TAA-1ETMP1800A0677-01

Logging Software Operation Manual

Instructions to install and use MP1800 Logging Software Version 1.03 for 32G BERT MP1800
*** System Requirements: Windows 7 PC Only**

May 5, 2016

The MP1800 Logging software for Anritsu 32G BERT MP1800, as an utility, can run on an external PC (via LAN), or on the MP1800A unit without a PC, it supports the BERT applications using MP1800A or MT1810A. The logging software can be used to test one, dual, or four channels of 32G EDs (Error Detectors), report Error Rate (ER), Error Count (EC), ER Insertion and ER Omission errors with time stamp periodically (users can set the period or cycle time in the software), record the ED setting such as test pattern and singled-end or differential interface info at the beginning of the test, display and update the ER and EC results for all ED channels on the screen (PC or MP1800A) at the same time.

There are some limitations on the logging software, it will need users to setup BERT running conditions, such as run Auto Search first, with error free or least error rate, and then start the logging software, the period or cycle time of reporting ER or EC in the software that needs 6 seconds or longer. It will send the remote commands for inquiring ER or EC, up to 10E10 lines of the commands.

*System Requirement: PC running Windows7. When this software is running on the MP1800A main frame, the full software GUI cannot be confirmed at the MP1800A display.

1. **Installation:**

Please close the applications on the PC, or MP1800A (i.e. go to “Explore”), copy all files with the path info under the directory of ‘MP1800Logging’ to “My Documents” on the PC (for running the logging software on a PC), or the MP1800A (for running the logging software on the MP1800A without a PC), click “setup.exe” under ‘MP1800Logging’, and wait for the installation to complete. The logging software is developed by using National Instruments LabWindows/CVI software, it will load some necessary drivers automatically. After you install the Logging software, please follow the messages shown on the screen to restart the MP1800A, and also Nation Instruments’ drivers when asked on the screen. After the installation, please **create “log” directory** under C:\Program Files\MP1800Logging or C:\Program

Files\MP1800Logging (x86), where the MP1800Logging.exe locates, and also ensure you (administrator) have the permission to write file under the subdirectory \log.

To upgrade with the new version logging software, please go to Control Panel/Add and remove program **to delete the old version**, and then install the new version of logging software.

2. Procedures to run the logging software

Please go to SetUp utility on the screen of the MP1800A, set the windows IP address, for instance, set it to “192.168.2.101”.

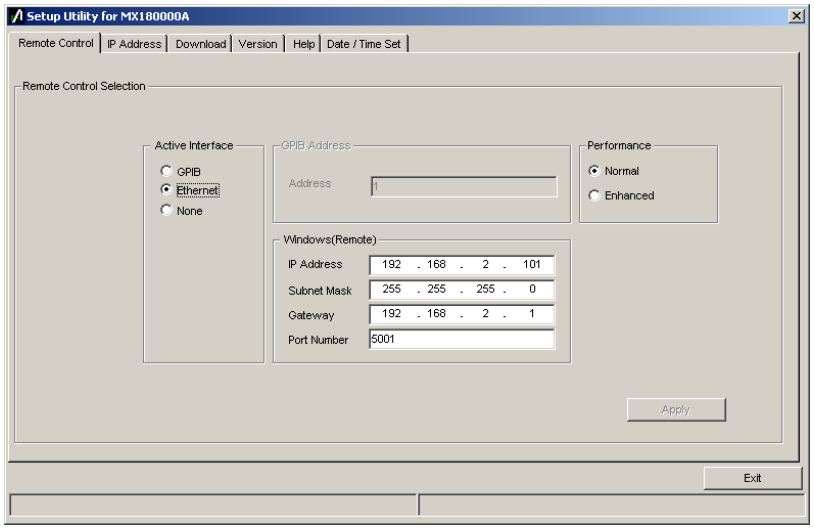


Fig.1. An example of setting Windows IP address on MP1800A

2.1) Run the MX180000A on the MP1800A, get error free or least error rate condition, for instance, after running Auto Search, on all tested channels of the ED(s), and launch the logging software from “Start/Program/MP1800Logging”, if running on the MP1800A without a PC, users need press Microsoft Logo “Microsoft Flag” key to get the “Start” at the left bottom on the screen.

