

Genie 操作指导与参考

Genie User manual

(双语版)

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一、相关说明 (Foreword)

1.1 适用条件 (Suitable Condition)

工具/Tools	厂商版本/Manufacturer Revision	适用模组类型/Applicable Module Type
Genie	AT+CGMI/MTK_2625	BC20/BC26/BC66

注：该工具具有使用时效，如果下载后使用时提示已超期限，请联系 Quectel 获取；

Note: This tool has a validity period. If you download it and use it, the validity period is expired, please contact Quectel to get it.

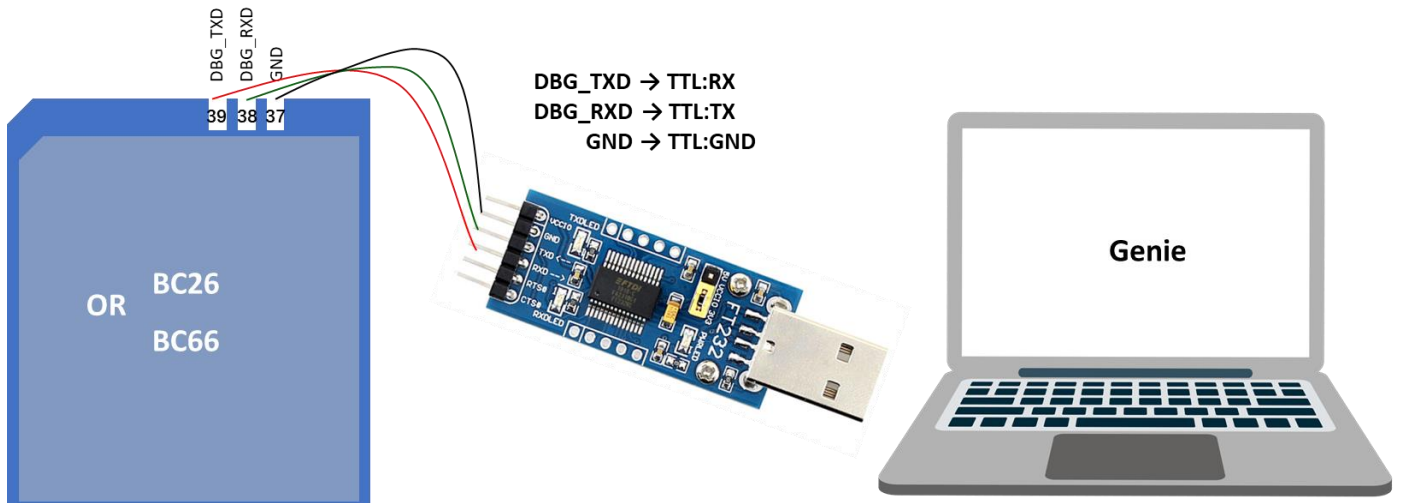
1.2 相关下载 (Related to Download)

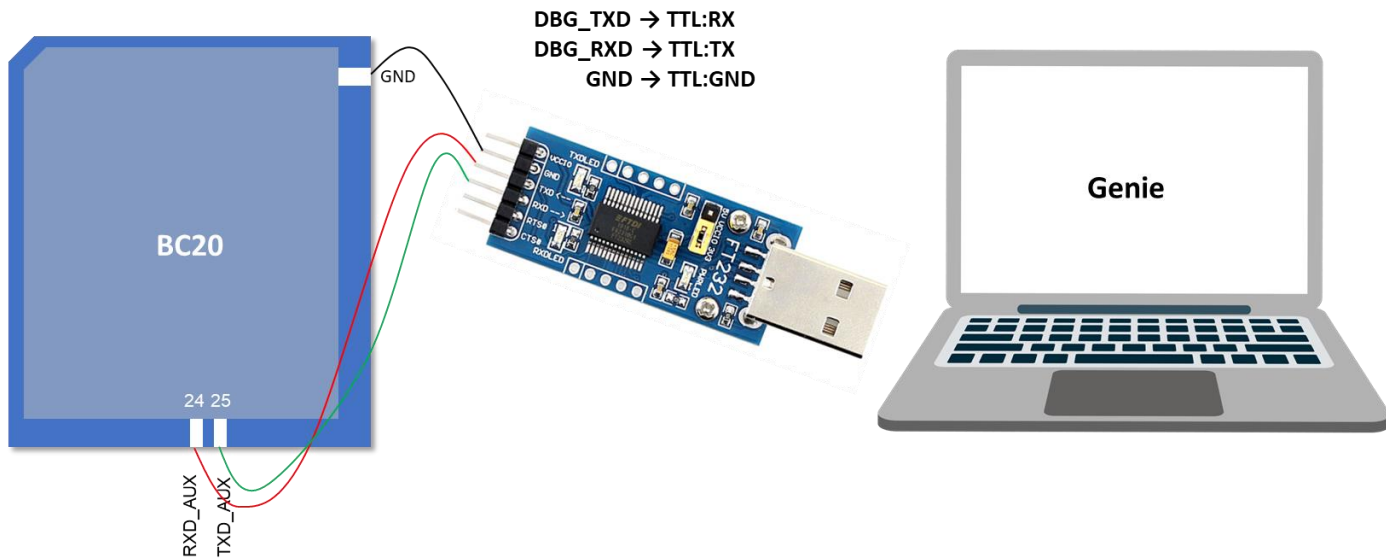
Genie	https://quectel123-my.sharepoint.cn/:u:/g/personal/ae-fae_dom_quectel_com_cn/EQd_Uw6KR3RBjkYhP6HmIrUBiu3Ve385GFKcPgKuMEmY4Q?e=ZM62Qt
TE-B UART Driver	https://quectel123-my.sharepoint.cn/:u:/g/personal/ae-fae_dom_quectel_com_cn/EW4QuNYKPI9Gspu8DYAdDGIBL8TVG5z3-twrZO5WTLsaw?e=fYUPPj
TE-B USB Driver	https://quectel123-my.sharepoint.cn/:u:/g/personal/ae-fae_dom_quectel_com_cn/EYUjgu1Xu31Mq6EnzdLX7p0BkiJqKGInX2JTIIhJcOrRQ?e=j4adGb

1.3 设备连接 (Device Connection)

如果模组已完成贴片或对单独对模组进行调试，建议参考下面连接方式连接 Genie 并抓取 log；

If the module has been welded or debugged separately, it is recommended that you connect to the Genie and grab the log as shown below.





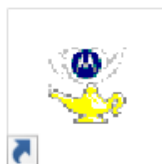
如果使用 MTK 模组对应的 TE-B, 在“设备管理器→端口”选择第二个 COM 端口(Silicon Labs Quad CP2108 USB to UART Bridge: Interface 1)对应 GKI 端口; 选择第三个 COM 端口(Silicon Labs Quad CP2108 USB to UART Bridge: Interface 2)对应 HSL 端口;

If TE-B corresponding to MTK module is used, from "Device Manager → Port" to Select the second COM port (Silicon Labs Quad CP2108 USB to UART Bridge: Interface 1) corresponding to the GKI port, to Select the third COM port (Silicon Labs Quad CP2108 USB to UART Bridge: Interface 2) corresponding to HSL port.

二、Genie 安装 (Installation)

Genie 绿色安装, 解压后即可使用; 在 MT2625_nbiot_tools_20220211_exe_V1.2207.5\nbiot\tools\core\genie 目录下, 运行 genie.exe.

Genie is installation-free and can be used after decompression. Run genie.exe in the MT2625_nbiot_tools_20220211_exe_V1.2207.5\nbiot\tools\core\genie.



