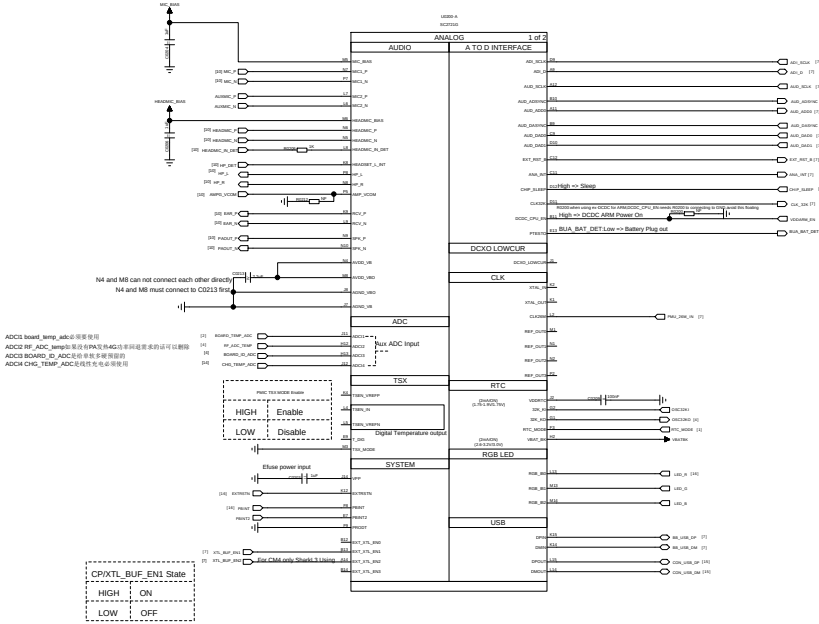


REVISED RECORD			
DATE	REVISED	BY	DATE

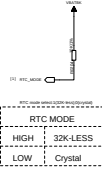
PMU_ANALOG



BKBT



RTC



RTC Mode	Type	R0202	X0200	C0201	C0202	R0203	R0204	R0617	R0205
32K Crystal	Option	OR	Crystal	8.2pF	8.2pF	OR	NF	NF	NF
32K-less	Default	NF	NF	NF	NF	NF	10K	OR	OR

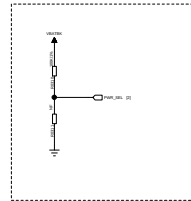
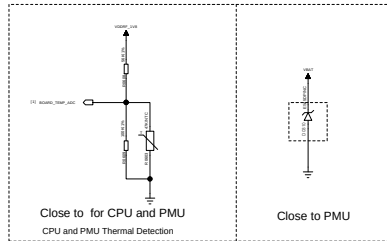
Note:32K-less only use in DCXO&TCXO mode and TSX

REVISION HISTORY			
REV	REASON	APPROVAL	DATE

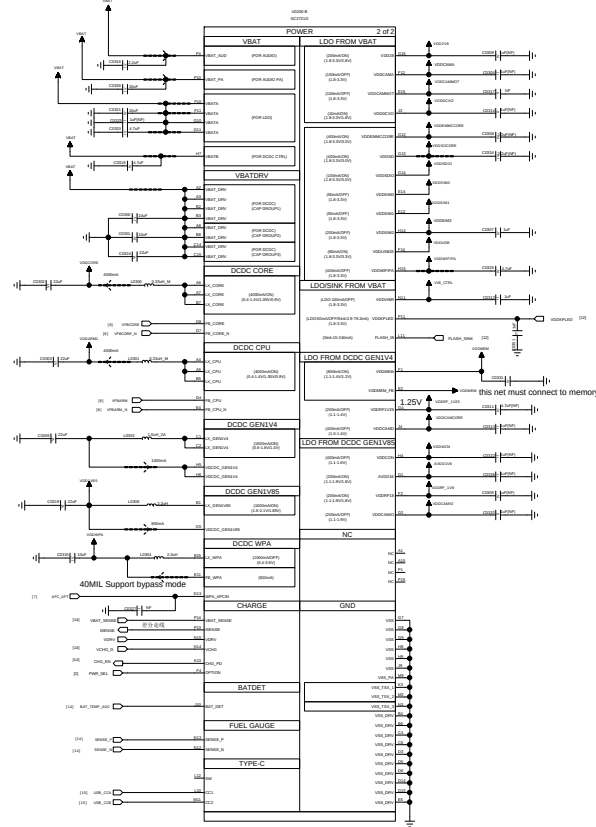
PMU_POWER

INPUT	Description
VBAT_AUD	VBAT power input for audio
VBAT_PA	VBAT power input for audio speaker PA
VBATA	VBAT power input for LDO
VBATB	VBAT power input for SP_LED_VIB_VBATBK_Flash_LED
VBATC	VBAT power input for LDO
VBAT_DRV	VBAT power input for DCDC

