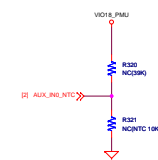


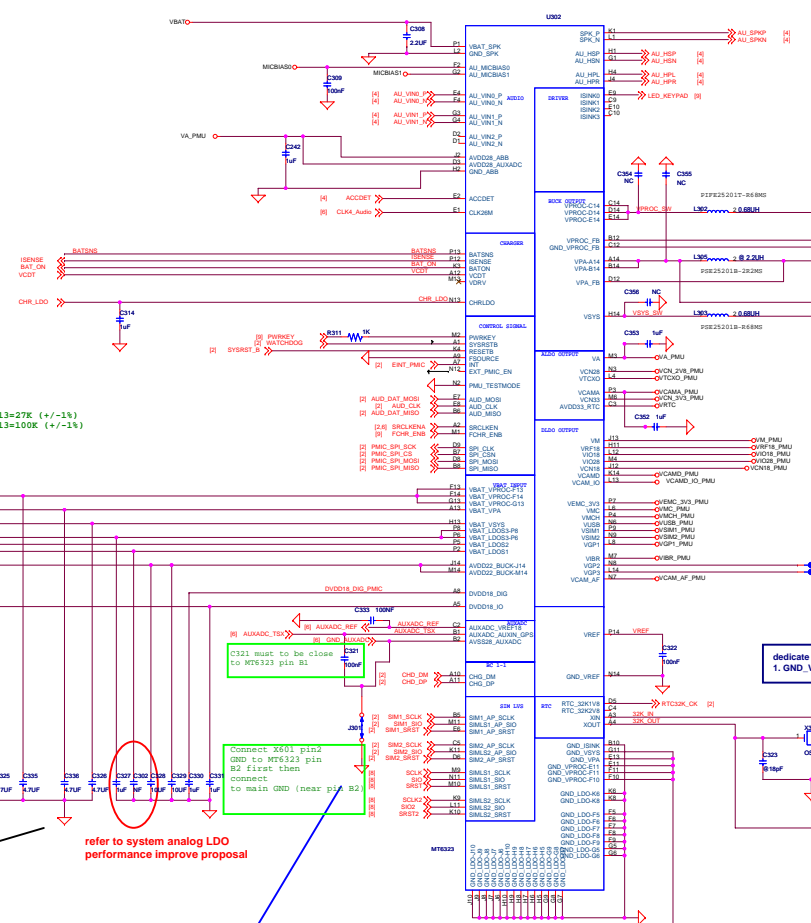
Thermal protection option 1: battery with NTC
 (1) if battery NTC is 10kohm R312=16.9K (+/-1%), R313=27K (+/-1%)
 (2) if battery NTC is 47kohm R312=61.9K (+/-1%), R313=100K (+/-1%)

Thermal protection option 2: battery without NTC
 (1) Delete R312, R313
 (2) Use R320, R321 for thermal protection
 (R321 close to battery connector)



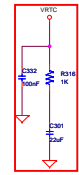
refer to system analog LDO performance improve proposal

Refer to GPS co-clock layout rule



dedicate VSS ball, must return to cap then to GND:
 1. GND_VREF(W14) => C322

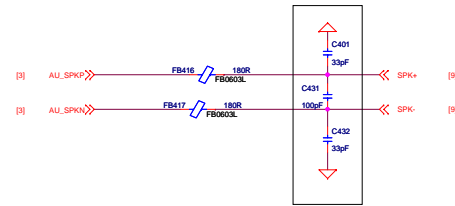
RTC 32K :
 (1) X301 / C324 / C323 = mount
 (2) R315 = NC
 RTC 32K-less (NOT MP yet)
 (1) X301 / C323 = NC
 (2) R315 / C324 = 0R



