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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

Revision History

Revision	Date	Description
A	Apr 2015	Initial release

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

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Camera

MSM8916/8939/8909 Android 5.0 Camera log - HAL

- *\$ adb shell setprop persist.camera.hal.debug.mask <mask>*
 - <mask> 28-31位决定打印级别:
 - 设为1: CDBG_HIGH() log会被打印
 - 设为2及大于2: CDBG_HIGH() 和CDBG() log都会被打印
 - 注: CDBG_ERROR() log总是被打印
 - <mask> 0-27位决定打印模块(目前只有三个模块):
 - Bit0: HAL (hardware/qcom/camera/QCamera2/HAL)
 - Bit1: mm-camera-interface (hardware/qcom/camera/QCamera2/stack/mm-camera-interface)
 - Bit2: mm-jpeg-interface (hardware/qcom/camera/QCamera2/stack/mm-jpeg-interface)
- 例子
 - \$ adb shell setprop persist.camera.hal.debug.mask 536870919
 - 536870919 = 0x20000007, 表示HAL/mm-camera-interface/mm-jpeg-interface CDBG_HIGH() 和CDBG() log都会被打印. CDBG_ERROR() log总是被打印
 - \$ adb shell setprop persist.camera.hal.debug.mask 536870913
 - 536870913 = 0x20000001, 表示HAL CDBG_HIGH() 和CDBG() log会被打印. CDBG_ERROR() log总是被打印

MSM8916/8939/8909 Android 5.0 Camera log - Sensor

- *\$ adb shell setprop persist.camera.sensor.debug <mask>*
 - <mask> bit0 不为零: SHIGH() log会被打印
 - <mask> bit1 不为零: SLOW() log会被打印
 - 注: SERR() log总是会被打印
- 例子
 - \$ adb shell setprop persist.camera.sensor.debug 3
 - SERR(), SHIGH()和SLOW() log会被打印
 - \$ adb shell setprop persist.camera.sensor.debug 2
 - SERR(), SHIGH() log会被打印
 - \$ adb shell setprop persist.camera.sensor.debug 1
 - SERR(), SLOW() log会被打印

MSM8916/8939/8909/8994 Android 5.0 Camera log - imglib

- *\$ adb shell setprop persist.camera.imglib.logs <level>*
 - <level> = 2: IDBG_HIGH() log会被打印
 - <level> = 3: IDBG_HIGH() , IDBG_MED() log会被打印
 - <level> = 4: IDBG_HIGH() , IDBG_MED(), IDBG_LOW() log会被打印
 - **注:**
 - IDBG_ERROR() log总是会被打印
 - MSM8994同样适用
- **例子**
 - \$ adb shell setprop persist.camera.imglib.logs 4
 - IDBG_ERROR(), IDBG_HIGH() , IDBG_MED(), IDBG_LOW() 都会被打印

MSM8916/8939/8909 Android 5.0 Camera log - PPROC

- *\$adb shell setprop persist.camera.pproc.debug.mask <mask>*
 - <mask> 28-31位决定打印级别:
 - 设为1: CDBG_HIGH() log会被打印
 - 设为2: CDBG_HIGH(), CDBG() log都会被打印
 - 设为3及3以上: CDBG_HIGH(), CDBG(), CDBG_LOW() log会被打印
 - <mask> 0-27位决定打印模块(目前只有三个模块):
 - Bit0: PPROC (mm-camera2/media-controller/modules/pproc-new)
 - Bit1: C2D (mm-camera2/media-controller/modules/pproc-new/c2d)
 - Bit2: CPP (mm-camera2/media-controller/modules/pproc-new/cpp)
- 例子
 - \$adb shell setprop persist.camera.pproc.debug.mask 805306375
 - 805306375 = 0x30000007, 表示PPROC/C2D/CPP CDBG_HIGH(), CDBG(), CDBG_LOW() 都会被打印.

MSM8916/8939/8909 Android 5.0 Camera log - MCT

- *\$adb shell setprop persist.camera.mct.debug.mask <mask>*
 - <mask> 28-31位决定打印级别 (默认1):
 - 设为1: CDBG_HIGH() log会被打印
 - 设为2及2以上: CDBG_HIGH(), CDBG() log都会被打印
 - <mask> 0-27位决定打印模块(目前只一个模块):
 - Bit0: PPROC (mm-camera2/media-controller/mct)
- 例子
 - \$adb shell setprop persist.camera.pproc.debug.mask 536870913
 - 536870913 = 0x 20000001, 表示MCT CDBG_HIGH(), CDBG() 都会被打印.