Default VBAT	R0300-SMT
Option VBAT_PA	R0316/R0307-SMT



PMU_SEL	Platform	R0310	R0311	VDDARM	VDDCORE
HIGH	SharkL3	100K	NF	0.9V	0.9V/0.7V
LOW	SharkL2	NF	0ohm	1.05V	1.05V/0.8V



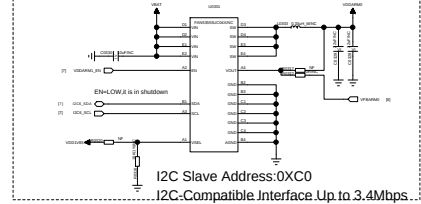
SC2721 DCDC output

Input Power	Power Name	Output Voltage (V)	Output Current	Default Voltage	Default
VBAT	DCCCCPU	0.4-1.4/1.05/0.9	400mA	0.9V	ON
	DCDCCORE	0.4-1.4/1.05/0.9	400mA	0.9V	ON
	DCDCMEM	1.1-1.4	800mA	1.2V	ON
	DCDCGEN1V85	1.6-2.1	1000mA	1.85V	ON
	DCDCWPA	0.4-3.6	1000mA		OFF

SC2721 LDO output

Input Power	Power Name	Output Voltage (V)	Output Current	Default Voltage	Default
LDO from VBAT	VDDCAMA	1.8-3.3	150mA	2.8V	OFF
	VDDCAMMOT	1.8-3.3	100mA	2.8V	OFF
	VDDSIM0	1.8-3.3	50mA	1.8V	OFF
	VDDSIM1	1.8-3.3	50mA	1.8V	OFF
	VDDSIM2	1.8-3.3	200mA	1.8V	OFF
	VDD28	1.8-3.3	200mA	2.8V	ON
	VDDEMMCCORE	1.8-3.3	400mA	3.0V	ON
	VDDSDCORE	1.8-3.3	400mA	3.0V	ON
	VDDSDIO	1.8-3.3	100mA	3.0V	ON
	VBATBK	2.6-3.2	2mA	3.0V	ON
	VDDVIB	1.8-3.3	100mA	3.3V	OFF
	VDDKPLED	1.8-3.3	LDO 50mA/Sink 0.9-29.2mA		
	VDDWIFIPA	1.8-3.3	400mA	3.3V	OFF
	VDDDCXO	1.8-3.3	10mA	1.8V	ON
	VDDUSB33	1.8-3.3	60mA	3.3V	ON
LDO from DCDCGEN	VDDCAMD	1.0-1.4	400mA		OFF
	VDD_CON	1.1-1.6	400mA		OFF
	VDD_MEM	1.1-1.4	800mA	1.2V	ON
	VDDCAMIO	1.1-1.9	200mA		OFF
	AVDD18	1.1-1.9	200mA	1.8V	ON
	VDDRF18	1.1-1.9	200mA	1.8V	ON
	VDDRF1V25	1.1-1.4	200mA		OFF

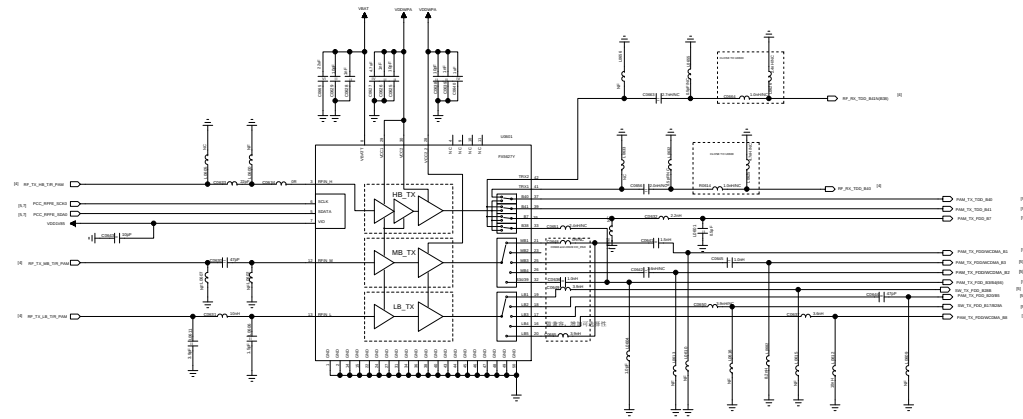
EXT DCDC ARM



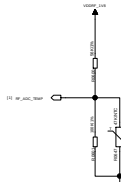
SC18B33(VDDARM) C0329-22uF C0328-22uF U0301-FAN5355UCAY C0320-10uF R0316-10K/1% L0303-0.33uH_M R0322-0R
SC18B33(VDDARM) C0329-NC C0328-NC U0301-NC C0320-NC R0316-NC L0303-NC R0322-NC