Block	Name	Value	Unit	Current	Output	On/Off	Comment
DCDC	VCCME	0.1514	DCDC-OUT	2800	V	1	Always On
	VREF	1.0512		1000	V	1	Always on
	VPA	0.9340		800	V	1	Regulator (default) SLEEPEN=1
	VPA	1.2131x10.1	300 (100)	V	1	Always on	
VREF1 LOO	VMP1	1.021	100	V	1	Regulator (default) SLEEPEN=1	
	VMP1	1.0	100	V	1	Always on	
	VOLV1	1.0	120	V	1	Regulator (default) SLEEPEN=1	
	VCCME1	1.2131x10.1	300	V	1	Always on	
	VCCME1	1.0	100	V	1	Regulator SLEEPEN=1	
	VMP1	1.2131x10.1	200	V	1	Regulator SLEEPEN=1	
Analog LOO	VPA	2.0	100	V	1	Always On 2.0E+01	
	VCC10	2.0	40	V	1	Regulator (default) SLEEPEN=1	
	VCC10	2.0	30	V	1	Regulator (default) SLEEPEN=1	
	VCCME1	1.5152x10.1	200	V	1	Always on	
	VDD33	3.3x4.0x5.0	300	V	1	Regulator (default) SLEEPEN=1	
	VDD33	2.0	200	V	1	Always On 2.0E+01	
Digital LOO	VDD18	3.3	20	V	1	Regulator (default) SLEEPEN=1	
	VAC	1.8x3.3	100	V	1	Regulator (default) SLEEPEN=1	
	VDD18	3.3x3.3	400	V	1	Regulator (default) SLEEPEN=1	
	VDD18	3.3	200	V	1	Regulator (default) SLEEPEN=1	
	VDD18	3.3	20	V	1	Regulator (default) SLEEPEN=1	
	VDD18	3.3	20	V	1	Regulator (default) SLEEPEN=1	
	VDD18	3.3	20	V	1	Regulator (default) SLEEPEN=1	
	VDD18	3.3	20	V	1	Regulator (default) SLEEPEN=1	
VREF1 VREF	VCCAL_VA	1.2131x10.5x10.23 2.8103x10.1 0.030	100	V	1	Regulator SLEEPEN=1	
	VREF1	1.0	10	V	1	Regulator	
	VREF1	1.0	10	V	1	Regulator	
	VREF1	1.2131x10.5x10.23 2.8103x10.1 0.030	100	V	1	Regulator SLEEPEN=1	
	VREF1	1.2131x10.5x10.23 2.8103x10.1 0.030	100	V	1	Regulator SLEEPEN=1	
	VREF1	1.2131x10.5x10.23 2.8103x10.1 0.030	100	V	1	Regulator SLEEPEN=1	
	VREF1	1.2131x10.5x10.23 2.8103x10.1 0.030	100	V	1	Regulator SLEEPEN=1	
	VREF1	1.2131x10.5x10.23 2.8103x10.1 0.030	100	V	1	Regulator SLEEPEN=1	
VREF1	2.0	2	V	1	Always On 2.0E+01		

Speaker

The diagram shows a differential signal path for a speaker. Two input signals, `AU_SPKp` and `AU_SPKn`, are connected to the gates of transistors `FB416` and `FB417` respectively. Each gate is connected to ground through an `180R` resistor. The drains of `FB416` and `FB417` are connected to a common node through `100pF` capacitors (`C431`). This common node is connected to the speaker terminals `SPK+` and `SPK-` through `33pF` capacitors (`C401` and `C432`). The speaker is represented by a box with two terminals.



USB BOARD IF

(H) USB_DM_TEST <<> <<>
 (H) USB_DP_TEST <<> <<>

(2) USB_DP <<> <<>
 (2) USB_DM <<> <<>

VBUS ○

FB402 180R
 FB0003L

C404 4.7UF
 6.3V

R403 0
 R404 0

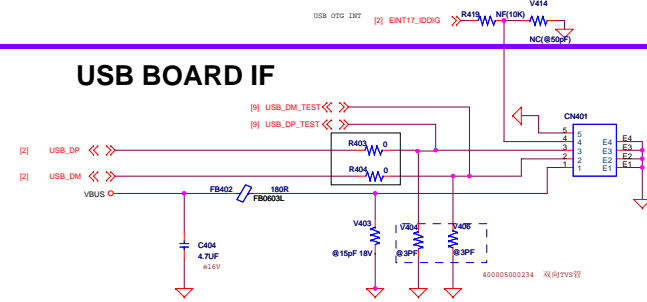
V403 18V
 @ 15pF

V404 3P
 @ 3P

V405 3P
 @ 3P

CN401
 5 E4
 4 E3
 3 E2
 2 E1

400005000234 X(8)TVU



HANDSET RECEIVER

The schematic diagram illustrates the handset receiver circuit, divided into two sections by a vertical dashed line labeled "close to connector".

