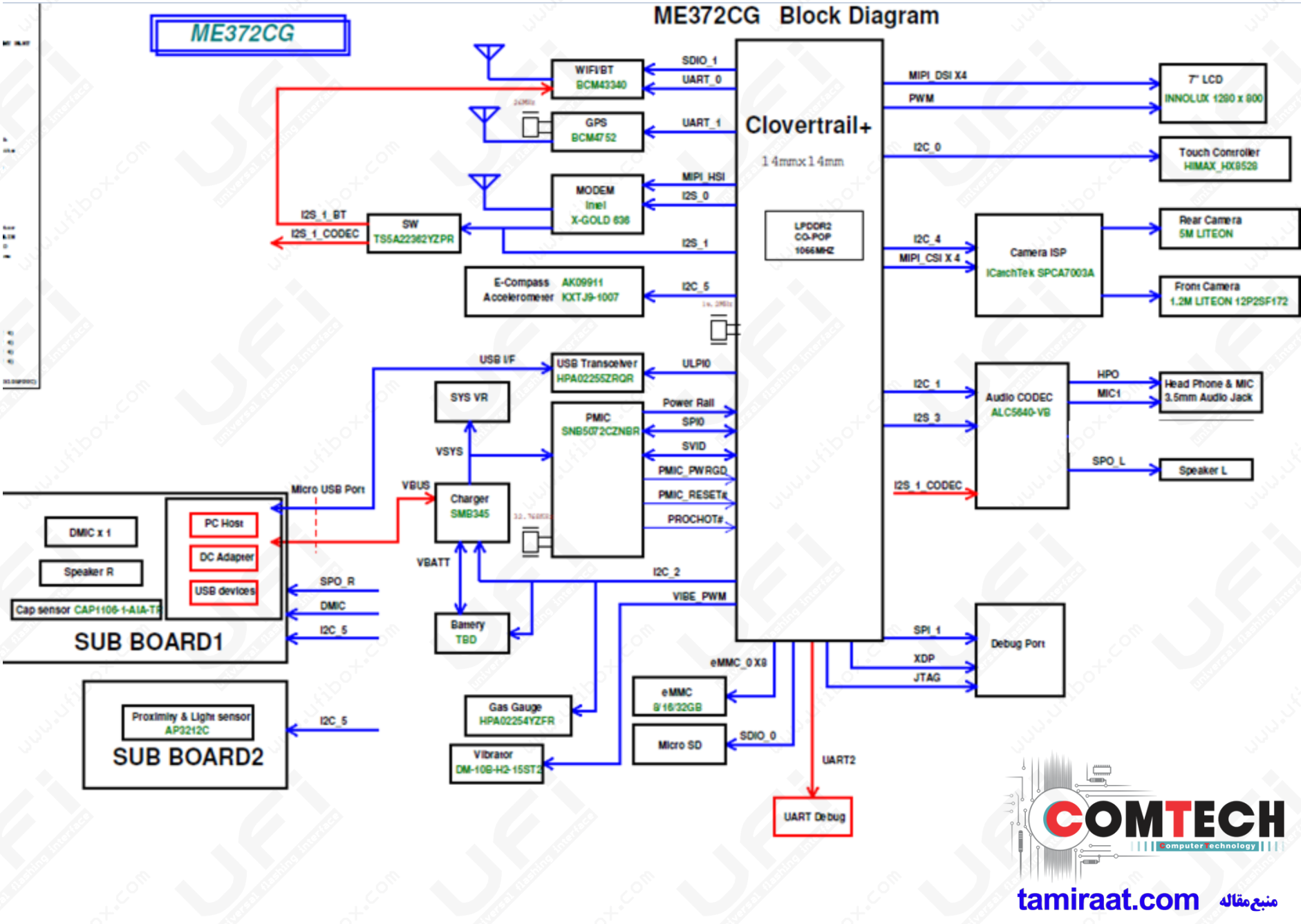
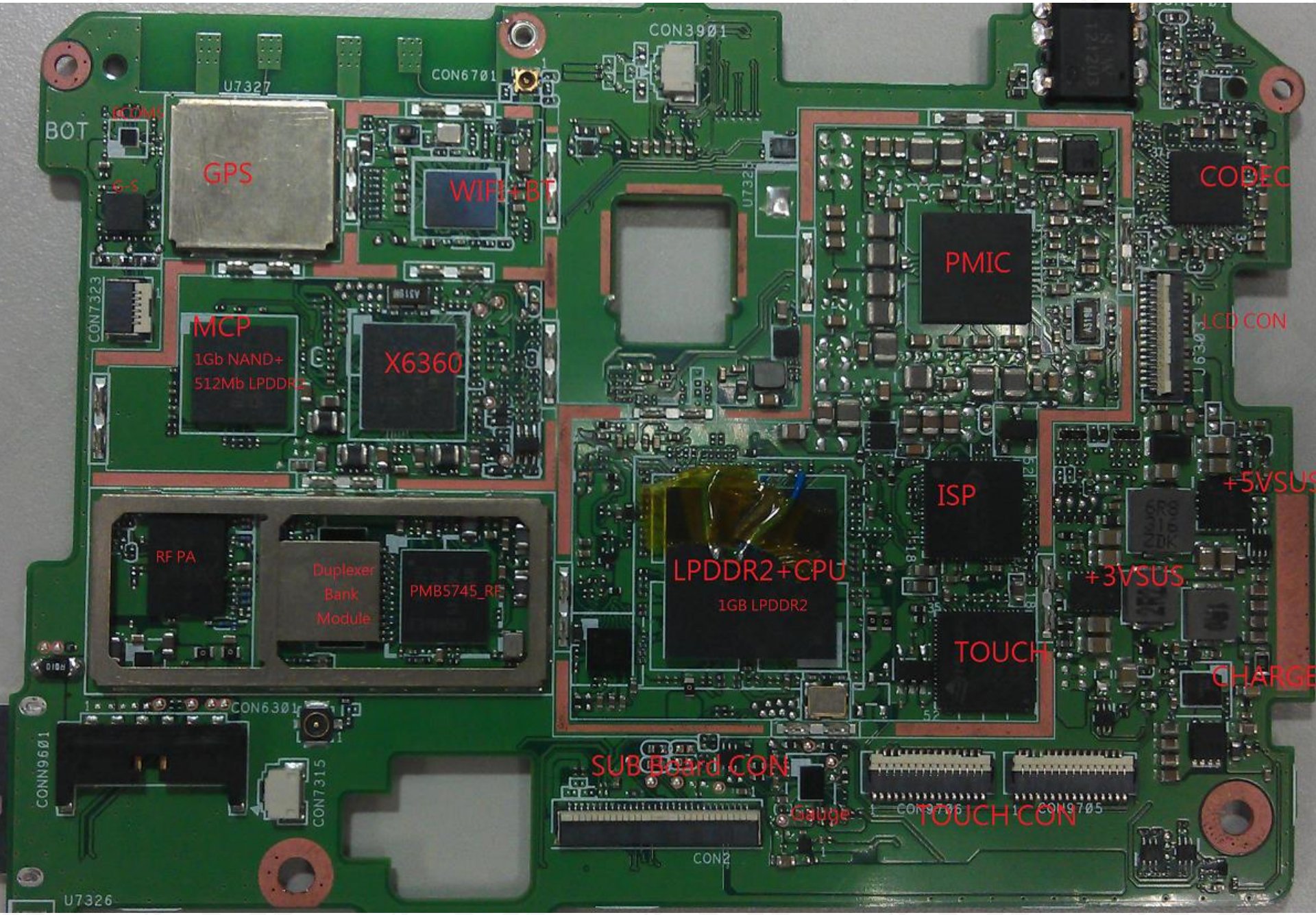