REVISION HISTORY		APPROVAL	
REV	REASON	APPROVAL	DATE

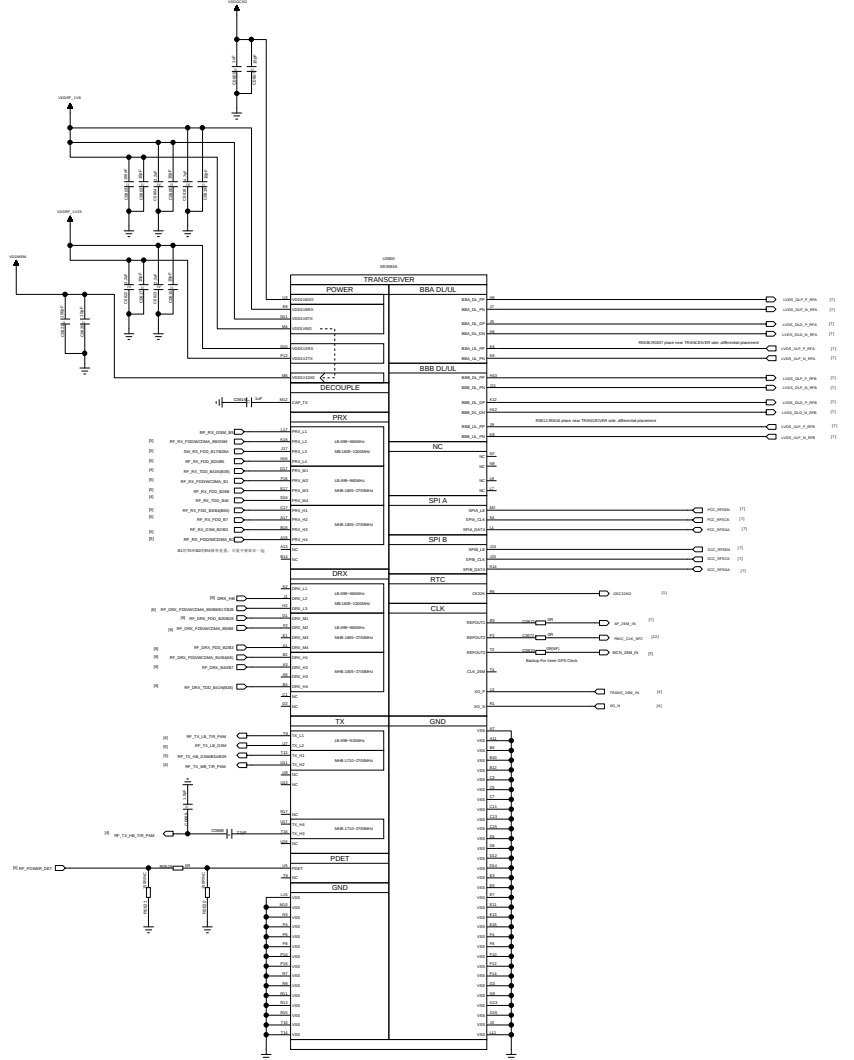
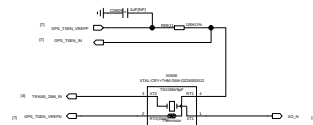
LTE/WCDMA PAM



NTC

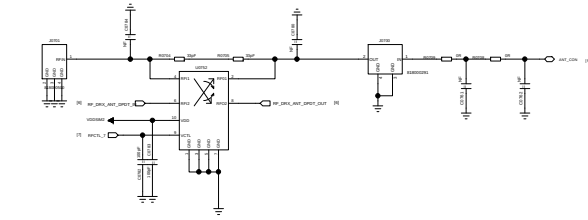


Close to U0601 for WCDMA PA
RF PA Thermal Detection

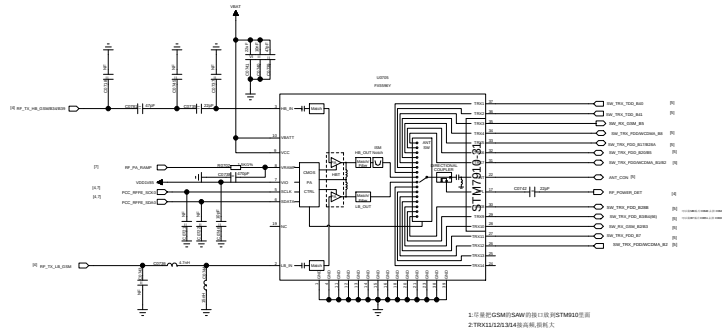


REVISION HISTORY			
REV.	DESCRIPTION	DATE	BY
1	Initial Release	2010-01-01	Hardware DEPT.
2	Hardware DEPT.	2010-01-01	Hardware DEPT.
3	Hardware DEPT.	2010-01-01	Hardware DEPT.
4	Hardware DEPT.	2010-01-01	Hardware DEPT.
5	Hardware DEPT.	2010-01-01	Hardware DEPT.
6	Hardware DEPT.	2010-01-01	Hardware DEPT.
7	Hardware DEPT.	2010-01-01	Hardware DEPT.
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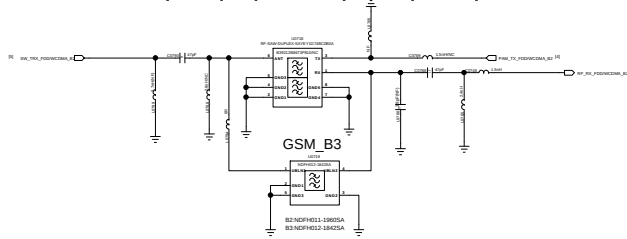
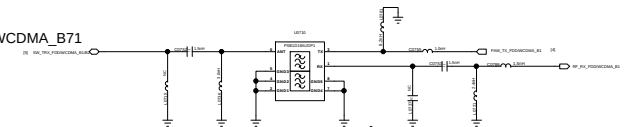
Primary LMB Antenna