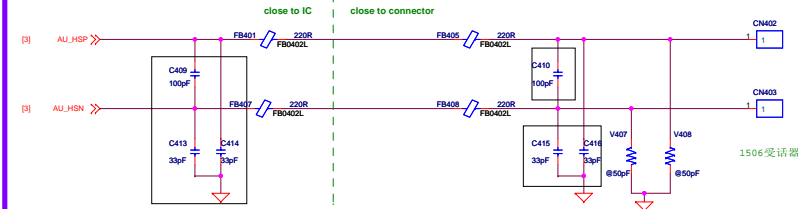
Left Section (close to IC):

- Input signals **AU_HSP** and **AU_HSN** are shown with red arrows.
- Capacitors **C409** (100pF) and **C413** (33pF) are connected to the **AU_HSP** line.
- Capacitors **C414** (33pF) and **C415** (33pF) are connected to the **AU_HSN** line.
- Resistors **FB401** and **FB407** (both 220R) are connected to the **AU_HSP** and **AU_HSN** lines, respectively.

Right Section (close to connector):

- Resistors **FB405** and **FB408** (both 220R) are connected to the **AU_HSP** and **AU_HSN** lines, respectively.
- Capacitors **C410** (900pF) and **C416** (33pF) are connected to the **AU_HSP** line.
- Capacitors **C415** (33pF) and **C416** (33pF) are connected to the **AU_HSN** line.
- Resistors **V407** and **V408** (both 50pF) are connected to the **AU_HSP** and **AU_HSN** lines, respectively.

The circuit is connected to two connectors, **CN402** and **CN403**, which are labeled "1506受话器".



MAIN MIC

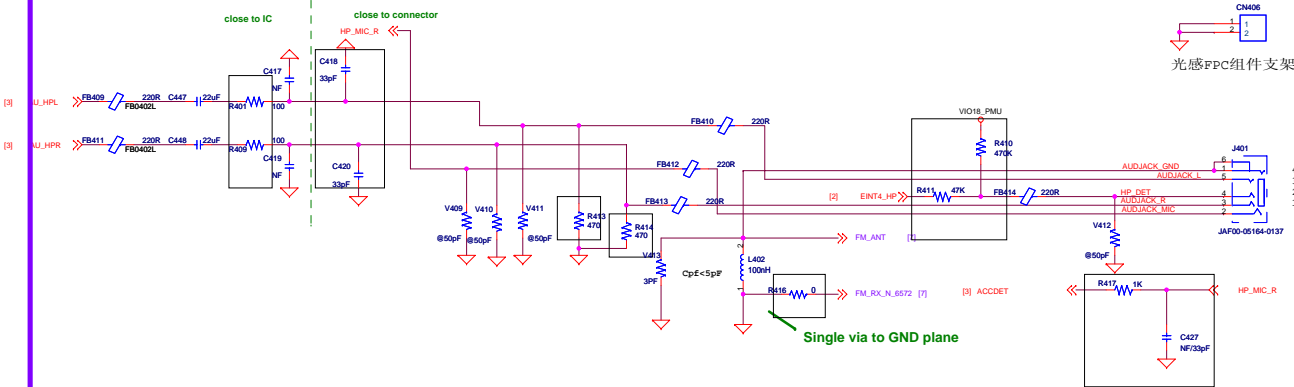
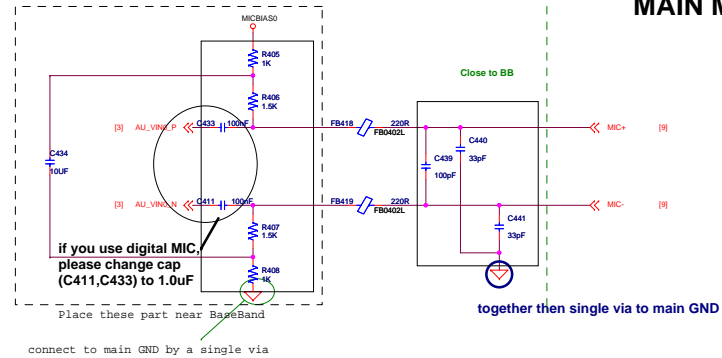
Close to BB

