

PMP7100D

**TECHNICAL
SERVICE MANUAL**

产品规格书(Product Specification Sheet)

产品类型 (Model): 平板电脑 (Tablet)

型号(Machine Model): SMB-C1006

品牌(Brand): 万利达(Malata)

描述 (Description): 10.1 寸平板电脑 (10.1 inch Tablet)

版本 (Revision): 2.0

修改履历 (Revision History)

[illegible]

1. 基本参数(Basic Parameters)

操作系统(OS)	Android 4.0
CPU 型号(CPU)	Rockchip RK3066
CPU 核芯数(Core Model)	dual-core ARM Cortex-A9
CPU 频率(Frequency)	1.6GHz
系统内存 DDR(RAM)	512MB/1GB
存储容量(ROM)	8GB/16GB

2. 显示屏(Display Features)

屏幕尺寸(Screen Size)	10.0 inch
屏幕分辨率(Resolution)	1280 x3(H)x800(V)
显示比例(Aspect ratio)	16:10
屏幕类型(Display Technology)	TFT-LCD
垂直方向视角 (Vertical viewing angle)	89° /89°
水平方向视角(Horizontal viewing angle)	89° /89°

3. 控制屏 (Touch Panel Controls)

电容触控屏(Capacitive touch screen)	Multiple point
电磁感应屏(Electromagnetic induction screen)	No
电磁手写笔(Electromagnetic stylus)	

4. 无线网络参数(Wireless and cellular)

WiFi 功能(WIFI)	802.11b/g/n
蓝牙 (Bluetooth)	Bluetooth V4.0(HS)
3G 网络(3G Network)	optional
3G 支持频段(3G Support band)	UMTS/HSDPA (850, 900, 1900, 2100 MHz)

5. 传感器(Sensors)

重力传感器(Accelerometer Sensor)	Yes
外界环境亮度传感器(Ambient light Sensor)	No
电子罗盘(Electronic Compass)	optional
陀螺仪 (GYRO Sensor)	optional
人体接近传感器(proximity sensor)	No
振动马达(Vibration Motor)	No

6. 摄像头和 GPS(Camera and GPS)

后置摄像头 (Rear Camera)	2M pixels
前置摄像头 (Front Camera)	2M pixels
GPS 导航 (GPS)	No

7. 电池 电源(Battery and Power)

电池容量 (Battery Capacity)	6400mAh/3.7V
类型 (Type)	Li-ion Polymer Battery
续航时间 (Battery life time)	7h
电源适配器 (Adapter)	5V/2A

8. 输入输出接口(Input and Output)

电源输入接口(DC Input Jack)	DC In
音频接口(Headphone Jack)	3.5mm Headphone
USB 接口(USB Jack)	Mini USB(Type B)
存储卡(SD Card)	TF card(up to 32GB)
HDMI 接口(HDMI Jack)	Yes(TYPE C)
SIM 卡(SIM Card)	No

9. 控制键(Buttons)

电源键 (Power)	Power
音量键 (Volume)	Vol-、 Vol+
菜单键(Menu)	No
返回键(Back)	No
主界面键(Home)	No

10. 媒体支持类型 (Mail attachment support)

图片 (Image)	JPG, JPEG, BMP,GIF,PNG
文档 (Document)	.doc, .xls, .ppt, .pdf, .txt
网页 (Web Page)	.htm,.html

11. 音频(Audio)

频率响应 (Frequency response)	20Hz ~ 20KHz
支持格式 (解码) (Formats supported (Decode))	MP1, MP2, MP3, WMA7, WMA8, WMA9, WAV, APE, OGG, OGA, FLAC, AAC, M4A
支持格式 (编码) (Formats supported (Encode))	AMR-NB
扬声器 (Speaker)	0.5W x2
麦克风 (Microphone)	Built in

12. 视频(Video)

高清视视频解码 (HD Video Decode)	MPEG-1, MPEG-2,MPEG-4, H.263, H.264, AVS, VC-1,RV, VP6/VP8, Sorenson Spark, MVC
高清视频编码(HD Video Encode)	H.264, MVC,VP8
图像处理 (Graphics Support)	OpenGL ES1.1 and 2.0, OpenVG1.1

13. 尺寸和重量(Size and Weight)

长度 (Height)	175mm
宽度 (Width)	256.8mm
厚度 (Depth)	10.2mm
重 (Weight)	680g

14. 外观(ID)



BOM list

Line number	Name	Specifications	Quantity	Position number
1	Assembly components	SMB-C1006, middle frame components, black+natural color	1	
2	Rear housing plastic parts	SMBC1006-RE01, Rear housing (without the SIM card hole, without the flash hole), spray silk screen, black fluffy paint	1	
3	P+R	SMBB1013-RE03 power button, electroplate, silver	1	
4	P+R	SMBB1013-RE04, volume button, electroplate, silver	1	
5	Plastic parts of the bracket	SMBB1013-RE06, rear camera bracket, vacuum deposition, silver	1	
6	Plastic parts of the die cutting lens	SMBB1013-RE07, rear camera's lens, 3M9448, silkscreen, black	1	
7	platen's metal parts	SMBB1013-PT02, earphones' platen, 0.3 Electrolytic zinc board	1	
8	Shielding cover's metal parts	SMBC1006-PT01, motherboard's shield, 0.2 tin plate	1	
9	Regular poron	5*3.5*1mm, ES, one side ordinary adhesive, black	1	Pasted in the place corresponding for front camera in rear
10	Irregularly shaped PET protective film	SMBC1006-H03, Screen's protective film 0.05PET(The contents silkscreen multicolor, without 3G, Eastern Europe Prestigio PMP7100D)	1	
11	nickel metal screw	M1.6*2.5CMHNI (K=0.5 D=3 Drop-resistant)	13	battery fixed with Mg-Al middle frame(10) Earphones' platen with Mg-Al alloy middle
12	Nickel-plated self-tapping screws	M1.7*3CBHNI, K=0.5, D=3.0	4	Motherboard fixed with middle frame(2) TF card board
13	nickel metal screw	(01.00. WJ. JG. E1111) M2*2CMHNI, Drop-resistant	4	For attaching the LCD panel
14	Irregular silicone	SMBC1006-H05, camera silicone cover, hardness 60 degrees, double sided ordinary adhesive, black	1	
15	Irregular silicone	(01.00. DP. XJ. E1042) PGB94315-H01, MIC silicone cover, hardness 60°, NR, black	1	
16	Regular silicone	(01.00. DP. XJ. E370) 13*6*1mm, NA, single sided adhesive, black	1	used under the reinforcing plate of the touch panel's
17	Regular insulating pad	(01.00. DP. JY. E107) 10*5*0.3mm, One side ordinary adhesive, black	1	Pasted behind the headphone jack
18	Irregularly shaped insulating pad	SMBC1006-H06, main shield's insulating pad, one side ordinary adhesive, transparent	1	
19	Regular sponge pad	80*60*0.8mm, single sided adhesive, ordinary adhesive, black	2	Put on the battery inside rear housing

20	Regular sponge pad	(01. 00. DP. HM. E497) 20*10*2mm, single sided adhesive, ordinary adhesive, black	1	used on the reinforcing plate of the touch panel's
21	Irregular double-sided adhesive	SMBB1013-H02, 3M9448, the whole device double-sided adhesive	1	Pasted in rear camera bracket
22	Irregular double-sided adhesive	SMBB1013-H03, Saint-Gobain V2020, touch panel double-sided	1	Pasted in touch panel four sides
23	Irregular double-sided adhesive	7986C, 3M9448 glue, PCB board glue	1	
24	[Semifinished product]-LCD panel	AU101DP11V1	1	
25	Screen touchpad	A1WAN03, capacitive, 10.1" & 16:10, no adhesive	1	
26	Built - in camera	U-C1013-200-200-V1.0, CMOS, 2 Mp & 2 Mp, NR, YUV	1	
27	Cased battery	BT-B0BDN, 3574108 (Lithium polymer-WanZhong-HaiTaiYang), 6400mAh, 3.7V, NR	1	
28	Speaker	101-2014-13010-j, 0.7W, 8R, L20*W14*H4.3, with wire	1	
29	Speaker	101-2014-13011-j, 0.7W, 8R, L20*W14*H4.3, with wire	1	
30	Touch switch	7980C lid switch, combination, horizontal, D4.5, S	1	K1 K2 K3
31	Regular conductive foam	(01. 00. DD. PM. E427) NA, full conductive, single sided adhesive, 8*5*3mm, LG	1	Pasted between motherboard and LCD
32	Regular conductive cloth	(01. 00. DD. QT. E311) plain weave, double-sided conductive, single sided adhesive, adhesive	1	Pasted in the headphone jack
33	Regular conductive cloth	plaid, double-sided conductive, single sided adhesive, adhesive conductive, 20*8mm, NR	3	Pasted in the screen and Al-Mg (used for USB housing grounding and HDMI housing)
34	Built-in passive antenna	C168-JL-1596, PCB, 2.4GHz~2.5GHz & 5.7GHz~5.85GHz, lead wire, D0.81*L40	1	WIFI antenna
35	Bifacial flat wire	0.5mm, 10P, 68mm, -40C~+80C, no fold	1	
36	Ordinary PE bags	(01. 00. BZ. D. H. E017) 280*280mm, NA, NA	1	Device's packaging
37	Ordinary PE bags	(01. 00. BZ. D. H. E001) 110*180mm, NA, NA	1	User manual's
38	Ordinary PE bags	(01. 00. BZ. D. H. E030) 67*190mm, 0 country, NA	2	USB cable packaging bag(1)、OTG cable
39	Self-styled PE packaging bags	(01. 00. BZ. D. Z. E035) 75*80mm, 0 country, NA	1	British standard plug's packaging bag
40	Shrink film packaging bag	(01. 00. BZ. D. S. E497) 300*460mm, NA	1	
41	Other pallets	1200*1000*150mm, loading capacity 1000kg	1	When shipping single machine amount 0.0028
42	Paper corner protector	Size: 920*60*60*5mm	1	When shipping single machine amount 0.011
43	Blank stickers	T01, 30*8mm, coated paper self-	3	
44	Blank stickers	T02, 70*8mm, coated paper self-	1	
45	Blank stickers	BS025A, 700*100mm, coated paper self-adhesive	.4	
46	Blank stickers	BS013C, 45*30mm, XiaoYinlong	1	
47	Warranty seal	Eastern Europe	1	
48	Ordinary paper self-adhesive sticker	SMB-C1006, T06, Eastern Europe Prestigio, PMP7100D, water damage sticker, NR, V1.0	1	

49	Leather case	PMP7100D3G, MID protective cover, PU+Velvet, black, NR	1	主料 :黑色仿羊皮紋PU料, 內里外露磨面PU 內天鵝絨 Main materials :black imitated sheepskin PU material,exposed
50	Purchased -AC adapter	HND050200X, European standard&British standard, Tuning fork 2507, straight, 20#1.2m, black	1	
51	USB with cable	USB A-male-right angle=MiniUSB-male[right angle, 1m, without the toroid, black]	1	
52	USB with cable	USB A-female-right angle=Mini USB-male[right angle, 150mm, without the toroid, black]	1	
53	[Semifinished product]-Output board	7981C, Eastern Europe Prestigio, 002	1	
54	[Semifinished product]-Motherboard	8214C, Eastern Europe Prestigio, 002	1	
55	[Semifinished product]-Input board	8209C, Eastern Europe Prestigio, 002	1	
56	[Semifinished product]-adapter plate	8230C, Eastern Europe Prestigio, 002	1	
57	Irregular Flexible circuit board	8218C, V1.0, 2012.06.27	1	
58	Irregular Flexible circuit board	8227C, V3.0, 2012.09.07	1	
59	gift box inner box	Prestigio, PMP7100D, TBD	1	
60	Printed carton	Prestigio, PMP7100D, TBD	.2	
61	QSG	Prestigio, PMP7100D, Quick Guide, TBD	1	
62	Legal handbook	Prestigio MULTIPAD, Legal And Safety Notices, TBD	1	
63	Warranty card	Prestigio, WARRANTY CARD, TBD	1	

Maintenance

Common troubleshooting

1: what to do when the machine starts up what basic detection step?