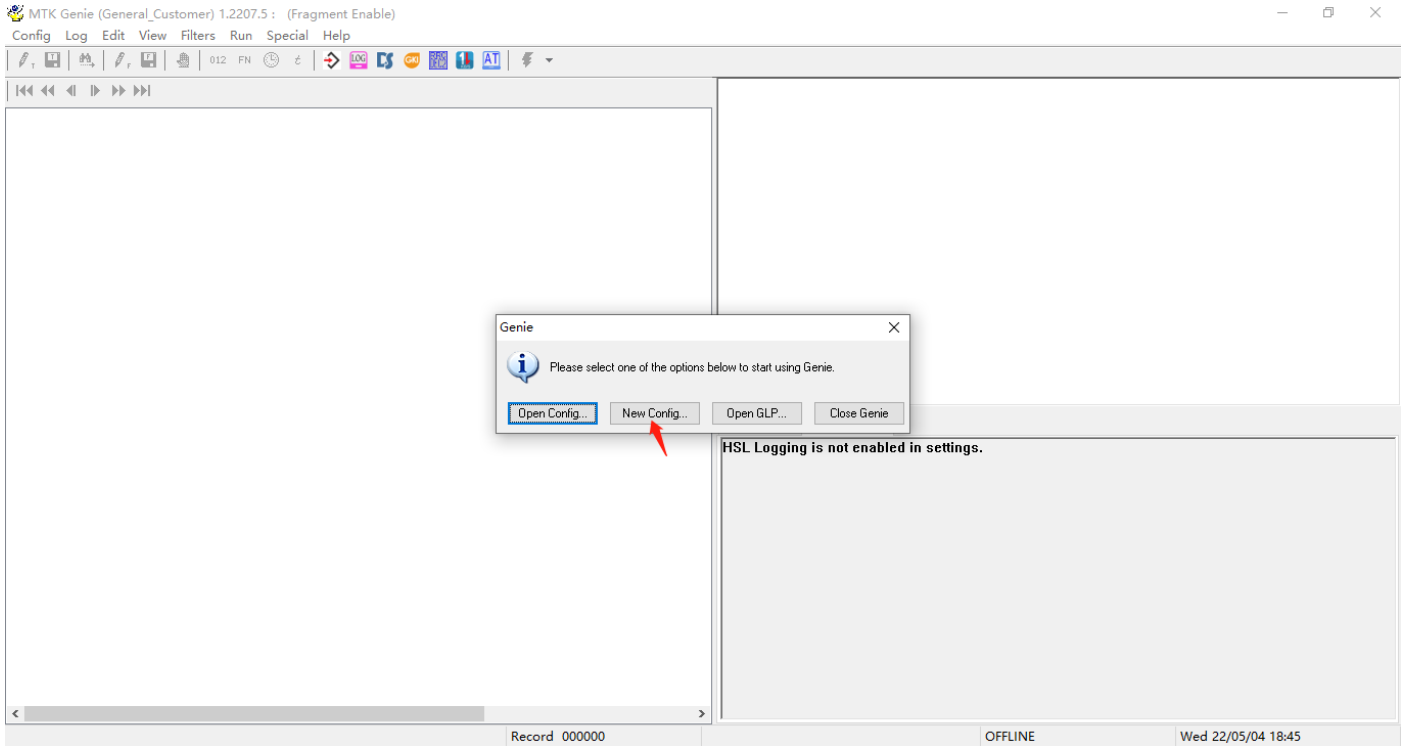
genie

Genie icon

三、Genie 连接 (Connection)

点击上述 genie 图标, 启动, 初始显示窗口如下图所示; 选择“New Config”进行相关设置;

Click the genie icon above to start, and the initial display is as shown below; Select "New Config" for related Settings;



3.1 UART 连接(UART Connection)

GKI(必选项)对应 Debug 端口,HSL(可选项, 若未引出 AUX 端口时, 不勾选)对应 AUX 端口,并向 Database 中导入对应固件中的.dec 文件, 如下图;

GKI(mandatory) corresponds to Debug port,HSL(optional, If AUX port is not pulled out, deselect it) corresponds to AUX port, and the .Dec file in the corresponding firmware file is imported into the Database, as shown below;

波特率配置需要注意, 执行"AT+EPORT=4",查询当前模组 UART 端口支持的波特率; 并由返回值和对应表进行配置;

To configure the baud rate, run the "AT+EPORT=4" command to query the baud rate supported by the UART port of the current module. And according to the return value and the corresponding table to set ;

```
[2022-05-05_20:00:08:213]at+eport=4
[2022-05-05_20:00:08:213]+EPORT: 0
[2022-05-05_20:00:08:213]baudrate = 9
[2022-05-05_20:00:08:213]+EPORT: 1
[2022-05-05_20:00:08:213]baudrate = 9
[2022-05-05_20:00:08:213]+EPORT: 2
[2022-05-05_20:00:08:213]baudrate = 9
[2022-05-05_20:00:08:213]+EPORT: 3
[2022-05-05_20:00:08:213]baudrate = 9
[2022-05-05_20:00:08:213]+EPORT: 4
[2022-05-05_20:00:08:213]none
[2022-05-05_20:00:08:213]+EPORT: 5
[2022-05-05_20:00:08:213]none

[2022-05-05_20:00:08:213]OK
```

若修改 Debug 端口波特率, 请参考下面指令和相应配置列表;

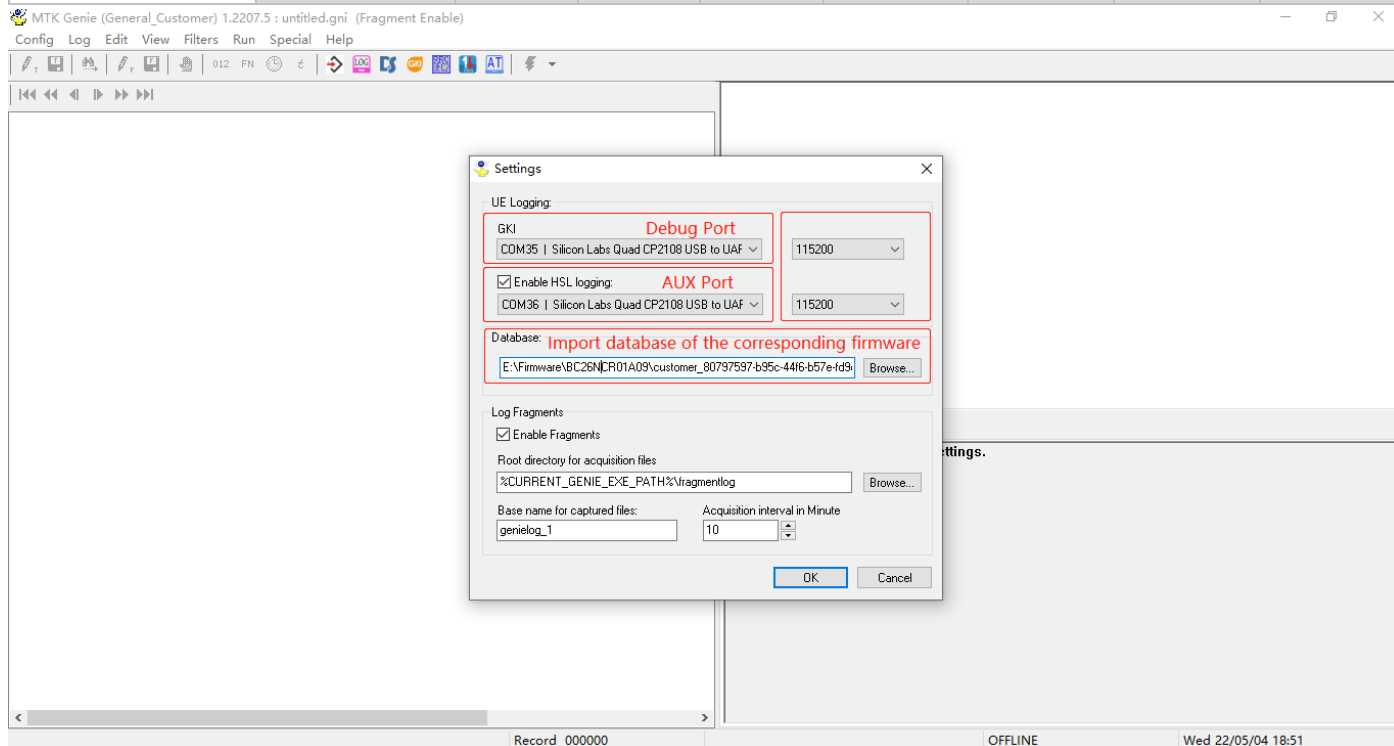
To change the baud rate of DEBUG port, refer to the following AT command and corresponding configuration list.

AT+EPORT=3,2,<baudrate_index> // To change the baud rate of DEBUG port by the AT command

+EPORT:	0	1	2	3	4	5
	UART	UART	UART	UART	USB	USB
	variable				921600(fixed)	

Genie 波特率配置/ Genie Baud rate configuration (AT+EPORT=4)

Baudrate_index	baudrate=	0	1	2	3	4	5	
	baudrate	110	300	1200	2400	4800	9600	
Baudrate_index	baudrate=	6	7	8	9	10	11	12
	baudrate	19200	38400	57600	115200	230400	460800	921600



3.2 USB 连接(USB Connection)

如果使用 USB 输出 Log, 请执行如下指令, 并如下图所示设置; 建议 Log 输出后执行指令关闭 USB 输出;