MSM8916/8939/8909 Android 5.0 Camera log - ISP

- *\$adb shell setprop persist.camera.ISP.debug.mask <mask>*

- Bit 0: ISP_MOD_LINEARIZATION
Bit 1: ISP_MOD_ROLLOFF
Bit 2: ISP_MOD_DEMUX
Bit 3: ISP_MOD_DEMOSAIC
Bit 4: ISP_MOD_BPC
Bit 5: ISP_MOD_ABF
Bit 6: ISP_MOD_ASF
Bit 7: ISP_MOD_COLOR_CONV
Bit 8: ISP_MOD_COLOR_CORRECT
Bit 9: ISP_MOD_CHROMA_SS
Bit 10: ISP_MOD_CHROMA_SUPPRESS
Bit 11: ISP_MOD_LA
Bit 12: ISP_MOD_MCE
Bit 13: ISP_MOD_SCE
Bit 14: ISP_MOD_CLF
Bit 15: ISP_MOD_WB
Bit 16: ISP_MOD_GAMMA
Bit 17: ISP_MOD_FOV
Bit 18: ISP_MOD_SCALER
Bit 19: ISP_MOD_BCC
Bit 20: ISP_MOD_CLAMP
Bit 21: ISP_MOD_FRAME_SKIP
Bit 22: ISP_MOD_STATS
Bit 23: ISP_MOD_COLOR_XFORM
Bit 24: ISP_MOD_COM

- 例子

- *adb shell setprop persist.camera.ISP.debug.mask 16777217*
 - 16777217 = 0x1000001, 打开 ISP_MOD_COM. ISP_MOD_LINEARIZATION log

- *\$adb shell setprop persist.camera.stats.debug.mask <mask>*
 - Bit 0: STATS_DEBUG_MASK_**AEC**_LOG
 - Bit 1: STATS_DEBUG_MASK_**AWB**_LOG
 - Bit 2: STATS_DEBUG_MASK_**AF**_LOG
 - Bit 3: STATS_DEBUG_MASK_**ASD**_LOG
 - Bit 4: STATS_DEBUG_MASK_**AFD**_LOG
- 例子
 - adb shell setprop persist.camera.stats.debug.mask 7
 - 7 = 0b111, 打开AEC/AWB/AF log

MSM8994 Android 5.0 Camera log - HAL

- *\$ adb shell setprop persist.camera.hal.debug <level>*
 - <level> = 1: CDBG_HIGH () log会被打印
 - <level> = 2: CDBG_HIGH () , CDBG() log会被打印
 - **注:**
 - CDBG_ERROR() log总是会被打印
 - 该log开关同时控制HAL/mm-camera-interface/mm-jpeg-interface log
 - 默认level 为0 , 只有CDBG_ERROR() log被打印
- **例子**
 - \$ adb shell persist.camera.hal.debug 2
 - 表示HAL/mm-camera-interface/mm-jpeg-interface CDBG_HIGH() 和CDBG() log都会被打印. CDBG_ERROR() log总是被打印

MSM8994 Android 5.0 Camera log - Sensor

■ *\$ adb shell persist.camera.sensor.debug*

<level>

- *<level>* = 1: SHIGH() log会被打印
- *<level>* = 2: SHIGH() , SLOW() log会被打印

■ **注:**

- SERR() log总是会被打印
- 默认level为0 , 只有SERR() log被打印

■ 例子

- \$ adb shell persist.camera.sensor.debug 2
 - 表示 sensor module (mm-camera2/media-controller/modules/sensors) SERR() , SHIGH() 和SLOW() log都会被打印.

MSM8994 Android 5.0 Camera log - CPP

- 没有动态开关，需要修改mm-camera2/media-controller/modules/pproc-new/cpp/cpp_log.h 里面定义的CPP_LOG_VERBOSE后重新编译
 - CPP_LOG_VERBOSE = 0，只有CPP_ERR() log被打印
 - CPP_LOG_VERBOSE = 1，CPP_ERR(), CPP_HIGH() log被打印
 - CPP_LOG_VERBOSE = 2，CPP_ERR(), CPP_HIGH(), CPP_DBG() log被打印
 - CPP_LOG_VERBOSE = 3，CPP_ERR(), CPP_HIGH(), CPP_DBG(), CPP_LOW() log都被打印
- 默认CPP_LOG_VERBOSE = 1

MSM8994 Android 5.0 Camera log - MCT

- *\$adb shell setprop persist.camera.mct.debug <level>*
 - <level> = 1: MCT CDBG_HIGH() log会被打印
 - <level> = 2: MCT CDBG_HIGH() , CDBG() log会被打印
 - **注:**
 - CDBG_ERROR () log总是会被打印
 - 默认level为1 , 即默认MCT CDBG_ERROR(), CDBG_HIGH() log被打印
- **例子**
 - \$adb shell setprop persist.camera.mct.debug 2
 - 表示MCT(mm-camera2/media-controller/mct) CDBG_ERROR(), CDBG_HIGH(), CDBG() 都会被打印.

