# Genie 操作指导手册

## 一、Genie 工具安装

Genie 为免安装工具, 可以通过共享域文件或其他方式获取 genie 安装文件 包。共享域: X:\Project\Quectel Wireless Solutions\Home - FAE Internal\04 Tools&Drivers\44 LOG\BC26&BC66(共享域内该工具命名为 nbiot),直接将共 享域内文件包下载到本地。直接点击 nbiot\tools\core\genie 中的 genie icon 图 标即可运行该工具,或者将图标发送至电脑桌面,创建快捷方式。



图 1: genie 工具 icon

### 二、驱动安装

通过共享域或其他方式获取模块串口驱动文件: xrusbser\_ver2200\_installer.EXE, 直接运行驱动文件, 安装完成后, 将模组通过 USB 连接线连接电脑,通过"设备管理器"查看端口和端口驱动安装情况。

上述串口驱动安装后查看端口状态仍然存在 CP2108xx 字段的驱动告警, 需要安装如下驱动文件:





Herbert Pan

#### 图 2: CP210x 驱动文件

安装后通过 USB 线连接串口和电脑时,端口驱动安装正常状态如下图 3:

| La 没备管理器   | _ | × |
|--|---|---|
| 文件(F) 操作(A) 查看(V) 帮助(H)  |   |   |
|  |   |   |
| V 📇 HF-FAE-N-DAMENG  |   | ^ |
| > 🏺 USB 连接器管理器   |   |   |
| > 🔐 安全设备   |   |   |
| > 🗖 处理器  |   |   |
| > 🔜 磁盘驱动器  |   |   |
| > 🍇 存储控制器  |   |   |
| > 💼 打印队列   |   |   |
| > 🤪 电池   |   |   |
| ✓ 賞 端口 (COM 和 LPT)   |   |   |
| 💭 Silicon Labs Quad CP2108 USB to UART Bridge: Interface 0 (COM11) |   |   |
| 💭 Silicon Labs Quad CP2108 USB to UART Bridge: Interface 1 (COM12) |   |   |
| 💭 Silicon Labs Quad CP2108 USB to UART Bridge: Interface 2 (COM23) |   |   |
| 💭 Silicon Labs Quad CP2108 USB to UART Bridge: Interface 3 (COM24) |   |   |
| > 🎽 固件   |   |   |
| > 🔜 计算机  |   | ~ |
|  |   |   |

#### 图 3: 驱动安装正常状态显示

BC26 基于 MTK 支持串口和 USB,因此需要再连接 BC26 的 USB 与电脑,

如下图 4。



#### 图 4: BC26 模组调测连接

连接完成后需要按 power\_key 按钮进行上电,上电后绿色网络灯(Netlight)

熄灭;设备端口如下图 5 所示,新增 Debug 和 Modem 口。

| 書 设备管理器  | - | × |
|--|---|---|
| 文件(E) 操作(A) 查看(V) 帮助(H)  |   |   |
|  |   |   |
| > 💼 打印队列   |   | ^ |
| > 🦢 电池   |   |   |
| ✔ 闡_端口 (COM 和 LPT)   |   |   |
| 💭 Silicon Labs Quad CP2108 USB to UART Bridge: Interface 0 (COM11) |   |   |
| 💭 Silicon Labs Quad CP2108 USB to UART Bridge: Interface 1 (COM12) |   |   |
| 🛱 Silicon Labs Quad CP2108 USB to UART Bridge: Interface 2 (COM23) |   |   |
| 💭 Silicon Labs Quad CP2108 USB to UART Bridge: Interface 3 (COM24) |   |   |
| 🛱 USB Debug Port (COM28)   |   |   |
| 💭 USB Modem Port (COM29)   |   |   |
| > 🎽 固件   |   |   |
| > 🔜 计算机  |   |   |
| > 🛄 监视器  |   |   |
| > 🔤 键盘   |   |   |
| > 🚯 蓝牙   |   |   |
| > 🔜 内存技术设备   |   | ~ |
| ,  |   |   |

图 5: BC26 power\_key 上电后端口状态显示

## 三、Genie 操作使用

#### 3.1 USB 调测口连接(不推荐使用)

在电脑桌面点击Genie,打开Genie显示如下图6窗口,选择"New config",

随后进入设置界面,如图7;

注: 使用 Ch A 串口, 执行如下两条指令:

| AT+EPORT=1,uls,5 | Switch HSL log to USB port |
|------------------|----------------------------|
| A+EPORT=1,emmi,4 | Switch GKI log to USB port |

- 1、GKI 对应 USB Modem Port;
- 2、HSL 对应 USB Debug Port;

3、波特率设置为 921600;

4、通过 QCOM 平台 ATI 指令查找固件版本号, Database 数据库加载模组固件

对应版本号解析文件 (.dec 文件);

5、文件保存路径设置及文件分割方式设置。

| 🆑 MTK Genie (General_Customer) 1.2102.5 : (Fragment Enable) |  |         | – 0 × |
|---|--|---------|-------|
| Config Log Edit View Filters Run Special Help               |  |         |       |
| 🖉 , 🔛 🗠 🖉 , 🔛 💩   012 FN 🕓 t   🕹 🔛 🖾 🥶 🎆 🚺 🚈                | ∉ →  |         |       |
|   |  |         |       |
|   |  |         |       |
|   |  |         |       |
|   |  |         |       |
|   |  |         |       |
|   |  |         |       |
|   |  |         |       |
|   |  |         |       |
|   |  |         |       |
|   | Genie X  |         |       |
|   |  |         |       |
|   | Please select one of the options below to start using Genie. |         |       |
|   | Open Contin New Contin Open SLP Close Genie                  |         |       |
| l   | open comp  |         |       |
|   |  |         |       |
|   |  |         |       |
|   |  |         |       |
|   |  |         |       |
|   | GKI Traces HSL Traces  |         |       |
|   | HSL Logging is not enabled in settings.                      |         |       |
|   |  |         |       |
|   |  |         |       |
|   |  |         |       |
|   |  |         |       |
| < >   | •  |         |       |
|   | Record 000000  | OFFLINE |       |



| WTK Genie (General Customer) 1.2102.5 : untitled.gni (Fragmen | t Enable)   |         | - 0 ×              |
|---|---|---------|--------------------|
| Config Log Edit View Filters Run Special Help                 | 7 1 1 A -   |         |                    |
|   | Settings  Settings Settings  Settin |         |                    |
|   | Record 000000   | OFFLINE | Tue 21/03/30 09:40 |

