
高通Lab Test技术期刊 – 201601



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Revision History

Revision	Date	Description
A	Jan 2016	Initial release

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

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- TS31.124 BIP Test Fail Caused by Incorrect SIM Card Setting
- CMCC VoLTE Acoustics and MOS Test Guide
- IMS Protocol Failure owing to PANI Mismatch
- CMCC关于MTBF、续航、音频以及屏幕性能质量指标要求更新
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TS31.124 BIP Test Fail Caused by Incorrect SIM Card Setting

- Issue Description
 - During UIM test for BIP related cases, slot Information in NAS side does not match with slot information in UIM side, so BIP OPEN CHANNEL command failed when get priority network and activate data sub in ESTK side.
 - Affected test cases: 3GPP TS31.124 TC27.22.4.27.x~TC27.22.4.30.x
- Log analysis:

//Received proactive command from card

MSG [00021/02] User Identity Module/High 14:23:25.120 gstk_s_idle.c 00618 Received Proactive cmd

//APDU log, this is OPEN CHANNEL proactive command

TX 80 12 00 00 1E
14:23:25.072
RX 12 D0 1C 81 03 01 40 01 82 02 81 82 35 01 03 39 02 05 78 3C
03 02 AD 9C 3E 05 21 01 01 01 01 90 00

//GSTK handle this OPEN CHANNEL command

MSG [00021/02] User Identity Module/High 14:23:25.121 gstk_proactive_cmd.c 00572 COMMAND DETAILS CMD
NUM: 0x1, TYPE OF CMD: 0x40, QUALIFIER: 0x1 //0x40: OPEN CHANNEL

//Parser alpha parameter

MSG [00021/02] User Identity Module/High 14:23:25.121 gstkparser.c 06763 ** Parsing 0x5 into
GSTK_ALPHABET_TYPE

//Parser bear type, it is default bear

MSG [00021/02] User Identity Module/High 14:23:25.121 gstkparser.c 06075 ** Parsing bearer description
MSG [00021/02] User Identity Module/High 14:23:25.121 gstkparser.c 06182 Bearer Type: DEFAULT

TS31.124 BIP Test Fail Caused by Incorrect SIM Card Setting

//ESTK process open channel request

MSG [00021/02] User Identity Module/High 14:23:25.122 estk_bip.c 08180 estk_process_open_ch_req, slot: 0x1,
Transport Protocol: 0x2, features_enabled: 0x8c6

//ESTK send user confirmation to UI

MSG [00021/02] User Identity Module/High 14:23:25.122 estk.c 02164 In estk_send_alpha_to_display_client()

//Modem send user confirmation to APP via QMI message

2015 Dec 11 14:23:25.123 [6B] 0x138F QMI Link 1 TX PDU

```
...
  MsgType = QMI_CAT_EVENT_REPORT
...
  Slot {
    slot = SLOT_1
  }
...
  OpenChannel {
    uim_ref_id = 196608
    cmd_len = 30
    pc_open_channel = 208
  }
```

//Confirmation from app

2013 Dec 11 14:23:25.148 [F0] 0x138F QMI Link 1 TX PDU

```
...
  MsgType = QMI_CAT_EVENT_CONFIRMATION
...
  ResultCode {
    QmiResult = QMI_RESULT_SUCCESS
    QmiError = QMI_ERROR_NONE
  }
```

TS31.124 BIP Test Fail Caused by Incorrect SIM Card Setting

//ESTK handle user confirmation response

MSG [00021/02] User Identity Module/High 14:23:25.148
cmd_ptr=0xc2190ee0, state=0x4

estk_bip.c 07904 In estk_process_bip_user_cnf_rsp():

//ESTK get priority network

MSG [00021/02] User Identity Module/High 14:23:25.148
bearer_type: 0x4, address type: 0x2

estk_bip.c 07085 In estk_bip_get_prio_network, slot: 0x1,

MSG [00021/02] User Identity Module/High 14:23:25.148

gstklb.c 04393 in gstk_io_ctrl() with cmd 0x14

MSG [00021/02] User Identity Module/High 14:23:25.148

gstklb.c 04393 in gstk_io_ctrl() with cmd 0xf

//GSTK_IO_GET_ACTIVE_DATA_SUB_SLOT_ID

MSG [00021/02] User Identity Module/High 14:23:25.148

gstklb.c 04393 in gstk_io_ctrl() with cmd 0x15

//GSTK_IO_MODEM_AS_ID_TO_SLOT_ID

MSG [00021/02] User Identity Module/High 14:23:25.148

gstklb.c 04393 in gstk_io_ctrl() with cmd 0x7

//Activate data sub failed, slot ID NAS side does not match with UIM side. Number of slot is 2 for single card mode, which is not correct configuration.

MSG [00021/03] User Identity Module/Error 14:23:25.148

gstklb.c 04529 invalid as_id 0x4!, num_of_slots 0x2

MSG [00021/03] User Identity Module/Error 14:23:25.148

gstklb.c 04963 Failed to retrieve slot info for active

DATA SUB: 0x4

//Get priority network failed

MSG [00021/03] User Identity Module/Error 14:23:25.148
(WLAN/Cellular) failed

estk_bip.c 08019 Getting priority network

////OPEN CHANNEL failed

MSG [00021/02] User Identity Module/High 14:23:25.148
additional info len=0x1

gstk_terminal_rsp.c 02199 OPEN CHANNEL rsp, result=0x20

TS31.124 BIP Test Fail Caused by Incorrect SIM Card Setting

//Terminal response of APDU

14:23:25.151

TX 80 14 00 00 14

RX 14

TX 81 03 01 40 01 02 02 82 81 03 02 **20 04** 35 01 03 39 02 05 78

RX 90 00

Result

General Result : terminal currently unable to process command

Additional Info : No service

- **Conclusion:**
 - QC chipset supports runtime-configure about UIM hardware configuration via NV70210.
 - For UIM BIP test cases, we need make sure the SIM card related NVs in line with UE HW. NV setting for different mode is as below:

NV item		Single SIM	DSDS	DSDA
70210	hw_config.UIM[0].DISABLE_UIM	FALSE	FALSE	FALSE
	hw_config.UIM[1].DISABLE_UIM	TRUE	FALSE	FALSE
	hw_config.UIM[2].DISABLE_UIM	TRUE	TRUE	TRUE
70266		0	1	2
4398		1	0	0
6876	dual_Standby_pref	0	5(auto)	5(auto)
6907		0	1	1