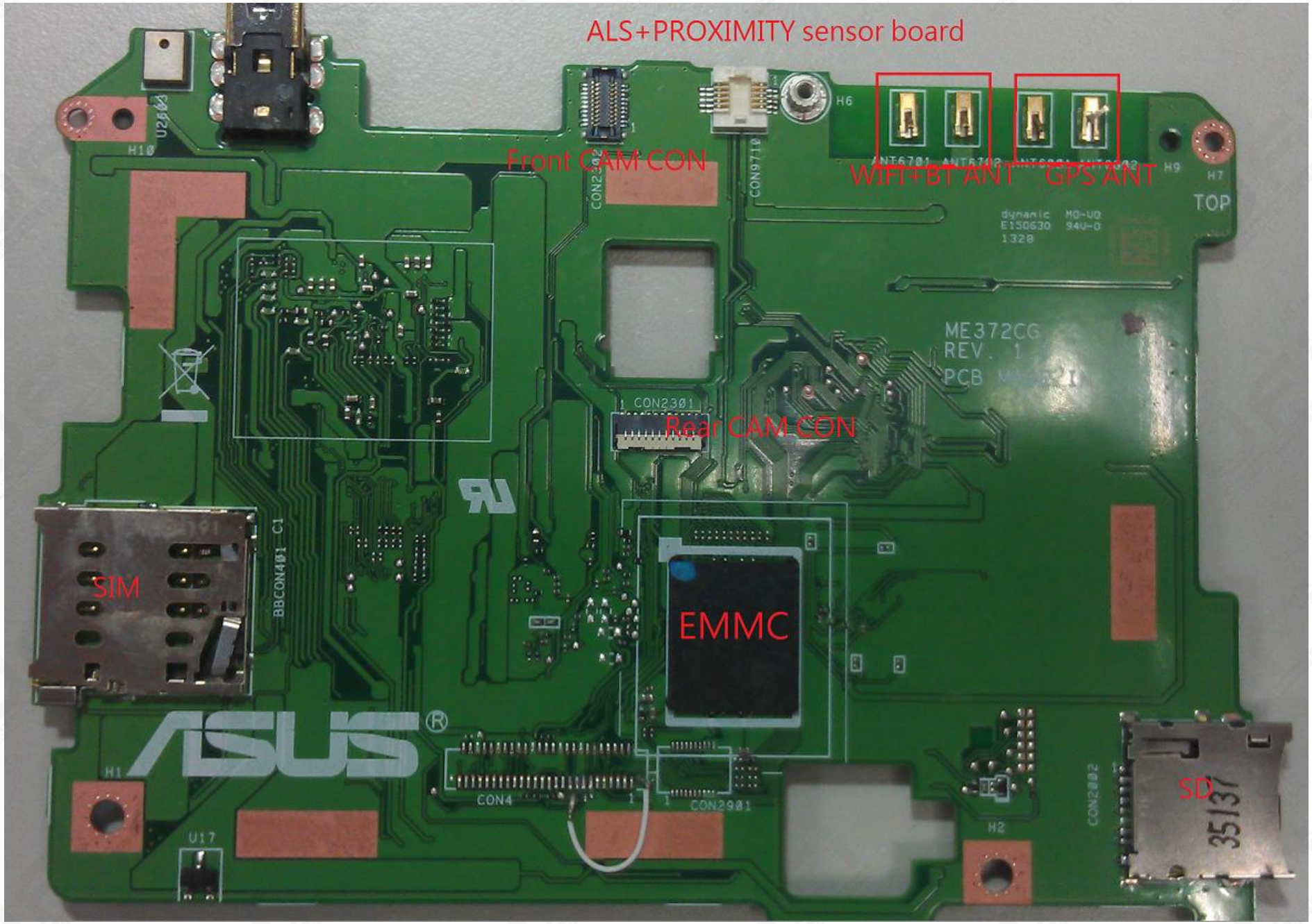
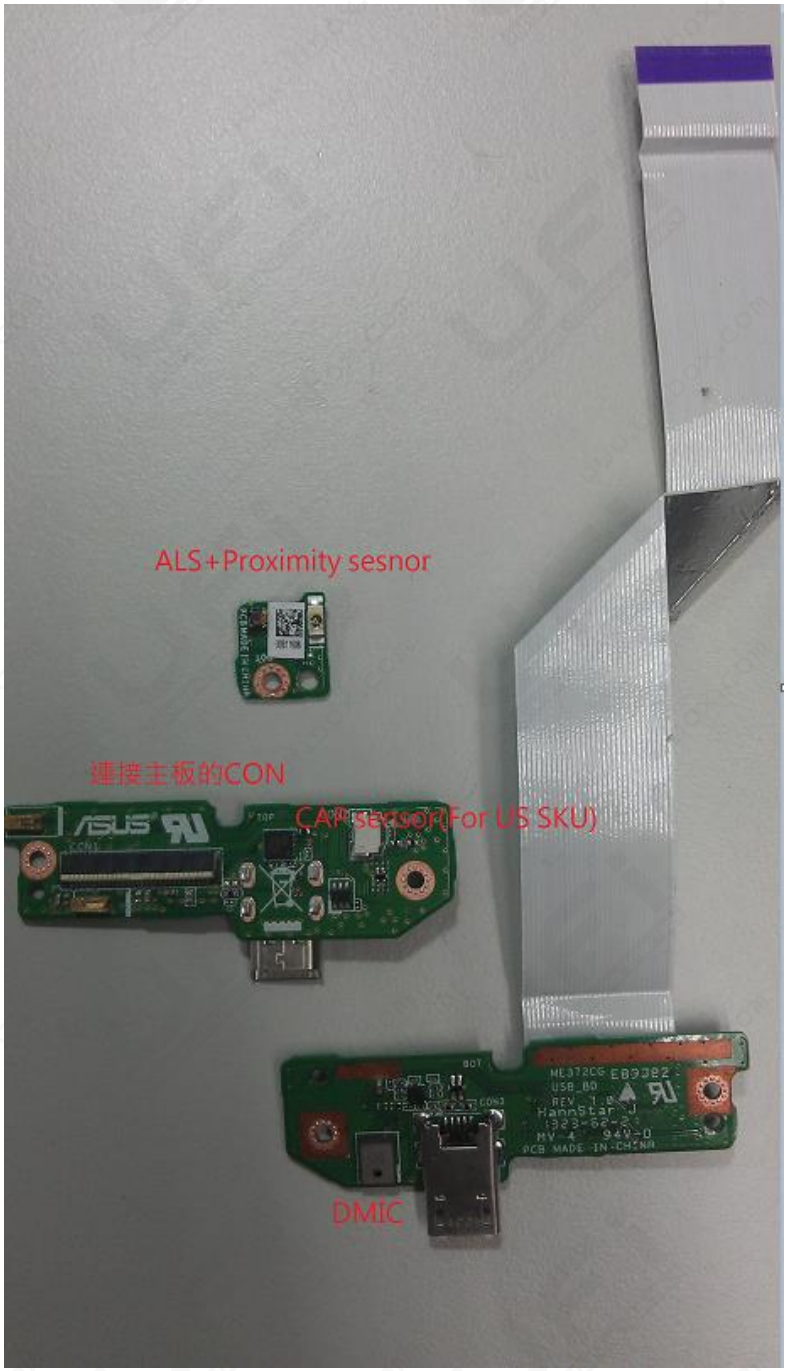
ME372CG