图 7: genie 设置

设置完成后,点击"OK"进入窗口如下图 8

| MTK Genie (General_Customer) 1.2102.5 : untitled.gni (Fragment Enable)  |                     |                |                   |              |         | - 0 ×                    |
|---|---------------------|----------------|-------------------|--------------|---------|--------------------------|
| A , □   A, □   A   012 FN (B)      C → □ [B]      C = [B]      C = [B]      C = [B]     C = [ | ∉ -                 |                |                   |              |         |                          |
|   | GKI Traces HSL Tra  |                |                   |              |         |                          |
|   | HSL Acquisition     | Status 🖉 🖹 Pl  | ,<br>ain Text HSI |              |         |                          |
|   | 🛔 🖣 Freeze 🛛 📄 🚊 Ir | ndentation 📕 L | og to Text        | - Find Text: |         | ↓ Next ↑ Previous Title: |
|   | LocalTine           | Time Stamp     | St ID             | Group        | Text    |                          |
| < >>  | <                   |                |                   |              |         | >                        |
|   | Record 000000       |                |                   |              | OFFLINE | Tue 21/03/30 11:24       |



Filters 过滤器设置:通过选项栏 Filters→Edit Filter,显示如下图 9,根据需

### 要设置过滤条件。

| WIK Genie (General_Customer) 1.2102.5 : untitled.gni (Fra<br>Config Log Edit View Filters Run Special Help | gment Enable)  |  | - 5 ×              |
|--|--|--|--------------------|
| 0, 🔛 触 0, 🔛 🕭 012 FN 🕓 🕹 😔   | 🕼 🥶 🎆 🚹 📶 🕴 👻  |  |                    |
|  | Signal Filter - untitled       Signals Format       Find Signals       Signal Bases       Id       Name       000000       Signals Exect       Id       Name       000000       Signals Exect       Id       Name       000000       Signals Exect       Id       Name       000000       Signals       Id       Name       000000       000000       Signals       Id       Name       000000       000000       Signals       Id       Name       000000       Id       Name       000000       Id       Name       Id       Id       Name       Id       Id | ? X<br>nding)<br>Example Text<br>Example Text<br>Exa | xt                 |
| <  | Record 000000  | OFFLINE  | Tue 21/03/30 11:37 |

图 9: genie filter 消息过滤器设置

Filters 过滤器设置后,"确定",点击下图 10 所示位置图标,开始抓取 LOG 日志。

| WITK Genie (General Customer) 1.2102.5 : untitled.gni (Fragment Enable)  | - 5 ×  |
|--|--|
|  | 🔟 🖉 🗸 👉 点击开始抓取LOG  |
| 144444     ▶ ▶ ▶ ▶       2021-03-30     11:51:35.829   00:00:01.510   TestFileOut       2021-03-30     11:51:35.829   00:00:00.000   Start | Record Number 1         TaskIdTag       directives.source         TaskIdTag       directives.dest         unsigned long       frameNumber         unsigned long       time         unsigned long       time         unsigned long       length         string       downord         SignalIdTag       d         String       body.testFileOut.string         Reside check whether the target has asserted;       (1) Flease check whether the COM port is intact;         (3) Flease contact Mediatek Tools Team 1°;       frame 1°; |
|  | GKI Traces HSL Traces  |
|  | 📴 Plugins 🔎 Find All 🗃 Run Log   |
|  | HSL Acquisition Status   |
|  | 🖞 Freeze 📓 🚡 Indentation 🐌 Log to Text 👻 Find Text: 🕴 🖡 Next 🕆 Previous Title:   |
|  | LocalTine Time Stamp St ID Group Text  |
| <  |  |

图 10: genie filter 消息过滤器设置

上述通过 USB 调测口进行连接,在获取 LOG 日志时如果无法正常运行,可能由于连接 USB 端口导致组件电压不稳所致,建议尝试 COM 串口连接方式。

### 3.2 COM 串口连接

▶ 相关 LOG 输出配置指令:

| AT CMD            | 描述                        |
|-------------------|---------------------------|
| AT+EPORT=1,ULS,5  | HSL Log 切换到 USB 端口输出      |
| AT+EPORT=1,EMMI,4 | GKI Log 切换到 USB 端口输出      |
| AT+EPORT=1,ULS,2  | HSL Log 切换到 UART 端口输出     |
| AT+EPORT=1,EMMI,1 | GKI Log 切换到 UART 端口输出     |
| AT+EPORT=3,2,13   | HSL Log 输出端口波特率更改为 3M     |
| AT+EPORT=3,1,13   | GKI Log 输出端口波特率更改为 3M     |
| AT+EPORT=3,2,12   | HSL Log 输出端口波特率更改为 921600 |
| AT+EPORT=3,1,12   | GKI Log 输出端口波特率更改为 921600 |

仅使用组件中的 COM 串口进行连接,如下图 11。



图 11: BC26 仅使用 COM 串口连接

通过"设备管理器"查看连接的 COM 串口状态,如下图 12。



#### 图 12: BC26 COM 串口状态

Genie 工具的组件连接配置项中 settings 的端口设置如下图 13。

注:模块串口波特率设置为 9600, genie 工具中的配置项波特率设置为

115200。

注: Database: 通过 AT 查看当前模块的固件版本号, 再通过下面路径:

X:\Project\Quectel Wireless Solutions\Home - Firmware\NB IoT\MTK2625 查

找对应版本的固件文件,下载到本地进行解压,最后 genie 中通过 "Browse"

### 选择相应的固件解析文件(xxx.dec)

| § Settings   | >                      |
|--|------------------------|
| UE Logging:  | Interface1             |
| GKI<br>COM12   Silicon Labs Quad CP2108 USB to UAI: ~  | 115200 ~               |
| COM23   Silicon Labs Quad CP2108 USB to UAF ~  | 115200 ~               |
| Database:  | Interface2             |
| e:\nb_firmware\bc26ncr01a07\bc26ncr01a07\custome   | er_db80033a-c5c Browse |
| Log Fragments  Enable Fragments  Root directory for acquisition files  %CURRENT_GENIE_EXE_PATH%\fragmentlog  Base name for captured files: Acquisition integer | Browse                 |
| genielog_1 20  |                        |
|  | UN Lancel              |

图 13: genie 仅 COM 串口连接设置

| 🚺 Device Statu | 🕻 Device Status Diagnostic – 🗆 🗙 🚺 Device Status Diagnostic – 🗆 X |               |               |   |               |          |          |               |               |     |
|----------------|---|---------------|---------------|---|---------------|----------|----------|---------------|---------------|-----|
| Module         | USIM Network  | Device Status | Configuration |   | Module        | USIM     | Network  | Device Status | Configuration | 1   |
| Band List      |   | No Response   |               |   | Band List     |          |          | 5             |               |     |
| RAT            |   | No Response   |               |   | RAT           |          |          | NBIOT         |               |     |
| PLMN Lock      |   | No Response   |               |   | PLMN Lock     |          | 1        | No Response   |               |     |
| Band Lock      |   | No Response   |               |   | Band Lock     |          |          | 5             |               |     |
| Freq Lock      |   | No Response   |               |   | Freq Lock     |          |          | Not Locked    |               |     |
|                |   |               |               |   |               |          |          |               |               |     |
|                |   |               |               |   |               |          |          |               |               |     |
|                |   |               |               |   |               |          |          |               |               |     |
| Copy To ClipBo | oard Screen Shot  | ]             | Refres        | h | Copy To ClipB | oard Scr | een Shot |               | Refr          | esh |

