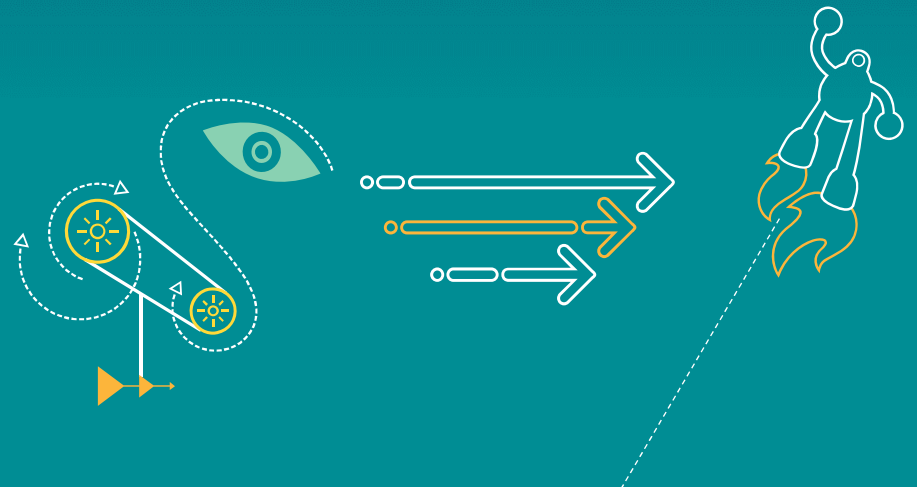

高通硬件基带技术期刊2016-5-03



Qualcomm Technologies, Inc.

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Revision History

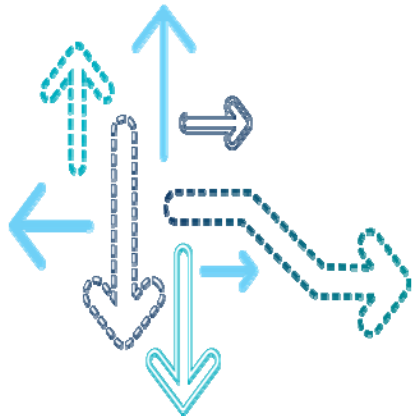
Revision	Date	Description
A	May 2016	Initial release

Note: There is no Rev. I, O, Q, S, X, or Z per Mil. standards.

Contents

- Baseband
- audio
- PMIC and SMB

Baseband



DDR 仿真

- 适用平台：MSM8909/MSM8917/MSM8937/MSM8940/MSM8952/MSM8953
- 问题描述：请在DDR仿真case提交之前，确认查询如下memory仿真list，如果memory part在里面，请直接提仿真的case，列出memory型号，如果不在list里面，请通过case或者邮件(wshen@qti.qualcomm.com)申请。
- MSM8909
 - . MSM8909_LPDDR3_533MHz_1rank_221b_Kingston_08EMCP08-EL3BT227
 - . MSM8909_LPDDR3_533MHz_2rank_221b_Kingston_16EMCP16-EL3DT527
 - . MSM8909_LPDDR3_533MHz_2rank_221b_Samsung_KMQ310006A-B419
 - . MSM8909_LPDDR3_533MHz_2rank_221b_Samsung_KMQN10006M-B318
 - . MSM8909_LPDDR2_533MHz_1rank_162b_Micron_MT29RZ4B2DZZHHTB-18_W.80F
 - . MSM8909_LPDDR3_533MHz_1rank_178b_Samsung_K4E8E324EB-EGCF
 - . MSM8909_LPDDR3_533MHz_2rank_221b_Samsung_KMQ820013M-B419
 - . MSM8909_LPDDR2_533MHz_1rank_162b_ESMT_FM6BD4G2GXA
 - . MSM8909_LPDDR3_533MHz_2rank_221b_Micron_MT29TZZZ5D6JKFRL-107_W.96R
 - . MSM8909_LPDDR3_533MHz_2rank_221b_Sandisk_SDADB48K-16G
 - . MSM8909_LPDDR3_533MHz_1rank_221b_Samsung_KMF720012M-B214
 - . MSM8909_LPDDR3_533MHz_2rank_221b_Toshiba_TYD0GH221664RA
 - . MSM8909_LPDDR3_533MHz_1rank_221b_Samsung_KMF820012M-B305
 - . MSM8909_LPDDR3_533MHz_2rank_221b_Samsung_KMQ31000SM-B417
 - . MSM8909_LPDDR3_533MHz_2rank_221b_Toshiba_TYE0HH221657RA
 - . MSM8909_LPDDR3_533MHz_1rank_221b_SKHynix_H9TQ17A8GTMCUR
 - . MSM8909_LPDDR3_533MHz_1rank_221b_Kingston_08EMCP08-EL3CV100
 - . MSM8909_LPDDR3_533MHz_1rank_221b_Samsung_KMFN10012M-B214