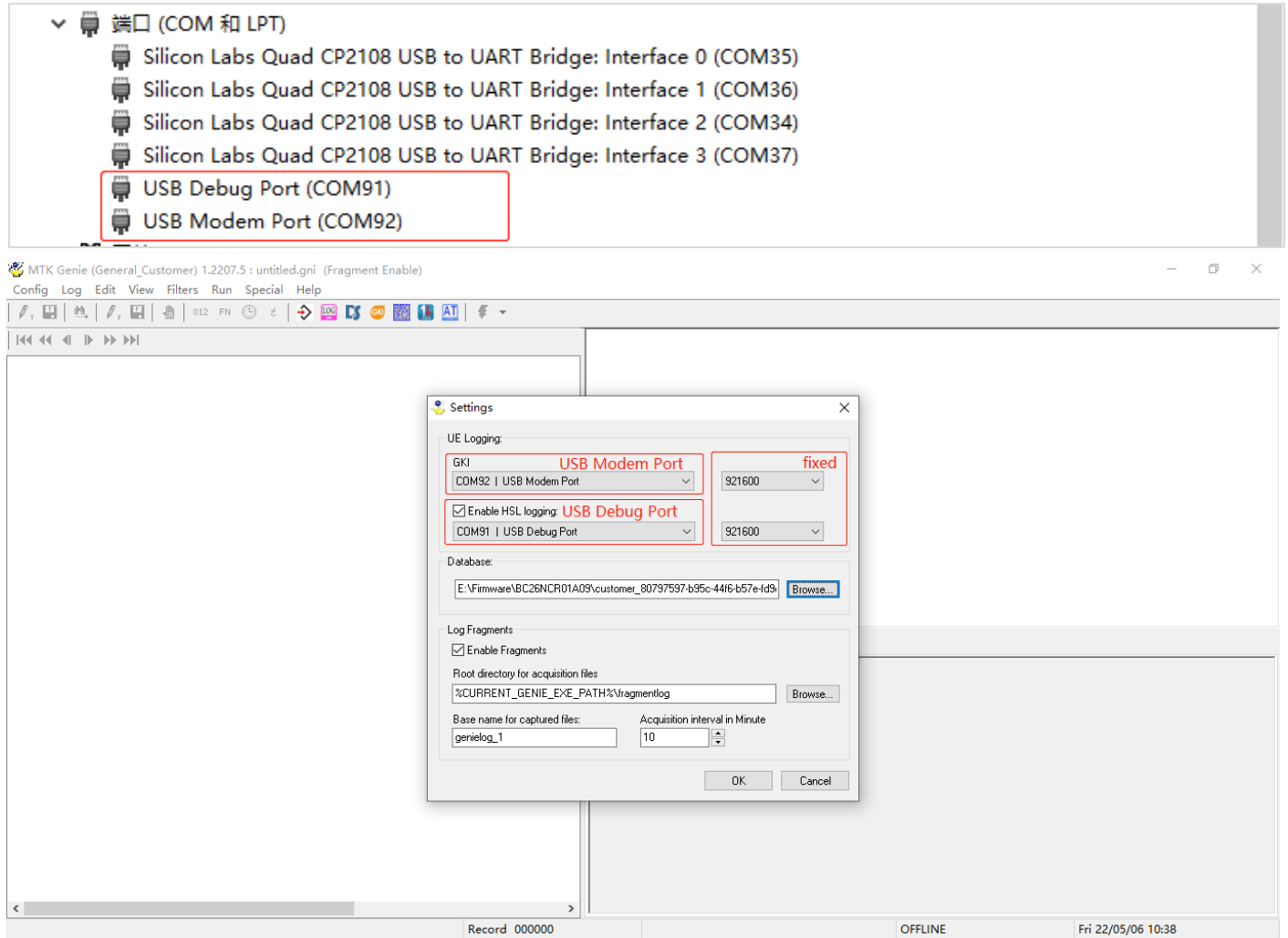
If USB is used to output Log, please execute the following AT command and set as shown below; It is recommended that you run the command to close USB output after logging output.

*****Open USB output*****

```
AT+EPORT=1,uls,5
AT+EPORT=1,emmi,4
*****Close USB output*****
AT+EPORT=1,uls,2
AT+EPORT=1,emmi,1
```

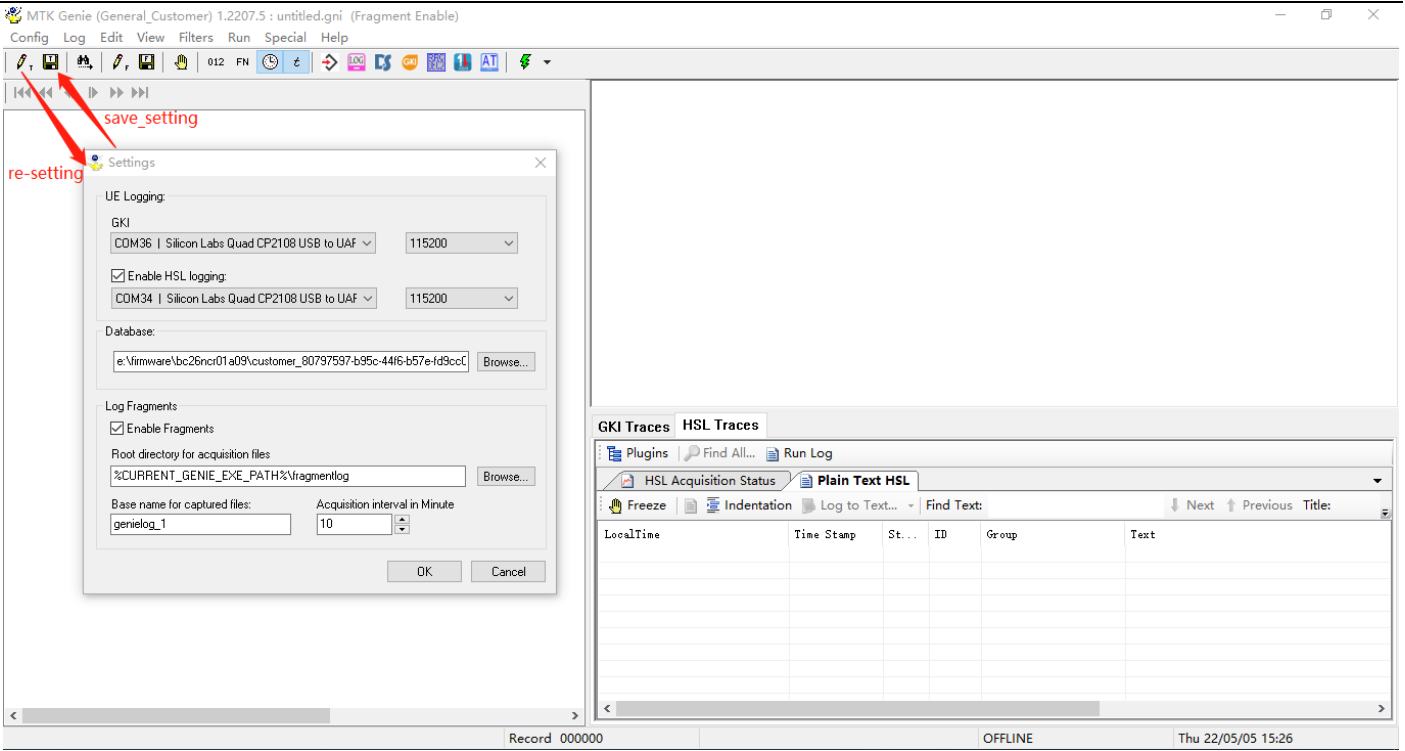
配置后请重新上电或重启后生效，设备管理器中端口显示如下；

Power on or restart the device for the configuration to take effect. The ports displayed in device Manager are as follows:



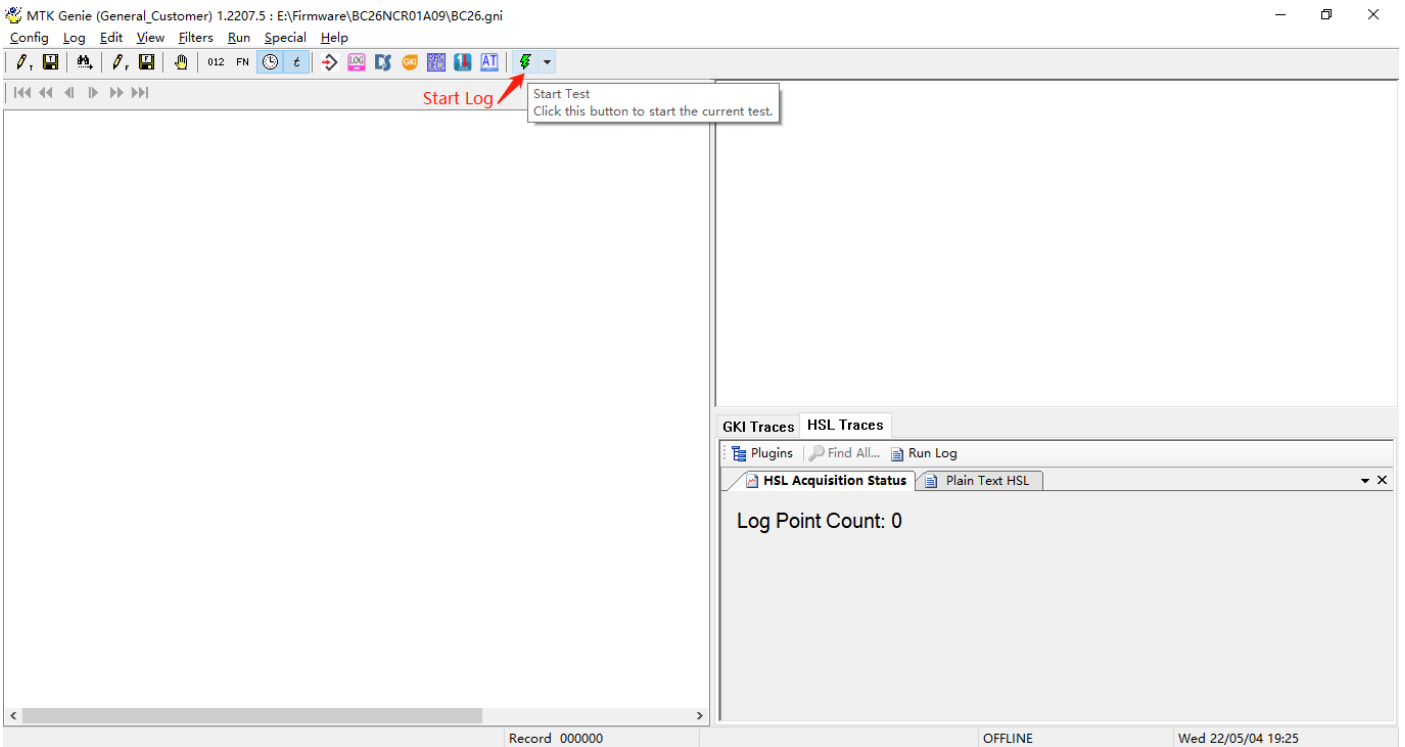
可通过如下图所示工具栏中的图标对配置参数进行修改和保存，或在菜单栏中“Config→New Config”/“Config→Save Config”进行修改和保存；

You can modify and Save the configuration parameters by using icon in the toolbar as shown below, or by "Config→New Config"/" Config→Save Config "in the menu bar.