图 14: genie 设备连接状态诊断: 连接异常显示和连接正常显示

Genie 的消息过滤器 filter 设置,如下图 15,设置完成后"确认",然后点 击主窗口中的抓取 LOG 日志的图标,如下图 16,进行 LOG 日志获取。(在通 过 QCOM 进行 AT 指令操作时,建议在连接 genie 端口前,先连接 QCOM 串口)。





| WITK Genie (General_Customer) 1.2102.5 : untitled.gni (Fragment Enable) |             |             |                        |                |               |               |                 |                       | - 0 ×             |
|---|-------------|-------------|------------------------|----------------|---------------|---------------|-----------------|-----------------------|-------------------|
| Contig Log Edit View Hiters Run Special Help                            |             | 点击开始        | 治抓取LOG                 |                |               |               |                 |                       |                   |
| /, 🔛   🔍   /, 🔛   🕘   012 FN 🕓 😰 🖓 🔛 🚺 🛃 🖊 🕴 🕈 🗸                        |             |             |                        |                |               |               |                 |                       |                   |
| 144 44 4 I I I I I I I I I I I I I I I I                                | Record Num  | iber 6      | 51                     |                |               |               |                 |                       | ^                 |
| 2021-04-01 08-53-28 788   00-02-07 730   ErrcDebugStateChangeInd A      | TaskIdTag   |             |                        | directive      | s.source      |               |                 | = MM_TASK_ID 0        | x0501 ;           |
| 2021-04-01 08:53:29:799   00:02:07:730   EricbebugStatechangeind        | unsigned 1  | ong         |                        | frameNumb      | s.dest<br>er  |               |                 | = 0x0000036f          | 879 :             |
| 2021-04-01 08:53:25.955   00:02:07.730   RphyReastrementconfigre        | unsigned 1  | ong         |                        | time           |               |               |                 | = 0x000031e5          | 12773 ;           |
| 2021-04-01 08:53:29.935   00:02:07.730   MudhumBeaveyStatusInd          | unsigned s  | hort        |                        | length         |               |               |                 | = 0x0196 40           | 6;                |
| 2021-04-01 08:53:29:971   00:02:07:730   ErrelindateReg                 | SignalIdTa  | a           | Second Contention      | 1.0102 E       | and and the   | and the state |                 | = STG FRRC HPT        | ATE REO OVOO      |
| 2021-04-01 08:53:29.971   00:02:07.730   Ericopulatered                 | Custome     | erLogger (G | eneral_Customer)       | 1.2102.5 : unt | itied.gni (Fr | agment Enab   | (e)             |                       |                   |
| 2021-04-01 08:53:29.971   00:02:07.730   Maddankesumerina               | 🖬 🕘   🔎     | Find All    | Module Filter          | 📂 Save to P    | capng 🛛 👛 🕻   | Open Pcapng   | 😵 SetWireSha    | ark                   |                   |
| 2021-04-01 08:53:29.971   00:02:07.730   MinSimConnectioning            | Logging     | List        |                        |                |               |               |                 |                       |                   |
| 2021-04-01 08:53:29.971   00:02:07.780   MabimwriteDataked              |             | T           | T 1 T /                |                |               |               |                 | <b>7</b>              |                   |
| 2021-04-01 08:53:29.971   00:02:07.740   MphySighaiLevelind             | Recordinum  | rramenum    | Locallime              |                | limestam      | b 17          | pe              | Irace                 |                   |
| 2021-04-01 08:53:29.971   00:02:07.740   Apexankssiind                  | 000257      | 000485      | 2021-04-01 08          | :53:12.711     | 00:01:45      | .270 51       | G_SYSLOG_T      | [T: 105370 M: PDN     | LINK C: info F:   |
| 2021-04-01 08:53:29.971   00:02:07.740   Marcsconing                    | 000258      | 000486      | 2021-04-01 08          | :53:12.727     | 00:01:45      | .270 51       | G_SYSLOG_T      | . [T: 105370 M: tel   | _conn_mgr C: info |
| 2021-04-01 08:55:29.971   00:02:07.740   ApexMmCsConing                 | 000259      | 000487      | 2021-04-01 08          | 153112.727     | 00:01:4-      | C Device Sta  | itus Diagnostic |                       | – 🗆 X             |
| 2021-04-01 08:53:29.971   00:02:07.740   ApexMmRssilnd                  | 000260      | 000488      | 2021-04-01 08          | .53:12.727     | 00:01:4       |               |                 |                       |                   |
| 2021-04-01 08:53:29.971   00:02:07.740   Arsahmodelina                  | 000262      | 000403      | 2021-04-01 08          | .53.12.727     | 00.01.4       | Module        | USIM N          | letwork Device Status | Configuration     |
| 2021-04-01 08:53:29.971   00:02:07.740   ApexMmRsslind                  | 000262      | 000490      | 2021-04-01 08          | .53.12.727     | 00.01.4       |               |                 |                       |                   |
| 2021-04-01 08:53:29.9/1   00:02:07.760   HimSimwriteDatachr             | 000264      | 000492      | 2021-04-01 08          | :53:12.727     | 00:01:4       | Band Lis      | t               | 5                     |                   |
| 2021-04-01 08:53:31.596   00:02:09.700   ErrcDeactivateRed              | 000265      | 000493      | 2021-04-01 08          | :53:12.727     | 00:01:4       |               |                 |                       |                   |
| 2021-04-01 08:53:31.596   00:02:09.700   ErrcDebugStateChangeInd        | 000311      | 000539      | 2021-04-01 08          | :53:14.320     | 00:01:4       | RA            | r               | NBIOT                 |                   |
| 2021-04-01 08:53:31.596   00:02:09.700   E12Configked                   |             |             |                        |                |               | PI MN Lee     |                 | Net Leeked            |                   |
| 2021-04-01 08:53:31.596   00:02:09.700   El2ConfigCnf                   | <           |             |                        |                |               | PLMIN LOC     | ĸ               | NOT LOCKED            |                   |
| 2021-04-01 08:53:31.596   00:02:09.700   NphyDeactivateReq              | Record Nu   | umber       | = 258                  |                |               | Band Loc      | k [             | 5                     |                   |
| 2021-04-01 08:53:31.596   00:02:09.700   MmrPsmStatusInd                | Source Ta   | ask         | = UNKNOWN_TAS          | K_ID           |               |               |                 |                       |                   |
| 2021-04-01 08:53:31.596   00:02:09.700   ApexMmPsmStatusInd             | Frame Num   | e<br>nber   | = 1651_TASK_1<br>= 486 | U              |               | Freq Loc      | k               | Not Locked            |                   |
| 2021-04-01 08:53:31.596   00:02:09.710   NphyDeactivateCnf              | Local Tir   | ne          | = 2021-04-01           | 08:53:12.7     | 27            |               |                 |                       |                   |
| 2021-04-01 08:53:31.596   00:02:09.710   ErrcDebugStateChangeInd        | Time        |             | = 00:01:45.27          | 0              |               |               |                 |                       |                   |
| 2021-04-01 08:53:31.596   00:02:09.710   ErrcDeactivateCnf              | Type        |             | = SIG_SYSLOG_          | TEST_FILE_     | OUT           |               |                 |                       |                   |
| 2021-04-01 08:53:31.596   00:02:09.710   MmdbmBearerStatusInd           | Trace Inf   | E0          | = [T: 105370 ]         | M: tel_cor     | in_mgr C      |               |                 |                       |                   |
| 2021-04-01 08:53:31.596   00:02:09.710   MmsmPsmStatusInd               | <           |             |                        |                |               |               |                 |                       |                   |
| 2021-04-01 08:53:32.393   00:02:10.560   ErrcDeepSleepReg v             | Current Sel | ect : Seque | nce No.(59/67)         | Record Num     | ber : 0002    |               |                 |                       |                   |
| < >>  | <           |             |                        |                |               | Copy To Cli   | Board Scree     | n Shot                | Refresh           |
| Record  | 000000      |             |                        |                |               |               | Dorec           |                       | JULY COM          |