CMCC VoLTE Acoustics and MOS Test Guide

■ 测试前准备：

■ MBN配置检查

- VoLTE Acoustics实验室测试使用的MBN为 Lab_Conf_VoLTE;
- VoLTE MOS 测试使用的MBN为Commercial_VoLTE。

■ UI设置项检查

- 确认关闭数据服务；
- 网络模式选择为：4G/3G/2G（自动选择）；
- 打开“增强4G LTE模式”；
- 对于MOS测试还需要打开耳机自动接听功能。

■ 仪表连接检查

- VoLTE MOS测试，仪表和手机终端通过射频线连接，请确认射频口为待测Band/RAT所对应的射频口，并确认手机的RF校准正常；
- VoLTE Acoustics测试之前，请确认手机能够在测试仪表（CMW500）上正常注册，建立通话成功并能保持30分钟以上，并保存仪器配置；若不能正常注册，请在测试前提case寻求高通支持。

■ USB驱动安装调试

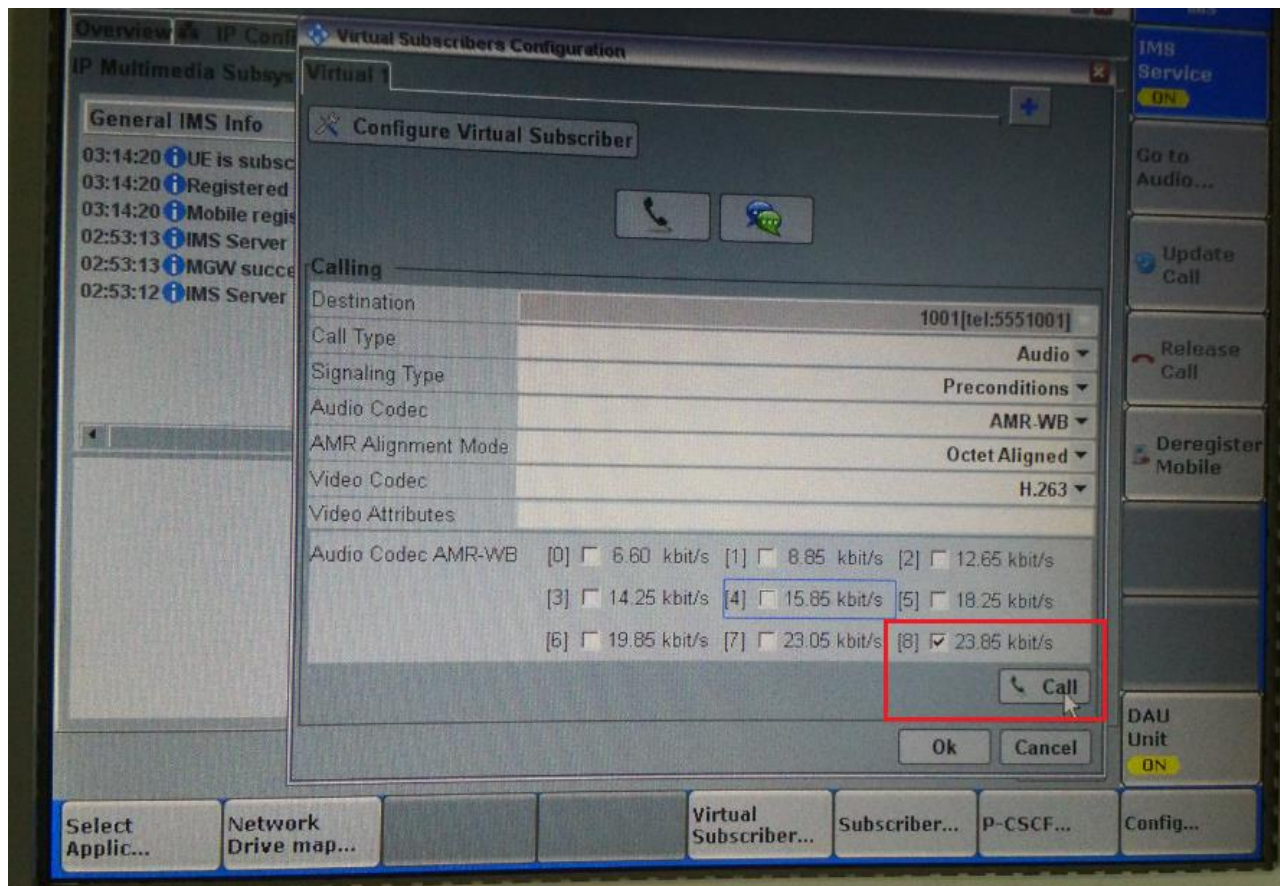
- 安装USB驱动，当USB线连接手机和测试PC时，查看PC侧设备管理器，确认modem, diag-port, adb接口正常显示；
- 测试diag-port工作正常，能够连上音频调试工具QACT、log采集工具QXDM等。

CMCC VoLTE Acoustics and MOS Test Guide

■ 测试注意事项：

■ VoLTE Acoustics测试注意事项

- VoLTE Acoustics宽带测试，使用AMR-WB 23.85kbps的声码率。为避免通话使用其它的声码器，可以在网络模拟器端将声码率设好，从网络模拟器端呼叫手机，建立通话，如下图所示：