Answer:

- 1) if connected to the power supply adapter can boot, said battery.
- 2) ensure the power adapter of the indicator light, the normal work of power adapter.
- 2 : does the machine accidentally when the water how to deal with?

Answer:

- 1) do not to boot, or let the computer damage more serious.
- 2) the machine surface water after drying, immediately send professional repair processing.

3: how to restore the factory settings?

Answer:

open the " Settings " > " backup and reset " > " to restore the factory settings " > reset the computer. Restore factory settings before save data.

4: how to prolong the life time of the battery?

Answer:

- 1) LCD liquid crystal display screen brightness is adjusted to a proper brightness.
- 2) adjust the volume to the appropriate size.
- 3) adjusting screen timeout time.

5: the network connection under normal circumstances, the Internet is slow to do?

Answer :

recommendations for clearing your browser cache, specific exercises please refer to the " browser " partial correlation operation.

6: light (light-sensor) function can not be achieved and how?

Answer:

users are advised to open " automatic brightness adjustment ". Specific operations: " set " > " display " > " Brightness ", open " automatic brightness adjustment function.

7: the machine halts the how to do?

Answer:

press the power button to shut down.

Common corrective maintenance

1:Starting up failure and screen shows no self-checking picture of staring up

1)、Press the power button to see the whether the power indicator show red light. If not, then connect the power adaptor to make it work. Then start it again after charging it for 10 minites (caused by no power)

A)、Check whether power socket of mainboard is poor contact,
B)、Check up whether the battery is 5V2A, or to check up if there is short circuit and leakage failure

C)、Check up whether the mainboard has smell of scorching caused

by integrated heating or line short.

2)、Press the power button to see the power indicator and voltage are all normal, there may be two situations:

A)firmware of software bug:programme the firmware again;

B)hardware bug:first to check up whether the mainboard integration is heating with hand as well as the connecting line, and then use the relief method that the trial run is replaced by mainboard and LCD;

2: Starting up crash at the stage of starting up picture

1)、Firmware of software: caused by loss of document package or too many softwares, so we suggest to reinstall the firmware;

2)、Hardware trouble; a. check up whether the voltage is too low, the adaptor is work well and no power of normal battery or failure of battery.

3:The battery can' t be charged after starting up

1)、Check up whether the battery lines is in good condition and it has leakage failure;

2)、Check up the power supply VCC+5v of battery is functioning. Its control of circuit MAX8903 is showed as the below picture.

4: USB,HDM,SD card do no function

1)、The three connections lead to mainboard directly, so we should check up that if there is bad contact or broken connection first;

2)、Check up that if the external device is compatible with native machine;

3)、For the long terms of inserting and pulling out, check up that whether the weld between connector and mainboard is in good condition, reweld it or renew the connector.

5: Camera do not work

1)、check up if the camera can work or there is dust in external camera

2、Check the hardware that whether sensor connect well with the mainboard and replacing sensor judgement works well, or it is the mainboard bug.

6: WIFI does not work

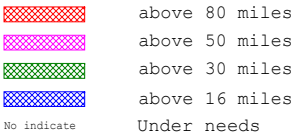
1)、check whether WIFI can be started, please refer to the instruction to get details;

2)、Check the hardware that WIFI board and external antenna are in good connection, voltage of WIFI board, Y3 crystal oscillator and effectiveness of WIFI.

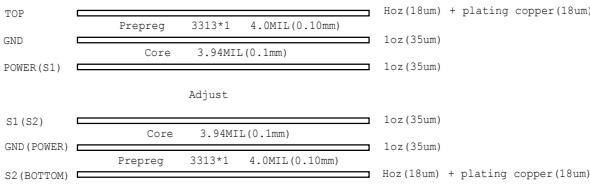
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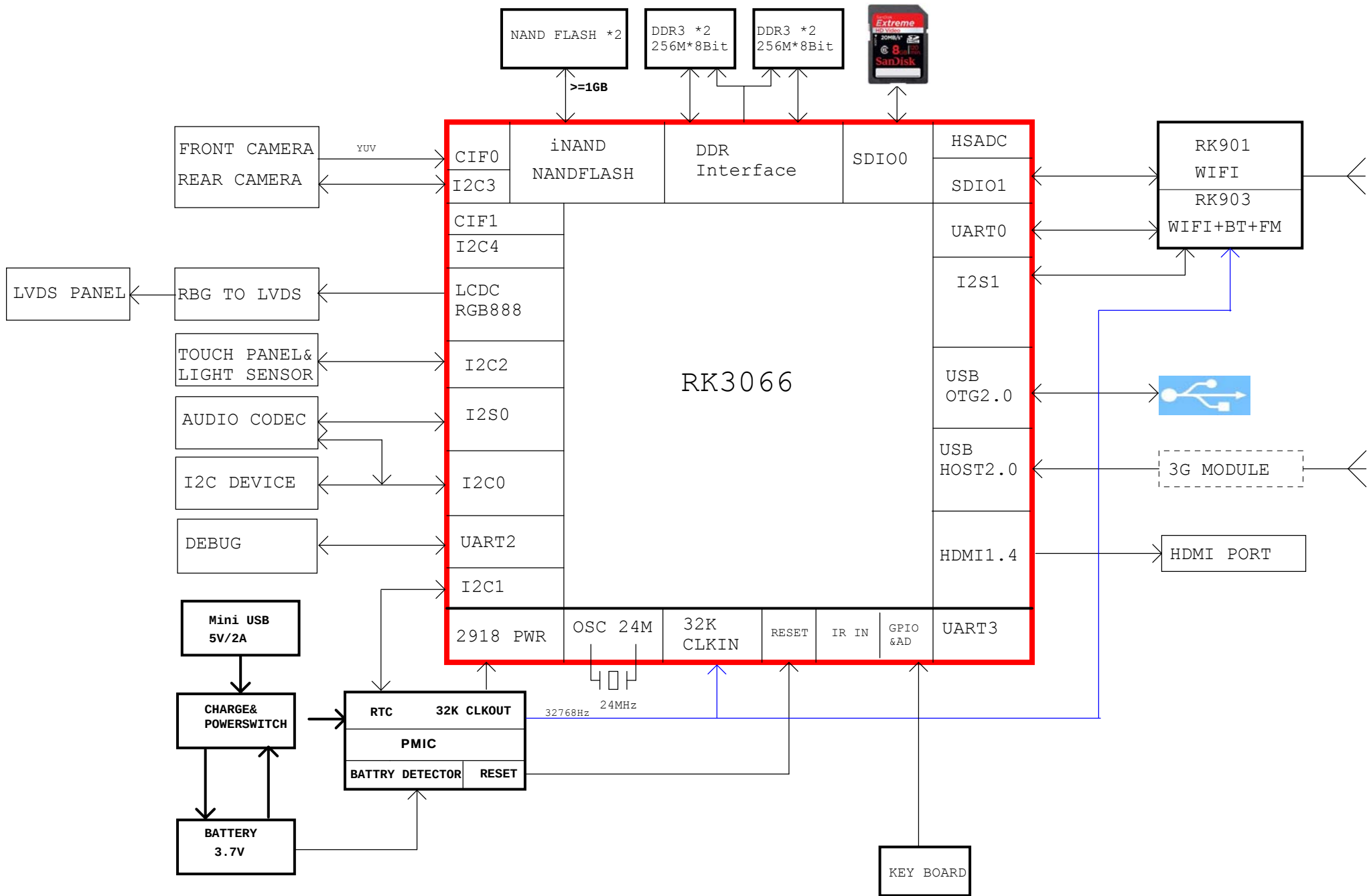
标题	描述	页码
	01. INDEX	
	02.Modify note	
	03.Block Diagram	
	04.SYSTEM POWER DIAGRAM	
	05.DC/CHARG	
	06.SYSTEM POWER	
	07.USB OTG/VIB	
	08.DDR3	
	09.FLASH/TF CARD	
	10.GPIO	
	11.AUDIO	
	12.LCD PANEL	
	13.TOUCH PANEL/Light Sensor	
	14.HDMI	
	15.CAMERA/G_SENSOR/KEY/COMP	
	16.WIFI	
	17.	
	18.3G	

