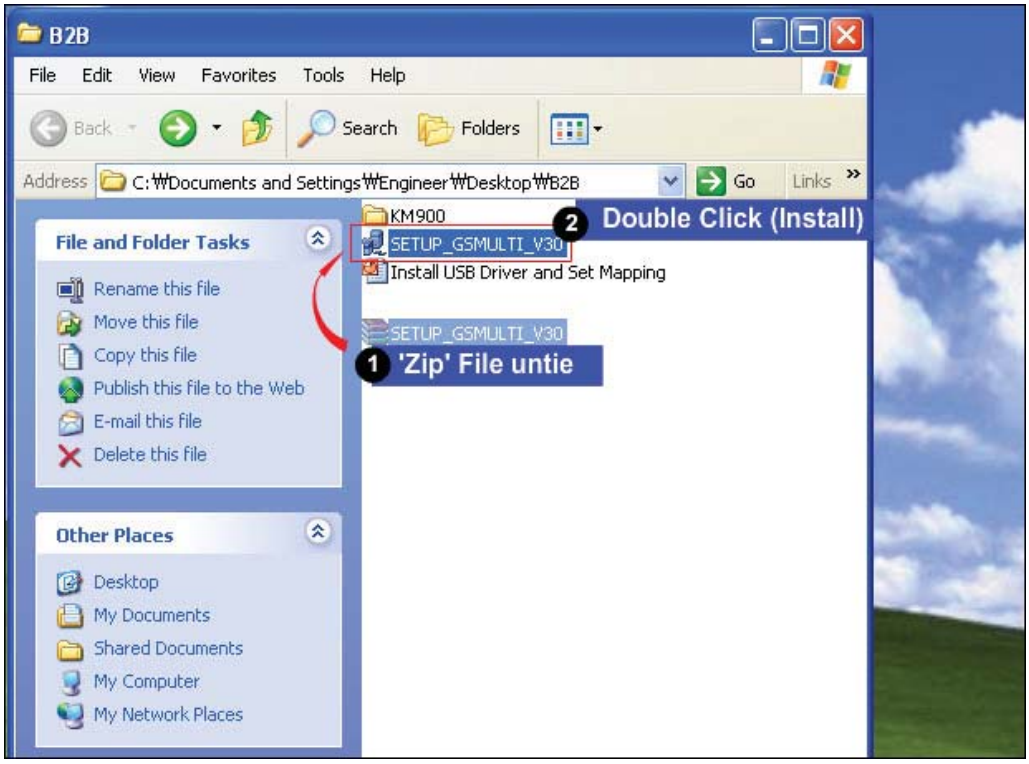

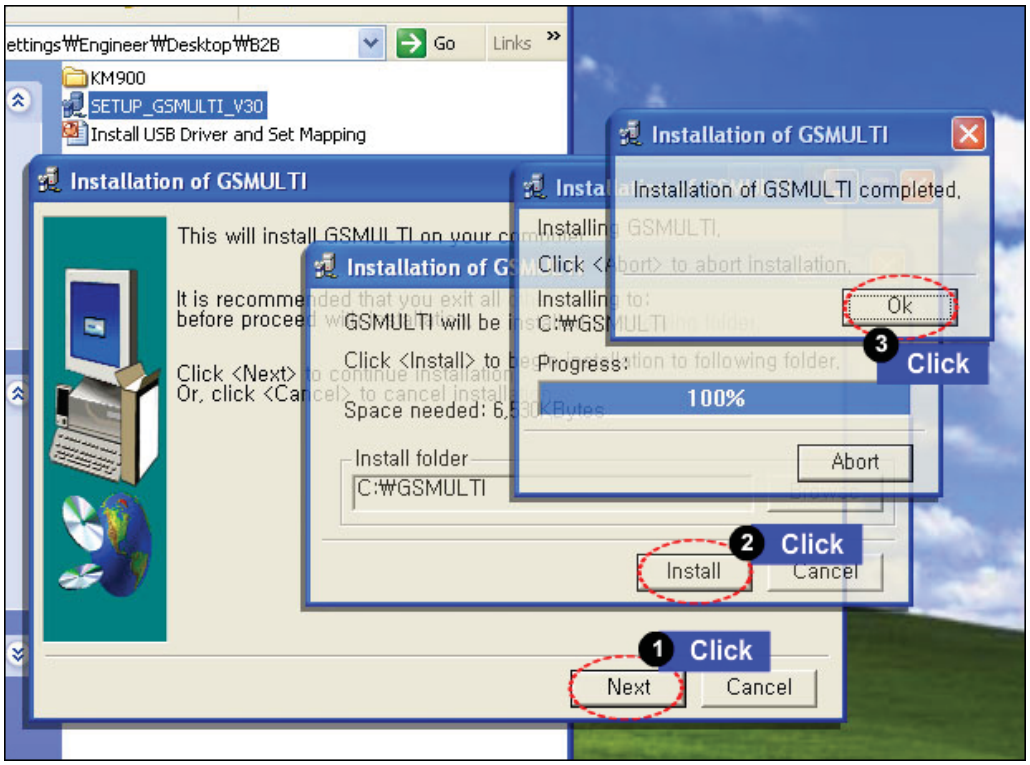

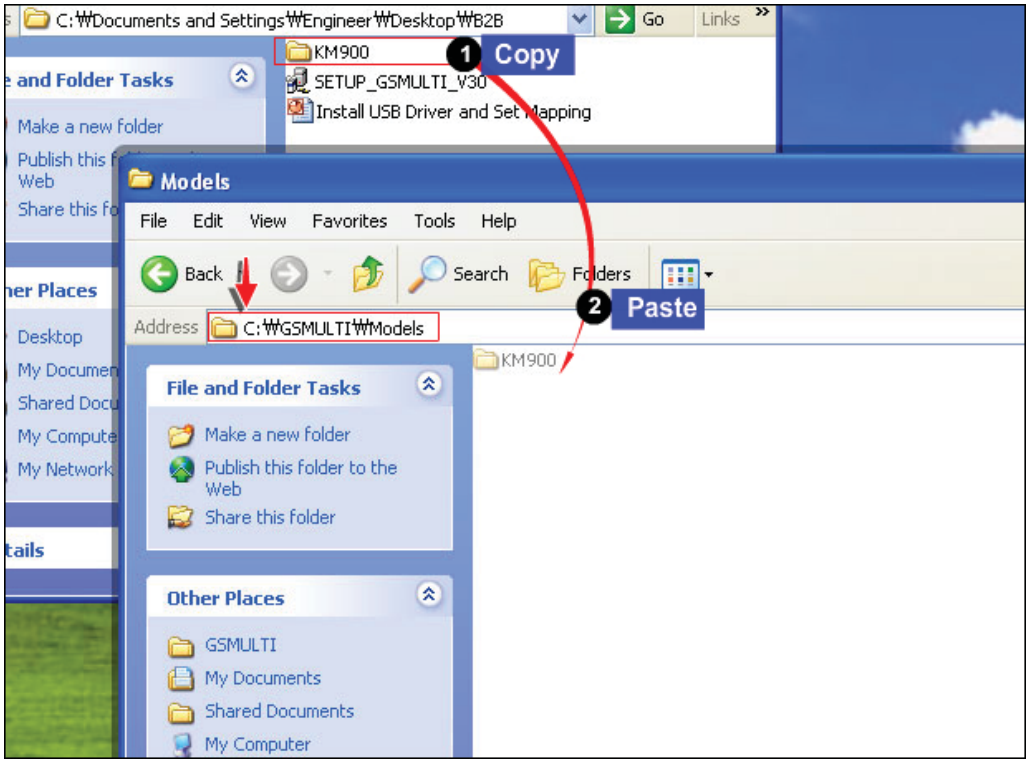

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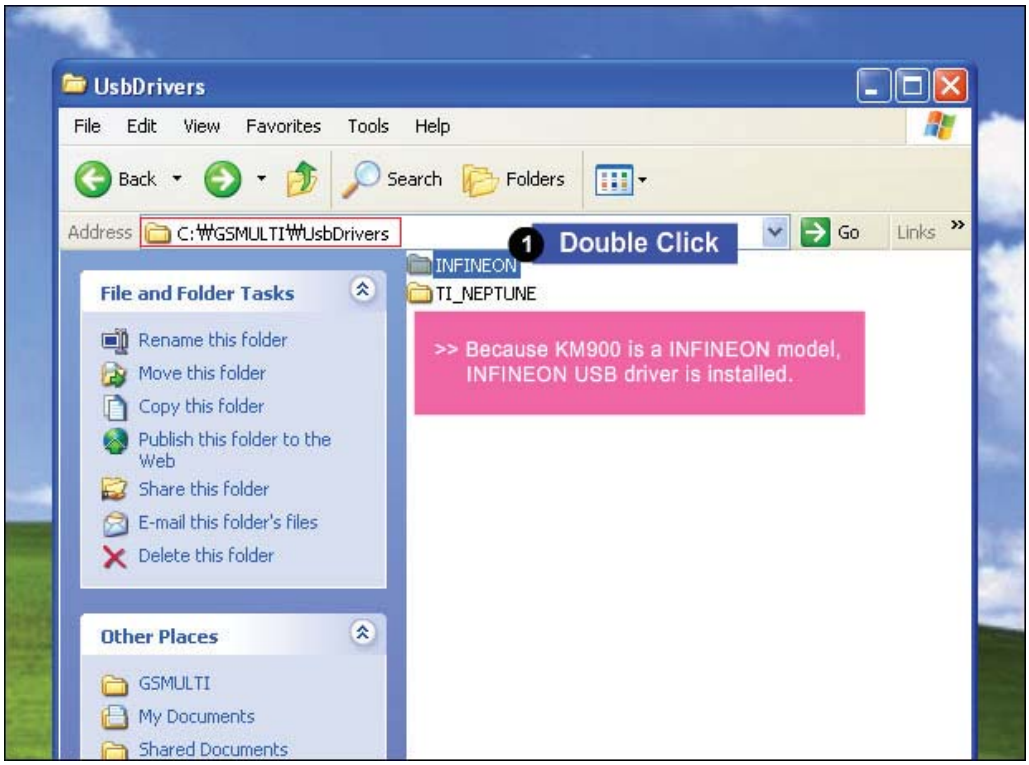

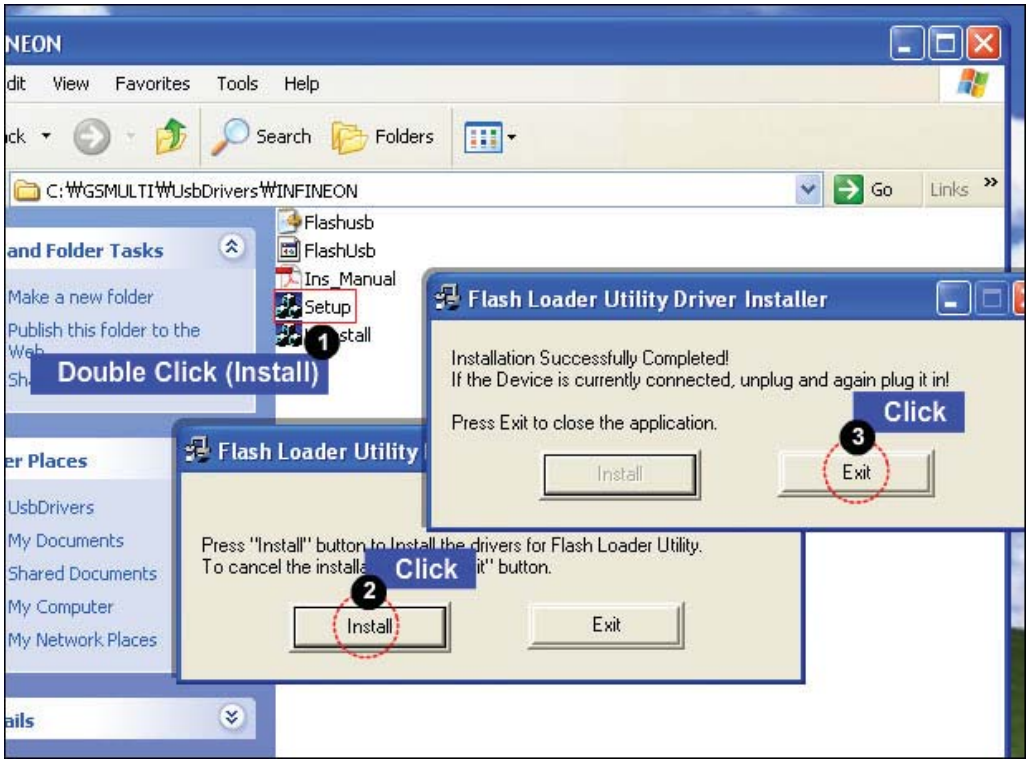

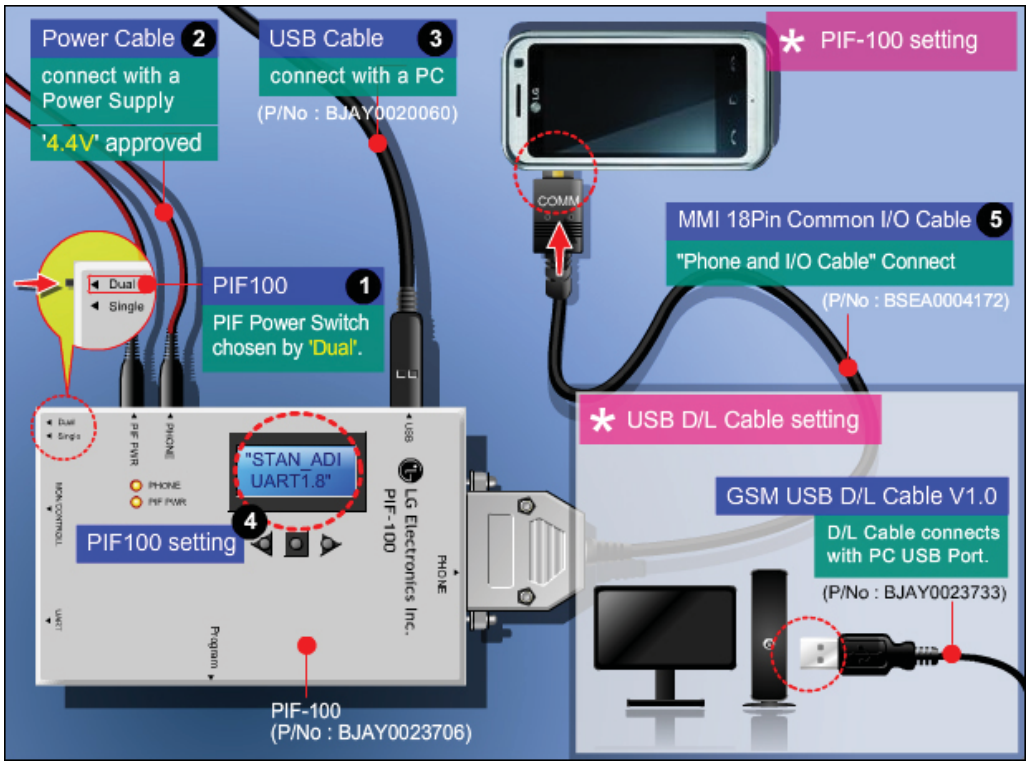

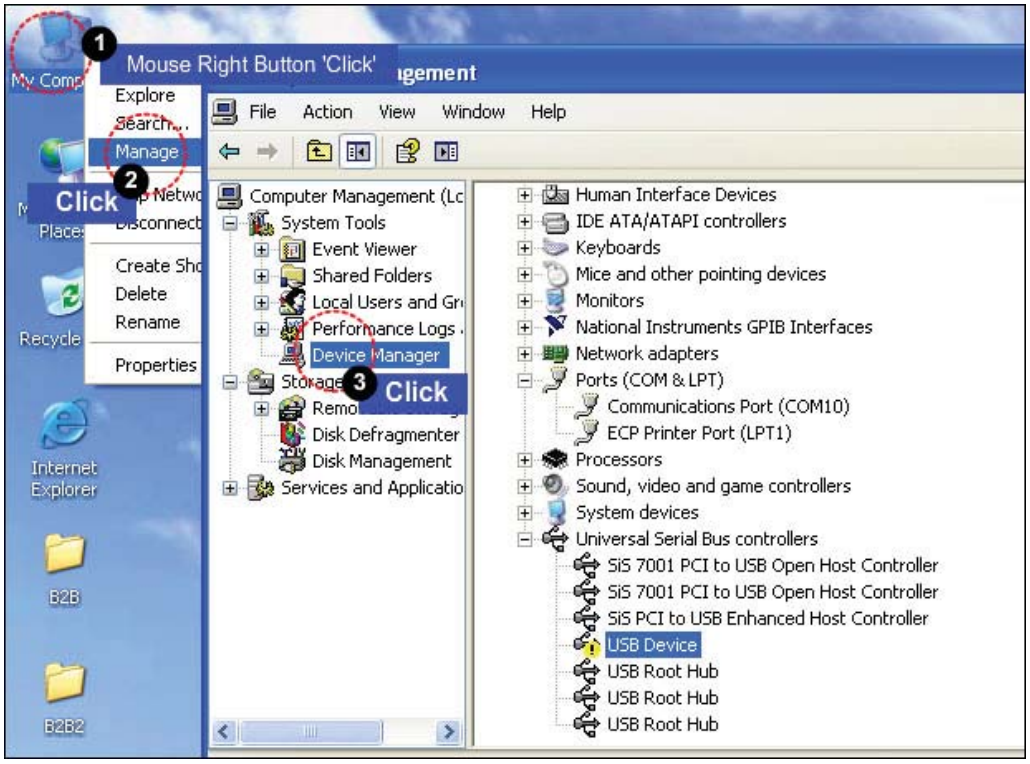

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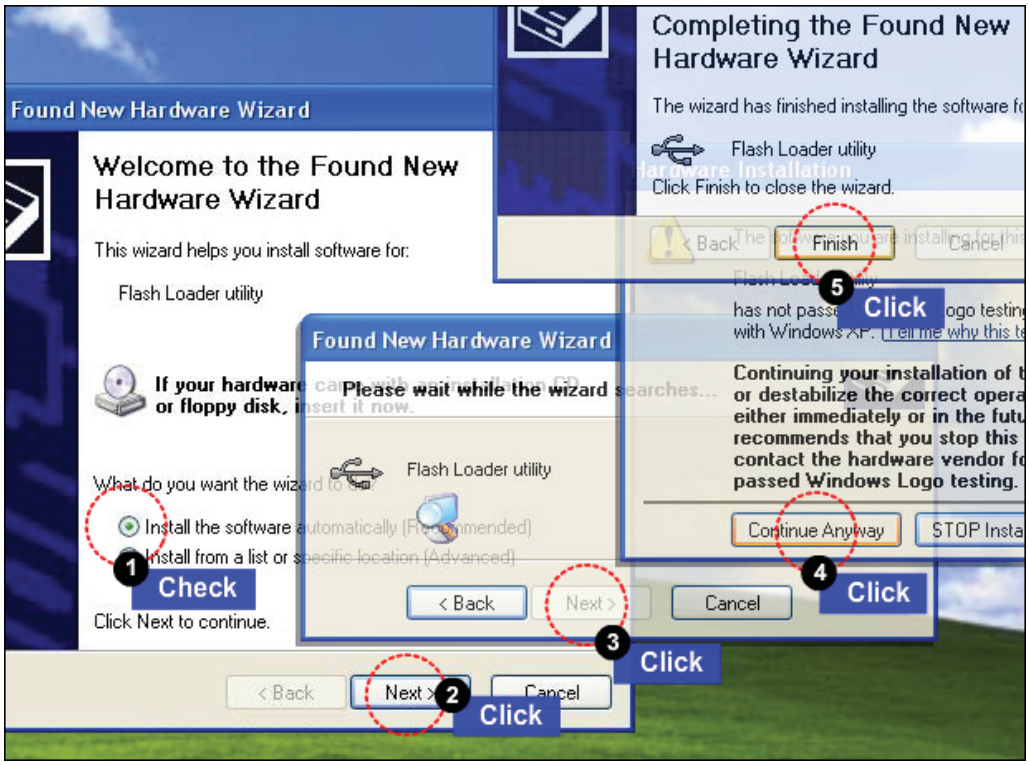

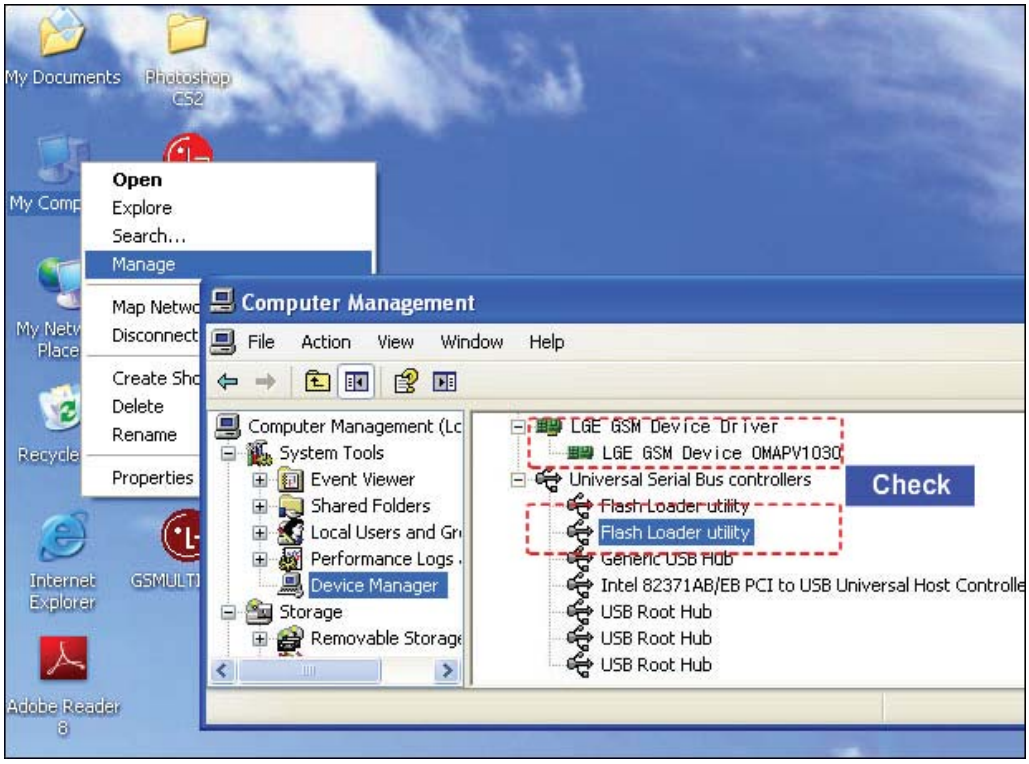

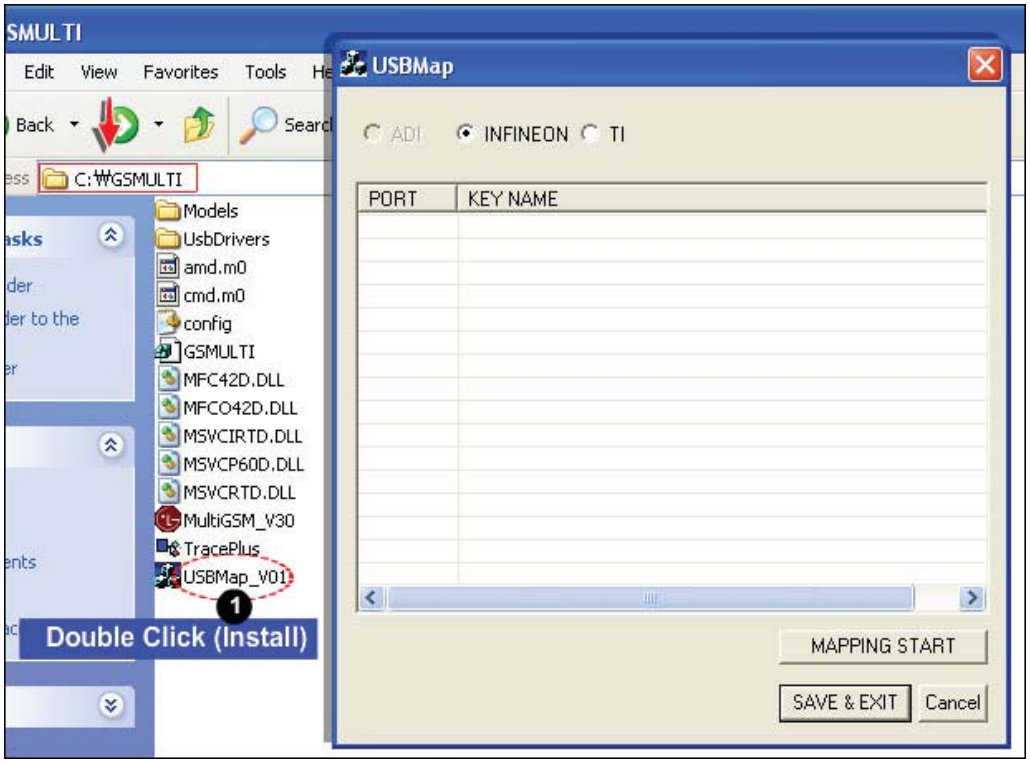

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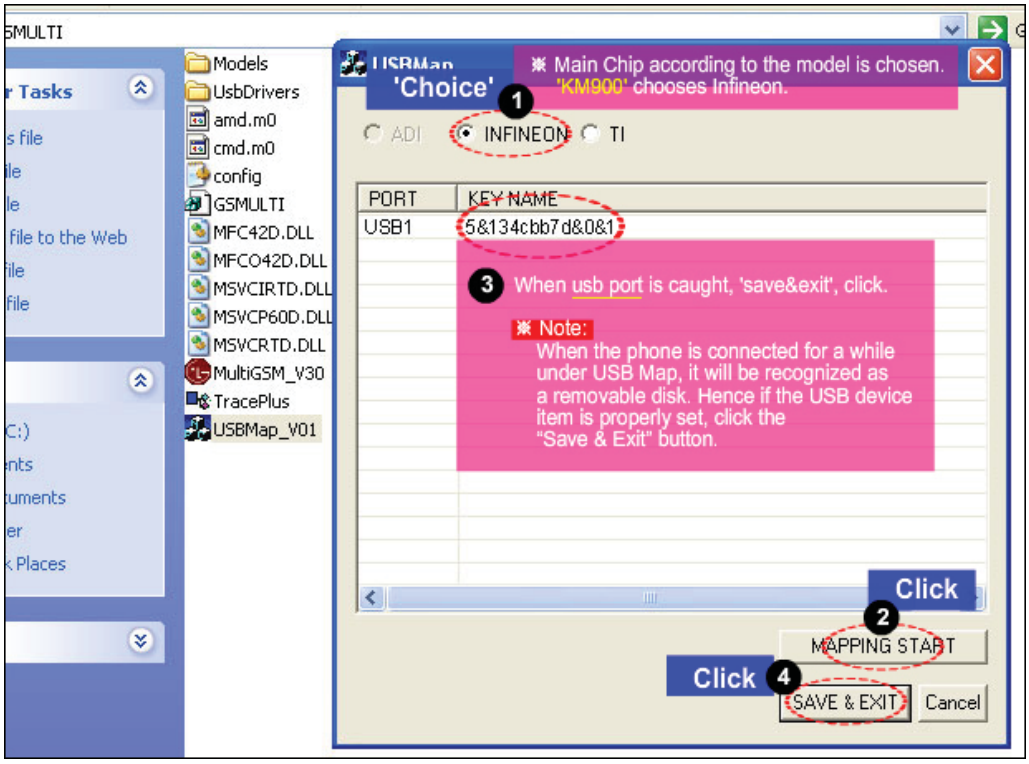

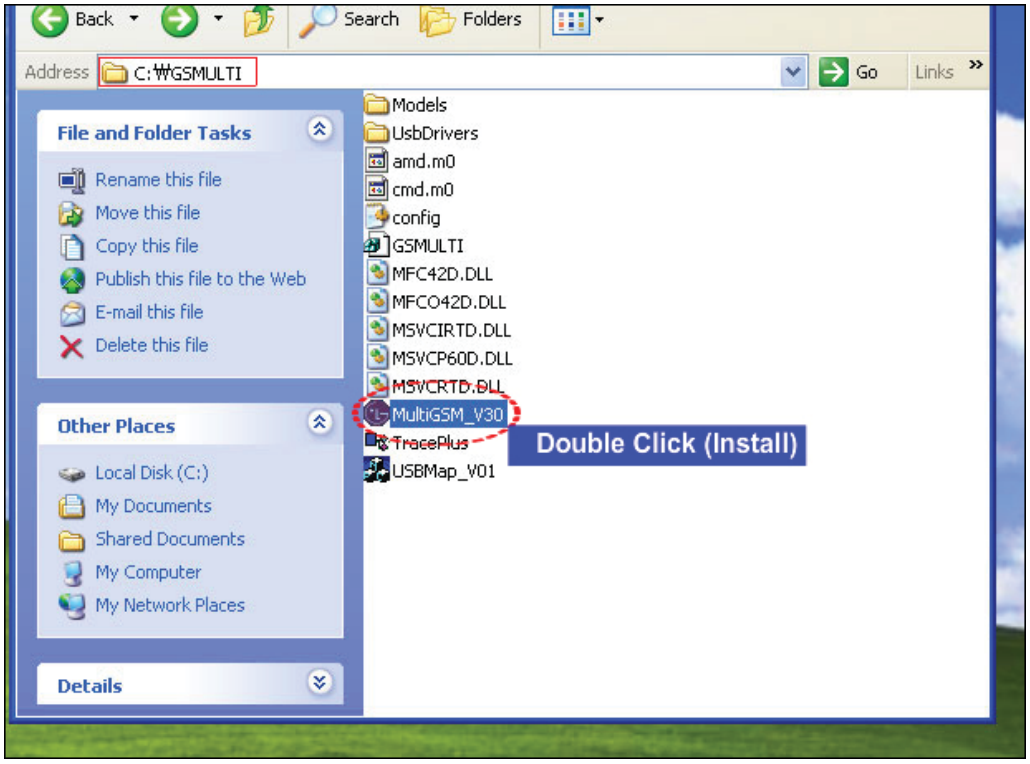

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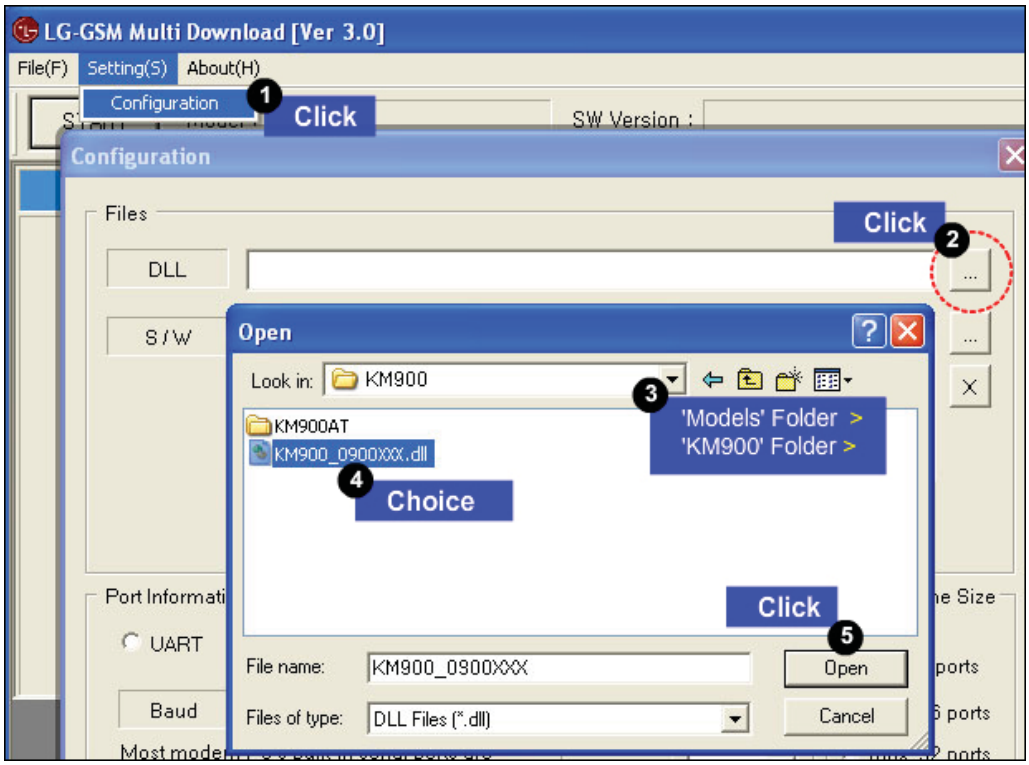
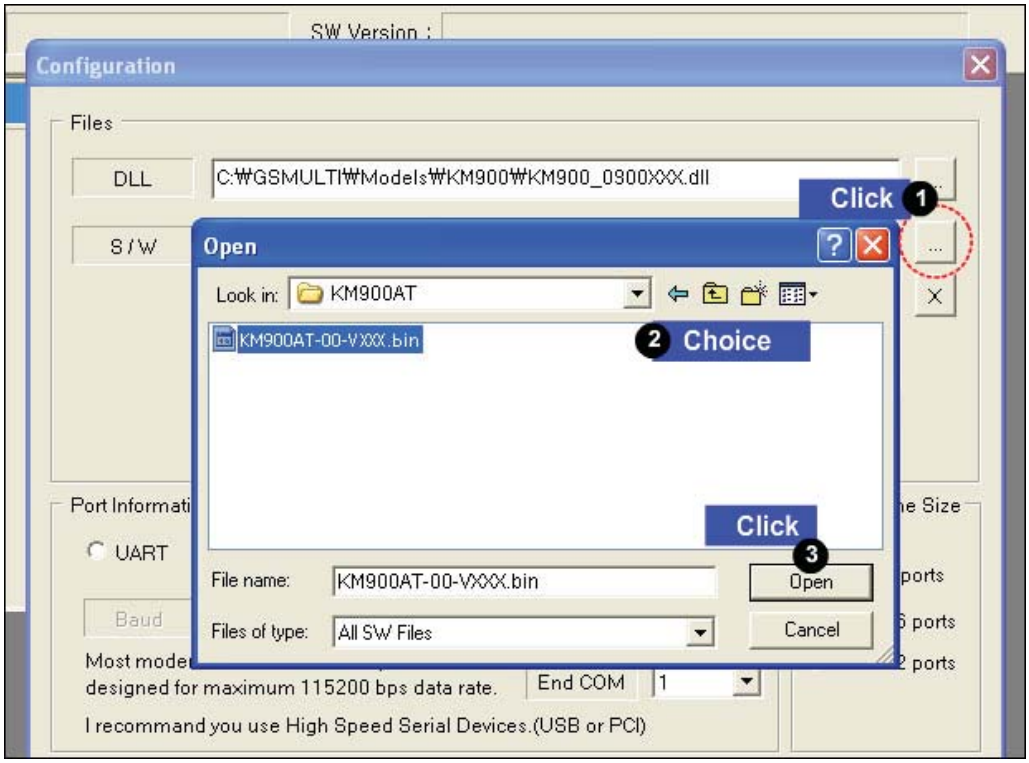
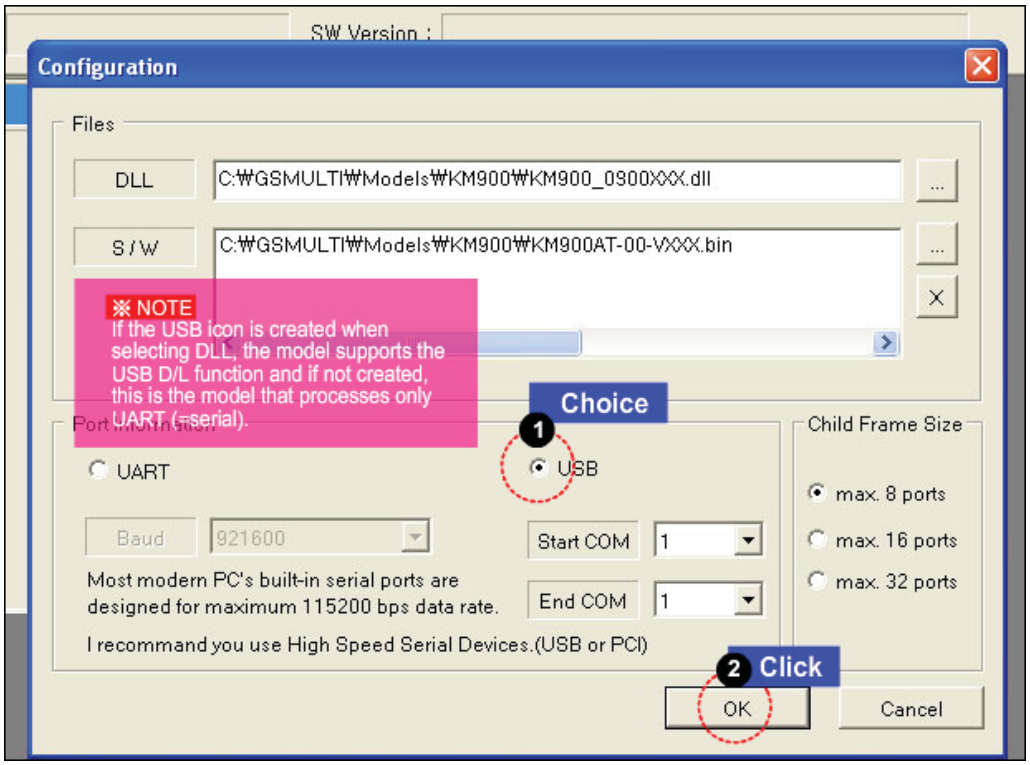
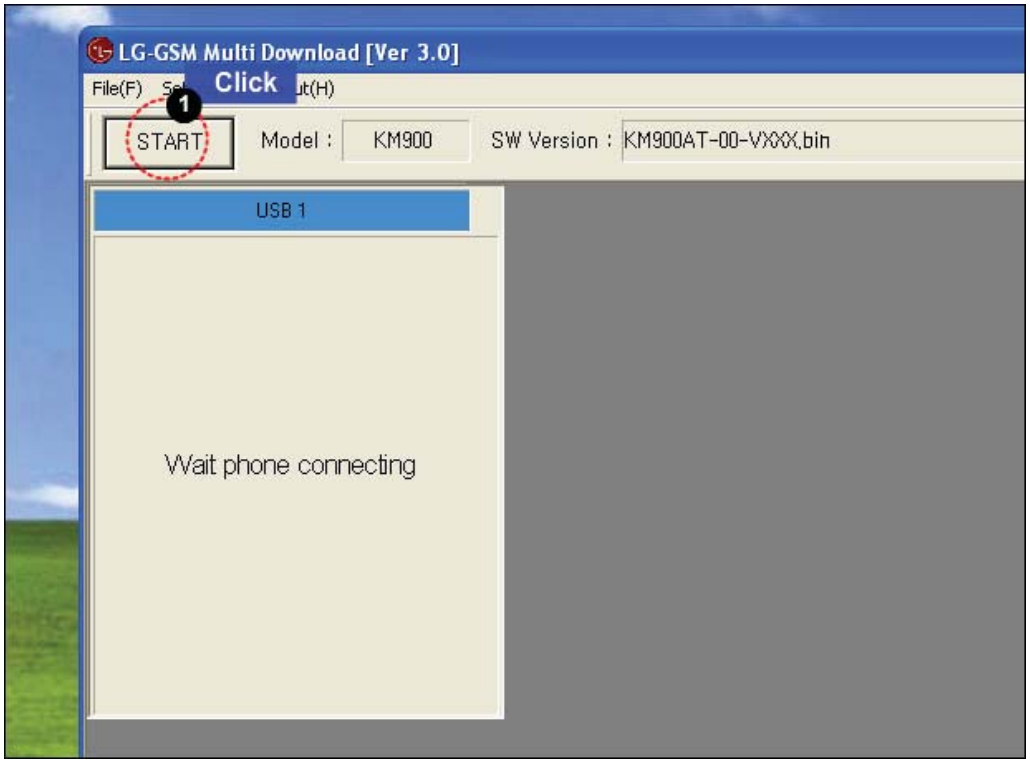
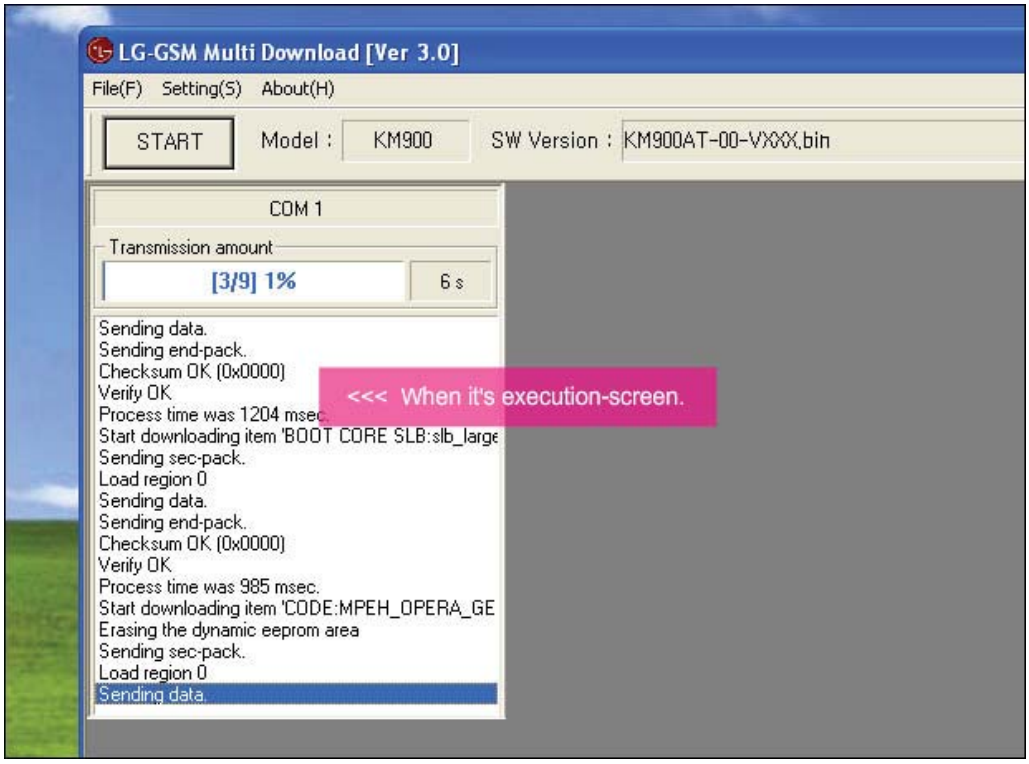
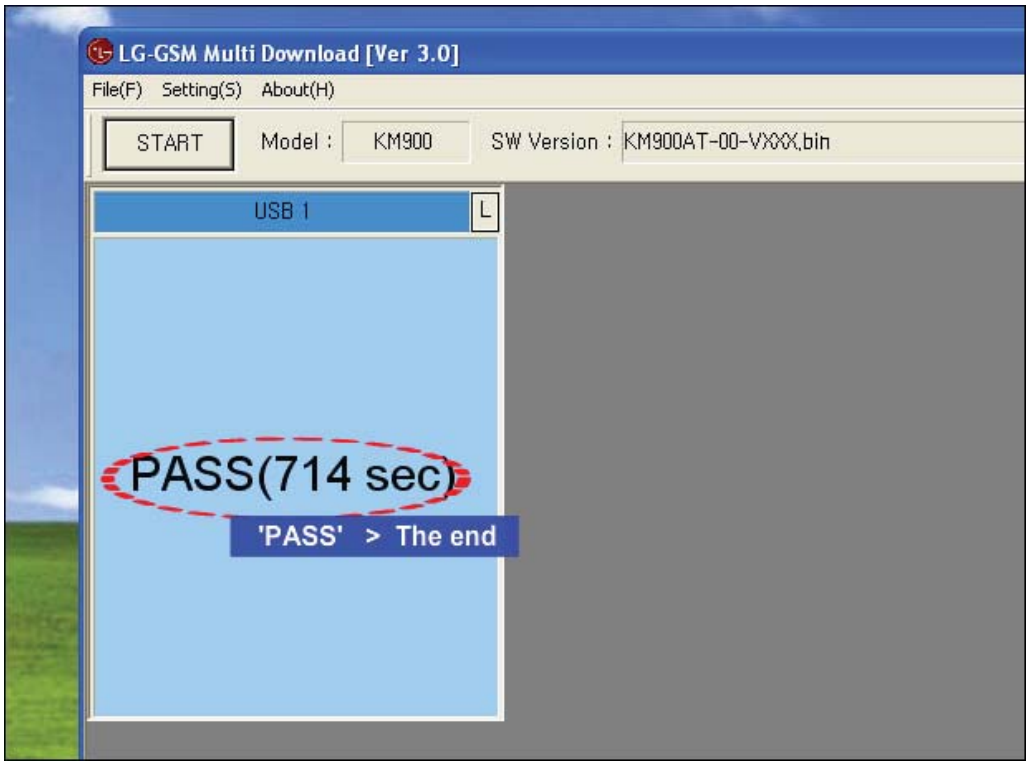




