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# 高通多媒体技术期刊 20151021

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Qualcomm Technologies, Inc.

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# Confidential and Proprietary – Qualcomm Technologies, Inc.

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# Revision History

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Revision	Date	Description
A	Oct 2015	Initial release

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

# 内容

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- Audio
  - Important docs update
  - Audio common issues
- Video
  - WFD
  - Video common issues



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# Audio

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# Important docs update

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## ■ Solutions

- [00031159](#) Hexagon DSP : How to flash/update ADSP firmware image to device
- [00031127](#) Hexagon DSP : to debug Dynamic Loading in QXDM QDSP6
- [00031113](#) APE Audio Decoder
- [00031106](#) How to enable Dolby DS1 feature on MSM8952/MSM8956/MSM8976
- [00031065](#) MSM8996 Audio Software Solutions Tree
- [00031029](#) Operational modes in WCD9335
- [00031028](#) How to enable Compander (DRE)
- [00031027](#) How to Verify the Codec Side Tone
- [00031022](#) MI2S and AUX PCM Customizations
- [00031020](#) Hexagon DSP : How to avoid QXDM PCM LOG drop issue
- [00030904](#) Audio Outputs and Supported Configurations
- [00030830](#) MSM8996 Linux Audio Documents and Solutions

# Audio common issues ( 1 )

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- 描述：After disconnecting DUT with Bluetooth headset , incoming call ring tone no sound
- 复现步骤和现象：
  - 1. Connect BT headset and pair with phone.
  - 2. Incoming a call and play ringtone
  - 3. Turn off BT headset
  - 4. Incoming a call and play ringtone again
  - 5. Sometimes no sound from speaker.
- 基线：MSM8939.LA.2.0.2, LA.BR.1
- CR：788380
- 代码修改：
  - <https://www.codeaurora.org/cgit/quic/la/platform/frameworks/av/commit?id=c0153eac87f0a40b486350be770e9fb07125309a>
  - <https://www.codeaurora.org/cgit/quic/la/platform/frameworks/av/commit?id=f5fcb5ed5c2cea80b89bd10f58b2bdd5b85a7143b>

## Audio common issues ( 2 )

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- 描述 : CTS 5.1r3 fails in android.media.cts.MediaPlayerTest -- testFlacHeapOverflow
- 复现步骤和现象 :
  - 1. CTS, run the test case - testFlacHeapOverflow
  - Test failed and there is SIGSEGV in mediaserver
- 基线 : MSM8909.LA.1.1, LA.BR.1.2.3
- CR : 921900
- 代码修改 :
  - If using Google FLAC parser - The fix is from AOSP under /external/flac
    - <https://android-review.googlesource.com/#/c/148267/>
  - If using QC FLAC parser
    - <https://www.codeaurora.org/cgit/quic/la/platform/frameworks/av/commit/?id=56e425774e477bcc6735fce37b3282cff56cc6f3>



# Audio common issues ( 3 )

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- 描述：No sound with Dolby topology
- 复现步骤和现象：
  - 1. enable Dolby on speaker
  - 2. test card1 and card2 in product line
  - 3. during the card switch, there will be SSR happened
  - 4. no sound on speaker.
- 基线：MSM8939.LA.2.0.2, LA.BR.1.1.3
- CR：920210
- 代码修改：
  - 代码修改没有mainline，如果有用Dolby，可以提case单独给patch

# Audio common issues ( 4 )

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- 描述 : Lost some words in front of the message with Bluetooth headset when listening the message of WeChat
- 复现步骤和现象 :
  - 1. connect Bluetooth
  - 2. open WeChat
  - 3. listening a message with Bluetooth headset
- 基线 : MSM8992.LA.1.1, LA.BF64.1.2.1
- CR : 885816
- 代码修改 :
  - <https://www.codeaurora.org/cgit/quic/la/platform/frameworks/av/commit/?id=92d5f85dc8cce34010475de87e2046cb6fa4d7c4>