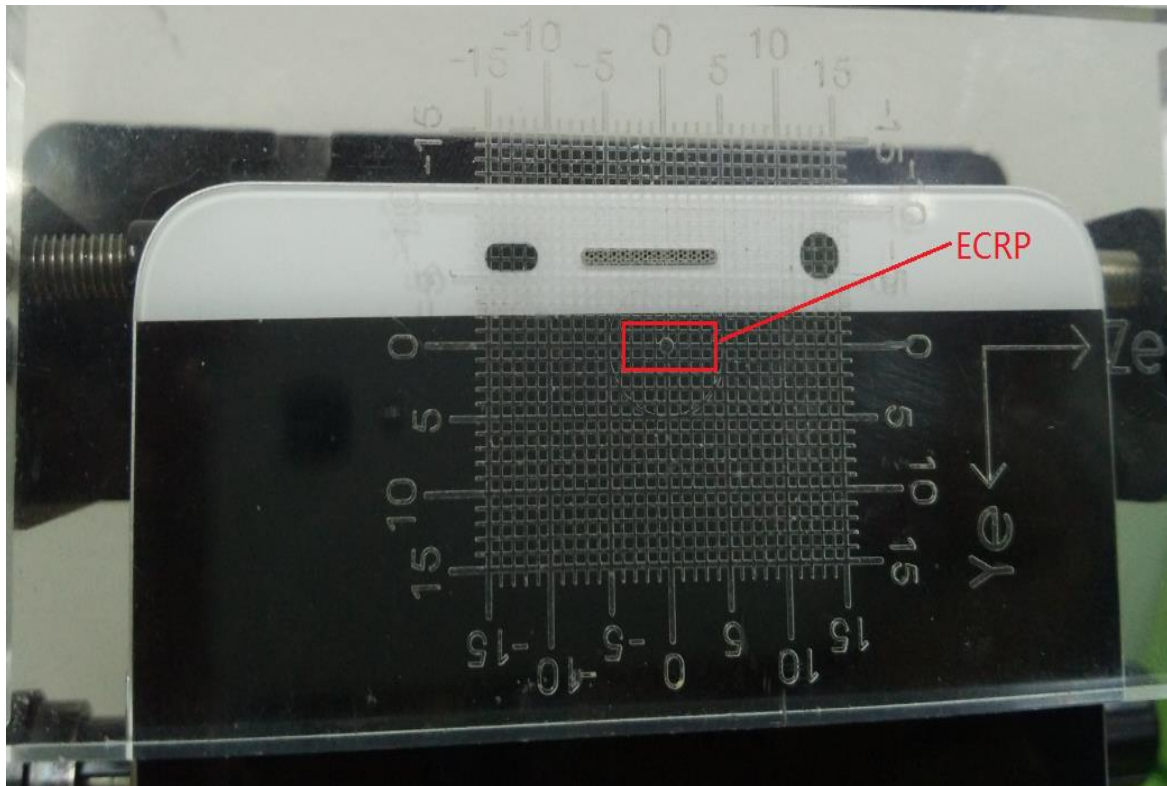


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■ 测试注意事项：

■ VoLTE Acoustics测试注意事项

- 手柄模式测试，手机听筒的中心位置一般对准耳承参考点(ECRP)。如果厂商使用其它位置对准耳承参考点，请提供这一位置信息，避免测试结果和厂商的校准结果出现较大的偏差。

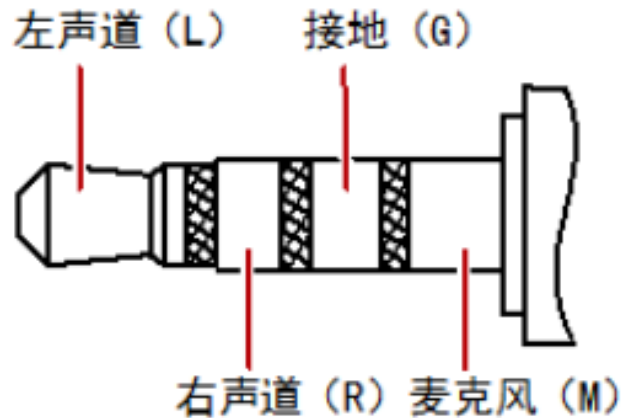


Axis	Delta(mm)
Ye	-6
Ze	-1

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- VoLTE MOS测试注意事项

- 手机在进行MOS测试前，必须先进行此仪表的音频校准case，目的是将记录的音频质量最好的值，登记在UE的profile文件中最为参考样本。如果在测试音频校准时，手机校准的数值一直在2分以下，请关注手机的耳机和接口是否为非美国标准。下图是Spirent设备的美标耳机插头：



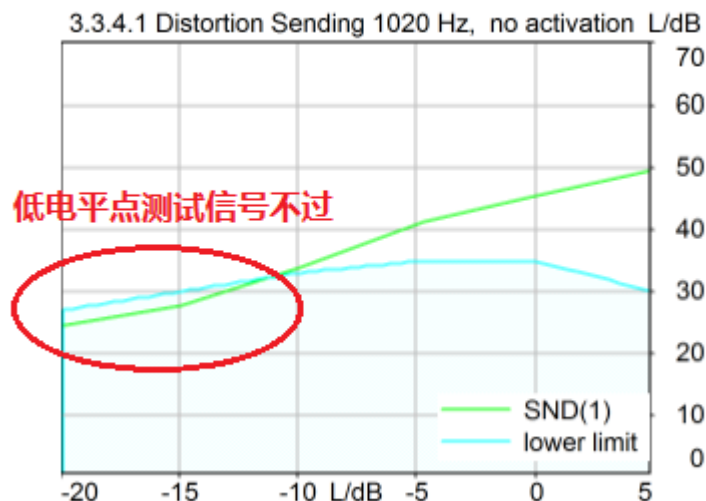
- 针对于Spirent MOS的eSRVCC的case，设备在运行eSRVCC的case前，会自动检测2G小区是否正常，此时需要观察SR3420的设备GSM小区的指示灯是否变绿，如果此指示灯没有变亮说明，2G的物理小区没有正常启动。此时，仪表的Test Manager会提示报错。

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■ 常见问题解答：

■ VoLTE Acoustics测试常见问题

- 测试用例5.1，手柄模式的发送失真测试不过。SLR、SFR调试好后，如果发送失真测试不过，通常是低电平点的信号测试不过。测试结果如下图所示：



可以参考下面的步骤来定位问题：在发送方向的音频处理通路上，关闭除增益之外的其它所有模块：

- 如果测试仍然不过，多半是手机硬件的问题，请抓QXDM Log或测量麦克风的输出来确认问题；
- 如果测试通过，则通过音频调试一般可以解决问题。逐个打开音频处理模块，找出导致测试不过的处理模块，调试参数，直到测试通过。通常需要检查噪声抑制和DRC模块。