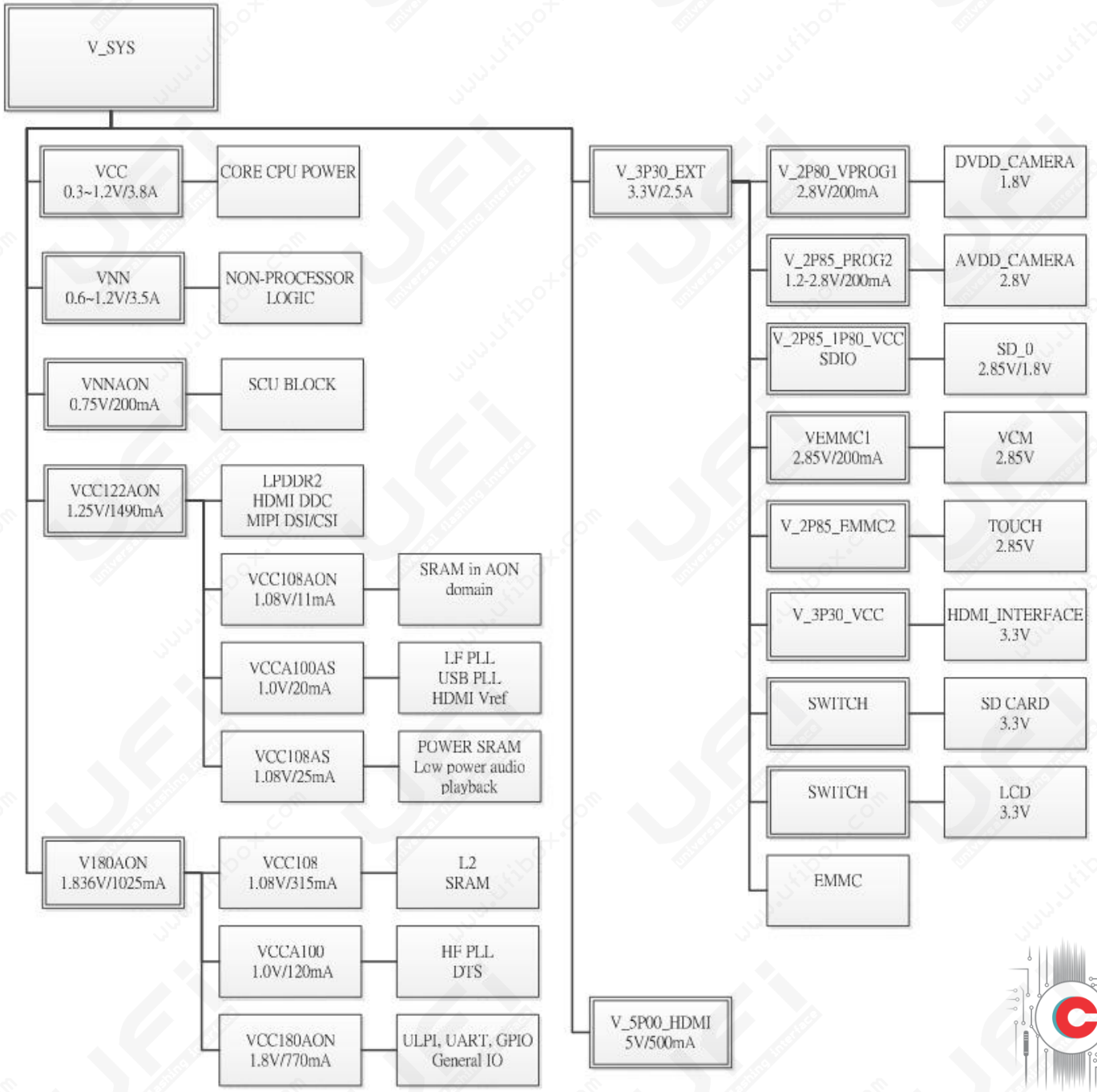
Trouble Shooting Guide 0925




CON3901
CON6701
U7327
BOT
CCDMS
G-S
GPS
WIFI+BT
U7321
CODEC
PMIC
CON7323
MCP
1Gb NAND+
512Mb LPDDR2
X6360
LCD CON
ISP
+5VSUS
RF PA
Duplexer
Bank
Module
PMB5745_RF
LPDDR2+CPU
1GB LPDDR2
+3VSUS
TOUCH
CHARGE
CON6301
CONN9601
CON7315
SUB Board CON
Gauge
TOUCH CON
CON9705
CON2
U7326


ALS+PROXIMITY sensor board
Front CAM CON
WIFI+BT ANT
GPS ANT
Rear CAM CON
SIM
EMMC
SD
TOP
ME372CG
REV. 1
ASUS