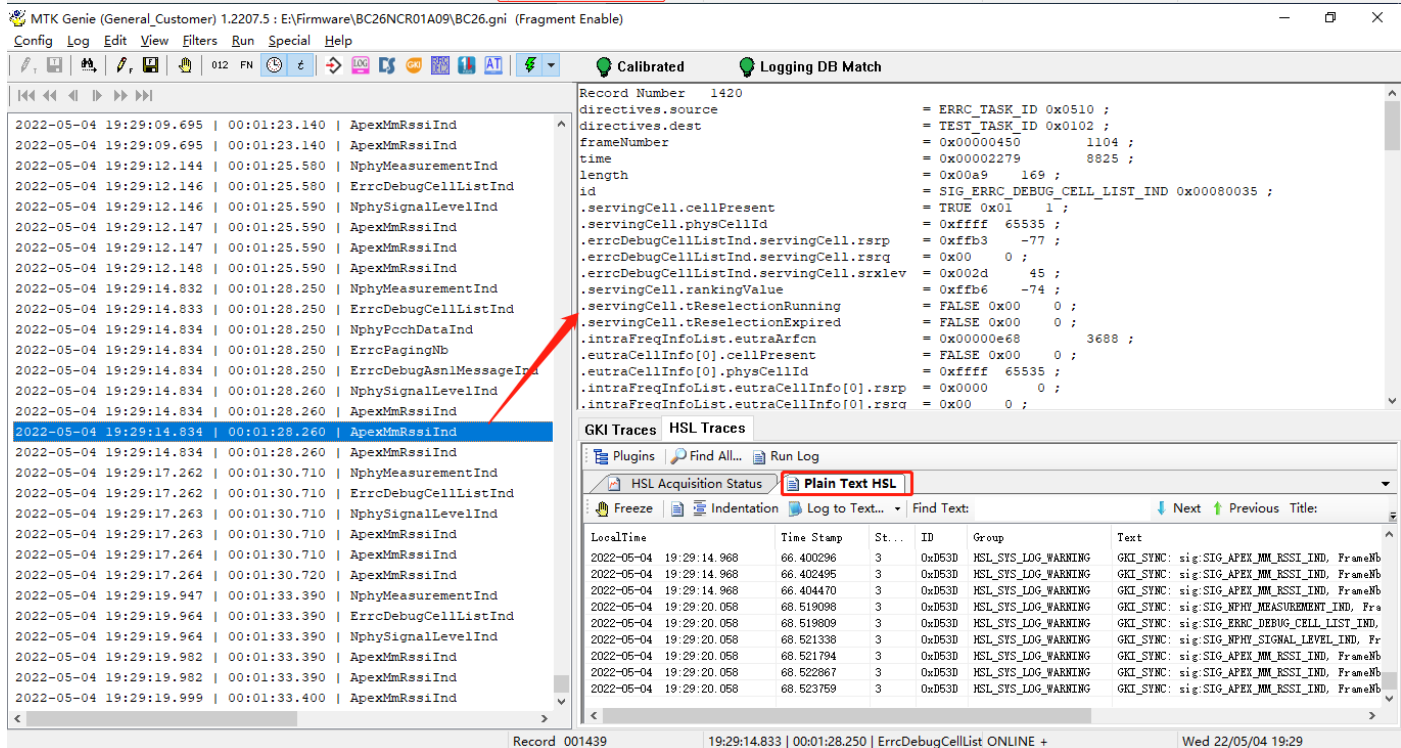
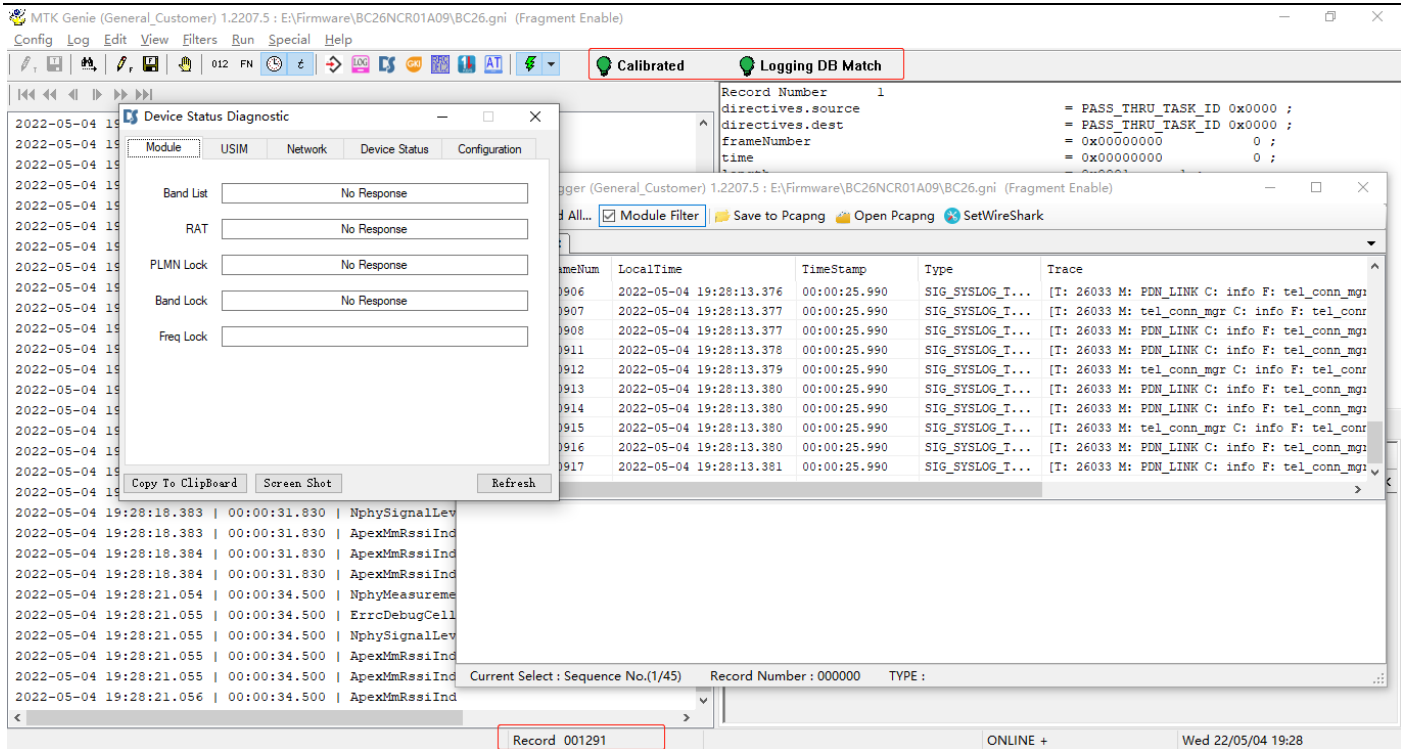
然后点击工具栏中如下图所示图标，开始记录 log；注意，设备上电后，需要通过 POWERKEY 给模组上电；

Then click the icon in the toolbar as shown below to start recording log; Note:After the device is powered on, you need to use POWERKEY to power on the module.