PCB POWER WIRE WIDTH INDICATE



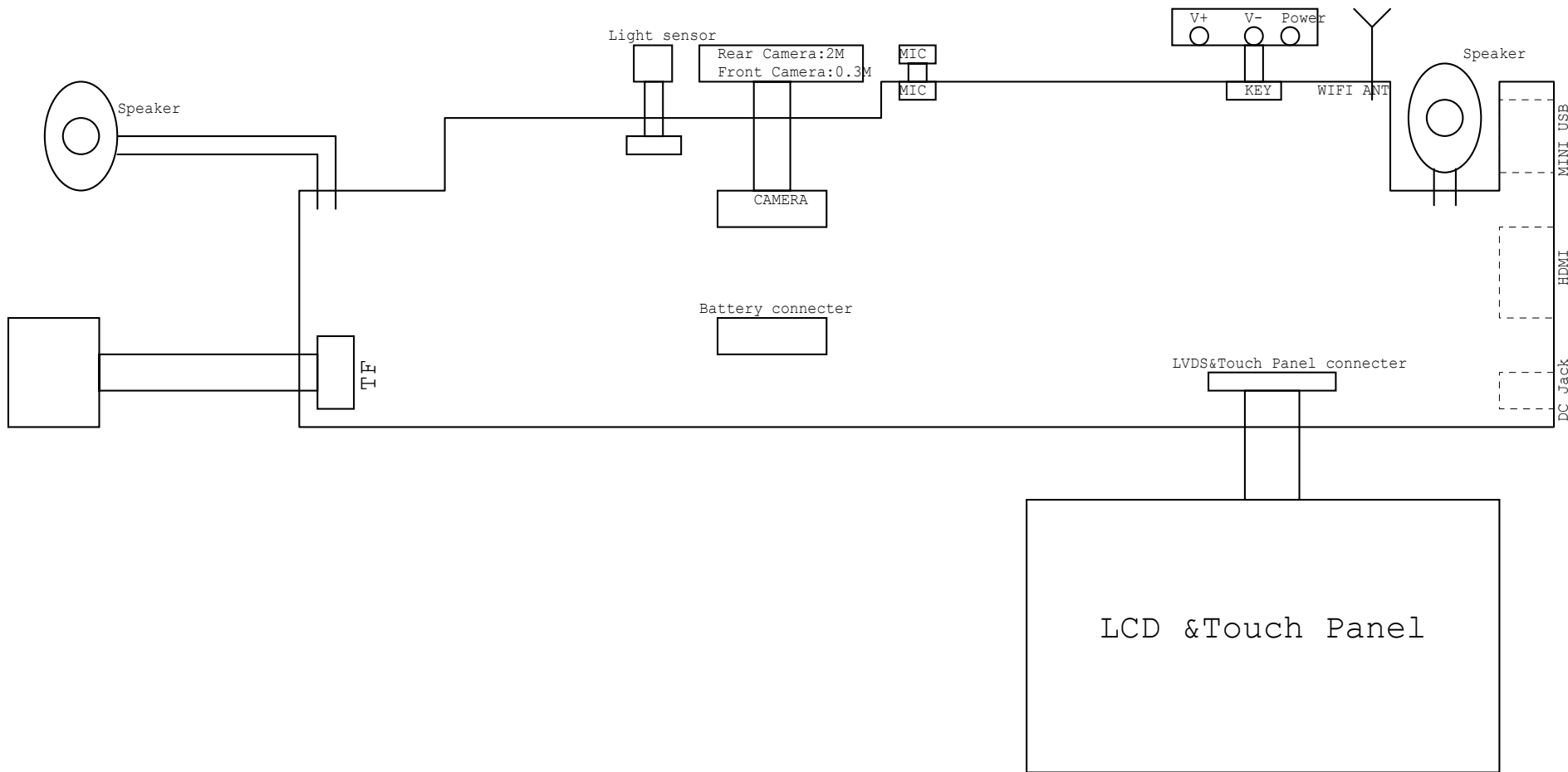
6 LAYERS PCB STACK





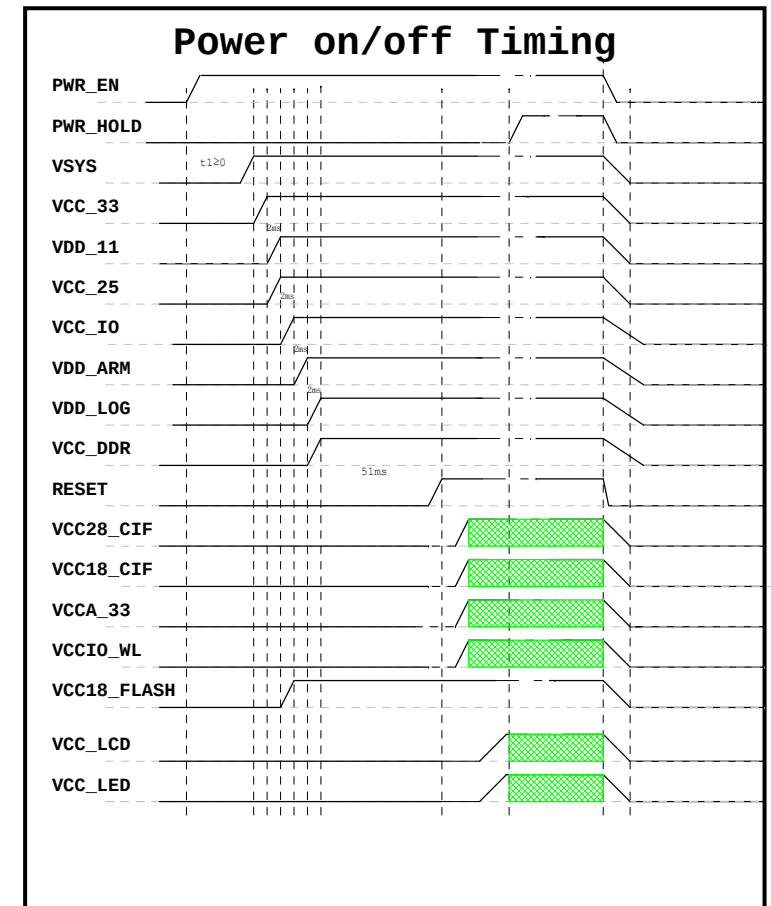
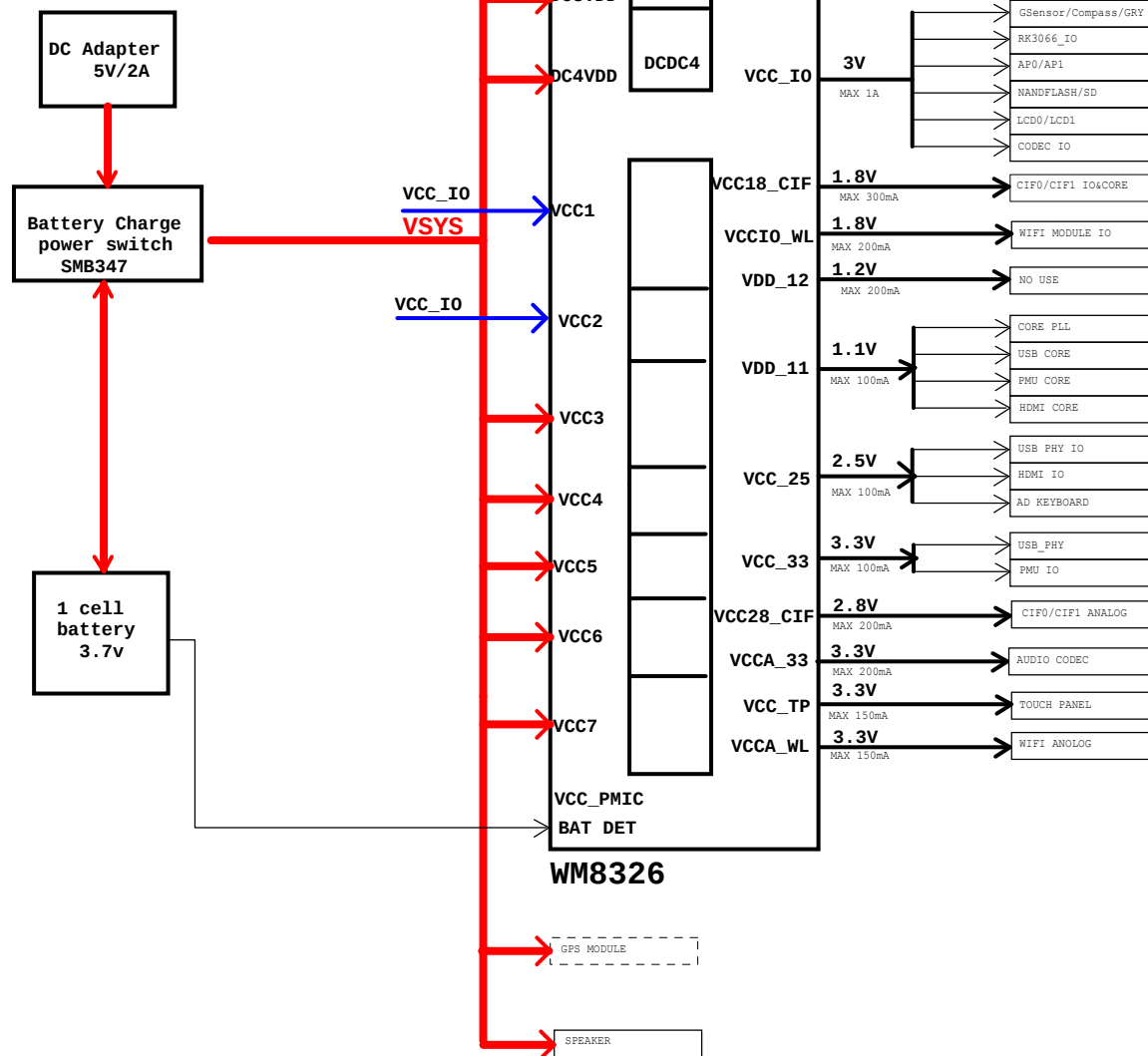
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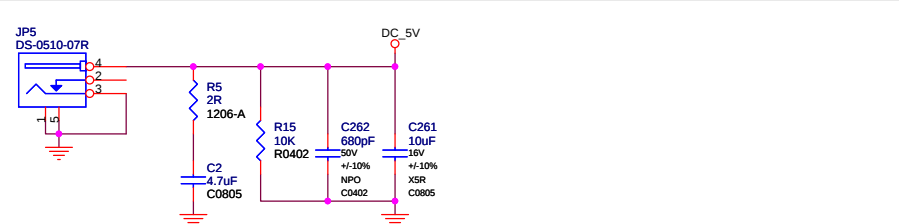


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Project		Document Number	
SMB-C1006		8214Y	
Size	Title	Designer	Rev
A	Wiring Diagram	Kevin	1.0
Date:		Sheet	of
Saturday, October 27, 2012		3	18

A

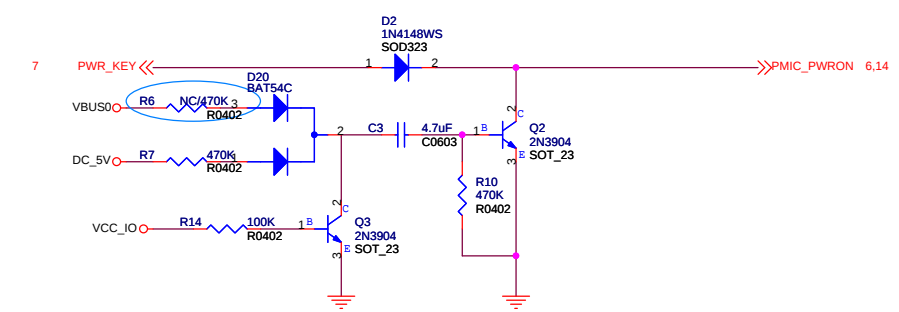


POWER DIAGRAM



Note:
Please use a 5V DC.

