Logel User Guide

2019年07月

Table of Contents

Quick View

Tool Version

Modem Version

Quick start to capture log

- Click button 📍 on the toolbar to capture log，it will change to 📍 if successfully
  - Logel Tool connects to device by UART type
  - Logel Tool can auto identify the port by default

  Notice:

  If you did not use SPRD drivers, maybe the port name could not be identified,
  so you must select the right ports in Capture Setting window by clicking button ⚙

Quick start to playback log file

Playback .logel/.lst/.log file

- – Click button ▶ on the toolbar to open log file, it will change to ■ if started successfully

[Capture Setting]

- Click Button ⚙ on the toolbar to show capture setting dialog
- **Log Dir:** set the log files output folder
- **Type UART :**
  – **Diag port** : used to communicate with device
  – **Log port** : only used to receive log data
  – **Log Pt Capture Only**: capture data and save to file, usually used to capture WCN log raw data to a file.
  – **AGDSP Port**: only used to receive AG DSP log data
  – **Common TP Port**: used to receive DSP raw data by UART
  – **LTE TP Port:** used to receive DSP raw data by UART
  – **TG TP Port**: used to receive DSP raw data by UART
  – **Power Trace Port**: used to receive power trace data by UART
  – **Auto Identify Port**: switch between manual and auto mode of identify ports
- **Type Channel-Server(Simba) :**
  – Set Address(IP) and Port to connect to Channel-Server tool or Simba tool, using Socket protocol encapsulated DIAG packet without 7E header and tail, no escape byte.
- **Type Socket:**
  – Set Address(IP) and Port to connect to simulator, using Socket protocol encapsulated DIAG or SMP packet
- **Type FILE:**
  – Open one or more .log files to replay

Capture Setting

Log Output Directory

Log Dir: E:\LogelVersions\Logel_R8.18.3702\Bin\History

MS

Type:	Uart
Diag Port:	SPRD LTE DIAG (COM373)	115200
Log Port:	SPRD LTE LOG (COM374)	115200
Log Pt Capture Only:	SPRD WCN DIAG (COM370)	115200
AGDSP Port:	None	115200
Common TP Port:	None	2000000
LTE TP Port:	None	2000000
TG TP Port:	None	2000000
Power Trace Port:	None	2000000

☑ Auto Identify Port

OK   Cancel
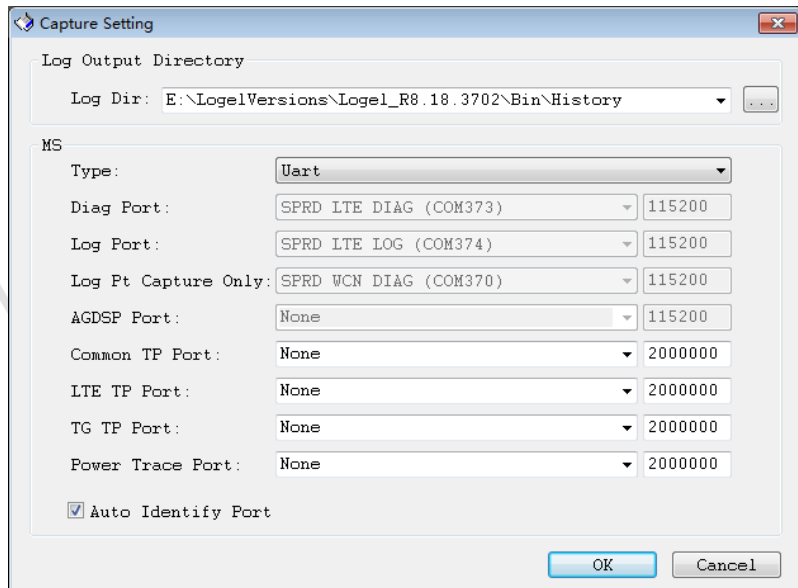
[Capture Setting] Port Notice

Type	Name	Protocol	Notice
DIAG	SPRD LTE DIAG	DIAG	Communicate with modem and output modem dump data when modem assert
	SPRD DIAG(SENSOR HUB)	DIAG	Communicate with modem and output modem log if no SPRD LTE DIAG device
	SPRD U2S DIAG	DIAG	Communicate with device in calibration mode
	SPRD WCN DIAG(LOG)	DIAG	Communicate with WCN modem
LOG	SPRD LTE LOG	SMP	Output PS and DSP log of Modem
	SPRD WCN DIAG(LOG)	SMP	Output WIFI Trace and BT DSP log of WCN Modem
	SPRD U2S DIAG	SMP	Output system dump files using SMP protocol in System Dump mode,
	SPRD LOG(AGDSP)	SMP	Output AGDSP data such as TP, Audio, IQ, mem.
AT	SPRD LTE AT(WIQ)	AT	Communicate with Modem by AT command
	SPRD AT	AT	Communicate with Modem by AT command if no SPRD LTE AT device shows
	SPRD WCN AT	AT	Communicate with WCN modem by AT command
UART	USB SERIAL PORT	RAW	Output raw data such as DSP, Power Trace data
	SPRD LTE AT(WIQ)	RAW	Output WIQ raw data in WIQ mode, only for old projects who have no SPRD IQ device
	SPRD IQ	RAW	Output WIQ raw data, and only show in WIQ mode
Download	SPRD U2S DIAG	Boot Mode	Burn SW files to flash using boot-mode protocol in download mode

[Parser Setting]

- **Click menu Option->Parser Setting**

- **Auto Loading Default Parser:**
  - Automatically search and load the matched parser
  - search order:
    - Bin\Parser
    - Search Path
    - Parser Server
    - Device
  - If no matched parser founded, applies the parser within logel tools(Bin\Parser)
  - Search Path: Indicates the local folder which may contains the target parsers.

- **Parser Lib Dir:**
  - Specify a certain parser folder
- **Database File:**
  - Set the parser got from YLOG, usually with the name of modem_db.gz
- **Notice:**
  - Parser is very important to decode logs.
  - Make sure the parser is matched with the modem version.
  - You can find the parser in the project release package, under the Logel tool Bin\Parser folder.

Parser Setting

Parser Path Settings

◉ Auto Loading Default Parser

Search Path: _____

○ Parser Lib Dir: `d:\svn_root\XLog\Bin\Parser\` [...]

○ Database file: _____ [...]

OK   Cancel
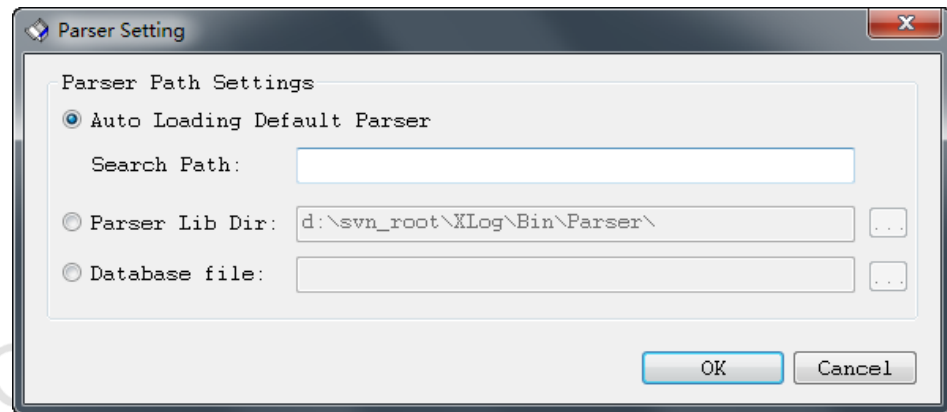
[View] Internal Messages(1)

- **Three sub windows in this frame**
  - Top is message list
  - Middle is message content: LOCAL & PEER
  - Bottom is message raw data : LOCAL & PEER
- **Message content menu**
  - **Select All:** Select all items of this tree
  - **Select Local:** Select all LOCAL items of this tree
  - **Select Peer:** Select all PEER items of this tree
  - **Expand All Children Items:** Expand children items
  - **Collapse All Children Items:** Collapse children items
  - **Save Struct to File:** Save all contents to file
  - **Copy to Clipboard**: Copy selected items to clipboard (Ctrl + C)
  - **Show Hex**: Show value in hex mode
  - **Show Decimal**: Show value in decimal mode
  - **Parse Deeply:** Decode special container to extra text tree window
  - **Parse By ASN:** Decode messages by ASN.1 to current tree
  - **Parse By Wireshark:** Decode messages by Wireshark to extra text tree window
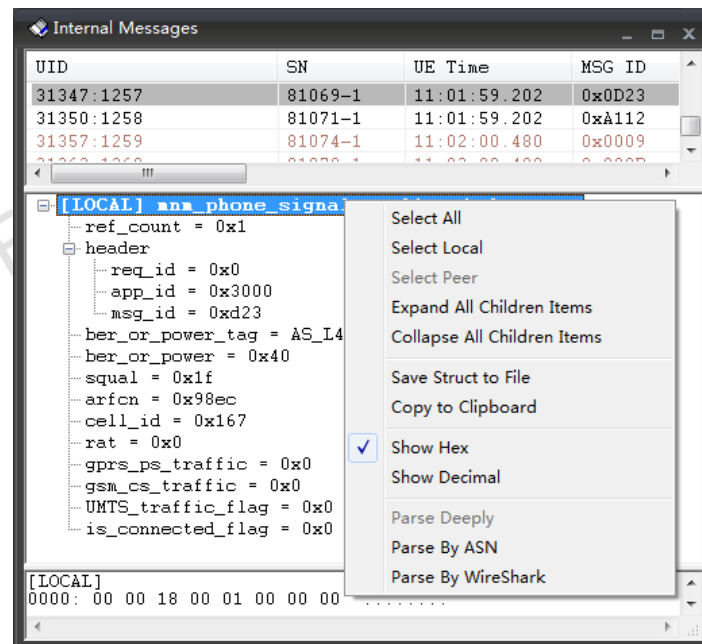
[View] Internal Messages(2)

- **Popup menu in message list window**
  - Time Difference
  - Text Color
  - Background Color
  - Auto Scroll
  - Add to Bookmark (Alt+A)
  - Remove Bookmark (Alt+R)
  - Pre Bookmark (Alt+U)
  - Next Bookmark (Alt+D)
  - Export Single Item To .logel File
  - Export All Items To File
  - Export All Detail Items To File
  - Filter
- **Parse and show message content**
  - Double click item to show contents in the two windows below
- **Sync to other view**
  - Double click item to process synchronization
- **Other view sync to this view**
 - Double click item in other view to synchronize to this view
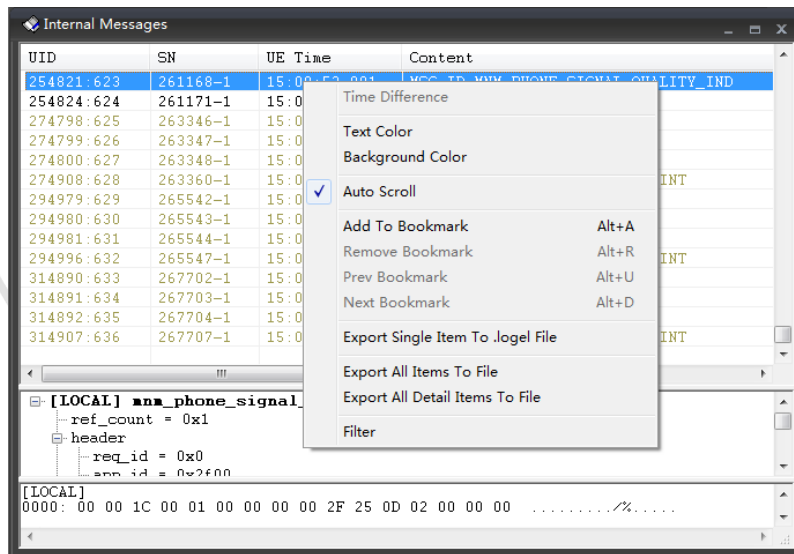
- **Parse Deeply**
  - Decode the contents with current loaded parser
  - Logel tool can decode messages as bellow:
    - 3G: MIB/MSG_ID_DM_UTRAN_CLASSMARK_IND
      - utran_classmark
    - 3G: attcah_request
      - ms_nw_cap, ms_ra_acc_cap
    - 4G: attcah_request
      - ue_nw_cap, esm_message_container_contents,ms_nw_cap
    - 4G: attach_accept
      - esm_message_container_contents
    - 4G: UECAPABILITYINFORMATION
    - 4G: ROUTING_AREA_UPDATE_REQUEST
      - ms_ra_acc_cap,ms_nw_cap

- **Parse By ASN**
  - Decode the contents with ASN.1 protocol
  - Logel try to use ASN.1 protocol to decode the contents
    - If decode successfully, the new decoded content will be shown in current tree view
    - If decode failed, no change occurs.

    e.g.
    - RRCCONNECTIONSETUPCOMPLETE
      - ueCapabilityContainer

- **Parse By Wireshark**
  - Decode the contents with Wireshark
  - Logel tool can decode the message content by message name listed in \3rd\WireShark\src_3gpp.txt
  - Before use this function, you must install Wireshark first and set the install path in menu Option->Tool Configure->Configure.
  - e.g.
    - ULINFORMATIONTRANSFER
      - dedicatedInfoNAS
    - DLINFORMATIONTRANSFER
      - dedicatedInfoNAS
    - UECAPABILITYINFORMATION
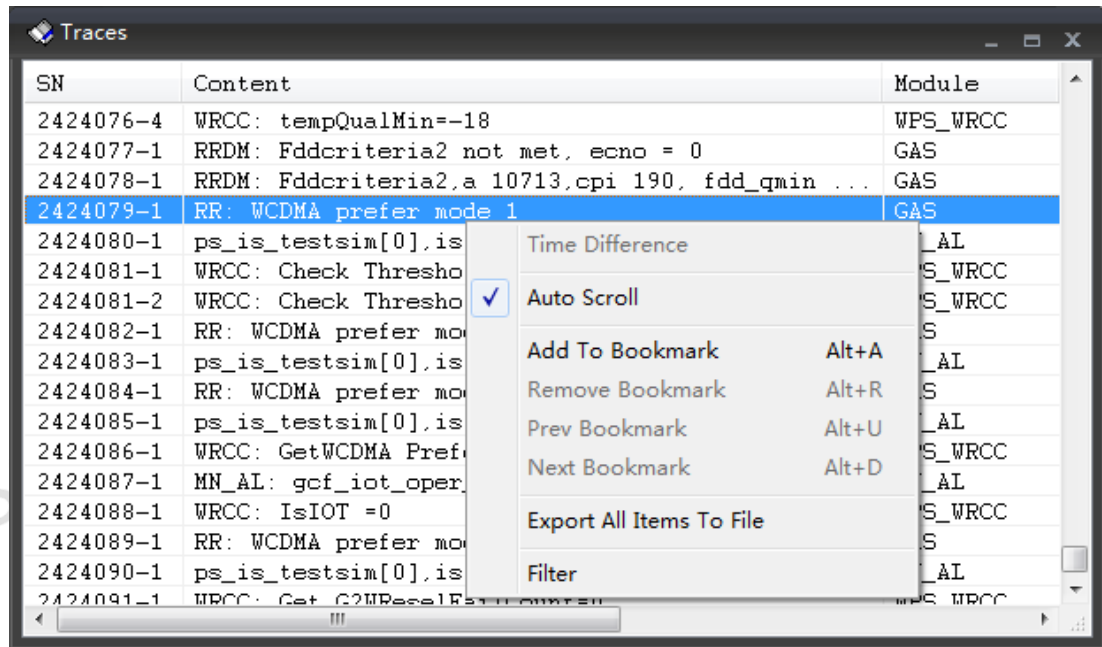   - container