Cold Boot Timing—Power Button Pressed

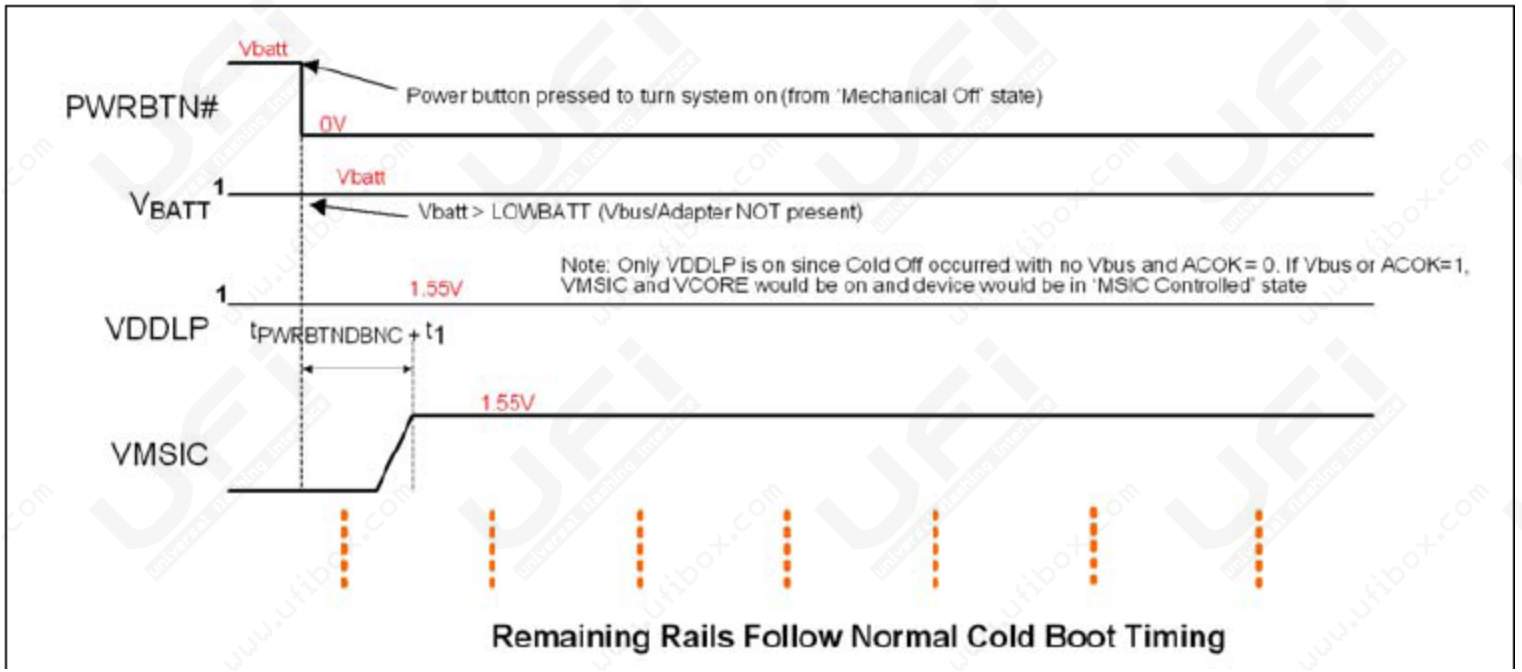
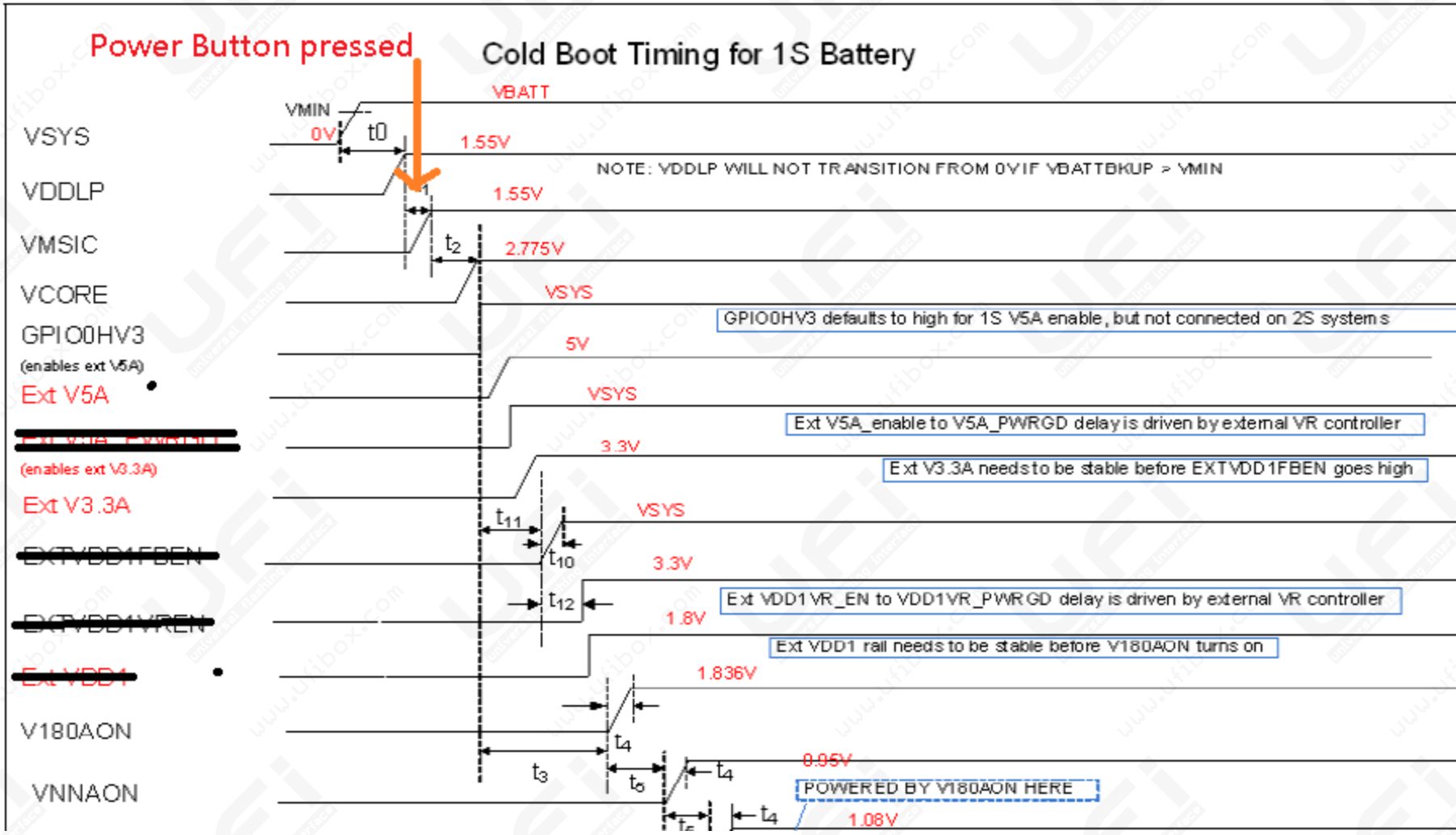
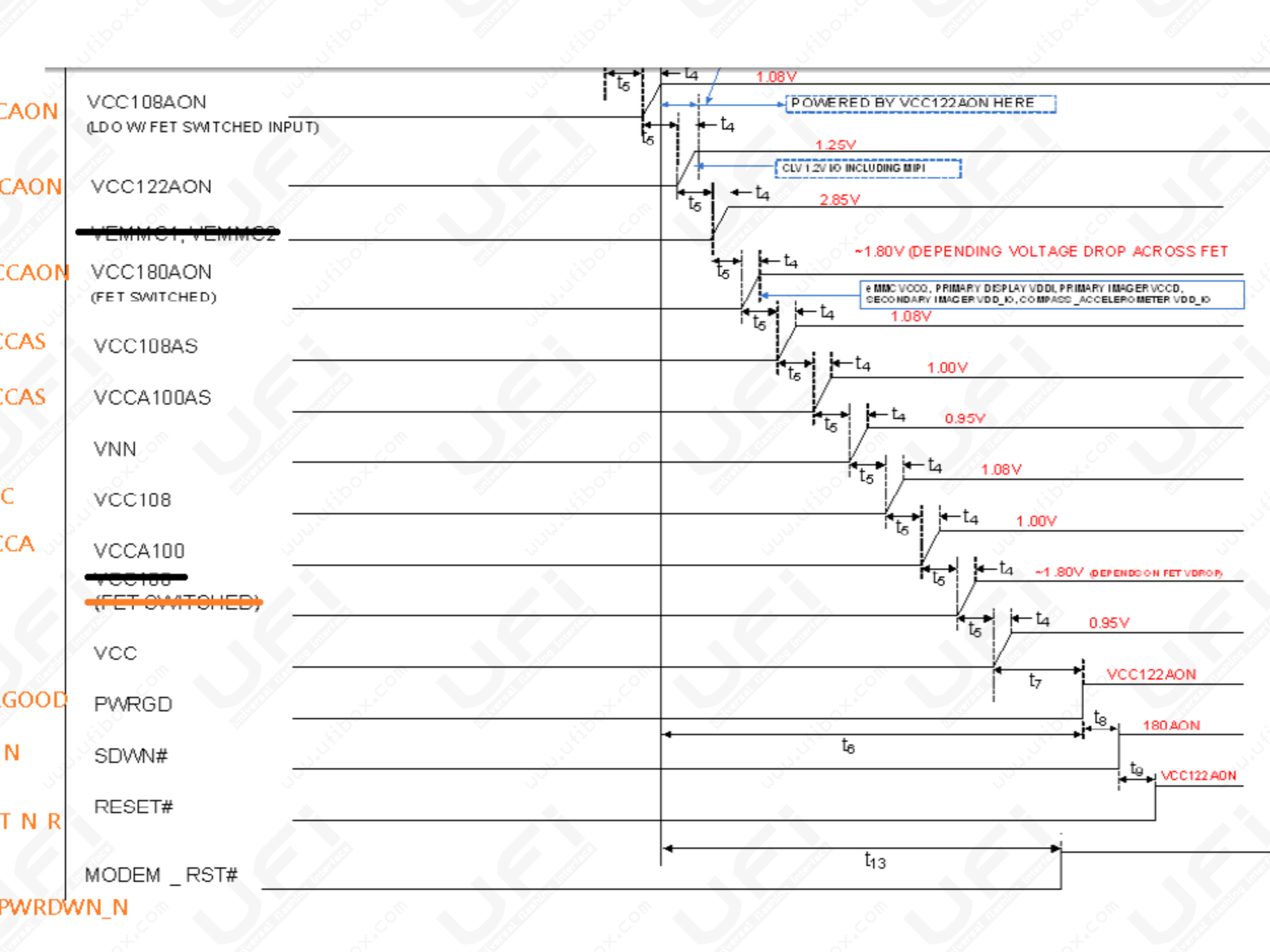


Figure 7-4. Cold Boot Timing—Battery Insertion




VCC108AON
(LDO W/ FET SWITCHED INPUT)
VCC122AON
VEMMC1, VEMMC2
VCC180AON
(FET SWITCHED)
VCC108AS
VCCA100AS
VNN
VCC108
VCCA100
VCC180
(FET SWITCHED)
VCC
PWRGD
SDWN#
RESET#
MODEM _ RST#
t4
t5
1.08V
POWERED BY VCC122AON HERE
1.25V
CLV 1.2V IO INCLUDING MIPI
2.85V
~1.80V (DEPENDING VOLTAGE DROP ACROSS FET
e MMC VCCQ, PRIMARY DISPLAY VDDI, PRIMARY IMAGER VCCD,
SECONDARY IMAGER VDD_IO, COMPASS _ACCELEROMETER VDD_IO
1.08V
1.00V
0.95V
1.08V
1.00V
~1.80V (DEPENDDO ON FET VDROP)
0.95V
t7
VCC122AON
t8
180AON
t6
t9
VCC122AON
t13