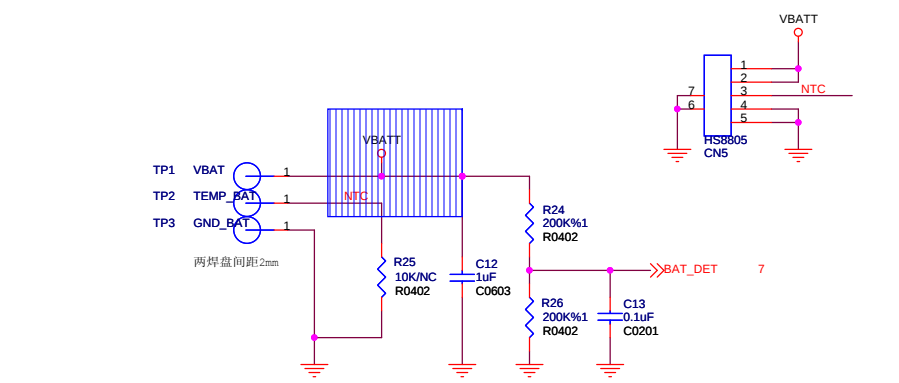
DC IN



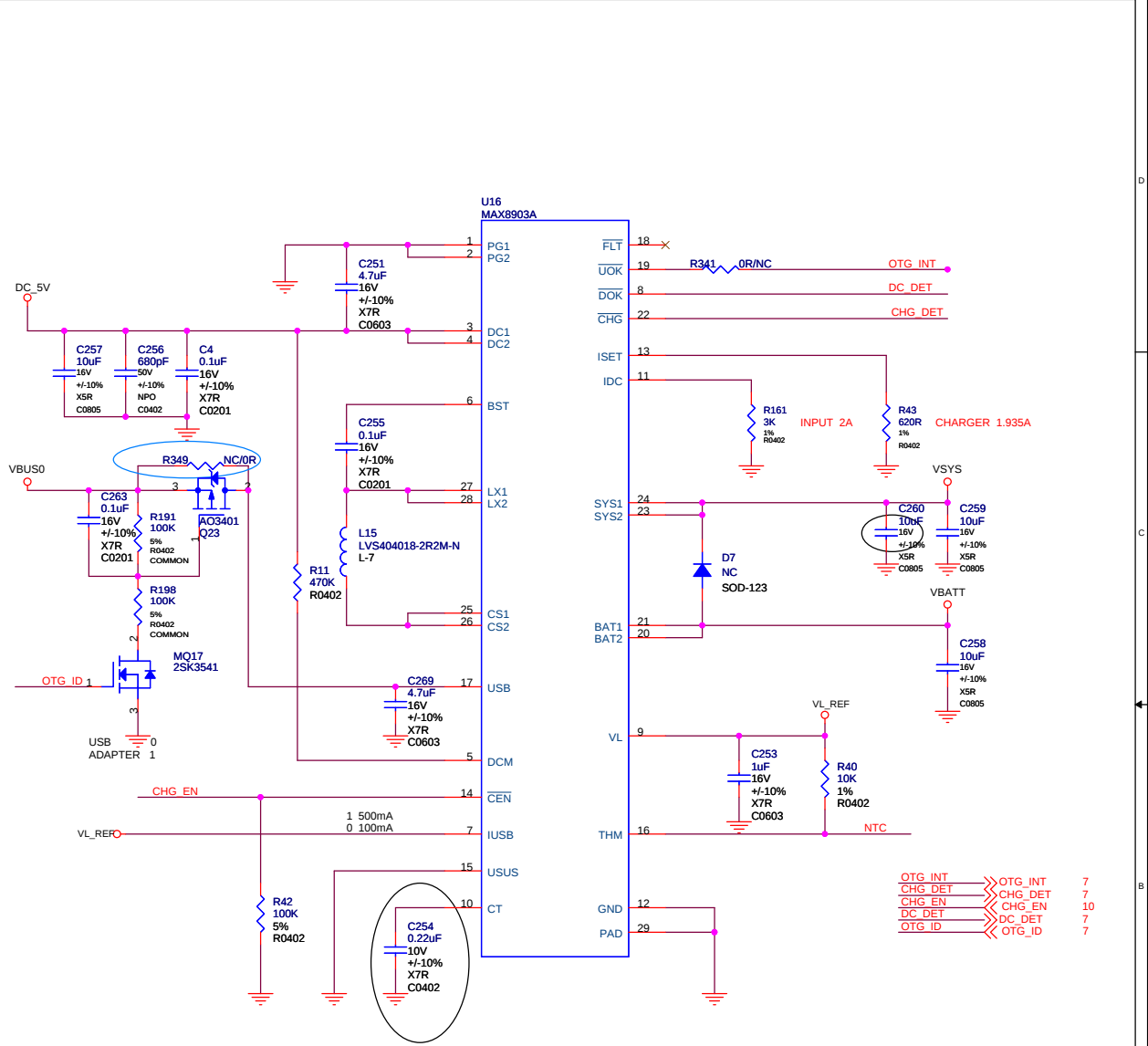
Charging icon displayed if power key is long pressed
when adapter or usb is exist!

POWER CONTROL

Note:
The battery pack must have a fuel gauge and a 10K NTC.



BATTER



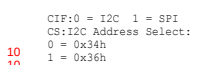
OTG_INT 7
CHG_DET 7
CHG_EN 10
DC_DET 7
OTG_ID 7

NOTES:
CHARGER&POWER PATH SELECTOR

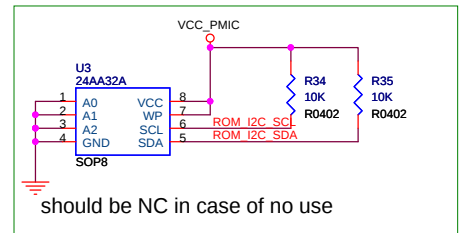
万利达 malata		万利达(厦门)技术中心	
Project	SMB-C1006	Document Number	8214Y
Size	A3	Title	DC/Charge
Date	Monday, September 10, 2012	Designer	Kevin
Sheet	5	Rev	1.0

NOTE1: Local ground plane area with single-point connection to ground layer between IC & Capacitor.

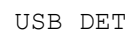
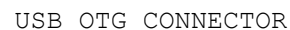
NOTE2: LDO7~LDO10 is low noise voltage regulator.



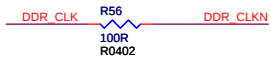
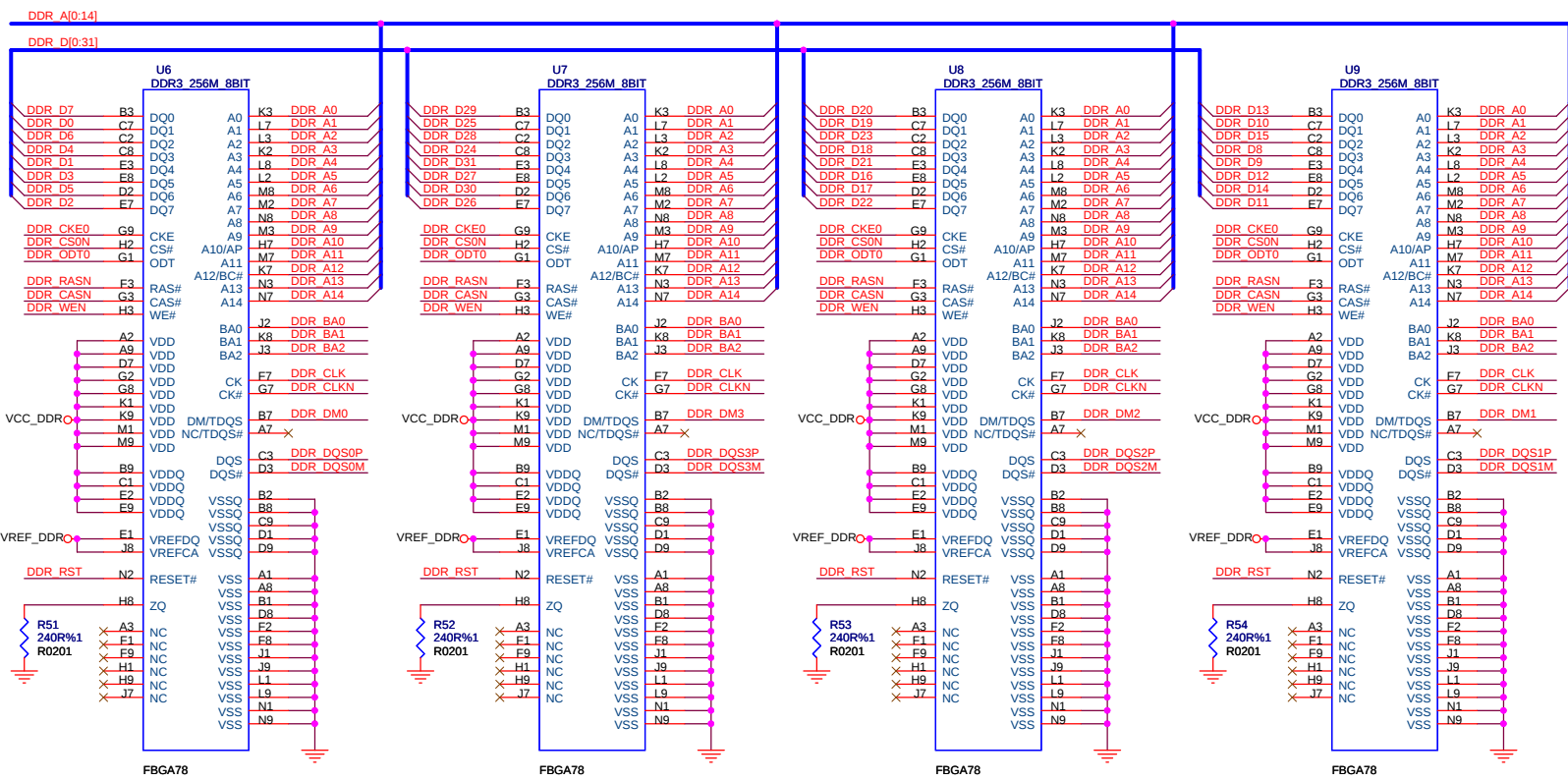
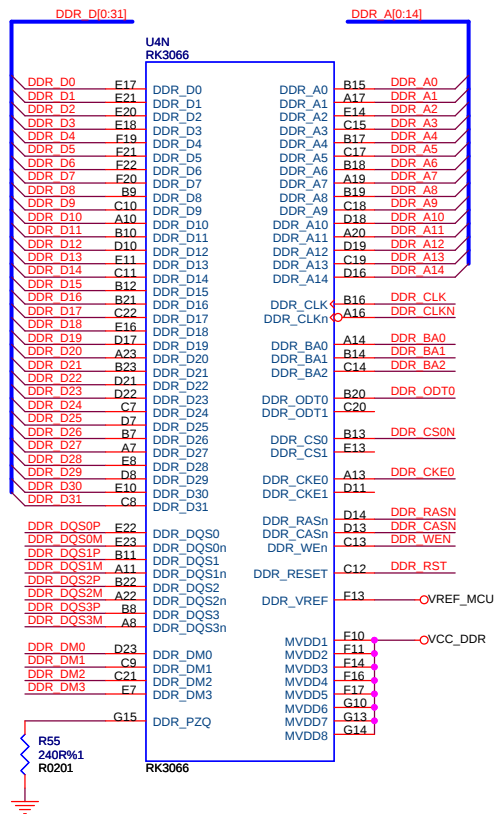
	above 80 miles
	above 50 miles
	above 30 miles
	above 12 miles
No indicate	Under needs



		万利达 (厦门) 技术中心	
Project SMB-C1006		Document Number 8214Y	
Size A3	Title System power	Designer Kevin	Rev 1.0
Date: Thursday, August 23, 2012		Sheet 6 of 18	