[View] Traces
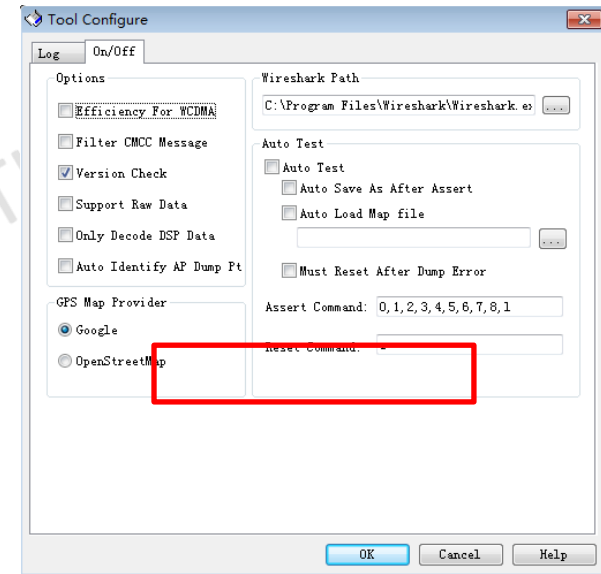
- **Popup Menu**
  - Time Difference
  - Auto Scroll
  - Add to Bookmark (Alt+A)
  - Remove Bookmark (Alt+R)
  - Pre Bookmark(Alt+U)
  - Next Bookmark(Alt+D)
  - Export All Items To File
  - Filter

- **Sync to other views**
  - Double click the item to sync
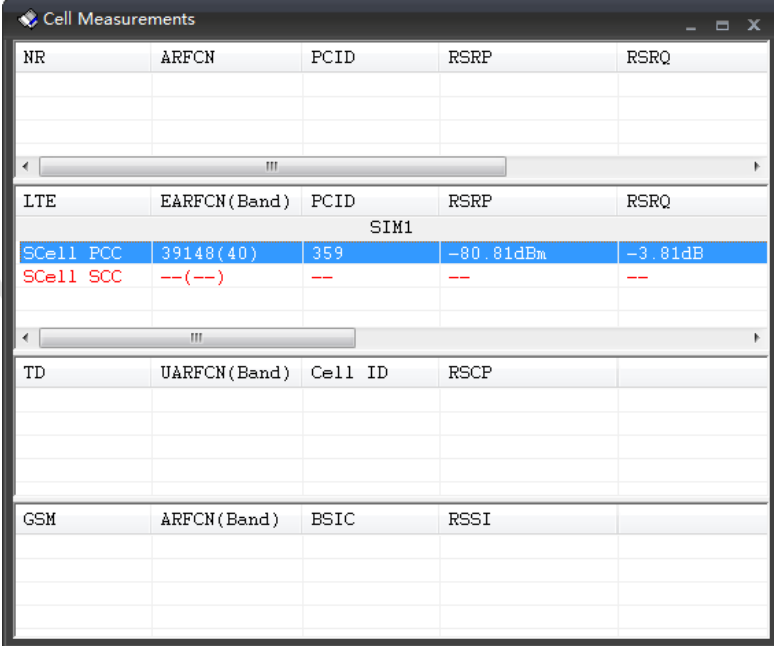
[View] Air Messages

- **Air Message Flow list**

- **Popup Menu**
  - Time Difference
  - Background Color
  - Auto Scroll
  - Add to Bookmark (Alt+A)
  - Remove Bookmark (Alt+R)
  - Pre Bookmark(Alt+U)
  - Next Bookmark(Alt+D)
  - Export All Item To File
  - Export All Detail Items To File
  - Export All Detail Items Parsed By Wireshark To File

- **Sync to other views**
  - Double click the item to sync
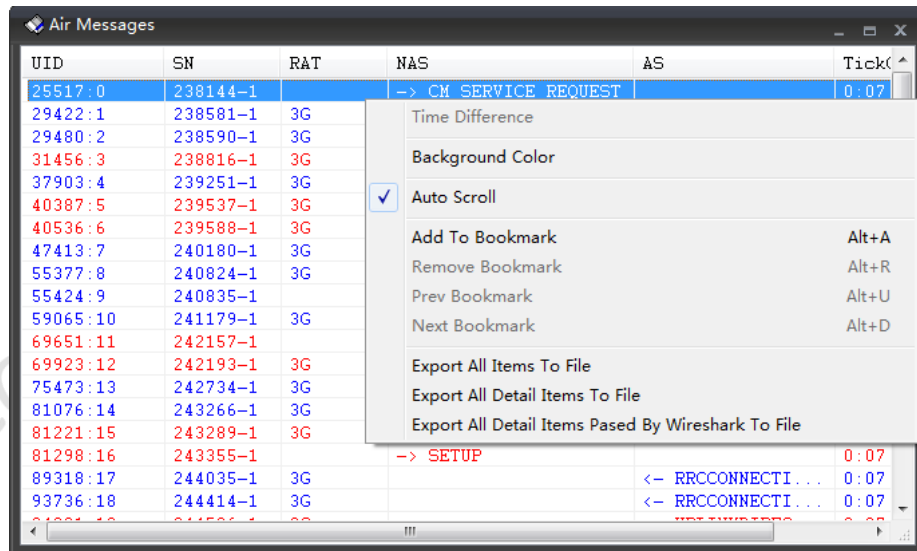
[View] Cell Measurements

- **Support dual SIMs cases**

- **Four windows are shown in this frame**
  - NR cell measurement
  - LTE cell measurement
  - TD/WCDMA cell measurement
  - GSM cell measurement

- **Open the view by the menu**
  - View->Common-> All Cell Measurement

- **Open the view by hot-key**
  - Ctrl + 4
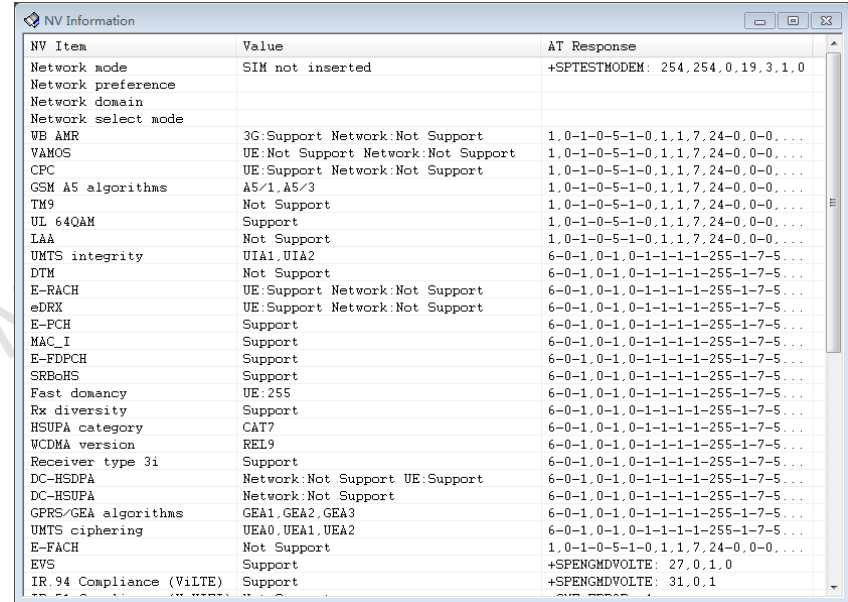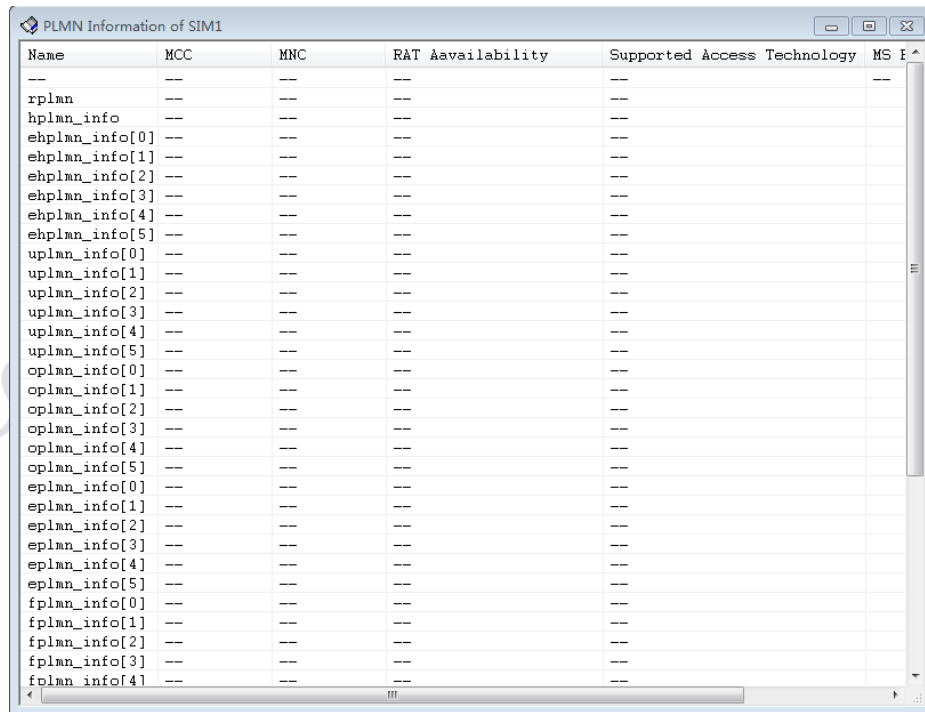
[View] NV Information

- **Works only when connected with DUT**
  - Opening view will retrieve NV information automatically
  - Retrieves NV information by right click menu "Refresh"

- **Hidden column**
  - The hidden 3rd column shows the AT responses

- **Open the view by the menu**
  - View->Common-> NV Information

[View] PLMN Information of SIM1

- **Open the view by the menu**
  - View->Common->PLMN Information of SIM1

- **Function**
  - Display PLMN information of SIM1
  - Retrieve value from Internal Message:
    MSG_ID_MM_PLMN_INFO_IND

[View] PLMN Information of SIM2

- **Open the view by the menu**
  - View->Common->PLMN Information of SIM2

- **Function**
  - Display PLMN information of SIM2
  - Retrieve value from Internal Message:
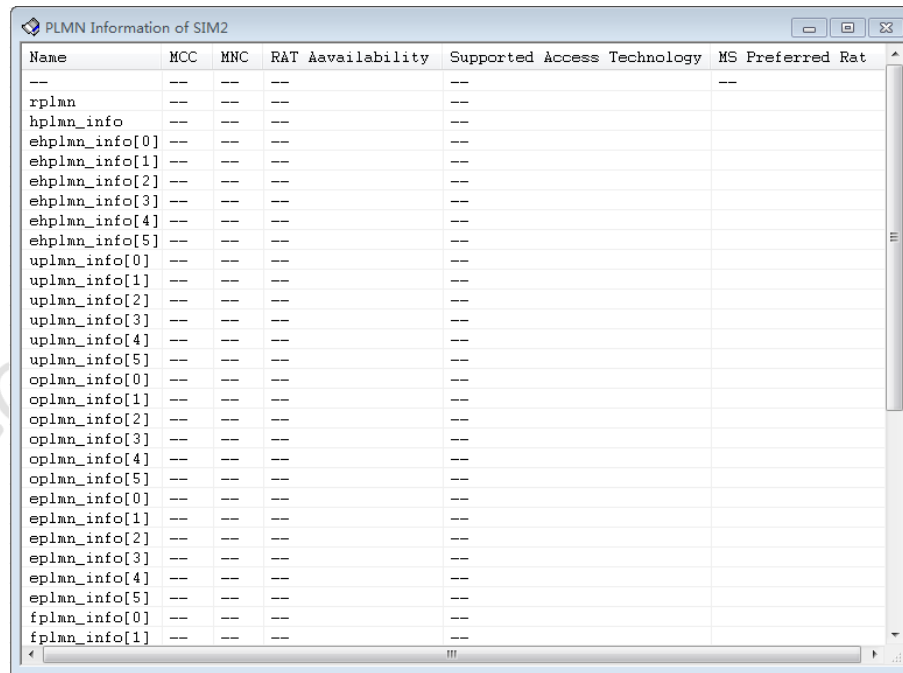   - MSG_ID_MM_PLMN_INFO_IND

[View] Chart : Basic Function

Open any XXX Chart in main menu

- **Clear:** Pop up menu -> Clear, Clear chart
- **Cursor**: Pop up menu -> Cursor, show data value in legend area
- **Calculate Average:** Pop up menu -> Average
- **Auto Scroll:** Pop up menu -> Auto Scroll
- **Zoom:** Scroll mouse wheel directly
- **Scroll:** Hold mouse left button and move left or right in the chart field.
- **Draw Line** : Pop up menu -> Draw Line
- **Draw Point** : Pop up menu -> Draw Point
- **Show or Hide Header**: Pop up menu -> Show Header
- **Show or Hide Legend**: Pop up menu -> Show Legend
- **Reset Axis X to zero position**: Pop up menu -> Reset Axis X
- **Reset Axis Y to original position**: Pop up menu -> Reset Axis Y
- **Delay Display Value**: Pop up menu -> Delay Display Value
  - Make chart display value in delay mode to avoid the highly refresh frequency which makes hard to see clearly
- **Set Time Display Range**: Pop up menu -> Range
- **View or Hide Axis Y**: Pop up menu -> View Y-Axis
- **View or Hide Lines**: Pop up menu -> View Channel
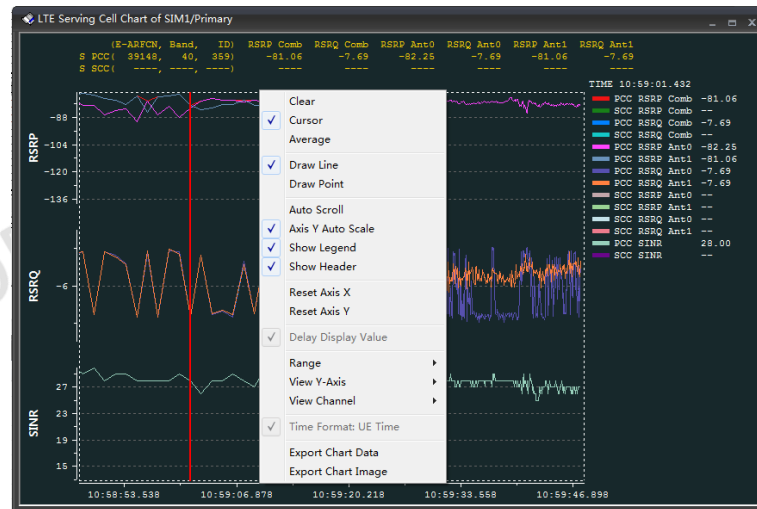
- **Sync with other view**: Double click the chart field to sync with other views
- **Save chart data to user specified csv file**: Pop up menu -> Export Chart Data
- **Save chart data image**: Pop up menu -> Export Chart Image

[View] Chart : Average Function

- **Open the view by the menu**
  - View->xx Chart, Popup menu: Average

- **Function**
  - Display Average, Min, Max value
  - Display Time Span
  - User can move the average field side to select the time range to calculate average value.