™636 PMU – DC/DC & LDO Characteristics

D™636 or Name	Input Source	Nominal Output Voltage [V]	Max Output Current [mA]	Supplied Devices (Assumptions: MIPI_HSI = 1.8 V & External Memory Interface (EMIC) = 1
D1	VBAT	1.0 +/- 5%	720 IOUT	**X-GOLD™ 636:** VDD_CORE_MAIN, VDD_CORE_3G
D2	VBAT	1.8 +/- 5%	500 IOUT	**X-GOLD™ 636:** VDD_IO_1V8, VDD_IO_EMIC_1V8, VDD_IO_ VDD_IO_MIPI* **SMARTi™ UE3:** VDDIO **External Memory**
D3	VBAT	1.22 +/- 5%	tbd	**X-GOLD™ 636:** VDD_IO_HSIC_1V2, VDD_CORE_EMIC_1V2 VDD_IO_EMICx*
B_PD	SD2	1.1 +/- 2%	40	**X-GOLD™ 636:** VDD_PD (HS-USB Phy Digital Part, USB- HS
_ANA	VBAT	1.8 +/- 2%	40	**X-GOLD™ 636:** VDD_USB_ANA (HS-USB Phy Analog Part)
B_IO	VBAT	2.5 +/- 2% 2.85 +/- 2% 3.1 +/- 2%	40	**X-GOLD™ 636:** VDD_USBIO (HS-USB Phy IOs, USB PLL)
LL	SD2	1.2 +/- 2%	30	**X-GOLD™ 636:** VDD_PLL
GRF	SD2	1.2 +/- 2%	40	**X-GOLD™ 636:** VDD_MPHY_RX_1V2, VDD_MPHY_TX_1V2
& VSIM2	VBAT/ SD2	1.8/ 2.9 +/- 2%	40	**X-GOLD™ 636:** VDD_IO_SIM1, VDD_IO_SIM2, SIM Card Ho
MU	VBAT/ SD2	1.1/1.3V +/- 5%	15	**X-GOLD™ 636:** PMU supply. Automatically enabled and cann disabled. Not connected to any external sup X-GOLD™ 636.
TC	VBAT	1.8 +/- 5%	7	**X-GOLD™ 636:** VDD_RTC (Real Time Clock supply)

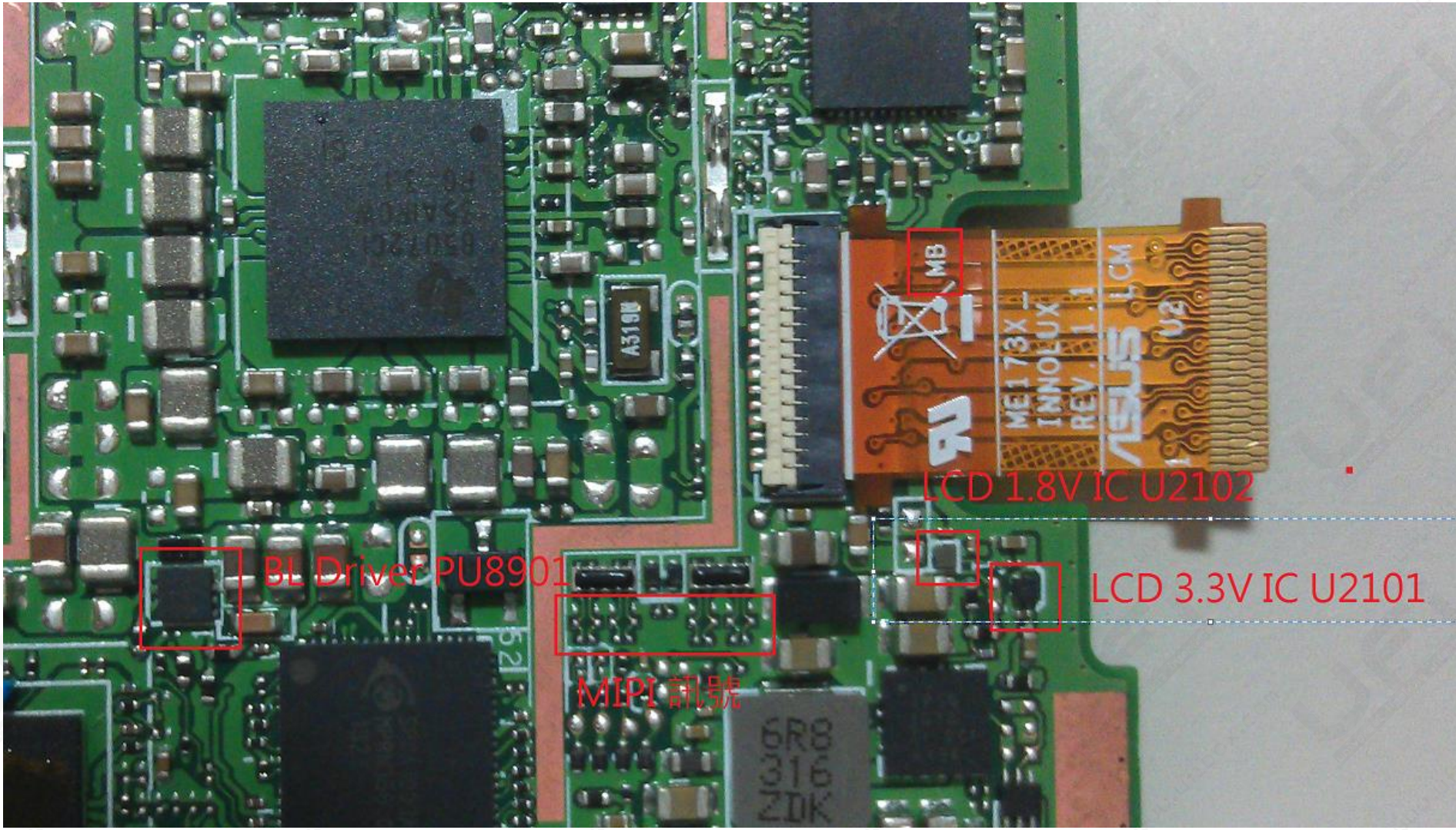
Main Board troubleshooting

Can’t Power On

- A.check all power have output or short to GND at below
  0.80V→ V_VCC
  0.90V→ V_VNNAON
  1.00V→ V_1P00_VCCA ; V_1P00_VCCAS
  1.08V→ V_1P08_VCC; V_1P08_VCCAON; V_1P08_VCCAS
  1.22V→ V_1P22_VCCAON
  1.80V→ V_1P80_AON; V_1P80_VCCAON;
  2.80V→ V_2P80_VPROG1;
  2.85V→ V_2P85_EMMC1;
  3.30V→ +3VSUS;
  5.00V→ +5VSUS;
  8.20V→ V_LED;
- B.check MSIC_PWRGOOD, MSIC_RESET_N have 1.25V or not
- C.check or exchange PU8401, U1 & U1001

- Check V_1P22_VCCAON's to GND impedance have1.5k or not, check V_1P80_VCCAON's to GND impedance have 3k or not.
- I2C_2_SDA & I2C_2_SCL need have 1.8V