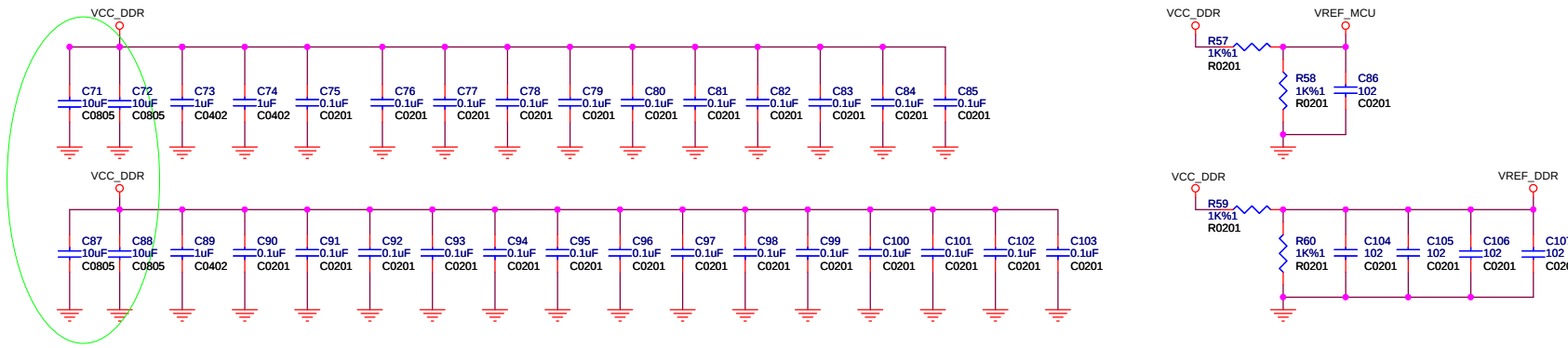


		万利达 (厦门) 技术中心	
Project SMB-C1006		Document Number 8214Y	
Size A3	Title USB OTG/VIB	Designer Kevin	Rev 1.0
Date: Monday, September 10, 2012		Sheet 7 of 18	



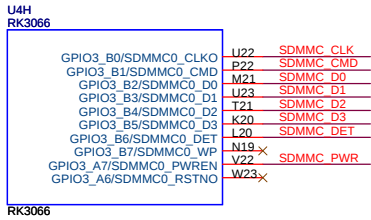
RK3066-N

DDR3

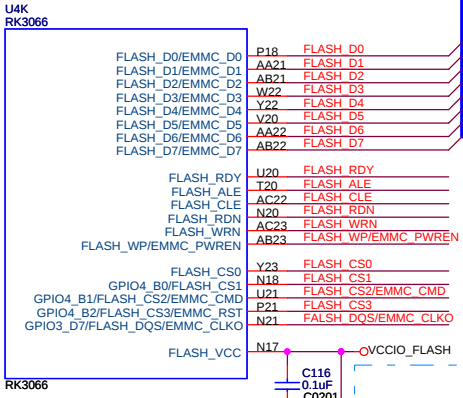


DDR FILTER

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Project		Document Number	
SMB-C1006		8214Y	
Size	Title	Designer	Rev
A3	DDR3	Kevin	1.0
Date: Friday, October 19, 2012		Sheet 8 of 18	

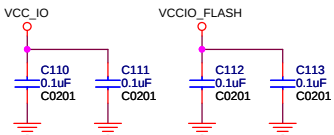
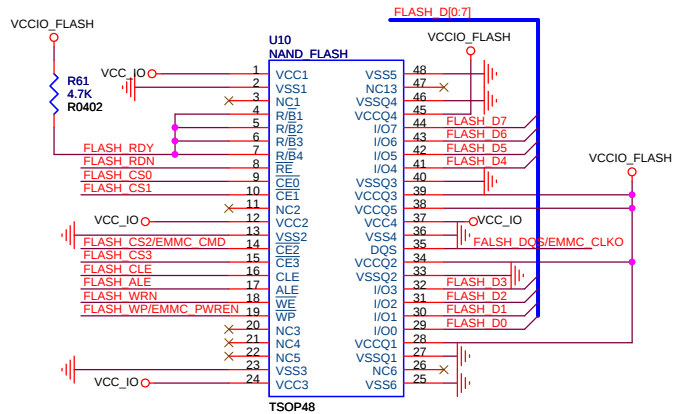


RK3066-H

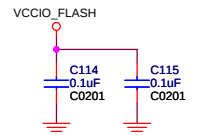
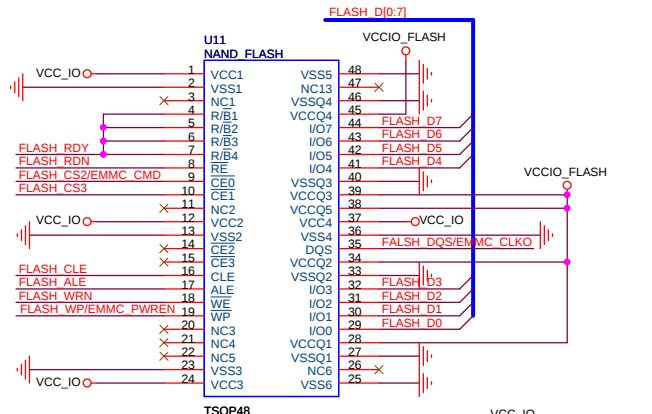


RK3066-K

Note:
Select the power type
follow FLASH IO need.

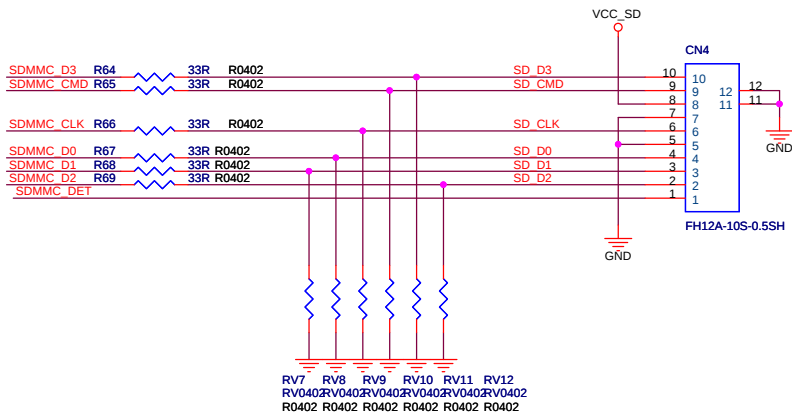
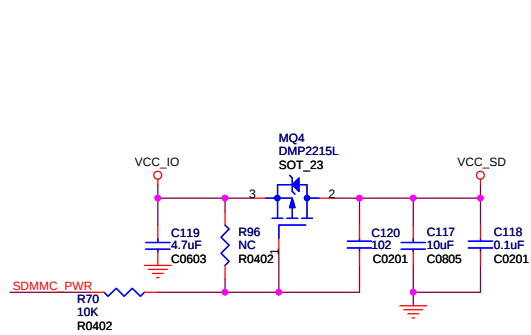


THE 1st FLASH



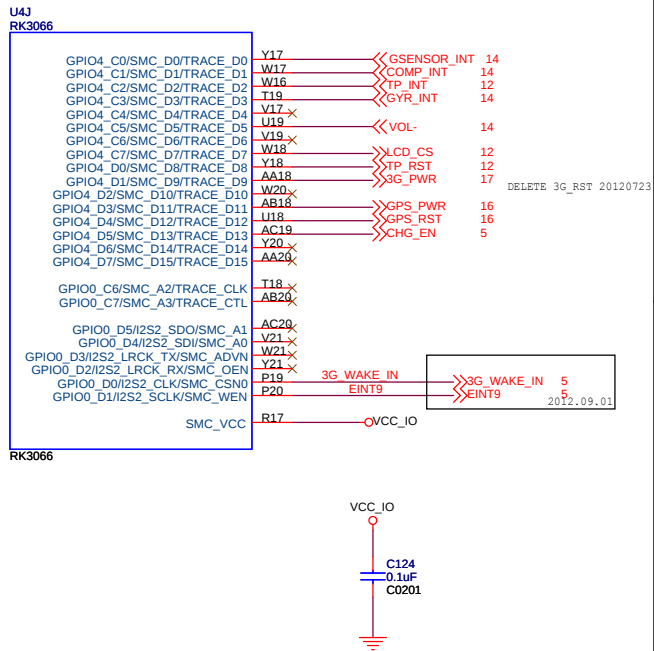
THE 2nd FLASH(OPTION)

TF卡板接口插座！

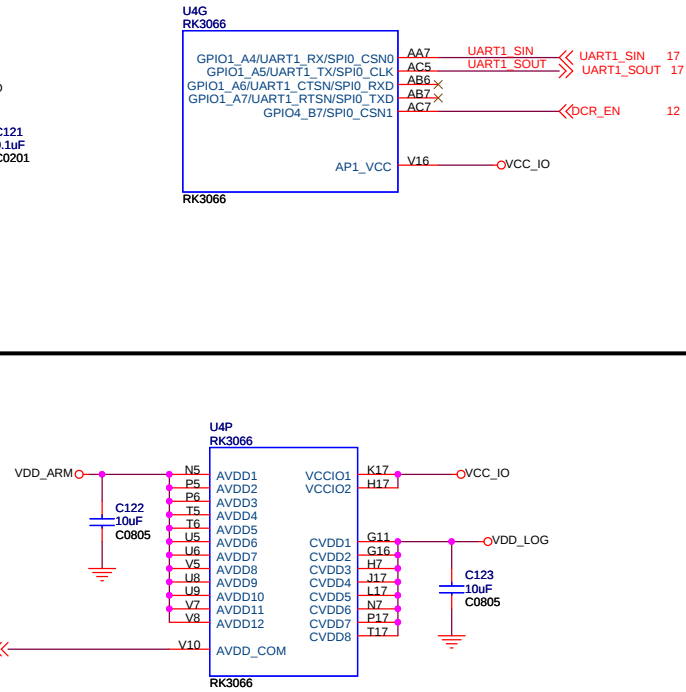


TF CARD

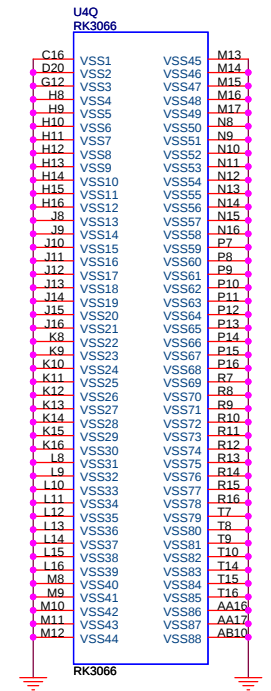
万利达 malata 万利达（厦门）技术中心			
Project		Document Number	
SMB-C1006		8214Y	
Size	Title	Designer	Rev
A3	Flash/TF card	Kevin	1.0
Date:		Thursday, August 23, 2012	
		Sheet	9 of 18