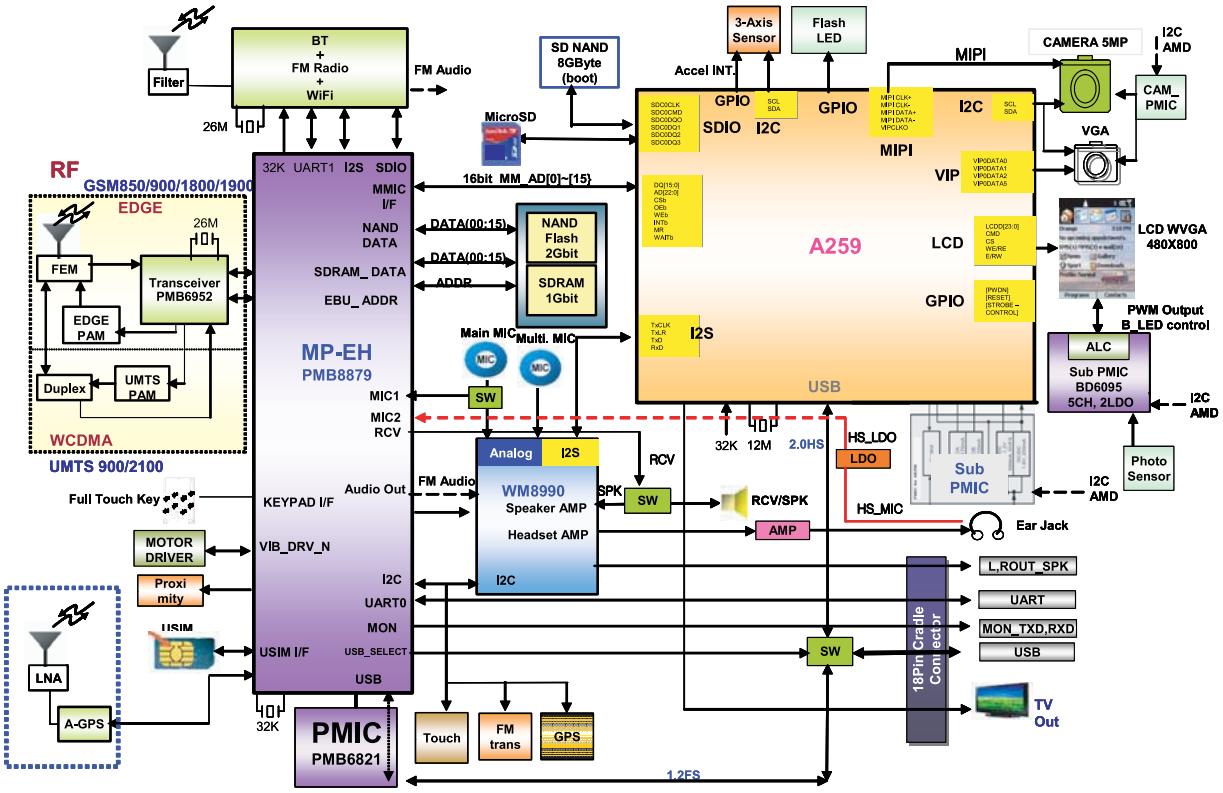




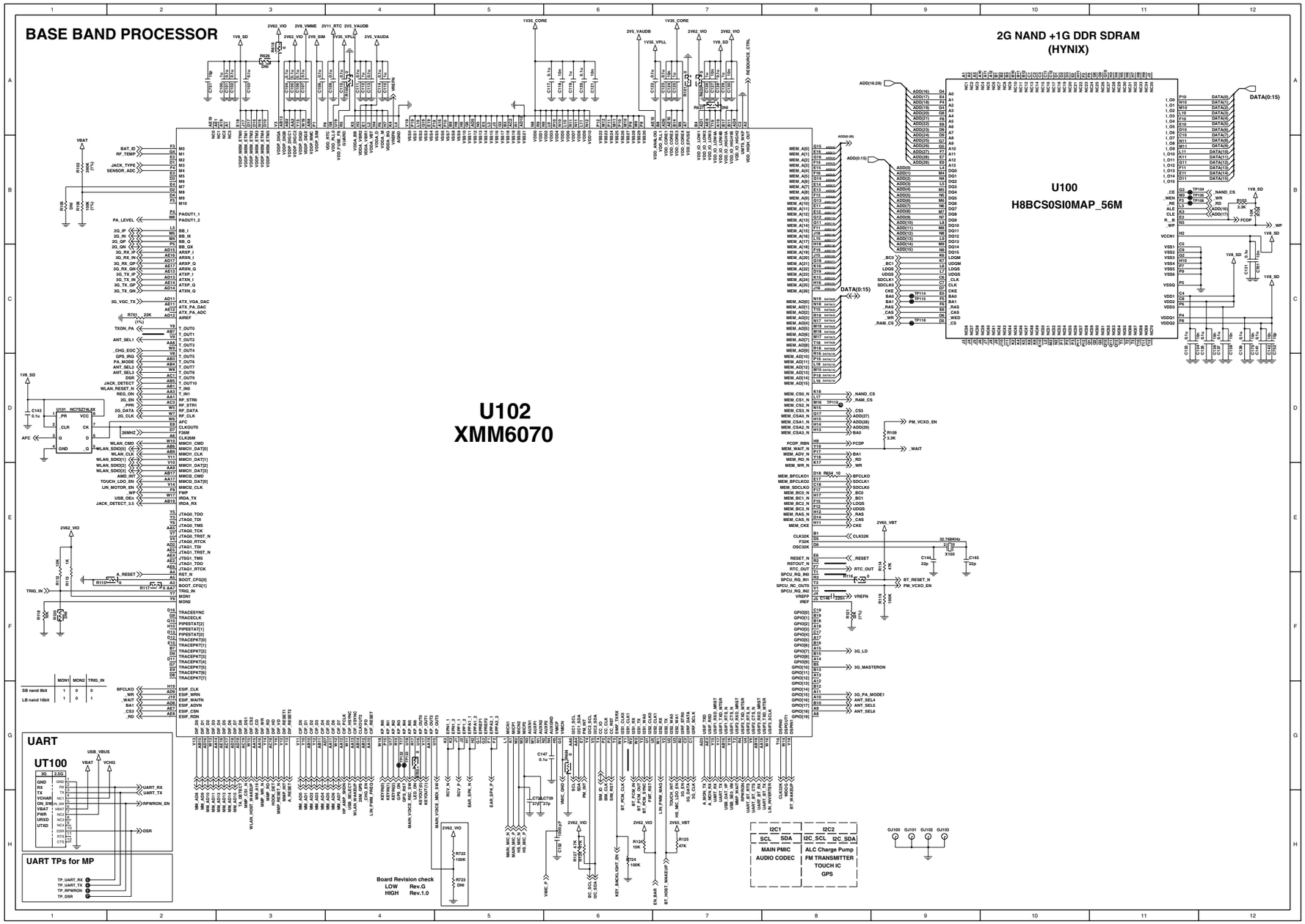




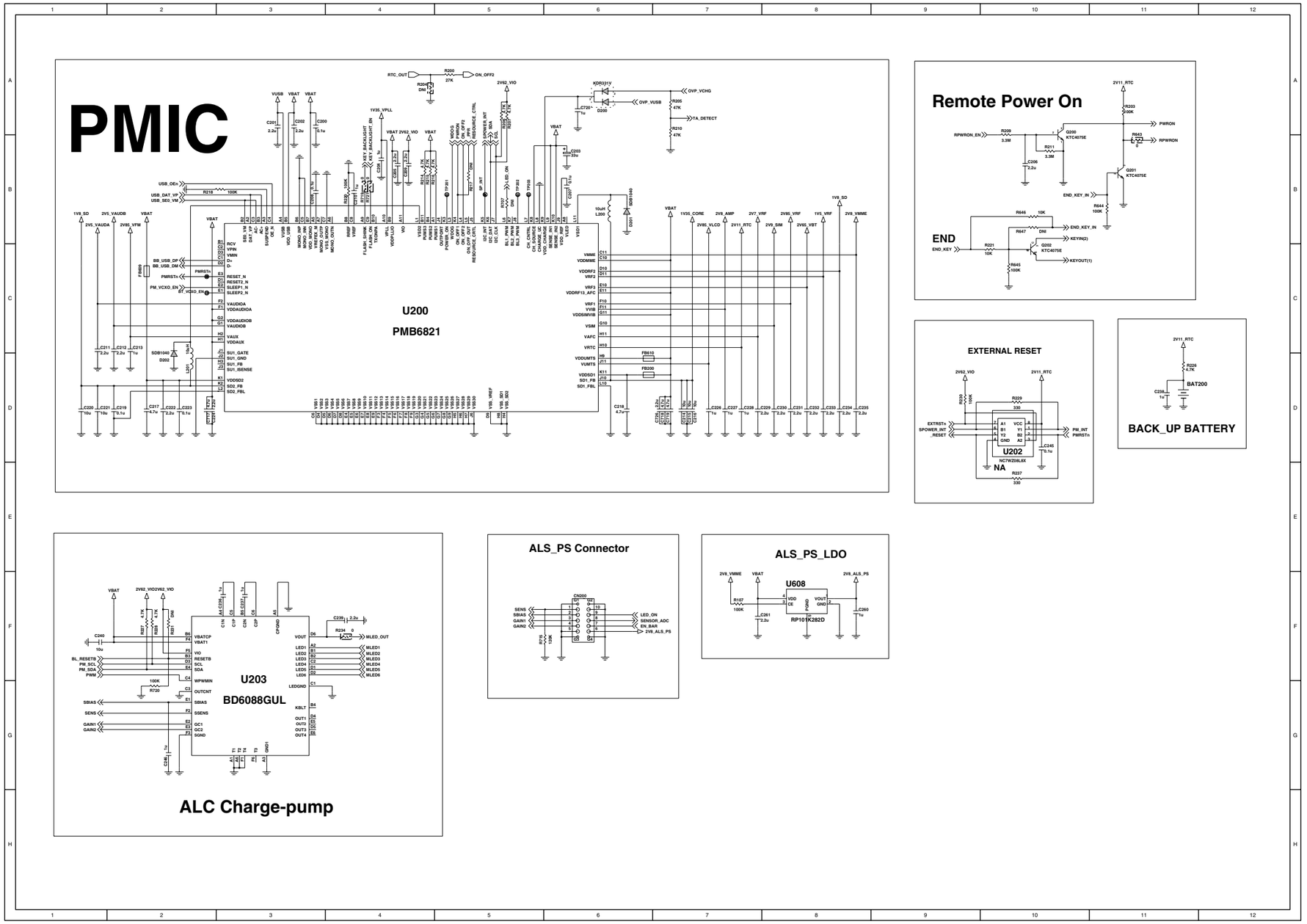
6. BLOCK DIAGRAM



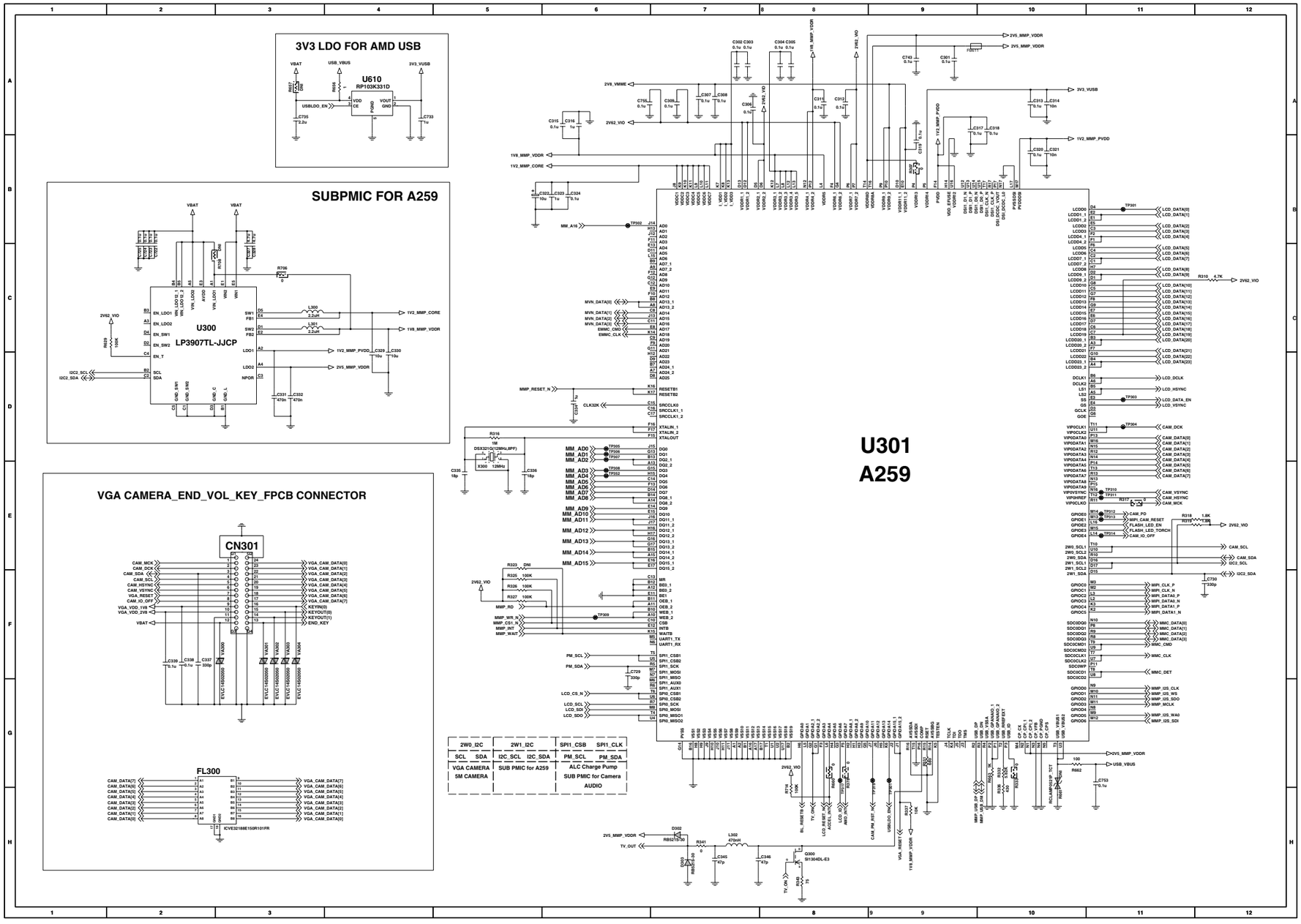
7. CIRCUIT DIAGRAM



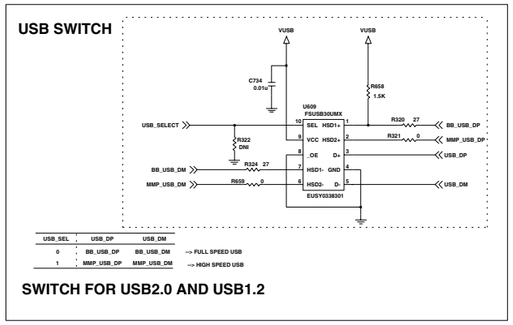
7. CIRCUIT DIAGRAM

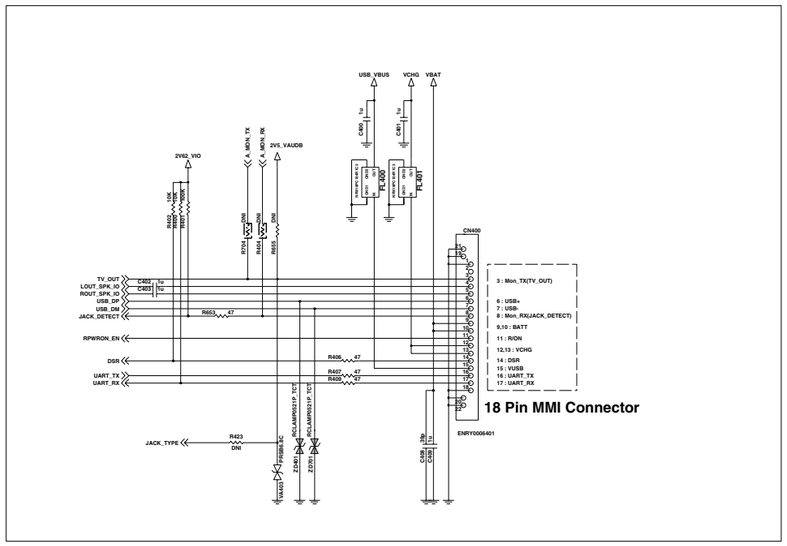


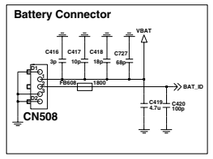
7. CIRCUIT DIAGRAM

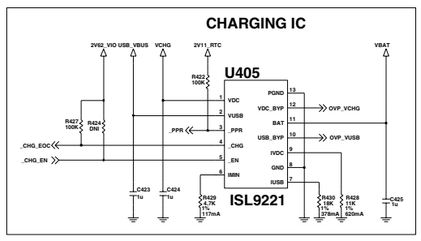


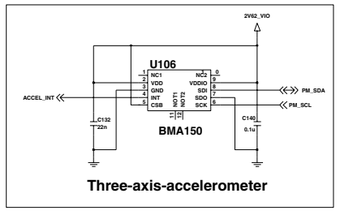
7. CIRCUIT DIAGRAM

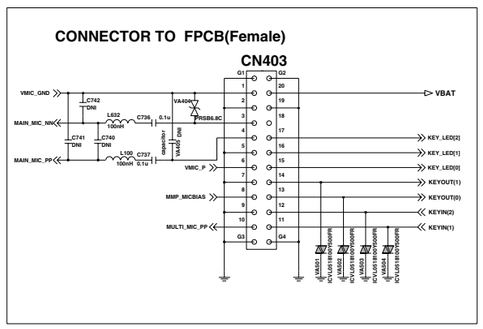


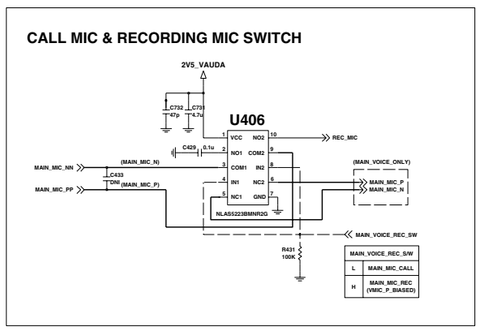


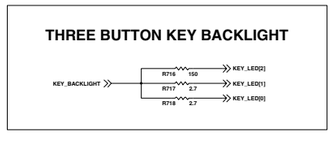




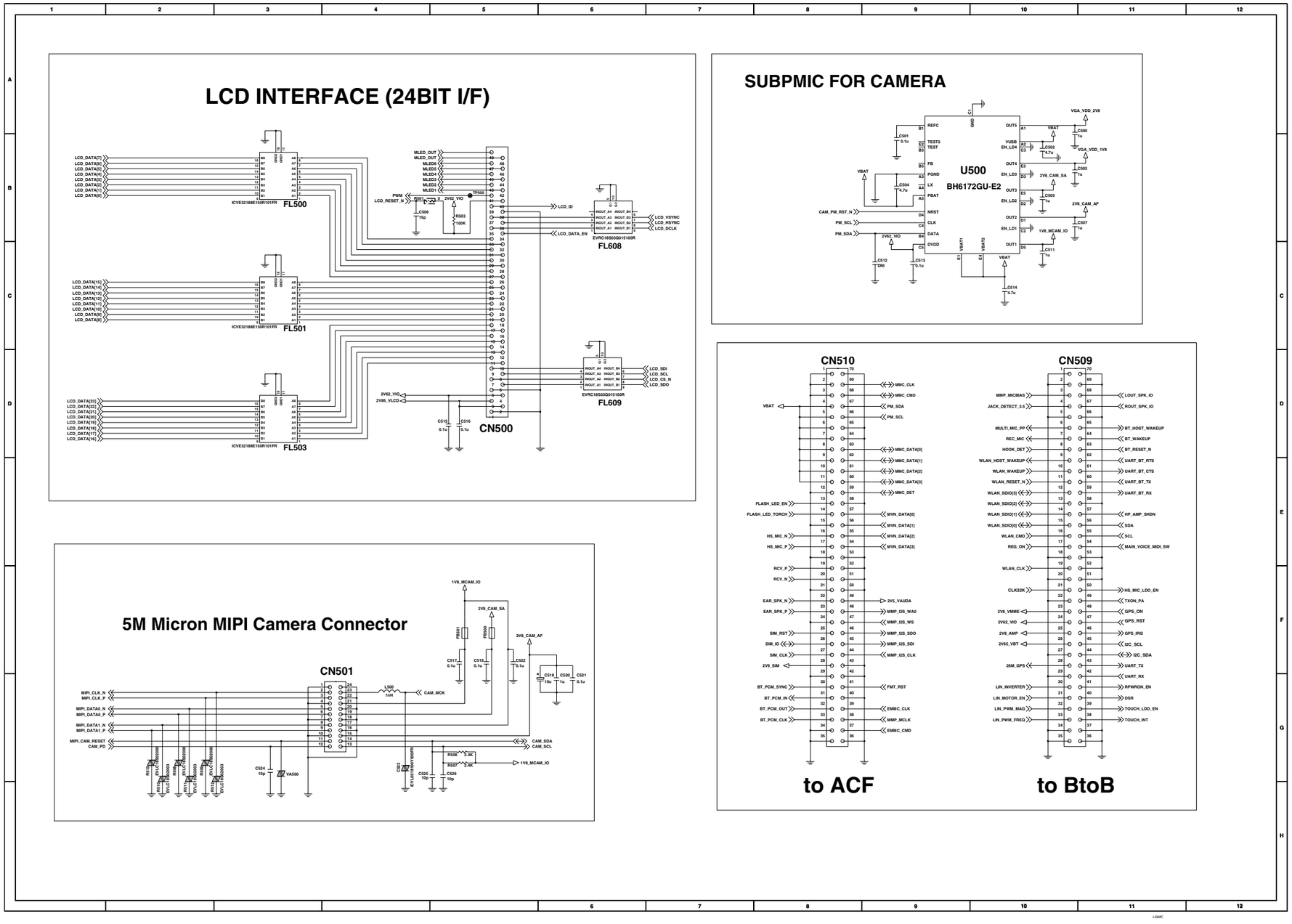




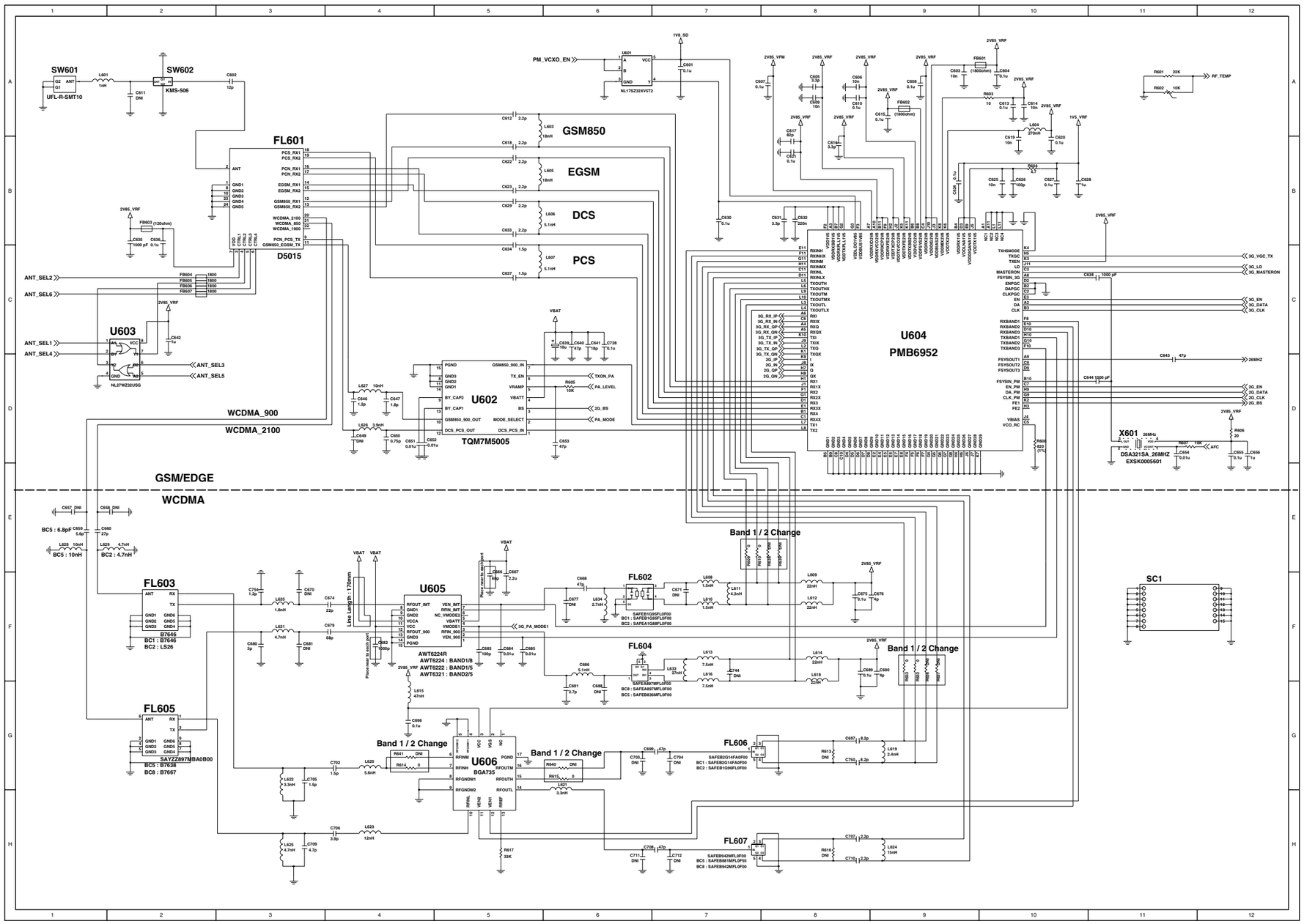




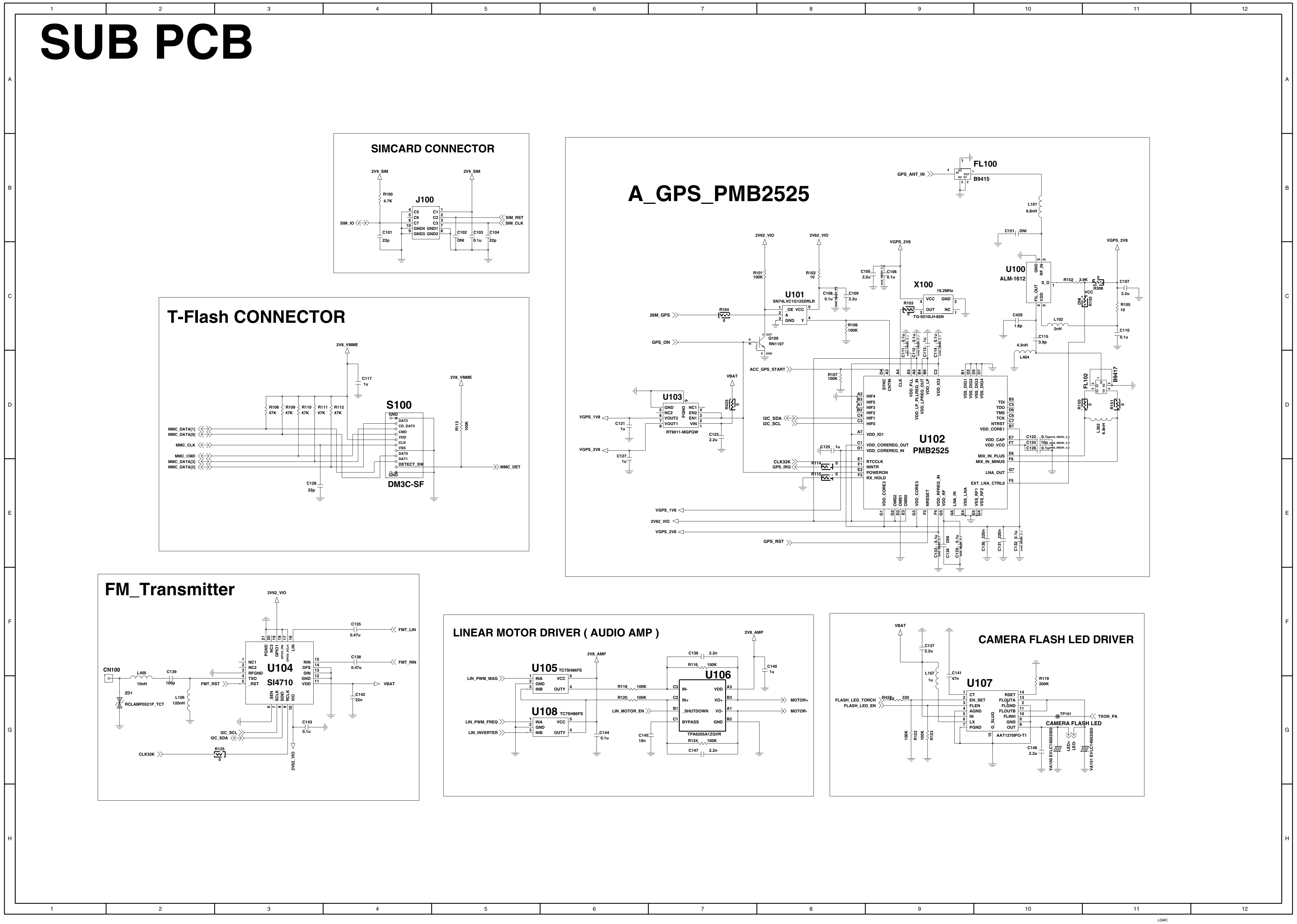
7. CIRCUIT DIAGRAM



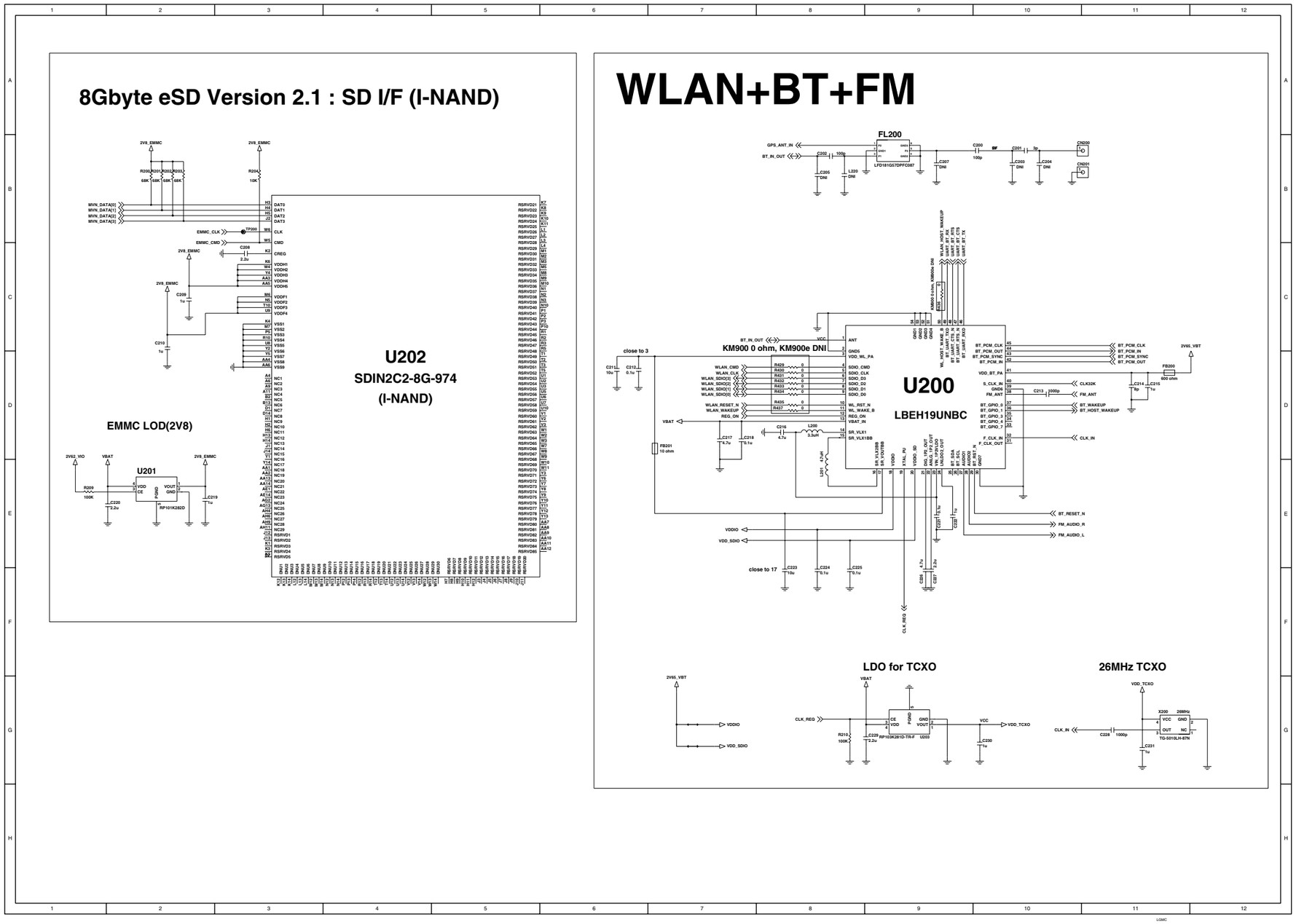
7. CIRCUIT DIAGRAM



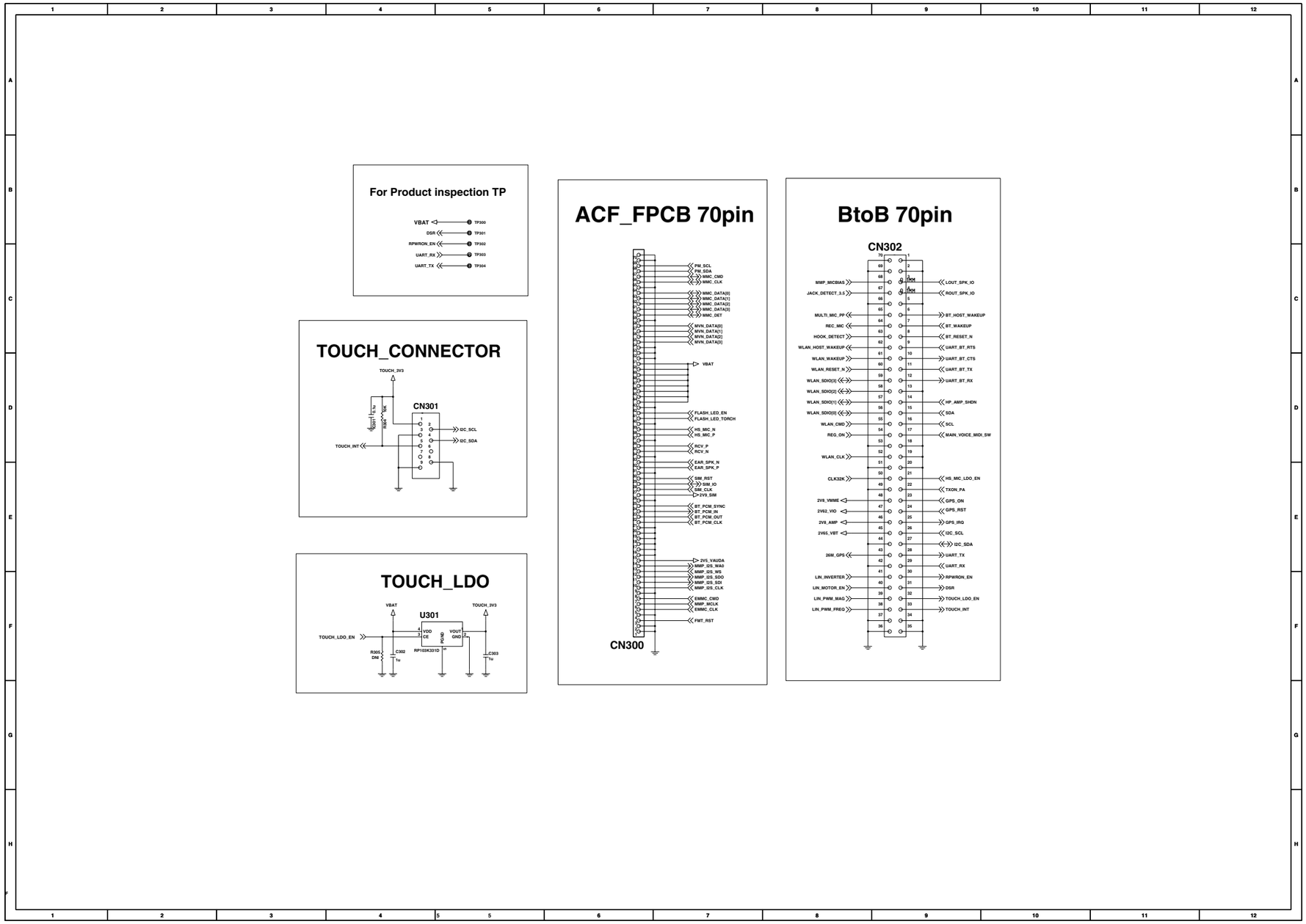
7. CIRCUIT DIAGRAM



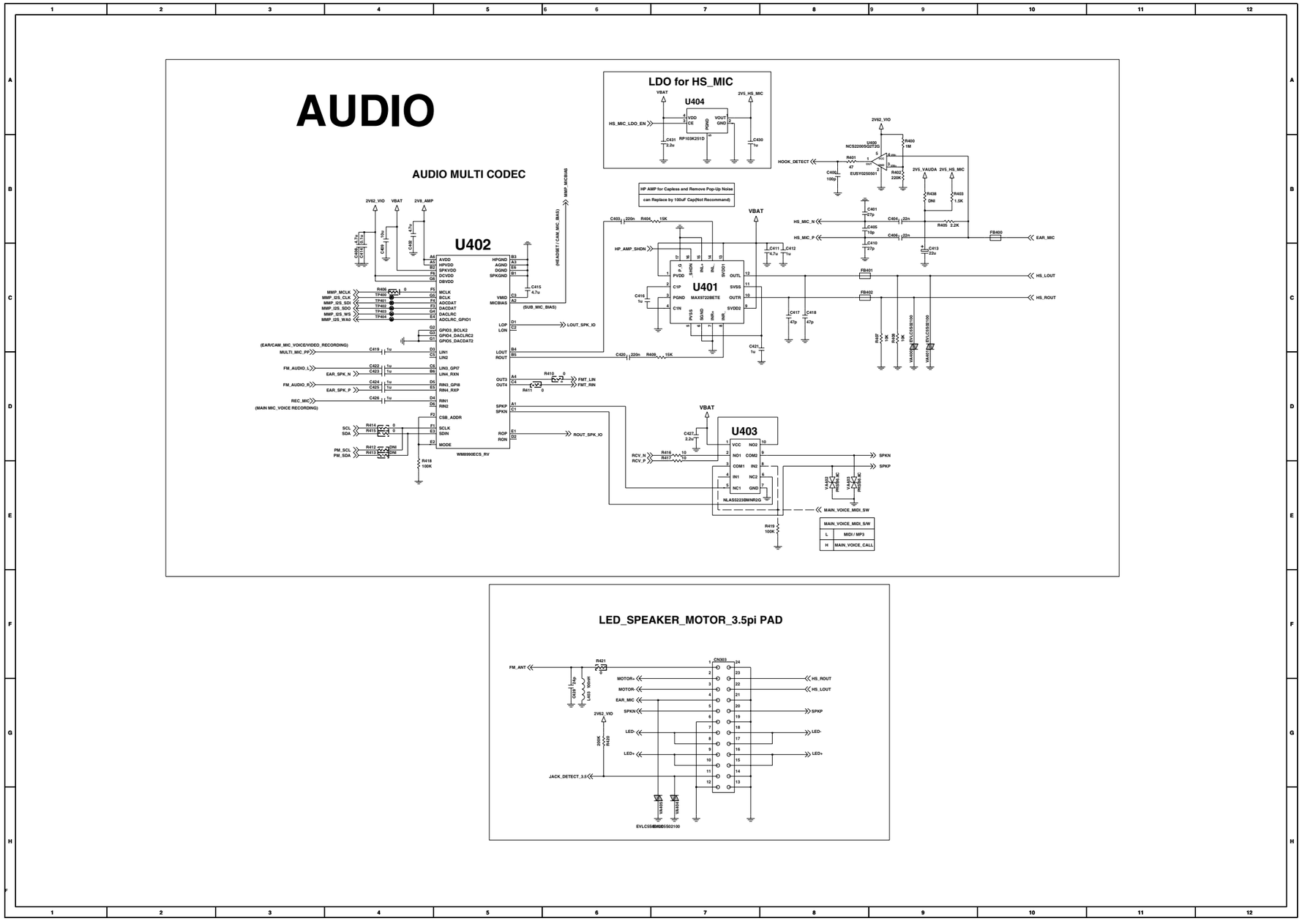