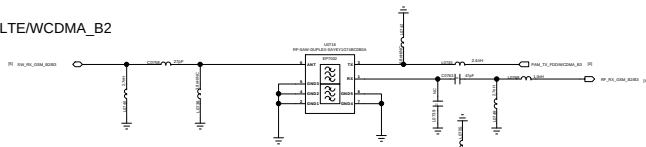
TDD B34/B39/GSM PA + Switch



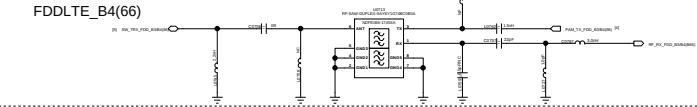
FDDLTE/WCDMA_B71



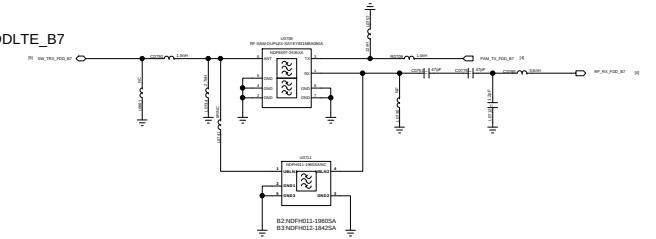
FDDLTE/WCDMA_B2



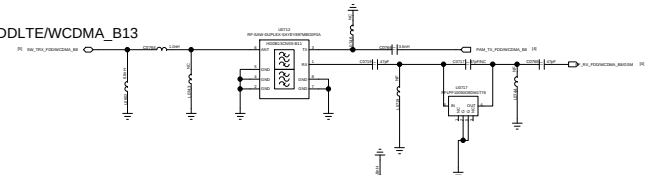
FDDLTE_B4(66)



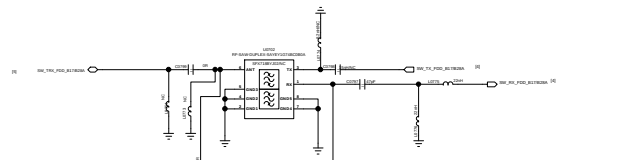
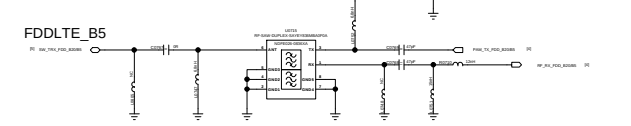
FDDLTE_B7



FDDLTE/WCDMA_B13

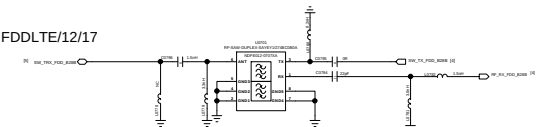


FDDLTE_B5

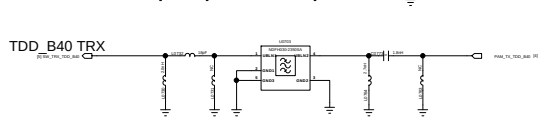


GSM_B8

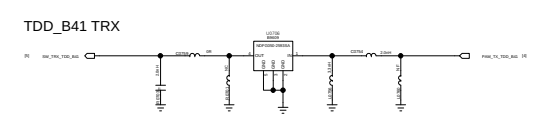
FDDLTE/12/17



TDD_B40 TRX



TDD_B41 TRX

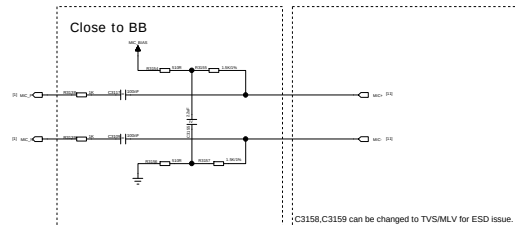


Revision History			
Rev	By	Reason	Date

Title & Rev			
Revision No.			
Version	Date	By	Hardware DEPT.
Rev	Date	By	Company
Approved	Date	By	Spreadtrum communications, Inc.
CONFIDENTIAL AND PROPRIETARY			

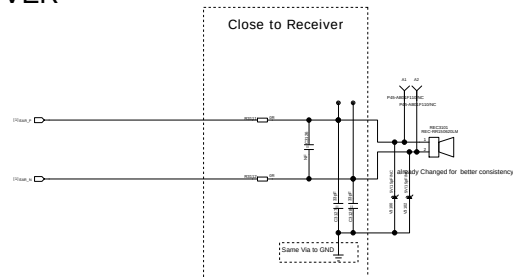
REVISION RECORD			
LOT#	BCS NO-	APPROVED-	DATE

MAIN MIC



C3158,C3159 can be changed to TVS/MLV for ESD issue.