if you use digital MIC, please change cap (C411,C433) to 1.0uF

Place these part near BaseBand

connect to main GND by a single via

together then single via to main GND



Earphone MICPHONE

Earphone MICPHONE

Close to BB

Close to MIC

Close to CONNECTOR

tie together and single via to GND plane

GND of C422(10uF) and headset should tie together and single via to GND plane

[N] AU_VIN1_N

[P] AU_VIN1_P

HP_MIC_R

MCBIAS1

R412 1K

R415 1.0K

C421 100nF

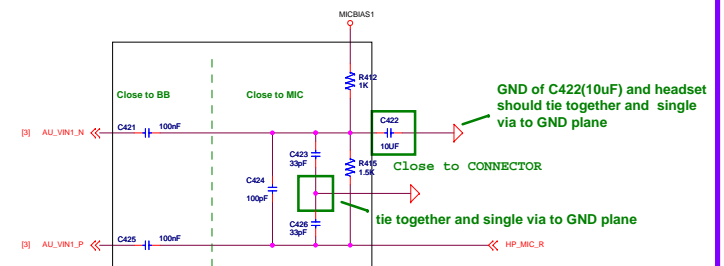
C422 10uF

C423 33pF

C424 100pF

C425 100nF

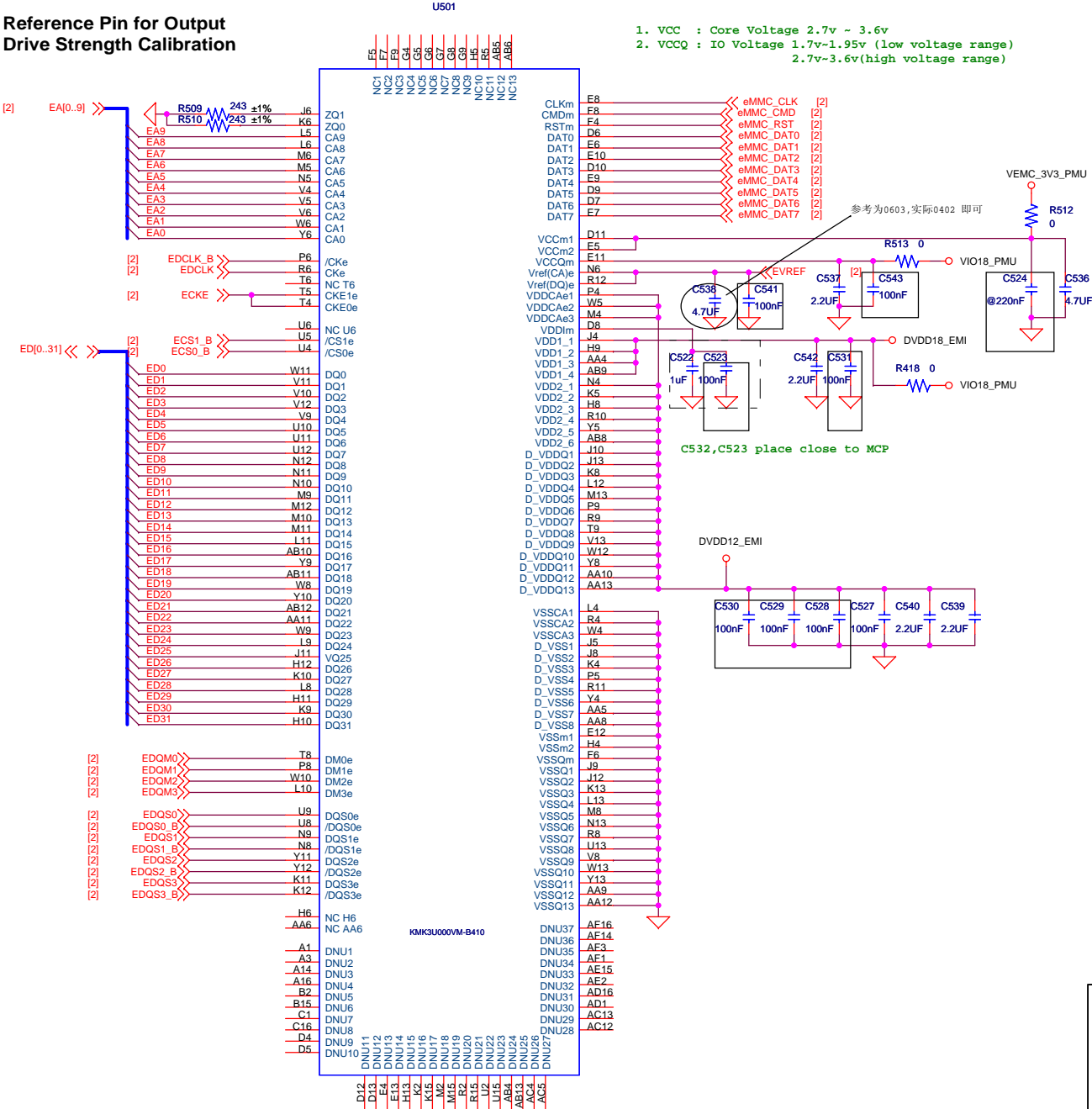
C426 33pF

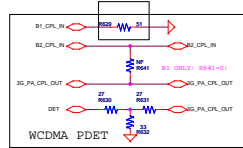


MCP LPDDR2

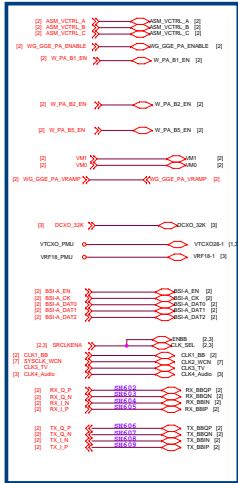
S4B VDD1=1.8V,VDD2=1.20V,VDDCA,VDDQ= 1.20V