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# Video

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# WFD

- 之前的技术文档（高通多媒体技术期刊 - 20140806）有对WFD进行介绍，这里对WFD的支持情况及debug方法补充一些更新。

- WFD 支持情况

Feature	8952	8956/8976	8994	8996
Sink/Source	Yes	Yes	Yes	Yes
Video (Miracast Source )	1080P 30fps	1080P 30fps	1080P 30fps	3840 X 2160 30fps 1080P 60fps
Video (Miracast Sink )	1080P 60fps	1080P 30fps	1080P 60 fps	3840 X 2160 60fps

# WFD Solutions

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- [00028602](#) Source端黑屏
- [00028649](#) 调试P2P状态
- [00028896](#) WFD 功能描述
- [00028897](#) WFD setup规则
- [00028914](#) WFD Source端特定组件的延时测量
- [00028920](#) 从P2P连接到第一帧写入socket的连接时间分析
- [00028939](#) WFD 会话的平均帧率
- [00028820](#) WFD认证测试失败 ( 5.1.10 A ) 分析
- [00028487](#) WFD HDCP 调试步骤

注：更多的Solution请在salesforce系统中查找。

# WFD capability

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- 为了降低功耗，高通的WFD解决方案添加了standby-resume 特性。使能该特性后，Source端屏幕灭屏后，链接还保持，但encoder停止工作，也不发送数据，节省power。
- 可以通过设置StandbyResumeCapability来动态使能/禁止该特性。
- 在wfdconfig.xml /wfdconfigsink.xml配置文件里：

```
<StandbyResumeCapability>  
    <Valid>1</Valid>  
</StandbyResumeCapability>
```

# [fixed issue] MSM8994 WFD sink device after successful connection with WFD source, screen displays black

- 描述：

MSM8994作为WFD sink，WFD连接成功后，sink端无图像显示。

- Log指示错误原因：

09-16 15:11:18.654 E/MM\_OSAL ( 5522): VideoDecoder FDB Push to  
Renderer

09-16 15:11:18.654 E/MM\_OSAL ( 5522): WFDMMSinkRenderer DeliverInput

09-16 15:11:18.654 E/MM\_OSAL ( 5522): Renderer Waiting for Video  
STARTTIME

09-16 15:11:18.654 E/MM\_OSAL ( 5522): Failed to Q Video Bufer to Renderer

- 补丁：

wfd: Do not ignore STARTTIME flag in empty buffer

修改在vendor/qcom-proprietary/wfd里面，建议升级到最新版本，或提case寻求  
帮助。

- 补充说明：

sink端解码后的帧即使是空帧也不应该忽略，应为包含 STARTTIME flag，否则检测不到 STARTTIME，会把所有的帧都给丢掉。

# CTS/GTS 测试已知问题

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- MSM8909 平台上已知问题：

- android.media.cts.MediaPlayerFlakyNetworkTest

使能STA，adb shell setprop persist.mm.sta.enable 1，该项测试失败；

禁掉STA，adb shell setprop persist.mm.sta.enable 0，该项测试成功。

原因是某些基线在整合时遗失了STA相关的库，重新集成进版本即可。

关于STA的介绍，请参考80-P0972-1文档。

- com.google.android.xts.media.Vp8CodecTest # testHangouts

该项测试需要实例化8个codecs，早期MSM8909只支持4个实例，因此测试失败。在较新的firmware(VIDEO.VE.3.0-00036-INT-1)已经将最大实例增大到8。



# CTS/GTS 测试已知问题 – 续一

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- MSM8994平台上已知问题：
- `com.google.android.xts.media.MediaPlayerTest # testM2PS_H264_AAC_480P_WV_MULTI_480P`

log指示失败原因：

I DEBUG : Abort message:

'frameworks/av/media/libmediaplayerservice/nuplayer/NuPlayerDecoder.cpp :360 CHECK(ix < mInputBuffers.size()) failed.'

解决方案：

NuPlayer: Disable widevine flag for L3 content

<https://www.codeaurora.org/cgit/quic/la//platform/frameworks/av/commit/?id=bc92162fafa1e46ce47d40c5d1e9a1604b03c3c5>

更多CTS/GTS已知问题请参考Solution # [00028903](#) , 即 80-NR633-1 文档。

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## Questions?

<https://support.cdmatech.com>

