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# 高通MSM8976功耗温升优化技术期刊 -20151228

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Qualcomm Technologies, Inc.

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**Qualcomm Technologies, Inc. 5775 Morehouse Drive San Diego, CA 92121 U.S.A.**

高通技术股份有限公司，美国加利福尼亚州圣地亚哥市莫豪斯路 5775 号，邮编 92121

# Checklist

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- Power Consumption Data Document/Link
- Power Measurement Checklist
- Power Debug Guide
- CR/Patches Checklist
- Tips

# Checklist --- Power Consumption Data

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- External Document
  - MSM8976\_LA\_Current\_Consumption\_Data
    - Document #: 80-NT667-7
    - You can find detailed power break down data in this document
  - Power Data for MSM8976.LA.1.0-00350-STD.PROD
    - Document #: 80-P1718-8
    - You can find power data for this release
  - Power Data for MSM8976.LA.1.0.1\_00060\_STD
    - Document #: 80-P2778-4
    - You can find power data for this release
  - Power\_Consumption\_Measurement\_MSM\_Android\_MDM\_Devices
    - Document #: 80-N6837-1
    - You can find test procedure guide for this release

# Checklist --- Power Measurement

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- Use perf\_defconfig instead defconfig
  - Remove “Debug” features
  - Double check if “CORESIGHT” config is removed
  - Double check if “CONFIG\_MSM\_DEBUG\_LAR\_UNLOCK” config is removed
- Disable UART console
  - Especially for smart panel
- Remove unnecessary debug log with high frequency
- Remove on-device logging tools
- Read Certicom ID from device
  - adb shell /system/bin/r 0xA0128
  - This is to make sure TT part is used for power measurement. For comparison purpose with RCM data only since TT part is used on RCM.

# Checklist --- Power Debug

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- Power Debug Guide with Simplified Chinese
  - Document #: 80-P0955-1SC
  - There is detail guide on how to debug almost all cases like RBSC, MP3, MP4, camera etc. Just need to follow step by step
- Power Debug Guide with English
  - Document #: 80-P0955-1
- Camera Power Debug Guide
  - Document #: 80-NP961-1
- PerfLock API Overview
  - Document #: 80-NT384-1
- Multimedia Power Debugging Case
  - Document #: 80-NT616-1
- QUALCOMM ONDEVICE POWER DASHBOARD TEST GUIDE
  - Document #: 80-P1818-1EC
- LA Power Optimization
  - Document #: 80-NA157-246
- MSM89x6\_System\_Power\_Overview
  - Document #: 80-NU154-9

# Checklist --- CR/Patches

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***N -- No Impact***

***- means Side Effect***

***+ means Good Impact***

CR	Fix	Patches	Perf	Power	Stability	Comment
924779	Can not sleep for LTE standby		N	+	N	
949222	Add 550Mhz power level, this helps in both performance and power.		+	+	N	

# Checklist --- CR/Patches ( improve Performance/Power)

***N -- No Impact***

***- means Side Effect***

***+ means Good Impact***

CR	Fix	Patch	Perf	Power	Stability	Comment
881194	Scheduler : Load balancing improvement.		+	-	N	
914674 943813	8976 QOS patches – GPU and Wireless		+	-	N	
928243 931349	Riptide Whitelist patches		+	-	N	
942601 944709	GPU DCVS changes		+	-	N	
943361	Ramp Governor and Scheduler aggressively Increase Launch boost 1.5GHz - > 1.8GHz Set min DDR Floor (BIMC Clk) to 192MHz		+	-	N	



# Checklist --- Tips (1)

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- RBSC
  - use IR camera to scan board's hot spot if RBSC current is high