[View] RAT Chart

- **Open the view by the menu**
  – View -> Common -> RAT Chart

- **Function**
  – Display LTE Normal Service
  – Display LTE Limited Service
  – Display 3G Normal Service
  – Display 3G Limited Service
  – Display GSM/GPRS Normal Service
  – Display GSM/GPRS Limited Service
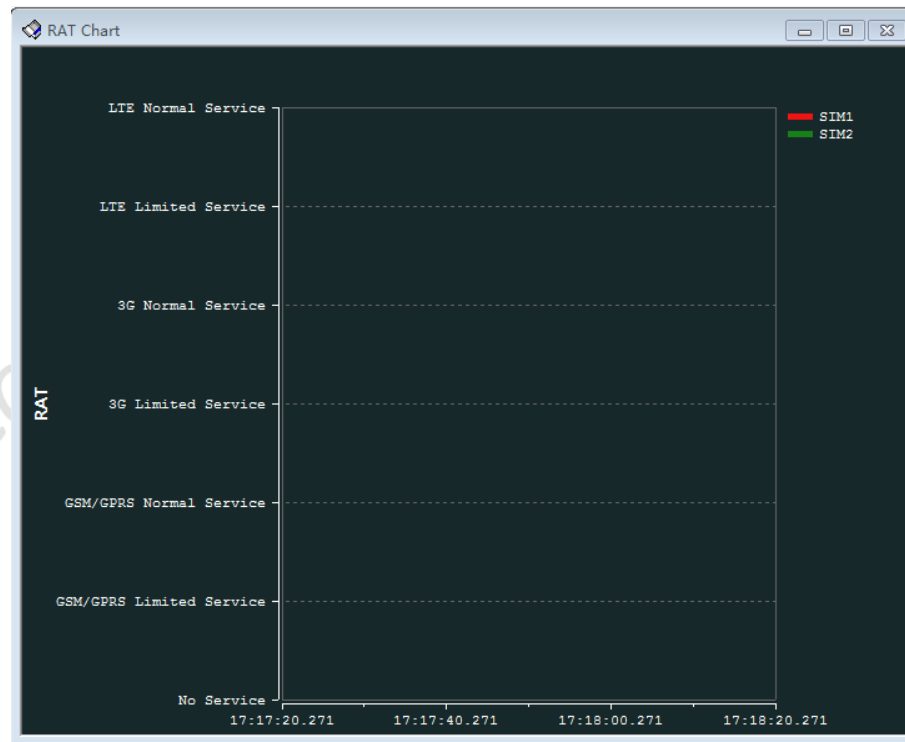
[View] Log Output Rate Chart

- **Open the view by the menu**
  - View -> Common -> Log Output Rate Chart

- **Function**
  - Display Output Rate
  - Display Lost Packets

[View] Power Trace Chart

- **Open the view by the menu**
  - View -> Common -> Power Trace Chart

- **Function**
  - Display the register status value: 0 or 1
  - Register names strictly depends on project features

- **Load data**
  - Input <Power Trace Port> on <Capture Setting Dialog> to capture data online
  - Import power trace log through right click menu to load offline data

- **characteristic**
  - X-Axis only support index mode

[View] LTE Serving Cell Chart of SIM1/Primary

- **Open the view by the menu**
  - View -> LTE -> LTE Serving Cell Chart of SIM1/Primary

- **Function**
  - Display RSRP/RSRQ Ant0/1, Comb value, SINR
  - Display Physical Cell ID
  - Display E-ARFCN, Band
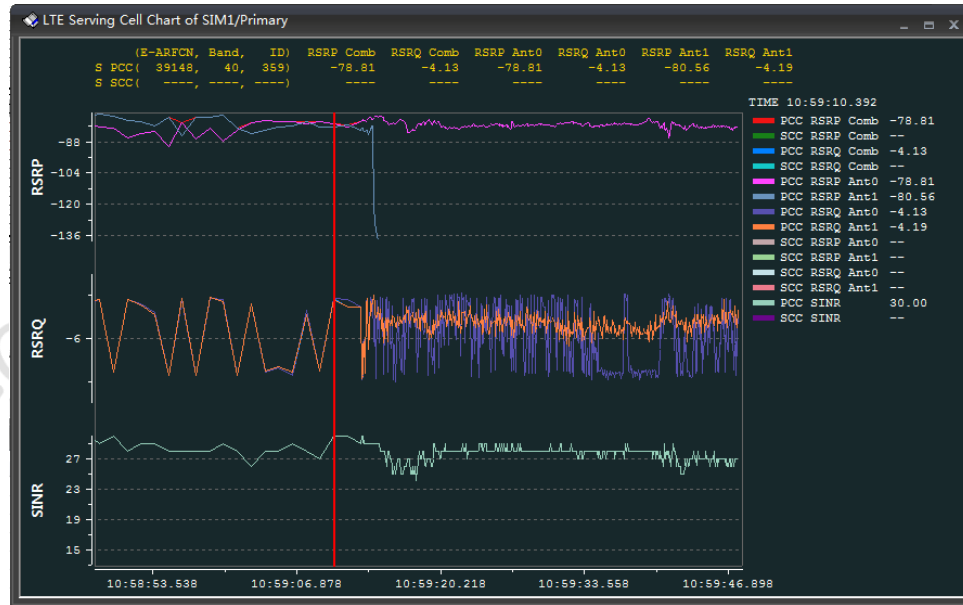
[View] LTE Serving Cell Chart of SIM2

- **Open the view by the menu**
  - View ->LTE-> LTE Serving Cell Chart of SIM2

- **Function**
  - Display RSRP/RSRQ Ant0/1, Comb value, SINR
  - Display Physical Cell ID
  - Display E-ARFCN, Band

[View] LTE Serving/Neighbor Cell Chart of SIM1/Primary

- **Open the view by the menu**
  - View ->LTE-> LTE Serving/Neighbor Cell Chart of SIM1 Primary

- **Function**
  - Display Serving and Neighbor cell RSRP
  - Display Physical Cell ID
  - Display EARFCN

[View] LTE Serving/Neighbor Cell Chart of SIM2

- **Open the view by the menu**
  - View ->LTE-> LTE Serving/Neighbor Cell Chart of SIM2

- **Function**
  - Display Serving and Neighbor cell RSRP
  - Display Physical Cell ID
  - Display EARFCN
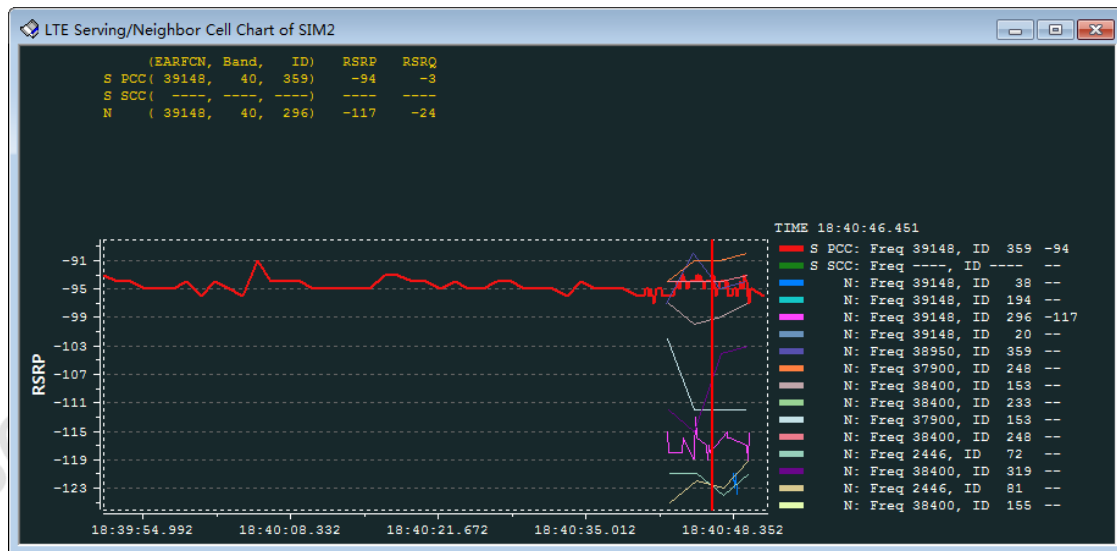
[View] LTE PDCP Throughput Chart

- **Open the view by the menu**
  - View -> LTE -> LTE PDCP Throughput Chart

- **Function**
  - Draw lines for both SIM1 and SIM2 as below:
    - UL ACK
    - UL Data
    - DL Data
    - UL Discard
    - DL Discard
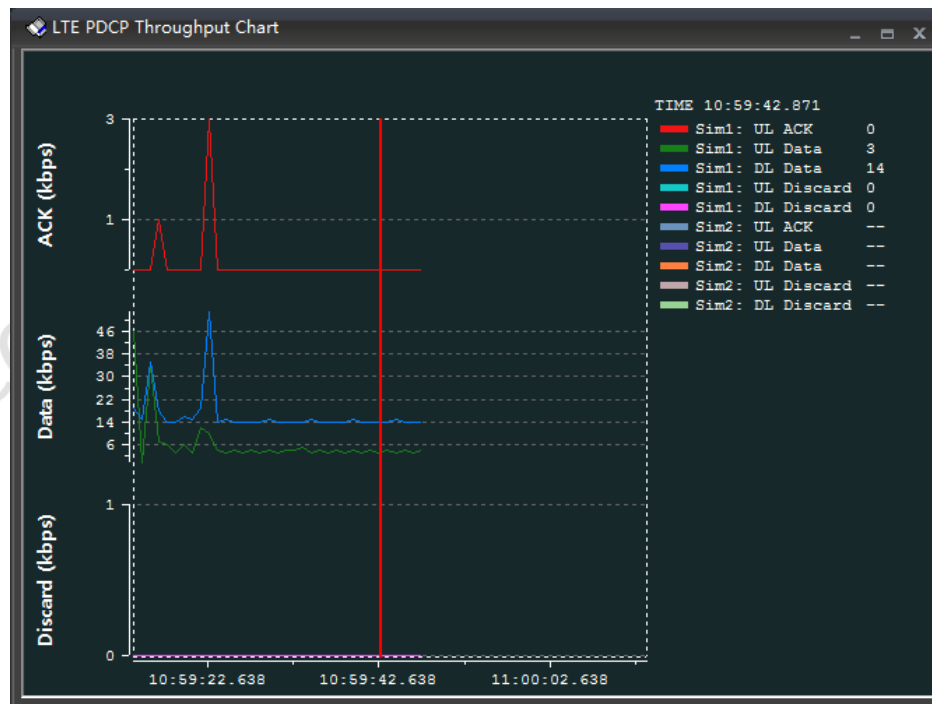
[View] LTE RLC Throughput Chart

- **Open the view by the menu**
  - View -> LTE -> LTE RLC Throughput Chart

- **Function**
  - Draw lines for both SIM1 and SIM2 as below:
    - UL Data
    - DL Data
    - UL Retrans
    - DL Discard

[View] LTE MAC Throughput Chart

- **Open the view by the menu**
  - View -> LTE -> LTE MAC Throughput Chart

- **Function**
  - Draw lines for both SIM1 and SIM2 as below:
    - UL Data
    - DL Data
    - New Trans
    - UL Padding
    - DL Padding
    - UL HARQ
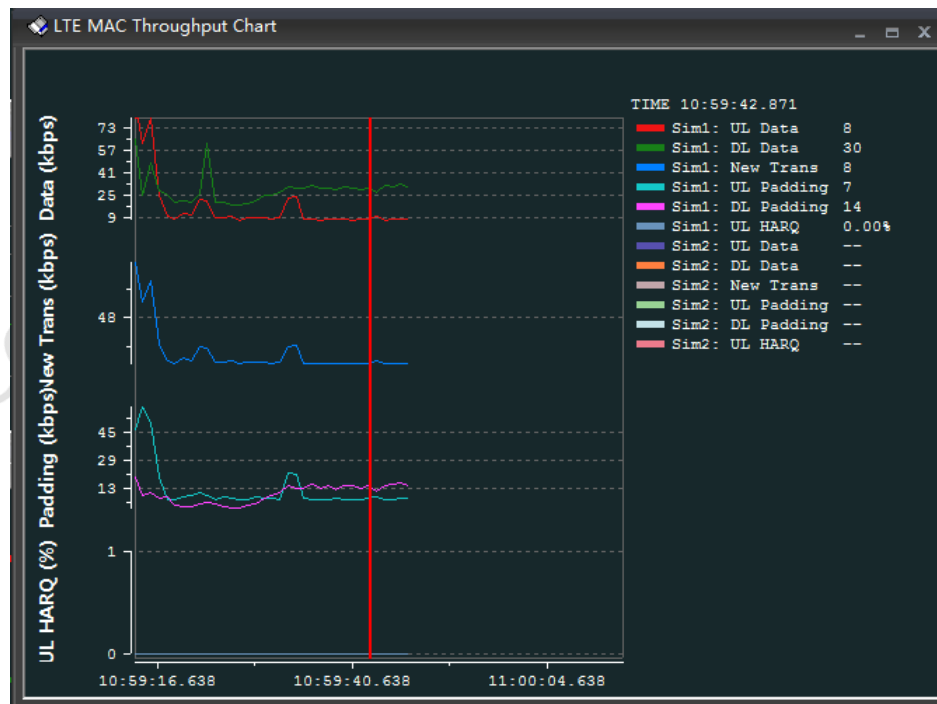
[View] LTE BSR Chart

- **Open the view by the menu**
  - View -> LTE -> LTE BSR Chart

- **Function**
  - Draw lines for both SIM1 and SIM2 as below:
    - BSR Index of LCG0
    - BSR Index of LCG1
    - BSR Index of LCG2
    - BSR Index of LCG3

[View] LTE Tx/Rx Power Chart

- **Open the view by the menu**
  - View -> LTE -> LTE Tx/Rx Power Chart

- **Function**
  - Draw lines as below:
    - RSSI0 – PCell
    - RSSI0 – SCell
    - RSSI1 – PCell
    - RSSI1 – SCell
    - AGC0 – PCell
    - AGC0 – SCell
    - AGC1 – PCell
    - AGC1 – SCell
    - Pusch
    - Pucch
    - Prach
    - SRS

[View] LTE PHICH Decoding Status Chart

- **Open the view by the menu**
  - View -> LTE -> LTE PHICH Decoding Status Chart

- **Function**
  - Draw lines as below:
    - nPhichGroup
    - nPhichSeq
    - nDetPhich
    - HI
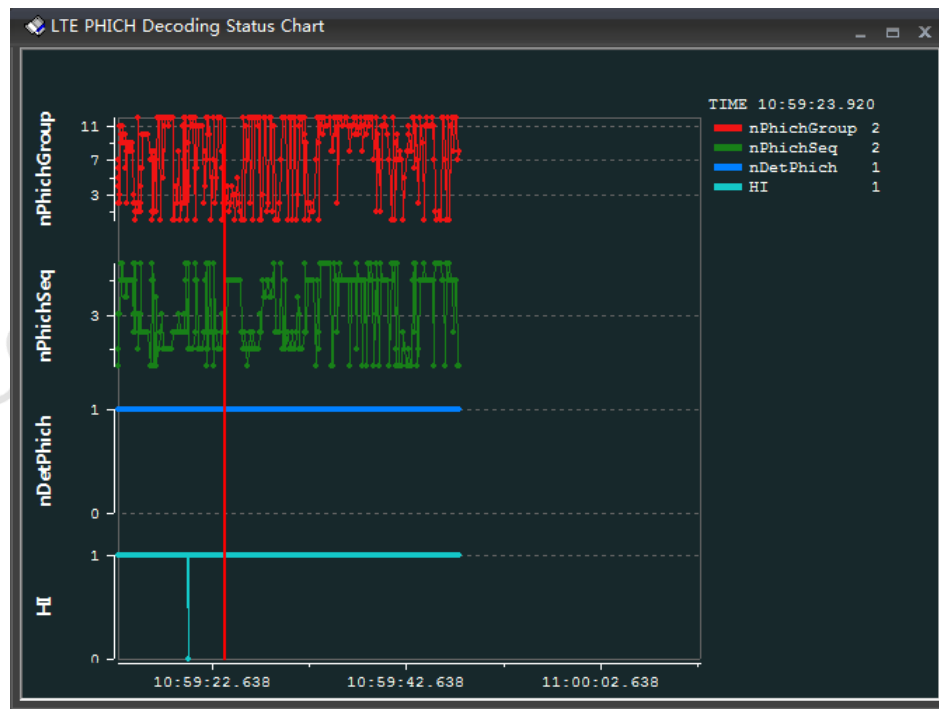
[View] LTE PDSCH Decoding Status Chart