# 四、Genie 中设备断开连接

如下图 17 所示,再次点击 "start test" 图标时表示断开设备连接,停止抓

## 取 LOG。

| MTK Genie (General_Customer) 1.2102.5 : C:\Users\herbert.pan\Desktop\untitle | ed.gni (Fra  | gment Enable)    |                          |             |         |                     |                 | -                         | o ×                            |
|--|--------------|------------------|--------------------------|-------------|---------|---------------------|-----------------|---------------------------|--------------------------------|
| Coning Log Edit View Inters Kun Special Belp                                 |              |                  |                          |             |         |                     |                 |                           |                                |
| # 1 🖬   🖏   # 1 📾   🖄   012 PN 🕓 🏹 🖓 🔛 🚺 🔛 🛄                                 | 1 <b>*</b> * | J                |                          |             |         |                     |                 |                           |                                |
|  |              | Record Number    | 2562                     |             |         |                     |                 |                           |                                |
| 2021-04-01 09:39:08 243   00:47:46 070   ErrcDeactivateBeg                   | <u>^</u>     | Taskidiag        |                          | dir         | ective  | s.source            |                 | = MM_TASK_ID 0x           | 0501 ;                         |
| 2021-04-01 09:39:08 243   00:47:46 070   ErroDebugStateChap                  | reTrd        | unsigned long    |                          | fra         | meNumb  | er                  |                 | = 0x00000d84              | 3460 :                         |
| 2021-04-01 05:35:00.243   00:47:40.070   ElicbebugStatecham                  | yeina        | unsigned long    |                          | tin         | ie.     |                     |                 | = 0x00045f91              | 286609 ;                       |
| 2021-04-01 03:33:00.243   00:47:46:070   El2ConfigRed                        |              | unsigned short   |                          | ler         | igth    |                     |                 | = 0x000a 10               | ÷                              |
| 2021-04-01 09:39:08.243   00:47:48.070   El2Configent                        |              | SignalIdTag      |                          | id          |         |                     |                 | = SIG_MMDBM_BEA           | RER_STATUS_I                   |
| 2021-04-01 09:39:08.243   00:47:46.070   NphybeactivateRed                   |              | EcmStaterag      |                          | 000         | DomRee  | mBearerStatusind.   | ecmstate        | = ECM_IDLE_0X00           |                                |
| 2021-04-01 09:39:08.243   00:47:46.070   MmrPsmStatusInd                     |              | unsigned char    |                          | bod         | lv.mmDb | mBearerStatusInd.   | epsIdCount      | = 0x00 0 ;                | · ·                            |
| 2021-04-01 09:39:08.243   00:47:46.070   ApexMmPsmStatusInd                  |              | unsigned char    |                          | bod         | ly.mmDb | mBearerStatusInd.   | epsId[0]        | = 0x00 0;                 |                                |
| 2021-04-01 09:39:08.243   00:47:46.090   NphyDeactivateCnf                   |              | unsigned char    |                          | bod         | ly.mmDb | mBearerStatusInd.   | epsId[1]        | = 0x00 0 ;                |                                |
| 2021-04-01 09:39:08.243   00:47:46.090   ErrcDebugStateChan                  | geInd        | unsigned char    |                          | bod         | ly.mmDb | mBearerStatusInd.   | drbId[0]        | = 0x00 0 ;                |                                |
| 2021-04-01 09:39:08.243   00:47:46.090   ErrcDeactivateCnf                   |              | unsigned char    |                          | bod         | ly.mmDb | mBearerStatusInd.   | drbId[1]        | = 0x00 0 ;                |                                |
| 2021-04-01 09:39:08.243   00:47:46.090   MmdbmBearerStatusI                  | nd           |                  |                          |             |         |                     |                 |                           |                                |
| 2021-04-01 09:39:08.243   00:47:46.090   MmsmPsmStatusInd                    |              |                  |                          |             |         |                     |                 |                           |                                |
| 2021-04-01 09:39:08.243   00:47:46.090   AlsaInternalStopTim                 | mersI        |                  |                          |             |         |                     |                 |                           |                                |
| 2021-04-01 09:39:11.030   00:47:48.660   TestFileOut                         |              | 1                |                          |             |         |                     |                 |                           |                                |
| 2021-04-01 09:39:11.030   00:47:48.660   MdtUnitdataInd                      |              |                  |                          |             |         |                     |                 |                           |                                |
| 2021-04-01 09:39:11.030   00:47:48.660   CimuxAtDataInd                      |              | GKI Traces HSL   | Traces                   |             |         |                     |                 |                           |                                |
| 2021-04-01 09:39:11.030   00:47:48.660   CimuxAtDataRsp                      |              | E Plugins        | ind All 🖹 Run            | Loa         |         |                     |                 |                           |                                |
| 2021-04-01 09:39:11.030   00:47:48.660   CiRunAtCommandInd                   |              |                  |                          |             |         |                     |                 |                           |                                |
| 2021-04-01 09:39:11.030   00:47:48.660   CirmDataInd                         |              | HSL Acquis       | ition Status 🖉 🚞         | ] Plain Tex | t HSL   |                     |                 |                           | -                              |
| 2021-04-01 09:39:11.295   00:47:48.660   CimuxAtDataReq                      |              | 🕴 🖣 Freeze 📄     | 🔄 Indentation 🥛          | 🕽 Log to Te | xt • F  | ind Text:           | 4               | Next 🕇 Previous Tit       | e:                             |
| 2021-04-01 09:39:11.295   00:47:48.660   MdtUnitdataReq                      |              | LocalTime        | Time Stann               | St          | TD      | Group               | Text            |                           | -                              |
| 2021-04-01 09:39:11.295   00:47:48.660   CimuxAtDataCnf                      |              | 2021-04-01 09:39 | 2 183 834608             | 3           | 0×0530  | HSL SYS LOG WARNING | GKT_SVNC: signs | TG MUDBU BEARER STATUS    | IND. FraneNhr:                 |
| 2021-04-01 09:39:11.295   00:47:48.670   CirmDataInd                         |              | 2021-04-01 09:39 | :2 183.834869            | 3           | 0xD53D  | HSL_SYS_LOG_WARNING | GKI_SYNC: sig:S | IG MMSM_PSM_STATUS_IND,   | FrameNbr: 3461                 |
| 2021-04-01 09:39:11.561   00:47:48.670   CirmDataInd                         |              | 2021-04-01 09:39 | :2 183.836579            | 3           | 0xD53D  | HSL_SYS_LOG_WARNING | GKI_SYNC: sig:S | IG_ALSA_INTERNAL_STOP_T   | IMERS_IND, Fram                |
| 2021-04-01 09:39:11.561   00:47:48.670   CirmDataInd                         |              | 2021-04-01 09:39 | :2 186.403423            | 3           | 0xD53D  | HSL_SYS_LOG_WARNING | GKI_SYNC: sig:S | IG_TEST_FILE_OUT, Franel  | Nbr: 3463                      |
| 2021-04-01 09:39:11.639   00:47:48.670   CimuxAtDataBeg                      |              | 2021-04-01 09:39 | 186.404175<br>196.405110 | 3           | Ux053D  | HSL_STS_LUG_WARNING | GKI_STNC: sig:S | IG_MUT_UNITUATA_IND, Fr-  | aneNbr: 3464                   |
| 2021-04-01 09:39:11.639   00:47:48.670   MdtDwitdataPag                      |              | 2021-04-01 09:39 | ·2                       | 3           | 0x0530  | HSL_STS_LUG_WARNING | GKT_SYNC: sig:S | TG_CIMUX_AT_DATA_IND, PI  | ramemor: 3466<br>rameWbr: 3466 |
| 2021-04-01 09:29:11 629   00:47:49 670   CimuxAtDataCaf                      |              | 2021-04-01 09:39 | :2 186.407791            | 3           | 0xD53D  | HSL_SYS_LOG_WARNING | GKI_SYNC: sig:S | IG_CI_RUN_AT_COMMAND_IN   | D, FraneNbr: 34                |
| 2021-04-01 09:39:11:039   00:47:59 750   CIMUKADDADACHI                      |              | 2021-04-01 09:39 | :2 186.408555            | 3           | 0xD53D  | HSL_SYS_LOG_WARNING | GKI_SYNC: sig:S | IG_CIRM_DATA_IND, Franel  | Nbr: 3468                      |
| 2021-04-01 09:59:20.004   00:47:58.750   ErrcDeepSteepKeg                    | ~            | 2021-04-01 09:39 | ·2 186 411411            | 3           | 0~0530  | WEL SEE THE WARNENE | GRT SVNP        | TIG CTMONY AT DATA RED FO | renether 3469                  |
| ¢  | >            |                  |                          |             |         |                     |                 |                           | . ,                            |
|  | Record       | 002580           |                          |             |         | OFFLINE             |                 | Thu 21/04/01 09:43        | 3                              |