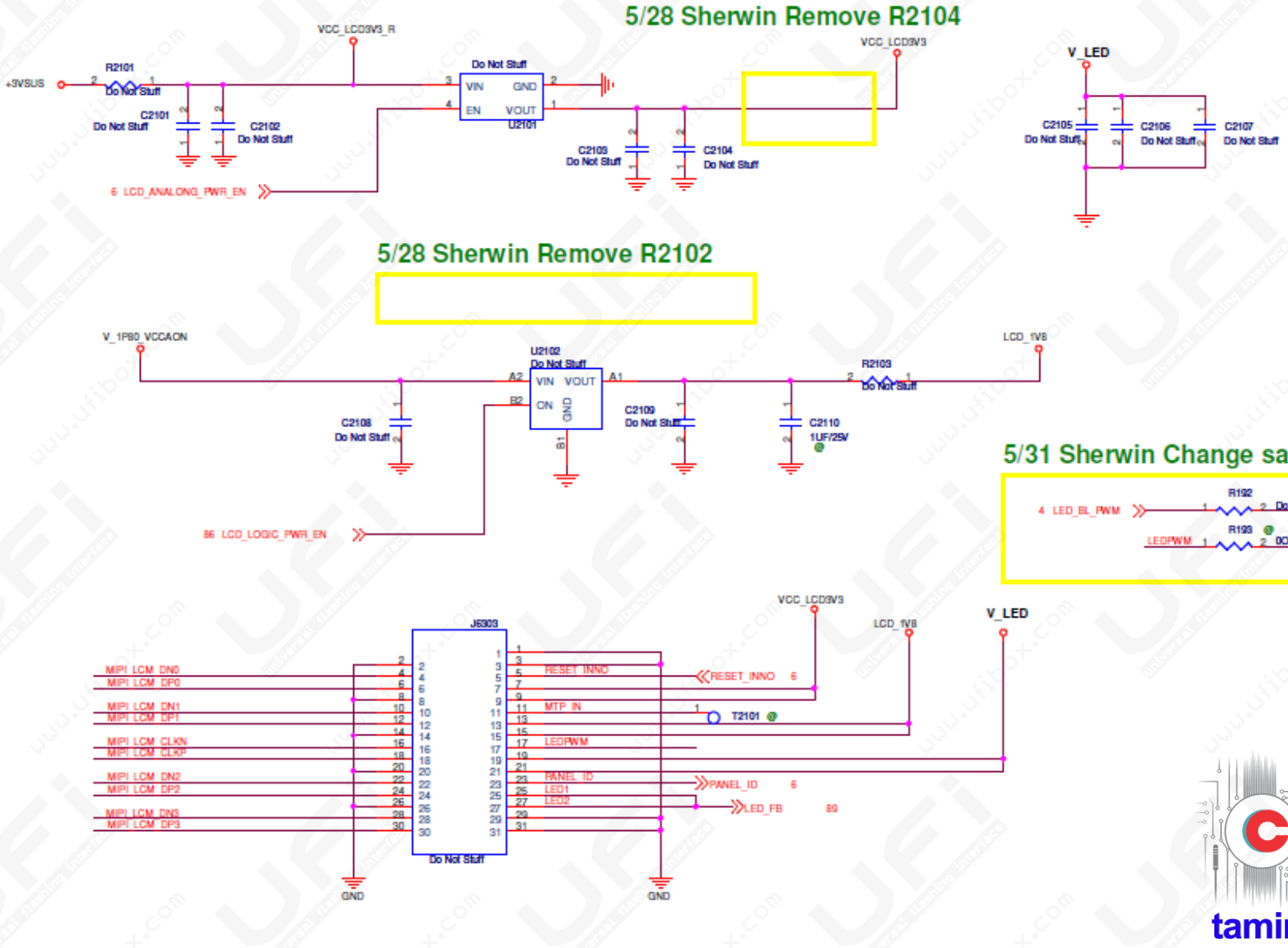
Because Intel IA FW will check gauge at boot first, if I2C fail the gauge IC can't by read.



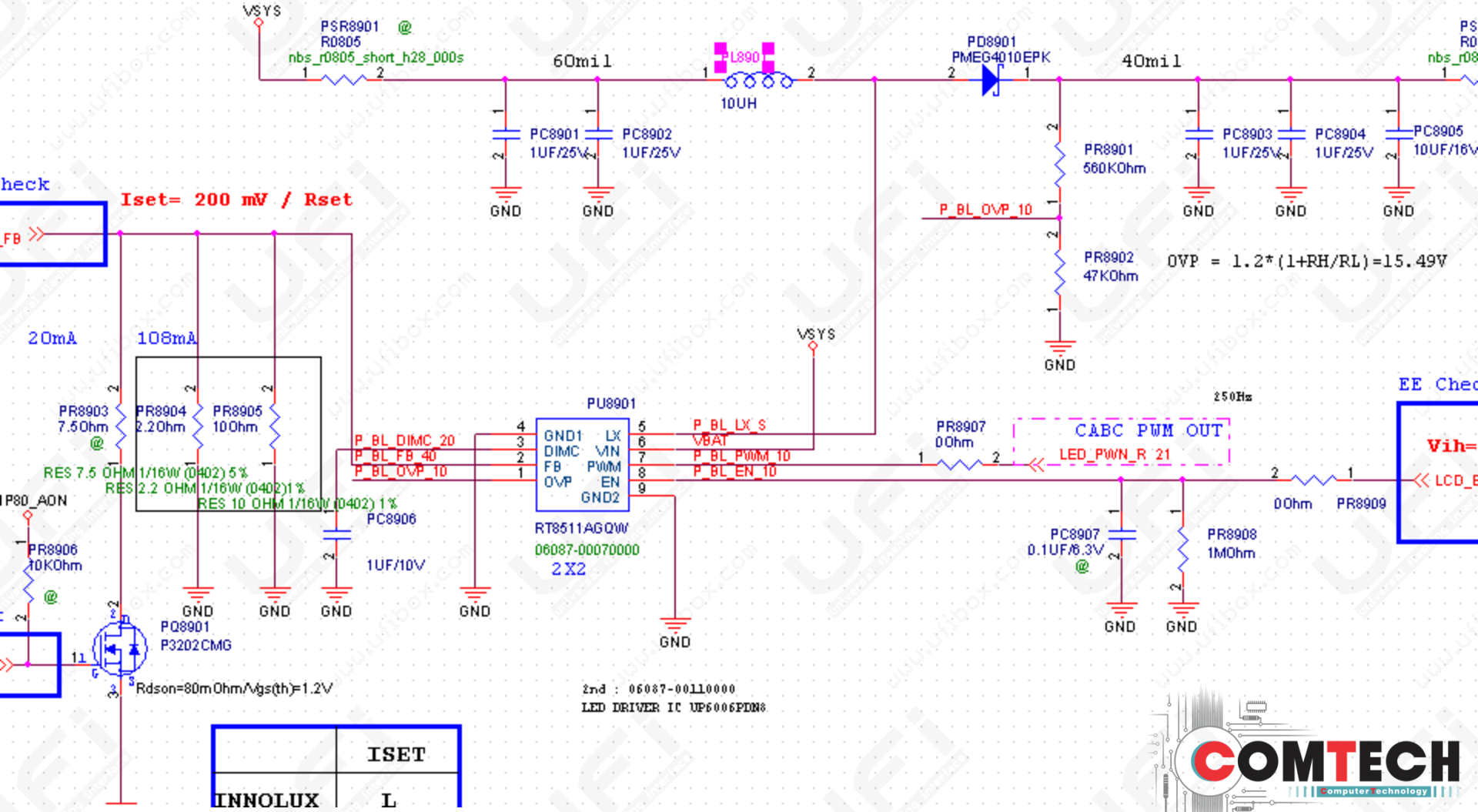
Display fail

- Check LCD J6303
- Check LCM FPC
- Check VCC_LCD3V3 U2101 have 3.3v or not.
- Check LCD_1V8 U2102 have 1.8v or not.
- Check V_LED (PSR8902) have 8.2V or not.
- Check LCD_BL_EN(PR8909) have High(3.3V) or not.
- Check MIPI single have (0.1V~0.3V) or not.
- Check LED_PWN_R (PR8907) have near 5KHz PWM or not
- Check P_BL_LX_S(PL8901#2) have 1MHz PWM or not.

Display



Display



TOUCH

- Check CON9705、 CON9706 have problem or not
- Check D1V8(C9907.1) have 1.8V or not
- Check A3V3(C9835.2) have 3.3V or not
- Check I2C_0_SDA, I2C_0_SCL have 1.8V or not
- Exchange U7315

ISP

- The **VDD_ISP_1P2** need have **1.2V,if no, check L24** &**U15**
- The **AVDD_ISP_2P8** need have **2.8V,**if no, check **R330**
- the **VDDIO_CAM need have 1.8V,**if no,check **R250**
- The **I2C_4_SCL, I2C_4_SDA need have 1.8V,if no, check R2221, R2222**

5MP Camera

- Check **Camera have problem or not**
- Check **CON2301**
- Check near parts have open or lose or broken
- The **V_2P80_CAM0 need have 2.8V,**if no,please check **L2306**,**U2301**
- The **VDD_2V8_VCM** need have **2.8V,**if no,check **L2307**
- The **VDD_1.8V_CAM0** need have **1.8V,**if no,check **L8**

1.2MP Camera

- Check **Camera**
- Check **CON2302**
- Check near parts have open or lose or broken
- The **VDD_1.8V_CAM1_L** need have**1.8V,**if no, please check**L2309**
- The **V_2P80_CAM1** need have **2.8V,if no, please check L2308**

USB無法辨識

- Check Usb board CON3, CON1
- Check MB U1801,CON1
- Check MB U1801’s voltage +VDDIO_ULPI0, +VBATA_ULPI0 have 1.8V and 3.3V