7. CIRCUIT DIAGRAM



7. CIRCUIT DIAGRAM



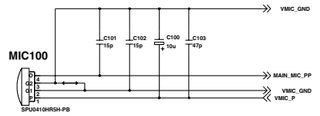
7. CIRCUIT DIAGRAM



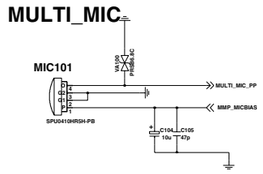
7. CIRCUIT DIAGRAM

FPCB_MIC_LED_TOUCH

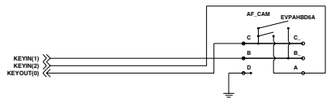
MAIN_MIC



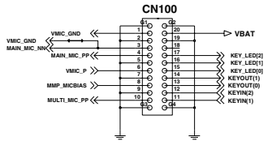
MULTI_MIC



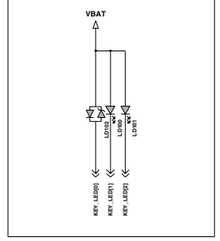
KEY



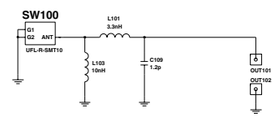
CONNECTOR TO FPCB (Male)



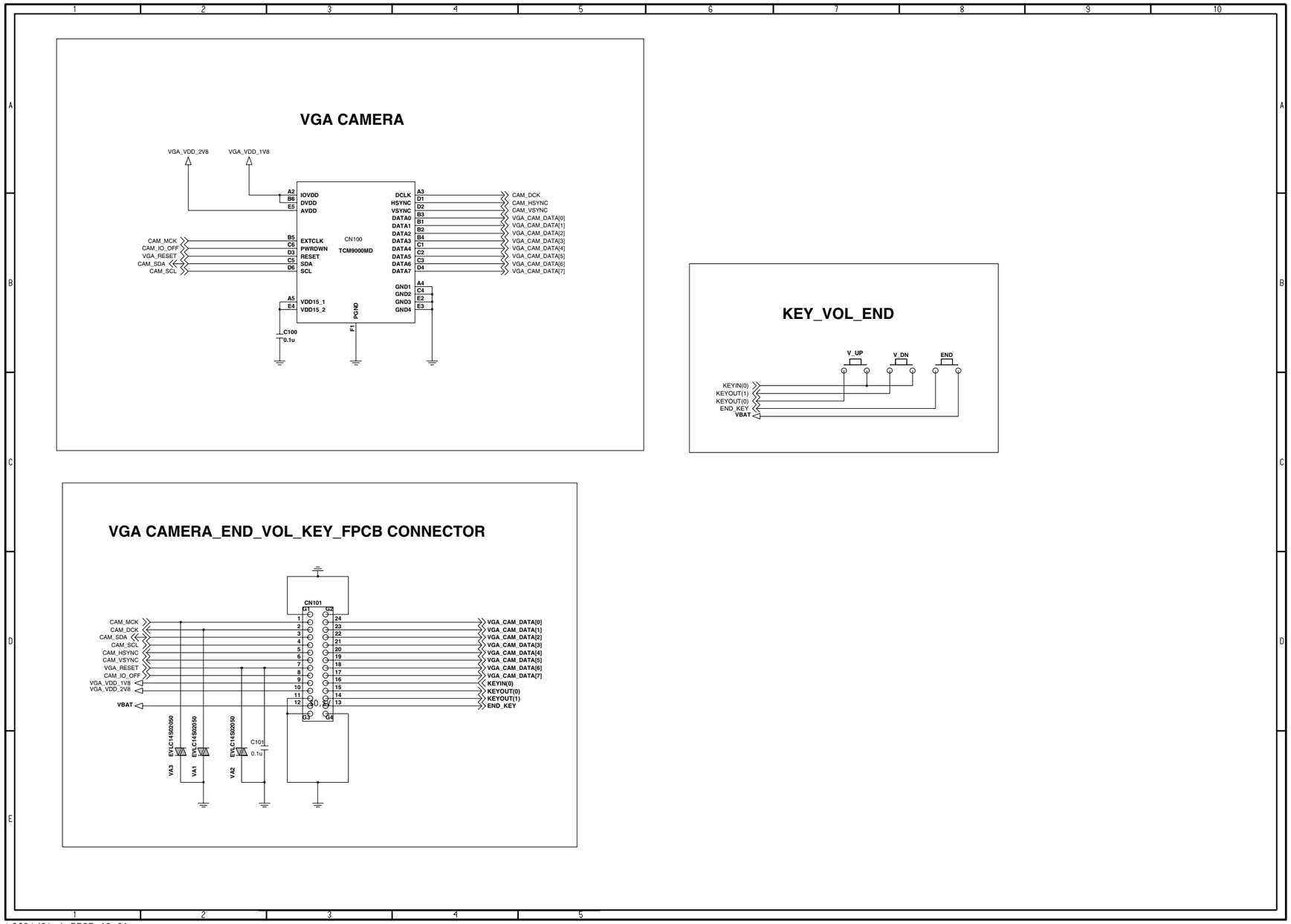
KEY_LED



ANT BOARD

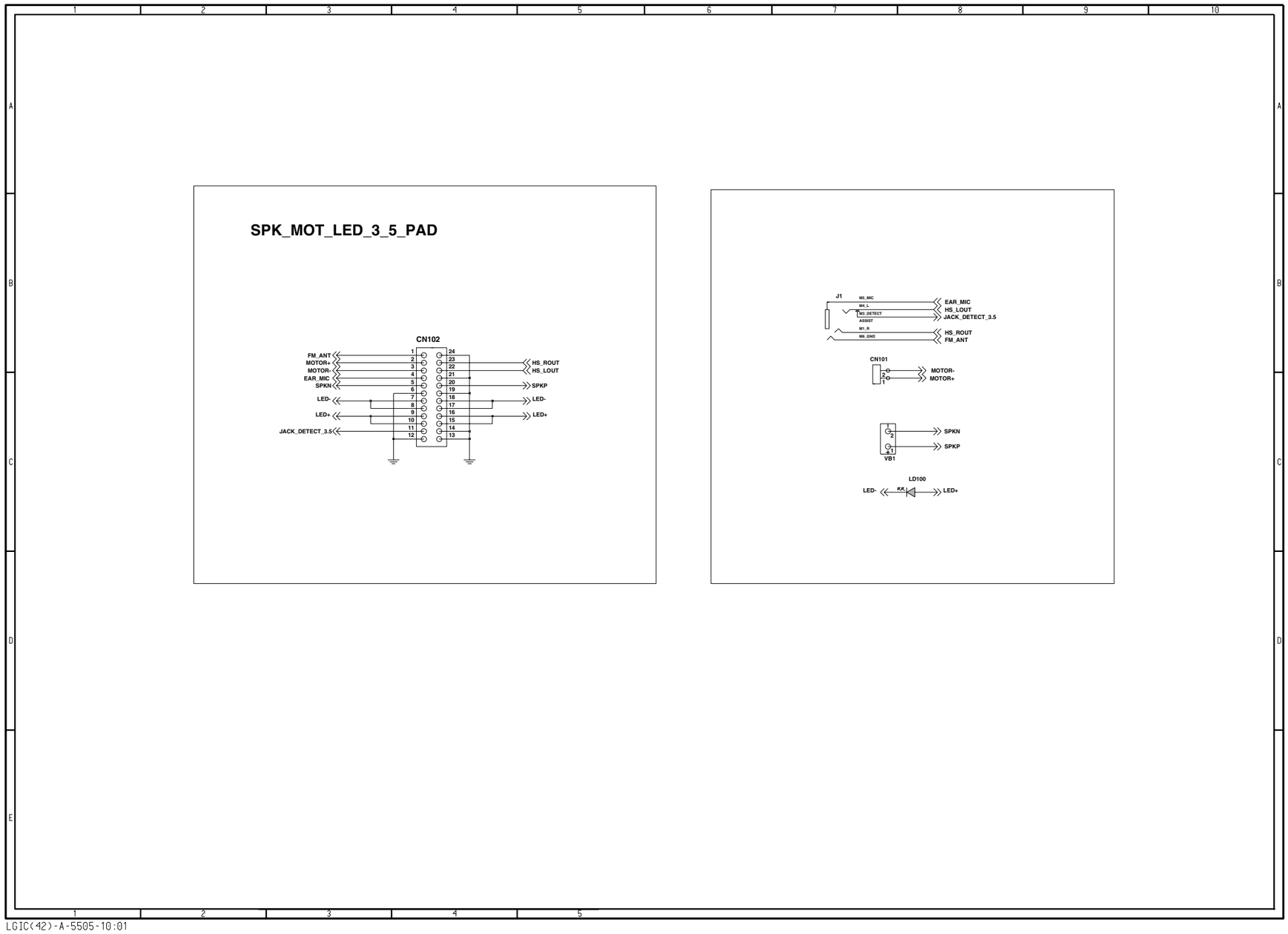


7. CIRCUIT DIAGRAM

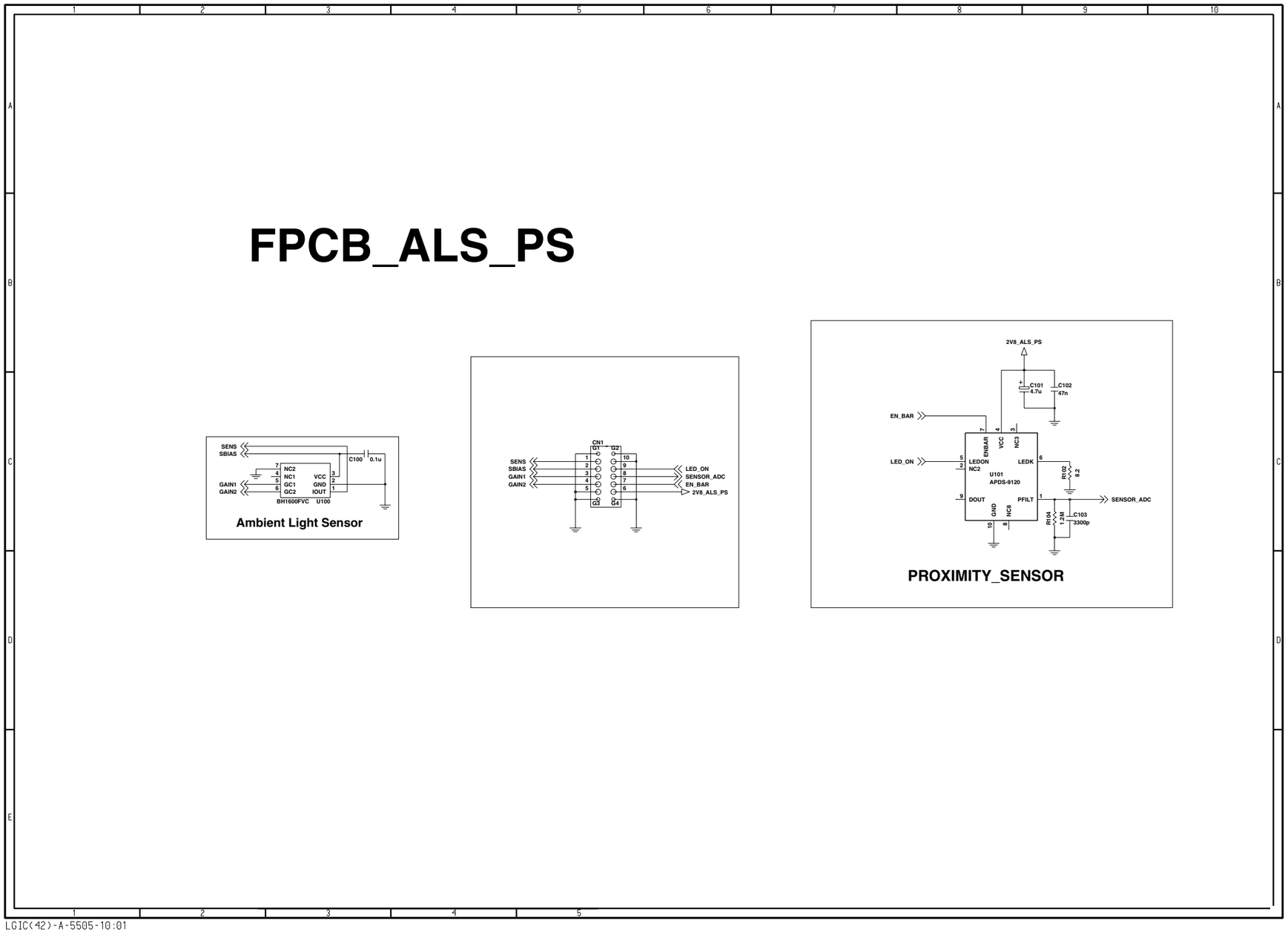


LGIC(42)-A-5505-10:01

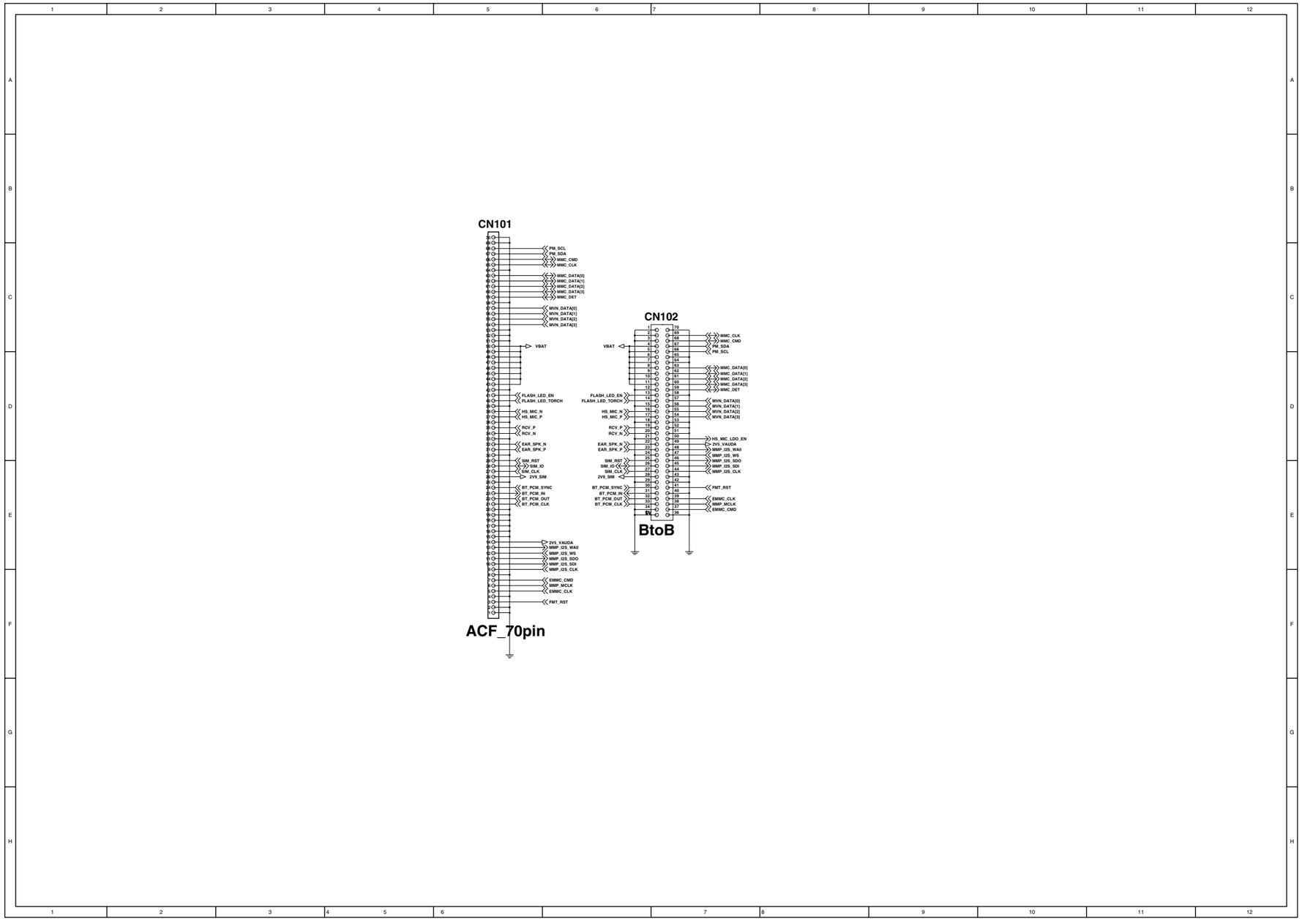
7. CIRCUIT DIAGRAM



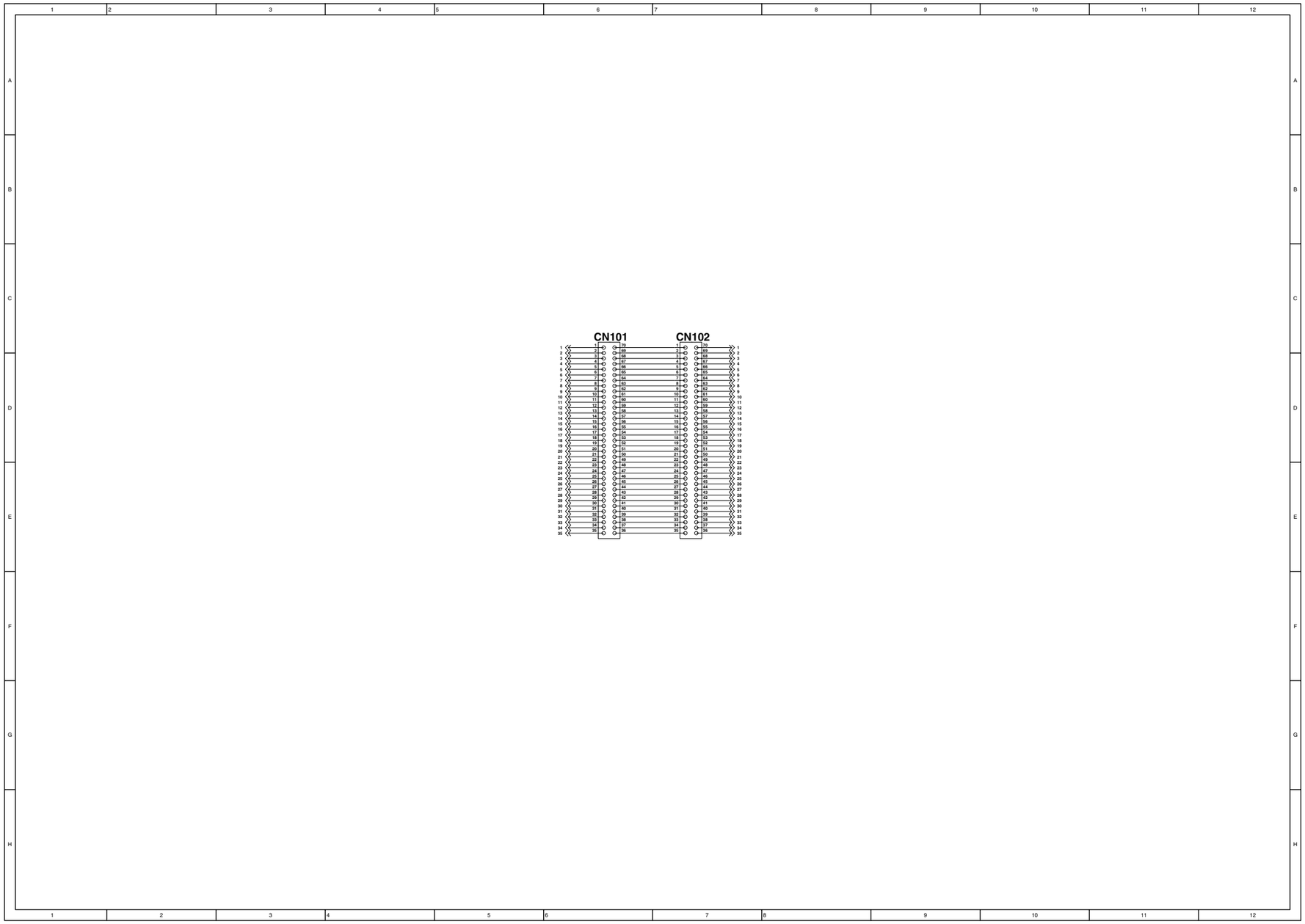
7. CIRCUIT DIAGRAM



7. CIRCUIT DIAGRAM



7. CIRCUIT DIAGRAM



8. BGA Pin Map

PMB 8878(S-GOLD3H)

The Ballout topview for the S-GOLD®3H is shown in Figure 6.

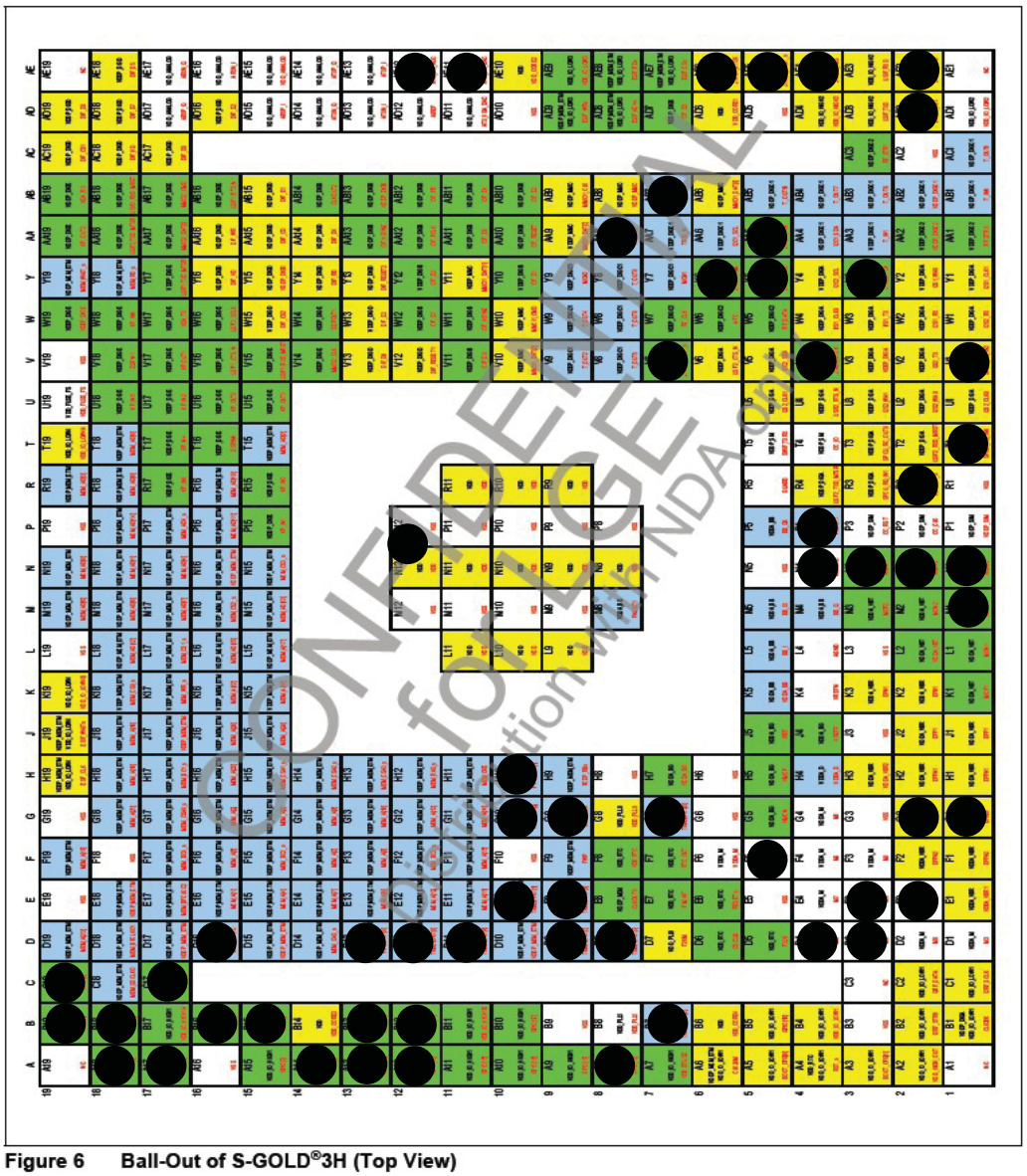
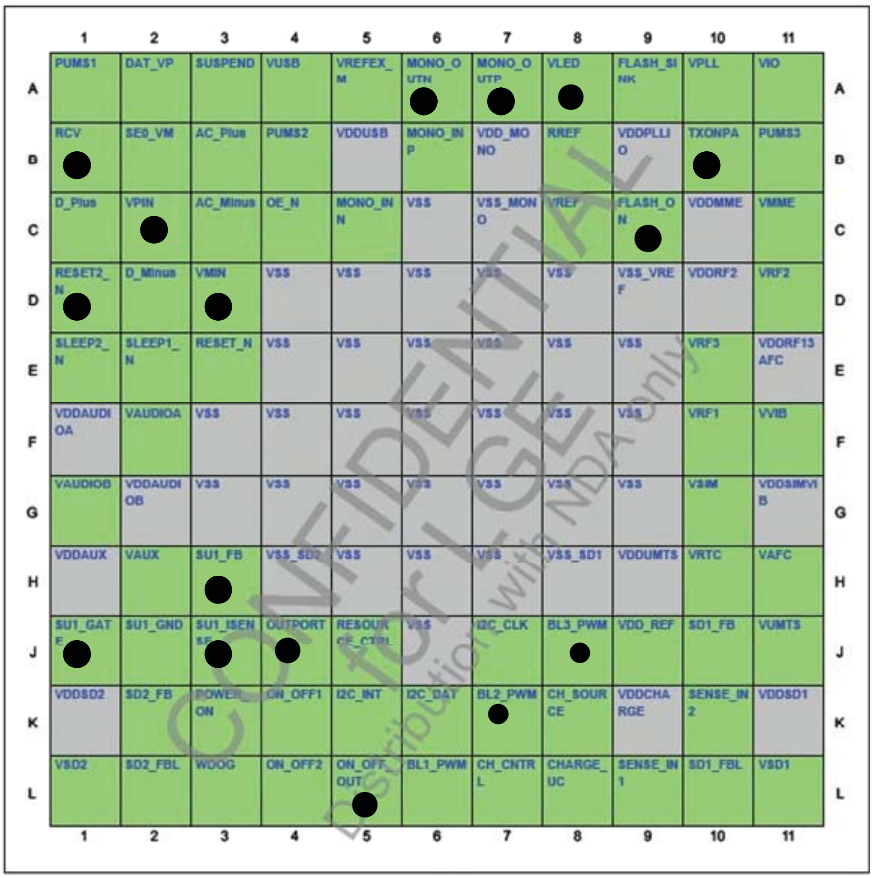