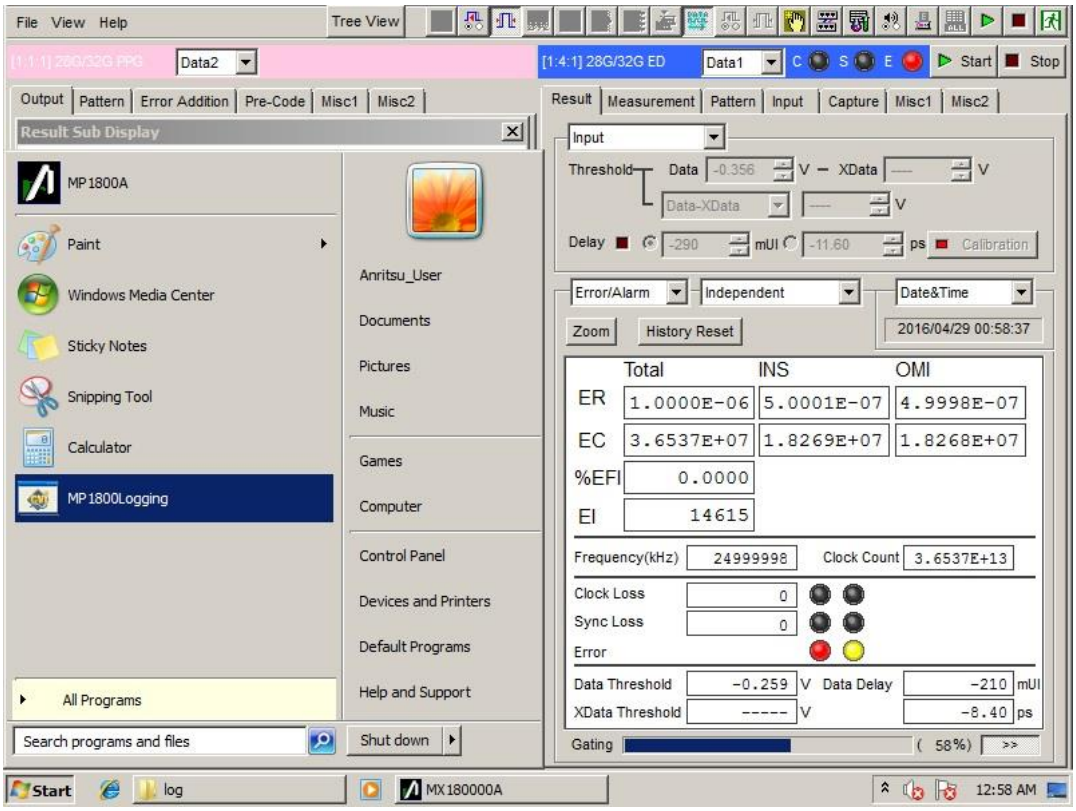
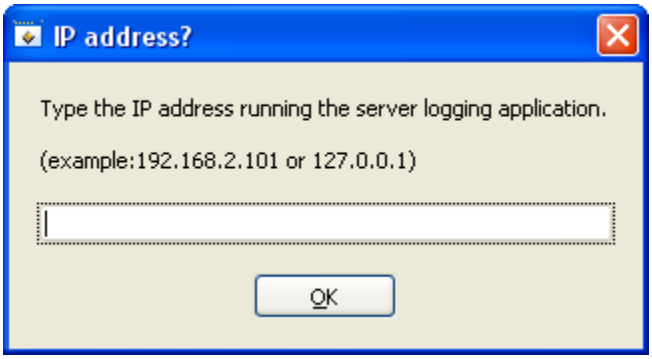


Fig.2. Launch MP1800Logging software if running it on an MP1800A

2.2) Enter the server IP address when asked. That is the Windows IP address set before by users, or “127.0.0.1” is also ok if running MP1800A without a PC.