图 17: Genie 断开设备连接指示

# 五、Genie 中 LOG 日志保存

如下图 18 所示, 需要先通过 config→save config as→ (根据实际需要可对 配置文件重命名), 保存当前抓取 LOG 的相关配置文件; 然后通过 Log→save as→ (根据实际需要可对日志文件重命名), 保存当前抓取 LOG 日志消息, 如图 19。

| MTK Genie (General_Customer) 1.2102.5 : C:\Users\he | rbert.pan\Desktop\untitled | .gni (Fr   | agment Enable)                   |                   | - 0 ×              |
|---|----------------------------|------------|----------------------------------|-------------------|--------------------|
| Edit Config C                                       | o<br>trl+E 🛛 🐼 🌆 🚺 🕅       | <b>ę</b> - |                                  |                   |                    |
| New Config  |                            |            | Record Number 1                  |                   |                    |
| Open Config   |                            | _          | id                               | = TC_START 0x02 ; |                    |
| Save Config   | epSleepReg                 | ^          | body.start                       | = 0x00 0 ;        |                    |
| Save Config As                                      | tDataInd                   |            |                                  |                   |                    |
| -   | tCommandInd                |            |                                  |                   |                    |
| Exit Al   | taInd                      |            |                                  |                   |                    |
| 1 C:\Users\herbert.pan\Desktop\untitled.gni         | tDataReg                   |            |                                  |                   |                    |
| 2021-04-01 09:49:35.970   00:58:13.240              | MdtUnitdataReq             |            |                                  |                   |                    |
| 2021-04-01 09:49:35.970   00:58:13.240              | CimuxAtDataCnf             |            |                                  |                   |                    |
| 2021-04-01 09:49:35.986   00:58:13.240              | VgciSsRegistrationI        | nd         |                                  |                   |                    |
| 2021-04-01 09:49:35.986   00:58:13.240              | ApexShChangeControl        | Reg        |                                  |                   |                    |
| 2021-04-01 09:49:36.002   00:58:13.240              | ApexShChangeControl        | Ind        |                                  |                   |                    |
| 2021-04-01 09:49:36.002   00:58:13.240              | ApexShChangeControl        | Rsp        |                                  |                   |                    |
| 2021-04-01 09:49:36.002   00:58:13.240              | ApexShChangeControl        | Cnf        |                                  |                   |                    |
| 2021-04-01 09:49:36.002   00:58:13.240              | VgciSsRegistrationI        | nd         |                                  |                   |                    |
| 2021-04-01 09:49:36.002   00:58:13.240              | ApexMmLockArfcnReq         |            |                                  |                   |                    |
| 2021-04-01 09:49:36.002   00:58:13.240              | ApexMmLockArfcnCnf         |            | GKI Traces HSL Traces            |                   |                    |
| 2021-04-01 09:49:36.002   00:58:13.240              | VgciSsRegistrationI        | nd         | 📔 Plugins 🛛 🔎 Find All 📄 Run Log |                   |                    |
| 2021-04-01 09:49:36.002   00:58:13.250              | CirmDataInd                |            | HSL Acquisition Status           | )                 | • ×                |
| 2021-04-01 09:49:36.205   00:58:13.250              | CirmDataInd                |            |                                  | 1                 |                    |
| 2021-04-01 09:49:36.205   00:58:13.250              | CirmDataInd                |            | Log Point Count: 9 896           |                   |                    |
| 2021-04-01 09:49:36.439   00:58:13.250              | CimuxAtDataReg             |            |                                  |                   |                    |
| 2021-04-01 09:49:36.439   00:58:13.250              | MdtUnitdataReq             |            |                                  |                   |                    |
| 2021-04-01 09:49:36.439   00:58:13.250              | CimuxAtDataCnf             |            |                                  |                   |                    |
| 2021-04-01 09:49:36.439   00:58:13.250              | CimuxAtDataReg             |            |                                  |                   |                    |
| 2021-04-01 09:49:36.439   00:58:13.250              | MdtUnitdataReq             |            |                                  |                   |                    |
| 2021-04-01 09:49:36.439   00:58:13.250              | CimuxAtDataCnf             |            |                                  |                   |                    |
| 2021-04-01 09:49:36.439   00:58:13.250              | ApexShChangeControl        | Reg        |                                  |                   |                    |
| 2021-04-01 09:49:36.439   00:58:13.250              | ApexShChangeControl        | Inf        |                                  |                   |                    |
| 2021-04-01 09:49:36.439   00:58:13.260              | ErrcDeepSleepReq           | ~          |                                  |                   |                    |
| <   |                            | >          | 1                                |                   |                    |
| Save current test under a new name                  |                            | Record     | 000000                           | OFFLINE           | Thu 21/04/01 09:50 |
|   |                            |            |                                  |                   |                    |