MSM8994 Android 5.0 Camera log - 3A

▪ *\$adb shell setprop persist.camera.stats.debug*

<mask>

- Bit 0-1: STATS_DEBUG_MASK_AEC_LOG
- Bit 2-3: STATS_DEBUG_MASK_AWB_LOG
- Bit 4-5: STATS_DEBUG_MASK_AF_LOG
- Bit 6-7: STATS_DEBUG_MASK_ASD_LOG
- Bit 8-9: STATS_DEBUG_MASK_AFD_LOG
- Bit 10-11: STATS_DEBUG_MASK_Q3A_LOG
- Bit 12-13: STATS_DEBUG_MASK_STATS_LOG
- Bit 14-15: STATS_DEBUG_MASK_IS_LOG

▪ 每一个3A模块有2bit控制log level

- level = 0: ERR
- level = 1: ERR, HIGH
- level = 2: ERR, HIGH, LOW

▪ 注：

- ERR log总会被打印
- 建议查看mm-camera2/media-controller/modules/stats/stats_debug.h了解更多细节

▪ 例子

- adb shell setprop persist.camera.stats.debug 2
 - 打开AEC ERR/HIGH/LOW log, 即AEC_ERR()/AEC_HIGH()/AEC_LOW() log 会被打印

MSM8994 Android 5.0 Camera log - Global

- *\$adb shell setprop persist.camera.global.debug <level>*
 - <level> = 1: HIGH level log会被打印
 - <level> = 2: HIGH LOW level log会被打印
 - **注:**
 - ERR level log总是会被打印
 - 全局控制HAL/Sensor/MCT/3A log
- **例子**
 - \$adb shell setprop persist.camera.global.debug 2
 - 表示HAL/Sensor/MCT/3A 所有ERROR/HIGH/LOW log都会被打印。这样log会非常的多，容易造成log丢失。

问题1：HDR拍照卡死

- 1.1 问题描述: HDR拍照过程中旋转概率性卡死
 - Log中可看到下面的错误：
 - 10-31 11:39:09.601 E/mm-jpeg-intf(306): mm_jpeg_session_config_main_crop:963] invalid crop boundary (2947, 5205) out of (5312, 2988)
 - CR **810417**: Rotation the camera quick when do HDR capture continually, error happen
- 1.2 问题描述: ZSL + HDR 正常拍照概率性卡死
 - CR **818702**: ZSL HDR snapshot failed with timing problem
- Solution: 请提交Case, 我们会release formal patch to you

问题2：开机后快速打开Camera，小概率性无法打开

- 问题描述:
 - 开机后快速打开Camera，小概率性无法打开，且只有重启或者kill掉mediaserver才能恢复
- Log中可看到下面的错误：
04-08 15:39:27.581 330 1940 E mm-camera-sensor: module_sensor_start_session:740 failed
04-08 15:39:27.671 330 330 E mm-camera-sensor: module_sensor_query_mod:4104 session_id doesn't match idx
- **CR 780344**: APT LA PLAT TEST: Observe error message "Cant connect to camera" when trying to launch camera app or while switching modes even after loading QCN.
- Solution: 请提交Case, 我们会release formal patch to you

问题3：全景拍照在未移动device的情况下点击两次shutter 按钮，生成图片有问题

- 问题描述:全景拍照在未移动device的情况下点击两次shutter 按钮，生成图片有毛刺条纹 (100%复现)。
- CR **794974** : Take messy picture in Panorama mode.(100%)
- Solution: 请提交Case, 我们会release formal patch to you

问题4：MSM8909 在特定sensor上拍摄RAW图出现上下曝光不一致

- 问题描述: MSM8909 在特定sensor上拍摄RAW图出现上下曝光不一致，导致tuning无法进行。
- 分析:
 - 这是因为frame skip设置在MSM8909上对RAW图无效导致 (有些sensor只有skip 1到2帧才能稳定)。
- 如果MSM8909 tuning遇到该问题，请提交case。我们有相应修改使RAW snapshot frame skip生效

Questions?

<https://support.cdmatech.com>