- **Open the view by the menu**
  - – View -> LTE -> LTE PDSCH Decoding Status Chart

- **Function**
  - – Draw lines as below:
    - • ServingCellId
    - • DlTmMode
    - • DlHARQId
    - • CRC
    - • DecRntiVal
    - • DecRntiType
    - • TbNum
    - • RedundancyVersion0
    - • RedundancyVersion1
    - • NewDataIndicator0
    - • NewDataIndicator1
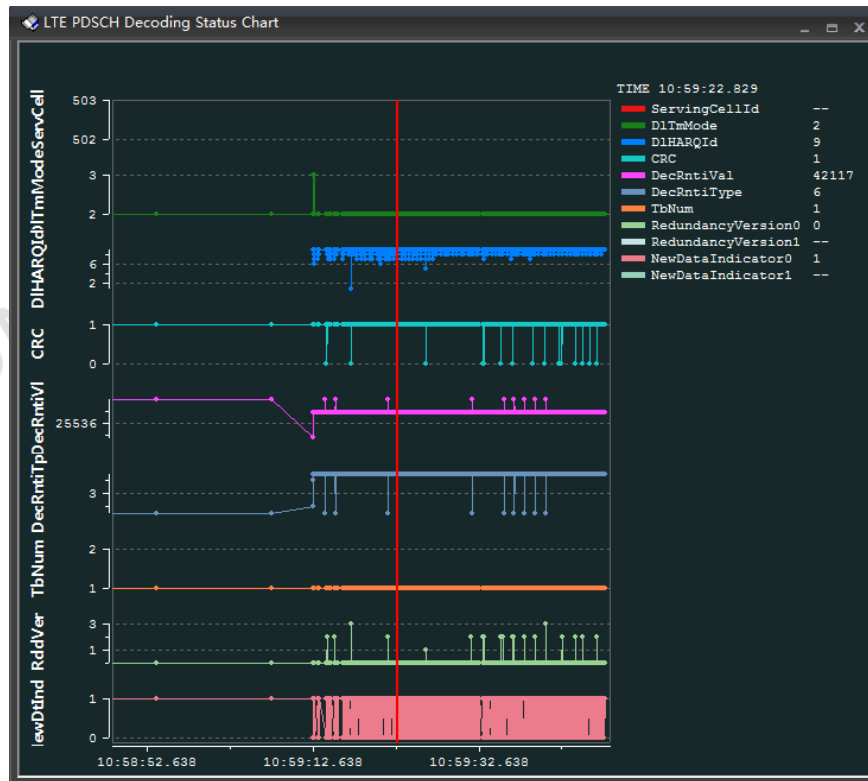
[View] LTE PHY DL Throughput & BLER Chart

- **Open the view by the menu**
  - View -> LTE -> LTE PHY DL Throughput and BLER Chart

- **Function**
  - Draw lines as below:
    - DL Throughput – Combined
    - DL Throughput – PCell
    - DL Throughput – SCell
    - DL BLER
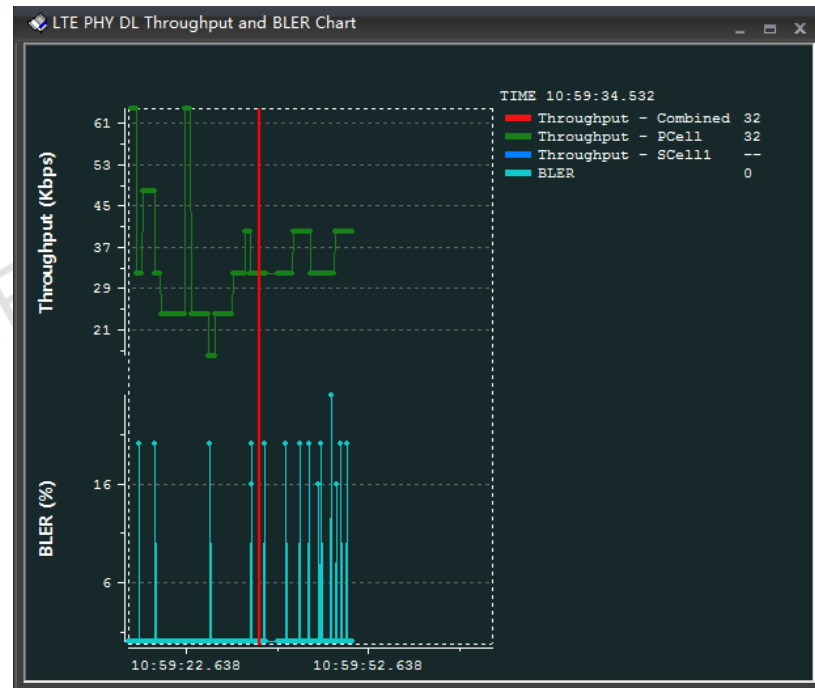
[View] LTE PHY UL Throughput & BLER Chart

- **Open the view by the menu**
  - View -> LTE -> LTE PHY UL Throughput and BLER Chart

- **Function**
  - Draw lines as below:
    - UL Throughput – Combined
    - UL Throughput – PCell
    - UL Throughput – SCell
    - UL BLER
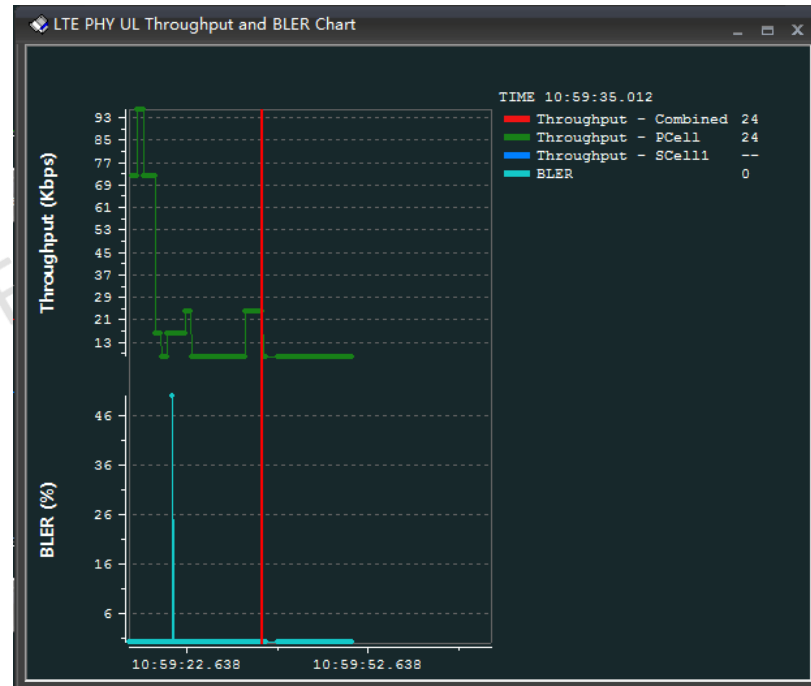
[View] LTE DL Number of RB/CQI/RI/DL Schedule Rate Chart

- **Open the view by the menu**
    - View -> LTE -> LTE DL Number of RB/CQI/RI/DL Schedule Rate Chart

- **Function**
    - Draw lines for both SIM1 and SIM2 as below:
        - DL Number of RB
        - DL CQI PCell
        - DL CQI SCell
        - DL RI PCell
        - DL RI SCell
        - DL Schedule Rate
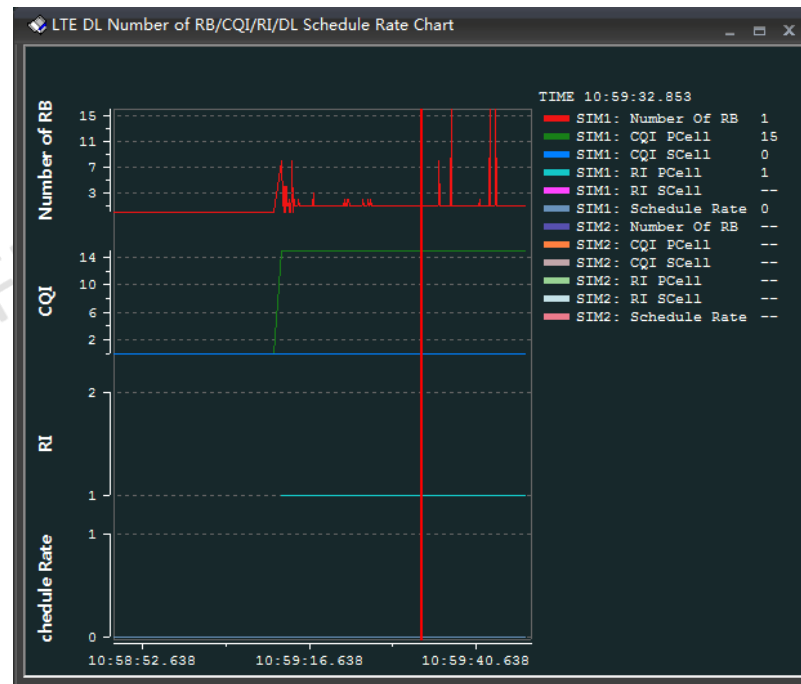
[View] LTE UL Number of RB/UL Schedule Rate Chart

- **Open the view by the menu**
  - View -> LTE -> LTE UL Number of RB/UL Schedule Rate Chart

- **Function**
  - Draw lines for both SIM1 and SIM2 as below:
    - UL Number of RB
    - UL Schedule Rate
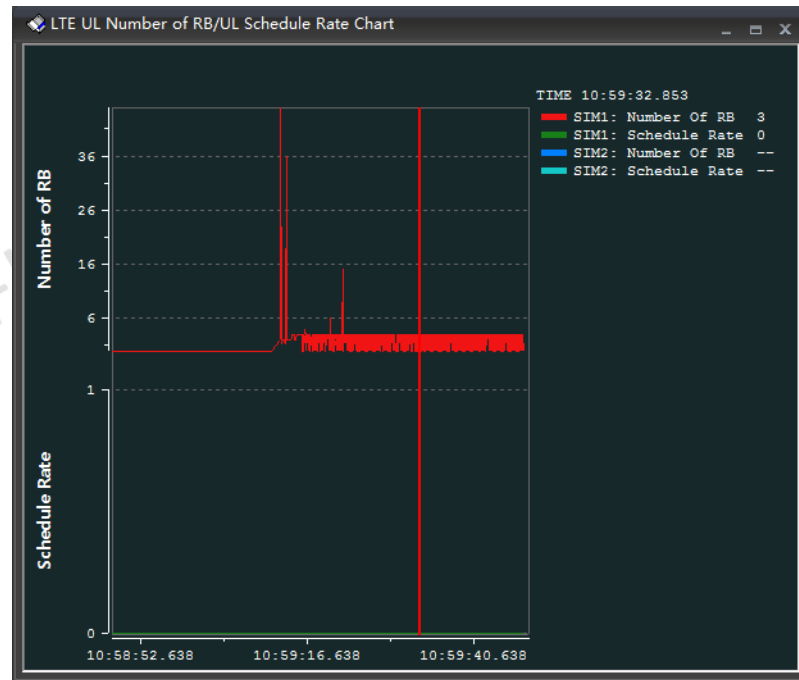
[View] LTE PHY UL MCS Chart

- **Open the view by the menu**
  - View -> LTE -> LTE PHY UL MCS Chart

- **Function**
  - Draw lines as below:
    - UL MCS – PCell
    - UL MCS – SCell
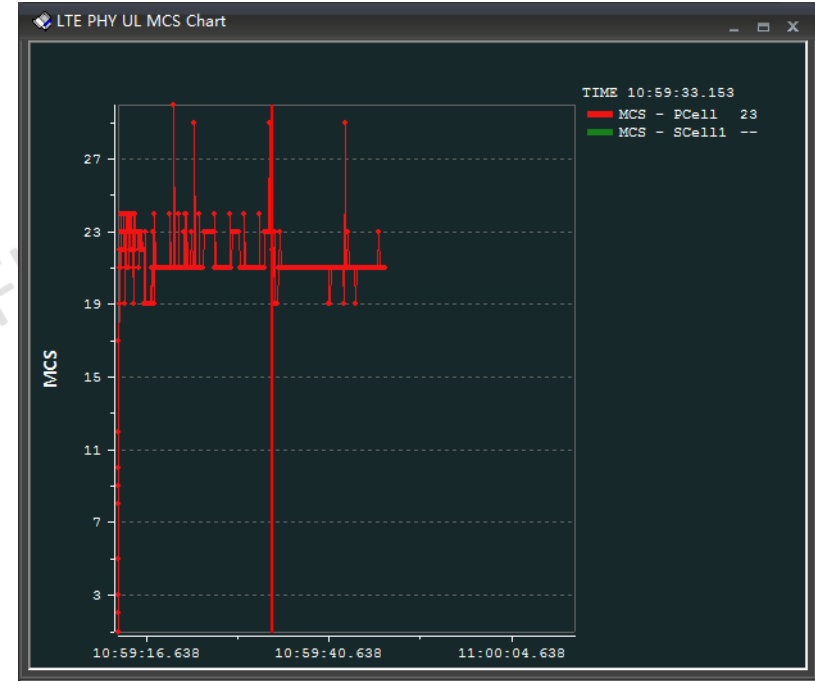
[View] LTE SCell State Change

- **Open the view by the menu**
  - View -> LTE -> LTE SCell State Change

- **Function**
  - Show all state change events in list view
  - Draw lines as below:
    - State

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[View] LTE VoLTE RTP Statistics
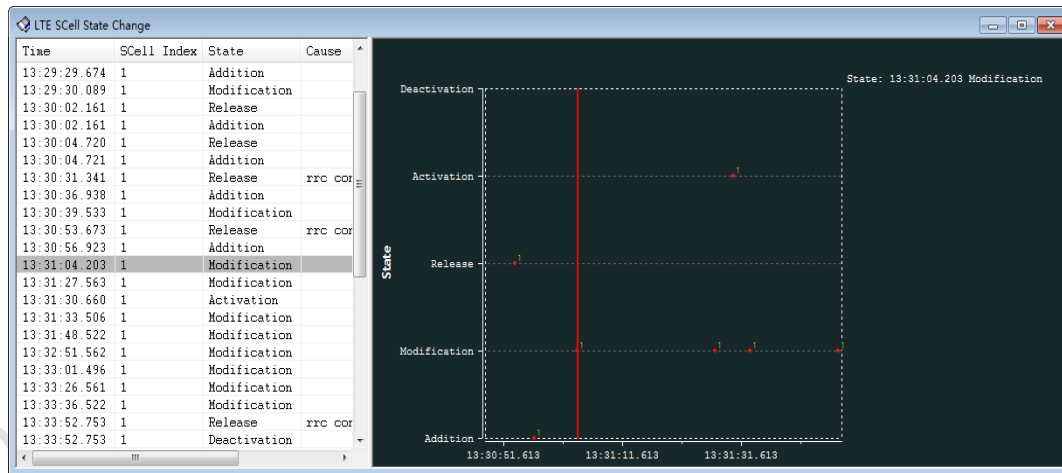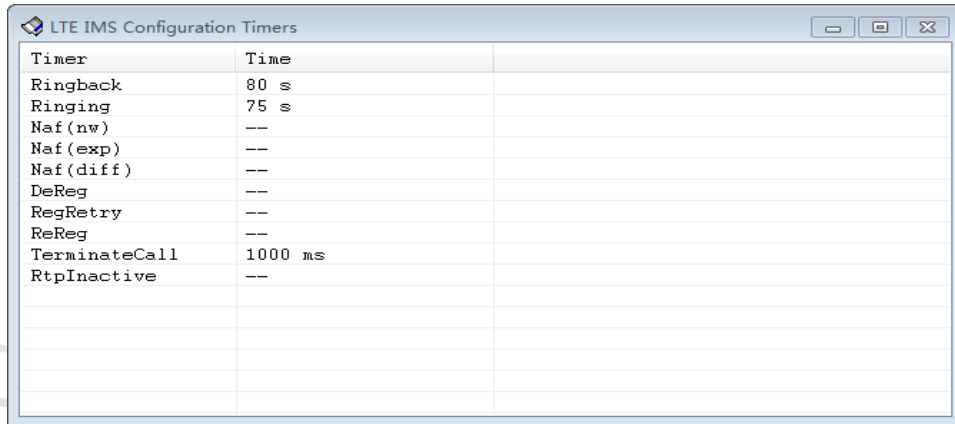
- **Open the view by the menu**
  - View -> LTE -> LTE VoLTE RTP Statistics