图 19: Genie 保存 LOG 日志消息

# 六、Genie 中 LOG 日志分析

## 6.1 LOG 导入

直接双击.glp 格式 LOG 文件, 或打开 Genie 后通过 "Open GLP" 导入 LOG 文件, 或打开 Genie 并配置后进入主界面, 通过 Log→open log 导入待分析 LOG 文件, 或直接双击 LOG 文件即可, 如图 20。

| 🕙 MTK Ger | nie (General_Customer) 1.2113.5 :                        | (Fragment Enab                 | le)               |                    |                                    |              |                            |                                |                            | - 0 ×                              |
|-----------|--|--------------------------------|-------------------|--------------------|------------------------------------|--------------|----------------------------|--------------------------------|----------------------------|------------------------------------|
| Config Lo | g Edit View Filters Run Sp<br>44 / 17   18   412 EN / 18 | pecial Help                    | re 🦟 1953 🚺 AT    | <i>K</i> .         |                                    |              |                            |                                |                            |                                    |
|           |  | 2 0 1 🗸 🔛 1                    | L) 🧼 📖 🛄 🛄        | * *                |                                    |              |                            |                                |                            |                                    |
| 144 44 41 | 9 99 97  |                                |                   |                    |                                    |              |                            |                                |                            |                                    |
|           |  |                                | 6                 | ienie              |                                    |              | ×                          |                                |                            |                                    |
|           |  |                                |                   | Discussions        |                                    | uius Carris  |                            |                                |                            |                                    |
|           |  |                                |                   | Prease select c    | ne or the options below to start t | ang dene.    |                            |                                |                            |                                    |
|           |  |                                |                   | Open Config        | New Config Open GLP                | Close Ge     | enie                       |                                |                            |                                    |
| <         |  |                                |                   | ><br>Record 00000  |                                    |              |                            | OFFLINE                        | Ти                         | e 21/05/11 1941                    |
|           |  |                                |                   |                    |                                    |              |                            |                                |                            |                                    |
| 🖑 MTK Ger | nie (General Customer) 1.2113.5 -                        | - C:\Users\herbert             | pan\Downloads\202 | 0121901.olp (Fragm | ent Enable)                        |              |                            |                                |                            | - o ×                              |
| Config Lo | g Edit View Filters Run S                                | pecial Help                    |                   |                    |                                    |              |                            |                                |                            |                                    |
| 0, 🗉      | Open Log   |                                | 🔰 🥶 🕅 🚺 🕰         | ∉ -                |                                    |              |                            |                                |                            |                                    |
| 144 44    | Open Log for Pass Thru                                   |                                |                   |                    | Record Number                      | 1            | directives                 | source                         |                            | = FR SD TASK ID 0                  |
| 2020-1    | 0.000 LOG  | c. I.c.                        | ataInd            | ^                  | TaskIdTag                          |              | directives.                | .dest                          |                            | = SIM_TASK_ID 0x0                  |
| 2020-1    | Save As  | Ctri+S                         | )ataReg           |                    | unsigned long<br>unsigned long     |              | frameNumber<br>time        | r                              |                            | = 0x00000019<br>= 0x00000105       |
| 2020-1    | Next Page  | Pg Dn                          | )ataInd           |                    | unsigned short                     |              | length                     |                                |                            | = 0x0108 264 ;                     |
| 2020-1    | Previous Page  | Pg Up                          | ataRed<br>ataInd  |                    | SignalIdTag                        |              | id<br>body lloiD           | stated waters                  |                            | = SIG_LISI_DATA_I                  |
| 2020-1    | Next Block   | Shift+Pg Dn                    | ataReg            |                    | unsigned short                     |              | body.llsiDa                | ataInd.dataB1                  | ock.length                 | = 0x001a 26;                       |
| 2020-1    | Previous Block   | Shift+Pg Up                    | ataInd            |                    | unsigned char                      |              | body.llsiDa                | ataInd.dataB1                  | ock.data[0]                | = 0x62 98 'b';                     |
| 2020-1    | Start of Log   | Shift+Home                     | )ataReg           |                    | unsigned char                      |              | body.llsiDa                | ataInd.dataB1                  | ock.data[1]                | = 0x16 22 ;<br>= 0x82 130 ;        |
| 2020-1    | End of Log   | Shift+End                      | )ataInd           |                    | unsigned char                      |              | body.llsiDa                | ataInd.dataB1                  | ock.data[3]                | = 0x02 2 ;                         |
| 2020-1    | Goto Record Number                                       | Ctri+G                         | AppStartedInd     |                    | unsigned char<br>unsigned char     |              | body.llsiDa<br>body.llsiDa | ataInd.dataBl<br>ataInd.dataBl | ock.data[4]<br>ock.data[5] | = 0x41 65 'A';<br>= 0x21 33 '!'; * |
| 2020-1    | Write Text File  |                                | ReadDataBag       |                    | <                                  |              |                            |                                |                            | >                                  |
| 2020-1    | Write PPP Msg To Pcapng                                  | V6.03V   1131                  | JataInd           |                    | GKI Traces HSL Tra                 | ces          |                            |                                |                            |                                    |
| 2020-12-  | 19 08:59:57.744   00:00:                                 | 02.830   L1si                  | DataReq           |                    | 🗄 Plugins 🔑 Find A                 | ul 📄 Run Log | g 🗎 Replay Log             |                                |                            |                                    |
| 2020-12-  | 19 08:59:57.744   00:00:                                 | 02.830   Alsa                  | InternalFetchRe   | q                  | HSL Acquisition                    | Status A P   | ain Text HSL               |                                |                            | -                                  |
| 2020-12-  | 19 08:59:57.744   00:00:                                 | 02.840   Alsi                  | AppInitialiseCn   | r i                | A Freeze                           | dentation    | og to Text × Fir           | nd Text:                       |                            | I Next 1 Previous                  |
| 2020-12-  | 19 08:59:57.744   00:00:                                 | 02.840   Anrm                  | 2WriteDataReq     |                    | Tuniting and the                   | Ti C:        |                            | C                              |                            |                                    |
| 2020-12-  | 19 08:59:57.744   00:00:<br>19 08:59:57.744   00:00:     | 02.850   Alsi<br>02.850   Aper | SimOkInd          |                    | Localline                          | lime Stamp   | otfeam ID                  | oroup                          | lext                       |                                    |
| 2020-12-  | 19 08:59:57.744   00:00:                                 | 02.850   Cirm                  | DataInd           |                    |                                    |              |                            |                                |                            |                                    |
| 2020-12-  | 19 08:59:57.744   00:00:                                 | 02.850   Cirm                  | DataInd           |                    |                                    |              |                            |                                |                            |                                    |
| 2020-12-  | 19 08:59:57.744   00:00:                                 | 02.850   Cirm                  | DataInd           |                    |                                    |              |                            |                                |                            |                                    |
| 2020-12-  | 19 08:59:57.759   00:00:                                 | 00.000   Star                  | t                 |                    |                                    |              |                            |                                |                            |                                    |
| 2020-12-  | 19 08:59:57.759   00:00:                                 | 02.850   Cirm                  | DataInd           |                    |                                    |              |                            |                                |                            |                                    |
| 2020-12-  | 19 08:59:57.775   00:00:<br>19 08:59:57.775   00:00:     | 00.000   Sign                  | FileOut           |                    |                                    |              |                            |                                |                            |                                    |
| 2020-12-  | 19 08:59:57.775   00:00:                                 | 00.000   Test                  | FileOut           |                    |                                    |              |                            |                                |                            |                                    |
| 2020-12-  | 19 08:59:57.775   00:00:                                 | 00.000   Test                  | FileOut           |                    |                                    |              |                            |                                |                            |                                    |
| 2020-12-  | 19 08:59:57.791   00:00:                                 | 02.850   Cirm                  | DataInd           | ~                  |                                    |              |                            |                                |                            |                                    |
| <         |  |                                |                   | >                  |                                    |              |                            |                                |                            | ,                                  |
|           |  |                                |                   |                    |                                    |              |                            |                                |                            |                                    |