Reference Pin for Output
Drive Strength Calibration





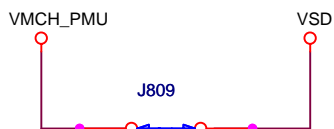
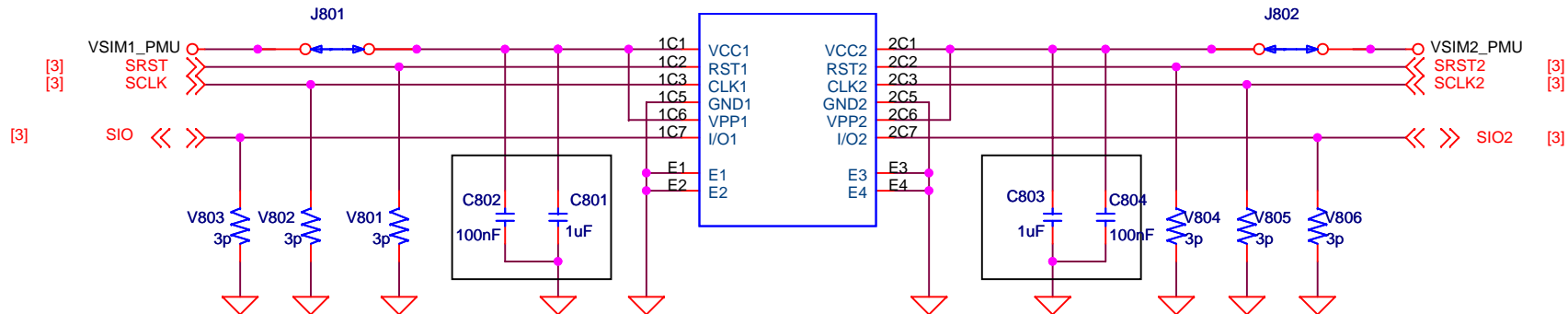
BP07-4 and 10-11 are 2G+3G mode both
BP05-9 and 12-14 are 3G mode only
(suggest BP05-9 + 1.8V)



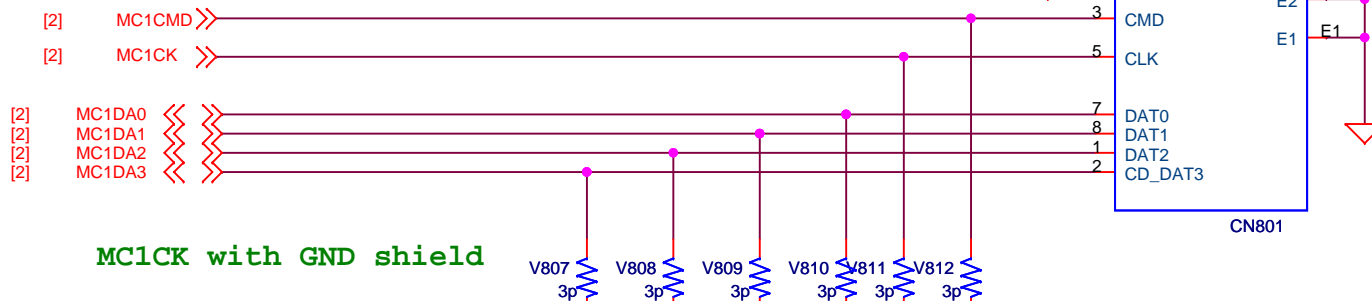
SIM1

SIM2

SIM801



Shielding connect to ground



MC1CK with GND shield

SD CARD

AMOI 夏新

Amoi Technology Co., Ltd.