- **Function**
  - Draw lines as below:
    - Packet Loss Rate
    - Jitter
    - Packet Rate
    - Payload Bit Rate

[View] LTE IMS Configuration Timers

- **Open the view by the menu**
  - View -> LTE -> LTE IMS Configuration Timers

- **Function**
  - Show list column value bellow
    - Timer name
    - Time value

LTE IMS Configuration Timers		
Timer	Time	
Ringback	80 s	
Ringing	75 s	
Naf(nw)	--	
Naf(exp)	--	
Naf(diff)	--	
DeReg	--	
RegRetry	--	
ReReg	--	
TerminateCall	1000 ms	
RtpInactive	--	

[View] LTE RRC Timer

- **Open the view by the menu**
  - View -> LTE -> LTE RRC Timer

- **Function**
  - Show list column value as below
    - Time type
    - Timer name
    - Timer duration
    - Time status

LTE RRC Timer				
Type	Timer	Duration	Status	
RRC	T300	1000 ms	Stop	
RRC	T301	600 ms	Stop	
RRC	T304	500 ms	Stop	
RRC	T310	--	--	
RRC	T311	1000 ms	Stop	

[View] WCDMA Serving Cell Chart of SIM1/Primary

- **Open the view by the menu**
  - View -> WCDMA -> WCDMA Serving Cell Chart of SIM1/Primary

- **Function**
  - Draw lines as below:
    - RSCP Ant0
    - RSCP Ant1
    - ECNO Ant0
    - ECNO Ant1
    - RSSI Ant0
    - RSSI Ant1

[View] WCDMA Serving Cell Chart of SIM2

- **Open the view by the menu**
  - View -> WCDMA -> WCDMA Serving Cell Chart of SIM2

- **Function**
  - Draw lines as below:
    - RSCP Ant0
    - RSCP Ant1
    - ECNO Ant0
    - ECNO Ant1
    - RSSI Ant0
    - RSSI Ant1

[View] WCDMA Serving/Neighbor Cell Chart of SIM1/Primary

- **Open the view by the menu**
  - View -> WCDMA -> WCDMA Serving/Neighbor Cell Chart of SIM1/Primary

- **Function**
  - Draw lines as below:
    - RSCP Ant0
    - RSCP Ant1

[View] WCDMA Serving/Neighbor Cell Chart of SIM2

- **Open the view by the menu**
  - View -> WCDMA -> WCDMA Serving/Neighbor Cell Chart of SIM2

- **Function**
  - Draw lines as below:
    - RSCP Ant0
    - RSCP Ant1

[View] WCDMA RLC DL Throughput Chart

- **Open the view by the menu**
    - View -> WCDMA -> WCDMA RLC DL Throughput Chart

- **Function**
    - Draw lines as below:
        - RLC DL Throughput
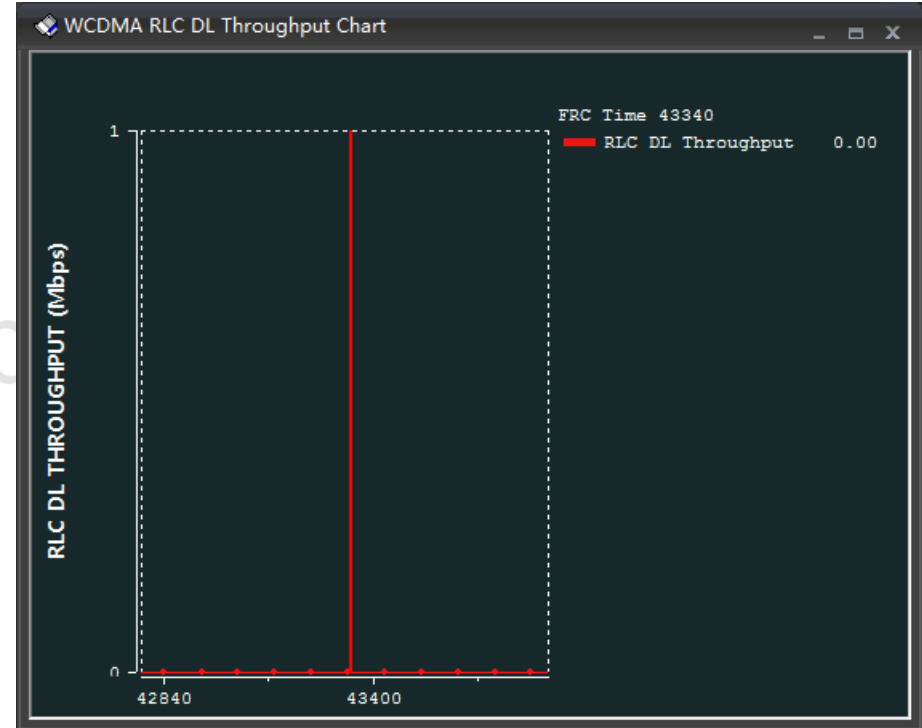
[View] WCDMA RLC UL Throughput Chart

- **Open the view by the menu**
  - View -> WCDMA -> WCDMA RLC UL Throughput Chart

- **Function**
  - Draw lines as below:
    - RLC UL Throughput

[View] WCDMA MAC DL Throughput Chart

- **Open the view by the menu**
  - View -> WCDMA -> WCDMA MAC DL Throughput Chart

- **Function**
  - Draw lines as below:
    - MAC DL Throughput
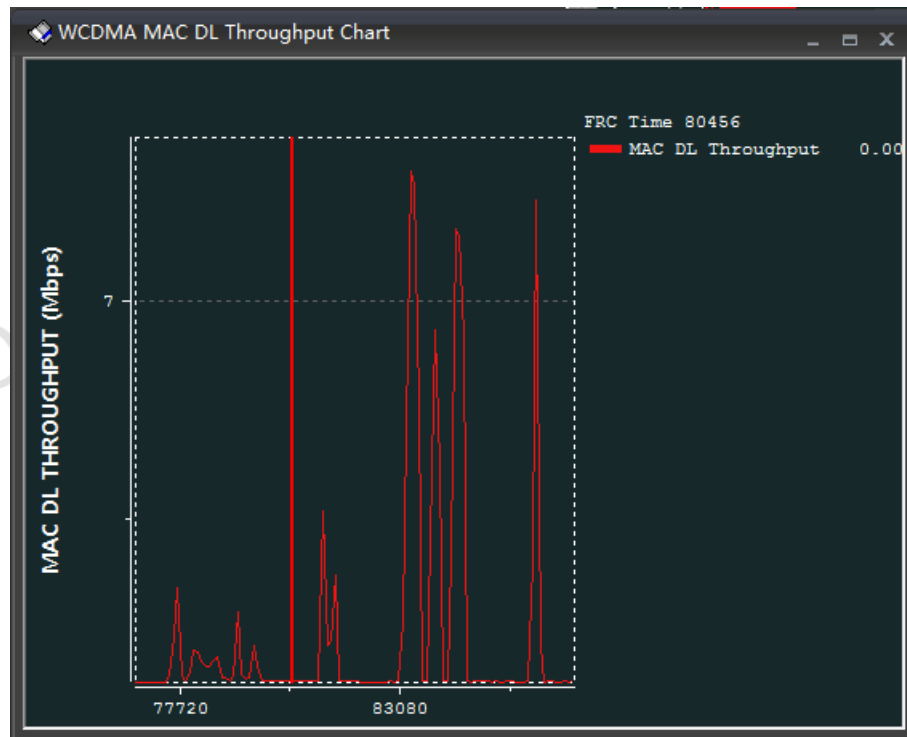
[View] WCDMA CQI/HSDPA BLER/HSDPA Schedule Rate Chart

- **Open the view by the menu**
  - View -> WCDMA -> WCDMA CQI/HSDPA BLER/HSDPA Schedule Rate Chart

- **Function**
  - Draw lines as below:
    - CQI
    - HSDPA BLER
    - HSDPA Schedule Rate
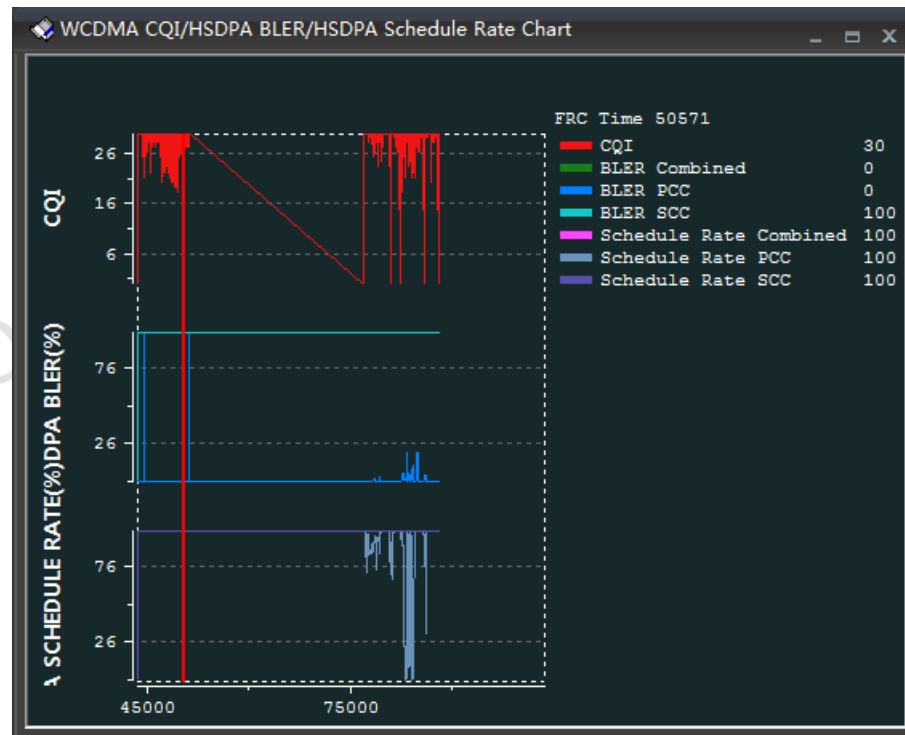
[View] WCDMA Tx Power Chart

- **Open the view by the menu**
  - View -> WCDMA -> WCDMA Tx Power Chart

- **Function**
  - Draw lines as below:
    - Tx Power

[View] WCDMA RLC DL/UL PDU
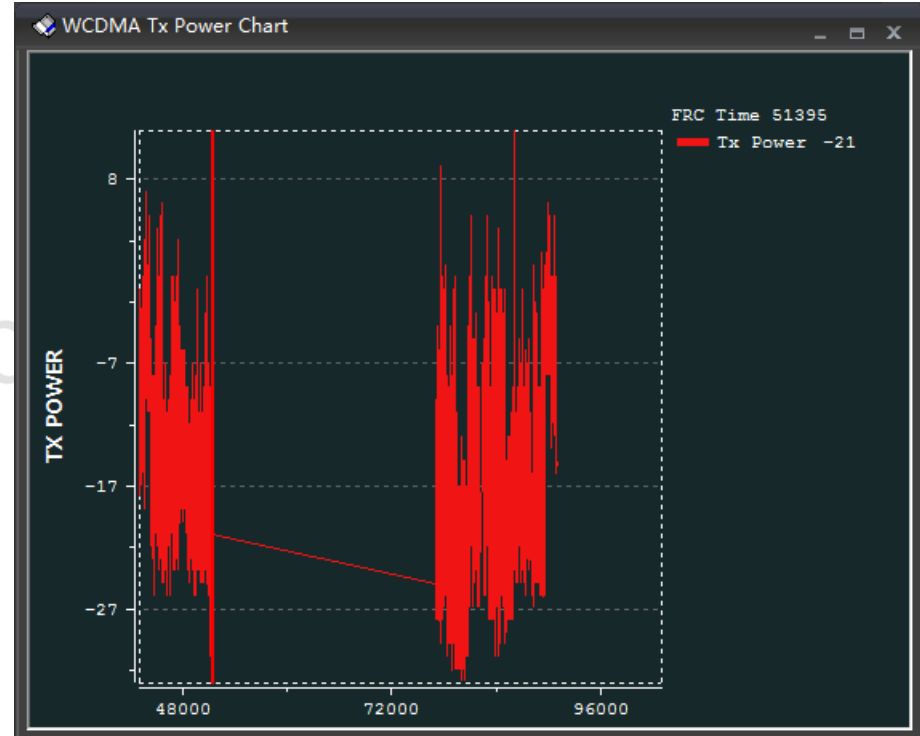
- **Open the view by the menu**
  - View->WCDMA> WCDMA RLC DL/UL PDU

- **Function**
  - Upper view shows the filtered trace items from Traces Window
  - Double clicking item will parse the RCL PDU data and show the results in the right window
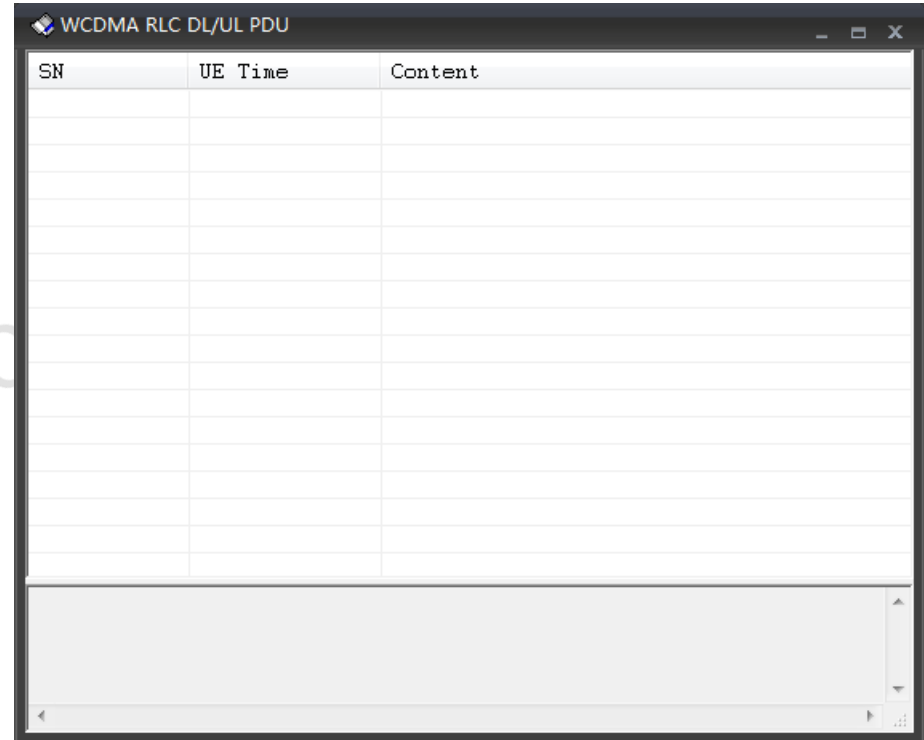
[View] GSM Serving Cell Chart