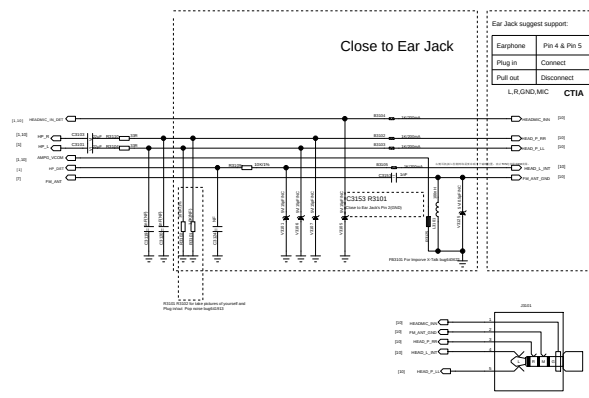
RECEIVER



2 already Changed for better consistency

.....	
Same life to OAD	9

3.5mm Ear Jack

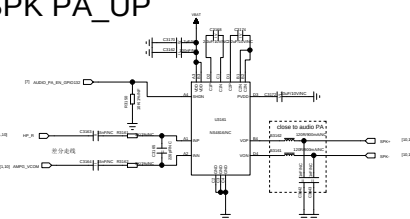


* Ear Jack support support:

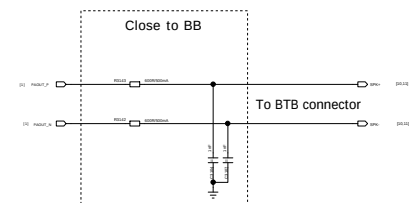
Earphone	Pin 4 & Pin 5
Plug in	Connect
Pull out	Disconnect