DDR 仿真

- MSM8909_LPDDR3_533MHz_1rank_221b_SKHynix_H9TQ32A6BTMCUR
- . MSM8909_LPDDR3_533MHz_1rank_221b_Toshiba_TYD0HH121662RA
- . MSM8909_LPDDR3_533MHz_2rank_178b_Samsung_K4E6E304EE-EGCE
- . MSM8909_LPDDR3_533MHz_2rank_221b_Samsung_KMQ310013M-B419
- . MSM8909_LPDDR3_533MHz_2rank_221b_Micron_MT29TZZZ8D5BKFAH-125_W.95K
- . MSM8909_LPDDR2_533MHz_2rank_162b_SKHynix_H9TP64A8JDMCPR
- . MSM8909_LPDDR3_533MHz_2rank_221b_Samsung_KMQ7X000SA-B315
- . MSM8909_LPDDR3_533MHz_2rank_221b_SKHynix_H9TQ64ABJTMCUR-KUM
- . MSM8909_LPDDR3_533MHz_2rank_221b_Samsung_KMQN10013M-B318
- . MSM8909_LPDDR3_533MHz_2rank_221b_SKHynix_H9TQ26ABJTMCUR-KUM
- . MSM8909_LPDDR3_533MHz_1rank_221b_Samsung_KMFJ20007M-B214
- . MSM8909_LPDDR3_533MHz_2rank_221b_Samsung_KMR820001M-B609
- . MSM8909_LPDDR3_533MHz_2rank_221b_Samsung_KMQ72000SM-B316
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- . MSM8909_LPDDR2_533MHz_2rank_162b_Micron_MT29PZZZ8D4BKFSK-18_W.94L
- . MSM8909_LPDDR3_533MHz_2rank_178b_SKHynix_H9CCNNN8JTBLAR
- . MSM8909_LPDDR2_533MHz_2rank_162b_Sandisk_SD7DP28C-8G
- . MSM8909_LPDDR2_533MHz_1rank_162b_Sandisk_SD7DP24C-4G
- . MSM8909_LPDDR2_533MHz_1rank_168b_Kingston_04EMCP04-NL2AS100-S08
- . MSM8909_LPDDR2_533MHz_2rank_162b_Sandisk_SD7DP24C-4G
- . MSM8909_LPDDR3_533MHz_1rank_221b_Toshiba_TYD0GH121661RA
- . MSM8909_LPDDR2_533MHz_2rank_162b_SKHynix_H9TP32A8JDCCPR-KGM
- . MSM8909_LPDDR2_533MHz_1rank_162b_Toshiba_TYC0FH121638RA
- . MSM8909_LPDDR3_533MHz_2rank_221b_Samsung_KMQN1000SM-B316006
- . MSM8909_LPDDR3_533MHz_1rank_221b_SKHynix_H9TQ64A8GTMCUR-KUM
- . MSM8909_LPDDR2_533MHz_1rank_162b_SKHynix_H9TP32A4GDDCPR-KGM
- . MSM8909_LPDDR3_533MHz_2rank_221b_Micron_MT29TZZZ3D5BKFAH-125_W.95K

DDR 仿真

- MSM8917
- . MSM8917_LPDDR3_667MHz_2rank_221b_Samsung_KMQ310013M-B419
- . MSM8917_LPDDR3_667MHz_2rank_221b_SKHynix_H9TQ17ABJTACUR-KUM
- . MSM8917_LPDDR3_667MHz_2rank_221b_Samsung_KMQE10013M-B318
- . MSM8917_LPDDR3_667MHz_2rank_221b_Samsung_KMQN10013M-B318
- . MSM8917_LPDDR3_667MHz_2rank_221b_SKHynix_H9TQ64ABJTMCUR-KUM