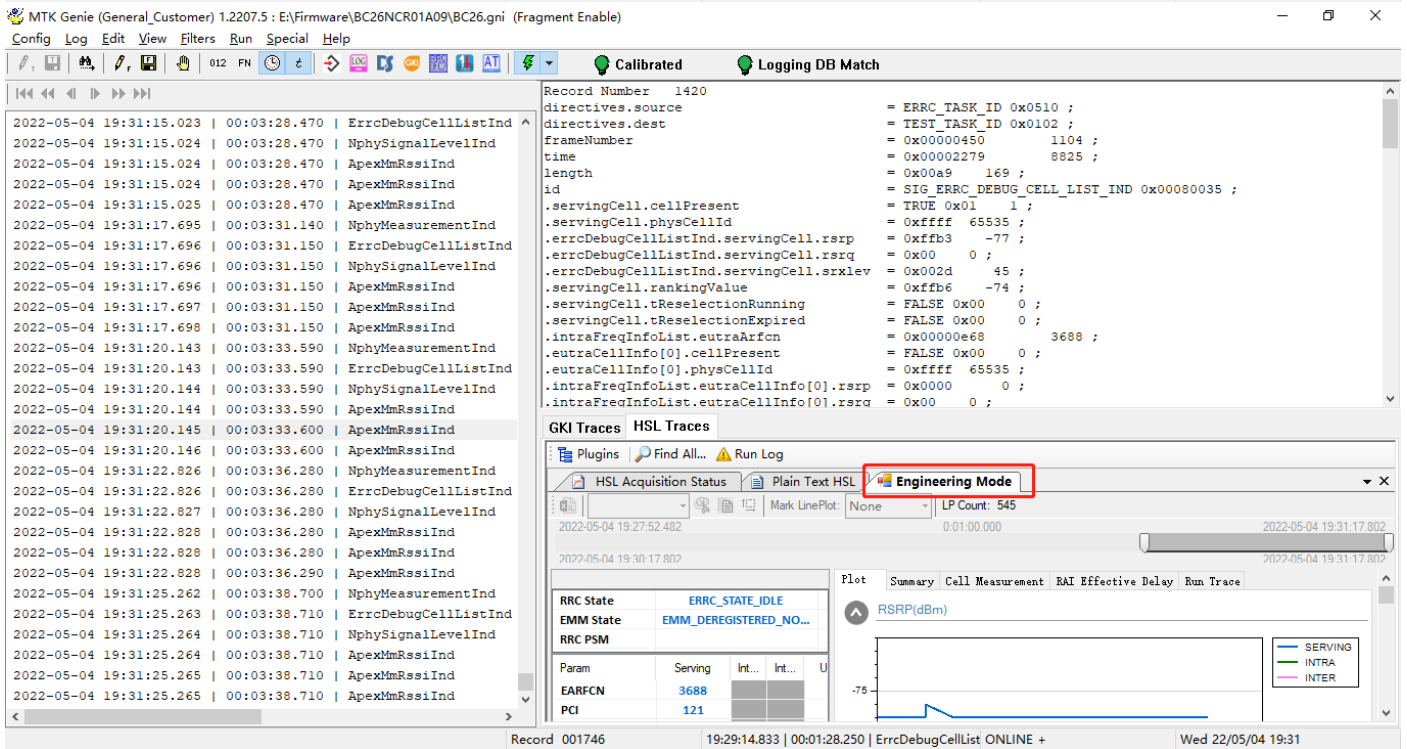
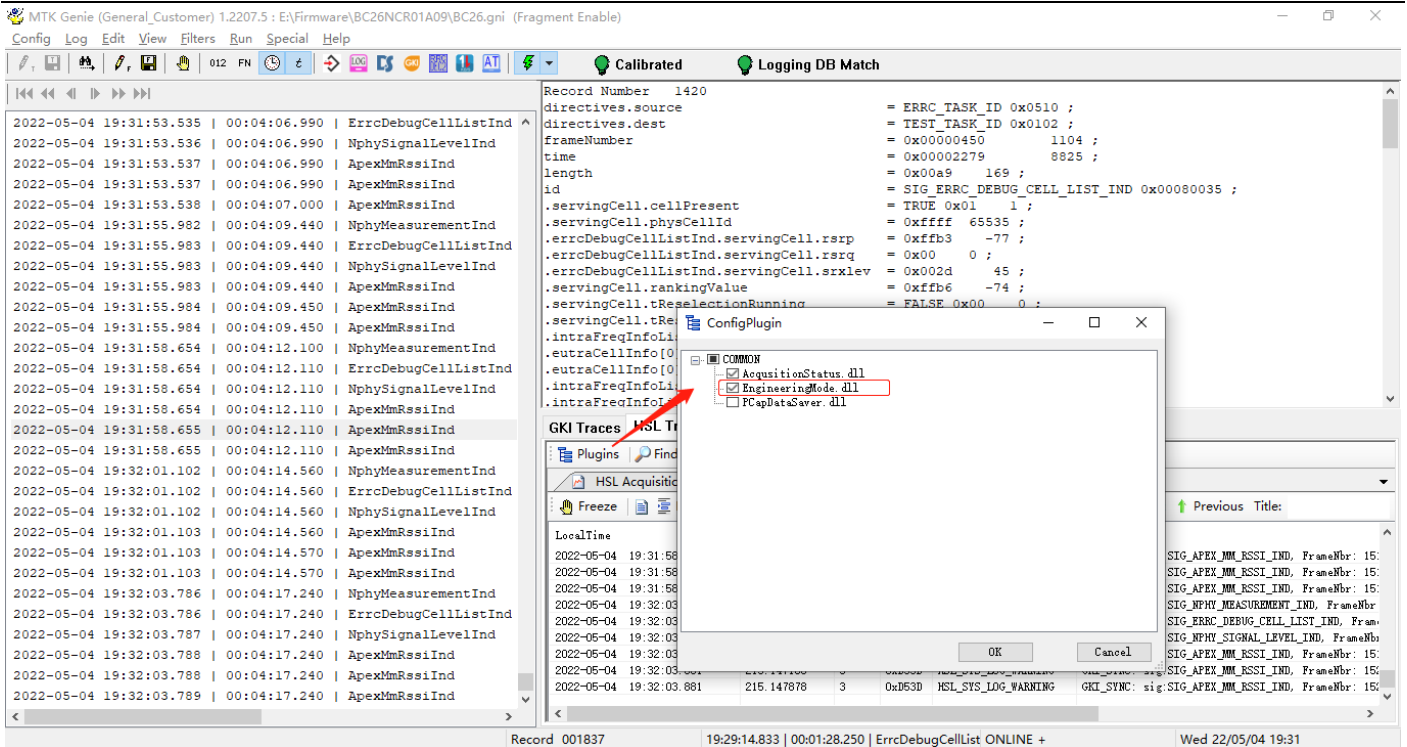
随后弹出如下图所示窗口；

Then the window as shown below pops up;



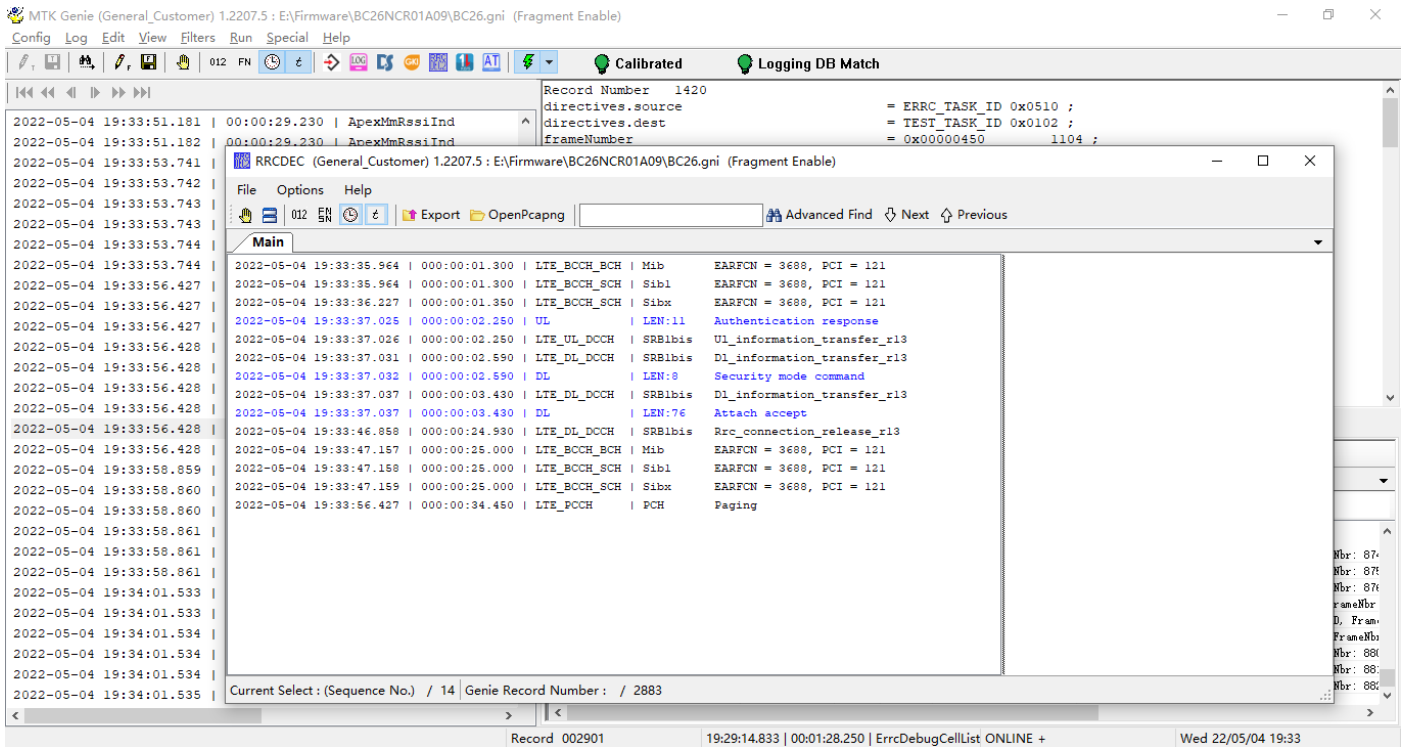
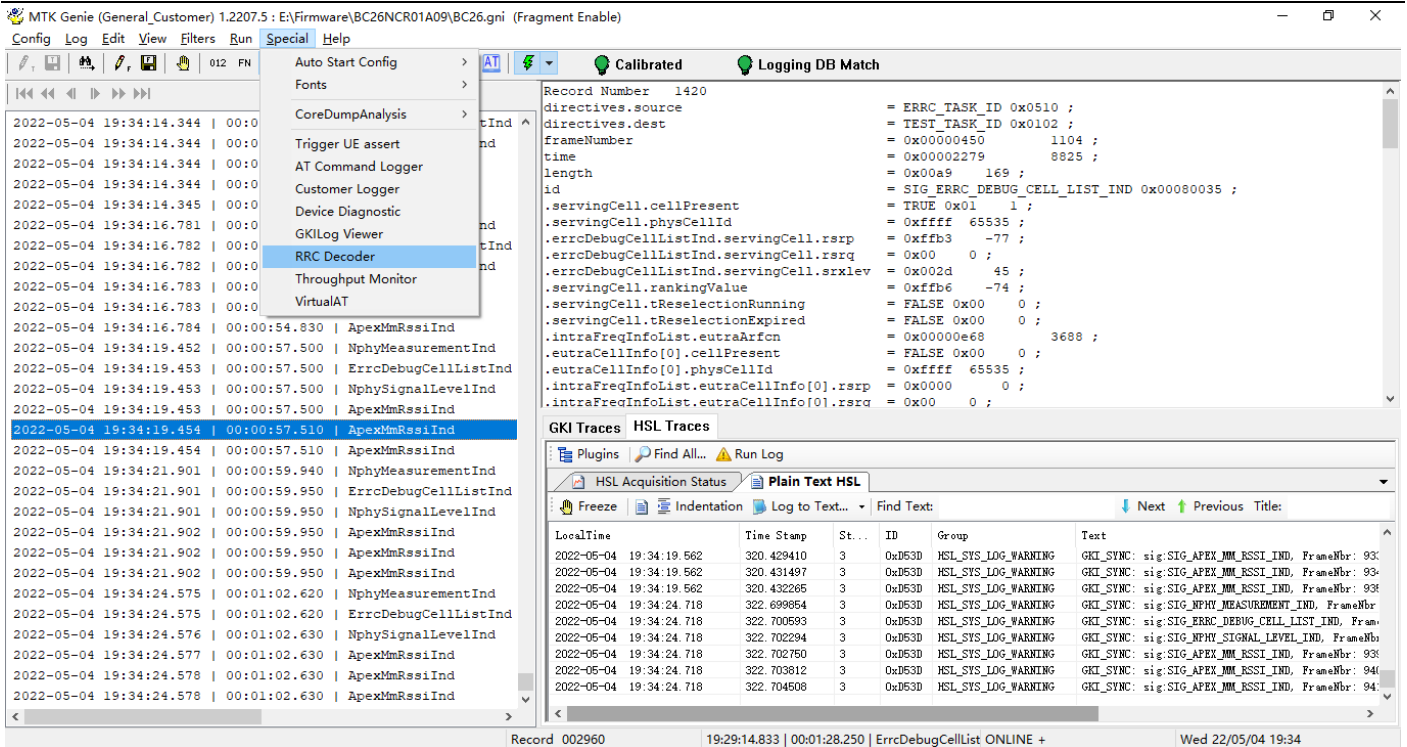
如果下图所示，启用 genie 中的工程模式，便于对终端接收的信号相关参考量进行观察；