L,R,GND,MIC	CTIA
-------------	------

External SPK PA_UP

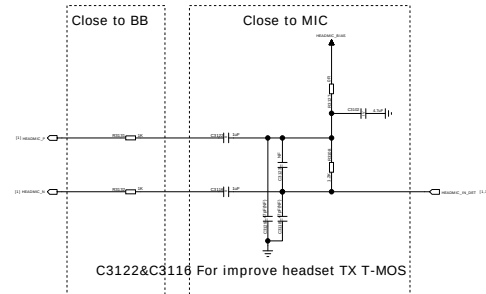


SPEAKER



To BTB connector

HEAD MIC

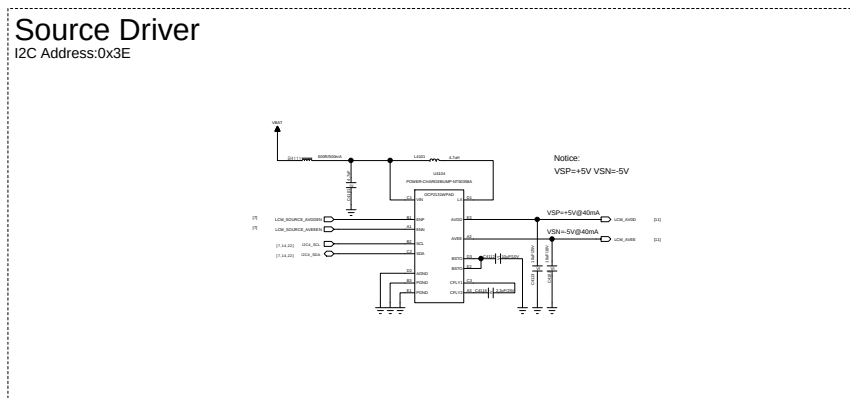
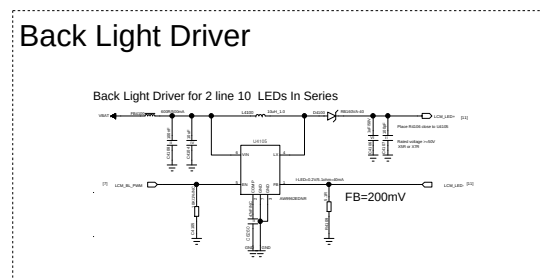
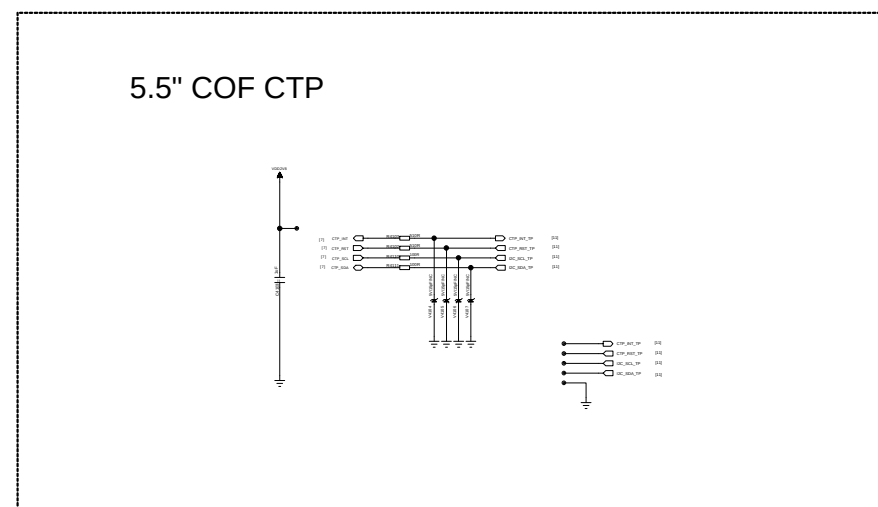
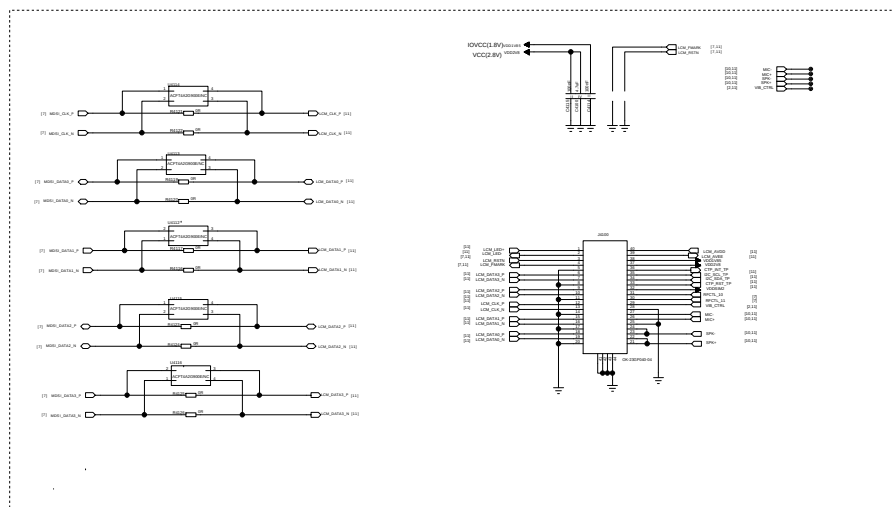


Close to MIC

C3122&C3116 For improve headset TX T-MOS

		TITLE & REV	
		DOCUMENT NO.	
DESIGNER	DATED	DEPARTMENT	
		Hardware DEPT.	
SQL	DATED	COMPANY	
		Spectrum communications, Inc.	
APPROVED	DATED	CONTRACT NO. AND DESCRIPTION	

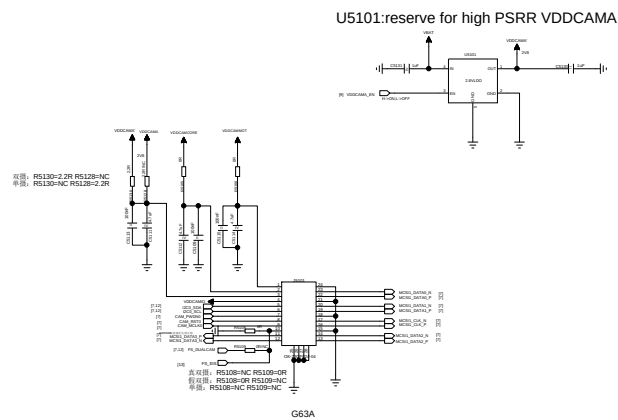
REVISION RECORD			
DATE	BCD NO.	APPROVED	DATE



		TITLE & REV:	
		DOCUMENT NO:	
DESIGNER	DATE:	DATE/REVISION:	
FOR	DATE:	COMPANY	
APPROVED	DATE:	SPREADTRUM COMMUNICATIONS, INC.	
		COMPROMISED AND PROPRIETARY	

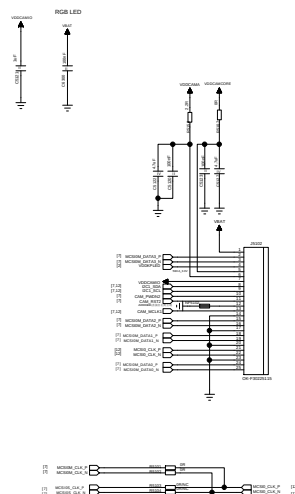
REVISION RECORD			
LTB	ECO NO.	APPROVED	DATE