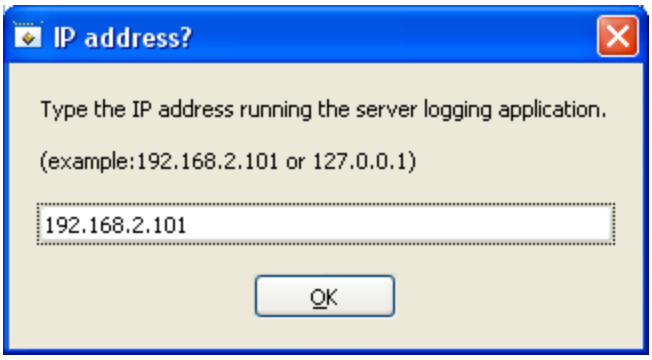
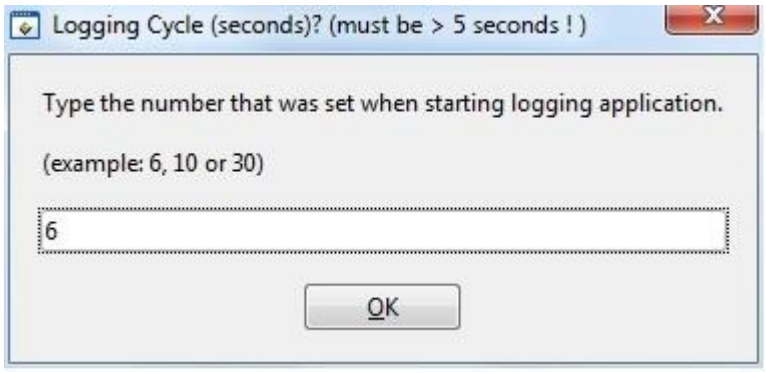


Fig.3. An example to enter server IP address in the logging software

2.3) Enter the period or cycle time of reporting ER or EC in the logging software, that needs 5 seconds or longer. According to the architecture of MP1800A design, the remote commands must be sent by sequence, one channel at a time, and one command at a time, MP1800A cannot handle it if sending remote commands too quickly, especially for testing multiple channels, and running the logging software on an MP1800A without a PC.



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Fig.4. An example to enter logging cycle, i.e. recording ER or EC each at the period, set “6” here.

2.4) Enter the total channel number of the ED (s) to be tested, must be 1, 2, or 4:



Fig.5. an example of testing two channels of ED(s), enter “1”.

2.5) Enter the positions of all channels of ED(s), and also Port# (or Interface# on each ED) to be tested, see examples below:

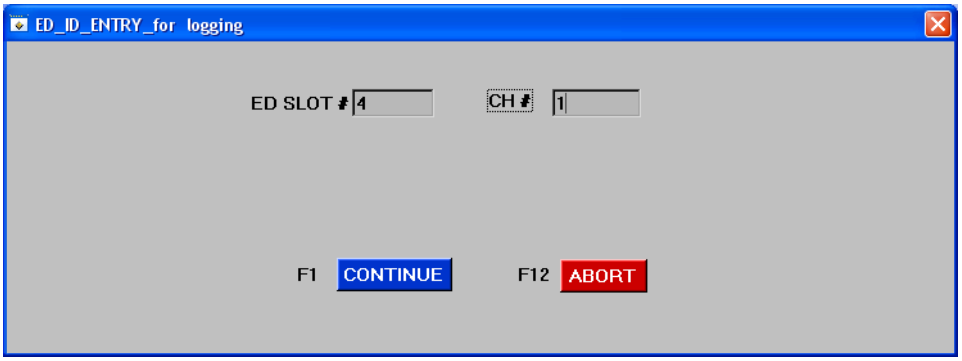


Fig.6. An example of one channel, enter ED# 4 (module or slot#), and port or interface#1 on the ED.