As shown below, the engineering mode in Genie is enabled to facilitate the observation of the signal reference received by the terminal.



如下图所示，通过菜单栏中“Special→RRC Decoder”，打开 genie 中的信令窗口，便于对终端信令交互进行观察；

As shown below, through the menu bar "Special→RRC Decoder", open genie signaling window, easy to observe the terminal signaling interaction;

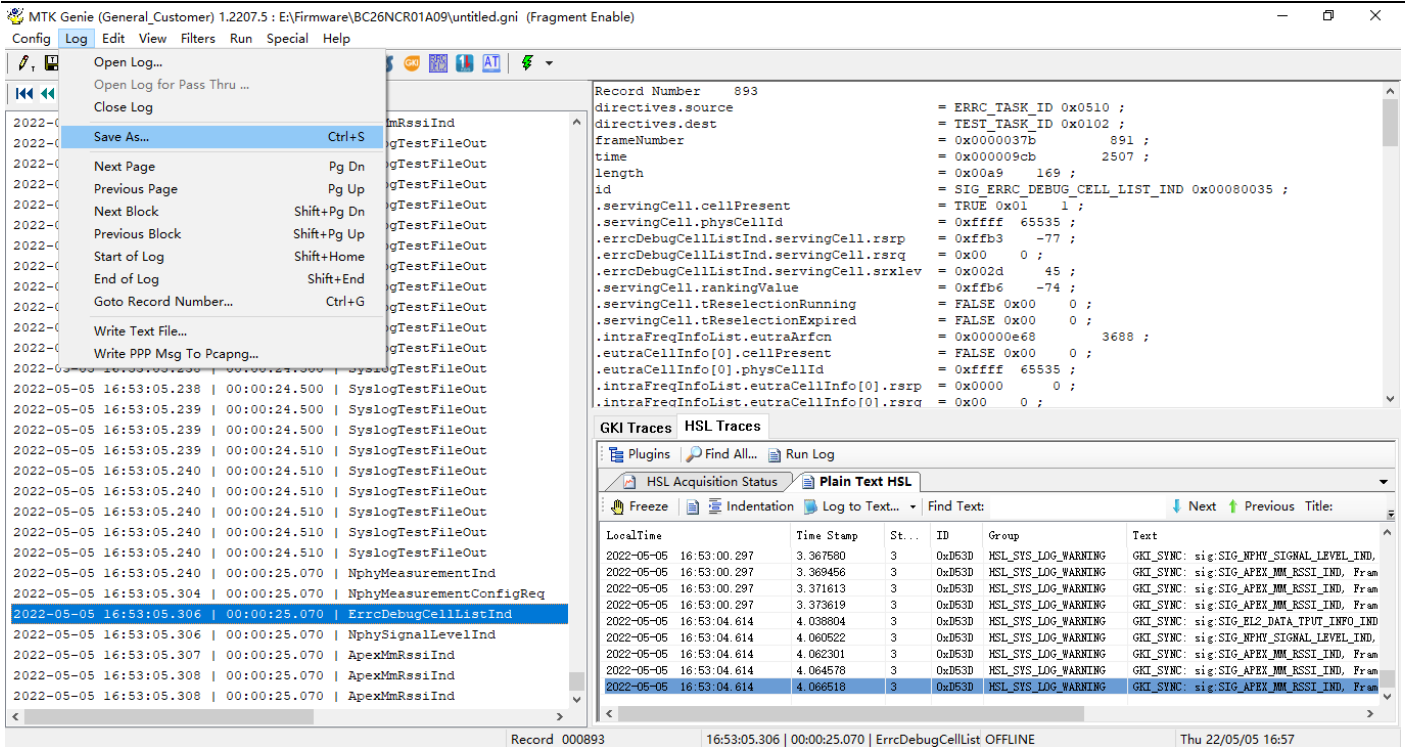


四、日志保存 (Save Log)

4.1 手动保存(Manual save)

抓取 log 结束后，通过菜单栏中“Log→Save As”保存 Log，如下图所示；

After the log is finished, Save the log xxx.glp by "Log→Save As" in the menu bar, As shown below.

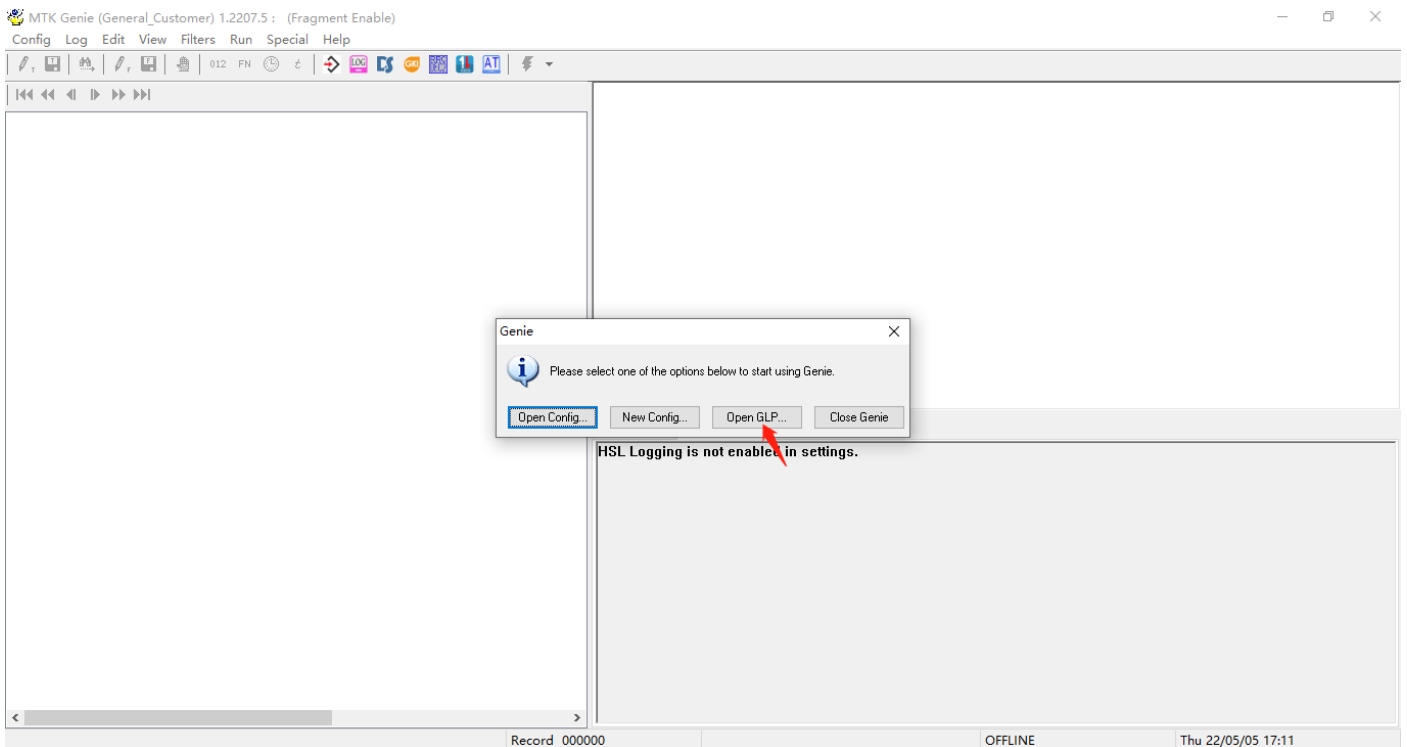


五、常见分析应用 (Common Analytical Application)