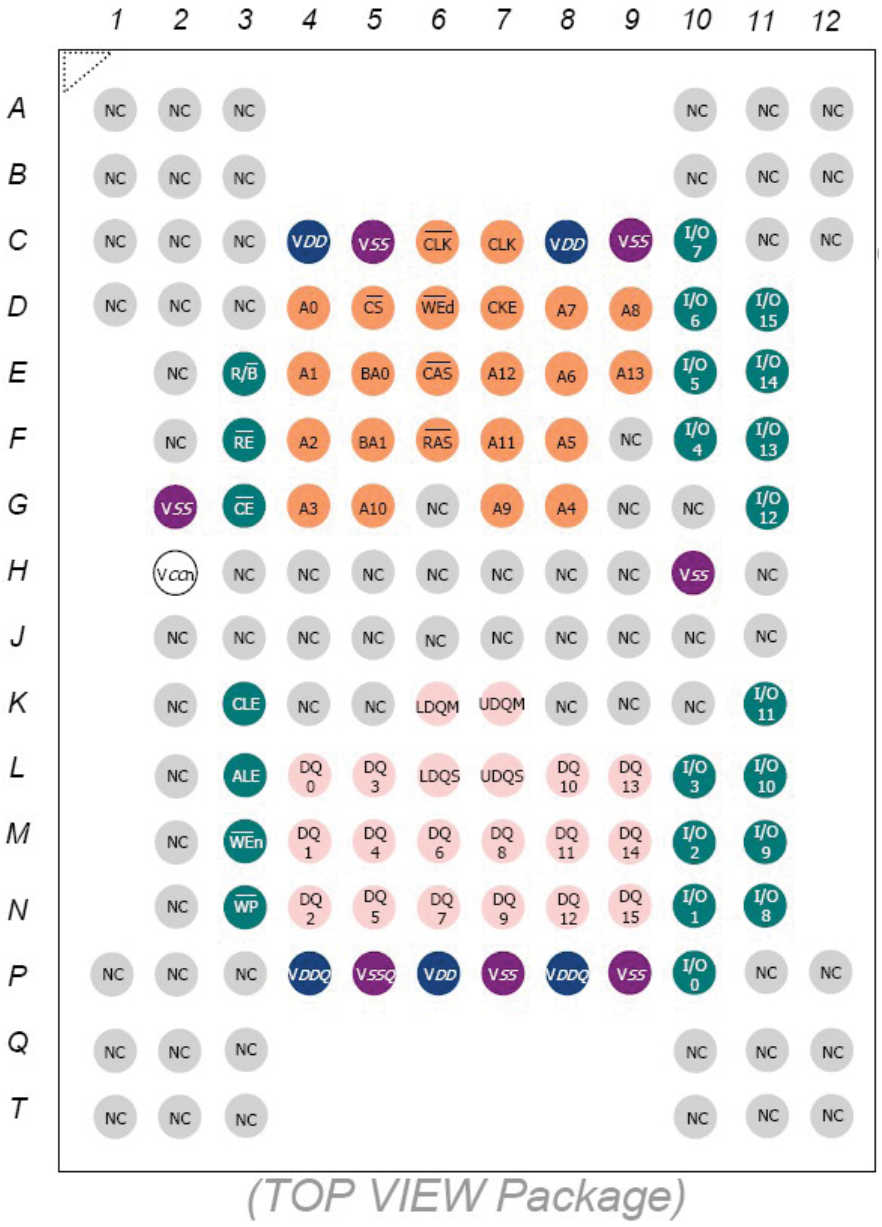
Figure 6 Ball-Out of S-GOLD®3H (Top View)

PMB6821
PMB6821 Pin Configuration (Top View)



● : NC Pin

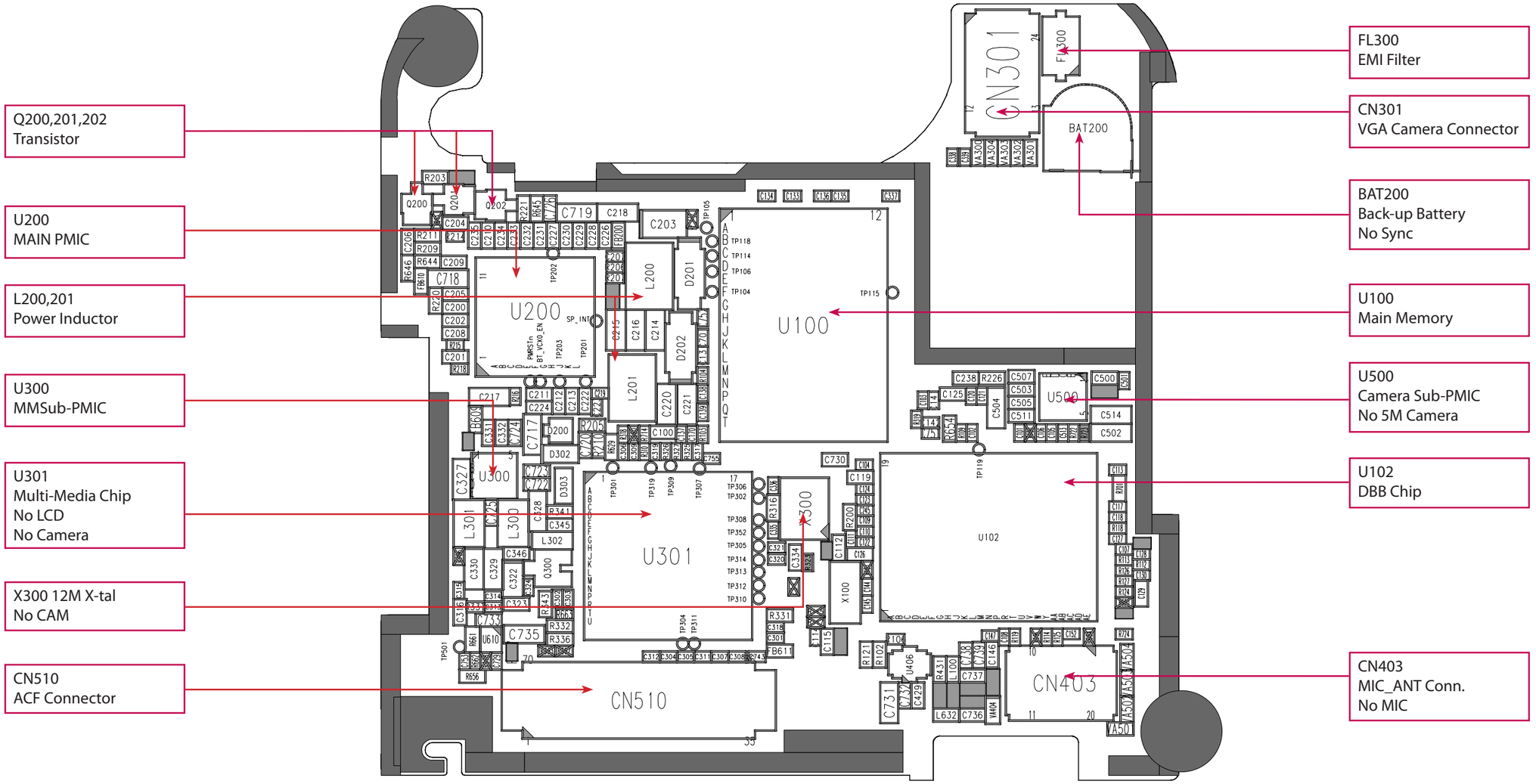
H8BCS0SI0MAP_56M



(TOP VIEW Package)

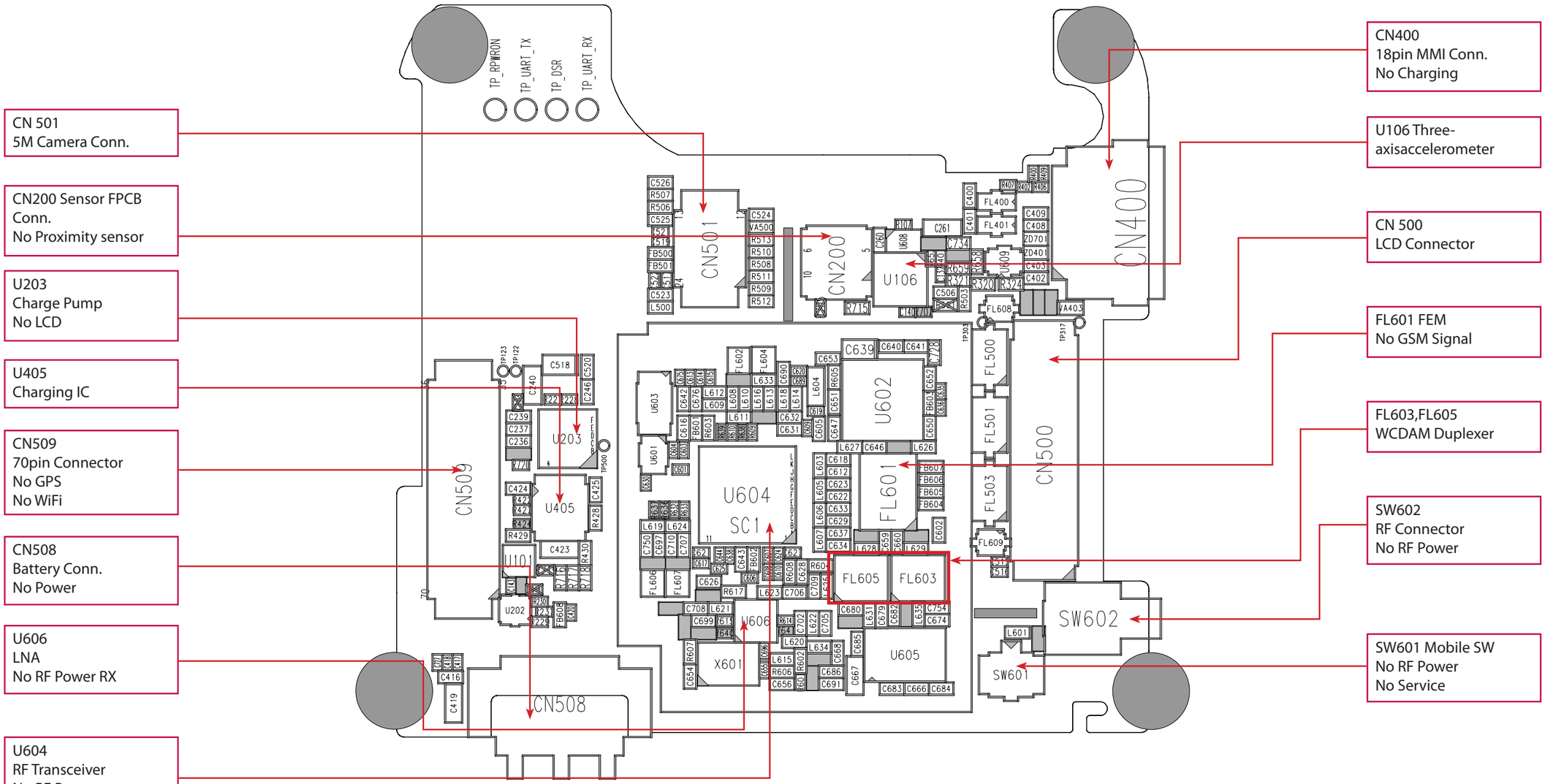
***** NC pin is not used**

9. PCB LAYOUT



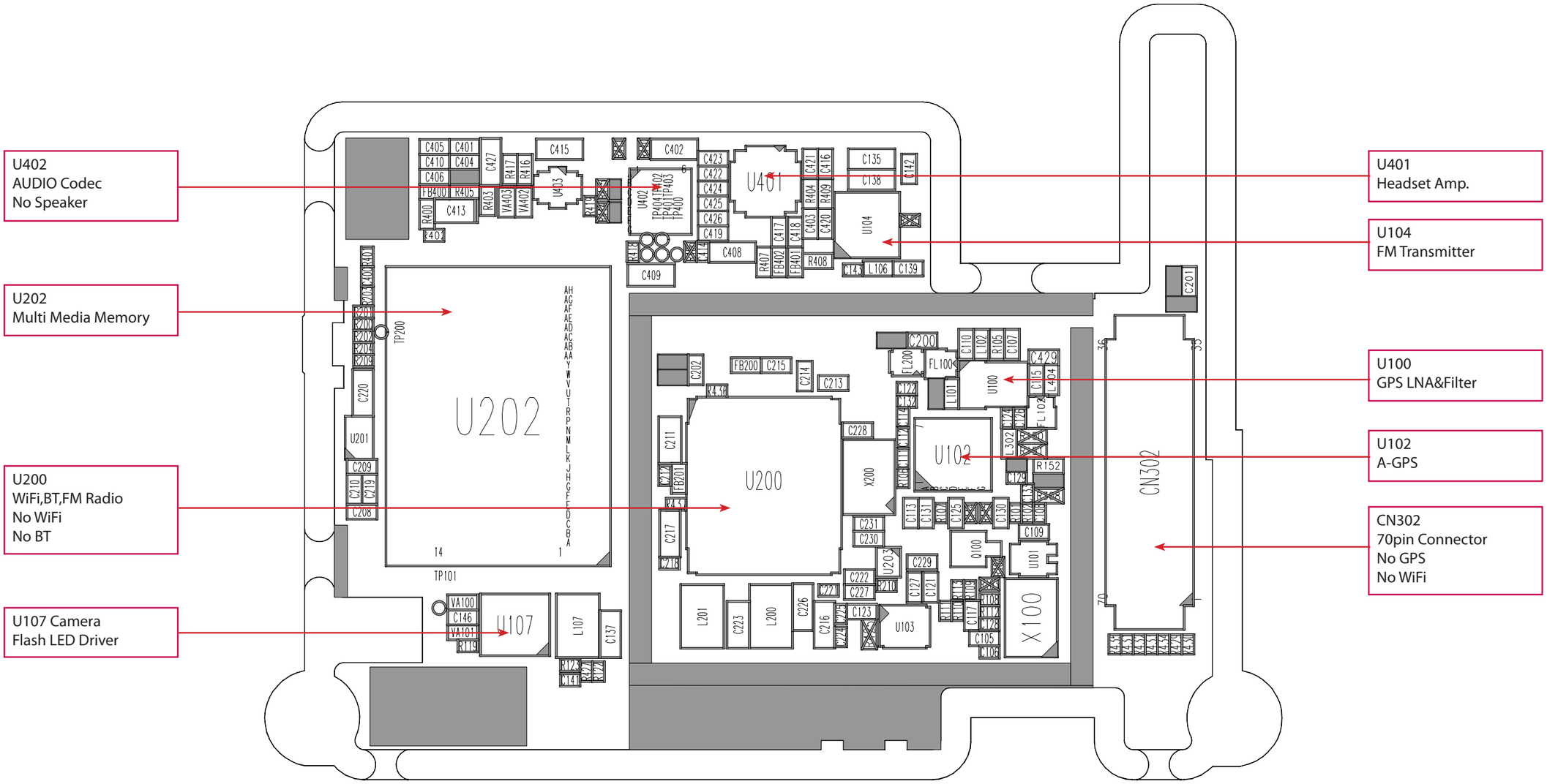
KM900-MAIN-SPFY0188901-1.0-TOP

9. PCB LAYOUT



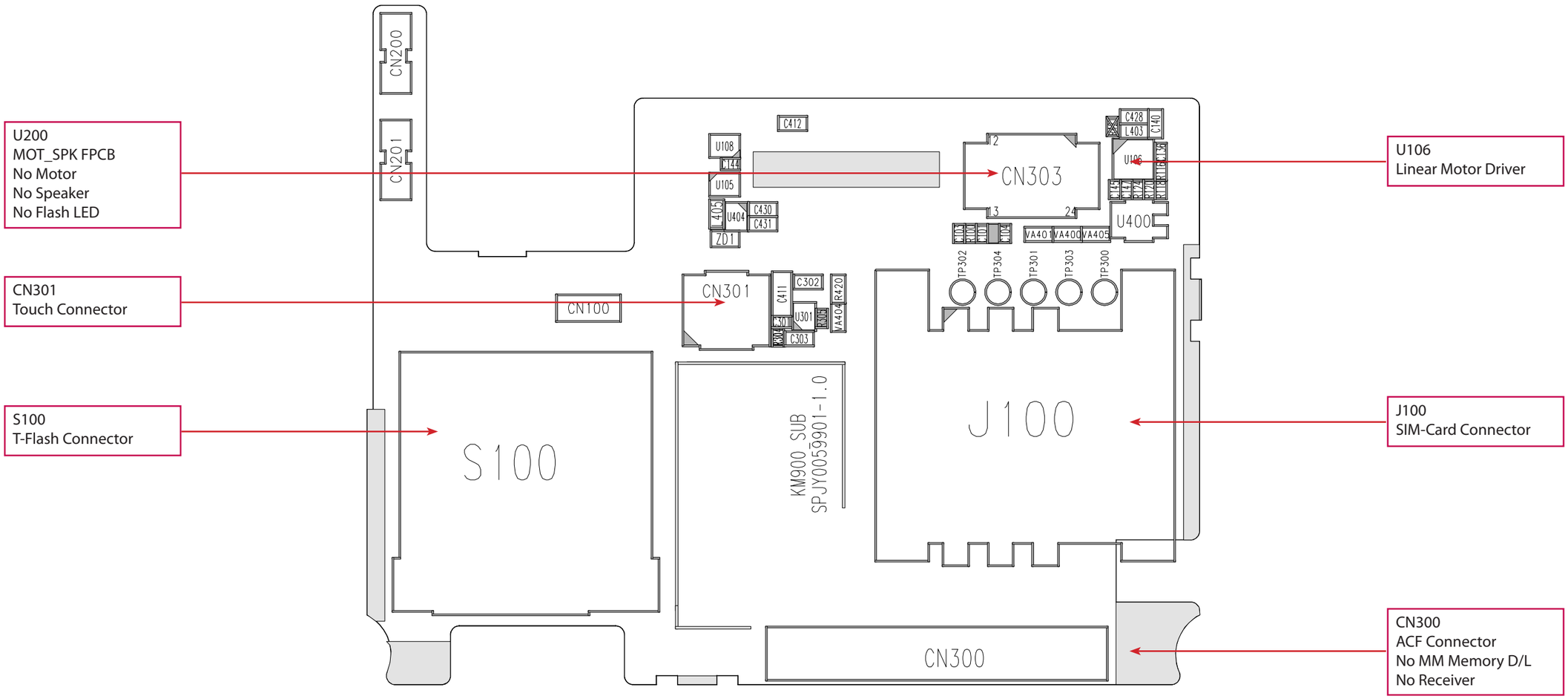
KM900-MAIN-SPFY0188901-1.0-BTM

9. PCB LAYOUT



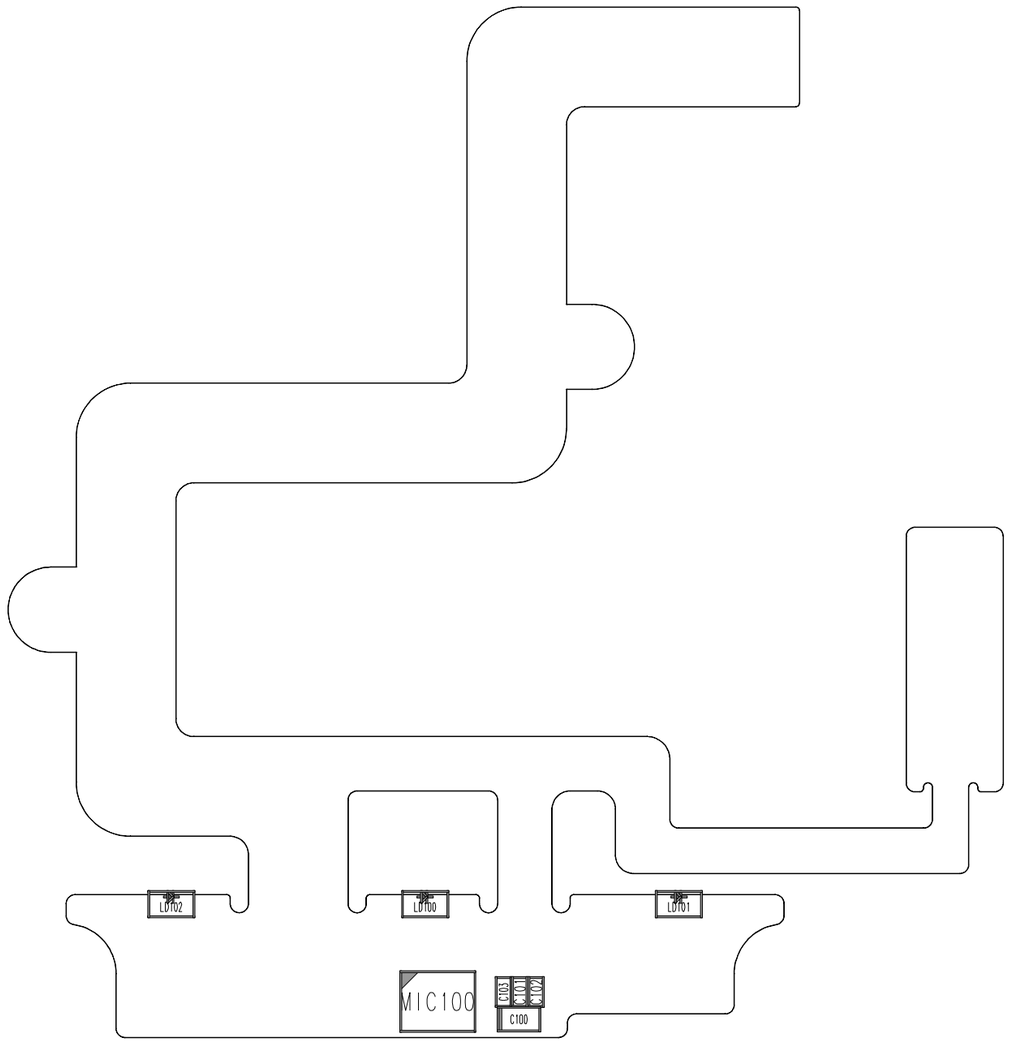
KM900_SUB_SPJY0059901-1.0-TOP

9. PCB LAYOUT



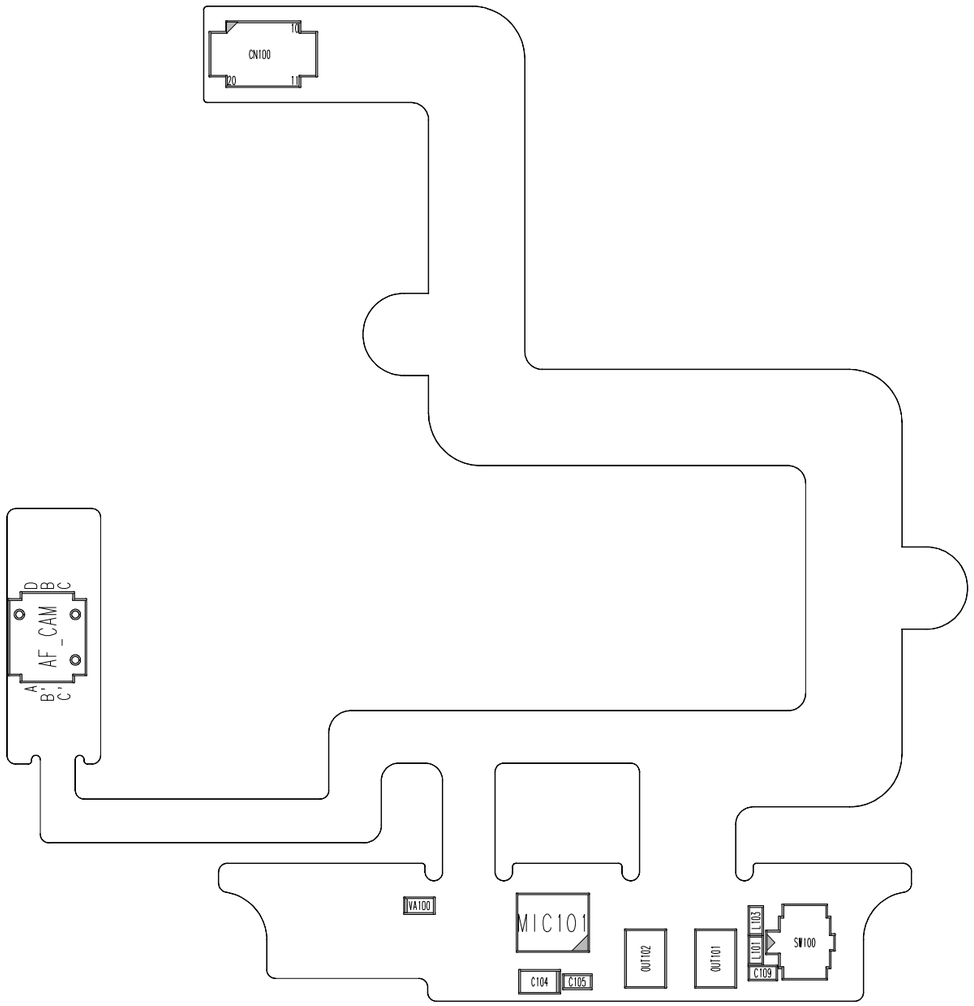
KM900_SUB_SPJY0059901-1.0-BTM

9. PCB LAYOUT



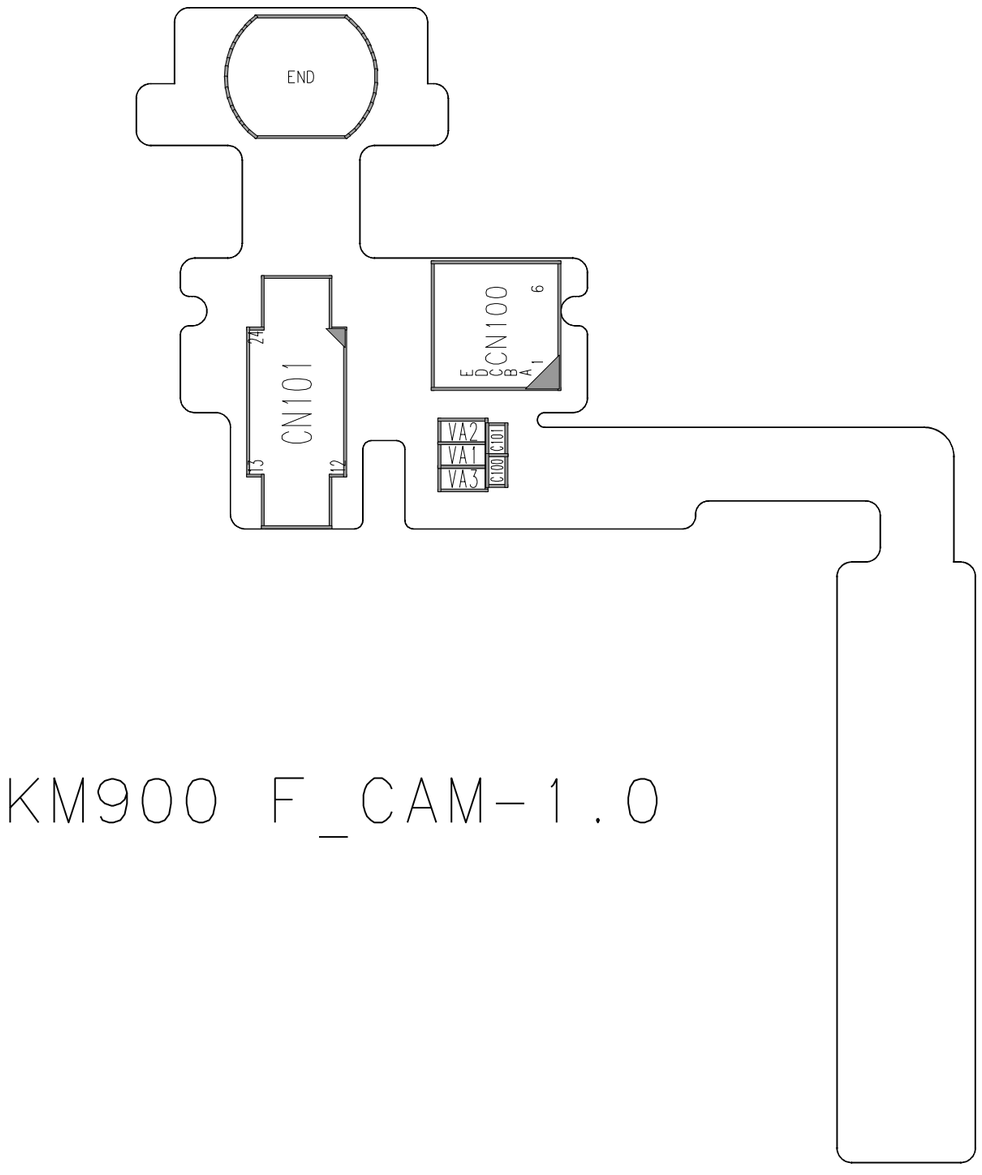
KM900-F_MIC_LED_TOUCH_SPCY0150301_1.0_TOP