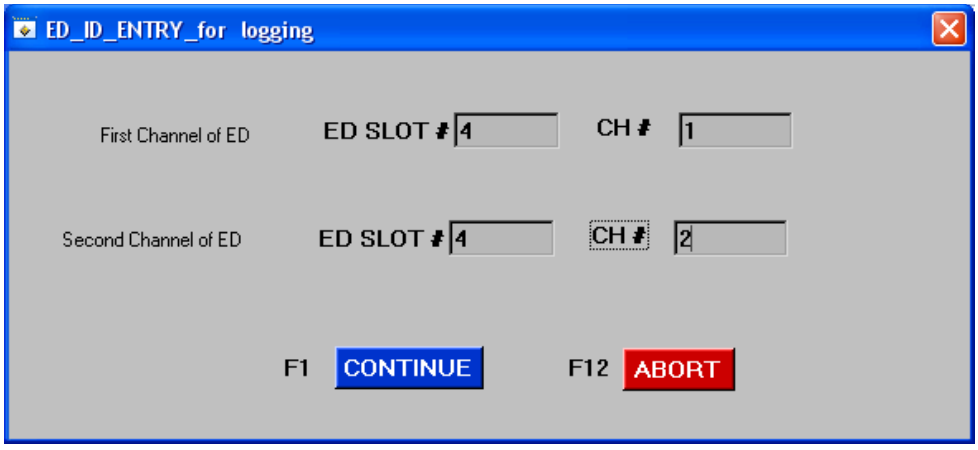


Fig.7. An example of two channels, enter ED# 4 (module or slot#), and port or interface#1 and #2 on the ED.

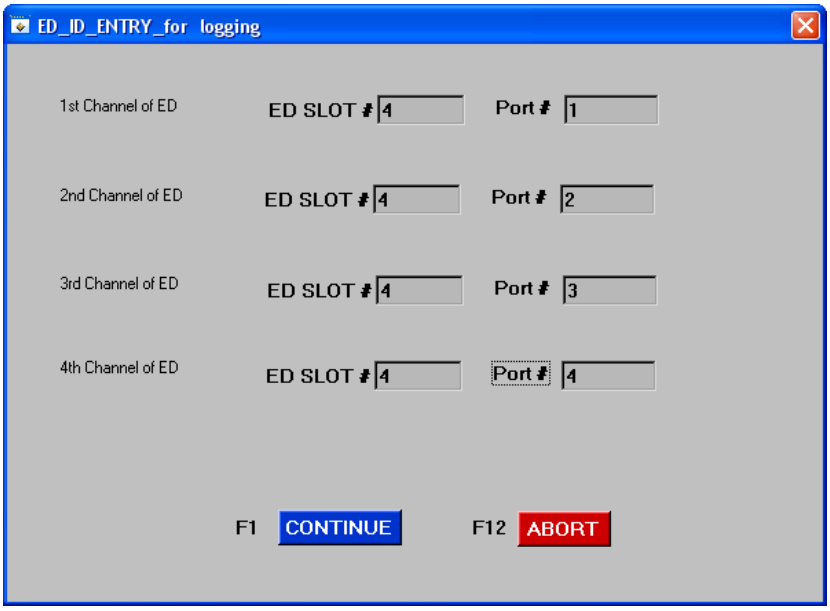


Fig.8. An example of four channels, enter ED# 4 (module or slot#), and port or interface#1 - #4 on the ED

Users can view the screen, with logging info, ER Total, EC, ER Insertion, ER Omission, logging start date, start time, current time, elapsed time, etc. The info would help users for BER analysis and debugging.

For one channel ED test, the screen will display the ER total, ER Insertion and ER Omission, displayed real time, with additional small window (bottom) in Zoom out mode. Here are examples of the screen copies in the logging software:

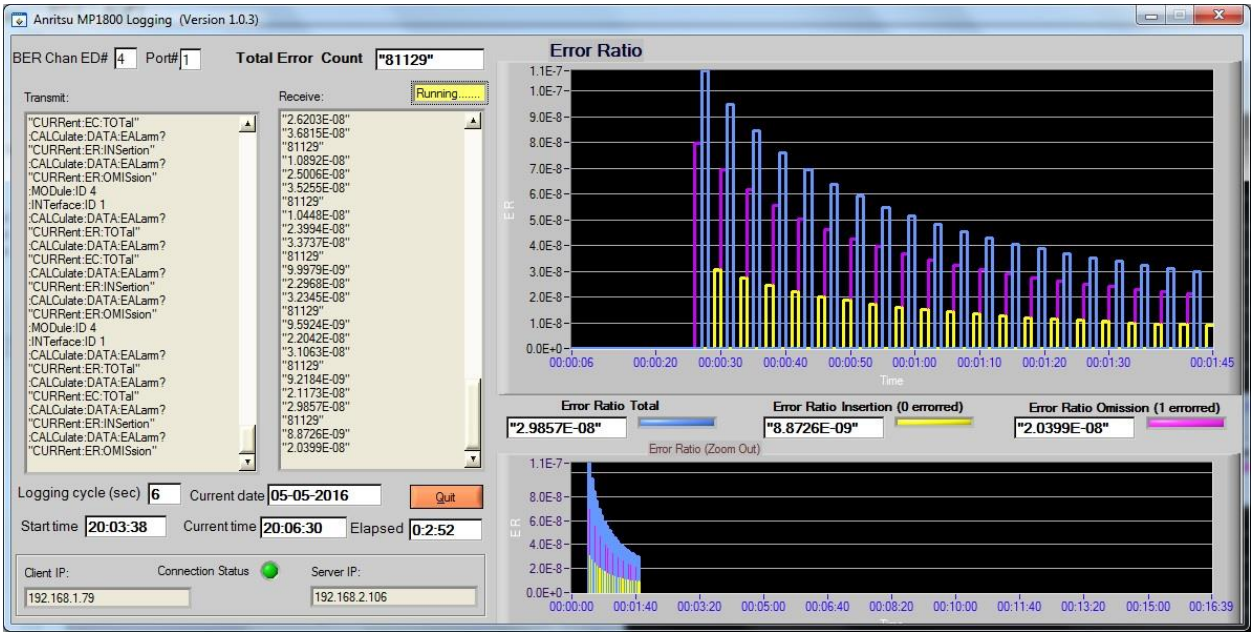


Fig.9. Testing one channel example (1)

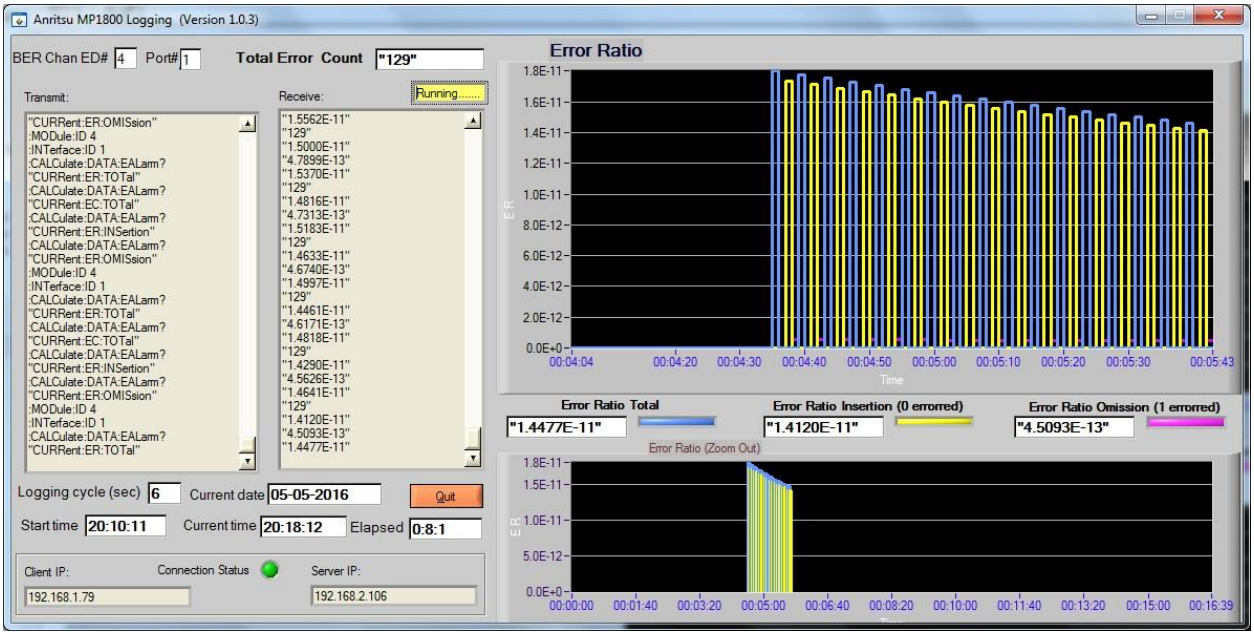


Fig.10. Testing one channel example (2)