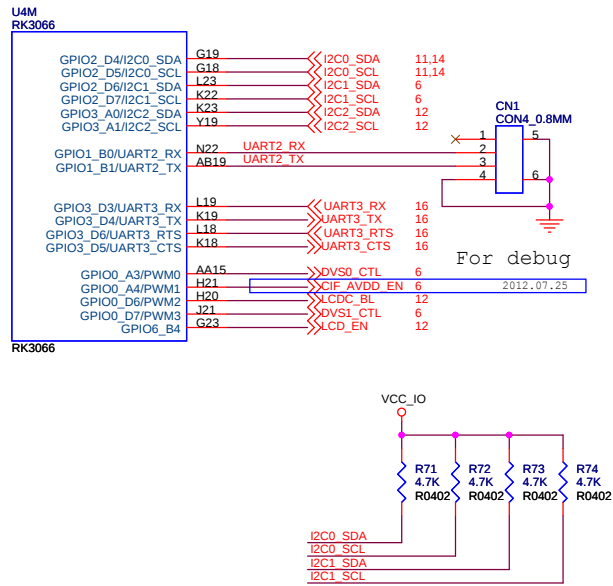
RK3066-G



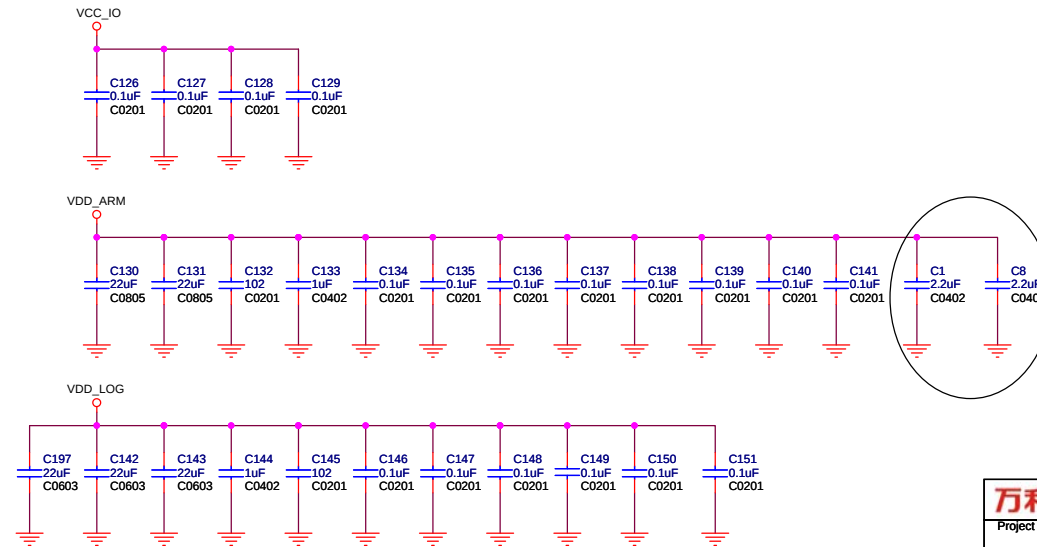
RK3066-P



RK3066-Q



RK3066-M



RK3066 CORE POWER FILTER

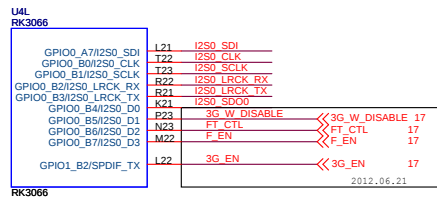
万利达 malata				万利达(厦门)技术中心	
Project		SMB-C1006		Document Number	
Size		Title		Designer	
A3		GPIO		Kevin	
Date:		Saturday, September 01, 2012		Sheet 10 of 18	
				Rev 1.0	

MIC

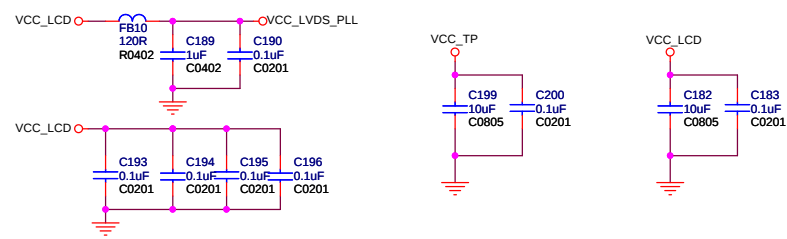
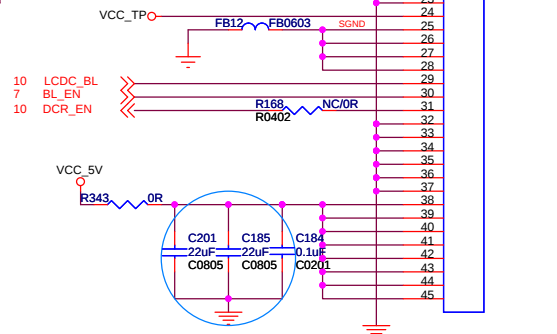
CODEC

Note:
Please place these components near to CODEC.

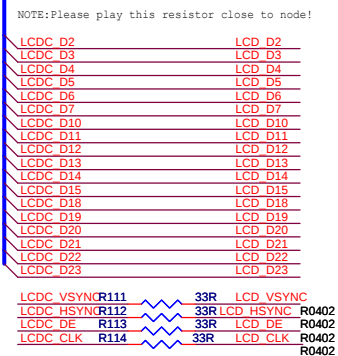
SPEAKER



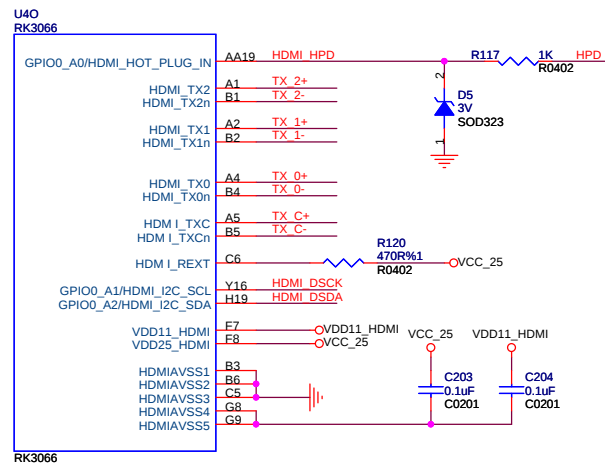
EARPHONE PORT



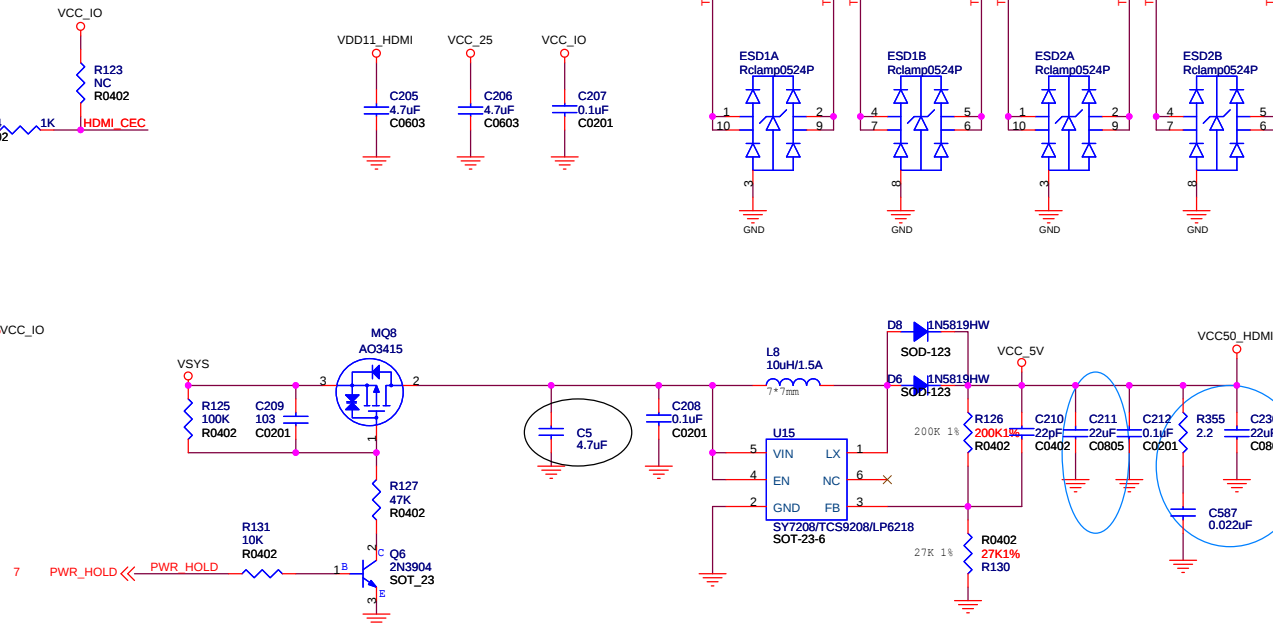
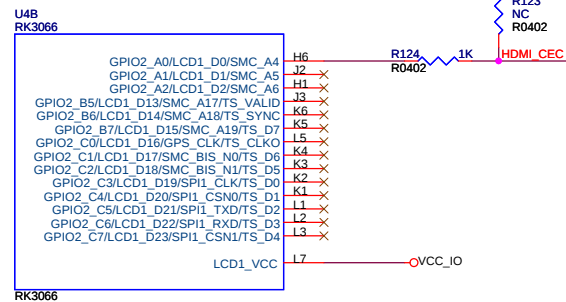
Note: If using other LCD panel, follow to the requirements of SPEC on the power supply.



LCDC_D0	B0	LCDC_D12	G4
LCDC_D1	B1	LCDC_D13	G5
LCDC_D2	B2	LCDC_D14	G6
LCDC_D3	B3	LCDC_D15	G7
LCDC_D4	B4	LCDC_D16	R0
LCDC_D5	B5	LCDC_D17	R1
LCDC_D6	B6	LCDC_D18	R2
LCDC_D7	B7	LCDC_D19	R3
LCDC_D8	G0	LCDC_D20	R4
LCDC_D9	G1	LCDC_D21	R5
LCDC_D10	G2	LCDC_D22	R6
LCDC_D11	G3	LCDC_D23	R7

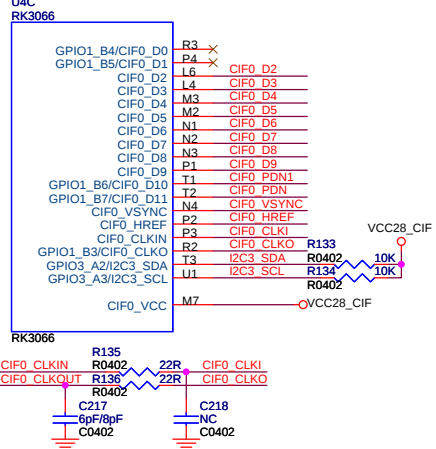


RK3066-0



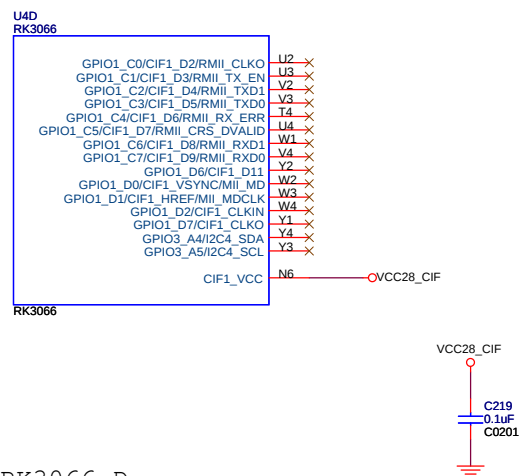
USB HOST POWER

万利达 malata		万利达（厦门）技术中心	
Project		Document Number	
SMB-C1006		8214Y	
Size	Title	Designer	Rev
A3	HDMI	Kevin	1.0
Date:		Sheet	
Friday, October 26, 2012		13 of 18	



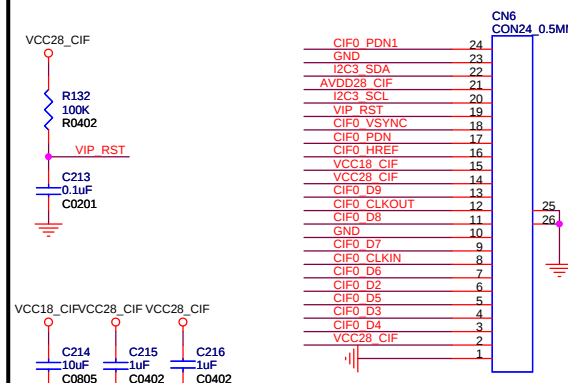
RK3066-C

Note: The IO voltage level of CIFO_VCC must equal to camera IO voltage level.