- **Open the view by the menu**
 - View -> GSM-> GSM Serving Cell Chart

- **Function**
  - Draw lines as below:
    - RSSI
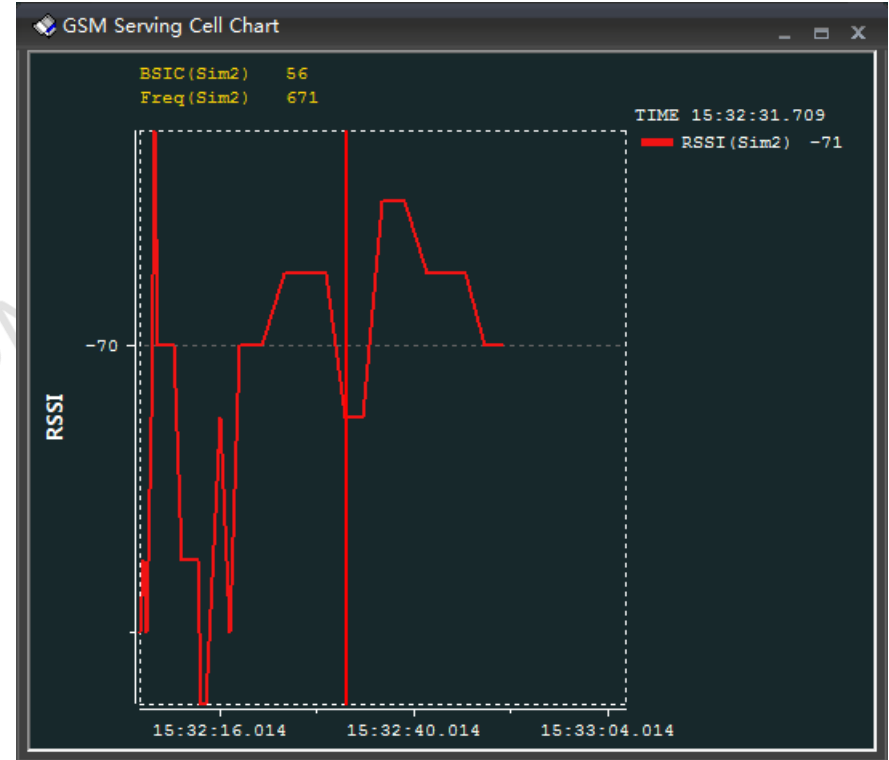
[View] GSM Serving/Neighbor Cell Chart

- **Open the view by the menu**
  - View -> GSM-> GSM Serving/Neighbor Cell Chart

- **Function**
  - Draw lines as below:
    - RSSI
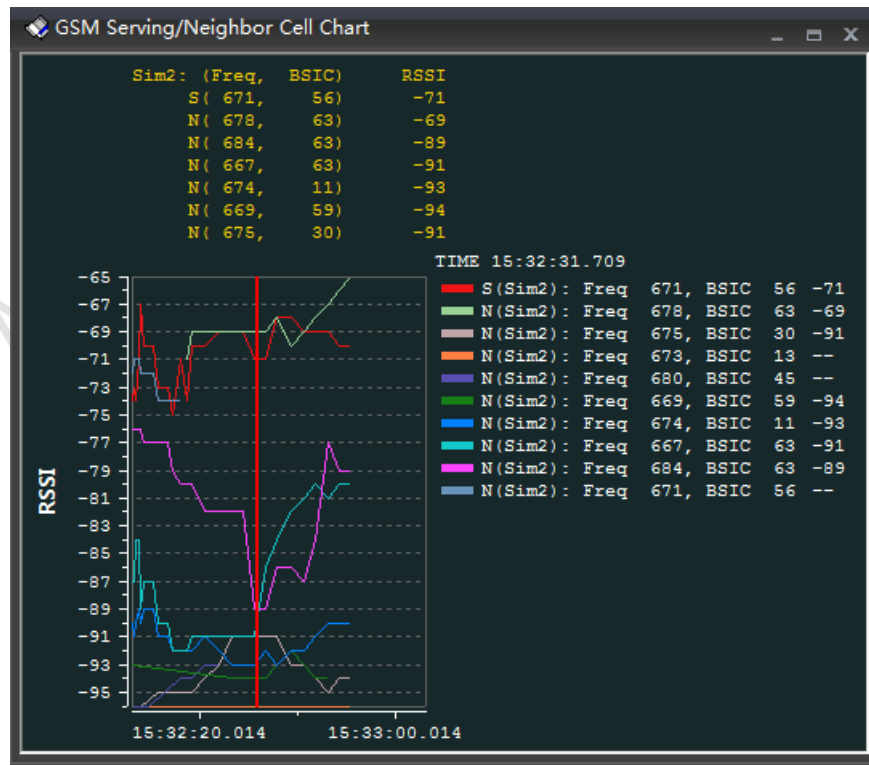
[View] GSM Rx/Tx Power Chart
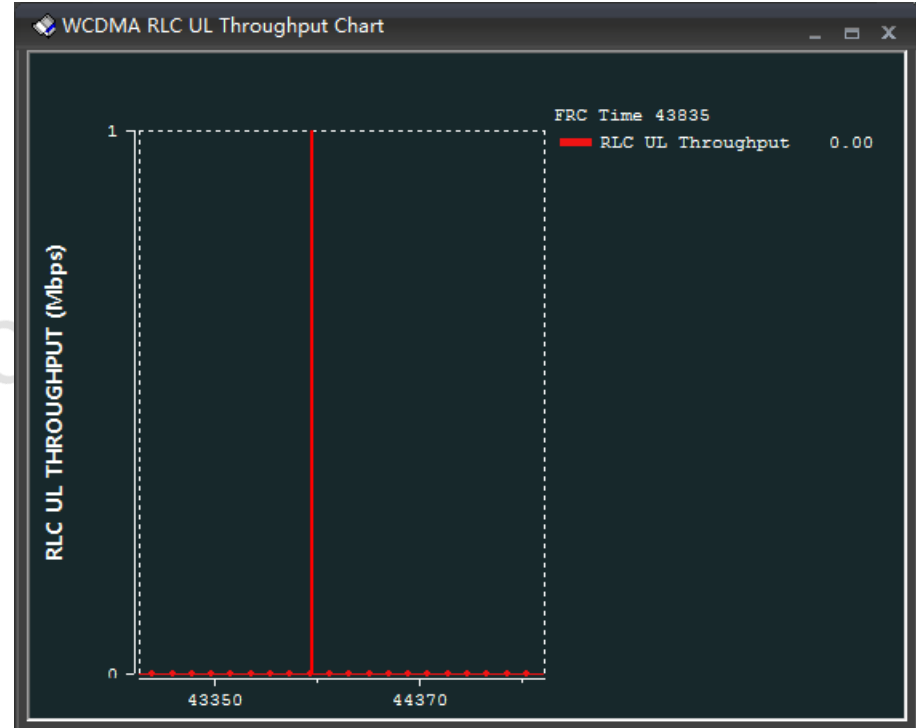
- **Open the view by the menu**
  - View -> GSM-> GSM Rx/Tx Power Chart

- **Function**
  - Draw lines as below:
    - Rx Power
    - Tx Power
    - Rx Power Full Sim1
    - Rx Power Sub Sim1
    - Rx Power Full Sim2
    - Rx Power Sub Sim2
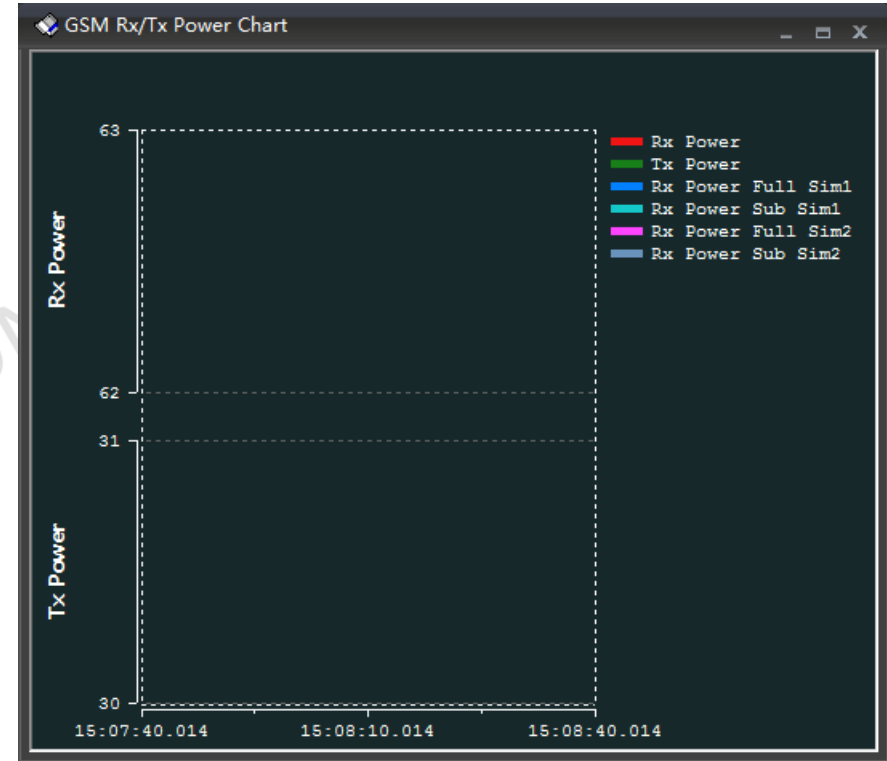
[View] GSM SNR Chart

- **Open the view by the menu**
  - View -> GSM-> GSM SNR Chart

- **Function**
  - Draw lines as below:
    - SNR

# [View] [DSP Test Point] Common DSP Test Point List

- **Open the view by the menu**
  - View->DSP Test Point->Common DSP Test Point List
- **Popup Menu**
  - Auto Scroll
  - Color
  - Show Hex (only for data column)
  - Show Decimal(only for data column)
  - Test Point Chart 1/2/3
  - Add to Bookmark   (Alt+A)
  - Remove Bookmark (Alt+R)
  - Pre Bookmark   (Alt+U)
  - Next Bookmark   (Alt+D)
  - Import Data
  - Export To Text File
  - Export To Binary File
- **Sync to other views**
  - Double click the item to sync
- **Search**
  - Process step search in the toolbar with the input search string
  - Press Hot-Key:Ctrl + G to locate the item by SN
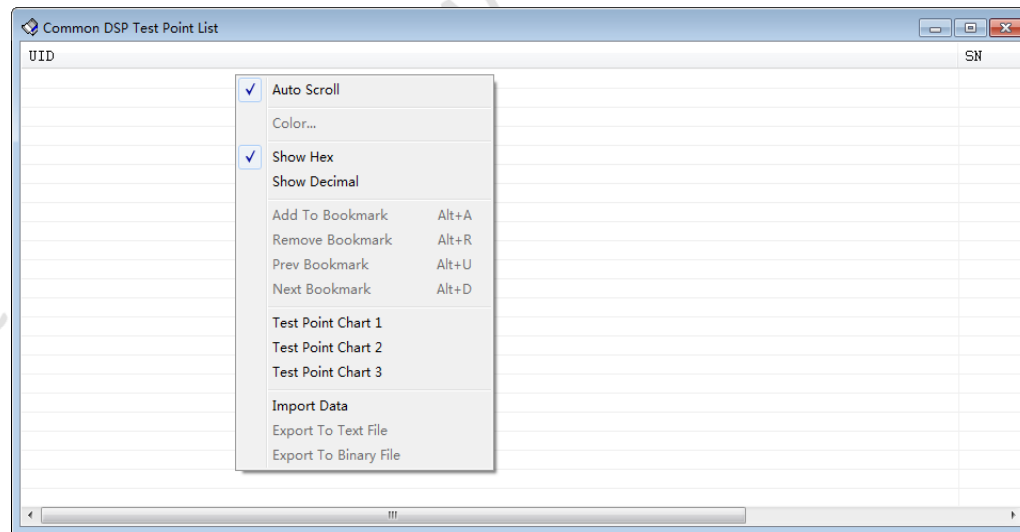
- **Open the view by the menu**
  - View -> DSP Test Point-> Common DSP Test Point Chart
- **Functions**
  - Control Panel: Set Address and Data filter condition. You can add more conditions by Add button. Start/Stop filter and drawing by pressing Start/Stop button;
  - Filter Data View: List the data filtered by conditions in the control panel
  - Chart View: Draw the data

- **Open the view by the menu**
  - View -> DSP Test Point-> LTE DSP Test Point List

- **Popup Menu**
  Same as the one in Common DSP Test Point List

- **Sync to other views**
  Same as the one in Common DSP Test Point List

- **Search**
  Same as the one in Common DSP Test Point List

[View] [DSP Test Point] LTE DSP Test Point Chart

- **Open the view by the menu**
  - View -> DSP Test Point-> LTE DSP Test Point Chart

- **Functions**
  Same as the one in Common DSP Test Point Chart

[View] [DSP Test Point] TG DSP Test Point List

- **Open the view by the menu**
  - View -> DSP Test Point-> TG DSP Test Point List

- **Popup Menu**
  Same as the one in Common DSP Test Point List

- **Sync to other views**
  Same as the one in Common DSP Test Point List

- **Search**
  Same as the one in Common DSP Test Point List

View is the same as LTE DSP Test Point List

[View] [DSP Test Point] TG DSP Test Point Chart

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- **Open the view by the menu**
  - View -> DSP Test Point-> TG DSP Test Point Chart