图 20: Genie 中 LOG 日志导入

#### 6.2 信令解析

通过 Special→RRC Decoder 可以调用 Genie 中的信令窗口, 如图 21.



| e Options Help  |   | 根据需要进行检索  |   |
|---|---|---|---|
| 🚍 012 🛐 🕑 t 📑 Export 🗁 Open Po  | capng   | 📸 Advanced Find 🖓 Next 🏠 Previous Count: 0 ma   | tch.  |
| Main  |   |   |   |
| 20-12-19 09:14:51.829   000:14:57.050  <br>20-12-19 09:15:12.409   000:15:17.710  | LTE_BCCH_SCH   Sib1<br>LTE_BCCH_BCH   Mib                     | EARFCN = 2508, PCI = 56 ^   | Maximum uplink rate: 0 messages<br>EPS mobile identity - GUTI<br>Flowers ID: 0.050  |
| 20-12-19 09:15:12.410   000:15:17.710  <br>20-12-19 09:15:12.423   000:15:17.720  <br>20-12-19 09:15:12.578   000:15:17.720 | LTE_BCCH_SCH   Sib1<br>LTE_BCCH_SCH   Sibx                    | EARFCN = 1454, PCI = 174<br>EARFCN = 1454, PCI = 174  | <pre>Length: 11 Length: 11 Length: 11 Length: 1 Length: 1 Log dd/even indication: Even number of identity digi 110 = Type of identity: GUTI (6)</pre>   |
| 20-12-19 09:15:12.585   000:15:17.740  <br>20-12-19 09:15:12.585   000:15:17.740  <br>20-12-19 09:15:12.840   000:15:18.130 | LTE_UL_CCCH   SRB0<br>LTE_DL_CCCH   SRB0                      | Rrc_connection_request_r13<br>Rrc_connection_setup_r13                                      | Mobile Country Code (MCC): China (460)<br>Mobile Network Code (MSC): China Unicom (01)<br>MME Group ID: 27153   |
| 20-12-19 09:15:12.850   000:15:18.130  <br>20-12-19 09:15:15.617   000:15:20.910  <br>20-12-19 09:15:15.617   000:15:20.910 | LTE_UL_DCCH   SRB1bis<br>LTE_DL_DCCH   SRB1bis<br>DL   LEN:3  | Rrc_connection_setup_complete_r13<br>Dl_information_transfer_r13<br>Identity request        | nni Code: 114<br>M-TMS: Oxc4fac6bd<br>EPS metwork feature support<br>Element ID: 0x64   |
| 20-12-19 09:15:15.686   000:15:20.910  <br>20-12-19 09:15:15.688   000:15:20.910  <br>20-12-19 09:15:15.794   000:15:21.090 | UL   LEN:11<br>LTE_UL_DCCH   SRB1bis<br>LTE_DL_DCCH   SRB1bis | Identity response<br>Ul_information_transfer_r13<br>Dl_information_transfer_r13             | <pre>Length: 2 1 = Control plane CIoT EPS optimization: Supported .1 = SMM-REGISTERED w/o FDM connectivity: Supported .0 = Support of EXTENDED SERVICE REGUEST for packet se</pre>  |
| 20-12-19 09:15:15.795   000:15:21.090  <br>20-12-19 09:15:16.122   000:15:21.340  <br>20-12-19 09:15:16.124   000:15:21.350 | DL   LEN:36<br>UL   LEN:11<br>LTE_UL_DCCH   SRB1bis           | Authentication request<br>Authentication response<br>Ul_information_transfer_内置3gpp decoder | 0 0 = CS-LCS: no information about support of location<br>0. = Location services via EVC: Not supported<br>0 = Emergency bearer services in S1 mode: Not support<br>0 = INS voice over PS session in S1 mode: Not support   |
| 20-12-19 09:15:16.752   000:15:22.030  <br>20-12-19 09:15:16.753   000:15:22.030  <br>20-12-19 09:15:16.829   000:15:22.040 | LTE_DL_DCCH   SRB1bis<br>DL   LEN:8<br>UL   LEN:13            | Dl_information_transfer_r13<br>Security mode command<br>Security mode complete              | 0 = Signalling for a maximum number of 15 EBS bearer<br>0 = Interworking without N26 interface: Not supported<br>= Restriction on the use of dual connectivity with<br>0 = Restriction on enhanced coursers. Not restricted |
| 20-12-19 09:15:16.831   000:15:22.040  <br>20-12-19 09:15:16.919   000:15:22.140  <br>20-12-19 09:15:16.920   000:15:22.140 | LTE_UL_DCCH   SRB1bis<br>LTE_DL_DCCH   SRB1bis<br>DL   LEN:3  | Ul_information_transfer_r13<br>Dl_information_transfer_r13<br>ESM information request       | 1 = Extended protocol configuration options: Supporte<br>0 = Header compression for control plane CIOI EPS opt<br>0 = si-u data transfer: Not supported   |
| 10-12-19 09:15:16.951   000:15:22.150  <br>20-12-19 09:15:16.953   000:15:22.150  <br>20-12-19 09:15:17 370   000:15:22 660 | UL   LEN:56<br>LTE_UL_DCCH   SRB1bis                          | ESM information response<br>Ul_information_transfer_r13<br>Dl_information_transfer_r13      |   |
| 0-12-19 09:15:17.377   000:15:22.660  <br>10-12-19 09:15:17.664   000:15:22.700   | DL   LEN:121<br>UL   LEN:7                                    | Attach accept<br>Attach complete  | <pre>GPRS Timer: 24 hr<br/>001 = Unit: value is incremented in multiples of 1<br/>1 1000 = Timer value: 24</pre>  |
| J-12-19 09:15:17.668   000:15:22.710  <br>0-12-19 09:15:18.058   000:15:23.310  <br>0-12-19 09:15:18.059   000:15:23.310    | LTE_UL_DCCH   SRB1bis<br>LTE_DL_DCCH   SRB1bis<br>DL   LEN:21 | Ul_information_transfer_r13<br>Dl_information_transfer_r13<br>ENM information               | GPRS fimer 2 - T3324 value<br>Element ID: Ox6a<br>Length: 1<br>GPRS fimer: 10 sec   |
| 0-12-19 09:15:39.254   000:15:44.550  <br>0-12-19 09:15:39.337   000:15:44.630  | LTE_DL_DCCH   SRB1bis<br>LTE_BCCH_BCH   Mib                   | Rrc_connection_release_rl3<br>EARFCN = 1454, PCI = 174                                      | 000 = Unit: value is incremented in multiples of 2<br>0 0101 = Timer value: 5   |