Rear Dual Camera 0:13M

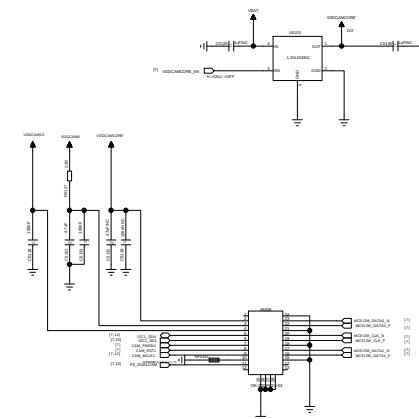


For desense debug use ,place close to camera

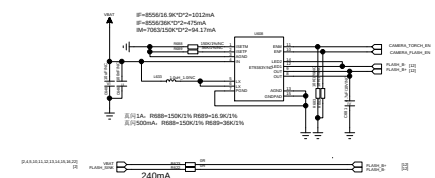
Front Camera 2:16M



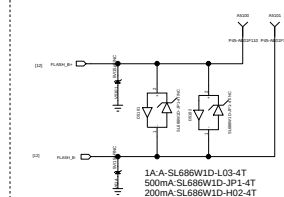
Rear Daul Camera



FLASH LED BACK



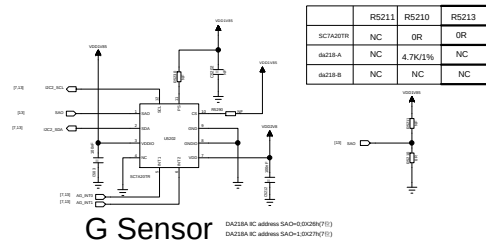
BACK LED



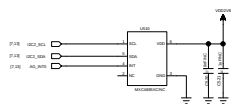
Front LED

		TITLE & REV	
		DOCUMENT NO.	
DESIGNER	DATED:	DEPARTMENT	
PCA	DATED:	Hardware DEPT.	
APPROVED	DATED:	COMMUNITY	
		Spreadtrum communications, Inc.	
		COMMUNITY DEVELOPMENT	

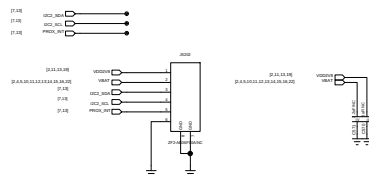
Accelerometer



G Sensor

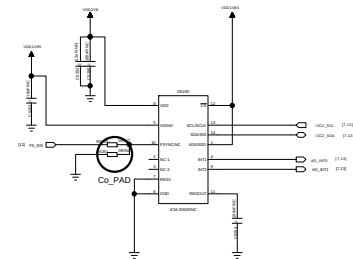


ALS & PROX

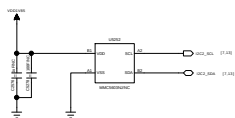


	LTR-553ALS-WA
SIZE	3.94 x 2.36 x 1.35
1	SDA
2	INT
3	LDR
4	LED K
5	LED A
6	GND
7	SCL
8	VDD
9	VDD

Accelerometer&GYRO: ICM-20600



Magnetic Sensor:AK09911C

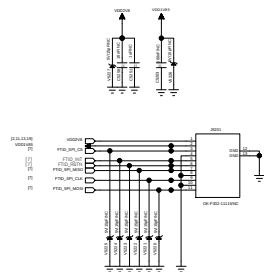


IIC address: 0x30 (7位)

FingerPrint ID

NOTE:FPC+LAYOUT LINE<10MM

(BACKUP)



Pin	Definition
VDD	2.4V - 3.6V
VID	1.65V - VDD
CAD	Address select Note : connect to VDD,not VID

I2C ADDRESS

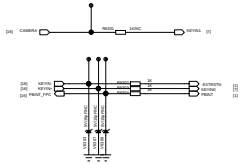
	Manufacturer	MPN	Address
A sensor	BOSON	BM4255	0b0011001 (SDC+1)
M sensor	ASAHIKASEI	AK09911	0b0001101 (CAD+1)
ALS & PROX	LITEON	LTR-553ALS-WA	0b0100011
A&G Sensor	InvenSense	ICM-20600	SA0=0 0b11010000 SA1=0 0b11010001
M sensor	AKM	AK09918C	0b0001100 (RW)

Title & Rev		
Document No.		
REVISED	DATE	DESCRIPTION
1.0	2019.01	Hardware DEPT.
APPROVED	DATE	Signature Spreadtrum communications, Inc.
CONFIDENTIAL AND PROPRIETARY		

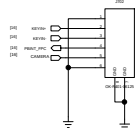
REVISION HISTORY			
VER.	REV. NO.	DESCRIPTION	DATE

SIDEKEY

Only Keyin0	USB Download with timeout
Keyin0+Keyin1	SD Boot with timeout

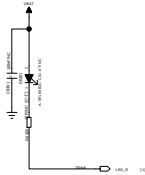


Side Key must be with ESD protect



SharkL2 support two keys 7S reset ,also support single key(PBINT) 7S reset with SC2721
Two keys Reset EXTRSTN+PBINT