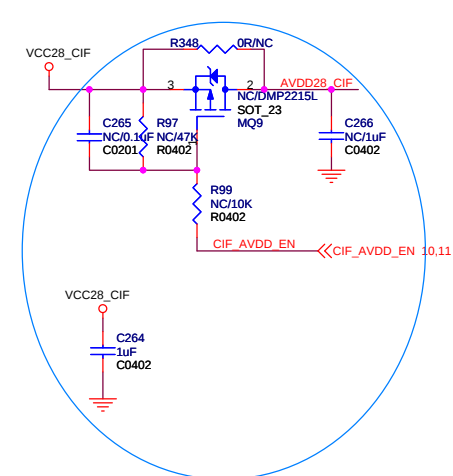
RK3066-D

Note: The IO voltage level of CIF1_VCC must equal to camera IO voltage level.

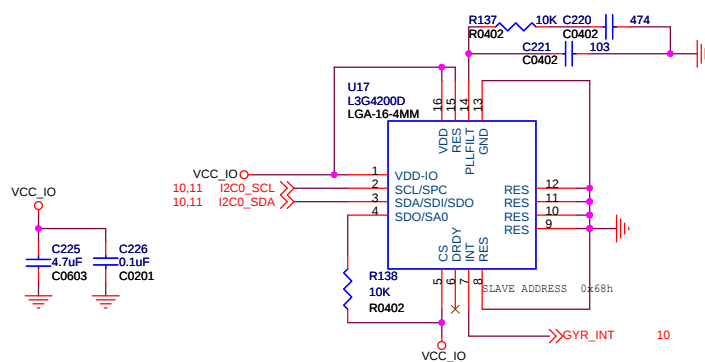


FRONT CAMERA 0.3M & REAR CAMERA 2M

Note: If using other sensor modules,
follow to the requirements of SPEC on the power supply.

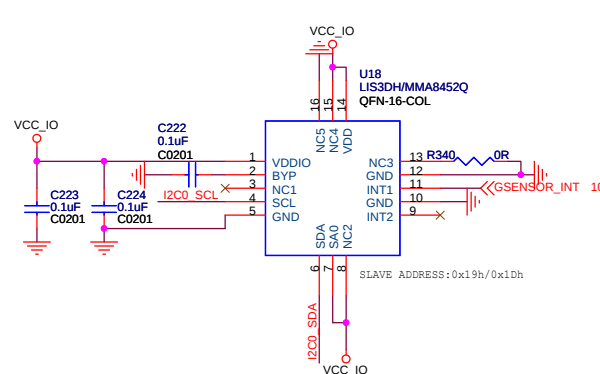


FRONT CAMERA 2M & REAR CAMERA 5M



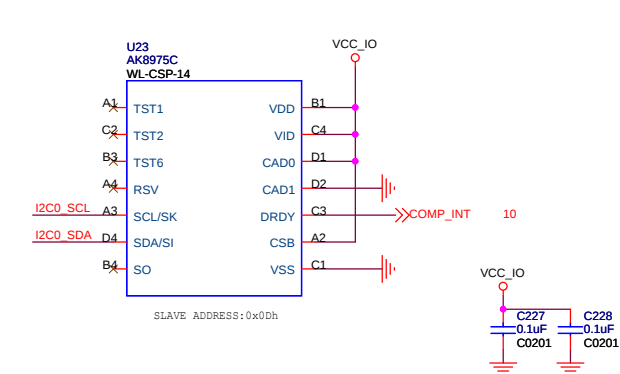
Note:
The first pin of Gyroscope must be
place on the lower left corner of PCB.

Gyroscope



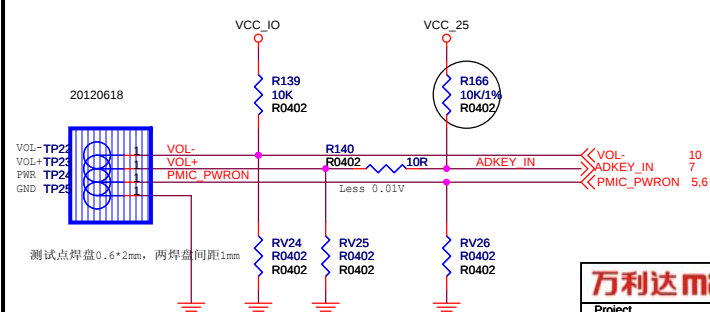
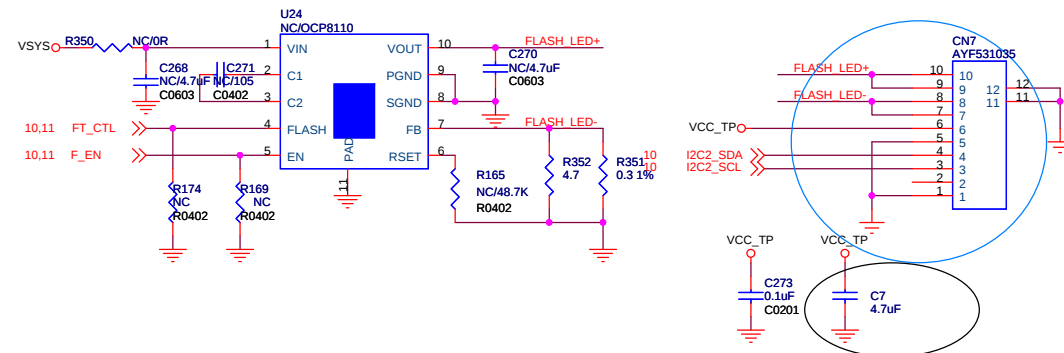
Note:
The first pin of G-sensor must be
place on the lower left corner of PCB.

3D G-Sensor



Note:
The first pin of AK8975C must be
place on the lower left corner of PCB.

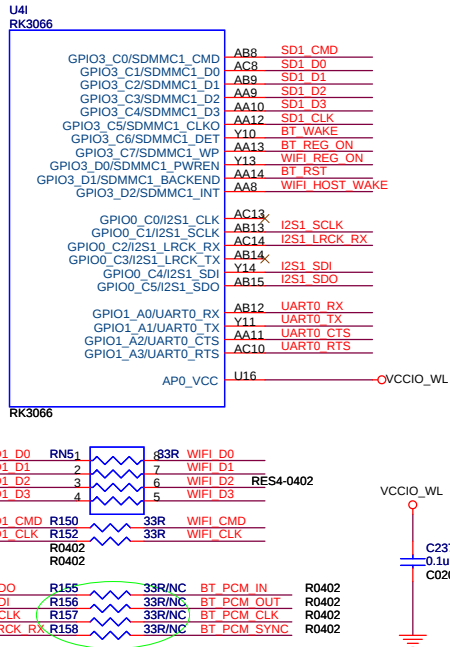
Compass



KEY BAORD (VOL+, VOL-, POWER)

When the system power on, the Adkey_in level is 0V, RK30 enter into recover mode.

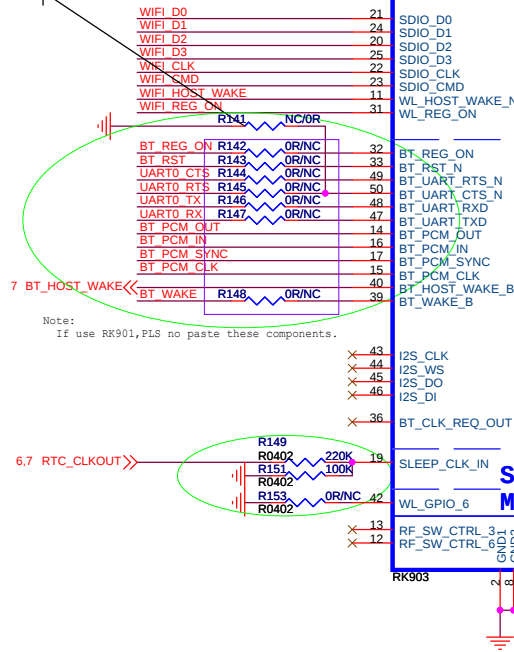
		万利达（厦门）技术中心	
Project SMB-C1006		Document Number 8214Y	
Size A3	Title Camera/G_Sensor/Key/COMP	Designer Kevin	Rev 1.0
Date: Friday, August 31, 2012		Sheet 14 of 18	



RK3066-I

Note :PLS design the RF under RK RF LAYOUT guide;
For more suggestions, please refer to the SPEC
of the wireless IC

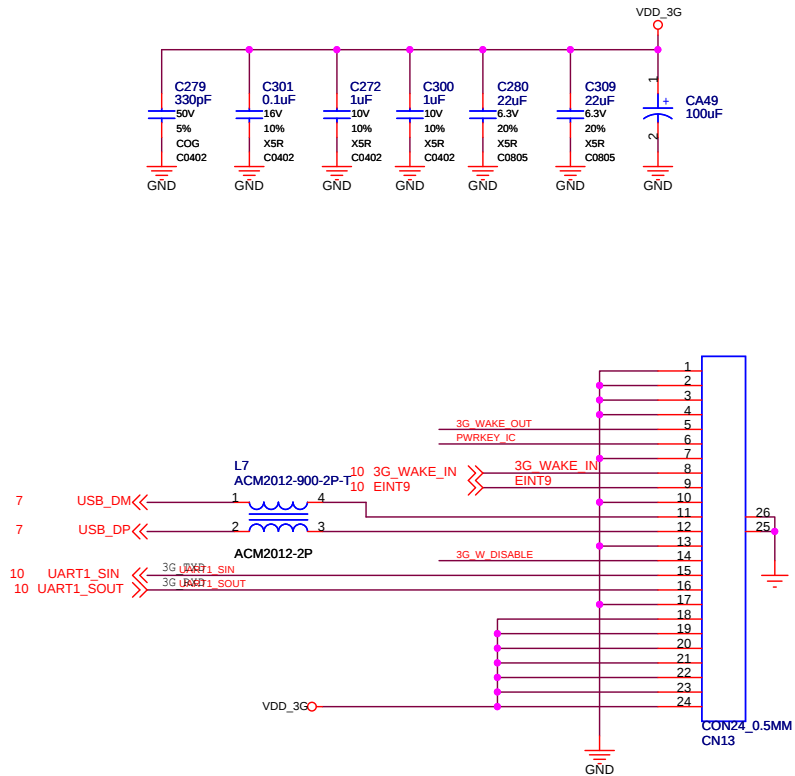
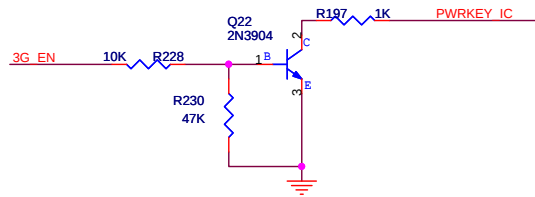
Note:
If use RK901,PLS paste the component.