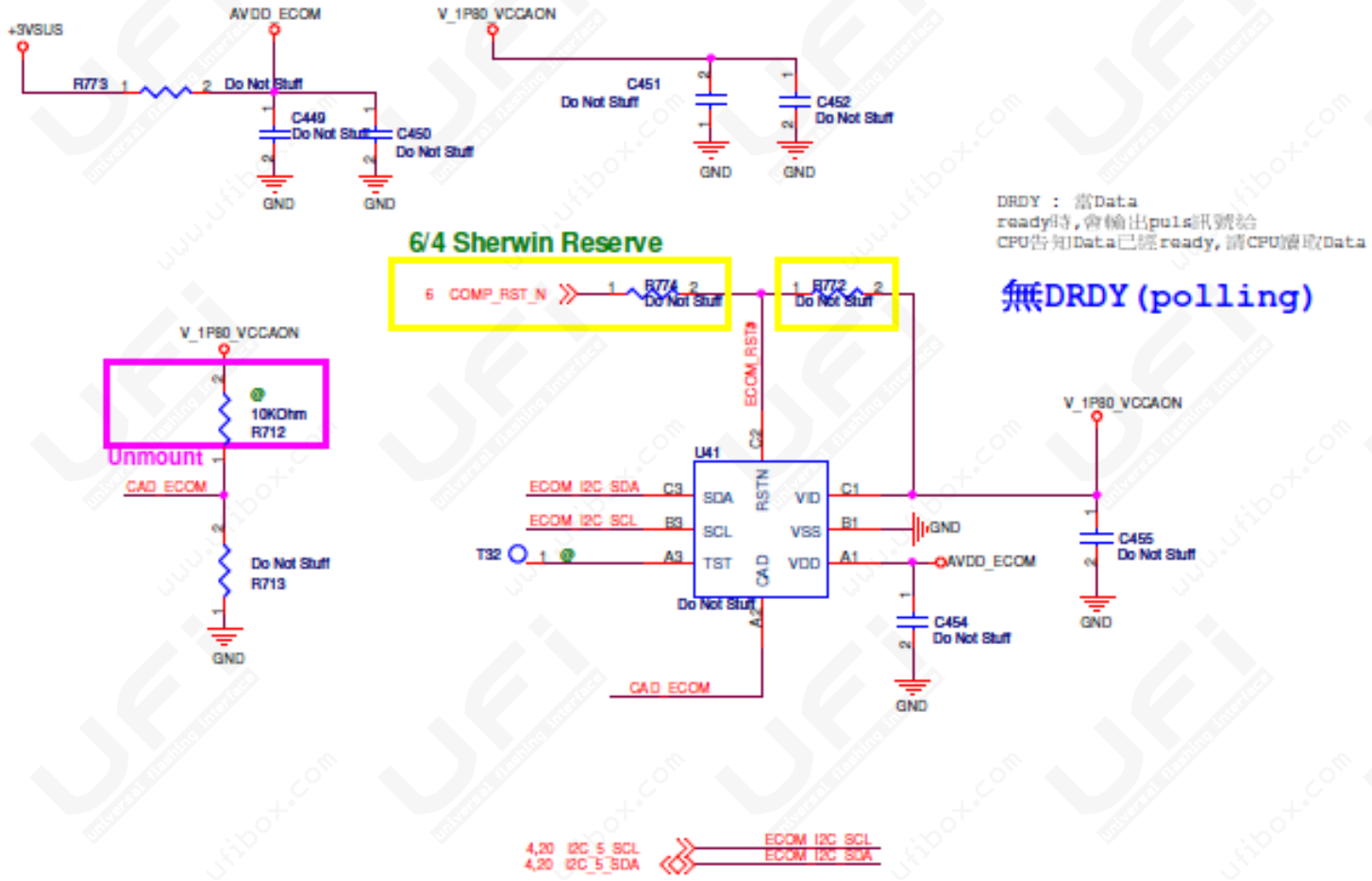
E-compass

- Check U41
- AVDD_ECOM and V_1P80_VCCAON have normal voltage or not
- ECOM_I2C_SDA and ECOM_I2C_SCL have work or not
- Exchange U41

E-COMPASS

R20

E-COMPASS for AK09911



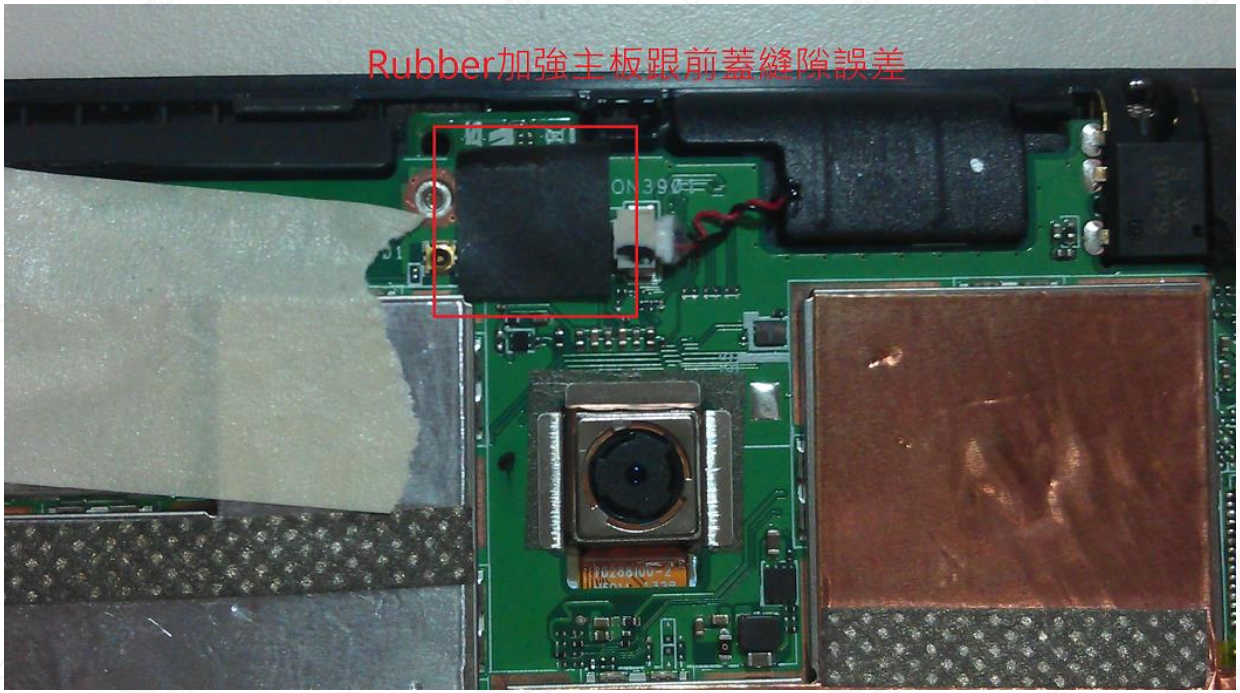
Note:
1. DVDD power supply range is +1.7V to +2.8V.
2. AVDD power supply range is +2.4V to +3.6V.
3. Let VREG & VPP NC for reference.
4. DRDY is +1.8V level out and active high.