- **Functions**
  Same as the one in Common DSP Test Point Chart

View is the same as LTE DSP Test Point List

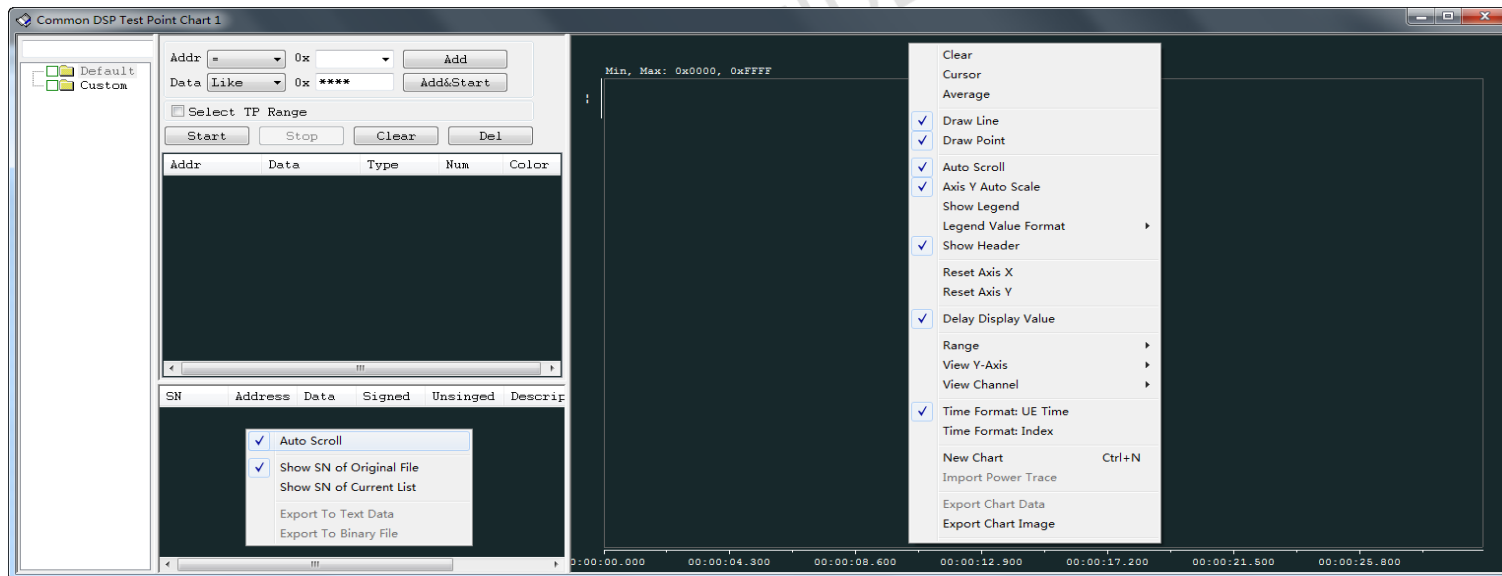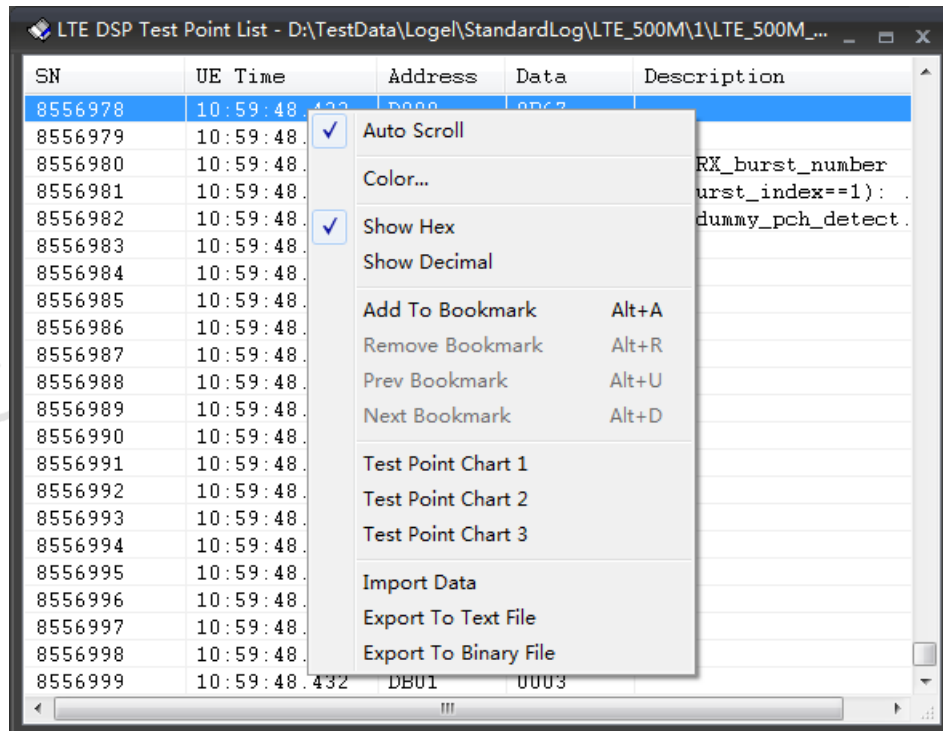# [View] [DSP Test Point] AG DSP Test Point List

- **Open the view by the menu**
  - View -> DSP Test Point-> AG DSP Test Point List

- **Popup Menu**
  Same as the one in Common DSP Test Point List

- **Sync to other views**
  Same as the one in Common DSP Test Point List

- **Search**
  Same as the one in Common DSP Test Point List

View is same as LTE DSP Test Point List

- **Open the view by the menu**
  - View -> DSP Test Point-> AG DSP Test Point Chart

- **Functions**
  Same as the one in Common DSP Test Point Chart

View is the same as LTE DSP Test Point List

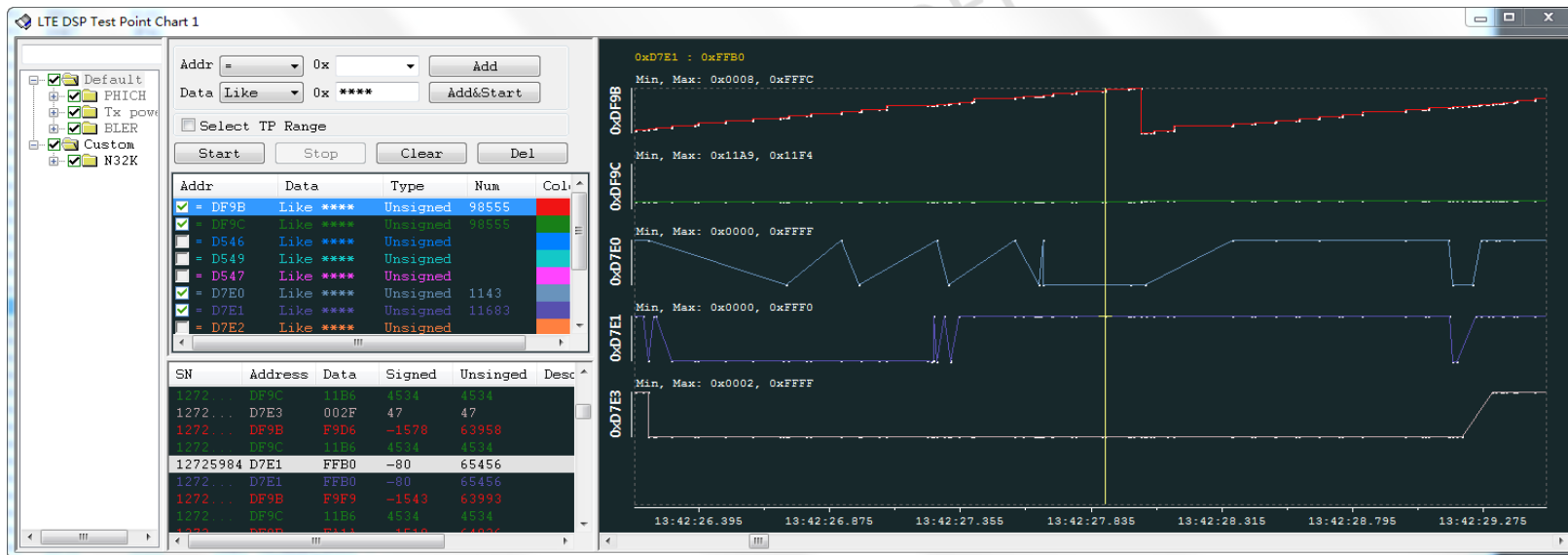# [View] [DSP Test Point] AG(ORCA) DSP Test Point List

- **Open the view by the menu**
    - View -> DSP Test Point-> AG(ORCA) DSP Test Point List

- **Popup Menu**
  Same as the one in Common DSP Test Point List

- **Sync to other views**
  Same as the one in Common DSP Test Point List

  View is same as LTE DSP Test Point List

- **Search**
  Same as the one in Common DSP Test Point List

- **Open the view by the menu**
  - View -> DSP Test Point-> AG(ORCA) DSP Test Point Chart

- **Functions**
  Same as the one in Common DSP Test Point Chart

View is the same as LTE DSP Test Point List

- **Open the view by the menu**
  - View -> DSP Test Point-> WCN DSP Test Point List

- **Popup Menu**
  Same as the one in Common DSP Test Point List

- **Sync to other views**
  Same as the one in Common DSP Test Point List

- **Search**
  Same as the one in Common DSP Test Point List

View is same as LTE DSP Test Point List

[View] [DSP Test Point] WCN DSP Test Point Chart

- **Open the view by the menu**
    - View -> DSP Test Point-> WCN DSP Test Point Chart

- **Functions**
  Same as the one in Common DSP Test Point Chart

View is the same as LTE DSP Test Point List

[View] PHY Trace Chart

- **Open the view by the menu**
  - View -> Common -> PHY Trace Chart
- **Functions**
  - Left View   : Show all parameters for draw , select some of them to draw chart.
  - Middle Up View   : Function buttons: input part of parameter name to quick select parameter to draw chart.
                           Double click type cell to change data type to signed or unsigned.
  - Middle Bottom View: Show the data filtered from the PHY trace

- **Notice**
  - Parameters in left view is configured in Parser Lib, so if no parameters shown here, check the Parser Lib first
  - Check the option "Select Trace Range" will show the options for users to specify a range of PHY traces to filter for
  - Ctrl + "↑" / "↓" can change the order of parameters in Middle Up View
  - "Data" column can change between 16 bits and 32 bits format through right click menu
  - Top of each parameter chart shows the maximum and minimum value
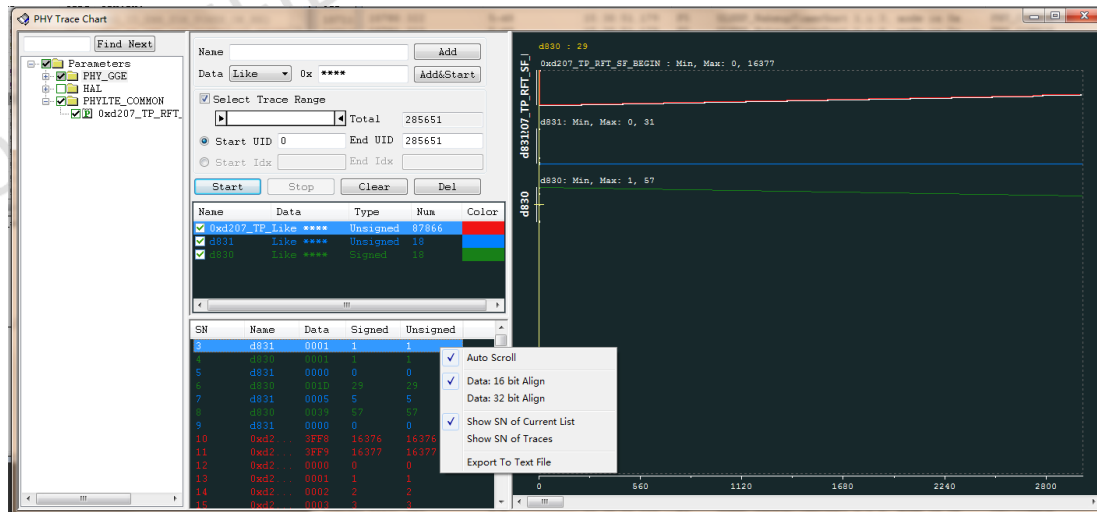
- **Ctrl+F to open Find window in Internal Messages / Traces / Air Messages / PHY Traces / Filter View 1 ~ 6)**
  – Top List box is used to input search key words,
    - Record search history, Delete key words
    - Ctrl+A to select all key words, Ctrl+Z to un-select all key words
    - Click "Check All" to check or un-check all key words
    - Set key words color to double click the color rect.
    - Select history search keywords to click button
  – Options:
    - Case Sensitive
    - Whole Word
    - Regular Expression
    - Find In Selected Items
  – Search In Column
    - SN, Module, Time, Content
  – Search In View
    - Internal Messages, Traces, Air Messages, PHY Traces, Filter View 1 ~ 6
  – Show Result List
    - Append To Result List
  – Close If Found
    - Close this dialog if found.
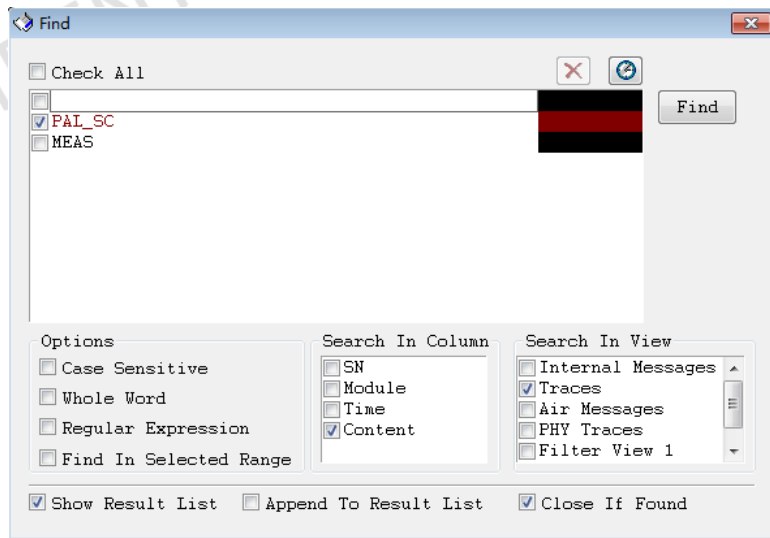
[Search(2)] One Step Search

- Input the find string in the toolbar edit box and end with Enter key to start search
- Press F3 to find next
- Press Shift + F3 to find previous

- Only Internal Messages / Traces / Air Messages / PHY Traces / *DSP Test Point List support this function.
- Only "Address" column of "* DSP Test Point List" views is the search target

[Search(3)] Scene Search
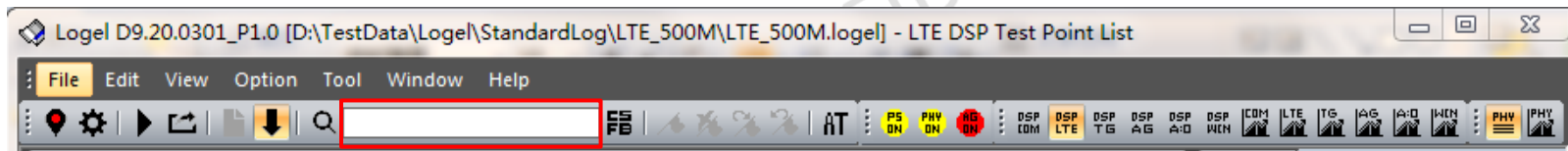
- **Open Scene search for messages**
    - Menu: Edit->Scene Search
    - You can add or delete message/air by click new or delete button.

- **Introduction**
    - There are many scenes defined in this window
    - You can quick to find the key messages
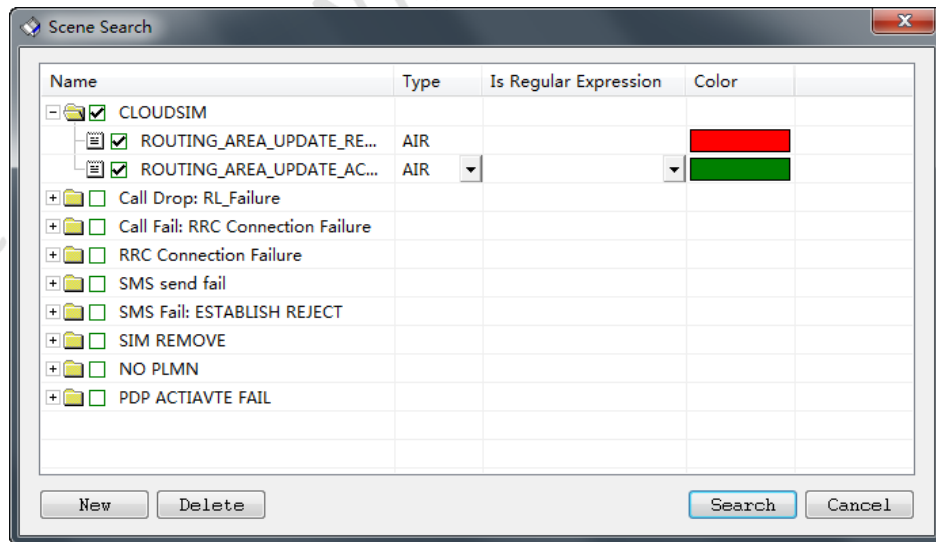
[Bookmark]

- **Items of Internal Messages/Traces/PHY Traces/Air Messages/*DSP Test Point List can be bookmarked**
- **Add items to bookmark or locate them by popup menu in these views (Internal Messages/Traces/PHY Traces/Air Messages/*DSP Test Point List)**
- **Hot keys:**
 - Alt+A: add item to bookmark
  - Alt+R: remove one bookmark
  - Alt+U: go to previous bookmark
  - Alt+D: go to next bookmark
- **Toolbar button: support above four operations**