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■ 测试用例8.1，手柄模式的发送端TMOS

该测试项可以参照下面的步骤来定位问题：在发送方向的音频处理通路上，关闭除增益之外的其它所有模块。调试增益使SLR满足要求，然后测试TMOS：

- 如果测试仍然不过，多半是手机硬件问题，请抓QXDM Log或测量麦克风的输出，来确认问题；
- 如果测试通过，则通过音频调试一般可以解决问题。建议参考下面的调试步骤：
 - a) 调试IIR，使SFR满足测试用例3.1的要求，同时TMOS得分在4.0左右。通常情况下，较平坦的SFR曲线，可以得到较高的TMOS。
 - b) 调试TX方向的增益，使SLR满足测试用例1.1的要求。
 - c) 调试DRC压缩器和扩展器参数，直到打开/关闭DRC，TMOS的差异 ≤ 0.2 ，SLR的差异 ≤ 0.5 。
 - d) 调使噪声抑制模块，使噪声抑制满足测试用例12.1的要求，同时TMOS得分也满足要求。

■ 测试用例8.2，手柄模式的接收端TMOS

该测试项可以参照下面的步骤来定位问题：在接收方向的音频处理通路上，关闭除增益之外的其它所有模块。调试增益使RLR满足要求，然后测试TMOS：

- 如果测试仍然不过，多半是手机硬件问题，请抓QXDM Log并测量Receiver的输出，来确认问题；
- 如果测试通过，则通过音频调试一般可以解决问题。建议参考下面的调试步骤：
 - a) 调试IIR，使RFR满足测试用例3.2的要求，同时TMOS得分在3.5左右。通常情况下，较平坦的RFR曲线，可以得到较高的TMOS。

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- b) 调试RX方向的增益，使RLR满足测试用例1.2的要求。
- c) 调试DRC压缩器和扩展器参数，直到打开/关闭DRC，TMOS的差异 ≤ 0.2 ，RLR的差异 ≤ 0.5 。

■ VoLTE MOS测试常见问题

- 对于7.1章节的用例，如果出现失败，需要分成以下几种情况分别处理：
 - 出现系统提示 platform error → 需要确认所选择的platform 是否正确，在这章节，需要选择的platform是后缀为dedicated 的 platform；
 - 出现长时间的不注册网络的问题--- 请检查射频线的连接是否正确；
 - 出现用例MOS分数低导致的失败--- 考虑到这个章节与射频关系较大，需要再次确认射频线的连接，包括系统到屏蔽盒，屏蔽盒到手机。
- 对于7.2章节的用例，若出现下行测试结果正常但是上行结果很差的情况→ 确认手机的耳机配置使用的是否为美标。如果是美标，那么请确认耳机有没有插到底。
- 对于7.4章节的用例，若出现在运行过程中无法建立通话的情况→ 确认手机的数据业务是否关闭。
- 对于7.6章节的用例（ 7.6.1 intra-LTE HO, 7.6.2 LTE to GSM SRVCC ）：
 - 若出现切换失败的情况→请确认各射频口支持的频段，确保射频接口连接正确。
 - 若出现eSRVCC到GSM失败的情况→请确认UI上是否选择支持GSM的网络模式。

IMS Protocol Failure owing to PANI Mismatch

- Issue Description
 - While testing IMS protocol cases (3GPP TS 34.229-1) which have MO/MT call, TE will check whether P-Access-Network-Info (PANI) is present in ACK message header.
 - Some PLs will add PANI header into ACK message, which causes MO/MT call related cases fail.
- Affected Test Cases:
 - TC12.2/12.12/15.8/15.11/15.27/15.28.
- Default ACK message definition for call setup (34.229-1 A2.7):

Header/ <u>param</u>	Cond	Value/remark	<u>Rel</u>	Reference
Request-Line Method Request-URI SIP-Version	A4	ACK same value as in PRACK message same value as in INVITE message SIP/2.0		RFC 3261 [15]
...
Max-Forwards value		non-zero value		RFC 3261 [15]
P-Access-Network-Info		must not be present		RFC 3455 [18]
Session-ID <u>sess-id</u>		same value as in INVITE message, if Session-ID header field exists in received INVITE message, otherwise, not present.		draft-kaplan-dispatch-session-id [115]
Content-Length value		0		RFC 3261 [15]

IMS Protocol Failure owing to PANI Mismatch

■ Screenshot of Anite TE verdict:

The screenshot displays the Anite TE verdict interface, showing a comparison between a Received Message and an Expected Message. The interface is divided into two main panels, each with a 'Received Message' and an 'Expected Message' section. The 'Received Message' section on the left shows a 'MESSAGE_MISMATCH' error, while the 'Expected Message' section on the right shows a 'MESSAGE_MISMATCH' error. The 'Received Message' section is expanded, showing details for the 'requestLine', 'msgHeader', 'contentLength', 'cSeq', and 'fromField' fields. The 'Expected Message' section is also expanded, showing details for the 'requestLine', 'msgHeader', 'contentLength', 'cSeq', and 'fromField' fields. The 'requestLine' field is highlighted in yellow in both panels. The 'msgHeader' field is expanded in both panels, showing details for 'accept', 'acceptContact', 'acceptEncoding', 'acceptLanguage', 'alertInfo', 'allow', 'allowEvents', 'authenticationInfo', 'authorization', 'callId', 'callInfo', 'contact', 'contentDisposition', 'contentEncoding', 'contentLanguage', 'contentType', 'date', 'errorInfo', 'event', 'expires', 'featureCaps', 'fromField', 'geolocation', 'historyInfo', 'infoPackage', 'inReplyTo', 'maxForwards', 'mimeVersion', 'minExpires', 'minSE', 'organization', 'pAccessNetworkInfo', 'pAssertedID', 'pAssertedService', 'pAssociatedURI', 'path', and 'pCalledPartyID'. The 'contentLength' field is highlighted in yellow in both panels. The 'cSeq' field is expanded in both panels, showing details for 'date', 'errorInfo', 'event', 'expires', 'featureCaps', 'fromField', 'geolocation', 'historyInfo', 'infoPackage', 'inReplyTo', 'maxForwards', 'mimeVersion', 'minExpires', 'minSE', 'organization', 'pAccessNetworkInfo', 'pAssertedID', 'pAssertedService', 'pAssociatedURI', 'path', and 'pCalledPartyID'. The 'fromField' field is expanded in both panels, showing details for 'date', 'errorInfo', 'event', 'expires', 'featureCaps', 'fromField', 'geolocation', 'historyInfo', 'infoPackage', 'inReplyTo', 'maxForwards', 'mimeVersion', 'minExpires', 'minSE', 'organization', 'pAccessNetworkInfo', 'pAssertedID', 'pAssertedService', 'pAssociatedURI', 'path', and 'pCalledPartyID'. The 'pAccessNetworkInfo' field is highlighted in yellow in both panels. The 'pAccessNetworkInfo' field is expanded in both panels, showing details for 'fieldName', 'accessType', 'genericParam', 'pAssertedID', 'pAssertedService', 'pAssociatedURI', 'path', and 'pCalledPartyID'. The 'fieldName' field is highlighted in red in the 'Received Message' section, and the 'accessType' field is highlighted in red in the 'Expected Message' section. The 'genericParam' field is expanded in both panels, showing details for 'date', 'errorInfo', 'event', 'expires', 'featureCaps', 'fromField', 'geolocation', 'historyInfo', 'infoPackage', 'inReplyTo', 'maxForwards', 'mimeVersion', 'minExpires', 'minSE', 'organization', 'pAccessNetworkInfo', 'pAssertedID', 'pAssertedService', 'pAssociatedURI', 'path', and 'pCalledPartyID'.