W_LED



白灯 -A-SP194W1D-C00-4T
蓝灯 -A-SP194B1C-C01-4T

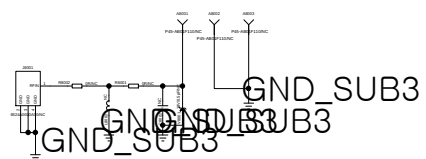
TITLE & REV		
DOCUMENT NO.		
DESIGNER	DATE	APPROVED
QA	DATE	DATE
APPROVED	DATE	DATE
Hardware DEPT.		
Spreadtrum communications, Inc.		
CONFIDENTIAL AND PROPRIETARY		

REVISION RECORD			
LT#	ECC NO.	APPROVED:	DATE:

		TITLE & KEY	
		DOCUMENT NO.	
DESIGNER	DATED	DEPARTMENT	
		Hardware DEPT.	
QA	DATED	COMPANY	
		Spectrum communications, Inc.	
APPROVED	DATED	CONFIDENTIAL AND PROPRIETARY	

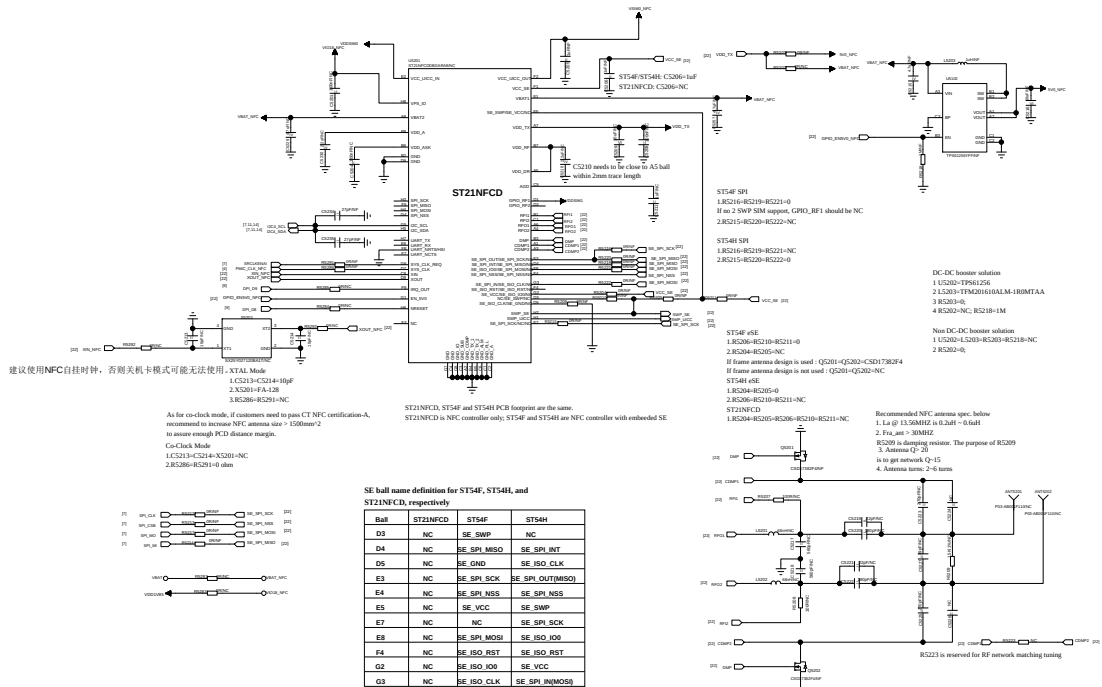
REVISION RECORD			
LT#	B/C# NO	APPROVED:	QA

ANT_SUB



		COMPANY			
		TITLE			
ISSUED	DATED				
CHECKED	DATED	CODE	SIZE	DRAWING NO	REV
QUALITY CONTROL	DATED	A0			
RELEASED	DATED	Project: _____ Date: 24 / 22			

REVISION HISTORY			
REV.	DATE	DESCRIPTION	BY



建议使用NFC自挂时钟，否则关机卡模式可能无法使用。XTAL Mode
recommended to increase NFC antenna size > 150mm²
to assure enough PCF distance margin.
Co-Check Mode
1.CS213+CS214+XS201-NC
2.RS206+RS201+0 ohm

- 1. ST21NFC + 1 SWP SIM Only
 - (1)RS212+RS223+0 ohm
 - (2)Q201+Q202+Q203+NC
 - (3)RS206+RS203+RS204+RS205+RS206+RS211+NC
- 2. ST21NFC+2 SWP SIM
 - (1)Q201+CS202+Q203+Q204
 - (2)RS204+RS205+1M, RS206+1K, RS201+RS203+RS211+RS212+RS223+0 ohm
- 3. ST54F+1 SWP SIM + 1 SWP vSE
 - (1)RS212+RS223+0 ohm
 - (2)RS201+RS202+RS203+RS204+RS205+RS206+RS211+NC, Q201+Q202+Q203+Q204