9. PCB LAYOUT

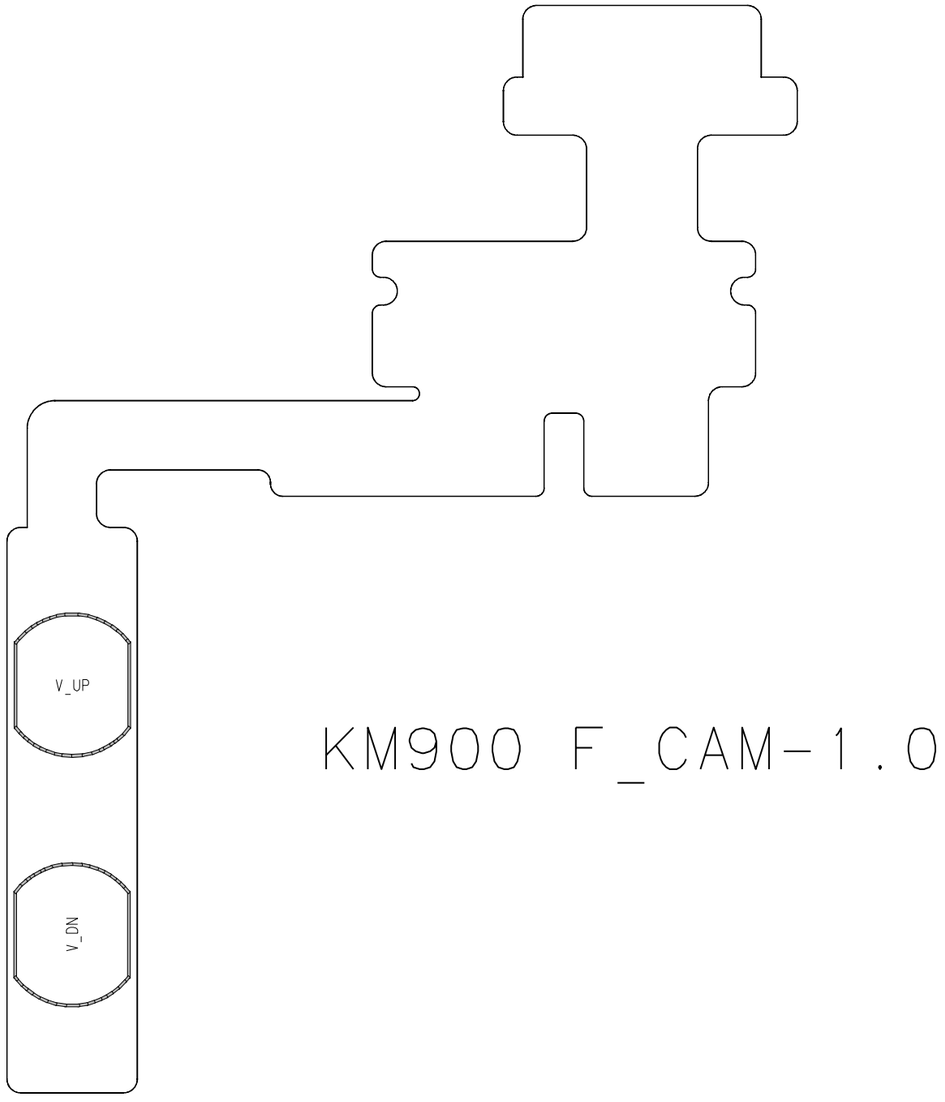


KM900-F_MIC_LED_TOUCH_SPCY0150301_1.0_BOT

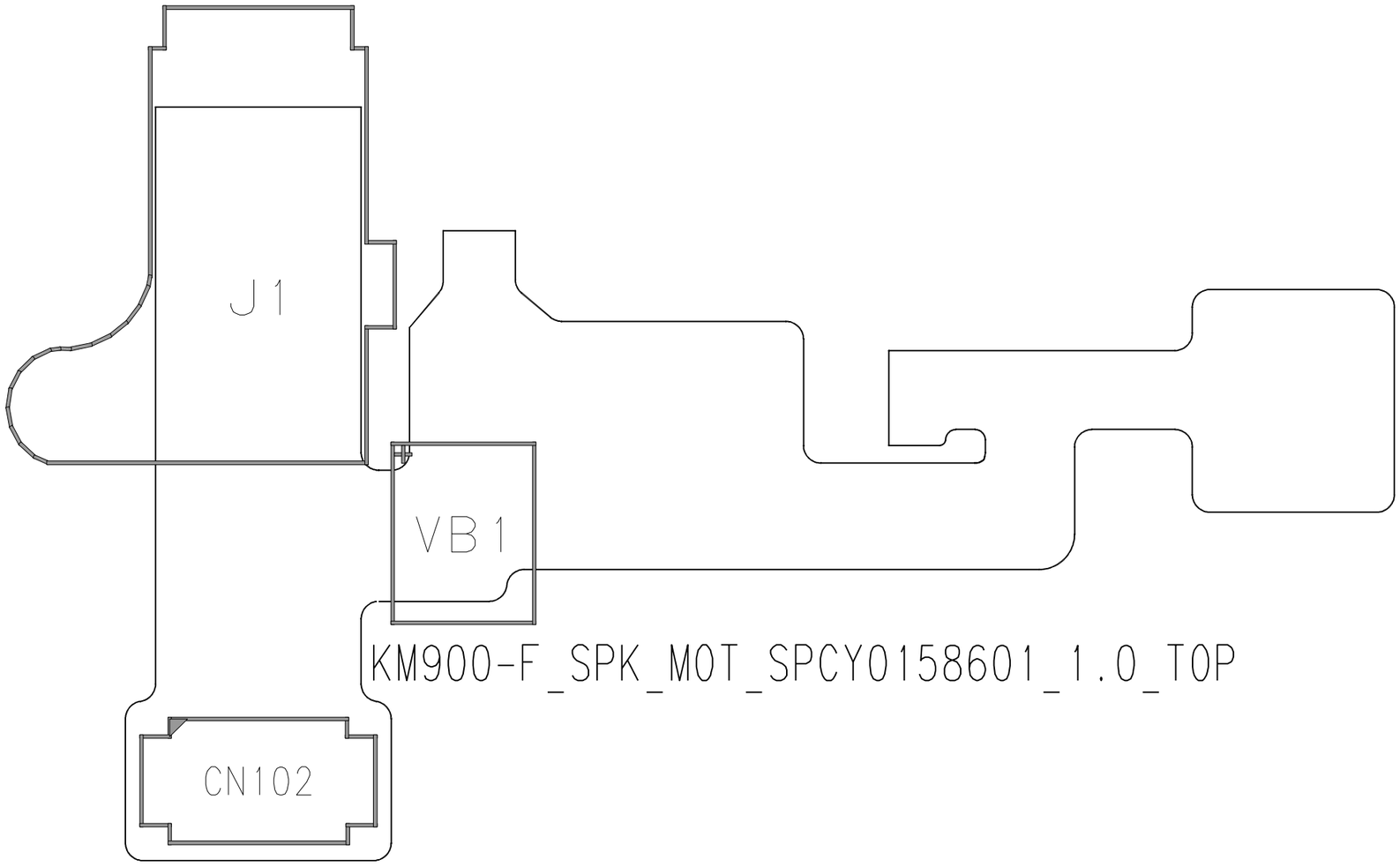
9. PCB LAYOUT



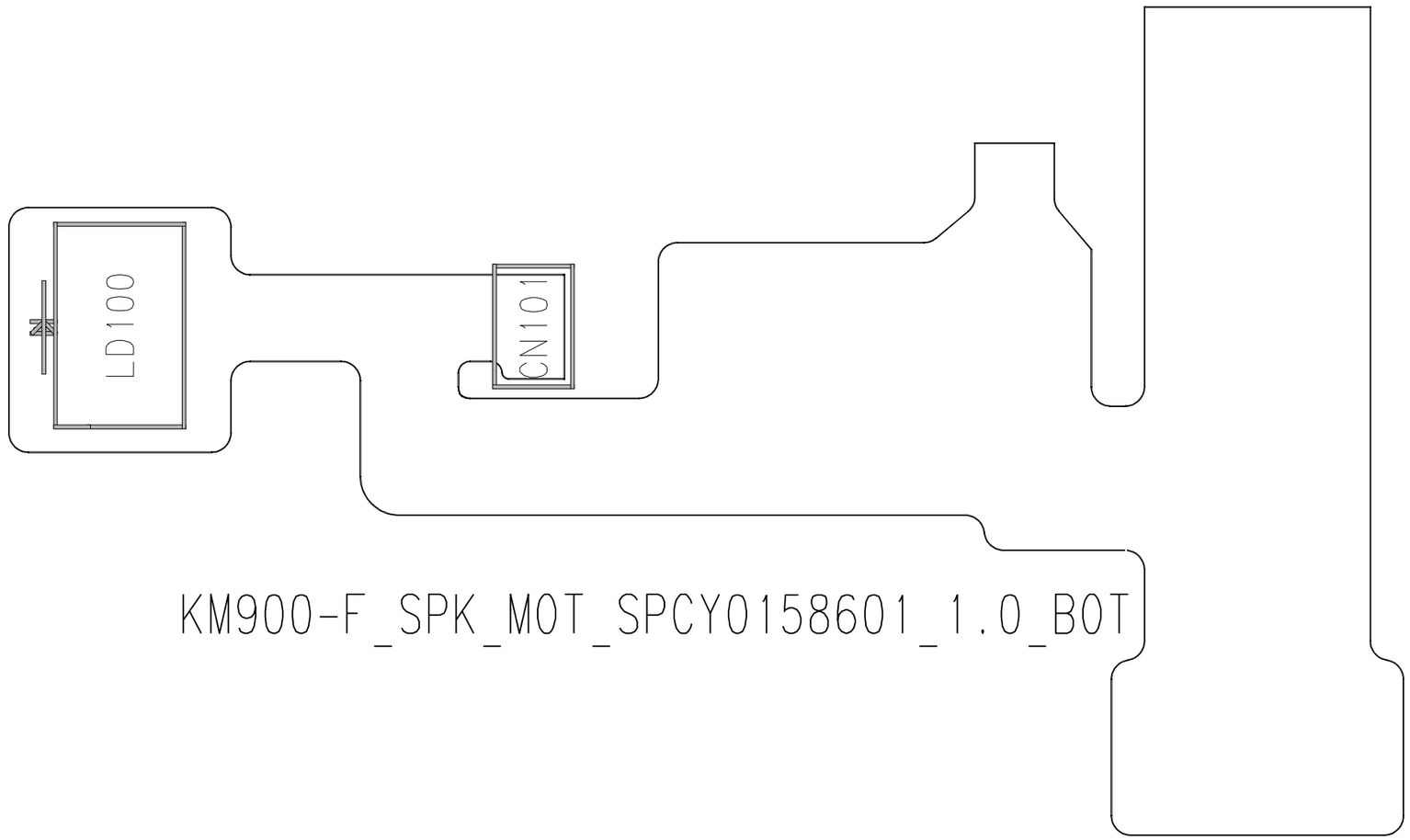
9. PCB LAYOUT



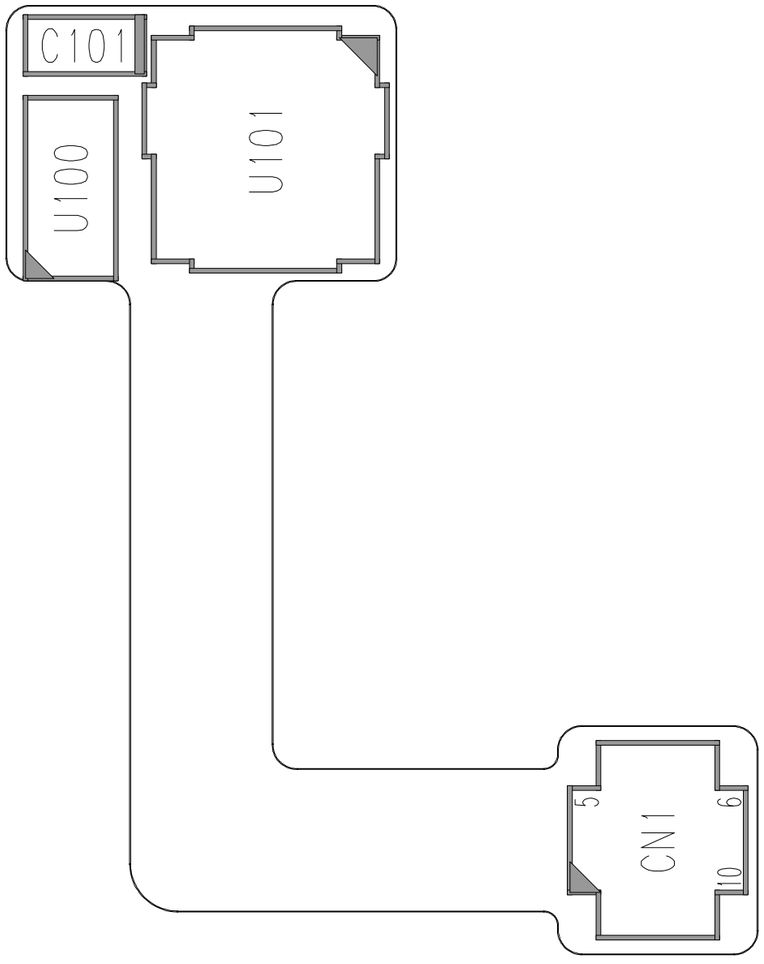
9. PCB LAYOUT



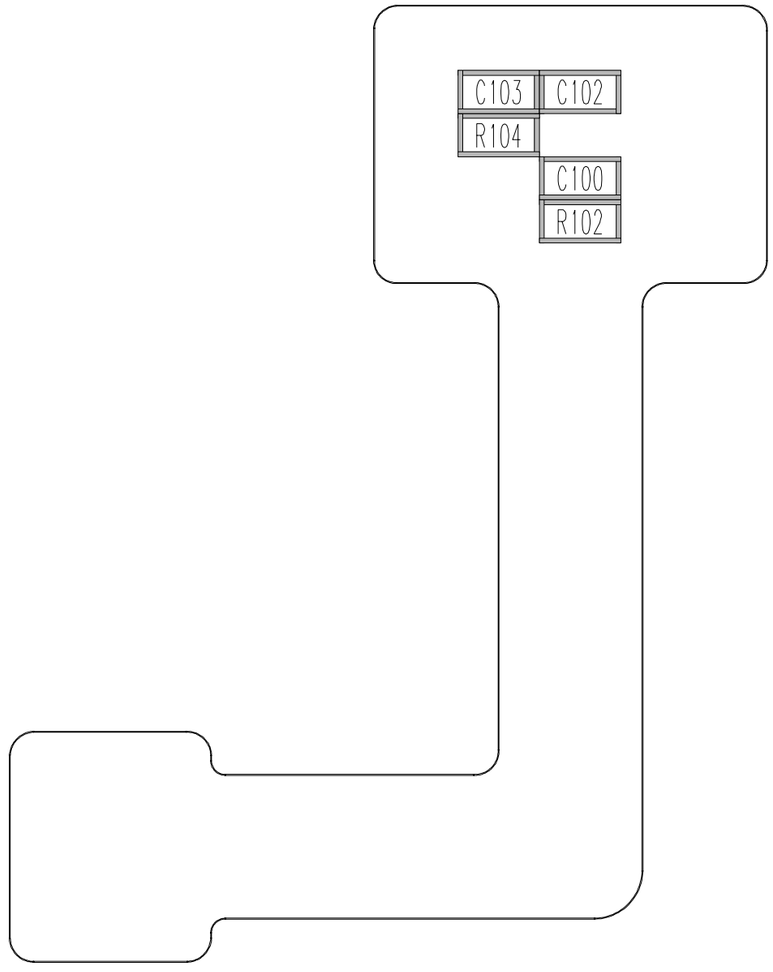
9. PCB LAYOUT



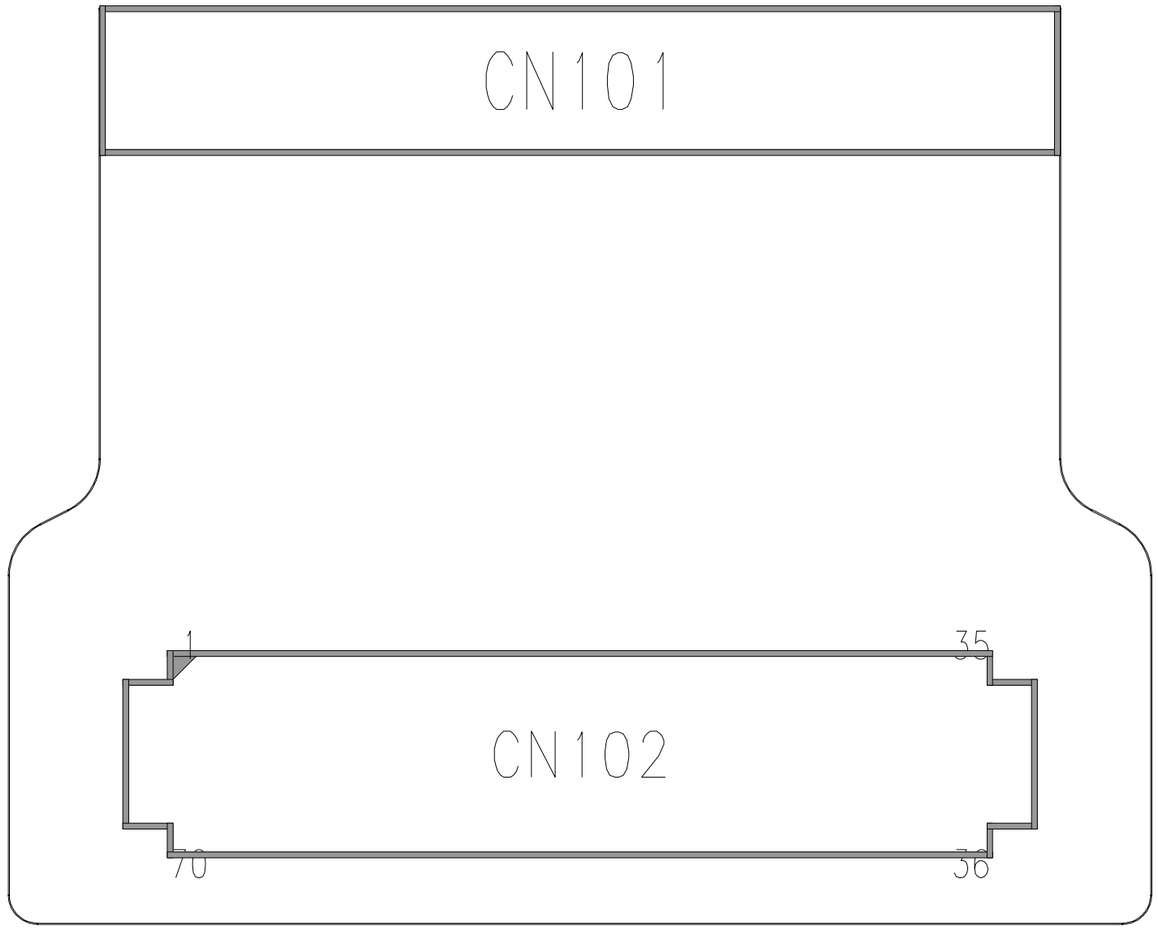
9. PCB LAYOUT



9. PCB LAYOUT

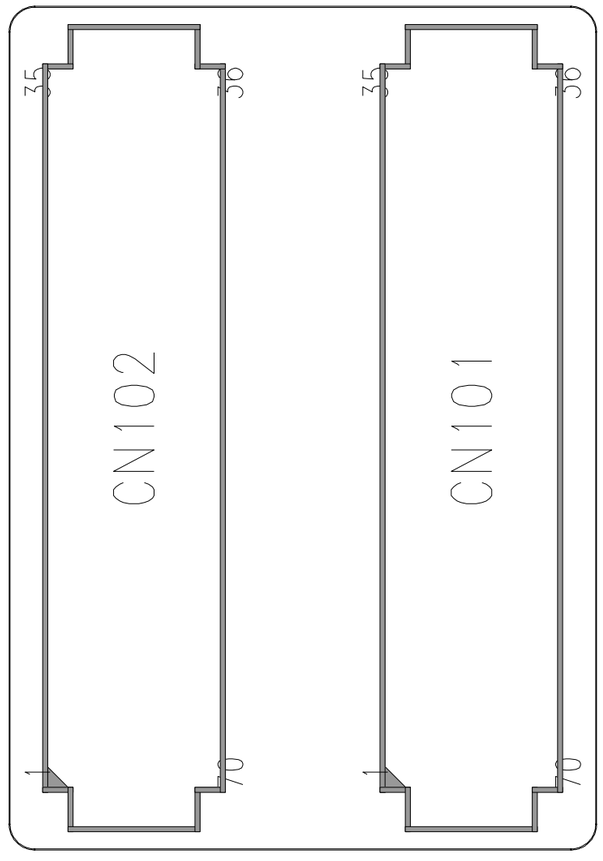


9. PCB LAYOUT



KM900-F_ACF-SPCY0155301-1.0-TOP

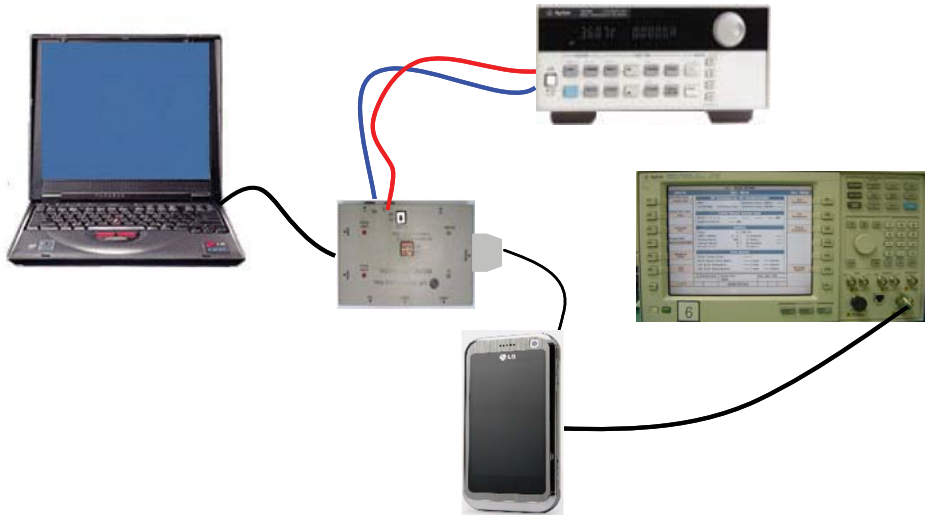
9. PCB LAYOUT



KM900-F_BtoB-SPCY0166801-1.0-TOP

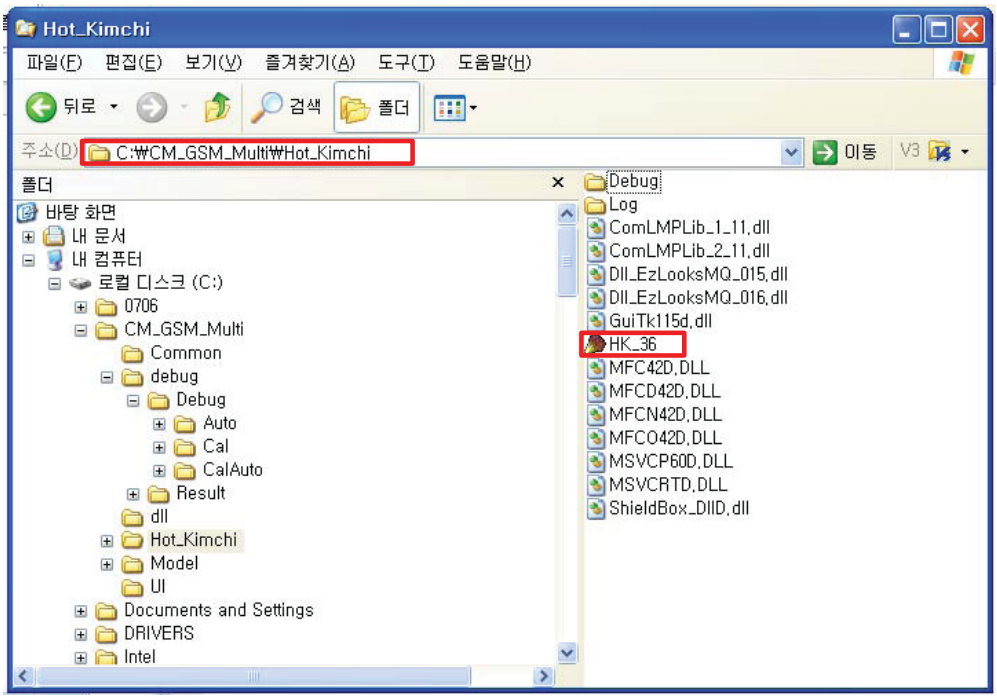
10. RF Calibration

10.1. Test Equipment Setup



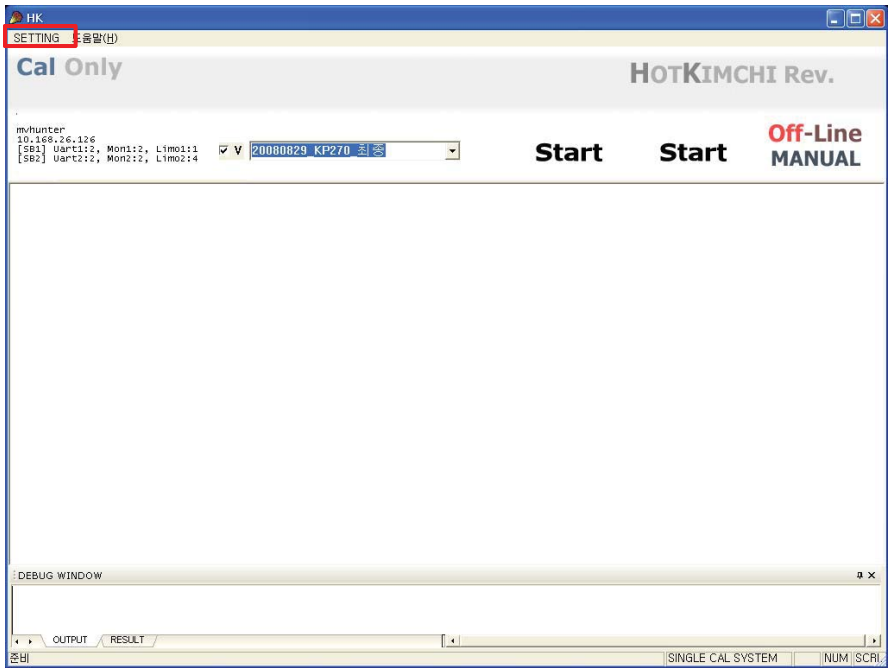
10.2. Calibration Step

10.2.1. Turn on the Phone.

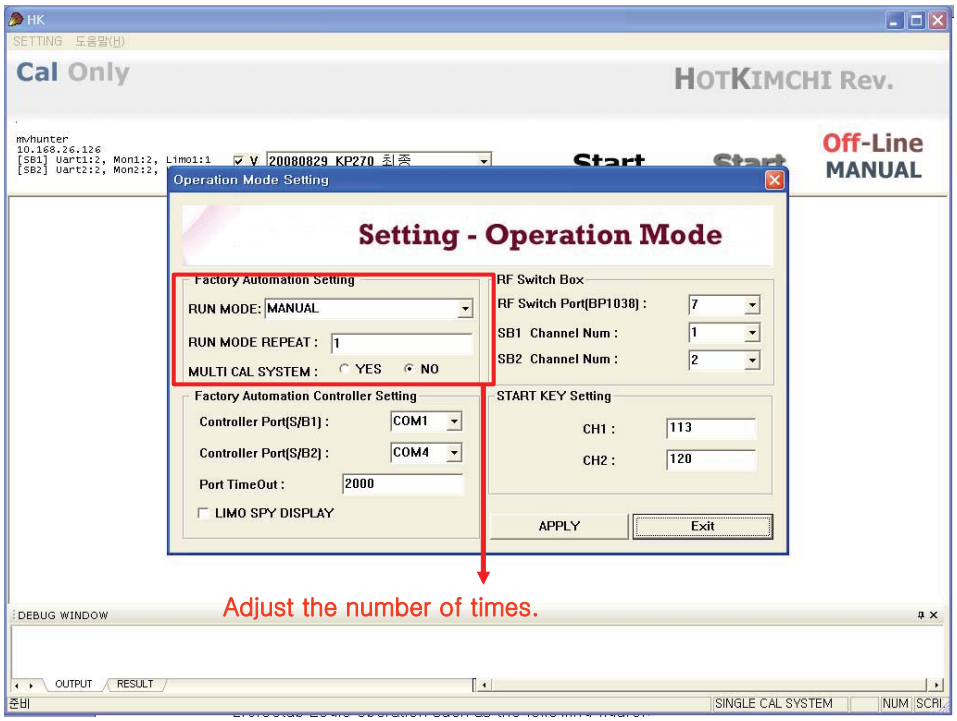


Execute “HK_36.exe”

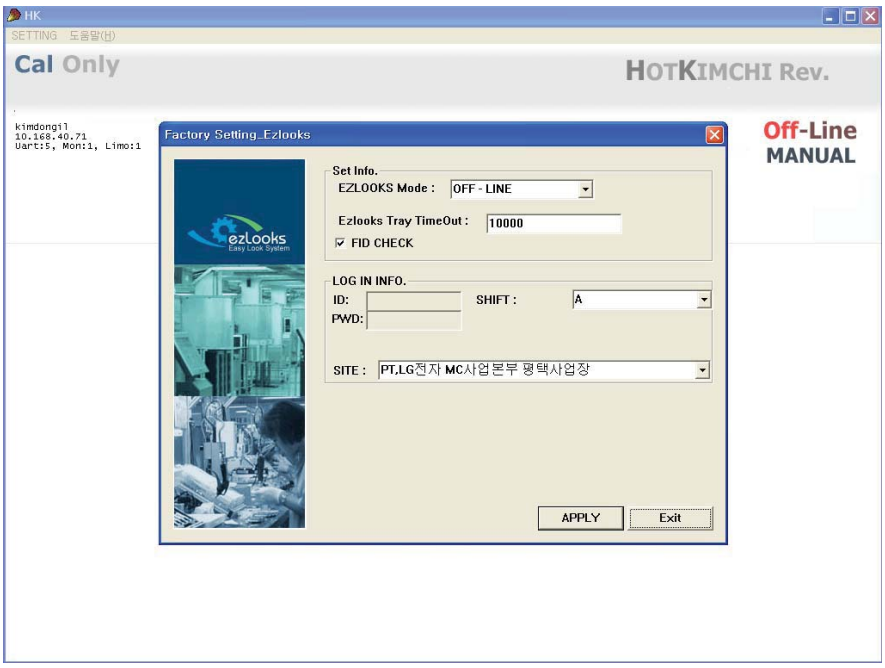
10.2.2. Click “SETTING” Menu



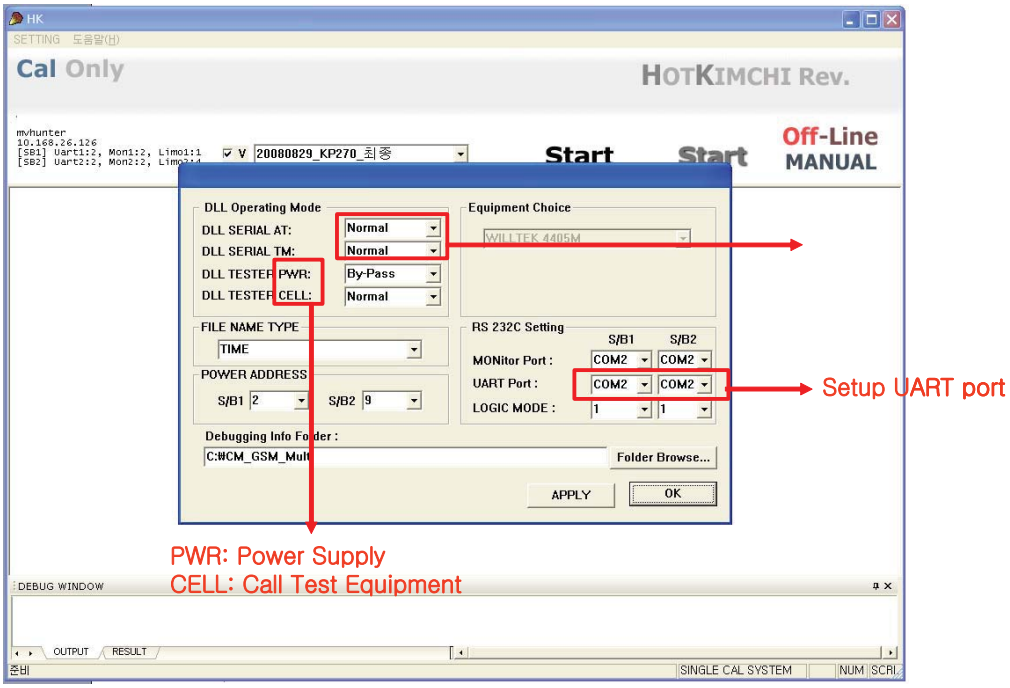
10.2.3. Setup “Ezlooks” menu such as the following figure



10.2.4. Setup “Line System” menu such as the following figure

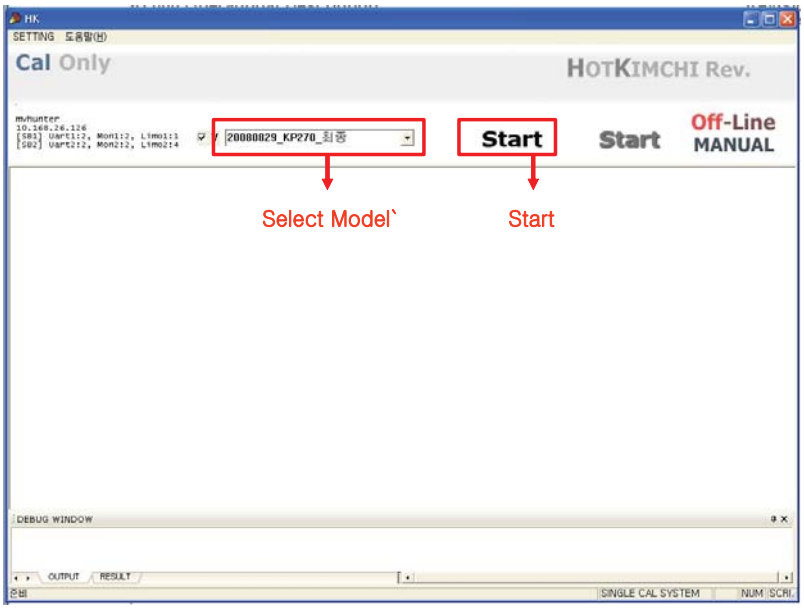


10.2.5 Setup Logic operation such as the following figure.

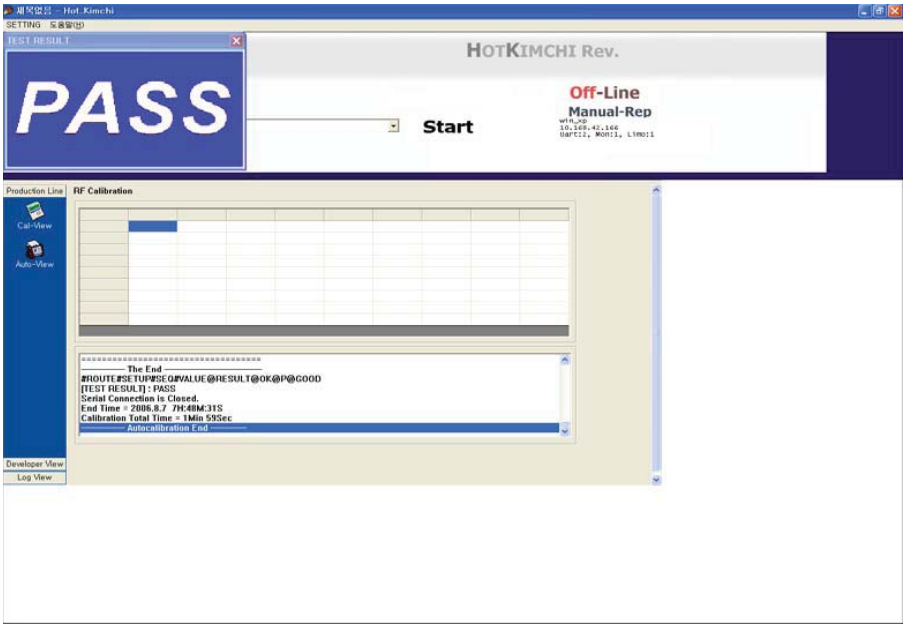


10.2.6. Select “MODEL”.

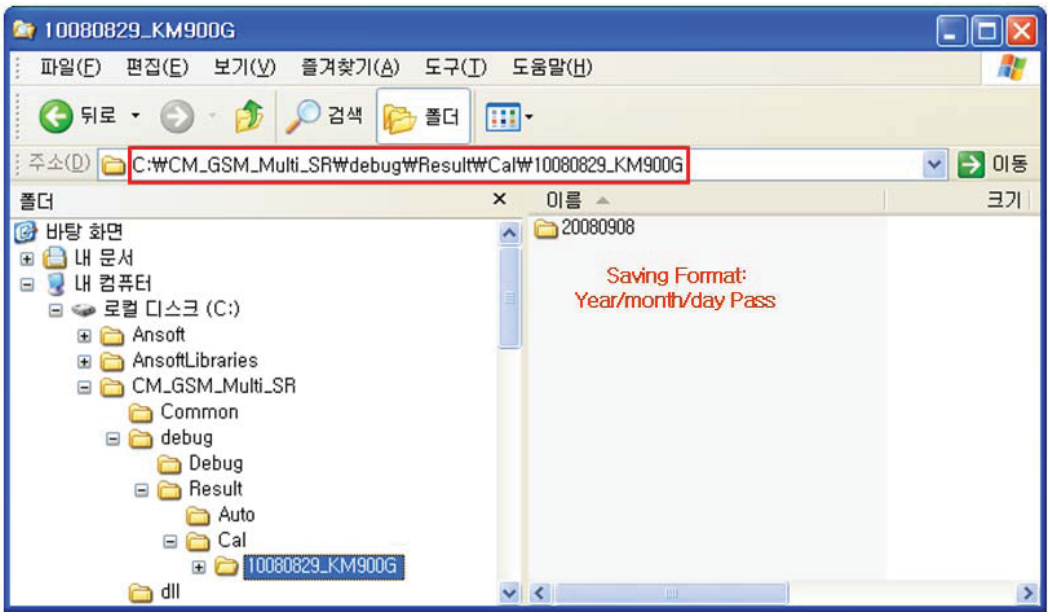
10.2.7. Click “START” for RF calibration



10.2.8. RF Calibration finishes



10.2.8 Calibration data will be saved to the following folder.



Notices:

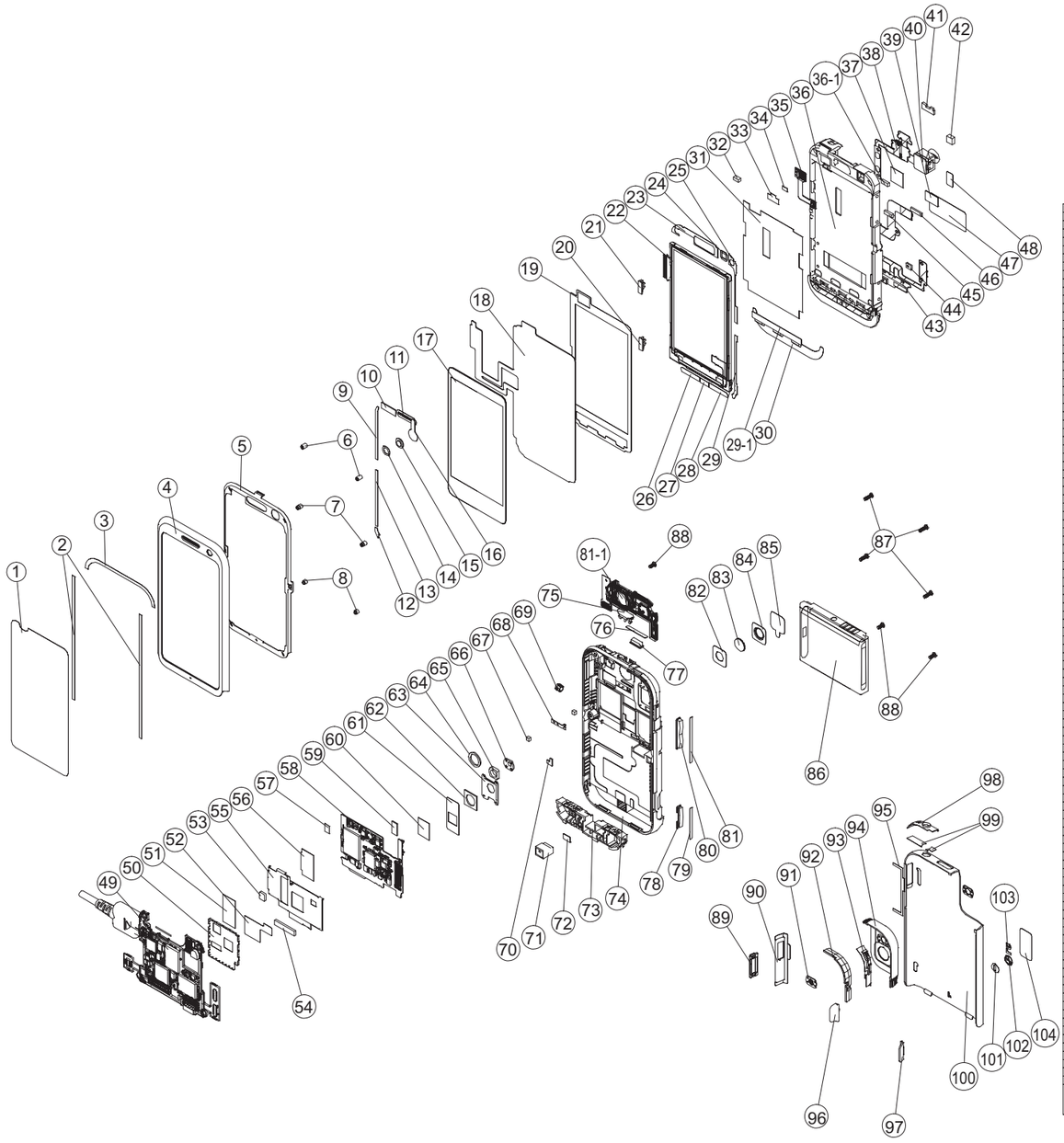
1. The state of Phone is " ptest mode " during the CALIBRATION.
2. Calibration program automatically changes either "normal mode" or "ptest mode".
3. Phone operation Mode

< Normal Mode>

<Ptest Mode>

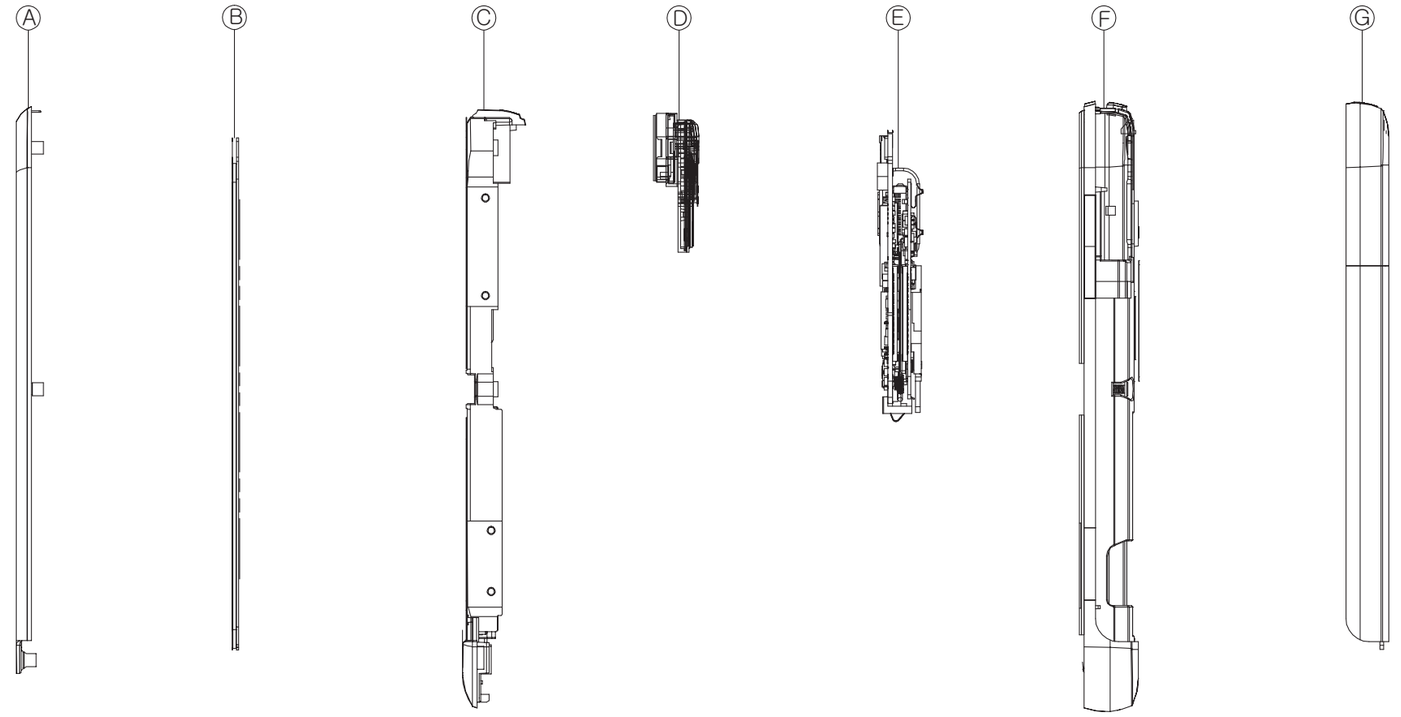
11. EXPLODED VIEW & REPLACEMENT PART LIST