22 GuanRi Road, Software Park II,
Siming District, Xiamen, Fujian 361000,
China

www.amoi.com.cn

Title MT6582 REF PHONE

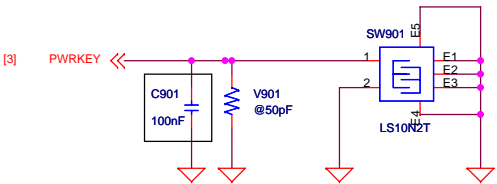
Size A4	Sheet Name T card & USIM	Rev 1.2
Date: Monday, September 09, 2013 Sheet 8 of 14		

ENGINEER: Name

Key

Power Key

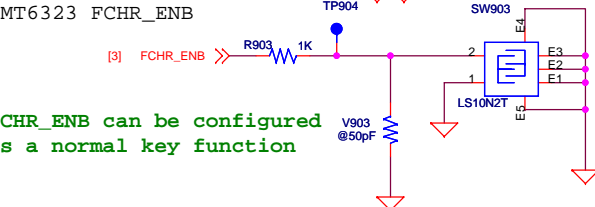
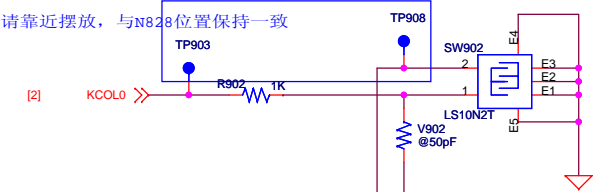
DO NOT put pull-up resistor on PWRKEY



Download Mode : Volume Up
Factory Mode: Volume Down + Power Key

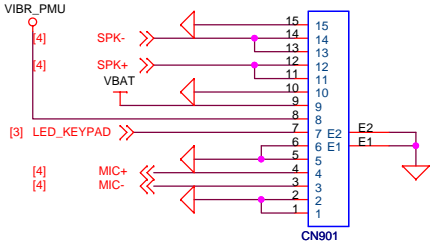
Volume Up

USB Download Mode

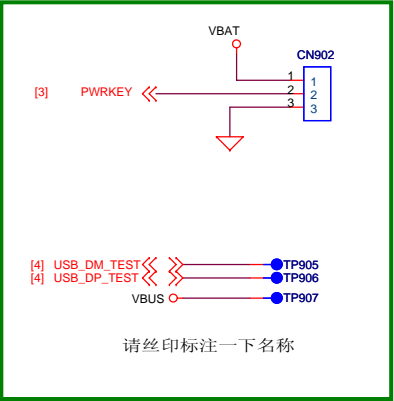


FCHR_ENB can be configured as a normal key function

Volume Down



MP Test Points



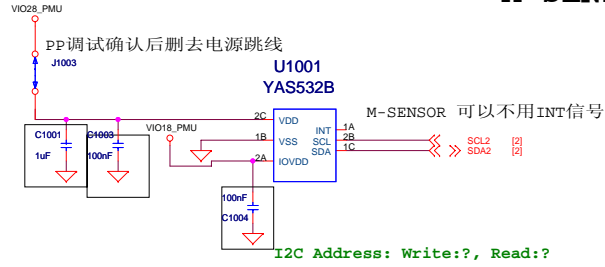
VBAT (TP901)及GND(TP908) 测试点用于RF校准
主板功能测试的馈电点，为共用N828夹具。布局坐标同N828。



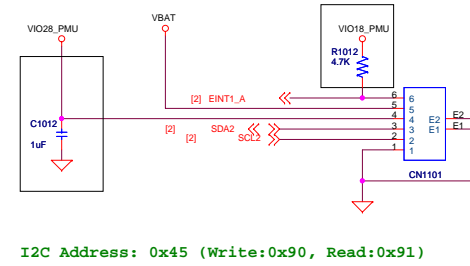
Notice :
1. Due to KCOL0 & KROW0 reset mode = GPIO input mode, "Force USB download mode" will be fail in KCOL0+KROW0.
So we change VolumeUp key=KCOL0+GND
2. Keypad matrix will become as (KEY1=KCOL0+GND)

Notice :
There are 3 options for "Long press to shutdown" function
1.PWRKEY + FCHR_ENB
2.PWERKEY only
3.FCHR_ENB only
During download mode, defalut = PWRKEY + FCHR_ENB
For other case (exclude download mode), defalut = PWERKEY only