Received Message

Summary: Message Mismatch: IMS_DATA_REQ.Request.Ack.msgHeader.pAccessNet

Overview: Protocol: TTCN-3, Version: Version 1, Record: MESSAGE_MISMATCH

Fields

summary: Message Mismatch: IMS_DATA_REQ.Request.Ack.msgHeader.pAccessNet

MESSAGE_MISMATCH

Message Mismatch: IMS_DATA_REQ.Request.Ack.msgHeader.pAccessNet

RoutingInfo

Request

Ack

requestLine

msgHeader

accept: Omit

acceptContact: Omit

acceptEncoding: Omit

acceptLanguage: Omit

alertInfo: Omit

allow: Omit

allowEvents: Omit

authenticationInfo: Omit

authorization: Omit

callId

callInfo: Omit

contact: Omit

contentDisposition: Omit

contentEncoding: Omit

contentLanguage: Omit

contentType: Omit

cSeq

date: Omit

errorInfo: Omit

event: Omit

expires: Omit

featureCaps: Omit

fromField

geolocation: Omit

Expected Message

Summary: Message Mismatch: IMS_DATA_REQ.Request.Ack.msgHeader.pAccessNet

Overview: Protocol: TTCN-3, Version: Version 1, Record: MESSAGE_MISMATCH

Fields

summary: Message Mismatch: IMS_DATA_REQ.Request.Ack.msgHeader.pAccessNet

MESSAGE_MISMATCH

Message Mismatch: IMS_DATA_REQ.Request.Ack.msgHeader.pAccessNet

RoutingInfo

Request

Ack

requestLine

msgHeader

accept: AnyOrOmit

acceptContact: AnyOrOmit

acceptEncoding: AnyOrOmit

acceptLanguage: AnyOrOmit

alertInfo: AnyOrOmit

allow: AnyOrOmit

allowEvents: AnyOrOmit

authenticationInfo: AnyOrOmit

authorization: AnyOrOmit

callId

callInfo: AnyOrOmit

contact: AnyOrOmit

contentDisposition: AnyOrOmit

contentEncoding: AnyOrOmit

contentLanguage: AnyOrOmit

contentType: AnyOrOmit

cSeq

date: AnyOrOmit

errorInfo: AnyOrOmit

event: AnyOrOmit

expires: AnyOrOmit

featureCaps: AnyOrOmit

fromField

geolocation: AnyOrOmit

historyInfo: AnyOrOmit

infoPackage: AnyOrOmit

inReplyTo: AnyOrOmit

maxForwards

mimeVersion: AnyOrOmit

minExpires: AnyOrOmit

minSE: AnyOrOmit

organization: AnyOrOmit

pAccessNetworkInfo

fieldName: p_ACCESS_NETWORK_INFO.E (65)

accessType: 3GPP-E-UTRAN-TDO

genericParam

GenericParam

pAssertedID: Omit

pAssertedService: Omit

pAssociatedURI: Omit

path: Omit

pCalledPartyID: Omit

Received Message

alertInfo: Omit

allow: Omit

allowEvents: Omit

authenticationInfo: Omit

authorization: Omit

callId

callInfo: Omit

contact: Omit

contentDisposition: Omit

contentEncoding: Omit

contentLanguage: Omit

contentType: Omit

cSeq

date: Omit

errorInfo: Omit

event: Omit

expires: Omit

featureCaps: Omit

fromField

geolocation: Omit

geolocationRouting: Omit

historyInfo: Omit

infoPackage: Omit

inReplyTo: Omit

maxForwards

mimeVersion: Omit

minExpires: Omit

minSE: Omit

organization: Omit

pAccessNetworkInfo

fieldName: p_ACCESS_NETWORK_INFO.E (65)

accessType: 3GPP-E-UTRAN-TDO

genericParam

GenericParam

pAssertedID: Omit

pAssertedService: Omit

pAssociatedURI: Omit

path: Omit

pCalledPartyID: Omit

Expected Message

alertInfo: AnyOrOmit

allow: AnyOrOmit

allowEvents: AnyOrOmit

authenticationInfo: AnyOrOmit

authorization: AnyOrOmit

callId

callInfo: AnyOrOmit

contact: AnyOrOmit

contentDisposition: AnyOrOmit

contentEncoding: AnyOrOmit

contentLanguage: AnyOrOmit

contentType: AnyOrOmit

cSeq

date: AnyOrOmit

errorInfo: AnyOrOmit

event: AnyOrOmit

expires: AnyOrOmit

featureCaps: AnyOrOmit

fromField

geolocation: AnyOrOmit

geolocationRouting: AnyOrOmit

historyInfo: AnyOrOmit

infoPackage: AnyOrOmit

inReplyTo: AnyOrOmit

maxForwards

mimeVersion: AnyOrOmit

minExpires: AnyOrOmit

minSE: AnyOrOmit

organization: AnyOrOmit

pAccessNetworkInfo

fieldName: p_ACCESS_NETWORK_INFO.E (65)

accessType: 3GPP-E-UTRAN-TDO

genericParam

GenericParam

pAssertedID: AnyOrOmit

pAssertedService: AnyOrOmit

pAssociatedURI: AnyOrOmit

path: AnyOrOmit

pCalledPartyID: AnyOrOmit

IMS Protocol Failure owing to PANI Mismatch

- UE log snippet:

2015 Jan 5 14:38:38.579 [5B] 0x156E IMS SIP Message

```
Version = 1
Direction = UE_TO_NETWORK
SDP Presence = 0
SIP Call ID Length = 49
SIP Message Length = 601
SIP Message Logged Bytes = 602
Message ID = IMS SIP ACK
Response Code = INFORMAL_RESPONSE (0)
CM Call ID = 7
SIP Call ID = 697322481_2355629240@3000::2:a602:f48c:c917:91ec
Sip Message = ACK sip:1234;phone-context=test.3gpp.com@test.3gpp.com;user=phone SIP/2.0
Via: SIP/2.0/TCP [3000::2:a602:f48c:c917:91ec]:8903;branch=z9hG4bK4064420750
From: <sip:001010123456789@ims.mnc001.mcc001.3gppnetwork.org>;tag=697322492
To: <sip:1234;phone-context=test.3gpp.com@test.3gpp.com;user=phone>;tag=abc-INVITE-Totag
Call-ID: 697322481_2355629240@3000::2:a602:f48c:c917:91ec
CSeq: 697322481 ACK
Content-Length: 0
Max-Forwards: 70
Route: <sip:[fd29:cc43:7fb9:2:20c:29ff:fe66:b4c71:5062:lr]>.<sip:scscf.3gpp.org;lr>
P-Access-Network-Info: 3GPP-E-UTRAN-FDD; utran-cell-id-3gpp=0010100010000100
```

- Solution:

- We have **CR930114** to solve this P-Acess-Network-Info mismatch issue.

CMCC关于MTBF、续航、音频以及屏幕性能质量指标要求更新

- 根据CMCC最新要求，为进一步提升定制终端上市质量，保证定制终端良好的用户口碑及使用体验，对MTBF、续航、音频及屏幕性能质量指标进行了更新，具体如下：
 - MTBF：普通机型由250小时调整为300小时，超过2500元以上机型由350小时调整为400小时，具体算法，5台LTE手机（VoLTE手机为3台VoLTE+2台LTE组合）运行7X24小时，问题数3个对应300小时MTBF值，问题数2个对应400小时MTBF值。
 - 续航：续航性能要求调整为19小时。
 - 音频、屏幕及摄像头相关更新请参考最新测试用例。
- 上述要求中，MTBF及续航自2016年1月4日起初测终端开始要求。音频、屏幕及摄像头相关要求自2016年3月第一周初测终端开始要求。

CMCC测试用例调整内容

■ 一、业务应用部分：

■ (1) WLAN：

- 删除用例7条，原用例编号：
WLAN-0071、WLAN-0072、WLAN-0110、WLAN-0111、WLAN-0112、
WLAN-0113、WLAN-0114；
- 802.11n相关用例调整6条，用例级别变为必选用例：
WLAN-0121、WLAN-0126、WLAN-0130、WLAN-0137、WLAN-0141、
WLAN_0222；

■ (2) 本地功能：

- 1. 删除用例65条：
5.2.3.1 TS-NATIVEFUNC-RADIO-FREQ-000001、5.2.3.2 TS-NATIVEFUNC-RADIO-BASIC-000001、TS-NATIVEFUNC-RADIO-BASIC-000002、TS-NATIVEFUNC-RADIO-BASIC-000003、
5.2.3.3 TS-NATIVEFUNC-RADIO-LIST-000001、TS-NATIVEFUNC-RADIO-LIST-000002、TS-NATIVEFUNC-RADIO-LIST-000003、TS-NATIVEFUNC-RADIO-LIST-000004、TS-NATIVEFUNC-MASSAGE-MANAGE-000021、TS-NATIVEFUNC-CONTACT-VCARD-000004、
TS-NATIVEFUNC-CALCULATOR-BASIC-000003、TS-NATIVEFUNC-CALCULATOR-BASIC-000004、TS-NATIVEFUNC-LOCALSEARCH-SEARCH-000007、TS-NATIVEFUNC-TEXT-EDIT-000004、TS-NATIVEFUNC-TEXT-EDIT-000005、TS-NATIVEFUNC-TEXT-EDIT-000006、TS-NATIVEFUNC-TEXT-EDIT-000007、TS-NATIVEFUNC-TEXT-EDIT-000002、TS-NATIVEFUNC-TEXT-BROWSE-000002、TS-NATIVEFUNC-TEXT-BROWSE-000003、TS-NATIVEFUNC-TEXT-BROWSE-000004、TS-NATIVEFUNC-TEXT-BROWSE-000005、TS-NATIVEFUNC-WORLDCLO-BASIC-000004、TS-NATIVEFUNC-AUDIO-FORMAT-000002、TS-NATIVEFUNC-VEDIO-FORMAT-000002视频格式6条、TS-NATIVEFUNC-RECORDER-RECORD-000002录音4

CMCC测试用例调整内容

条、TS-NATIVEFUNC-PHOTOCAMERA-OPERATION-000002相机13条、5.2.6.2 TS-NATIVEFUNC-VEDIOCAMERA-SET-000001、TS-NATIVEFUNC-FILE-BASIC-000003文件目录9条、TS-NATIVEFUNC-PICTURE-FORMAT-000002图片3条、TS-NATIVEFUNC-TEXT-BROWSE-000002文本查看9条，用例中黄色标注部分，正式发布中将删除）；