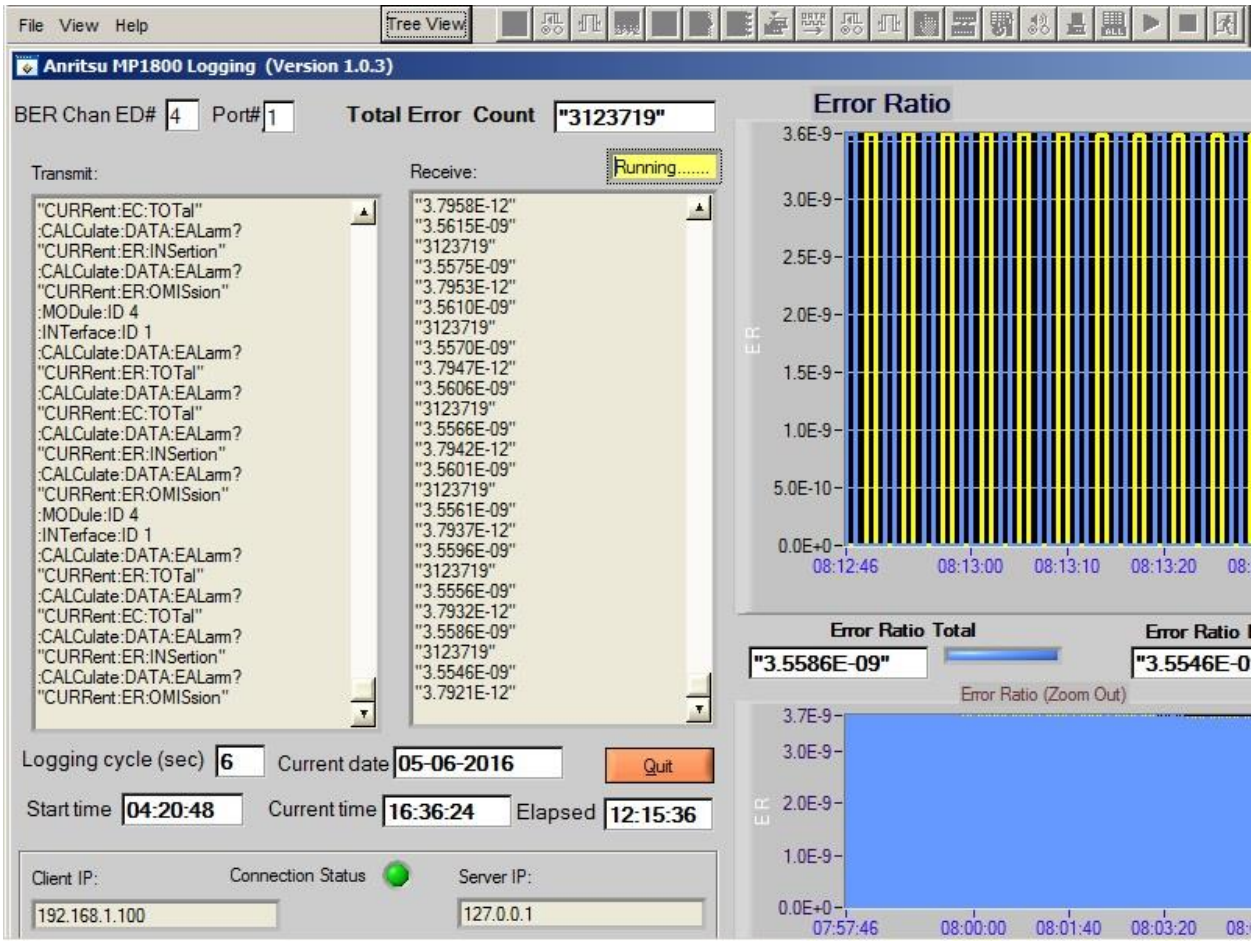


Fig.11. Testing one channel example (3) on an MP1800A