5.1 LOG 导入(Import Log)

直接点击保存的 xxx.glp 文件，即可打开 Log；或启动 genie 后，通过如下图所示方式导入 Log；

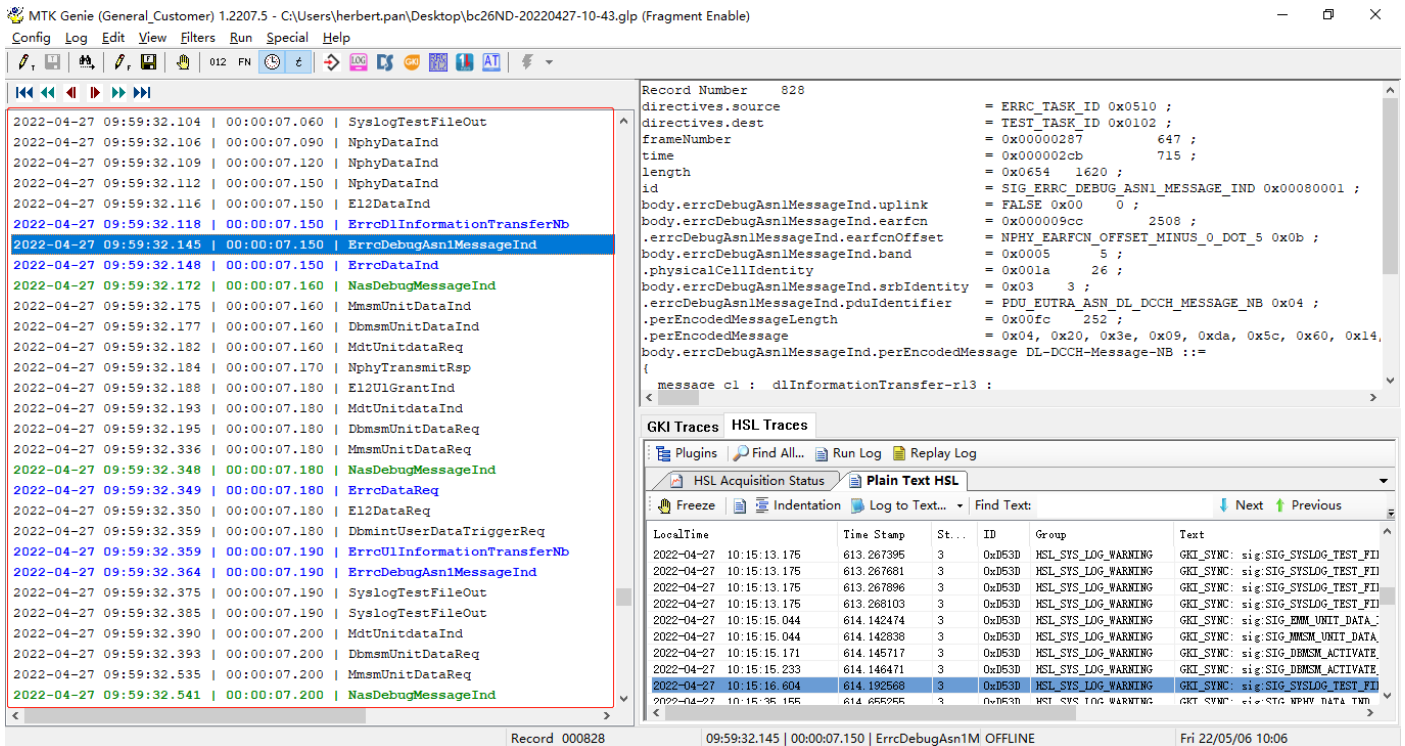
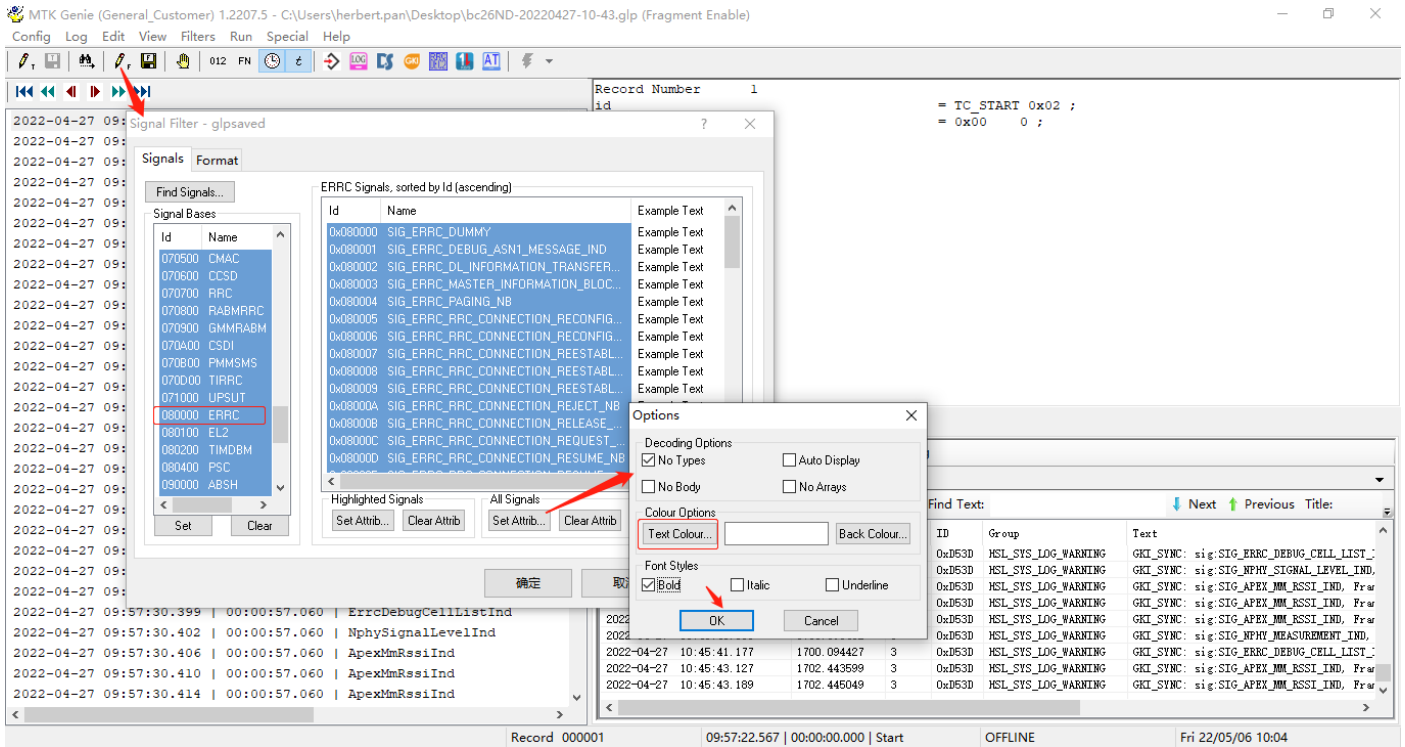
Click on the saved xxx. GLP file to open Log. Or after starting genie, import the Log as the below.



5.2 消息着色(Color the Message)

通过工具栏中如下图所示图标，对 Log 不同类型消息进行标记着色，可以更加容易辨识和查看；

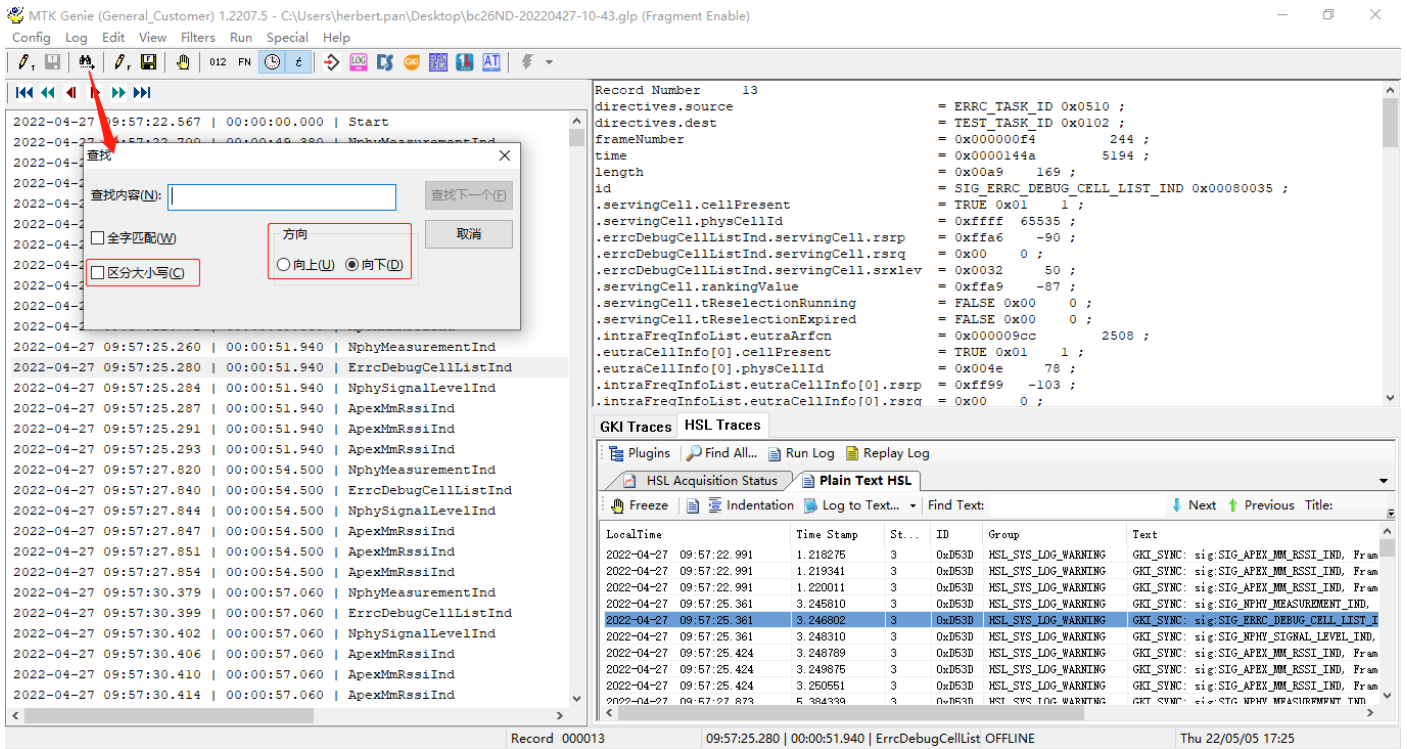
By using ICONS in the toolbar as shown below, different types of Log messages can be marked and colored, which makes it easier to identify and view.