- 调整用例27条：

（TS-NATIVEFUNC-SCHEDULE-OPERATION-000007、TS-NATIVEFUNC-SCHEDULE-OPERATION-000010、TS-NATIVEFUNC-ALARMCLO-BASIC-000006、TS-NATIVEFUNC-ALARMCLO-BASIC-000011、TS-NATIVEFUNC-STOPWATCH-BASIC-000005、5.1.4 TS-NATIVEFUNC-WORLDCLO-BASIC-000001、TS-NATIVEFUNC-WORLDCLO-BASIC-000002、5.2.1.1 TS-NATIVEFUNC-AUDIO-FORMAT-000001、TS-NATIVEFUNC-AUDIO-PLAY-000002、TS-NATIVEFUNC-AUDIO-PLAY-000003、TS-NATIVEFUNC-AUDIO-PLAY-000004、TS-NATIVEFUNC-AUDIO-LIST-000004、5.2.2.1 TS-NATIVEFUNC-VEDIO-FORMAT-000001、TS-NATIVEFUNC-VEDIO-FORMAT-000004、5.2.4.1 TS-NATIVEFUNC-RECORDER-FORMAT-000001、5.2.4.2 TS-NATIVEFUNC-RECORDER-RECORD-000001、TS-NATIVEFUNC-PHOTOCAMERA-SET-000002、TS-NATIVEFUNC-PHOTOCAMERA-SET-000003、TS-NATIVEFUNC-FILE-BASIC-000002、5.3.1.2 TS-NATIVEFUNC-FILE-OPERATION-000001、TS-NATIVEFUNC-FILE-OPERATION-000008、5.3.2.1 TS-NATIVEFUNC-PICTURE-FORMAT-000001、TS-NATIVEFUNC-PICTURE-BROWSE-000002、5.3.3.1 TS-NATIVEFUNC-TEXT-BROWSE-000001、5.3.3.2 TS-NATIVEFUNC-TEXT-EDIT-000001、TS-NATIVEFUNC-TEXT-EDIT-000003、TS-NATIVEFUNC-APP-OPERATION-000002、TS-NATIVEFUNC-CALCULATOR-BASIC-000002、TS-NATIVEFUNC-APP-OPERATION-000002、TS-NATIVEFUNC-CALCULATOR-BASIC-000002、TS-NATIVEFUNC-EMAIL-BASIC-000002，用例中红色标注部分，请关注）；

- **(3) 彩信：**

- 删除用例3条（MMS_0014、MMS_0071、MMS_0074）；

CMCC测试用例调整内容

- **(4) 宽带互联网 :**

- 删除用例28条 :

Browser_0001 ; Browser_0002 ; Browser_0003 ; Browser_0026 ;
Browser_0027 ; Browser_0028 ; Browser_0040 ; Browser_0041 ;
Browser_0042 ; Browser_0043 ; Browser_0044 ; Browser_0045 ;
Browser_0046 ; Browser_0047 ; Browser_0048 ; Browser_0050 ;
Browser_0052 ; Browser_0053 ; Browser_0069 ; Browser_0070 ;
Browser_0072 ; Browser_0074 ; Browser_0075 ; Browser_0076 ;
Browser_0077 ; Browser_0114 ; Browser_0119 ; Browser_0173 ;

- **(5) 流媒体 :**

- 删除用例10条 :

Streaming_0001 ; Streaming_0002 ; Streaming_0003 ; Streaming_0004 ;
Streaming_0005 ; Streaming_0006 ; Streaming_0007 ; Streaming_0008 ;
Streaming_0009 ; Streaming_0010 ;

- **二、软件可靠性部分 :**

- **(6) LTE发热 :**

- 调整用例24条(TR_0001-TR_0024) , 测试过程不变 , 预期结果全部调整 ;

- **(7) LTE功耗 :**

- 删除用例16条(PC_TDL_0001-PC_TDL_0013、 PC_TDL_0047-PC_TDL_0049) ;

CMCC测试用例调整内容

■ 三、无线通信部分：

■ (8) 2/3G协议一致性：

- 该模块删除；

■ (9) TDS-RRM：

- 删除用例 (33条)

TDS-RRM-001 ; TDS-RRM-005 ; TDS-RRM-006 ; TDS-RRM-007 ;
TDS-RRM-010 ; TDS-RRM-011 ; TDS-RRM-012 ; TDS-RRM-013 ;
TDS-RRM-015 ; TDS-RRM-016 ; TDS-RRM-017 ; TDS-RRM-018 ;
TDS-RRM-019 ; TDS-RRM-023 ; TDS-RRM-025 ; TDS-RRM-026 ;
TDS-RRM-027 ; TDS-RRM-028 ; TDS-RRM-029 ; TDS-RRM-032 ;
TDS-RRM-033 ; TDS-RRM-034 ; TDS-RRM-035 ; TDS-RRM-037 ;
TDS-RRM-038 ; TDS-RRM-041 ; TDS-RRM-042 ; TDS-RRM-043 ;
TDS-RRM-044 ; TDS-RRM-046 ; TDS-RRM-047 ; TDS-RRM-048 ;
TDS-RRM-049 ;

■ (10) TDS-协议一致性：

- 删除413条用例 (不——列出) , 保留15条用例；

■ (11) TDS射频一致性：

- 删除43条用例，编号：

TDS-RF-008 ; TDS-RF-010 ; TDS-RF-011 ; TDS-RF-015 ; TDS-RF-016 ;

CMCC测试用例调整内容

TDS-RF-017 ; TDS-RF-019 ; TDS-RF-020 ; TDS-RF-022 ; TDS-RF-024 ;
TDS-RF-025 ; TDS-RF-026 ; TDS-RF-027 ; TDS-RF-029 ; TDS-RF-030 ;
TDS-RF-031 ; TDS-RF-032 ; TDS-RF-033 ; TDS-RF-034 ; TDS-RF-036 ;
TDS-RF-037 ; TDS-RF-038 ; TDS-RF-039 ; TDS-RF-040 ; TDS-RF-041 ;
TDS-RF-042 ; TDS-RF-043 ; TDS-RF-044 ; TDS-RF-046 ; TDS-RF-047 ;
TDS-RF-048 ; TDS-RF-049 ; TDS-RF-050 ; TDS-RF-051 ; TDS-RF-052 ;
TDS-RF-053 ; TDS-RF-054 ; TDS-RF-056 ; TDS-RF-057 ; TDS-RF-058 ;
TDS-RF-059 ; TDS-RF-060 ; TDS-RF-061

- **(15) 联合检测 :**

- 删除13条用例 , 编号 :