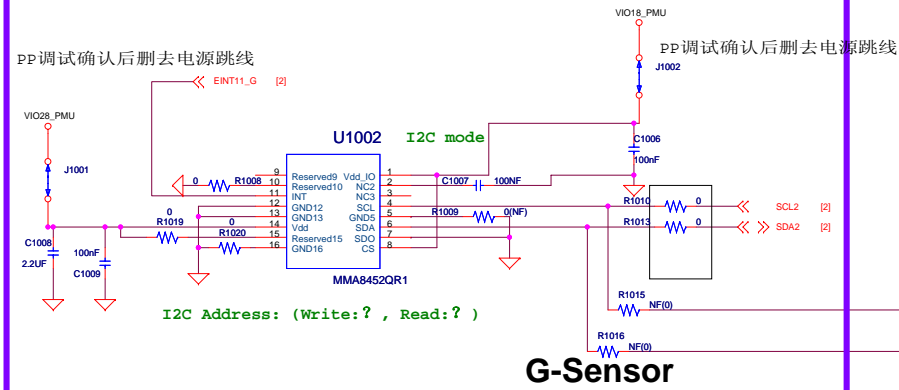
M-SENSOR



ALS & PS Sensor

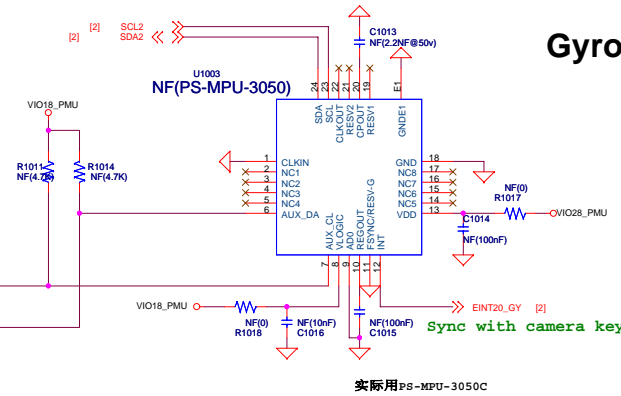


PP调试确认后删去电源跳线

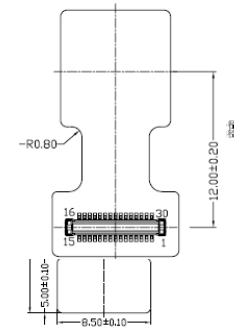
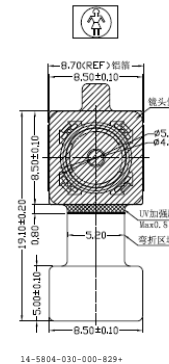
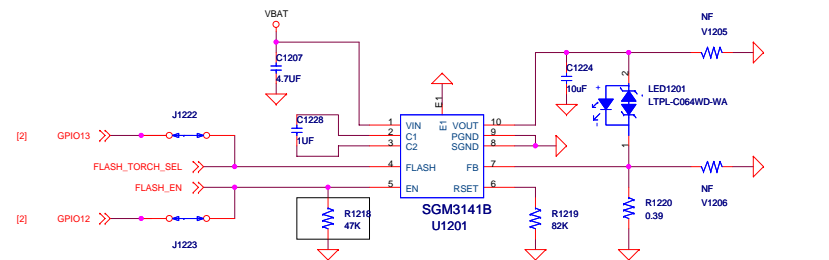
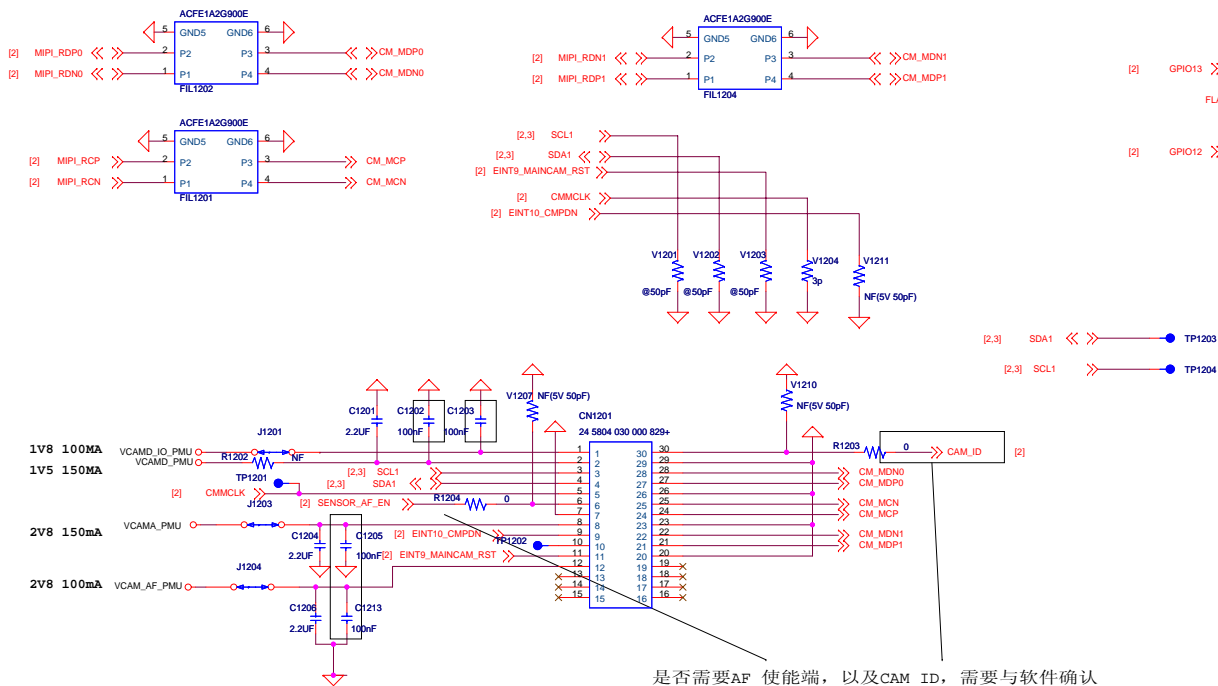