5.3 LOG 过滤(Filter Log)

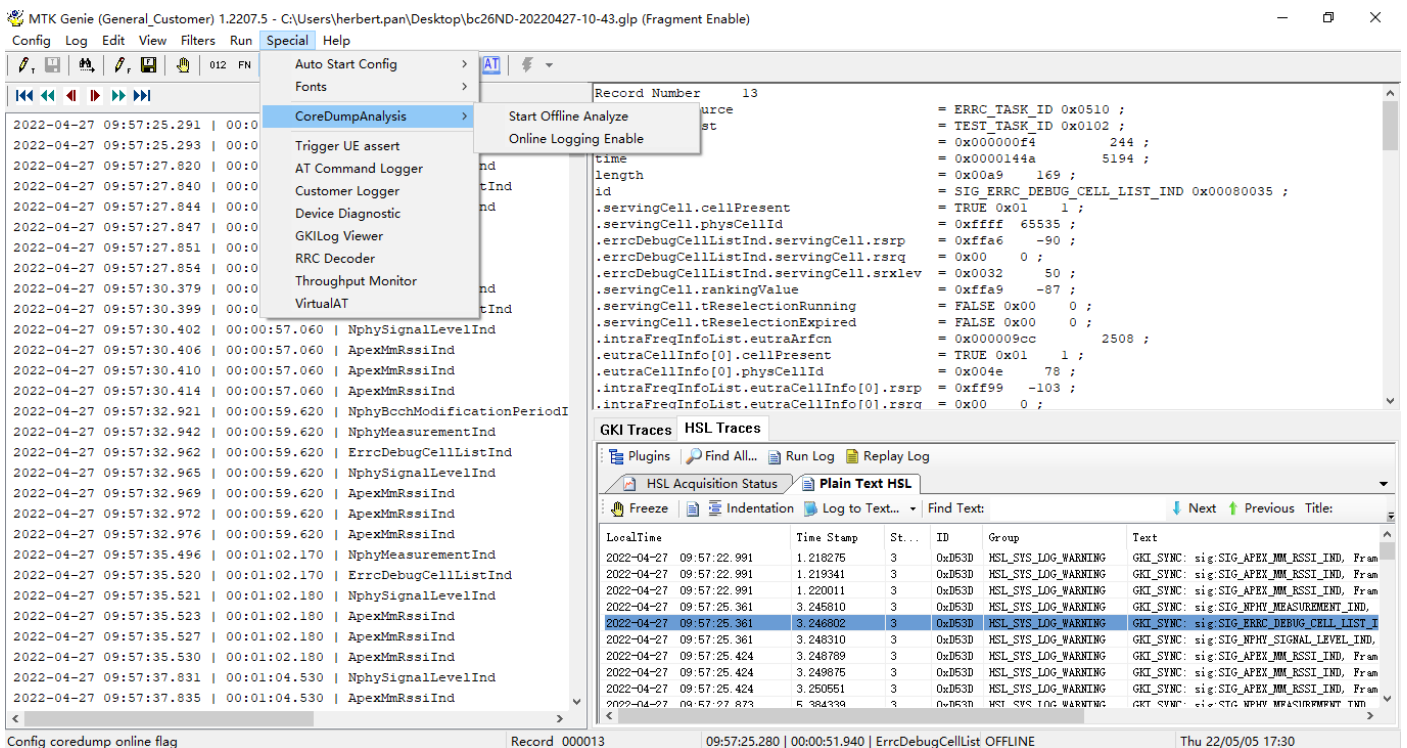
通过工具栏中如下图所示图标，或在菜单栏中“Edit→Find”，打开查找/搜索窗口，注意区分大小写选项和查找方向；

Open the Find/search window through the ICONS shown in the toolbar below, or through the menu bar "Edit→Find", note the case-sensitive options and search direction;



也可以通过菜单栏中的“Special”过滤特定属性 Log,如 AT Command Logger;

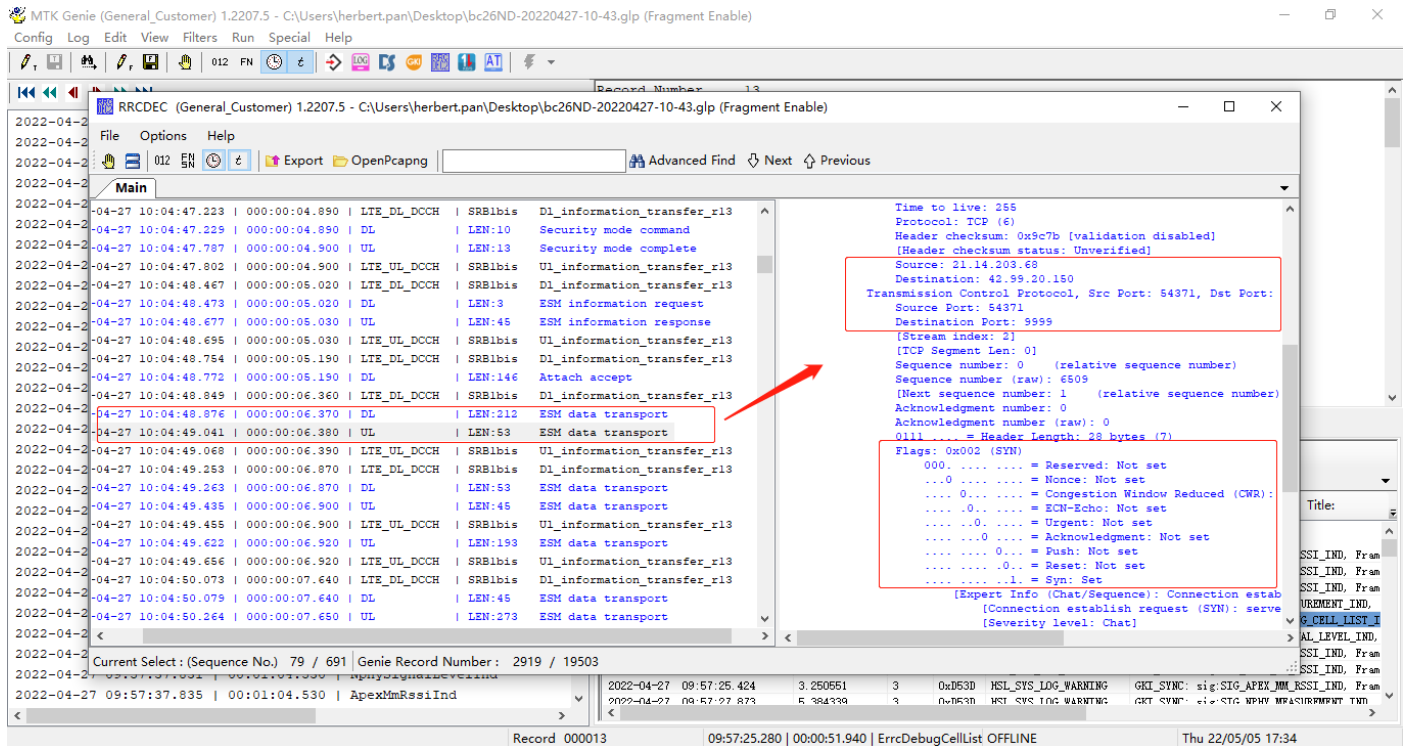
You can also use the menu bar "Special" to filter specific attribute logs, such as AT Command Logger;



5.4 数据解析(Data Analysis)

在菜单栏中“Special→RRC Decoder”打开如下图所示窗口,可以对 AS/NAS 层消息进行解析;

In the menu bar "Special→RRC Decoder" to open the window as shown below, you can AS/NAS layer message parsing;



5.5 导出 Pcap(Output Pcap)

在菜单栏中"Special→RRC Decoder"打开如下图所示窗口，选择"Export"，并参考下图选项，导出 Pcap 文件；

In the menu bar "Special→RRC Decoder" to open the window as shown below, select "Export", and refer to the options below, Export Pcap file;