MCJD-10002 ; MCJD-10003 ; MCJD-10004 ; MCJD-10005 ; MCJD-10007 ;
MCJD-10009 ; MCJD-10011 ; MCJD-10012 ; MCJD-10013 ; MCJD-10014 ;
MCJD-10015 ; MCJD-10016 ; MCJD-10018 ;

- **(16) LTE协议一致性 :**

- 1.新增用例58条 :

LTE-TDD_0434 , LTE-TDD_0435 , LTE-TDD_0436 , LTE-TDD_0437 ,
LTE-TDD_0438 , LTE-TDD_0439 , LTE-TDD_0440 , LTE-TDD_0441 ,
LTE-TDD_0442 , LTE-TDD_0443 , LTE-TDD_0444 , LTE-TDD_0445 ,
LTE-TDD_0446 , LTE-TDD_0447 , LTE-TDD_0448 , LTE-TDD_0449 ,
LTE-TDD_0450 , LTE-TDD_0451 , LTE-TDD_0452 , LTE-TDD_0453 ,

CMCC测试用例调整内容

LTE-TDD_0454 , LTE-TDD_0455 , LTE-TDD_0456 , LTE-TDD_0457 ,
LTE-TDD_0458 , LTE-TDD_0459 , LTE-TDD_0460 , LTE-TDD_0461 ,
LTE-TDD_0462 , LTE-TDD_0463 , LTE-TDD_0464 , LTE-TDD_0465 ,
LTE-TDD_0466 , LTE-TDD_0467 , LTE-TDD_0468 , LTE-TDD_0469 ,
LTE-TDD_0470 , LTE-TDD_0471 , LTE-TDD_0472 , LTE-TDD_0473 ,
LTE-TDD_0474 , LTE-TDD_0475 ;

- 2.删除用例5条

(用例编号：LTE-TDD-0434 , LTE-TDD-0435 , LTE-TDD-0436 , LTE-TDD-0437 ,
LTE-TDD-0438)

- **(17) LTE_RRM :**

- 新增用例14条：

LTE-RRM_0107 , LTE-RRM_0108 , LTE-RRM_0109 , LTE-RRM_0110 ,
LTE-RRM_0111 , LTE-RRM_0112 , LTE-RRM_0113 , LTE-RRM_0114 ,
LTE-RRM_0115 , LTE-RRM_0116 , LTE-RRM_0117 , LTE-RRM_0118 ,
LTE-RRM_0119 , LTE-RRM_0120 ;

- **(18) CA LTE RF :**

- 1. 新增9条用例：

CA-LTE-RF-10029、CA-LTE-RF-10030、CA-LTE-RF-10031、CA-LTE-RF-10032、
CA-LTE-RF-10033、CA-LTE-RF-10034、CA-LTE-RF-10035、CA-LTE-RF-10036、
CA-LTE-RF-10037 ;

CMCC测试用例调整内容

- 2. 删除12条用例：

CA-LTE-RF-10009 , CA-LTE-RF-10010 , CA-LTE-RF-10011 , CA-LTE-RF-10012 ,
CA-LTE-RF-10013 , CA-LTE-RF-10014 , CA-LTE-RF-10015 , CA-LTE-RF-10024 ,
CA-LTE-RF-10025 , CA-LTE-RF-10026 , CA-LTE-RF-10027 , CA-LTE-RF-10028 ;

- **(19) CA LTE RRM :**

- 1.新增用例7条：

CA-LTE-RRM_0015 , CA-LTE-RRM_0016 , CA-LTE-RRM_0017 , CA-LTE-RRM_0018 ,
CA-LTE-RRM_0019 , CA-LTE-RRM_0020 , CA-LTE-RRM_0021;

- 2. 删减用例一条：CA-LTE-RRM_0010;

- **(20) CA LTE 协议一致性：**

- 新增用例16条：

LTE-CA-0023 , LTE-CA-0024 , LTE-CA-0025 , LTE-CA-0026 , LTE-CA-0027 ,
LTE-CA-0028 , LTE-CA-0029 , LTE-CA-0030 , LTE-CA-0031 , LTE-CA-0032 ,
LTE-CA-0033 , LTE-CA-0034 , LTE-CA-0035 , LTE-CA-0036 , LTE-CA-0037 ,
LTE-CA-0038 ;

- **(21) CA NS-IOT：**

- 新增用例23条：

CA-NS-IOT_0192、 CA-NS-IOT_0193、 CA-NS-IOT_0193、 CA-NS-IOT_0194、
CA-NS-IOT_0194、 CA-NS-IOT_0195、 CA-NS-IOT_0196、 CA-NS-IOT_0197、
CA-NS-IOT_0198、 CA-NS-IOT_0199、 CA-NS-IOT_0200、 CA-NS-IOT_0201、

CMCC测试用例调整内容

CA-NS-IOT_0202、CA-NS-IOT_0203、CA-NS-IOT_0204、CA-NS-IOT_0205、CA-NS-IOT_0206、CA-NS-IOT_0207、CA-NS-IOT_0208、CA-NS-IOT_0209、CA-NS-IOT_0210、CA-NS-IOT_0211、CA-NS-IOT_0212、CA-NS-IOT_0213、CA-NS-IOT_0214；(之前已发布过)

- **(22) VoLTE NV-IOT :**

- 删除VoLTE NV-IOT_0002_4等28条用例，模板“中国移动终端测试-VoLTE NV-IOT.xlsx”中黄色部分标注。

- **四、硬件可靠性**

- **(23) VoLTE MOS :**

- 新增12条用例：

AUDIO-VOLTE_0251 , AUDIO-VOLTE_0254 , AUDIO-VOLTE_0257 ,
AUDIO-VOLTE_0260 , AUDIO-VOLTE_0219 , AUDIO-VOLTE_0220 ,
AUDIO-VOLTE_0221 , AUDIO-VOLTE_0222 , AUDIO-VOLTE_0223 ,
AUDIO-VOLTE_0224 , AUDIO-VOLTE_0215 , AUDIO-VOLTE_0226。

其他模块本次暂无调整。

References

Documents	
Qualcomm Technologies, Inc.	
Title	DCN
高通Lab Test技术期刊--201509	/
高通Lab Test技术期刊--2015010	/
高通Lab Test技术期刊--2015011	/
高通Lab Test技术期刊--2015012	/

Questions?

<https://support.cdmatech.com>