11.1 EXPLODED VIEW



No	Part Name	Part Number	Q'ty	Remark
104	TAPE,PROTECTION(LOGO)	MTAB026260	1	
103	PLATE,LOGO (TEXT)	MPFT000960	1	
102	PLATE,LOGO (BADGE)	MPFT000940	1	
101	TAPE(LOGO)	MTAZ022710	1	
100	COVER,BATTERY	MCJA007250	1	
99	TAPE(EARPHONE)	MTAT022700	1	
98	CAP,EARPHONE JACK	MCCC006090	1	
97	GUIDE-RIGHT	MGDR001140	1	
96	GUIDE-LEFT	MGDA001570	1	
95	TAPE(BRACKET)	MTAZ022250	1	
94	DECO	MDAY003980	1	
93	ANTENNA, GSM_FIXED	SAGT004170	1	
92	BRACKET(INNER DECO)	MBFZ003220	1	
91	LENS,FLASH	MLCE001110	1	
90	BRACKET(CAP RECEPTACLE)	MBFT003210	1	
89	CAP,RECEPTACLE	MCCE004570	1	
88	SCREW MACHINE,BIND	-	2	
87	SCREW MACHINE,BIND	GMEY022401	4	
86	BATTERY	-	1	
85	TAPE,PROTECTION(CAMERA 5M)	MTAB030060	1	
84	DECO,CAMERA	MDAD004010	1	
83	WINDOW,CAMERA(5M)	MWAE004030	1	
82	TAPE-CAMERA	MTAR001760	1	
81	TAPE,PROTECTION(VOLUME(KEY)	MTAB026180	1	
80	BUTTON SIDE(VOLUME)	MBJL006780	1	
79	TAPE,PROTECTION(CAMERAKEY)	MTAB026190	1	
78	BUTTON SIDE(CAMERA)	MBJL007940	1	
77	BUTTON SIDE(POWER)	MBJL006800	1	
76	TAPE,PROTECTION(POWER)	MTAB026200	1	
75	LOCKER,BATTERY	MLEA004720	1	
74	COVER,REAR	MCJN009130	1	
73	MAIN ANTENNA	-	1	
72	FILTER,MIKE	MFBD003520	1	
71	HOLDER,MIKE	MHGF000580	1	
70	PAD(EMI GASKET)	MPBJ026810	1	
69	CAP,MOBILE SWITCH	MCCF005480	1	
68	SPRING,PLATE	MSDD000680	1	
67	GASKET	MGAZ006720	1	
66	LENS-FLASH	MLCE001100	1	
65	PAD(LENS FLASH)	MPBJ021720	1	
64	PAD,MOTOR	MPBJ005780	1	
63	BRACKET,CAMERA(5M)	MBFP000960	1	
62	PAD,CAMERA (DECO)	MPBT006500	1	
61	INSULATOR(ITO IC)	MIDZ020590	1	
60	TAPE(ITO IC BACK)	MTAZ023550	1	
59	PAD,CONNECTOR (CAMERA 5M)	MPBU004720	1	
58	PCB ASSY SUB	-	1	
57	TAPE(PCB MM1)	MTAZ023330	1	
56	PCB	MPCT005820	1	
55	CAN,SHIELD(SUB)	MCBA003780	1	
54	PAD(CAN SHIELD GASKET)	-	1	
53	PAD(SENSOR CONN)	MPBU004720	1	
52	TAPE(CAN SHIELD)	MTAZ023300	1	
51	INSULATOR(LCD CONN)	MIDZ019420	1	
50	CAN SHIELD(MAIN)	MCBA004130	1	
49	PCB ASSY MAIN	-	1	
48	TAPE(ITO FPCB)	MTAZ023530	1	
47	TAPE (FRAME LCD BACK)	MTAZ023370	1	
46	PAD(SHIELD GASKET)	MPBZ022790	1	
45	PAD(MIC FPCB)	MPBZ022800	1	
44	PAD,WIRE(WIC)	MPBH004180	1	
43	MIC FPCB	-	1	
42	PAD(B/to Bat) Pad)	MPBZ022080	1	
41	PAD, CONNECTOR (FRAME BACK)	MPBU005510	1	
40	CAMERA (5M)	-	1	
39	PAD,WIRE(MIC FPCB BTB CONN)	MPBH004180	1	
38	VT CAMERA FPCB	-	1	
37	TAPE,CAMERA	MTAK001750	1	
36-1	GASKET(ITO FPCB)	MGAZ006790	1	
36	FRAME	MFEZ001740	1	
35	SENSOR FPCB	-	1	
34	TAPE (SENSOR DUST)	MTAZ023570	1	
33	TAPE (SENSOR DUST 2)	MTAZ023590	1	
32	PAD(FRAME FRONT)	MPBZ021730	1	
31	TAPE (FRAME LCD)	MTAZ022240	1	
30	TAPE,PROTECTION(FRAME)	MTAB029950	1	
29-1	PLATE, LIGHT GUIDE	MPLT000240	1	
29	TAPE(FRAME SIDE_2)	MTAZ022640	1	
28	TAPE(FRAME LOWER_2)	MTAZ023280	1	
27	FILTER,MIKE	MFBD003510	1	
26	TAPE(FRAME LOWER_1)	MTAZ022620	1	
25	TAPE(FRAME SIDE_1)	MTAZ022630	1	
24	PAD,CAMERA(VT)	MPBT006480	1	
23	TAPE(FRAME UPPER)	MTAZ022610	1	
22	LCD	-	1	
21	LOCKER (LCD2NR M)	MLEY000400	1	
20	LOCKER (LCD2NR M)	MLEY000410	1	
19	TAPE,WINDOW	MTAD009440	1	
18	MODULE, LCD	SWZY001980	1	
17	WINDOW,LCD	MWAC010760	1	
16	TAPE,PROTECTION(CAMERA VT)	MTAB030040	1	
15	WINDOW,CAMERA(VT)	MWAC004020	1	
14	TAPE-CAMERA(VT)	MTAR001740	1	
13	INSULATOR(FRONT_2)	MIDZ019890	1	
12	PLATE (LOWER BOSS SHEET)	MPZT003830	1	
11	FILTER,SPEAKER	MFBC004390	1	
10	PAD(SENSOR FRONT)	MPBJ021710	1	
9	INSULATOR(FRONT_1)	MIDZ019880	1	
8	INSERT,NUT(BOTTOM)	MICZ008840	2	
7	INSERT,NUT(MIDDLE)	MICZ008830	2	
6	INSERT,NUT(TOP)	MICZ008640	2	
5	FRAME	MFEZ001730	1	
4	COVER,FRONT	MCJN009410	1	
3	TAPE-PROTECTION(FRONT_1)	MTAB029940	1	
2	TAPE-PROTECTION(FRONT_2)	MTAB030050	2	
1	TAPE,PROTECTION(WINDOW)	MTAB026170	1	

ASS'Y EXPLODED VIEW



No	Part Name	Part Number	Q'ty	Remark
G	Cover Assy, Battery	ACGA0023601	1	
F	COVER ASSY,REAR	ACGM0120201	1	
E	PCB ASSY, MAIN	SAFY0294801	1	
D	SPEAKER	SUSY0027609	1	
C	FRAME ASSY	AFBZ0009301	1	
B	WINDOW ASSY,LCD	AWAB0035201	1	
A	COVER ASSY, FRONT	ACGK0121801	1	

11.2 Replacement Parts <Mechanic component>

Note: This Chapter is used for reference, Part order is ordered by SBOM standard on GCSC

Level	Location No.	Description	Part Number	Spec	Color	Remark
2	AAAY00	ADDITION	AAAY0364001		SILVER	
3	ACGA00	COVER ASSY,BATTERY	ACGA0023601		GRAY SILVER	G
4	AANY00	ANTENNA ASSY, INTENNA	AANY0001801		WITHOUT COLOR	
5	MBFZ00	BRACKET	MBFZ0032201	MOLD, PC LUPOY SC-1004A, , , , ,	WITHOUT COLOR	92
5	MDAY00	DECO	MDAY0039901	MOLD, PC LUPOY SC-1004A, , , , ,	WITHOUT COLOR	94
4	MBFZ00	BRACKET	MBFZ0032101	COMPLEX, (empty), , , , ,	WITHOUT COLOR	90
4	MCCC00	CAP,EARPHONE JACK	MCCC0060901	COMPLEX, (empty), , , , ,	WITHOUT COLOR	98
4	MCCE00	CAP,RECEPTACLE	MCCE0045701	COMPLEX, (empty), , , , ,	GRAY SILVER	89
4	MCJA00	COVER,BATTERY	MCJA0072501	PRESS, Al Alloy, 0.6, , , ,	GRAY SILVER	100
4	MGDA00	GUIDE,LEFT	MGDA0015701	COMPLEX, (empty), , , , ,	WITHOUT COLOR	96
4	MGDB00	GUIDE,RIGHT	MGDB0011401	MOLD, PC LUPOY SC-1004A, , , , ,	SILVER	97
4	MLCE00	LENS,FLASH	MLCE0011101	MOLD, PC LEXAN 141R, , , , ,	WITHOUT COLOR	91
4	MPFF00	PLATE,LOGO	MPFF0009601	PRESS, STS, , , , ,	WITHOUT COLOR	103
4	MPFF01	PLATE,LOGO	MPFF0009401	ELECTROFORMING, Ni, , , , ,	WITHOUT COLOR	102
4	MTAB00	TAPE,PROTECTION	MTAB0262601	COMPLEX, (empty), , , , ,	WITHOUT COLOR	104
4	MTAZ00	TAPE	MTAZ0222501	COMPLEX, (empty), , , , ,	WITHOUT COLOR	95
4	MTAZ02	TAPE	MTAZ0227101	COMPLEX, (empty), , , , ,	WITHOUT COLOR	101
4	MTAZ05	TAPE	MTAZ0227001	COMPLEX, (empty), , , , ,	WITHOUT COLOR	99
2	APAY00	PACKAGE	APAY0122604	KM900 ORF Package(ORG Sleeve/Void/AL)	WITHOUT COLOR	
3	APLY00	PALLET ASSY	APLY0003001	Body(SW)+Cap(EU)+AL_400EA	Without Color	
4	MPCY00	PALLET	MPCY0012403	COMPLEX, (empty), , , , ,	DARK BLUE	

11. EXPLODED VIEW & REPLACEMENT PART LIST

Level	Location No.	Description	Part Number	Spec	Color	Remark
3	MCJZ00	COVER	MCJZ0058305	BOX, TW, , , , ,	WITHOUT COLOR	
3	MLAC00	LABEL,BARCODE	MLAC0004541	PRINTING, (empty), , , , ,	Without Color	
3	MLAZ00	LABEL	MLAZ0050901	PRINTING, (empty), , , , ,	WITHOUT COLOR	
3	MLAZ01	LABEL	MLAZ0037104	PRINTING, (empty), , , , ,	METAL SILVER	
2	APEY00	PHONE	APEY0687101		GRAY SILVER	
3	ACGV00	COVER ASSY,BAR	ACGV0002301		WITHOUT COLOR	
4	ACGK00	COVER ASSY,FRONT	ACGK0121801		WITHOUT COLOR	A
5	ACGZ00	COVER ASSY	ACGZ0016501	COVER, UPPER	WITHOUT COLOR	
6	MCJK00	COVER,FRONT	MCJK0094101	PRESS, STS, , , , ,	WITHOUT COLOR	4
6	MFBC00	FILTER,SPEAKER	MFBC0043901	COMPLEX, (empty), , , , ,	WITHOUT COLOR	11
6	MFEZ00	FRAME	MFEZ0017301	COMPLEX, (empty), , , , ,	WITHOUT COLOR	5
6	MICE01	INSERT,NUT	MICE0008401	COMPLEX, (empty), , , , ,	WITHOUT COLOR	8
6	MICE02	INSERT,NUT	MICE0006401	COMPLEX, (empty), , , , ,	WITHOUT COLOR	6
6	MICE03	INSERT,NUT	MICE0006501	COMPLEX, (empty), , , , ,	WITHOUT COLOR	7
5	MIDZ01	INSULATOR	MIDZ0190801	COMPLEX, (empty), , , , ,	WITHOUT COLOR	9
5	MIDZ02	INSULATOR	MIDZ0190901	COMPLEX, (empty), , , , ,	WITHOUT COLOR	13
5	MPBZ00	PAD	MPBZ0217101	COMPLEX, (empty), , , , ,	WITHOUT COLOR	10
5	MPFZ00	PLATE	MPFZ0038301	COMPLEX, (empty), , , , ,	WITHOUT COLOR	12
5	MTAB00	TAPE,PROTECTION	MTAB0299401	COMPLEX, (empty), , , , ,	WITHOUT COLOR	3
5	MTAB01	TAPE,PROTECTION	MTAB0300501	COMPLEX, (empty), , , , ,	WITHOUT COLOR	2
5	MTAB02	TAPE,PROTECTION	MTAB0300401	COMPLEX, (empty), , , , ,	WITHOUT COLOR	16
5	MTAK00	TAPE,CAMERA	MTAK0017401	COMPLEX, (empty), , , , ,	WITHOUT COLOR	14

Level	Location No.	Description	Part Number	Spec	Color	Remark
5	MWAE00	WINDOW,CAMERA	MWAE0040201	CUTTING, PMMA MR 200, , , , ,	WITHOUT COLOR	15
4	ACGM00	COVER ASSY,REAR	ACGM0120201		GRAY SILVER	F
5	MBFP00	BRACKET,CAMERA	MBFP0009601	PRESS, STS, 0.3, , , ,	WITHOUT COLOR	63
5	MBJL00	BUTTON,SIDE	MBJL0079401	MOLD, Urethane Rubber S190A, , , , ,	WITHOUT COLOR	78
5	MBJL02	BUTTON,SIDE	MBJL0068001	COMPLEX, (empty), , , , ,	GRAY SILVER	77
5	MBJL03	BUTTON,SIDE	MBJL0067801	COMPLEX, (empty), , , , ,	GRAY SILVER	80
5	MCCF00	CAP,MOBILE SWITCH	MCCF0054801	COMPLEX, (empty), , , , ,	GRAY SILVER	69
5	MCJN00	COVER,REAR	MCJN0091301	MOLD, PC LUPOY SC-1004A, , , , ,	GRAY SILVER	74
6	MICE00	INSERT,NUT	MICE0009101	COMPLEX, (empty), , , , ,	WITHOUT COLOR	
5	MDAD00	DECO,CAMERA	MDAD0040101	ELECTROFORMING, Ni, , , , ,	SILVER	84
5	MFBD00	FILTER,MIKE	MFBD0035201	COMPLEX, (empty), , , , ,	WITHOUT COLOR	72
5	MGAZ00	GASKET	MGAZ0065201	COMPLEX, (empty), , , , ,	WITHOUT COLOR	67
5	MHGF00	HOLDER,MIKE	MHGF0005801	MOLD, Urethane Rubber S190A, , , , ,	WITHOUT COLOR	71
5	MLAB	LABEL,A/S	MLAB0004801	PRINTING, (empty), , , , ,	Without Color	
5	MLCE00	LENS,FLASH	MLCE0011001	MOLD, PC LEXAN 141R, , , , ,	WITHOUT COLOR	66
5	MLEA00	LOCKER,BATTERY	MLEA0047201	MOLD, PC LUPOY SC-1004A, , , , ,	WITHOUT COLOR	75
5	MPBJ00	PAD,MOTOR	MPBJ0057801	COMPLEX, (empty), , , , ,	WITHOUT COLOR	64
5	MPBT01	PAD,CAMERA	MPBT0065001	COMPLEX, (empty), , , , ,	WITHOUT COLOR	62
5	MPBZ01	PAD	MPBZ0217201	COMPLEX, (empty), , , , ,	WITHOUT COLOR	65
5	MPBZ02	PAD	MPBZ0228101	COMPLEX, (empty), , , , ,	WITHOUT COLOR	70
5	MSDB00	SPRING,COIL	MSDB0001301	BOX, DW, , , , ,	WITHOUT COLOR	
5	MSDD00	SPRING,PLATE	MSDD0006801	PRESS, BeCu, , , , ,	GOLD	68
5	MTAB00	TAPE,PROTECTION	MTAB0300601	COMPLEX, (empty), , , , ,	WITHOUT COLOR	85

11. EXPLODED VIEW & REPLACEMENT PART LIST

Level	Location No.	Description	Part Number	Spec	Color	Remark
5	MTAB01	TAPE,PROTECTION	MTAB0261901	COMPLEX, (empty), , , , ,	WITHOUT COLOR	79
5	MTAB02	TAPE,PROTECTION	MTAB0262001	COMPLEX, (empty), , , , ,	WITHOUT COLOR	76
5	MTAB03	TAPE,PROTECTION	MTAB0261801	COMPLEX, (empty), , , , ,	WITHOUT COLOR	81
5	MTAK00	TAPE,CAMERA	MTAK0017601	COMPLEX, (empty), , , , ,	WITHOUT COLOR	82
5	MWAE00	WINDOW,CAMERA	MWAE0040301	CUTTING, PMMA MR 200, , , , ,	WITHOUT COLOR	83
4	AFBZ00	FRAME ASSY	AFBZ0009301	LCD	WITHOUT COLOR	C
5	MFBD00	FILTER,MIKE	MFBD0035101	COMPLEX, (empty), , , , ,	WITHOUT COLOR	27
5	MFEZ00	FRAME	MFEZ0017401	CASTING, Mg Alloy, , , , ,	WITHOUT COLOR	36
6	MICE00	INSERT,NUT	MICE0009001	COMPLEX, (empty), , , , ,	WITHOUT COLOR	
5	MPBH00	PAD,MIKE	MPBH0041801	COMPLEX, (empty), , , , ,	WITHOUT COLOR	39
5	MPBH01	PAD,MIKE	MPBH0041601	COMPLEX, (empty), , , , ,	WITHOUT COLOR	44
5	MPBT00	PAD,CAMERA	MPBT0064801	COMPLEX, (empty), , , , ,	WITHOUT COLOR	24
5	MPBZ00	PAD	MPBZ0227901	COMPLEX, (empty), , , , ,	WITHOUT COLOR	46
5	MTAB00	TAPE,PROTECTION	MTAB0299501	COMPLEX, (empty), , , , ,	WITHOUT COLOR	30
5	MTAK00	TAPE,CAMERA	MTAK0017501	COMPLEX, (empty), , , , ,	WITHOUT COLOR	37
5	MTAZ01	TAPE	MTAZ0222401	COMPLEX, (empty), , , , ,	WITHOUT COLOR	28, 31
5	MTAZ02	TAPE	MTAZ0226101	COMPLEX, (empty), , , , ,	WITHOUT COLOR	23
5	MTAZ03	TAPE	MTAZ0226201	COMPLEX, (empty), , , , ,	WITHOUT COLOR	26
5	MTAZ04	TAPE	MTAZ0226301	COMPLEX, (empty), , , , ,	WITHOUT COLOR	25
5	MTAZ05	TAPE	MTAZ0226401	COMPLEX, (empty), , , , ,	WITHOUT COLOR	29
5	MTAZ06	TAPE	MTAZ0232801	COMPLEX, (empty), , , , ,	WITHOUT COLOR	
4	AWAB00	WINDOW ASSY,LCD	AWAB0035201	MAIN	WITHOUT COLOR	B

Level	Location No.	Description	Part Number	Spec	Color	Remark
5	MTAB00	TAPE,PROTECTION	MTAB0305901	COMPLEX, (empty), , , , ,	WITHOUT COLOR	
5	MTAZ00	TAPE	MTAZ0235001	COMPLEX, (empty), , , , ,	WITHOUT COLOR	
5	MWAC00	WINDOW,LCD	MWAC0107601	CUTTING, Tempered Glass, , , , ,	WITHOUT COLOR	17
4	GMEY00	SCREW MACHINE,BIND	GMEY0009201	1.4 mm,3.5 mm,MSWR3(BK) ,B ,+ ,HEAD D=2.7mm	Black	
4	GMEY02	SCREW MACHINE,BIND	GMEY0022601	1.4 mm,5.0 mm,MSWR3(FN) ,N ,+ , ,; ,BH ,+ ,3.5(+0,-0.1) ,5.0(+0,-0.2) ,MSWR3 ,FN ,[empty] ,[empty]	SILVER	87
4	MGAZ00	GASKET	MGAZ0067901	COMPLEX, (empty), , , , ,	WITHOUT COLOR	36_1
4	MGAZ02	GASKET	MGAZ0068401	COMPLEX, (empty), , , , ,	WITHOUT COLOR	
4	MIDZ00	INSULATOR	MIDZ0194201	COMPLEX, (empty), , , , ,	WITHOUT COLOR	51
4	MIDZ02	INSULATOR	MIDZ0205901	COMPLEX, (empty), , , , ,	WITHOUT COLOR	61
4	MLAZ00	LABEL	MLAZ0038303	PRINTING, (empty), , , , ,	White	
4	MLEY00	LOCKER	MLEY0004001	MOLD, PC LUPOY SC-1004A, , , , ,	WITHOUT COLOR	21
4	MLEY01	LOCKER	MLEY0004101	MOLD, PC LUPOY SC-1004A, , , , ,	WITHOUT COLOR	20
4	MPBU01	PAD,CONNECTOR	MPBU0055101	COMPLEX, (empty), , , , ,	WITHOUT COLOR	41
4	MPBU02	PAD,CONNECTOR	MPBU0041501	COMPLEX, (empty), , , , ,	WITHOUT COLOR	
4	MPBU03	PAD,CONNECTOR	MPBU0047201	COMPLEX, (empty), , , , ,	WITHOUT COLOR	53, 59
4	MPBZ00	PAD	MPBZ0217301	COMPLEX, (empty), , , , ,	WITHOUT COLOR	32
4	MPBZ01	PAD	MPBZ0228001	COMPLEX, (empty), , , , ,	WITHOUT COLOR	45
4	MPBZ05	PAD	MPBZ0230801	COMPLEX, (empty), , , , ,	WITHOUT COLOR	42
4	MPBZ08	PAD	MPBZ0232901	COMPLEX, (empty), , , , ,	WITHOUT COLOR	
4	MPFL00	PLATE,LIGHT GUIDE	MPFL0002401	COMPLEX, (empty), , , , ,	WITHOUT COLOR	29_1
4	MRDY00	REINFORCE	MRDY0000801	COMPLEX, (empty), , , , ,	WITHOUT COLOR	
4	MTAB00	TAPE,PROTECTION	MTAB0261701	COMPLEX, (empty), , , , ,	WITHOUT COLOR	1
4	MTAD00	TAPE,WINDOW	MTAD0094401	COMPLEX, (empty), , , , ,	WITHOUT COLOR	19

11. EXPLODED VIEW & REPLACEMENT PART LIST

Level	Location No.	Description	Part Number	Spec	Color	Remark
4	MTAZ00	TAPE	MTAZ0235201	COMPLEX, (empty), , , , ,	WITHOUT COLOR	47
4	MTAZ01	TAPE	MTAZ0235301	COMPLEX, (empty), , , , ,	WITHOUT COLOR	48
4	MTAZ02	TAPE	MTAZ0235501	COMPLEX, (empty), , , , ,	WITHOUT COLOR	60
4	MTAZ03	TAPE	MTAZ0235901	COMPLEX, (empty), , , , ,	WITHOUT COLOR	33
4	MTAZ07	TAPE	MTAZ0233201	COMPLEX, (empty), , , , ,	WITHOUT COLOR	34
6	MCBA00	CAN,SHIELD	MCBA0041301	PRESS, STS, 0.2, , , ,	WITHOUT COLOR	50
8	ACKA00	CAN ASSY,SHIELD	ACKA0014401		WITHOUT COLOR	
9	MCBA00	CAN,SHIELD	MCBA0037801	PRESS, STS, 0.2, , , ,	WITHOUT COLOR	55
9	MPBZ00	PAD	MPBZ0228701	COMPLEX, (empty), , , , ,	WITHOUT COLOR	
9	MPFZ00	PLATE	MPFZ0038201	COMPLEX, (empty), , , , ,	WITHOUT COLOR	56
9	MTAZ00	TAPE	MTAZ0233001	COMPLEX, (empty), , , , ,	WITHOUT COLOR	52
8	MGAZ00	GASKET	MGAZ0068301	COMPLEX, (empty), , , , ,	WITHOUT COLOR	
8	MTAZ01	TAPE	MTAZ0233301	COMPLEX, (empty), , , , ,	WITHOUT COLOR	57
3	MLAA	LABEL,APPROVAL	MLAA0051001	COMPLEX, (empty), , , , ,	WITHOUT COLOR	
3	MLAR	LABEL,WARNING	MLAR0005301	COMPLEX, (empty), , , , ,	YELLOW	

11.2 Replacement Parts
<Main component>

Note: This Chapter is used for reference, Part order is ordered by SBOM standard on GCSC

Level	Location No.	Description	Part Number	Spec	Color	Remark
1		IMT-2000(SLIDE)	TISL0006201		SILVER	
5	SNGF00	ANTENNA,GSM,FIXED	SNGF0041701	3.0 ,-5.0 dBd,, ,internal, FPCB, GPS+WiFi ,; ,DUAL ,-5.0 ,50 ,3.0		93
5	SNGF00	ANTENNA,GSM,FIXED	SNGF0040402	3.0 ,-5.0 dBd,, ,internal, GSM900/1800/1900+Band1 ,; ,QUAD ,-5.0 ,50 ,3.0		
5	SMZY00	MODULE,ETC	SMZY0019801	Capacitive Touch Screen ,; ,Module Assembly		18
4	SACY00	PCB ASSY,FLEXIBLE	SACY0092401	SPK_MOT_FLASH_3.5pie		
5	SACE00	PCB ASSY,FLEXIBLE,SMT	SACE0084601	SPK_MOT_FLASH_3.5pie		
6	SACC00	PCB ASSY,FLEXIBLE,SMT BOTTOM	SACC0059701			
7	LD100	DIODE,LED,MODULE	EDLM0009401	WHITE ,1 LED,3.5X2.8X0.6T ,R/TP ,		
6	SACD00	PCB ASSY,FLEXIBLE,SMT TOP	SACD0072701			
7	CN102	CONNECTOR,BOARD TO BOARD	ENBY0034101	24 PIN,0.4 mm,ETC , ,GB042 H=1.0, Plug		
7	J1	CONN,JACK/PLUG,EARPH ONE	ENJE0007201	4 ,10 , ,; ,4P ,6P ,ANGLE ,[empty] , ,BLACK ,		
6	SPCY	PCB,FLEXIBLE	SPCY0158601	POLYI ,0.15 mm,DOUBLE , ,; , , , , , , , , ,		
4	SACY01	PCB ASSY,FLEXIBLE	SACY0092301	ALS_PS		
5	SACC00	PCB ASSY,FLEXIBLE,SMT BOTTOM	SACC0059801			
6	C100	CAP,CHIP,MAKER	ECZH0003103	0.1 uF,10V ,K ,X7R ,HD ,1005 ,R/TP		
6	C102	CAP,CERAMIC,CHIP	ECCH0002002	47000 pF,10V ,K ,B ,HD ,1005 ,R/TP		
6	C103	CAP,CERAMIC,CHIP	ECCH0000149	3.3 nF,50V,K,X7R,HD,1005,R/TP		
6	R102	RES,CHIP,MAKER	ERHZ0000534	8.2 ohm,1/16W ,J ,1005 ,R/TP		
6	R104	RES,CHIP	ERHY0010201	1.2 Mohm,1/16W ,F ,1005 ,R/TP		
5	SACD00	PCB ASSY,FLEXIBLE,SMT TOP	SACD0072501			
6	C101	CAP,TANTAL,CHIP	ECTH0003704	4.7 uF,10V ,M ,STD ,1608 ,R/TP		
6	CN1	CONNECTOR,BOARD TO BOARD	ENBY0045201	10 PIN,0.4 mm,STRAIGHT , , ,; , ,0.40MM ,STRAIGHT ,MALE ,SMD ,[empty] , ,		
6	U100	IC	EUSY0343701	WSOF6 ,6 PIN,R/TP ,Luminance sensor ,; ,IC,A/D Converter		
6	U101	IC	EUSY0368901	QFN ,10 ,R/TP ,4.5*4.5*1,2 ,; ,IC,ECL		
5	SPCY	PCB,FLEXIBLE	SPCY0150101	POLYI ,0.3 mm,Multi-3 , ,; , , , , , , , , ,		

11. EXPLODED VIEW & REPLACEMENT PART LIST

Level	Location No.	Description	Part Number	Spec	Color	Remark
4	SACY03	PCB ASSY,FLEXIBLE	SACY0092501	FCAM_SKEY_EKEY		
5	SACD00	PCB ASSY,FLEXIBLE,SMT TOP	SACD0073301			
6	C100	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
6	C101	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
6	CN100	CAMERA	SVCY0019901	CMOS ,VGA ,Toshiba(1/10"), 4x4x2.23t, Reflow Type		
6	CN101	CONNECTOR,BOARD TO BOARD	ENBY0033901	24 PIN,0.4 mm,ETC , ,P4S H=1.5, Header		
6	VA1	VARISTOR	SEVY0001001	14 V, ,SMD ,50pF, 1005		
6	VA2	VARISTOR	SEVY0001001	14 V, ,SMD ,50pF, 1005		
6	VA3	VARISTOR	SEVY0001001	14 V, ,SMD ,50pF, 1005		
5	SPCY	PCB,FLEXIBLE	SPCY0158001	POLYI ,0.25 mm,MULTI-3 ,OPERA VGA CAMERA FPCB ,; , , , , , , , , ,		
4	SACY04	PCB ASSY,FLEXIBLE	SACY0092701	MIC_LED_ANTENNA		
5	SACC00	PCB ASSY,FLEXIBLE,SMT BOTTOM	SACC0059601			
6	AF_CAM	SWITCH,TACT	ESCY0006101	15 V,20 mA,HORIZONTAL ,1 G, ,; ,1C1P ,[empty] ,[empty] ,[empty] , ,[empty]		
6	C104	CAP,TANTAL,CHIP	ECTH0003701	10 uF,6.3V ,M ,L_ESR ,1608 ,R/TP		
6	C105	CAP,CERAMIC,CHIP	ECCH0000122	47 pF,50V,J,NP0,TC,1005,R/TP		
6	C109	CAP,CERAMIC,CHIP	ECCH0000701	1.2 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
6	CN100	CONNECTOR,BOARD TO BOARD	ENBY0043601	20 PIN,0.4 mm,STRAIGHT , , ,; , ,0.40MM ,STRAIGHT ,MALE ,SMD ,[empty] , ,		
6	L101	INDUCTOR,CHIP	ELCH0003826	3.3 nH,S ,1005 ,R/TP ,chip		
6	L103	INDUCTOR,CHIP	ELCH0005005	27 nH,J ,1005 ,R/TP ,		
6	MIC101	MICROPHONE	SUMY0010609	UNIT ,-42 dB,3.76*2.95*1.1 ,mems smd mic ,; , , ,OMNI ,[empty] , ,[empty]		
6	SW100	CONN,RF SWITCH	ENWY0003901	,SMD , dB,		
6	VA100	DIODE,TVS	EDTY0008606	DFN-2 ,7.82 V,150 mW,R/TP ,PB-FREE		
5	SACD00	PCB ASSY,FLEXIBLE,SMT TOP	SACD0072901			
6	C100	CAP,TANTAL,CHIP	ECTH0003701	10 uF,6.3V ,M ,L_ESR ,1608 ,R/TP		
6	C101	CAP,CERAMIC,CHIP	ECCH0000112	15 pF,50V,J,NP0,TC,1005,R/TP		
6	C102	CAP,CERAMIC,CHIP	ECCH0000112	15 pF,50V,J,NP0,TC,1005,R/TP		
6	C103	CAP,CERAMIC,CHIP	ECCH0000122	47 pF,50V,J,NP0,TC,1005,R/TP		
6	LD100	DIODE,LED,CHIP	EDLH0012504	Snow White ,1608 ,R/TP ,color concept		

Level	Location No.	Description	Part Number	Spec	Color	Remark
6	LD101	DIODE,LED,CHIP	EDLH0007901	RED ,1608 ,R/TP ,Indicator,0.4T Red LED		
6	LD102	DIODE,LED,CHIP	EDLH0014501	GREEN ,1608 ,R/TP , ,; ,[empty] ,2.85~3.25 , , , , ,[empty] ,[empty] ,2P		
6	MIC100	MICROPHONE	SUMY0010609	UNIT ,-42 dB,3.76*2.95*1.1 ,mems smd mic ,; , , ,OMNI ,[empty] , ,[empty]		
5	SPCY	PCB,FLEXIBLE	SPCY0150301	POLYI ,0.2 mm,DOUBLE , ,; , , , , , , , , ,		
4	SAFY	PCB ASSY,MAIN	SAFY0294801			E
5	SAFB00	PCB ASSY,MAIN,INSERT	SAFB0098501			
6	SAJY	PCB ASSY,SUB	SAJY0037401			
7	SAJB00	PCB ASSY,SUB,INSERT	SAJB0019801			
8	SACY00	PCB ASSY,FLEXIBLE	SACY0092601	ACF_FPCB		
9	SACD00	PCB ASSY,FLEXIBLE,SMT TOP	SACD0072801			
10	CN102	CONNECTOR,BOARD TO BOARD	ENBY0041401	PIN, mm,ETC , , ,; ,70 ,0.40MM ,STRAIGHT ,MALE ,SMD ,R/TP ,1.0 ,		
9	SPCY	PCB,FLEXIBLE	SPCY0155301	POLYI , mm,DOUBLE , ,; , , , , , , , , ,		
8	SAJY00	PCB ASSY,SUB	SAJY0041701	70pin BtoB con Hard type		
9	SAJC00	PCB ASSY,SUB,SMT BOTTOM	SAJC0032201			
10	ENBY00	CONNECTOR,BOARD TO BOARD	ENBY0041401	PIN, mm,ETC , , ,; ,70 ,0.40MM ,STRAIGHT ,MALE ,SMD ,R/TP ,1.0 ,		
9	SAJD00	PCB ASSY,SUB,SMT TOP	SAJD0034801			
10	ENBY00	CONNECTOR,BOARD TO BOARD	ENBY0041401	PIN, mm,ETC , , ,; ,70 ,0.40MM ,STRAIGHT ,MALE ,SMD ,R/TP ,1.0 ,		
9	SPJY	PCB,SUB	SPJY0064001	FR-4 ,0.7 mm,DOUBLE ,BtoB ,; , , , , , , , , ,		
7	SAJE00	PCB ASSY,SUB,SMT	SAJE0030401			
8	SAJC00	PCB ASSY,SUB,SMT BOTTOM	SAJC0028901			
9	C101	CAP,CERAMIC,CHIP	ECCH0009216	22 pF,25V ,J ,X7R ,TC ,0603 ,R/TP		
9	C103	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
9	C104	CAP,CERAMIC,CHIP	ECCH0009216	22 pF,25V ,J ,X7R ,TC ,0603 ,R/TP		
9	C136	CAP,CERAMIC,CHIP	ECCH0009107	2.2 nF,16V ,K ,X7R ,TC ,0603 ,R/TP		
9	C140	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
9	C144	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
9	C145	CAP,CERAMIC,CHIP	ECCH0009106	10 nF,16V ,K ,X7R ,TC ,0603 ,R/TP		
9	C147	CAP,CERAMIC,CHIP	ECCH0009107	2.2 nF,16V ,K ,X7R ,TC ,0603 ,R/TP		

11. EXPLODED VIEW & REPLACEMENT PART LIST

Level	Location No.	Description	Part Number	Spec	Color	Remark
9	C301	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
9	C302	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
9	C303	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
9	C411	CAP,CERAMIC,CHIP	ECCH0006201	4.7 uF,6.3V ,K ,X5R ,TC ,1608 ,R/TP		
9	C412	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
9	C428	CAP,CHIP,MAKER	ECZH0000901	24 pF,50V ,J ,NP0 ,TC ,1005 ,R/TP		
9	C430	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
9	C431	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		
9	CN200	CONTACT,ANTENNA	MCIA0020301	COMPLEX, (empty), , , , ,	WITHOUT COLOR	
9	CN201	CONTACT,ANTENNA	MCIA0020301	COMPLEX, (empty), , , , ,	WITHOUT COLOR	
9	CN301	CONNECTOR,FFC/FPC	ENQY0015001	9 ,0.3 mm,STRAIGHT , ,H=0.9 ,; , ,0.30MM ,FFC/FPC ,STRAIGHT ,[empty] ,SMD ,R/TP ,[empty] ,		
9	CN303	CONNECTOR,BOARD TO BOARD	ENBY0034201	24 PIN,0.4 mm,ETC , ,GB042 H=1.0, Socket		
9	J100	CONN,SOCKET	ENSY0018701	6 PIN,ETC , ,2.54 mm,H=1.8		
9	L403	INDUCTOR,CHIP	ELCH0009114	100 nH,J ,1005 ,R/TP ,coil		
9	L405	INDUCTOR,CHIP	ELCH0001048	10 nH,J ,1005 ,R/TP ,PBFREE		
9	R100	RES,CHIP	ERHY0009526	4.7 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R116	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R118	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R120	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R124	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R304	RES,CHIP	ERHY0009505	10 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R420	RES,CHIP,MAKER	ERHZ0000439	200 Kohm,1/16W ,J ,1005 ,R/TP		
9	R421	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
9	S100	CONN,SOCKET	ENSY0022301	8 ,ETC ,Hinge Type ,1.1 mm,		
9	U105	IC	EUSY0227902	SON5 ,5 PIN,R/TP ,XOR GATE ,; ,IC,TTL		
9	U106	IC	EUSY0349001	BGA ,8 PIN,R/TP ,Class AB SPK AMP ,; ,IC,Audio Amplifier		
9	U108	IC	EUSY0227902	SON5 ,5 PIN,R/TP ,XOR GATE ,; ,IC,TTL		
9	U301	IC	EUSY0353801	PLP1010-4 ,4 PIN,R/TP ,1x1 LDO, 3.3V , 150mA ,; ,IC,LDO Voltage Regulator		

Level	Location No.	Description	Part Number	Spec	Color	Remark
9	U400	IC	EUSY0250501	SC70 ,5 PIN,R/TP ,Comparator, pin compatible to EUSY0077701		
9	U404	IC	EUSY0372401	PLP1010-4 ,4 ,R/TP ,150mA Single LDO ,; ,IC,LDO Voltage Regulator		
9	VA400	VARISTOR	SEVY0005202	5.5 V,+-30 ,SMD ,1005, 100 pF, Pb free		
9	VA401	VARISTOR	SEVY0005202	5.5 V,+-30 ,SMD ,1005, 100 pF, Pb free		
9	VA404	VARISTOR	SEVY0005202	5.5 V,+-30 ,SMD ,1005, 100 pF, Pb free		
9	VA405	VARISTOR	SEVY0005202	5.5 V,+-30 ,SMD ,1005, 100 pF, Pb free		
9	ZD1	DIODE,TVS	EDTY0009601	SLP1006P2 ,5 V,100 W,R/TP ,1.0x0.6x0.5t ,; , , , , , ,[empty] ,[empty] ,[empty] ,[empty]		
8	SAJD00	PCB ASSY,SUB,SMT TOP	SAJD0031101			
9	C105	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		
9	C106	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
9	C107	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		
9	C108	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
9	C109	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		
9	C110	CAP,CHIP,MAKER	ECZH0003103	0.1 uF,10V ,K ,X7R ,HD ,1005 ,R/TP		
9	C111	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
9	C112	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
9	C113	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
9	C114	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
9	C115	CAP,CERAMIC,CHIP	ECCH0000195	3.9 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
9	C117	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
9	C121	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
9	C122	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
9	C123	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		
9	C124	CAP,CERAMIC,CHIP	ECCH0009514	10 pF,25V ,D ,X7R ,HD ,0603 ,R/TP		
9	C125	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
9	C126	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
9	C127	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
9	C128	CAP,CERAMIC,CHIP	ECCH0009216	22 pF,25V ,J ,X7R ,TC ,0603 ,R/TP		
9	C129	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
9	C130	CAP,CHIP,MAKER	ECZH0001216	220 nF,10V ,K ,X5R ,TC ,1005 ,R/TP		