DDR 仿真

- MSM8937
- . MSM8937_LPDDR3_800MHz_2rank_221b_SKHynix_H9TQ17ADFTACUR-KUM
- . MSM8937_LPDDR3_800MHz_2rank_221b_SKHynix_H9TQ26ACLTMCUR-KUM
- . MSM8937_LPDDR3_800MHz_2rank_221b_Samsung_KMRX10014M-B614
- . MSM8937_LPDDR3_800MHz_2rank_221b_Samsung_KMR310001M-B611
- . MSM8937_LPDDR3_800MHz_2rank_221b_Toshiba_TYE0HH221657RA
- . MSM8937_LPDDR3_800MHz_1rank_221b_Toshiba_TYD0GH121661RA
- . MSM8937_LPDDR3_800MHz_1rank_221b_Samsung_KMFN10012M-B214
- . MSM8937_LPDDR3_800MHz_1rank_221b_Toshiba_TYD0GH121661RA
- . MSM8937_LPDDR3_800MHz_2rank_221b_Samsung_KMQ310013M-B419
- . MSM8937_LPDDR3_800MHz_2rank_221b_Samsung_KMRC1000BM-B809

DDR 仿真

- MSM8937
- . MSM8937_LPDDR3_800MHz_2rank_221b_Samsung_KMRE1000BM-B512
- . MSM8937_LPDDR3_800MHz_2rank_221b_Samsung_KMRX1000BM-B614
- . MSM8937_LPDDR3_800MHz_2rank_221b_SKHynix_H9TQ17ABJTMCUR-KUM
- . MSM8937_LPDDR3_800MHz_2rank_221b_Toshiba_TYE0HH231659RA
- . MSM8937_LPDDR3_800MHz_2rank_221b_Toshiba_TYR0IH331667RB
- . MSM8937_LPDDR3_800MHz_2rank_221b_SKHynix_H9TQ17ABJTACUR-KUM
- . MSM8937_LPDDR3_800MHz_2rank_221b_SKynix_H9TQ26ADFTACUR-KUM
- . MSM8937_LPDDR3_800MHz_2rank_221b_Micron_MT29TZZZ5D6JKFRL-107_W.96R
- . MSM8937_LPDDR3_800MHz_2rank_221b_Samsung_KMQ4Z0013M-B809
- . MSM8937_LPDDR3_800MHz_2rank_221b_Samsung_KMQE10013M-B318
- . MSM8937_LPDDR3_800MHz_2rank_221b_Samsung_KMRC10014M-B809

DDR 仿真

- MSM8952
- . MSM8952_LPDDR3_921MHz_2rank_221b_Samsung_KMRC10014M-B809
- . MSM8952_LPDDR3_921MHz_2rank_221b_Samsung_KMRX1000BM-B614
- . MSM8952_LPDDR3_921MHz_2rank_221b_SKHynix_H9TQ17ADFTACUR-KUM
- . MSM8952_LPDDR3_921MHz_2rank_221b_SKHynix_H9TQ26ADFTACUR-KUM
- . MSM8952_LPDDR3_921MHz_2rank_221b_Toshiba_TYR0IH331667RB
- . MSM8952_LPDDR3_921MHz_2rank_221b_Samsung_KMRX10014M-B614
- . MSM8952_LPDDR3_921MHz_2rank_221b_Micron_MT29TZZZ7D6JJKFB-107_W.96V
- . MSM8952_LPDDR3_921MHz_2rank_221b_Samsung_KMRC1000BM-B809
- . MSM8952_LPDDR3_921MHz_2rank_221b_Samsung_KMR31000BA-B614
- . MSM8952_LPDDR3_921MHz_2rank_221b_Samsung_KMRE1000BM-B512
- . MSM8952_LPDDR3_921MHz_2rank_221b_Samsung_KMQ4Z0013M-B809