WIFI+BT+FM MODULE

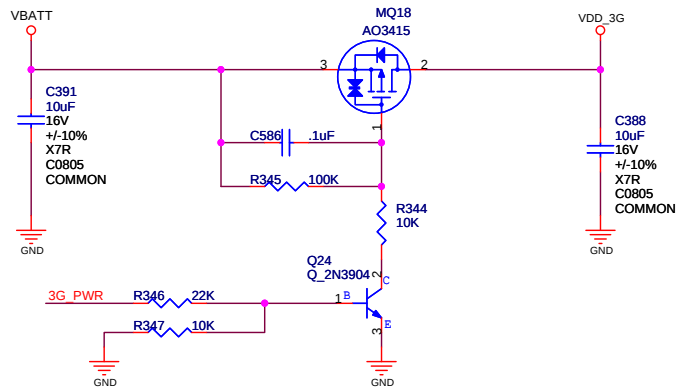
Module	W_GPIO_6	BT_UART_CTS_N
RK903	Ground	Floating
RK901	Floating	Ground

万利达 malata 万利达（厦门）技术中心			
Project		Document Number	
SMB-C1006		8214Y	
Size	Title	Designer	Rev
Custom	WIFI	Kevin	1.0
Date: Friday, October 19, 2012		Sheet 15 of 18	



3G_PWR << 3G_PWR 10

7 3G_WAKE_OUT << 3G_WAKE_OUT
11 3G_EN << 3G_EN
11 3G_W_DISABLE << 3G_W_DISABLE



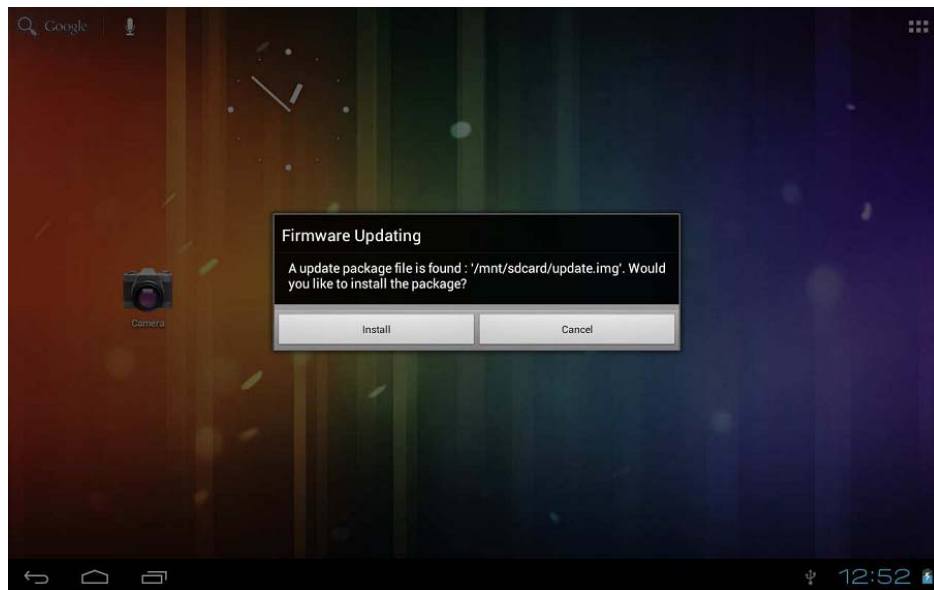
万利达 malata 万利达（厦门）技术中心			
Project		Document Number	
SMB-C1006		8214Y	
Size	Title	Designer	Rev
B	3G USI	Kevin	1.0
Date:		Sheet	
Saturday, September 01, 2012		17 of 18	

Firmware update guider (SDcard)

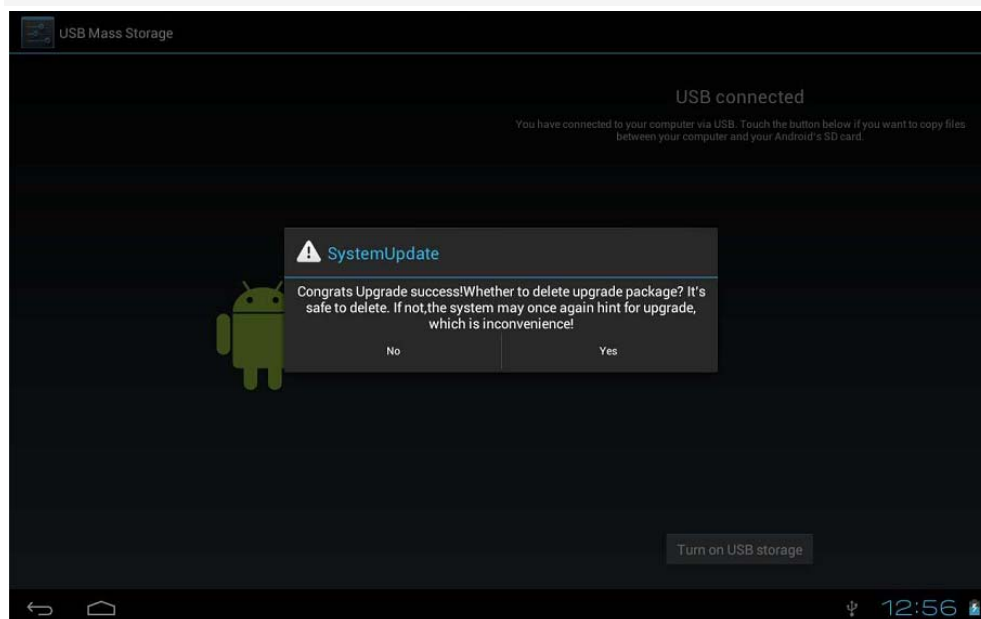
There are two ways to upgrade. The firmware's name must be "update.img". Copy it to the root directory of SD card.

One way:

1. Insert the SD card and power on the device, it'll prompt a dialog after the device boot completely (shown as below).

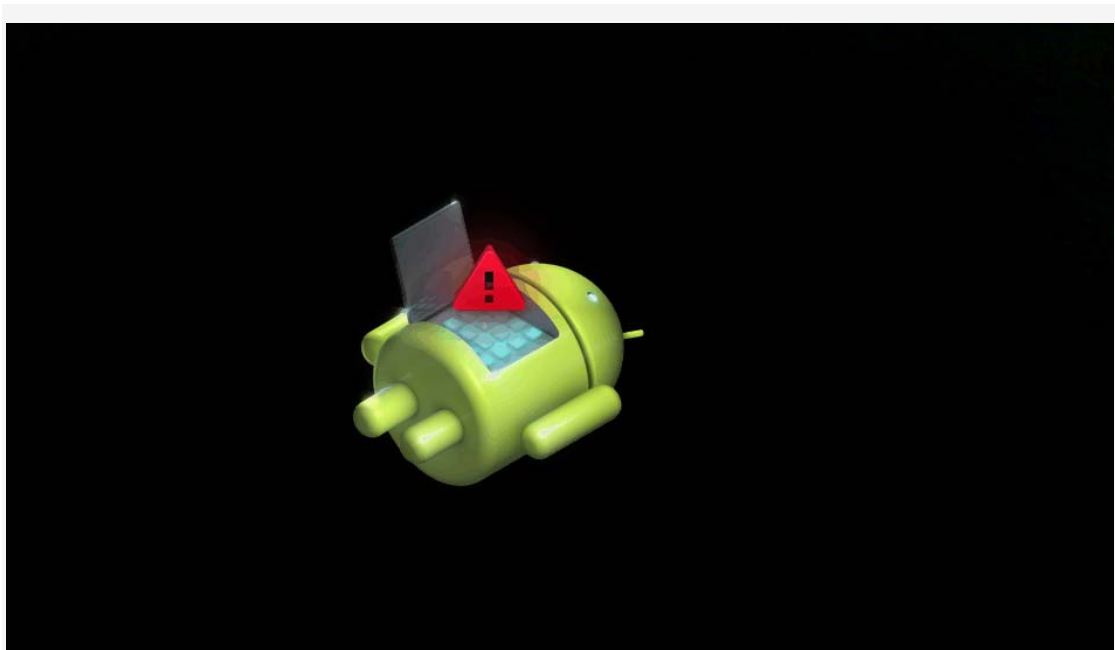


2. Click "Install", then the device will update the new firmware and automatically reboot.



Another way:

1. Shutdown the device, press and hold the "VOL + " key, then press "Power" key, it'll enter recovery mode



2. Press and hold the " Power " key, then press "VOL +" key ,enter the recovery menu, as follows:

Android system recovery <3e>

*Volume up/down to move highlight
power button to select*

reboot system now

apply update from external storage

wipe data/factory reset

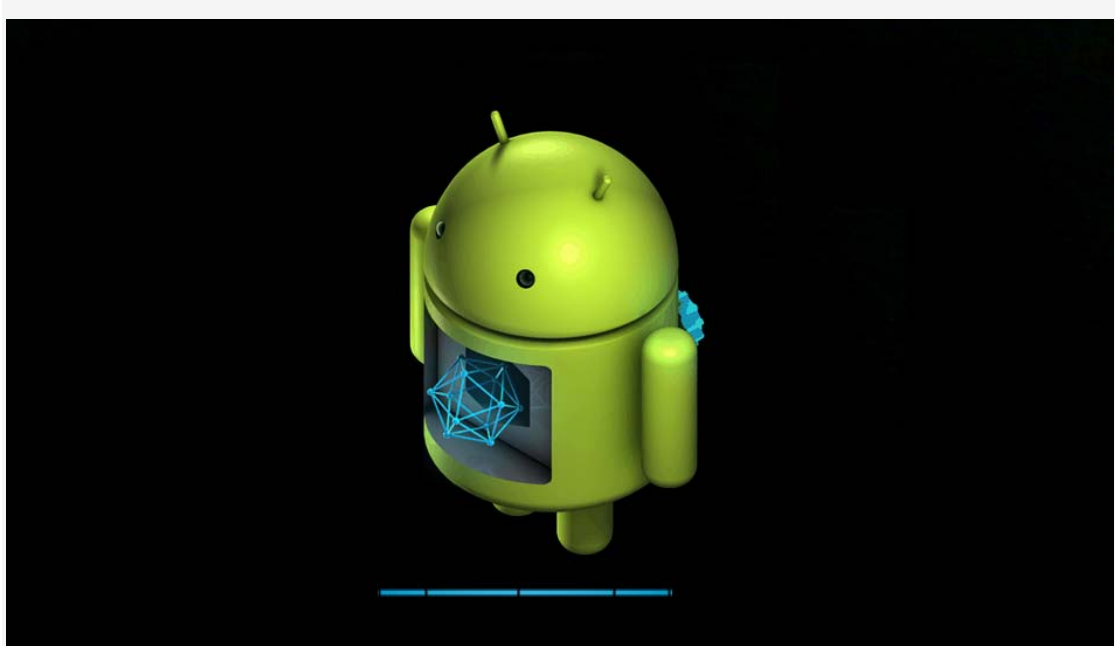
wipe cache partition

apply update from cache

recovery system from backup

update rkimage from /sdcard

3.Press "VOL+" or "VOL-" key to select the option "update rkimage from /sdcard",then press "Power" key to confirm upgrade process.



4. When complete, select “reboot system now” to reboot the device.

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