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Level	Location No.	Description	Part Number	Spec	Color	Remark
9	C131	CAP,CHIP,MAKER	ECZH0001216	220 nF,10V ,K ,X5R ,TC ,1005 ,R/TP		
9	C132	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
9	C133	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
9	C135	CAP,CHIP,MAKER	ECZH0001503	0.47 uF,10V ,Z ,Y5V ,HD ,1608 ,R/TP		
9	C137	CAP,CERAMIC,CHIP	ECCH0005603	2.2 uF,10V ,K ,X5R ,TC ,1608 ,R/TP		
9	C138	CAP,CHIP,MAKER	ECZH0001503	0.47 uF,10V ,Z ,Y5V ,HD ,1608 ,R/TP		
9	C139	CAP,CHIP,MAKER	ECZH0000813	100 pF,50V ,J ,NP0 ,TC ,1005 ,R/TP		
9	C141	CAP,CERAMIC,CHIP	ECCH0009201	47 nF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
9	C142	CAP,CERAMIC,CHIP	ECCH0000179	22 nF,16V ,K ,X5R ,HD ,1005 ,R/TP		
9	C143	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
9	C146	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		
9	C200	CAP,CHIP,MAKER	ECZH0000813	100 pF,50V ,J ,NP0 ,TC ,1005 ,R/TP		
9	C201	CAP,CERAMIC,CHIP	ECCH0000104	3 pF,50V,C,NP0,TC,1005,R/TP		
9	C202	CAP,CHIP,MAKER	ECZH0000813	100 pF,50V ,J ,NP0 ,TC ,1005 ,R/TP		
9	C208	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		
9	C209	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
9	C210	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
9	C211	CAP,CERAMIC,CHIP	ECCH0005604	10000000 pF,6.3V ,M ,X5R ,TC ,1608 ,R/TP , , ,[empty] ,[empty] ,[empty] ,[empty] ,[empty] ,[empty] ,0.8 mm		
9	C212	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
9	C213	CAP,CERAMIC,CHIP	ECCH0000143	1 nF,50V,K,X7R,HD,1005,R/TP		
9	C214	CAP,CERAMIC,CHIP	ECCH0000109	8 pF,50V,D,NP0,TC,1005,R/TP		
9	C215	CAP,CHIP,MAKER	ECZH0001215	1 uF,10V ,K ,X5R ,TC ,1005 ,R/TP		
9	C216	CAP,CERAMIC,CHIP	ECCH0006201	4.7 uF,6.3V ,K ,X5R ,TC ,1608 ,R/TP		
9	C217	CAP,CERAMIC,CHIP	ECCH0007802	4.7 uF,10V ,M ,X5R ,TC ,1608 ,R/TP		
9	C218	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
9	C219	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
9	C220	CAP,CERAMIC,CHIP	ECCH0005603	2.2 uF,10V ,K ,X5R ,TC ,1608 ,R/TP		
9	C221	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
9	C222	CAP,CHIP,MAKER	ECZH0001215	1 uF,10V ,K ,X5R ,TC ,1005 ,R/TP		
9	C223	CAP,CERAMIC,CHIP	ECCH0005604	10000000 pF,6.3V ,M ,X5R ,TC ,1608 ,R/TP , , ,[empty] ,[empty] ,[empty] ,[empty] ,[empty] ,[empty] ,0.8 mm		
9	C224	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		

Level	Location No.	Description	Part Number	Spec	Color	Remark
9	C225	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
9	C226	CAP,CERAMIC,CHIP	ECCH0006201	4.7 uF,6.3V ,K ,X5R ,TC ,1608 ,R/TP		
9	C227	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		
9	C228	CAP,CERAMIC,CHIP	ECCH0000143	1 nF,50V,K,X7R,HD,1005,R/TP		
9	C229	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		
9	C230	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
9	C231	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
9	C400	CAP,CERAMIC,CHIP	ECCH0009103	100 pF,50V ,J ,X7R ,TC ,0603 ,R/TP , , ,[empty] ,[empty] ,C0G ,[empty] ,[empty] ,[empty] ,0.3 mm		
9	C401	CAP,CERAMIC,CHIP	ECCH0000117	27 pF,50V,J,NP0,TC,1005,R/TP		
9	C402	CAP,CERAMIC,CHIP	ECCH0006201	4.7 uF,6.3V ,K ,X5R ,TC ,1608 ,R/TP		
9	C403	CAP,CHIP,MAKER	ECZH0001216	220 nF,10V ,K ,X5R ,TC ,1005 ,R/TP		
9	C404	CAP,CERAMIC,CHIP	ECCH0000179	22 nF,16V ,K ,X5R ,HD ,1005 ,R/TP		
9	C405	CAP,CERAMIC,CHIP	ECCH0000110	10 pF,50V,D,NP0,TC,1005,R/TP		
9	C406	CAP,CERAMIC,CHIP	ECCH0000179	22 nF,16V ,K ,X5R ,HD ,1005 ,R/TP		
9	C408	CAP,CERAMIC,CHIP	ECCH0006201	4.7 uF,6.3V ,K ,X5R ,TC ,1608 ,R/TP		
9	C409	CAP,CERAMIC,CHIP	ECCH0005604	10000000 pF,6.3V ,M ,X5R ,TC ,1608 ,R/TP , , ,[empty] ,[empty] ,[empty] ,[empty] ,[empty] ,[empty] ,0.8 mm		
9	C410	CAP,CERAMIC,CHIP	ECCH0000117	27 pF,50V,J,NP0,TC,1005,R/TP		
9	C413	CAP,TANTAL,CHIP	ECTH0001903	22 uF,6.3V ,M ,L_ESR ,1608 ,R/TP		
9	C414	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
9	C415	CAP,CERAMIC,CHIP	ECCH0006201	4.7 uF,6.3V ,K ,X5R ,TC ,1608 ,R/TP		
9	C416	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
9	C417	CAP,CERAMIC,CHIP	ECCH0000138	390 pF,50V,K,X7R,HD,1005,R/TP		
9	C418	CAP,CERAMIC,CHIP	ECCH0000138	390 pF,50V,K,X7R,HD,1005,R/TP		
9	C419	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
9	C420	CAP,CHIP,MAKER	ECZH0001216	220 nF,10V ,K ,X5R ,TC ,1005 ,R/TP		
9	C421	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
9	C422	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
9	C423	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
9	C424	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
9	C425	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
9	C426	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		

11. EXPLODED VIEW & REPLACEMENT PART LIST

Level	Location No.	Description	Part Number	Spec	Color	Remark
9	C427	CAP,CERAMIC,CHIP	ECCH0005603	2.2 uF,10V ,K ,X5R ,TC ,1608 ,R/TP		
9	C429	CAP,CERAMIC,CHIP	ECCH0000183	1.8 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
9	CN302	CONNECTOR,BOARD TO BOARD	ENBY0041501	PIN, mm,ETC , , ,; ,70 ,0.40MM ,STRAIGHT ,FEMALE ,SMD ,R/TP ,1.0 ,		
9	FB200	FILTER,BEAD,CHIP	SFBH0008101	600 ohm,1005 ,		
9	FB201	FILTER,BEAD,CHIP	SFBH0007102	10 ohm,1005 ,Ferrite Bead		
9	FB400	FILTER,BEAD,CHIP	SFBH0008105	1800 ohm,1005 ,Chip bead ,; ,1800ohm ,; ,[empty] ,R/TP		
9	FB401	FILTER,BEAD,CHIP	SFBH0008105	1800 ohm,1005 ,Chip bead ,; ,1800ohm ,; ,[empty] ,R/TP		
9	FB402	FILTER,BEAD,CHIP	SFBH0008105	1800 ohm,1005 ,Chip bead ,; ,1800ohm ,; ,[empty] ,R/TP		
9	FL100	FILTER,SAW	SFSY0033401	1575.42 MHz,1.4*1.1*0.4 ,SMD ,1574.42M~1576.42M, IL 1.0, 5pin, U-U, 50-50, GPS LOW LOSS ,; ,1575.42 ,1.4*1.1*0.4 ,SMD ,R/TP		
9	FL102	FILTER,SAW	SFSY0033402	1575.42 MHz,1.4*1.1*0.4 ,SMD ,1574.42M~1576.42M, IL 1.4, 5pin, U-B, 50-100, GPS BPF ,; ,1575.42 ,1.4*1.1*0.4 ,SMD ,R/TP		
9	FL200	FILTER,SEPERATOR	SFAY0012401	2400 to 2500 ,1572 to 1578 ,0.6 dB,0.4 dB,22 dB,13 dB,1608 ,diplexer, GPS/WiFi		
9	L101	INDUCTOR,CHIP	ELCH0001049	6.8 nH,J ,1005 ,R/TP ,PBFREE		
9	L102	INDUCTOR,CHIP	ELCH0003844	2 nH,S ,1005 ,R/TP ,Chip coil		
9	L106	INDUCTOR,CHIP	ELCH0003843	120 nH,J ,1005 ,R/TP ,MLCI chip		
9	L107	INDUCTOR,SMD,POWER	ELCP0008008	1 uH,M ,2.0x2.5x1.0 ,R/TP ,MLCI ,; ,1uH ,2% ,; ,; ,0.09ohm ,; , ,SHIELD ,2.5X2X1MM ,[empty] ,R/TP ,Inductor,Wire Wound,Chip		
9	L200	INDUCTOR,SMD,POWER	ELCP0008007	3.3 uH,N ,2.5*2.0*1.0 ,R/TP ,MLCI Power ,; ,3.3 ,30% ,; ,; ,; ,; ,; ,SHIELD ,2.5X2X1MM ,[empty] ,[empty] ,Inductor,Wire Wound,Chip		
9	L201	INDUCTOR,SMD,POWER	ELCP0008001	4.7 uH,M ,2.5*2.0*1.0 ,R/TP ,		
9	L220	INDUCTOR,CHIP	ELCH0003836	5.6 nH,S ,1005 ,R/TP ,MLCI		
9	L302	INDUCTOR,CHIP	ELCH0004713	6.8 nH,J ,1005 ,R/TP ,		
9	L404	INDUCTOR,CHIP	ELCH0004733	4.3 nH,S ,1005 ,R/TP ,Coil		
9	Q100	TR,BJT,NPN	EQBN0012401	ESM ,100 mW,R/TP ,NPN TRANSISTOR		
9	R101	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R102	RES,CHIP	ERHY0009502	10 ohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R103	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
9	R104	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
9	R105	RES,CHIP,MAKER	ERHZ0000402	10 ohm,1/16W ,J ,1005 ,R/TP		
9	R106	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		

Level	Location No.	Description	Part Number	Spec	Color	Remark
9	R107	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R108	RES,CHIP	ERHY0009527	47 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R109	RES,CHIP	ERHY0009527	47 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R110	RES,CHIP	ERHY0009527	47 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R111	RES,CHIP	ERHY0009527	47 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R112	RES,CHIP	ERHY0009527	47 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R113	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R114	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
9	R115	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
9	R119	RES,CHIP	ERHY0009547	200 Kohm,1/20W(0.05W) ,F ,0603 ,R/TP		
9	R122	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R123	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R125	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
9	R150	PCB ASSY,MAIN,PAD SHORT	SAFP0000501			
9	R151	PCB ASSY,MAIN,PAD SHORT	SAFP0000501			
9	R152	RES,CHIP,MAKER	ERHZ0000475	3900 ohm,1/16W ,J ,1005 ,R/TP		
9	R153	PCB ASSY,MAIN,PAD OPEN	SAFO0000501	0OHM_1005_DNI		
9	R200	RES,CHIP	ERHY0009558	68 Kohm,1/20W(0.05W) ,F ,0603 ,R/TP		
9	R201	RES,CHIP	ERHY0009558	68 Kohm,1/20W(0.05W) ,F ,0603 ,R/TP		
9	R202	RES,CHIP	ERHY0009558	68 Kohm,1/20W(0.05W) ,F ,0603 ,R/TP		
9	R203	RES,CHIP	ERHY0009558	68 Kohm,1/20W(0.05W) ,F ,0603 ,R/TP		
9	R204	RES,CHIP	ERHY0009505	10 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R209	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R210	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R308	PCB ASSY,MAIN,PAD SHORT	SAFP0000501			
9	R400	RES,CHIP,MAKER	ERHZ0000407	1000 Kohm,1/16W ,J ,1005 ,R/TP		
9	R401	RES,CHIP	ERHY0009524	47 ohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R402	RES,CHIP	ERHY0009518	220 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R403	RES,CHIP,MAKER	ERHZ0000529	1.5 Kohm,1/16W ,J ,1005 ,R/TP		

Level	Location No.	Description	Part Number	Spec	Color	Remark
9	R404	RES,CHIP,MAKER	ERHZ0000422	15 Kohm,1/16W ,J ,1005 ,R/TP		
9	R405	RES,CHIP,MAKER	ERHZ0000443	2200 ohm,1/16W ,J ,1005 ,R/TP		
9	R406	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
9	R407	RES,CHIP,MAKER	ERHZ0000405	10 Kohm,1/16W ,J ,1005 ,R/TP		
9	R408	RES,CHIP,MAKER	ERHZ0000405	10 Kohm,1/16W ,J ,1005 ,R/TP		
9	R409	RES,CHIP,MAKER	ERHZ0000422	15 Kohm,1/16W ,J ,1005 ,R/TP		
9	R410	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
9	R411	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
9	R412	PCB ASSY,MAIN,PAD OPEN	SAFO0000401	0OHM DNI		
9	R413	PCB ASSY,MAIN,PAD OPEN	SAFO0000401	0OHM DNI		
9	R414	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
9	R415	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
9	R416	RES,CHIP,MAKER	ERHZ0000206	10 ohm,1/16W ,F ,1005 ,R/TP		
9	R417	RES,CHIP,MAKER	ERHZ0000206	10 ohm,1/16W ,F ,1005 ,R/TP		
9	R418	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R419	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R425	PCB ASSY,MAIN,PAD SHORT	SAFP0000501			
9	R427	RES,CHIP	ERHY0009521	330 ohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R429	RES,CHIP	ERHY0009501	0 ohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R430	RES,CHIP	ERHY0009501	0 ohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R431	RES,CHIP	ERHY0009501	0 ohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R432	RES,CHIP	ERHY0009501	0 ohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R433	RES,CHIP	ERHY0009501	0 ohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R434	RES,CHIP	ERHY0009501	0 ohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R435	RES,CHIP	ERHY0009501	0 ohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R436	RES,CHIP	ERHY0009501	0 ohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	R437	RES,CHIP	ERHY0009501	0 ohm,1/20W(0.05W) ,J ,0603 ,R/TP		
9	U100	MODULE,ETC	SMZY0016502	LNA Module(GPS LNA+B/P Filter) ,; ,RF Module		

Level	Location No.	Description	Part Number	Spec	Color	Remark
9	U101	IC	EUSY0245902	DRL ,5 PIN,R/TP ,SINGLE,BUFFER,3STATE,1.7X1.7		
9	U102	IC	EUSY0332702	,49 ,R/TP ,A-GPS for EMP U330 ,; ,IC,GPS		
9	U103	IC	EUSY0319001	WDFN-8L ,8 PIN,R/TP ,300mA/300mA 2.8V/1.8V Dual LDO		
9	U104	IC	EUSY0352801	QFN ,20 PIN,R/TP ,FM Transmitter, SMD, 3*3*0.55, Pb Free ,; ,IC Assembly		
9	U107	IC	EUSY0264502	DFN ,14 PIN,R/TP ,700mA Boost converter ,; ,IC,DC,DC Converter		
9	U200	MODULE,ETC	SMZY0019601	WLAN(11b/g)+Bluetooth+FM Module 9 x 7.8 x 1.2 (BCM4325) ,; ,Bluetooth		
9	U201	IC	EUSY0365901	DFN1612-4B ,4 ,R/TP ,300mA 2.8V LDO ,; ,IC,LDO Voltage Regulator		
9	U202	IC	EUSY0378701	TFPBGA ,166 ,ETC ,8GB / 12x16x1.2 / 43nm DIE / eSD2.1 ,; ,IC,MDOC		
9	U203	IC	EUSY0355701	PLP1010-4 ,4 PIN,R/TP ,150mA 2.8V Single LDO ,; ,IC,Voltage Regulator		
9	U401	IC	EUSY0303901	QFN,130mW Capless Stereo Headphone Driver ,16 PIN,R/TP ,Capless hp amp		
9	U402	IC	EUSY0343501	CSP ,42 PIN,R/TP ,Audio CODEC with Class AB,D dual speaker driver, Dual DAC ,; ,IC,Audio Codec		
9	U403	IC	EUSY0300101	WQFN ,10 PIN,R/TP ,Small package Dual SPDT analog Switch, PB-Free		
9	VA100	VARISTOR	SEVY0001001	14 V, ,SMD ,50pF, 1005		
9	VA101	VARISTOR	SEVY0001001	14 V, ,SMD ,50pF, 1005		
9	VA402	DIODE,TVS	EDTY0008606	DFN-2 ,7.82 V,150 mW,R/TP ,PB-FREE		
9	VA403	DIODE,TVS	EDTY0008606	DFN-2 ,7.82 V,150 mW,R/TP ,PB-FREE		
9	X100	TCXO	EXST0002101	19.2 MHz,1.5 PPM,10 pF,SMD ,33*25*0.96 ,EMP330 A-GPS TCXO, Pb-Free ,; ,19.2MHz ,1.5PPM ,2.8V ,33 ,25 ,0.96 , ,SMD ,R/TP		
9	X200	TCXO	EXST0001901	26 MHz,2.5 PPM,10 pF,SMD ,32*15*1.0 ,TI_WL1251 ,; , ,2.5PPM ,2.8V , , , , ,SMD ,R/TP		
8	SPJY	PCB,SUB	SPJY0059901	FR-4 ,0.5 mm,BUILD-UP 6 ,OPERA SUB ,; , , , , , , , , ,		
5	SAFF00	PCB ASSY,MAIN,SMT	SAFF0208101			
6	MLAZ00	LABEL	MLAZ0038301	PID Label 4 Array	WITHOUT COLOR	
6	SAFC00	PCB ASSY,MAIN,SMT BOTTOM	SAFC0118301			
7	C132	CAP,CERAMIC,CHIP	ECCH0009110	22 nF,6.3V ,K ,X7R ,TC ,0603 ,R/TP		
7	C140	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C143	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		

11. EXPLODED VIEW & REPLACEMENT PART LIST

Level	Location No.	Description	Part Number	Spec	Color	Remark
7	C236	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C237	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C239	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		
7	C240	CAP,CERAMIC,CHIP	ECCH0005604	10000000 pF,6.3V ,M ,X5R ,TC ,1608 ,R/TP , , ,[empty] ,[empty] ,[empty] ,[empty] ,[empty] ,[empty] ,0.8 mm		
7	C246	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C260	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C261	CAP,CERAMIC,CHIP	ECCH0005603	2.2 uF,10V ,K ,X5R ,TC ,1608 ,R/TP		
7	C400	CAP,CHIP,MAKER	ECZH0001215	1 uF,10V ,K ,X5R ,TC ,1005 ,R/TP		
7	C401	CAP,CHIP,MAKER	ECZH0001215	1 uF,10V ,K ,X5R ,TC ,1005 ,R/TP		
7	C402	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C403	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C408	CAP,CERAMIC,CHIP	ECCH0000120	39 pF,50V,J,NP0,TC,1005,R/TP		
7	C409	CAP,CHIP,MAKER	ECZH0001215	1 uF,10V ,K ,X5R ,TC ,1005 ,R/TP		
7	C416	CAP,CERAMIC,CHIP	ECCH0000104	3 pF,50V,C,NP0,TC,1005,R/TP		
7	C417	CAP,CERAMIC,CHIP	ECCH0009514	10 pF,25V ,D ,X7R ,HD ,0603 ,R/TP		
7	C418	CAP,CERAMIC,CHIP	ECCH0009504	18 pF,25V ,J ,NP0 ,TC ,0603 ,R/TP		
7	C419	CAP,CERAMIC,CHIP	ECCH0007802	4.7 uF,10V ,M ,X5R ,TC ,1608 ,R/TP		
7	C420	CAP,CERAMIC,CHIP	ECCH0009103	100 pF,50V ,J ,X7R ,TC ,0603 ,R/TP , , ,[empty] ,[empty] ,C0G ,[empty] ,[empty] ,[empty] ,0.3 mm		
7	C423	CAP,CHIP,MAKER	ECZH0003503	1 uF,25V ,K ,X5R ,HD ,1608 ,R/TP		
7	C424	CAP,CHIP,MAKER	ECZH0001215	1 uF,10V ,K ,X5R ,TC ,1005 ,R/TP		
7	C425	CAP,CHIP,MAKER	ECZH0001215	1 uF,10V ,K ,X5R ,TC ,1005 ,R/TP		
7	C506	CAP,CERAMIC,CHIP	ECCH0000112	15 pF,50V,J,NP0,TC,1005,R/TP		
7	C515	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C516	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C517	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C518	CAP,TANTAL,CHIP	ECTH0001902	10 uF,10V ,M ,L_ESR ,1608 ,R/TP		
7	C519	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C520	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C521	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C522	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C523	VARISTOR	SEVY0004301	18 V, ,SMD ,10pF, 1005		

Level	Location No.	Description	Part Number	Spec	Color	Remark
7	C524	CAP,CERAMIC,CHIP	ECCH0000110	10 pF,50V,D,NP0,TC,1005,R/TP		
7	C525	CAP,CERAMIC,CHIP	ECCH0000110	10 pF,50V,D,NP0,TC,1005,R/TP		
7	C526	CAP,CERAMIC,CHIP	ECCH0000110	10 pF,50V,D,NP0,TC,1005,R/TP		
7	C601	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C602	CAP,CHIP,MAKER	ECZH0000816	12 pF,50V ,J ,NP0 ,TC ,1005 ,R/TP		
7	C603	CAP,CERAMIC,CHIP	ECCH0009106	10 nF,16V ,K ,X7R ,TC ,0603 ,R/TP		
7	C604	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C605	CAP,CERAMIC,CHIP	ECCH0000180	3.3 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
7	C606	CAP,CERAMIC,CHIP	ECCH0009106	10 nF,16V ,K ,X7R ,TC ,0603 ,R/TP		
7	C607	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C608	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C609	CAP,CERAMIC,CHIP	ECCH0009106	10 nF,16V ,K ,X7R ,TC ,0603 ,R/TP		
7	C610	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C612	CAP,CERAMIC,CHIP	ECCH0000901	2.2 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
7	C613	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C614	CAP,CERAMIC,CHIP	ECCH0009106	10 nF,16V ,K ,X7R ,TC ,0603 ,R/TP		
7	C615	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C616	CAP,CERAMIC,CHIP	ECCH0000180	3.3 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
7	C617	CAP,CERAMIC,CHIP	ECCH0009105	82 pF,50V ,J ,X7R ,TC ,0603 ,R/TP		
7	C618	CAP,CERAMIC,CHIP	ECCH0000901	2.2 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
7	C619	CAP,CERAMIC,CHIP	ECCH0009106	10 nF,16V ,K ,X7R ,TC ,0603 ,R/TP		
7	C620	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C621	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C622	CAP,CERAMIC,CHIP	ECCH0000901	2.2 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
7	C623	CAP,CERAMIC,CHIP	ECCH0000901	2.2 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
7	C624	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C625	CAP,CERAMIC,CHIP	ECCH0009106	10 nF,16V ,K ,X7R ,TC ,0603 ,R/TP		
7	C626	CAP,CHIP,MAKER	ECZH0000813	100 pF,50V ,J ,NP0 ,TC ,1005 ,R/TP		
7	C627	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C628	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C629	CAP,CERAMIC,CHIP	ECCH0000901	2.2 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
7	C630	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		

11. EXPLODED VIEW & REPLACEMENT PART LIST

Level	Location No.	Description	Part Number	Spec	Color	Remark
7	C631	CAP,CERAMIC,CHIP	ECCH0000180	3.3 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
7	C632	CAP,CHIP,MAKER	ECZH0001216	220 nF,10V ,K ,X5R ,TC ,1005 ,R/TP		
7	C633	CAP,CERAMIC,CHIP	ECCH0000901	2.2 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
7	C634	CAP,CHIP,MAKER	ECZH0000822	1.5 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
7	C635	CAP,CHIP,MAKER	ECZH0025920	1000 pF,16V ,K ,X7R ,HD ,0603 ,R/TP		
7	C636	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C637	CAP,CHIP,MAKER	ECZH0000822	1.5 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
7	C638	CAP,CHIP,MAKER	ECZH0025920	1000 pF,16V ,K ,X7R ,HD ,0603 ,R/TP		
7	C639	CAP,TANTAL,CHIP	ECTH0001902	10 uF,10V ,M ,L_ESR ,1608 ,R/TP		
7	C640	CAP,CERAMIC,CHIP	ECCH0000122	47 pF,50V,J,NP0,TC,1005,R/TP		
7	C641	CAP,CERAMIC,CHIP	ECCH0000113	18 pF,50V,J,NP0,TC,1005,R/TP		
7	C642	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C643	CAP,CERAMIC,CHIP	ECCH0000122	47 pF,50V,J,NP0,TC,1005,R/TP		
7	C644	CAP,CHIP,MAKER	ECZH0025920	1000 pF,16V ,K ,X7R ,HD ,0603 ,R/TP		
7	C646	CAP,CERAMIC,CHIP	ECCH0000701	1.2 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
7	C647	CAP,CERAMIC,CHIP	ECCH0000183	1.8 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
7	C650	CAP,CERAMIC,CHIP	ECCH0000196	0.75 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
7	C651	CAP,CERAMIC,CHIP	ECCH0000155	10 nF,16V,K,X7R,HD,1005,R/TP		
7	C652	CAP,CERAMIC,CHIP	ECCH0000155	10 nF,16V,K,X7R,HD,1005,R/TP		
7	C653	CAP,CERAMIC,CHIP	ECCH0000122	47 pF,50V,J,NP0,TC,1005,R/TP		
7	C654	CAP,CERAMIC,CHIP	ECCH0000155	10 nF,16V,K,X7R,HD,1005,R/TP		
7	C655	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C656	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C659	CAP,CERAMIC,CHIP	ECCH0000185	5.6 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
7	C660	CAP,CERAMIC,CHIP	ECCH0000117	27 pF,50V,J,NP0,TC,1005,R/TP		
7	C666	CAP,CHIP,MAKER	ECZH0000844	68 pF,50V ,J ,NP0 ,TC ,1005 ,R/TP		
7	C667	CAP,CERAMIC,CHIP	ECCH0005603	2.2 uF,10V ,K ,X5R ,TC ,1608 ,R/TP		
7	C668	CAP,CERAMIC,CHIP	ECCH0000122	47 pF,50V,J,NP0,TC,1005,R/TP		
7	C674	CAP,CERAMIC,CHIP	ECCH0000115	22 pF,50V,J,NP0,TC,1005,R/TP		
7	C675	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C676	CAP,CERAMIC,CHIP	ECCH0000105	4 pF,50V,C,NP0,TC,1005,R/TP		
7	C679	CAP,CHIP,MAKER	ECZH0000844	68 pF,50V ,J ,NP0 ,TC ,1005 ,R/TP		

Level	Location No.	Description	Part Number	Spec	Color	Remark
7	C680	CAP,CERAMIC,CHIP	ECCH0000104	3 pF,50V,C,NP0,TC,1005,R/TP		
7	C682	CAP,CERAMIC,CHIP	ECCH0000143	1 nF,50V,K,X7R,HD,1005,R/TP		
7	C683	CAP,CHIP,MAKER	ECZH0000813	100 pF,50V ,J ,NP0 ,TC ,1005 ,R/TP		
7	C684	CAP,CERAMIC,CHIP	ECCH0000155	10 nF,16V,K,X7R,HD,1005,R/TP		
7	C685	CAP,CERAMIC,CHIP	ECCH0000155	10 nF,16V,K,X7R,HD,1005,R/TP		
7	C686	INDUCTOR,CHIP	ELCH0003814	5.1 nH,S ,1005 ,R/TP ,5.1nH,1005		
7	C689	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C690	CAP,CERAMIC,CHIP	ECCH0000105	4 pF,50V,C,NP0,TC,1005,R/TP		
7	C691	CAP,CERAMIC,CHIP	ECCH0000175	2.7 pF,50V ,B ,NP0 ,TC ,1005 ,R/TP		
7	C696	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C697	CAP,CHIP,MAKER	ECZH0000846	8.2 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
7	C699	CAP,CERAMIC,CHIP	ECCH0000122	47 pF,50V,J,NP0,TC,1005,R/TP		
7	C702	CAP,CHIP,MAKER	ECZH0000822	1.5 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
7	C705	CAP,CHIP,MAKER	ECZH0000822	1.5 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
7	C706	CAP,CERAMIC,CHIP	ECCH0000195	3.9 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
7	C707	CAP,CERAMIC,CHIP	ECCH0000901	2.2 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
7	C708	CAP,CERAMIC,CHIP	ECCH0000122	47 pF,50V,J,NP0,TC,1005,R/TP		
7	C709	CAP,CHIP,MAKER	ECZH0000839	4.7 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
7	C710	CAP,CERAMIC,CHIP	ECCH0000901	2.2 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
7	C727	CAP,CERAMIC,CHIP	ECCH0009206	68 pF,25V ,J ,X7R ,TC ,0603 ,R/TP		
7	C728	CAP,CERAMIC,CHIP	ECCH0000182	0.1 uF,10V ,K ,X5R ,HD ,1005 ,R/TP		
7	C734	CAP,CERAMIC,CHIP	ECCH0000155	10 nF,16V,K,X7R,HD,1005,R/TP		
7	C750	CAP,CHIP,MAKER	ECZH0000846	8.2 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
7	C754	CAP,CERAMIC,CHIP	ECCH0000701	1.2 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP		
7	CN200	CONNECTOR,BOARD TO BOARD	ENBY0045301	10 PIN,0.4 mm,STRAIGHT , , ,; , ,0.40MM ,STRAIGHT ,FEMALE ,SMD ,[empty] , ,		
7	CN400	CONNECTOR,I/O	ENRY0006401	18 PIN,0.4 mm,ANGLE , ,H=2.5, Reverse Type		
7	CN500	CONNECTOR,FFC/FPC	ENQY0014601	49 PIN,0.3 mm,ANGLE , , ,; , ,0.30MM ,FFC/FPC ,ANGLE ,BOTH ,SMD ,[empty] ,LOCKING ,		
7	CN501	CONNECTOR,BOARD TO BOARD	ENBY0034201	24 PIN,0.4 mm,ETC , ,GB042 H=1.0, Socket		
7	CN508	CONNECTOR,ETC	ENZY0023101	3 ,3.0 mm,ETC , ,		
7	CN509	CONNECTOR,BOARD TO BOARD	ENBY0041501	PIN, mm,ETC , , ,; ,70 ,0.40MM ,STRAIGHT ,FEMALE ,SMD ,R/TP ,1.0 ,		

11. EXPLODED VIEW & REPLACEMENT PART LIST

Level	Location No.	Description	Part Number	Spec	Color	Remark
7	FB500	FILTER,BEAD,CHIP	SFBH0000909	60 ohm,1005 ,		
7	FB501	FILTER,BEAD,CHIP	SFBH0000909	60 ohm,1005 ,		
7	FB601	FILTER,BEAD,CHIP	SFBH0008102	1800 ohm,1005 ,Bead		
7	FB602	FILTER,BEAD,CHIP	SFBH0008102	1800 ohm,1005 ,Bead		
7	FB603	FILTER,BEAD,CHIP	SFBH0009901	120 ohm,1005 ,		
7	FB604	FILTER,BEAD,CHIP	SFBH0008105	1800 ohm,1005 ,Chip bead ,; ,1800ohm ,; ,[empty] ,R/TP		
7	FB605	FILTER,BEAD,CHIP	SFBH0008105	1800 ohm,1005 ,Chip bead ,; ,1800ohm ,; ,[empty] ,R/TP		
7	FB606	FILTER,BEAD,CHIP	SFBH0008105	1800 ohm,1005 ,Chip bead ,; ,1800ohm ,; ,[empty] ,R/TP		
7	FB607	FILTER,BEAD,CHIP	SFBH0008105	1800 ohm,1005 ,Chip bead ,; ,1800ohm ,; ,[empty] ,R/TP		
7	FB608	FILTER,BEAD,CHIP	SFBH0008105	1800 ohm,1005 ,Chip bead ,; ,1800ohm ,; ,[empty] ,R/TP		
7	FL400	FILTER,EMI/POWER	SFEY0015301	SMD ,Pb-free_Bais ,; ,Filter,LCR		
7	FL401	FILTER,EMI/POWER	SFEY0015301	SMD ,Pb-free_Bais ,; ,Filter,LCR		
7	FL500	FILTER,EMI/POWER	SFEY0015201	SMD ,; ,; ,Filter,LCR		
7	FL501	FILTER,EMI/POWER	SFEY0015201	SMD ,; ,; ,Filter,LCR		
7	FL503	FILTER,EMI/POWER	SFEY0015201	SMD ,; ,; ,Filter,LCR		
7	FL601	FILTER,SEPERATOR	SFAY0012501	, , dB, dB, dB, dB,4532 ,		
7	FL602	FILTER,SAW	SFSY0032901	1950 MHz,1.4*1.1*0.6 ,SMD ,1920M~1980M, IL 2.6, 5pin, B-U, 200_27-50, WCDMA BAND I Tx ,; ,1950 ,1.4*1.1*0.6 ,SMD ,R/TP		
7	FL603	DUPLEXER,IMT	SDMY0001102	1950 MHz,2140 MHz,1.4 dB,2.0 dB,50 dB,41 dB,3.0*2.5*1.0 ,SMD ,SAW Duplexer ,; ,2140 ,41 ,1950 ,50 ,2.0 ,1.4 ,3X2.5 ,DUAL ,[empty] ,[empty]		
7	FL604	FILTER,SAW	SFSY0037502	897.5 MHz,1.4*1.1*0.5 ,SMD ,880.48M~914.52M,IL 4.0,5pin,B-U,200_150-50,W-BAND VIII Tx ,; ,897.5 ,1.4*1.1*0.5 ,SMD ,R/TP		
7	FL605	DUPLEXER,GSM	SDGY0001002	897.5 MHz,942.5 MHz,3.0 dB,3.5 dB,50 dB,43 dB,3.0*2.5*1.2 ,SMD ,Band8 SAW Duplexer ,; ,942.5 ,43 ,897.5 ,50 ,3.5 ,3.0 ,3.0X2.5X1.2 ,DUAL ,SMD ,R/TP		
7	FL606	FILTER,SAW	SFSY0029201	2140 MHz,1.35*1.05*0.6 ,SMD ,Pb-free_WCDMA_Rx_200ohm		
7	FL607	FILTER,SAW	SFSY0024301	942.5 MHz,1.4*1.1*0.6 ,SMD ,5pin, Unbal-Bal, 50//150		
7	FL608	FILTER,EMI/POWER	SFEY0013701	SMD ,18 V,4ch. EMI_ESD Filter (100 Ohm, 7.5pF)		
7	FL609	FILTER,EMI/POWER	SFEY0013701	SMD ,18 V,4ch. EMI_ESD Filter (100 Ohm, 7.5pF)		
7	L500	INDUCTOR,CHIP	ELCH0004703	1 nH,S ,1005 ,R/TP ,		
7	L601	INDUCTOR,CHIP	ELCH0004703	1 nH,S ,1005 ,R/TP ,		
7	L603	INDUCTOR,CHIP	ELCH0001402	18 nH,J ,1005 ,R/TP ,Pb Free		
7	L604	INDUCTOR,CHIP	ELCH0001556	270 nH,J ,1608 ,R/TP ,		

Level	Location No.	Description	Part Number	Spec	Color	Remark
7	L605	INDUCTOR,CHIP	ELCH0001402	18 nH,J ,1005 ,R/TP ,Pb Free		
7	L606	INDUCTOR,CHIP	ELCH0009110	5.1 nH,J ,1005 ,R/TP ,chip coil		
7	L607	INDUCTOR,CHIP	ELCH0009110	5.1 nH,J ,1005 ,R/TP ,chip coil		
7	L608	INDUCTOR,CHIP	ELCH0005011	1.5 nH,S ,1005 ,R/TP ,		
7	L609	INDUCTOR,CHIP	ELCH0001413	22 nH,J ,1005 ,R/TP ,PBFREE		
7	L610	INDUCTOR,CHIP	ELCH0005011	1.5 nH,S ,1005 ,R/TP ,		
7	L611	INDUCTOR,CHIP	ELCH0004733	4.3 nH,S ,1005 ,R/TP ,Coil		
7	L612	INDUCTOR,CHIP	ELCH0001413	22 nH,J ,1005 ,R/TP ,PBFREE		
7	L613	INDUCTOR,CHIP	ELCH0003817	7.5 nH,J ,1005 ,R/TP ,		
7	L614	INDUCTOR,CHIP	ELCH0001413	22 nH,J ,1005 ,R/TP ,PBFREE		
7	L615	INDUCTOR,CHIP	ELCH0001421	47 nH,J ,1005 ,R/TP ,PBFREE		
7	L616	INDUCTOR,CHIP	ELCH0003817	7.5 nH,J ,1005 ,R/TP ,		
7	L618	INDUCTOR,CHIP	ELCH0001413	22 nH,J ,1005 ,R/TP ,PBFREE		
7	L619	INDUCTOR,CHIP	ELCH0003828	2.4 nH,J ,1005 ,R/TP ,MLCI		
7	L620	INDUCTOR,CHIP	ELCH0001407	5.6 nH,S ,1005 ,R/TP ,PBFREE		
7	L621	INDUCTOR,CHIP	ELCH0003826	3.3 nH,S ,1005 ,R/TP ,chip		
7	L622	INDUCTOR,CHIP	ELCH0004709	3.3 nH,S ,1005 ,R/TP ,		
7	L623	INDUCTOR,CHIP	ELCH0004701	12 nH,J ,1005 ,R/TP ,		
7	L624	INDUCTOR,CHIP	ELCH0012510	15 nH,G ,1005 ,R/TP ,chip coil		
7	L625	INDUCTOR,CHIP	ELCH0004704	4.7 nH,S ,1005 ,R/TP ,		
7	L626	INDUCTOR,CHIP	ELCH0001040	3.9 nH,S ,1005 ,R/TP ,PBFREE		
7	L627	INDUCTOR,CHIP	ELCH0001041	10 nH,J ,1005 ,R/TP ,PBFREE		
7	L628	INDUCTOR,CHIP	ELCH0003824	10 nH,J ,1005 ,R/TP ,chip inductor,PBFREE		
7	L629	INDUCTOR,CHIP	ELCH0003835	4.7 nH,S ,1005 ,R/TP ,MLCI		
7	L631	INDUCTOR,CHIP	ELCH0005013	4.7 nH,S ,1005 ,R/TP ,		
7	L633	INDUCTOR,CHIP	ELCH0012501	27 nH,G ,1005 ,R/TP ,chip coil		
7	L634	INDUCTOR,CHIP	ELCH0003815	2.7 nH,S ,1005 ,R/TP ,		
7	L635	INDUCTOR,CHIP	ELCH0005010	1.8 nH,S ,1005 ,R/TP ,		
7	R107	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R227	RES,CHIP	ERHY0009526	4.7 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R228	RES,CHIP	ERHY0009526	4.7 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		