DDR 仿真

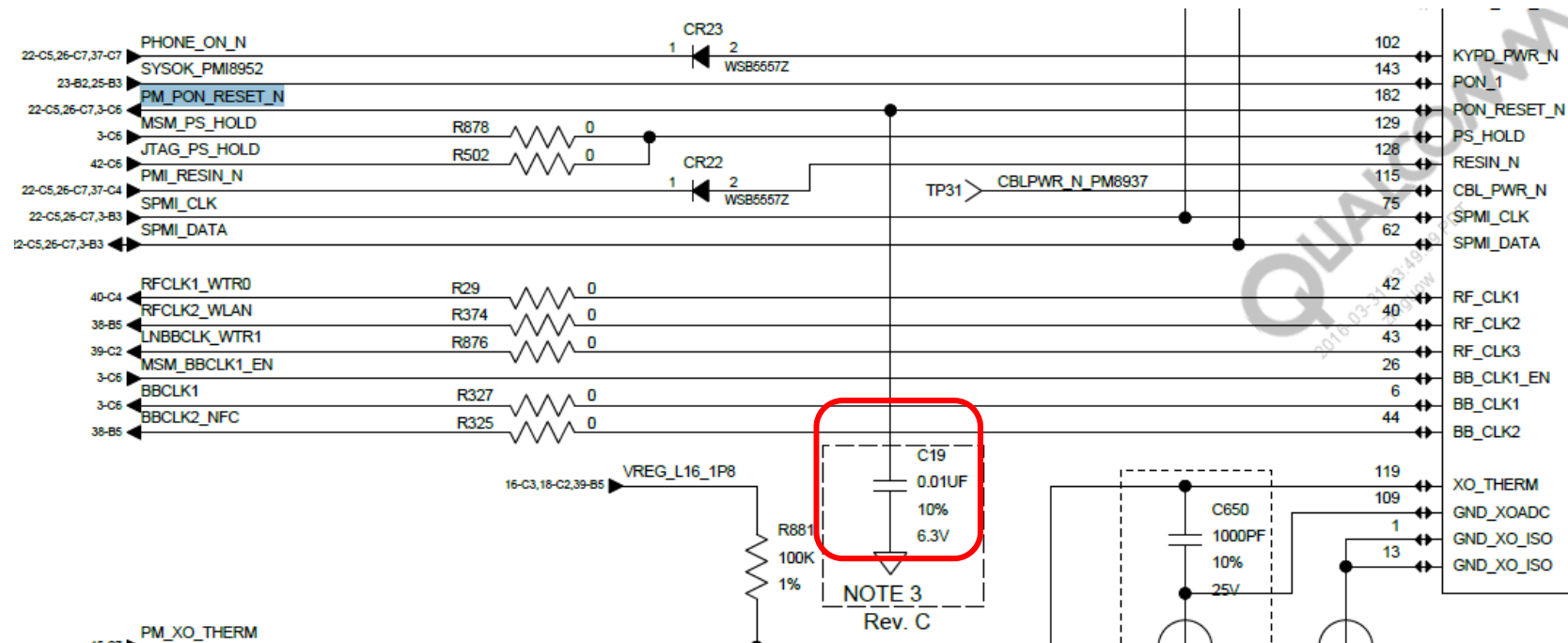
- MSM8952
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- . MSM8952_LPDDR3_921MHz_2rank_178b_Samsung_K4E6E304EB-EGCG
- . MSM8952_LPDDR3_921MHz_2rank_221b_Samsung_KMR21000BM-B809
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- . MSM8952_LPDDR3_921MHz_2rank_221b_SKHynix_H9TQ17ADFTMCUR-KUM
- . MSM8952_LPDDR3_921MHz_2rank_221b_SKHynix_H9TQ17ABJTMCUR-KUM
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DDR 仿真

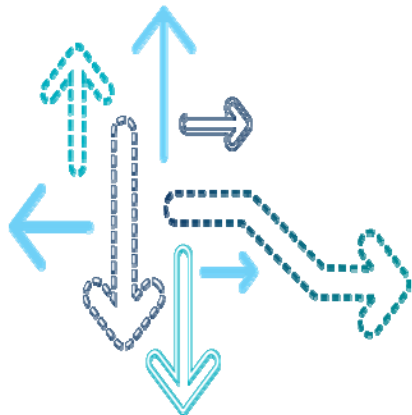
- MSM8953
- . MSM8953_LPDDR3_933MHz_2rank_221b_Micron_MT29TZZZ5D6YKFAH-125_W.96N
- . MSM8953_LPDDR3_933MHz_2rank_221b_Samsung_KMRX10014M-B614
- . MSM8953_LPDDR3_933MHz_2rank_221b_SKHynix_H9TQ52ACLTCUR-KUM
- . MSM8953_LPDDR3_933MHz_2rank_221b_SKHynix_H9TQ26ADFTMCUR-KUM
- . MSM8953_LPDDR3_933MHz_2rank_221b_Samsung_KMRE1000BM-B512
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- . MSM8953_LPDDR3_933MHz_2rank_221b_Toshiba_TYR0IH331667RB
- . MSM8953_LPDDR3_933MHz_2rank_221b_Samsung_KMRC1000BM-B809
- . MSM8953_LPDDR3_933MHz_2rank_221b_SKHynix_H9TQ17ABJTACUR-KUM
- . MSM8953_LPDDR3_933MHz_2rank_221b_SKHynix_H9TQ26ADFTACUR-KUM
- . MSM8953_LPDDR3_933MHz_2rank_221b_Samsung_KMRX1000BM-B614
- . MSM8953_LPDDR3_933MHz_2rank_221b_Samsung_KMR21000BM-B809