- **Bookmark Manager**
  - Open Bookmark Manager By Menu
  - Edit -> Bookmark Manager
  - Add notes for bookmark items
  - Double click item to locate it
- **Bugzilla Commit**
  - Open Bugzilla Commit Dialog to commit bookmarks to a certain bugzilla id
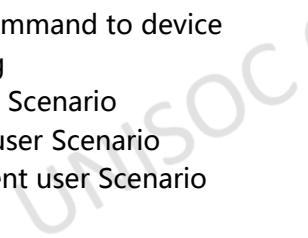
[Window Management]
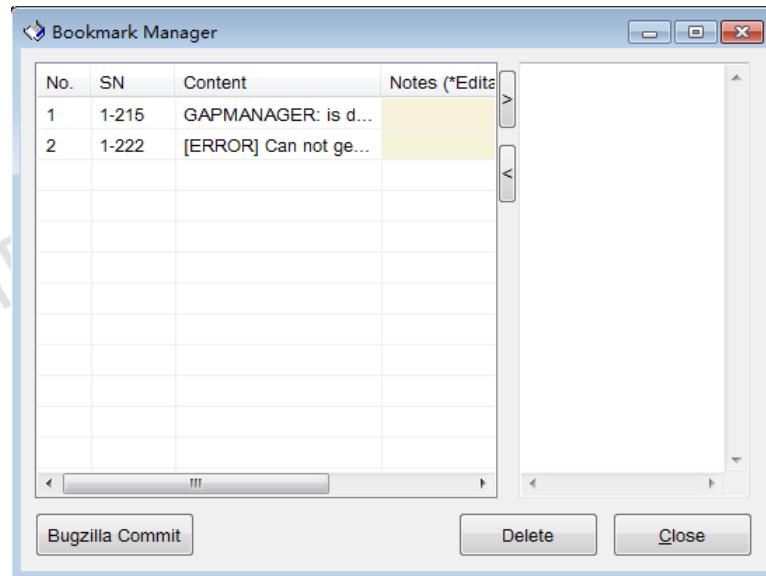
- **Layout Views**
  - Menu: Windows->Cascade
  - Menu: Windows->Tile Horizon
  - Menu: Windows->Tile Vertical
  - Menu: Windows->Tile Vertical
  - Menu: Windows->Minimize All
  - Menu: Windows->Restore All
  - Menu: Windows->Close ALL
  - Menu: Windows->Arrange Icons

- **Remember Views Layout**
  - Logel Tool can remember the views' layout

[Filter] Capture Filter

- **Open menu: Option->Device Configure**
- **This will control the log output from device**
  - PS LOG
  - DSP LOG
  - AUDIO
- **Functions**
  - Show AT Command: Display the AT command
  - Import: Import a customer configure
  - Export: Save the configure to a xml file
  - Config: Send control command to device
  - Cancel: Close the dialog
  - New: Create a new user Scenario
  - Save: Save the current user Scenario
  - Delete: Delete the current user Scenario

[Filter] View Filter

- **Select popup menu "Filter" in Internal Messages / Traces / PHY Traces / Air Messages view**
- **This will filter what the user want to filter and show them in a new view**

[Tools]
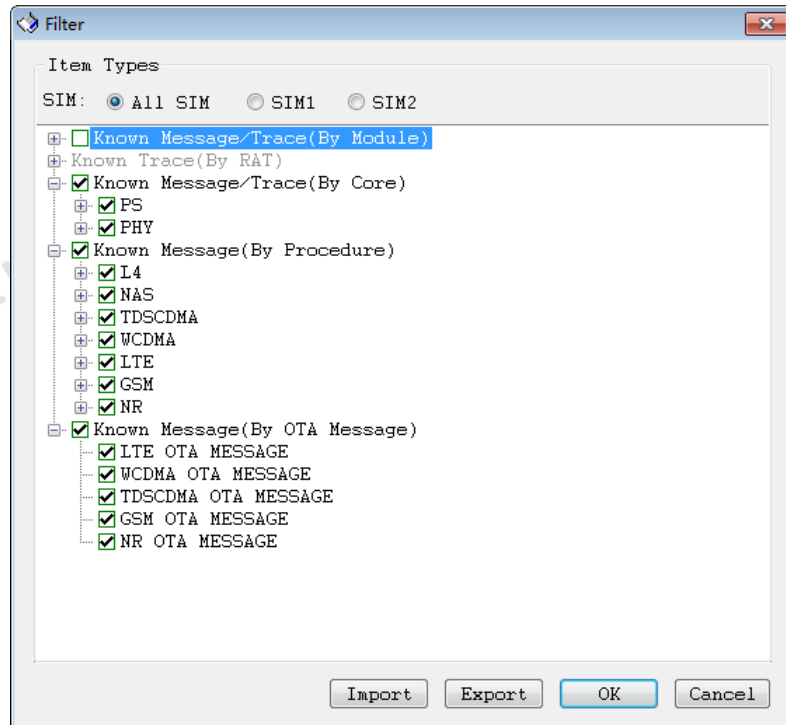
- **Menu Tool**

Menu Item	Comment
Assert	Show Assert Frame, trigger device to assert
System Info	Run script to communicate with device
iLog	Get log by Bug ID and replay it
Device Control	Send some command to device
Log Data Statistics	Statistics about log size and lost rate
Check Dump File Integrity	Check dump file integrity for CP and AP
CP Dump File Transfer	Extract log data from dump, ring buffer file.
Capture W/TD/GSP IQ Log	Capture IQ Log and save them to file
Export Log From UE	Call AndroidLog2PC script to capture YLOG from device
Export Titan Files	Export Titan files for WCAMA
Export Call Setup Statistics	Output call setup statistics into csv file
Export Log Statistics By Module	Output log size statistics by module into csv file
Export Tcl Script Files	Output TCL script files for some message data
Export Network Parameters	Output network parameters into csv file
Export Network Capabilities	Output network capabilities into csv file
Show GPS Map	Show GPS map

[Tools] AT Command

- **Tools->Device Control->AT Command Test (or click toolbar button AT)**
  - Select a AT command from combobox "Request" (or you can just type AT command in the "Request" text area).
  - Press "Clear" button to clear AT response data in the "Response" text area.
  - Press "Edit" button to edit AT commands.
  - Press "<<" button to show or hide the left "Advance" area
  - Press "+" to add a group or AT command to the "AT Command" list
  - Press "-" to remove a group or AT command from the "AT Command" list

- **Send AT commands**
  - In "Advance mode", press "Send" button will send all the checked AT commands in turn with input delay
  - In none "Advance mode", press "Send" button will send the input AT command in "Request" area
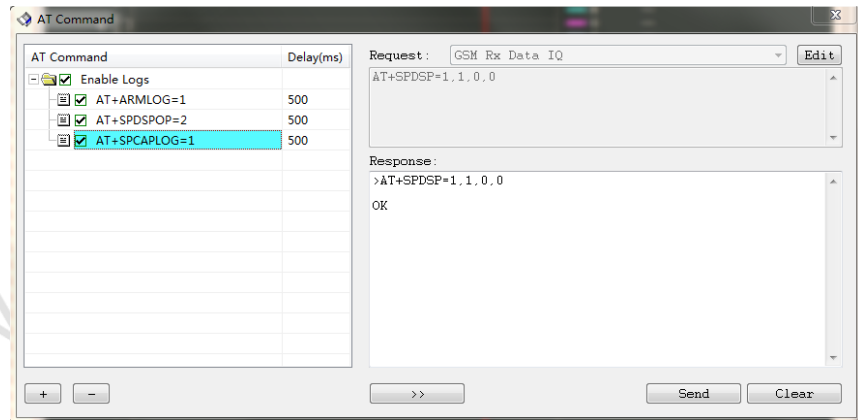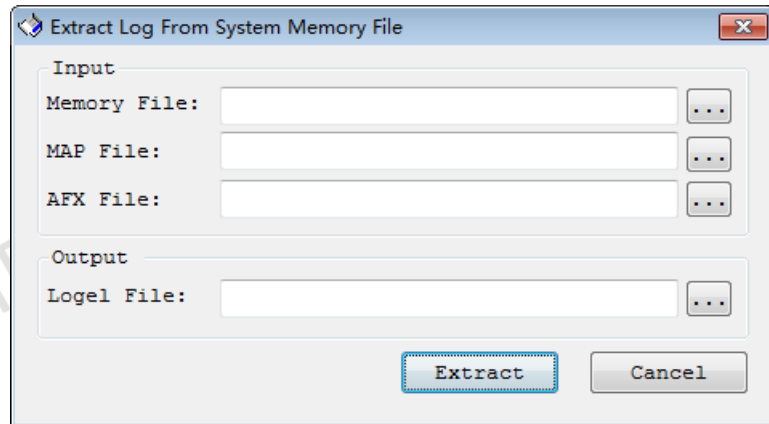
[Tools] Unpack Mini Memory File

- **Tools->CP Dump File Transfer->Unpack Mini Memory File**
  - Memory File: Select the mini dump file
 - Output Dir: Select a directory to save the unpacked files
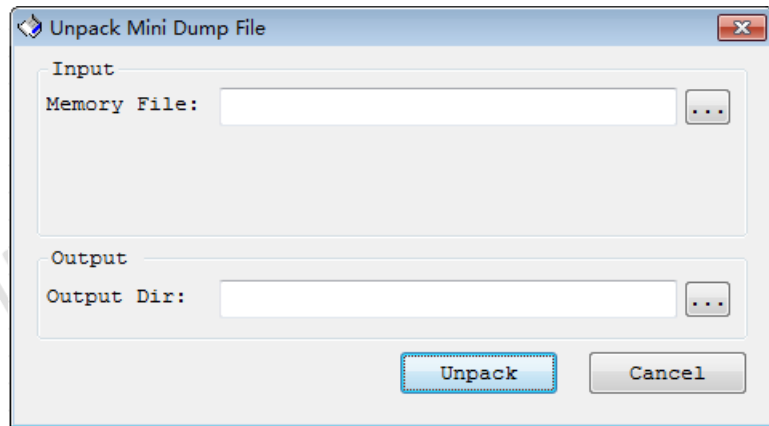
- **Tools->CP Dump File Transfer->Extract Log From System Memory File**
  - Memory File: Select the system dump file
  - MAP File: Select the map file matched with the modem version
  - AFX File: Select the afx file matched with the modem version
  - Logel File: Select a save path to store the .logel file extracted.

[Tools] Extract Log From Mini Memory File

- **Tools->CP Dump File Transfer->Extract Log From Mini Memory File**
  - Memory File: Select the mini memory file unpacked from mini dump file
  - Logel File: Select a save path to store the .logel file extracted.
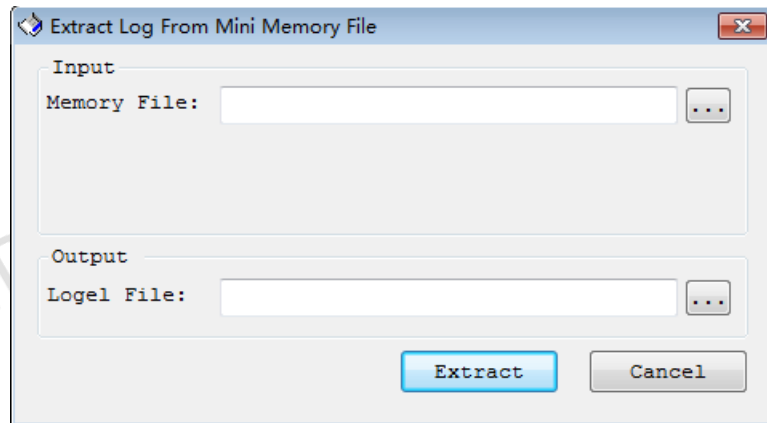
[Tools] Show GPS Map

- **Tools->Show GPS Map, select GPS (GNSS) log file**

You can switch GPS map provider here, and click "OK" to save settings. Default provider is Google.

Locate both side data by double click

[Toolbar] Log data monitor

- **There are three circle icon to display different kinds of data output state**
  - 1st button: PS data
  - 2nd button: PHY data (DSP data)
  - 3rd button: AGDSP data

  State:
  Initial state, not connect or not replay log
  Ready state, no data coming, this kind of data size is zero
  Data coming state, new data is coming
  No new data coming more than 5 seconds

  Show more detail information:
  Click any button of these three buttons to show detail in tip, and then click any position to hide this tip.

Log Monitor

PS:	2.67MB	17.13%
PHY:	12.91MB	82.87%
AGDSP:	0B	0.00%
Total:	15.58MB	
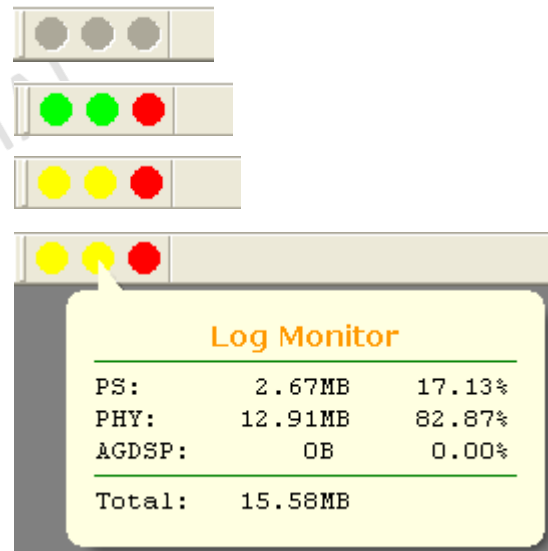
[Status bar]

- **There are 5 column in status bar**
  - System state and tip
  - Tool state and tip
  - Log lost statistics
  - Assert
  - Modem version

Click here to show "Log Lost Statistics"

[CMD Parameters]

Support command line to start Logel.exe

- **Cmd line parameters format:**
  None blocking mode: Logel.exe **–f <filepath> [options]**
  Blocking mode: **start /WAIT** Logel.exe **–f <filepath> [options]**

- **Format description:**

Parameters	Description
-f <filepath>	Set .logel/.log/.lst file full path.
-d <ParserLibDir>	Set parser library directory.
-r [Start, [End|+Offset]]	Set sequence number range. e.g. -r 10021,30059 -r 10021,+500 // +500 is an offset from 10021-1

[CMD Parameters]

-t [tmpdir]	Set the folder to store temporary files when playing back.
-n [WndClassName]	Set the WndClassName so that 3rd program could obtain Logel window handle, and send messages to it. **Remarks**: If 3rd program open the same Logel.exe, the –n option must be unique.
-p [Position]	Set the position to locate the related log data when finish playing back. If the position given overflow the SN range in –r option, nothing will be happened.
-w [min|max|hide]	Set the window's show style. min: minimize max: maximize hide: hide
-q	Auto quit exe when finish playing back.
-m [yes|no]	Whether to show error message box or not during playback if error occurs, default not to show.

-l [logStatisticDir]	Export log size statistics by module after log loading finished. logStatisticDir - output file's directory **Notice**: 　　　If "logStatisticDir" not specified, result file will be output to the same directory as the loaded log file.
-o [m|t|f|p|d|s|w]	Indicate that export Message/Trace/Air/PHY Trace/DSP TP detail to txt file. It usually carries three parameters such as: -o mtf. The parameters can be freely combined. m: Message;　t: Trace;　f: Air;　p:PHY Trace;　d:DSP Test Point there are another two option: s: only export message name and .etc content but no detail message tree for Message/Air. w: use wireshark to decode air message if export air detail message Sample1: export air detail messages parsed by wireshark -o fw Sample2: only export messages without details -o ms Sample3: export LTE DSP test points of address 0xDF9B and 0xDF9C, and all TG DSP test points -o "d|lte:0xDF9B,0xDF9c|tg" **Notice**: 　　　If you want to filter messages with specified names or traces with specified text, be sure to enclosed in "": 　　　–o "f|air:UECAPABILITYINFORMATION,RRCCONNECTIONRECONFIGURATION" 　　　–o "mtp|msg:MSG_ID_BCCH_BCH_MSG_TYPE, MSG_ID_IMS_SIP_DOWN_MSG|trace:ATC|phytrace:LRRC"

THANKS

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