图 21: Genie 中 LOG 信令解析

## 6.3 导出 Pcap 文件

在 RRCDEC 窗口中选择 "Export",并在弹出窗口中选择 "User Data PCAPNG",然后选择下方的 "Export" 进行导出即可,如图 22.

| 🎸 MTK Genie (General_Customer) 1.2113.5 - C\Users\herbert.pan\Downloads\20210515.glp (Fragment Enable) —   | o ×                         |
|--|-----------------------------|
|  |                             |
| Int 📢 🌢 📷 RRCDEC (General Customer) 1.2113.5 - C.\Users\herbert.pan\Downloads\20210515.glp (Fragment Enable) — 🗆 🗙   |                             |
| 2021-05-14 File Options Help   |                             |
| 2021-05-14 🐘 🗃 02 🖺 🛞 ć 👔 Export 🕞 OpenPcapag  |                             |
| 2011-05-14 Main •  |                             |
| 2021-05-14 2021-05-14 18:04:29.748   001:10:12.760   UL LEN:106 ESM data transport   |                             |
| 2021-05-14 2021-05-14 18:04:29.763   001:10:12.770   LTE_UL_DOCH   SNB10: UL information_transfer_r13  |                             |
| 2021-05-14 2021-05-14 18:04:30.076   001:10:13.510   LTE_D_DCCH   SRBIbis D] Interaction transfer r13 Concerner 12 2021-05-14 18:04:30.019   001:10:13.510   LTE_D_DCCH   SRBIbis D] Interaction transfer r13 Concerner 12 2021-05-14 18:04:30.019   001:10:13.510   LTE_D_DCCH   SRBIbis D] Interaction transfer r13 Concerner 12 2021-05-14 18:04:30.019   001:10:13.510   LTE_D_DCCH   SRBIbis D] Interaction transfer r13 Concerner 12 2021-05-14 18:04:30.019   001:10:13.510   LTE_D_DCCH   SRBIbis D] Interaction transfer r13 Concerner 12 2021-05-14 18:04:15:01   DITE_D_DCCH   SRBIbis D] Interaction transfer r13 Concerner 12 2021-05-14 18:04:10:10   CTE_D_DCCH   SRBIbis D] CONCERNER 12 2021-05-14 18:04:10   CTE_D_DCCH   SRBIBIS D] CONCERNER 12 2021-05-14 18:04:100:100:100:100:1 |                             |
| 2021-05-14 2021-05-14 10:04:31.419   001:10:14.750   UL   LEN:106 ESM data transport   |                             |
| 2021-05-14 18:04:31.451 001:10:14.760   LTE UL DOCH   SKBIDS UL information transfer<br>Z021-05-14 18:04:31.451 001:10:15 Col   LTE UL DOCH   SKBIDS UL information transfer<br>Ciller View Market an Machine  |                             |
| 2021-05-14 2021-05-14 18:04:32.357   001:10:15.750   DL   LEN:37 ESI data transport  |                             |
| 2021-05-14 2021-05-14 19:04:32.654   001:10:16.550   UL   LEN:106 ESM data transport Export File Format  |                             |
| 2021-05-14 12:04:32.655   001:10:16.560   LTE_TU_DOCK   SRBIbis Dimension transfer   |                             |
| 2021-05-14 2021-05-14 18:05:24 48:05 (001:11:15:06   MagOCH BCI   Mib E RAFCH = 2507, BCI = 150 Export Message Type  |                             |
| 2021-05-14 2021-05-14 18:05:24.451   001:11:19.750   LTE_BOCH_SCH   Sibx EARFON = 2507, FCI = 150 REC View Data Packet   | Talas                       |
| 2021-05-14 18:08:18.153   001:14:0.100   UL   LEN:100 ESK data transport Export Time   | ous nue: z                  |
| 2021-05-14 10:09:10.935   001:14:02.300   LTE_DL_DCCH   SRBLbis Dl_information_transfer_   |                             |
| 2021-05-14 18:09:18:935   001:14:02.310   DL   LEN:37 ESM data transport Export Range Prior  | ABIOT_SDK_V                 |
| 2021-05-14 18:08:20.278   001:14:03.400   UL   LEN:106 ESK data transport<br>2021-05-14 18:08:20.309   001:14:03.400   UL ULDCH   SENIS UL information transfer   351   317895   41.012   11.012 | :2625_evb ~                 |
| 2021-05-14 2021-06-14 10:00:20.622   001:14:04.220   LTE_DL_DCCH   SEB1bis Dl_information_transfer   | tatus: 254"                 |
| 2021-05-14 2021-05-14 18:09:20.639   001:14:04.230   DL   LEN:37 ESM data transport Start RM: 351 End RM: 317895 en boot:  | oack from d                 |
| 2021-05-14 2021-05-14 18:09:12.343   001:15:07.590   LTE_DL_DCCH   SRB1bis Rr_connection_release_r<br>   | 12_READ_DAT.                |
| 2021-05-14 Current Select: (Sequence No.) / 2478 Genie Record Number: / 317895   | ME_DATA_RD                  |
| 2021-05-14 18:04:18:326   01:10:10.580   ApexSimAppStartedInd 2021-05-14 18:04:15.702 1739.068549 3 0x853D HSL_SYS_D0C_WARNING GKL_SYNC: sig:ST0_ANK   | 12_READ_DAT.                |
| 2021-05-14 18:04:18.358   01:10:10.580   ApexdmnNetworkStateInd 2021-05-14 18:04:15.702 1739.0069568 3 0.0530 NSL_SSLOG_NABING GRIG_STRC: sig:SIG_ANK  | 12_READ_DAT.<br>12 READ_DAT |
| 2021-05-14 18:04:18.358   01:10:10.580   Initialise  | יועד ידעד את<br>א           |
| Becord 00001     1804/118741000000001 Start     OFFINE     Wed 21/05/19.10-53  |                             |