MSM8937/MSM8917/MSM8940

- 适用平台：MSM8937/MSM8917/MSM8940
- 问题描述：在MSM8937/MSM8914/MSM8940平台上，需要在PM_PON_RESET_N 信号上加47nF(之前推荐的是10nF)电容，此信号与MSM8937，PM8937以及PMI8937都有连接，如果摆放位置不正确，就不会发挥应有的作用。
- 推荐：由于对于PM_PON_RESET_N的干扰源尚不明确，而受干扰的是MSM端的RESIN_N pin，因此建议将此电容靠近MSM的RESIN_N pin摆放。



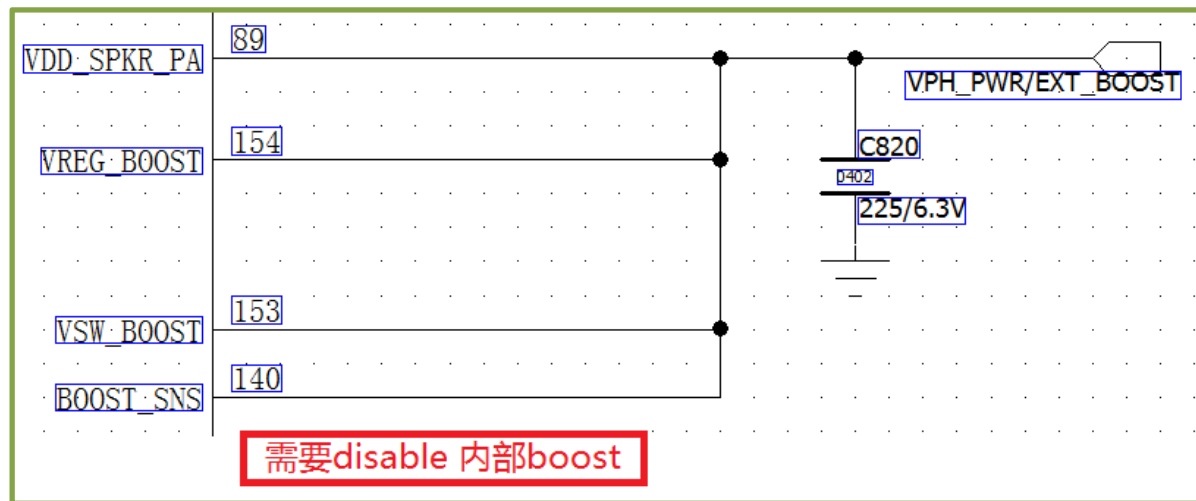
Audio



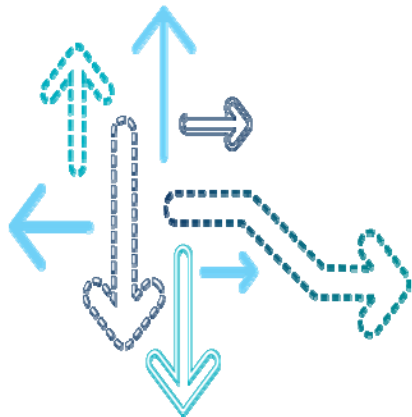
PM8952/PM8956/PM8953/PM8937 boost pin damage

- 适用平台：PM8952/PM8956/PM8937/PM8953
- 问题描述：当PM的内部5v boost不用，但需使用speaker PA时，推荐把BOOST_SNS, VREG_BOOST, VSW_BOOST, and VDD_SPKR_PA 接到VPH_PWR或者外部的boost电源。但是，如果软件没有把内部boost 关掉，则会出现概率性的喇叭无声或输出异常情况， BOOST_SNS/ VREG_BOOST /VSW_BOOST pin被损坏
- 推荐：在软件中disable internal boost

	PMIC Codec BOOST is used	PMIC Codec BOOST is not used
Speaker Amp	<ctl name="Speaker Boost" value="ENABLE" />	<ctl name="Speaker Boost" value="DISABLE" />
Ear Amp	<ctl name="EAR PA Boost" value="ENABLE" />	<ctl name="EAR PA Boost" value="DISABLE" />



PMIC



PMI VBUS电容导致系统重新开机

- ❑ 适用平台：PMI8994/PMI8996/PMI8952/PMI8937
- ❑ 问题描述：当插入U盘等外设时，有些OTG外设电容比较大导致整个VBUS线路上的电容过大，在关机过程中，USB_IN 和MID_USB内部的电流源（用于Vbus上电容放电）会在VBUS=1V 关断，此时如果没有外部下拉电阻，放电速度会非常缓慢；因为PMI开机触发电压为1V左右，从而导致手机被触发开机。
- ❑ 推荐：
 - ❑ 预留47k下拉电阻位置，根据需要增加47K电阻
 - ❑ 不要在Vbus通路上增加过多的电容（参考设计为4.7uF左右）