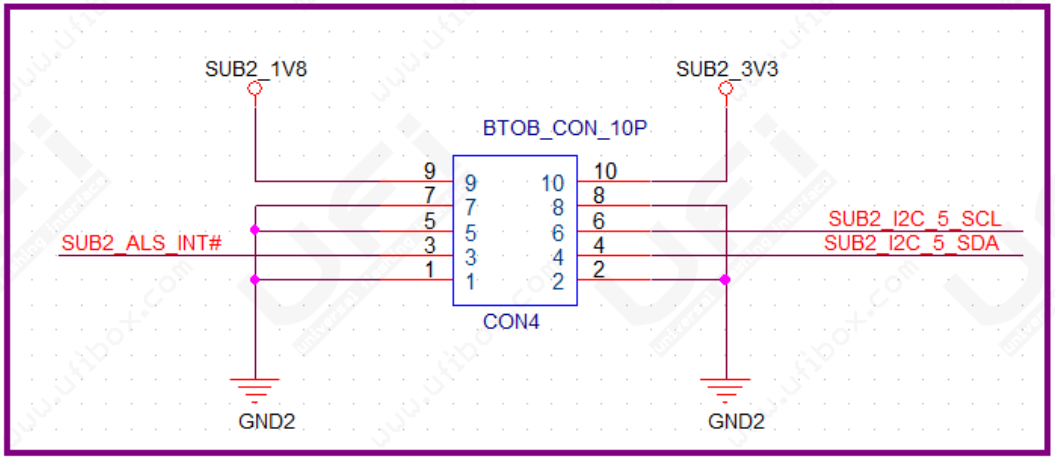
Unmount

CAD	I2C Address
L	0CH
H	0DH

Light sensor + Proximity Sensor

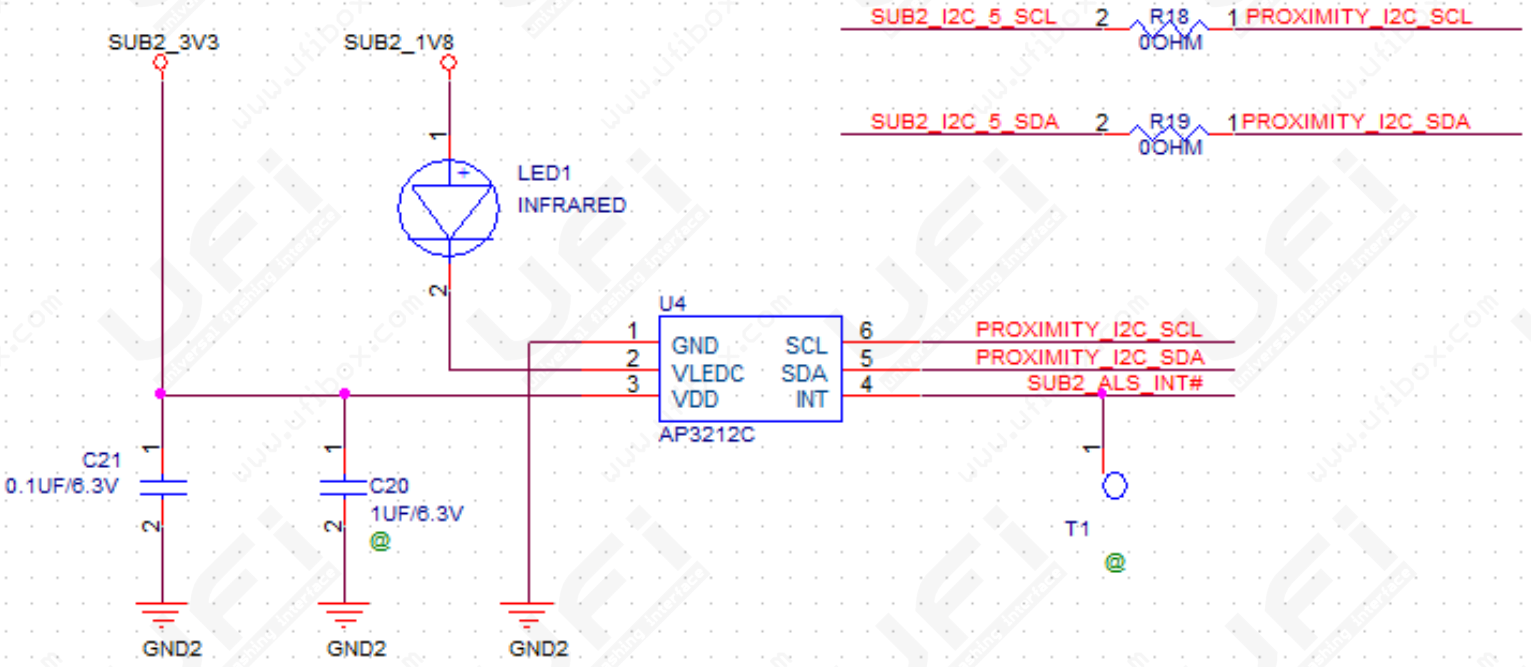
- Check sensor board CON4
- Check SUB2_3V3 and SUB2_1V8 have normal voltage。
- Because MB board and form case have a gap , so ME add a Rubber to hold MB board , let Proximity sensor can do calibration,





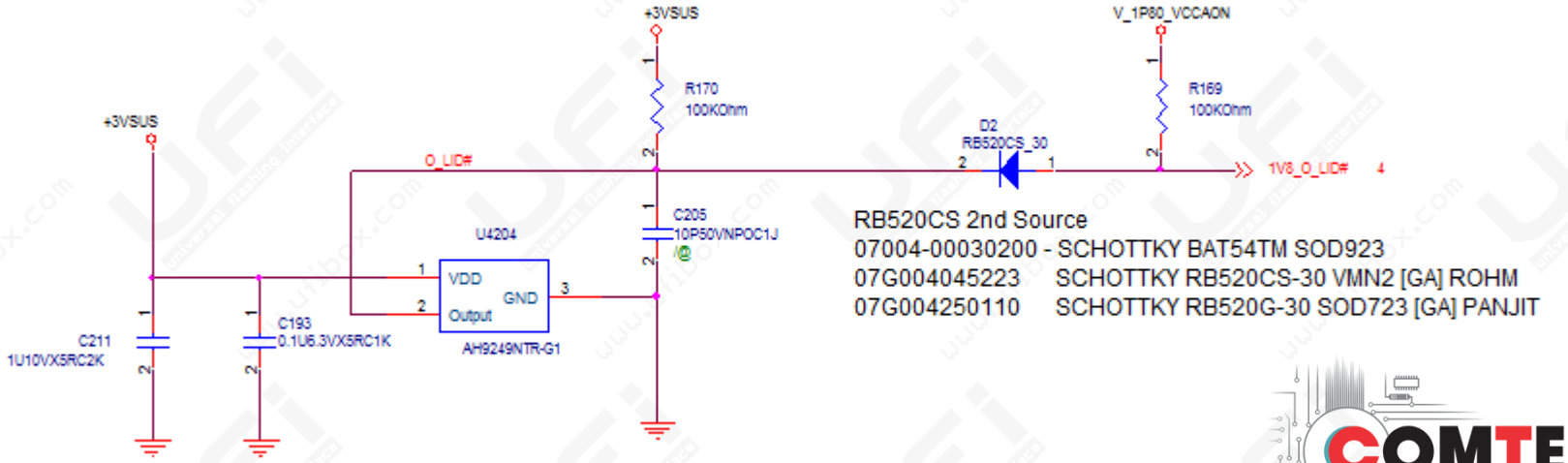
Proximity sensor & Ambient Light Sensor

I2C Address 0X1C



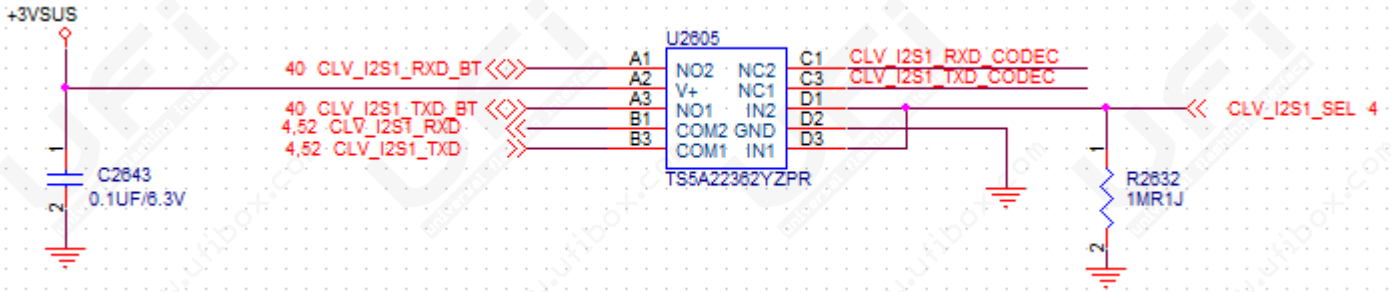
Hall sensor

- Check U17
- Check Part have open or not
- Check have bump or lost



Speaker no sound

- Check U2601 Power have fail or not
- Check Speaker chip have normal or not
- Calls when the sound is abnormal, the Analog I2S Switch U2605 have problem



Can not Charger

- Check have over discharge or not (the battery votage need >3.6V)
- When plug in adapter the USB_ULPI_CHRG_DET will pull low, plug out is High
- Check **PU8101**
- Check **I2C_2_SCL, I2C_2_SDA voltage have on not.**