G-Sensor

Gyro-Sensor



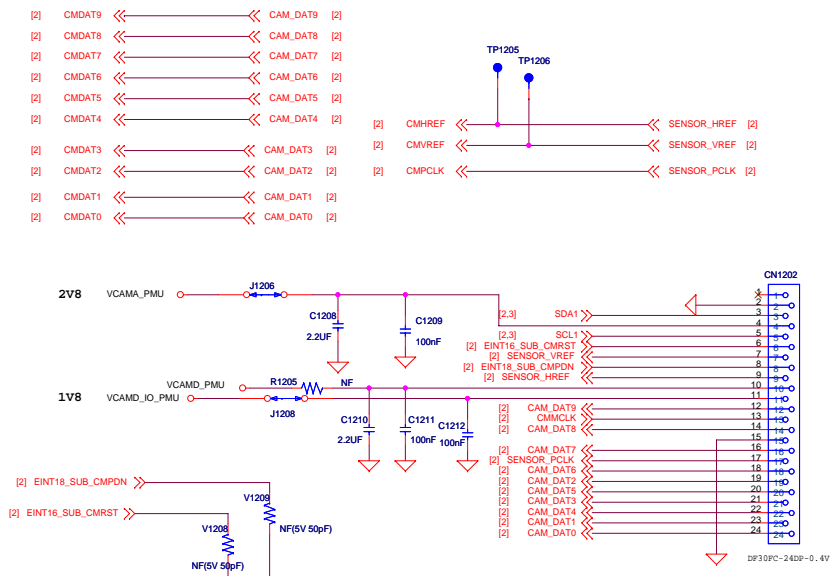
Main Camera



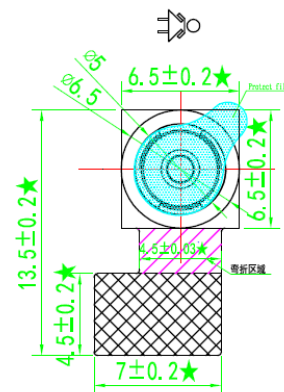
- 1 D0VDD_1.8V
2 DVDD(NC)
3 SI0C
4 SI0D
5 XCLK
6 AF_EN(NC)
7 AGND
8 AVDD_2.8V
9 PWDN
10 STROBE
11 RESET
12 AF_VDD_2.8V
13 NC
14 NC
15 NC
16 NC
17 NC
18 NC
19 NC
20 DGND
21 D4/MDP1
22 D5/MDN1
23 DGND
24 D6/MCP
25 D7/MCN
26 DGND
27 D8/MDP0
28 D9/MDN0
29 DGND
30 ID

是否需要AF 使能端，以及CAM ID，需要与软件确认

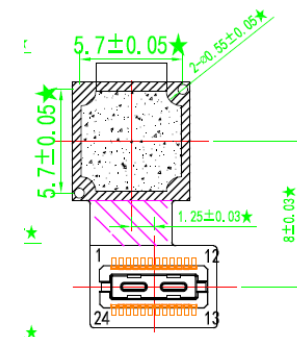
Sub Camera



TOP VIEW



BOTTOM VIEW



PIN NO	NAME
1	NC
2	AGND
3	SIO_D
4	AVDD 2.8V
5	SIO_C
6	RESET
7	VS1NC
8	PWON
9	HREF
10	NC
11	D0VDDonly1.8
12	Y7
13	XCLK
14	Y6
15	DGND
16	Y5
17	PCLK
18	Y4
19	Y0
20	Y3
21	Y1
22	Y2
23	NC
24	NC