11. EXPLODED VIEW & REPLACEMENT PART LIST

Level	Location No.	Description	Part Number	Spec	Color	Remark
7	R229	RES,CHIP	ERHY0009501	0 ohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R234	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
7	R237	RES,CHIP	ERHY0009501	0 ohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R320	RES,CHIP,MAKER	ERHZ0000451	27 ohm,1/16W ,J ,1005 ,R/TP		
7	R321	RES,CHIP,MAKER	ERHZ0000401	0 ohm,1/16W ,J ,1005 ,R/TP		
7	R324	RES,CHIP,MAKER	ERHZ0000451	27 ohm,1/16W ,J ,1005 ,R/TP		
7	R400	RES,CHIP	ERHY0009505	10 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R401	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R402	RES,CHIP	ERHY0009505	10 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R404	PCB ASSY,MAIN,PAD OPEN	SAFO0000501	0OHM_1005_DNI		
7	R406	RES,CHIP	ERHY0009524	47 ohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R407	RES,CHIP	ERHY0009524	47 ohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R409	RES,CHIP	ERHY0009524	47 ohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R422	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R427	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R428	RES,CHIP	ERHY0011601	11 Kohm,1/16W ,F ,1005 ,R/TP		
7	R429	RES,CHIP,MAKER	ERHZ0000286	4700 ohm,1/16W ,F ,1005 ,R/TP		
7	R430	RES,CHIP	ERHY0000129	18K ohm,1/16W,F,1005,R/TP		
7	R501	PCB ASSY,MAIN,PAD SHORT	SAFP0000501			
7	R503	RES,CHIP,MAKER	ERHZ0000406	100 Kohm,1/16W ,J ,1005 ,R/TP		
7	R506	RES,CHIP	ERHY0000248	2.4K ohm,1/16W,J,1005,R/TP		
7	R507	RES,CHIP	ERHY0000248	2.4K ohm,1/16W,J,1005,R/TP		
7	R508	VARISTOR	SEVY0004001	18 V, ,SMD ,3pF, 1005		
7	R509	VARISTOR	SEVY0004001	18 V, ,SMD ,3pF, 1005		
7	R510	VARISTOR	SEVY0004001	18 V, ,SMD ,3pF, 1005		
7	R511	VARISTOR	SEVY0004001	18 V, ,SMD ,3pF, 1005		
7	R512	VARISTOR	SEVY0004001	18 V, ,SMD ,3pF, 1005		
7	R513	VARISTOR	SEVY0004001	18 V, ,SMD ,3pF, 1005		
7	R601	RES,CHIP	ERHY0009517	22 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R602	THERMISTOR	SETY0006301	NTC ,10000 ohm,SMD ,1005, 3350~3399k, J, R/T, PBFREE		

Level	Location No.	Description	Part Number	Spec	Color	Remark
7	R603	RES,CHIP,MAKER	ERHZ0000402	10 ohm,1/16W ,J ,1005 ,R/TP		
7	R604	RES,CHIP,MAKER	ERHZ0000488	4.7 ohm,1/16W ,J ,1005 ,R/TP		
7	R605	RES,CHIP,MAKER	ERHZ0000405	10 Kohm,1/16W ,J ,1005 ,R/TP		
7	R606	RES,CHIP,MAKER	ERHZ0000435	20 ohm,1/16W ,J ,1005 ,R/TP		
7	R607	RES,CHIP,MAKER	ERHZ0000405	10 Kohm,1/16W ,J ,1005 ,R/TP		
7	R608	RES,CHIP	ERHY0000185	820 ohm,1/16W ,F ,1005 ,R/TP		
7	R609	RES,CHIP	ERHY0009501	0 ohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R610	RES,CHIP	ERHY0009501	0 ohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R614	RES,CHIP	ERHY0009501	0 ohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R615	RES,CHIP	ERHY0009501	0 ohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R617	RES,CHIP,MAKER	ERHZ0000268	33 Kohm,1/16W ,F ,1005 ,R/TP		
7	R618	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
7	R626	PCB ASSY,MAIN,PAD OPEN	SAFO0000401	0OHM DNI		
7	R632	RES,CHIP	ERHY0009501	0 ohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R633	RES,CHIP	ERHY0009501	0 ohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R653	RES,CHIP	ERHY0009524	47 ohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R658	RES,CHIP,MAKER	ERHZ0000220	1500 ohm,1/16W ,F ,1005 ,R/TP		
7	R659	RES,CHIP,MAKER	ERHZ0000401	0 ohm,1/16W ,J ,1005 ,R/TP		
7	R704	PCB ASSY,MAIN,PAD OPEN	SAFO0000501	0OHM_1005_DNI		
7	R705	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
7	R715	RES,CHIP,MAKER	ERHZ0000213	120 Kohm,1/16W ,F ,1005 ,R/TP		
7	R716	RES,CHIP,MAKER	ERHZ0000201	100 ohm,1/16W ,F ,1005 ,R/TP		
7	R717	RES,CHIP	ERHY0013101	2.7 ohm,1/16W ,J ,1005 ,R/TP		
7	R718	RES,CHIP,MAKER	ERHZ0000206	10 ohm,1/16W ,F ,1005 ,R/TP		
7	R719	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
7	R720	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	SC1	FRAME,SHIELD	MFEA0026001	PRESS, STS, , , , ,	WITHOUT COLOR	
7	SW601	CONN,RF SWITCH	ENWY0003901	,SMD , dB,		
7	SW602	CONN,RF SWITCH	ENWY0002301	ANGLE ,SMD ,0.8 dB,		

11. EXPLODED VIEW & REPLACEMENT PART LIST

Level	Location No.	Description	Part Number	Spec	Color	Remark
7	U101	IC	EUSY0306201	Micro pak ,8 PIN,R/TP ,D Flip Flip		
7	U106	IC	EUSY0345201	3*3 QFN ,10 PIN,R/TP ,3xis Accelerometer ,; ,IC,A/D Converter		
7	U203	IC	EUSY0370301	VCSP50L3 ,36 ,R/TP ,ALC, AIE ,; ,IC,Charge Pump		
7	U405	IC	EUSY0351601	DFN ,12 PIN,R/TP ,Dual Charger IC (Bypass) ,; ,IC,Charger		
7	U601	IC	EUSY0162301	SOT-553 ,5 PIN,R/TP ,Single 2 Input OR Gate		
7	U602	PAM	SMPY0017901	dBm, %, A, dBc, dB,5x5 ,SMD ,IFX Linear Edge ,; , , , , , , , ,R/TP ,R/TP ,		
7	U603	IC	EUSY0154001	US8 ,8 PIN,R/TP ,Dual 2-Input OR Gate, Pb Free		
7	U604	IC	EUSY0355201	BGA ,121 PIN,R/TP ,EDGE & UMTS RF Transceiver ,; ,IC,CMOS		
7	U605	PAM	SMPY0018801	28 dBm, %, A, dBc,28 dB,3x5 ,SMD ,3G Dual PAM B1+8. HELP ,; , , , , , , , ,LGA ,R/TP ,14		
7	U606	IC	EUSY0365001	TSLP-16 ,16 ,R/TP ,Triple Band UMTS LNA, 2.3 x.2.3 x.0.39 ,; ,IC,RF Amplifier		
7	U608	IC	EUSY0365901	DFN1612-4B ,4 ,R/TP ,300mA 2.8V LDO ,; ,IC,LDO Voltage Regulator		
7	U609	IC	EUSY0338301	uMLP ,10 PIN,R/TP ,High Speed USB Siwitch 2.0 3.7pF 6.5ohm 1.4X1.8		
7	VA403	DIODE,TVS	EDTY0008606	DFN-2 ,7.82 V,150 mW,R/TP ,PB-FREE		
7	VA500	VARISTOR	SEVY0004301	18 V, ,SMD ,10pF, 1005		
7	X601	VCTCXO	EXSK0005601	26 MHz,2 PPM,10 pF,SMD ,3.2*2.5*1.0 ,		
7	ZD401	DIODE,TVS	EDTY0009601	SLP1006P2 ,5 V,100 W,R/TP ,1.0x0.6x0.5t ,; , , , , , ,[empty] ,[empty] ,[empty] ,[empty]		
7	ZD701	DIODE,TVS	EDTY0009601	SLP1006P2 ,5 V,100 W,R/TP ,1.0x0.6x0.5t ,; , , , , , ,[empty] ,[empty] ,[empty] ,[empty]		
6	SAFD00	PCB ASSY,MAIN,SMT TOP	SAFD0116701			
7	BAT200	BATTERY,CELL,LITHIUM	SBCL0001701	2 V,0.5 mAh,CYLINDER ,Reflow type BB, Max T 1.67, phi 4.8, Pb-Free		
7	C100	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C101	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C102	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C103	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C104	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C105	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C106	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C107	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		

Level	Location No.	Description	Part Number	Spec	Color	Remark
7	C108	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C109	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C110	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C111	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C112	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C113	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C114	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C115	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C117	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C118	CAP,CERAMIC,CHIP	ECCH0009106	10 nF,16V ,K ,X7R ,TC ,0603 ,R/TP		
7	C119	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C120	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C121	CAP,CERAMIC,CHIP	ECCH0009106	10 nF,16V ,K ,X7R ,TC ,0603 ,R/TP		
7	C122	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C123	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C124	CAP,CERAMIC,CHIP	ECCH0009106	10 nF,16V ,K ,X7R ,TC ,0603 ,R/TP		
7	C125	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C126	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C127	CAP,CERAMIC,CHIP	ECCH0009106	10 nF,16V ,K ,X7R ,TC ,0603 ,R/TP		
7	C128	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C129	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C130	CAP,CERAMIC,CHIP	ECCH0009106	10 nF,16V ,K ,X7R ,TC ,0603 ,R/TP		
7	C131	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C133	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C134	CAP,CERAMIC,CHIP	ECCH0009106	10 nF,16V ,K ,X7R ,TC ,0603 ,R/TP		
7	C135	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C136	CAP,CERAMIC,CHIP	ECCH0009106	10 nF,16V ,K ,X7R ,TC ,0603 ,R/TP		
7	C137	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C138	CAP,CERAMIC,CHIP	ECCH0009106	10 nF,16V ,K ,X7R ,TC ,0603 ,R/TP		
7	C139	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C141	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C142	CAP,CERAMIC,CHIP	ECCH0009106	10 nF,16V ,K ,X7R ,TC ,0603 ,R/TP		

11. EXPLODED VIEW & REPLACEMENT PART LIST

Level	Location No.	Description	Part Number	Spec	Color	Remark
7	C144	CAP,CERAMIC,CHIP	ECCH0009216	22 pF,25V ,J ,X7R ,TC ,0603 ,R/TP		
7	C145	CAP,CERAMIC,CHIP	ECCH0009216	22 pF,25V ,J ,X7R ,TC ,0603 ,R/TP		
7	C146	CAP,CHIP,MAKER	ECZH0001216	220 nF,10V ,K ,X5R ,TC ,1005 ,R/TP		
7	C147	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C152	CAP,CHIP,MAKER	ECZH0025920	1000 pF,16V ,K ,X7R ,HD ,0603 ,R/TP		
7	C170	CAP,CERAMIC,CHIP	ECCH0009106	10 nF,16V ,K ,X7R ,TC ,0603 ,R/TP		
7	C200	CAP,CHIP,MAKER	ECZH0003103	0.1 uF,10V ,K ,X7R ,HD ,1005 ,R/TP		
7	C201	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		
7	C202	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		
7	C203	CAP,TANTAL,CHIP	ECTH0002002	33 uF,10V ,M ,L_ESR ,2012 ,R/TP ,; , ,[empty] ,[empty] , ,-55TO+125C , ,2.2X1.1X1.1MM ,[empty] ,[empty] ,[empty]		
7	C204	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C205	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		
7	C206	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		
7	C207	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C208	CAP,CHIP,MAKER	ECZH0003103	0.1 uF,10V ,K ,X7R ,HD ,1005 ,R/TP		
7	C209	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		
7	C210	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C211	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		
7	C212	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		
7	C213	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C214	CAP,CERAMIC,CHIP	ECCH0005604	10000000 pF,6.3V ,M ,X5R ,TC ,1608 ,R/TP , , ,[empty] ,[empty] ,[empty] ,[empty] ,[empty] ,[empty] ,0.8 mm		
7	C215	CAP,CERAMIC,CHIP	ECCH0005604	10000000 pF,6.3V ,M ,X5R ,TC ,1608 ,R/TP , , ,[empty] ,[empty] ,[empty] ,[empty] ,[empty] ,[empty] ,0.8 mm		
7	C216	CAP,CERAMIC,CHIP	ECCH0005604	10000000 pF,6.3V ,M ,X5R ,TC ,1608 ,R/TP , , ,[empty] ,[empty] ,[empty] ,[empty] ,[empty] ,[empty] ,0.8 mm		
7	C217	CAP,CERAMIC,CHIP	ECCH0007802	4.7 uF,10V ,M ,X5R ,TC ,1608 ,R/TP		
7	C218	CAP,CERAMIC,CHIP	ECCH0007802	4.7 uF,10V ,M ,X5R ,TC ,1608 ,R/TP		
7	C219	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C220	CAP,CERAMIC,CHIP	ECCH0005604	10000000 pF,6.3V ,M ,X5R ,TC ,1608 ,R/TP , , ,[empty] ,[empty] ,[empty] ,[empty] ,[empty] ,[empty] ,0.8 mm		
7	C221	CAP,CERAMIC,CHIP	ECCH0005604	10000000 pF,6.3V ,M ,X5R ,TC ,1608 ,R/TP , , ,[empty] ,[empty] ,[empty] ,[empty] ,[empty] ,[empty] ,0.8 mm		
7	C222	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		

Level	Location No.	Description	Part Number	Spec	Color	Remark
7	C223	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C224	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		
7	C226	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C227	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C228	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C229	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		
7	C230	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		
7	C231	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		
7	C232	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		
7	C233	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		
7	C234	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		
7	C235	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		
7	C238	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C301	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C302	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C303	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C304	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C305	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C306	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C307	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C308	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C309	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C311	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C312	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C313	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C314	CAP,CERAMIC,CHIP	ECCH0009106	10 nF,16V ,K ,X7R ,TC ,0603 ,R/TP		
7	C315	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C316	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C317	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C318	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C319	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C320	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		

11. EXPLODED VIEW & REPLACEMENT PART LIST

Level	Location No.	Description	Part Number	Spec	Color	Remark
7	C321	CAP,CERAMIC,CHIP	ECCH0009106	10 nF,16V ,K ,X7R ,TC ,0603 ,R/TP		
7	C322	CAP,TANTAL,CHIP	ECTH0004807	10 uF,10V ,M ,STD ,1608 ,R/TP ,; , ,[empty] ,[empty] , ,-55TO+125C , ,[empty] ,[empty] ,[empty] ,[empty]		
7	C323	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C324	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C327	CAP,CERAMIC,CHIP	ECCH0007802	4.7 uF,10V ,M ,X5R ,TC ,1608 ,R/TP		
7	C328	CAP,CERAMIC,CHIP	ECCH0007802	4.7 uF,10V ,M ,X5R ,TC ,1608 ,R/TP		
7	C329	CAP,CERAMIC,CHIP	ECCH0005604	10000000 pF,6.3V ,M ,X5R ,TC ,1608 ,R/TP , , ,[empty] ,[empty] ,[empty] ,[empty] ,[empty] ,[empty] ,[empty] ,0.8 mm		
7	C330	CAP,CERAMIC,CHIP	ECCH0005604	10000000 pF,6.3V ,M ,X5R ,TC ,1608 ,R/TP , , ,[empty] ,[empty] ,[empty] ,[empty] ,[empty] ,[empty] ,[empty] ,0.8 mm		
7	C331	CAP,CHIP,MAKER	ECZH0001217	470 nF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C332	CAP,CHIP,MAKER	ECZH0001217	470 nF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C334	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C335	CAP,CERAMIC,CHIP	ECCH0009504	18 pF,25V ,J ,NP0 ,TC ,0603 ,R/TP		
7	C336	CAP,CERAMIC,CHIP	ECCH0009504	18 pF,25V ,J ,NP0 ,TC ,0603 ,R/TP		
7	C337	CAP,CERAMIC,CHIP	ECCH0009109	330 pF,50V ,K ,X7R ,TC ,0603 ,R/TP		
7	C338	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C339	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C345	CAP,CERAMIC,CHIP	ECCH0000122	47 pF,50V,J,NP0,TC,1005,R/TP		
7	C346	CAP,CERAMIC,CHIP	ECCH0000122	47 pF,50V,J,NP0,TC,1005,R/TP		
7	C429	CAP,CHIP,MAKER	ECZH0003103	0.1 uF,10V ,K ,X7R ,HD ,1005 ,R/TP		
7	C500	CAP,CHIP,MAKER	ECZH0001215	1 uF,10V ,K ,X5R ,TC ,1005 ,R/TP		
7	C501	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C502	CAP,CERAMIC,CHIP	ECCH0007802	4.7 uF,10V ,M ,X5R ,TC ,1608 ,R/TP		
7	C503	CAP,CHIP,MAKER	ECZH0001215	1 uF,10V ,K ,X5R ,TC ,1005 ,R/TP		
7	C504	CAP,CERAMIC,CHIP	ECCH0007802	4.7 uF,10V ,M ,X5R ,TC ,1608 ,R/TP		
7	C505	CAP,CHIP,MAKER	ECZH0001215	1 uF,10V ,K ,X5R ,TC ,1005 ,R/TP		
7	C507	CAP,CHIP,MAKER	ECZH0001215	1 uF,10V ,K ,X5R ,TC ,1005 ,R/TP		
7	C511	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C513	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C514	CAP,CERAMIC,CHIP	ECCH0007802	4.7 uF,10V ,M ,X5R ,TC ,1608 ,R/TP		
7	C701	CAP,CERAMIC,CHIP	ECCH0009106	10 nF,16V ,K ,X7R ,TC ,0603 ,R/TP		

Level	Location No.	Description	Part Number	Spec	Color	Remark
7	C717	CAP,CERAMIC,CHIP	ECCH0007802	4.7 uF,10V ,M ,X5R ,TC ,1608 ,R/TP		
7	C718	CAP,CERAMIC,CHIP	ECCH0007802	4.7 uF,10V ,M ,X5R ,TC ,1608 ,R/TP		
7	C719	CAP,CERAMIC,CHIP	ECCH0007802	4.7 uF,10V ,M ,X5R ,TC ,1608 ,R/TP		
7	C720	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C722	CAP,CERAMIC,CHIP	ECCH0000182	0.1 uF,10V ,K ,X5R ,HD ,1005 ,R/TP		
7	C723	CAP,CERAMIC,CHIP	ECCH0000182	0.1 uF,10V ,K ,X5R ,HD ,1005 ,R/TP		
7	C724	CAP,CERAMIC,CHIP	ECCH0000182	0.1 uF,10V ,K ,X5R ,HD ,1005 ,R/TP		
7	C725	CAP,CERAMIC,CHIP	ECCH0000182	0.1 uF,10V ,K ,X5R ,HD ,1005 ,R/TP		
7	C726	CAP,CERAMIC,CHIP	ECCH0000198	2.2 uF,6.3V ,M ,X5R ,TC ,1005 ,R/TP		
7	C730	CAP,CERAMIC,CHIP	ECCH0000137	330 pF,50V ,K ,X7R ,HD ,1005 ,R/TP		
7	C731	CAP,CERAMIC,CHIP	ECCH0007802	4.7 uF,10V ,M ,X5R ,TC ,1608 ,R/TP		
7	C732	CAP,CERAMIC,CHIP	ECCH0000122	47 pF,50V,J,NP0,TC,1005,R/TP		
7	C733	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP		
7	C735	CAP,CERAMIC,CHIP	ECCH0005603	2.2 uF,10V ,K ,X5R ,TC ,1608 ,R/TP		
7	C736	CAP,CERAMIC,CHIP	ECCH0000179	22 nF,16V ,K ,X5R ,HD ,1005 ,R/TP		
7	C737	CAP,CERAMIC,CHIP	ECCH0000179	22 nF,16V ,K ,X5R ,HD ,1005 ,R/TP		
7	C738	CAP,CERAMIC,CHIP	ECCH0000117	27 pF,50V,J,NP0,TC,1005,R/TP		
7	C739	CAP,CERAMIC,CHIP	ECCH0000117	27 pF,50V,J,NP0,TC,1005,R/TP		
7	C743	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C751	CAP,CERAMIC,CHIP	ECCH0009514	10 pF,25V ,D ,X7R ,HD ,0603 ,R/TP		
7	C752	CAP,CERAMIC,CHIP	ECCH0009514	10 pF,25V ,D ,X7R ,HD ,0603 ,R/TP		
7	C753	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	C755	CAP,CERAMIC,CHIP	ECCH0009101	0.1 uF,6.3V ,K ,X5R ,TC ,0603 ,R/TP		
7	CN301	CONNECTOR,BOARD TO BOARD	ENBY0034001	24 PIN,0.4 mm,ETC , ,P4S H=1.5, Socket		
7	CN403	CONNECTOR,BOARD TO BOARD	ENBY0043701	20 PIN,0.4 mm,STRAIGHT , , ,; , ,0.40MM ,STRAIGHT ,FEMALE ,SMD ,[empty] , ,		
7	CN510	CONNECTOR,BOARD TO BOARD	ENBY0041501	PIN, mm,ETC , , ,; ,70 ,0.40MM ,STRAIGHT ,FEMALE ,SMD ,R/TP ,1.0 ,		
7	D200	DIODE,SWITCHING	EDSY0017301	VSM ,15 V,100 mA,R/TP ,PB-FREE		
7	D201	DIODE,SWITCHING	EDSY0017701	SOD-123 ,40 V,1 A,R/TP , ,; , , , , , , ,[empty] ,[empty] ,2P ,1		
7	D202	DIODE,SWITCHING	EDSY0017701	SOD-123 ,40 V,1 A,R/TP , ,; , , , , , , ,[empty] ,[empty] ,2P ,1		

11. EXPLODED VIEW & REPLACEMENT PART LIST

Level	Location No.	Description	Part Number	Spec	Color	Remark
7	D302	DIODE,SWITCHING	EDSY0011901	EMD2 ,30 V,1 A,R/TP ,VF=1.5V(IF=200mA) , IR=30uA(VR=10V)		
7	D303	DIODE,SWITCHING	EDSY0011901	EMD2 ,30 V,1 A,R/TP ,VF=1.5V(IF=200mA) , IR=30uA(VR=10V)		
7	FB200	FILTER,BEAD,CHIP	SFBH0000912	1000 ohm,1005 ,		
7	FB609	FILTER,BEAD,CHIP	SFBH0000912	1000 ohm,1005 ,		
7	FB610	FILTER,BEAD,CHIP	SFBH0000912	1000 ohm,1005 ,		
7	FB611	FILTER,BEAD,CHIP	SFBH0000903	600 ohm,1005 ,		
7	FL300	FILTER,EMI/POWER	SFEY0015201	SMD ,; ,; ,Filter,LCR		
7	L100	INDUCTOR,CHIP	ELCH0001430	100 nH,J ,1005 ,R/TP ,PBFREE		
7	L200	INDUCTOR,SMD,POWER	ELCP0006703	10 uH,M ,3.2*2.6*1.0 ,R/TP ,		
7	L201	INDUCTOR,SMD,POWER	ELCP0006703	10 uH,M ,3.2*2.6*1.0 ,R/TP ,		
7	L300	INDUCTOR,SMD,POWER	ELCP0010001	2.2 uH,M ,2.5x2.0x1.0 ,R/TP ,chip MLCI ,; , ,20% , , , , , ,NON SHIELD ,2.5X2X1MM ,[empty] ,R/TP		
7	L301	INDUCTOR,SMD,POWER	ELCP0010001	2.2 uH,M ,2.5x2.0x1.0 ,R/TP ,chip MLCI ,; , ,20% , , , , , ,NON SHIELD ,2.5X2X1MM ,[empty] ,R/TP		
7	L302	INDUCTOR,CHIP	ELCH0003823	470 nH,K ,1608 ,R/TP ,chip coil,PBFREE		
7	L632	INDUCTOR,CHIP	ELCH0001430	100 nH,J ,1005 ,R/TP ,PBFREE		
7	Q200	TR,BJT,NPN	EQBN0007601	SOT-23 ,0.15 W,R/TP ,EMT3		
7	Q201	TR,BJT,NPN	EQBN0007601	SOT-23 ,0.15 W,R/TP ,EMT3		
7	Q202	TR,BJT,NPN	EQBN0007601	SOT-23 ,0.15 W,R/TP ,EMT3		
7	Q300	TR,FET,N-CHANNEL	EQFN0005201	SOT-323 ,.29 W,25 V,.7 A,R/TP ,N-Channel MOSFET, Pb free		
7	R100	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
7	R101	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
7	R102	RES,CHIP	ERHY0000166	390 Kohm,1/16W ,F ,1005 ,R/TP		
7	R103	RES,CHIP	ERHY0009522	3.3 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R104	RES,CHIP	ERHY0009505	10 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R106	RES,CHIP	ERHY0009536	100 Kohm,1/20W(0.05W) ,F ,0603 ,R/TP		
7	R109	RES,CHIP	ERHY0009522	3.3 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R112	RES,CHIP	ERHY0009505	10 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R113	RES,CHIP	ERHY0009504	1 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R114	RES,CHIP	ERHY0009527	47 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		

Level	Location No.	Description	Part Number	Spec	Color	Remark
7	R115	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
7	R116	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
7	R117	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
7	R118	RES,CHIP	ERHY0009505	10 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R119	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R120	PCB ASSY,MAIN,PAD OPEN	SAFO0000401	0OHM DNI		
7	R121	RES,CHIP,MAKER	ERHZ0000244	22 Kohm,1/16W ,F ,1005 ,R/TP		
7	R124	RES,CHIP	ERHY0009505	10 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R125	RES,CHIP	ERHY0009527	47 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R126	RES,CHIP	ERHY0009526	4.7 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R127	RES,CHIP	ERHY0009526	4.7 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R200	RES,CHIP,MAKER	ERHZ0000454	27 Kohm,1/16W ,J ,1005 ,R/TP		
7	R203	RES,CHIP,MAKER	ERHZ0000406	100 Kohm,1/16W ,J ,1005 ,R/TP		
7	R204	PCB ASSY,MAIN,PAD OPEN	SAFO0000401	0OHM DNI		
7	R205	RES,CHIP,MAKER	ERHZ0000486	47 Kohm,1/16W ,J ,1005 ,R/TP		
7	R206	RES,CHIP	ERHY0009526	4.7 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R207	RES,CHIP	ERHY0009526	4.7 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R209	RES,CHIP	ERHY0000298	3.3M ohm,1/16W,J,1005,R/TP		
7	R210	RES,CHIP,MAKER	ERHZ0000486	47 Kohm,1/16W ,J ,1005 ,R/TP		
7	R211	RES,CHIP	ERHY0000298	3.3M ohm,1/16W,J,1005,R/TP		
7	R214	RES,CHIP	ERHY0009526	4.7 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R215	RES,CHIP	ERHY0009526	4.7 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R216	RES,CHIP	ERHY0009526	4.7 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R218	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R220	RES,CHIP,MAKER	ERHZ0000204	100 Kohm,1/16W ,F ,1005 ,R/TP		
7	R221	RES,CHIP,MAKER	ERHZ0000405	10 Kohm,1/16W ,J ,1005 ,R/TP		
7	R226	RES,CHIP,MAKER	ERHZ0000485	4700 ohm,1/16W ,J ,1005 ,R/TP		
7	R307	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
7	R310	RES,CHIP	ERHY0009526	4.7 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		

Level	Location No.	Description	Part Number	Spec	Color	Remark
7	R316	RES,CHIP,MAKER	ERHZ0000407	1000 Kohm,1/16W ,J ,1005 ,R/TP		
7	R317	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
7	R318	RES,CHIP	ERHY0009306	1.8 Kohm,1/20W(0.05W) ,F ,0603 ,R/TP		
7	R319	RES,CHIP	ERHY0009306	1.8 Kohm,1/20W(0.05W) ,F ,0603 ,R/TP		
7	R325	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R326	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R327	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R331	RES,CHIP,MAKER	ERHZ0000505	680 ohm,1/16W ,J ,1005 ,R/TP		
7	R332	RES,CHIP	ERHY0005902	5.62 Kohm,1/16W ,F ,1005 ,R/TP		
7	R333	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
7	R336	RES,CHIP,MAKER	ERHZ0000354	430 ohm,1/16W ,F ,1005 ,R/TP		
7	R337	RES,CHIP	ERHY0009505	10 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R341	RES,CHIP,MAKER	ERHZ0000401	0 ohm,1/16W ,J ,1005 ,R/TP		
7	R343	RES,CHIP,MAKER	ERHZ0000509	75 ohm,1/16W ,J ,1005 ,R/TP		
7	R378	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
7	R431	RES,CHIP,MAKER	ERHZ0000406	100 Kohm,1/16W ,J ,1005 ,R/TP		
7	R620	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
7	R627	PCB ASSY,MAIN,PAD OPEN	SAFO0000401	0OHM DNI		
7	R629	RES,CHIP,MAKER	ERHZ0000406	100 Kohm,1/16W ,J ,1005 ,R/TP		
7	R643	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
7	R644	RES,CHIP,MAKER	ERHZ0000406	100 Kohm,1/16W ,J ,1005 ,R/TP		
7	R645	RES,CHIP,MAKER	ERHZ0000406	100 Kohm,1/16W ,J ,1005 ,R/TP		
7	R646	RES,CHIP,MAKER	ERHZ0000405	10 Kohm,1/16W ,J ,1005 ,R/TP		
7	R654	RES,CHIP,MAKER	ERHZ0000402	10 ohm,1/16W ,J ,1005 ,R/TP		
7	R656	RES,CHIP,MAKER	ERHZ0000434	1 ohm,1/16W ,J ,1005 ,R/TP		
7	R657	PCB ASSY,MAIN,PAD OPEN	SAFO0000401	0OHM DNI		
7	R660	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
7	R661	DIODE,TVS	EDTY0009601	SLP1006P2 ,5 V,100 W,R/TP ,1.0x0.6x0.5t ,; , , , , , ,[empty] ,[empty] ,[empty] ,[empty]		

Level	Location No.	Description	Part Number	Spec	Color	Remark
7	R662	RES,CHIP	ERHY0009503	100 ohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R663	RES,CHIP	ERHY0009504	1 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R664	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
7	R701	RES,CHIP,MAKER	ERHZ0000244	22 Kohm,1/16W ,F ,1005 ,R/TP		
7	R706	PCB ASSY,MAIN,PAD OPEN	SAFO0000401	0OHM DNI		
7	R708	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
7	R714	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R721	PCB ASSY,MAIN,PAD SHORT	SAFP0000401			
7	R722	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	R724	RES,CHIP	ERHY0009506	100 Kohm,1/20W(0.05W) ,J ,0603 ,R/TP		
7	SPFY00	PCB,MAIN	SPFY0188901	FR-4 ,0.8 mm,LX-BUMP 10 ,OPERA L1B2 ,; , , , , , , , , ,		
7	U100	IC	EUSY0347503	FBGA ,149 PIN,ETC ,FULLY 1.8V 2G(LB/128Mx16) NAND+1G(DDR/16Mx4x16) SDRAM ,; ,IC,MCP		
7	U102	IC	EUSY0355101	BGA ,389 PIN,R/TP ,MP-EH / HSDPA 7.2 Mbps / Display HVGA /3M CAM / H.263 / AGPS ,; ,IC,Digital Baseband Processor		
7	U200	IC	EUSY0323901	BGA PG-WFSGA ,121 PIN,R/TP ,SMPOWER3		
7	U300	IC	EUSY0270603	Micro SMD ,24 ,R/TP ,MM PM ,; ,IC,PMIC		
7	U301	IC	EUSY0381201	BGA ,28 ,R/TP ,285PIN ,; ,IC,Digital Baseband Processor		
7	U406	IC	EUSY0300101	WQFN ,10 PIN,R/TP ,Small package Dual SPDT analog Switch, PB-Free		
7	U500	IC	EUSY0358901	2.6X2.6 ,24 PIN,R/TP ,MM PMIC ,; ,IC,Sub PMIC		
7	U610	IC	EUSY0353801	PLP1010-4 ,4 PIN,R/TP ,1x1 LDO, 3.3V , 150mA ,; ,IC,LDO Voltage Regulator		
7	VA300	VARISTOR	SEVY0001001	14 V, ,SMD ,50pF, 1005		
7	VA301	VARISTOR	SEVY0001001	14 V, ,SMD ,50pF, 1005		
7	VA302	VARISTOR	SEVY0001001	14 V, ,SMD ,50pF, 1005		
7	VA303	VARISTOR	SEVY0001001	14 V, ,SMD ,50pF, 1005		
7	VA304	VARISTOR	SEVY0001001	14 V, ,SMD ,50pF, 1005		
7	VA404	DIODE,TVS	EDTY0008606	DFN-2 ,7.82 V,150 mW,R/TP ,PB-FREE		
7	VA501	VARISTOR	SEVY0004301	18 V, ,SMD ,10pF, 1005		
7	VA502	VARISTOR	SEVY0004301	18 V, ,SMD ,10pF, 1005		
7	VA503	VARISTOR	SEVY0004301	18 V, ,SMD ,10pF, 1005		

11. EXPLODED VIEW & REPLACEMENT PART LIST

Level	Location No.	Description	Part Number	Spec	Color	Remark
7	VA504	VARISTOR	SEVY0004301	18 V, ,SMD ,10pF, 1005		
7	X100	X-TAL	EXXY0018701	32.768 KHz,20 PPM,12.5 pF,70 Kohm,SMD ,3.2*1.5*0.9 ,		
7	X300	X-TAL	EXXY0017801	12 MHz,50 PPM,8 pF,80 ohm,SMD ,3.2*2.5*0.75 ,20ppm at 25'C, 30ppm at -30'C ~ +85'C		
4	SJMY00	VIBRATOR,MOTOR	SJMY0008509	2 V,.1 A,10*3.6 ,linear, no wire 2.0vrms ,; ,3V , , , , , , ,		
4	SUSY00	SPEAKER	SUSY0027609	FPCB ,8 ohm,86 dB,1810 mm,19.66*12.75 module spk ,; , , , , , , ,FPC		D
4	SVCY00	CAMERA	SVCY0017101	CMOS ,MEGA ,5M AF [Micon 1/3.2", MI5130, MIPI, FPCB]		
4	SVLM00	LCD MODULE	SVLM0026601	Main ,3.0" ,480*800 ,45.6*76.4*2 ,16.7M ,TFT ,TM ,R63302 ,		
4	SWCC00	CABLE,COAXIAL	SWCC0006501	65 mm, LINE, ,; ,[empty] ,[empty] ,[empty] , ,[empty] , ,[empty]		

11.3 Accessory

Note: This Chapter is used for reference, Part order is ordered by SBOM standard on GCSC

Level	Location No.	Description	Part Number	Spec	Color	Remark
3	SBPL00	BATTERY PACK,LI-ION	SBPL0093804	3.7 V,1000 mAh,1 CELL,PRISMATIC ,553446 EUROPE LABEL ,; , , , ,PRISMATIC , , ,BLACK , ,	Black	
대치		BATTERY PACK,LI-ION	SBPL0091704	3.7 V,1000 mAh,1 CELL,PRISMATIC ,553446 EUROPE LABEL ,; , , , ,PRISMATIC , , ,BLACK , ,	BLACK	
3	SGDY00	DATA CABLE	SGDY0014403	; ,[empty] ,[empty] ,1.2M ,18Pin USB Datacable, 1.2m, CE Tag ,BLACK , ,N		
3	SGEY00	EAR PHONE/EAR MIKE SET	SGEY0007603	; ,20mW ,16Ohm ,99dB,1KHZ,1mW ,65dB 10KHZ ,104dB 100KHZ ,[empty] ,[empty] ,3.5 L TYPE STEREO 4POLE PLUG , Deco canal(white) ,Earphone,Stereo		
3	SSAD00	ADAPTOR,AC-DC	SSAD0024501	100-240V ,5060 Hz,5.1 V,.7 A,CE ,AC-DC ADAPTOR ,; ,85Vac~264Vac ,5.1V +0.15V, -0.2V ,700mA ,5060 , ,WALL 2P ,I/O CONNECTOR ,		
대치		ADAPTOR,AC-DC	SSAD0024502	100-240V ,5060 Hz,5.1 V,0.7 A,CE ,AC-DC ADAPTOR ,; ,5.1V +0.15V, -0.2V ,5.1V ,700mA ,5060 , ,WALL 2P ,I/O CONNECTOR ,		
대치		ADAPTOR,AC-DC	SSAD0024503	100-240V ,5060 Hz,5.1 V,.7 A,CE ,AC-DC ADAPTOR ,; ,85Vac~264Vac ,5.1V (+0.15V, -0.2V) ,700mA ,5060 , ,WALL 2P ,I/O CONNECTOR ,		
대치		ADAPTOR,AC-DC	SSAD0024504	100-240V ,5060 Hz,5.1 V,.7 A,CE ,AC-DC ADAPTOR ,; ,85Vac~264Vac ,5.1V(+0.15V, -0.2V) ,700mA ,5060 , ,WALL 2P ,I/O CONNECTOR ,		

Note