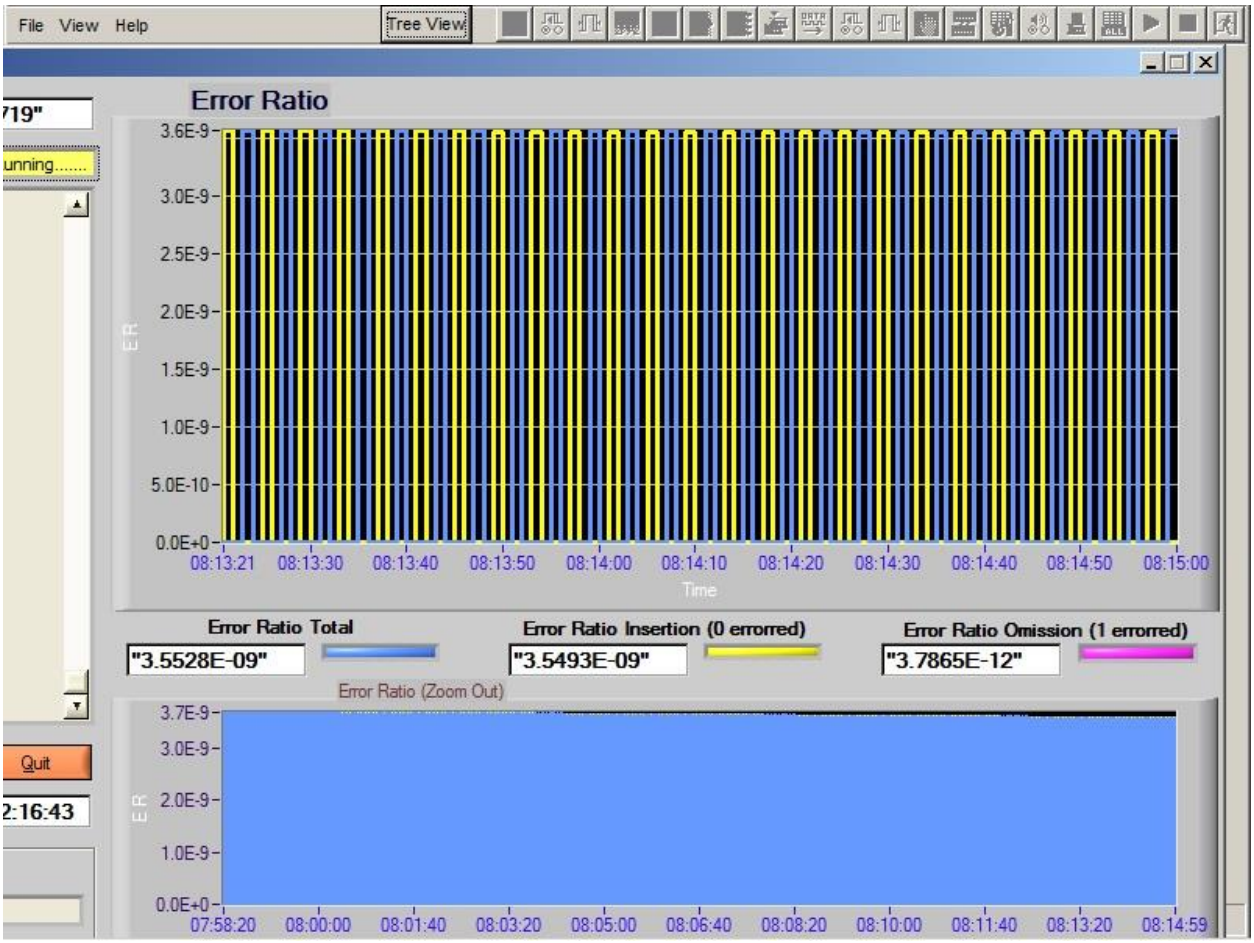


Fig.12. Testing one channel example (4) on an MP1800A

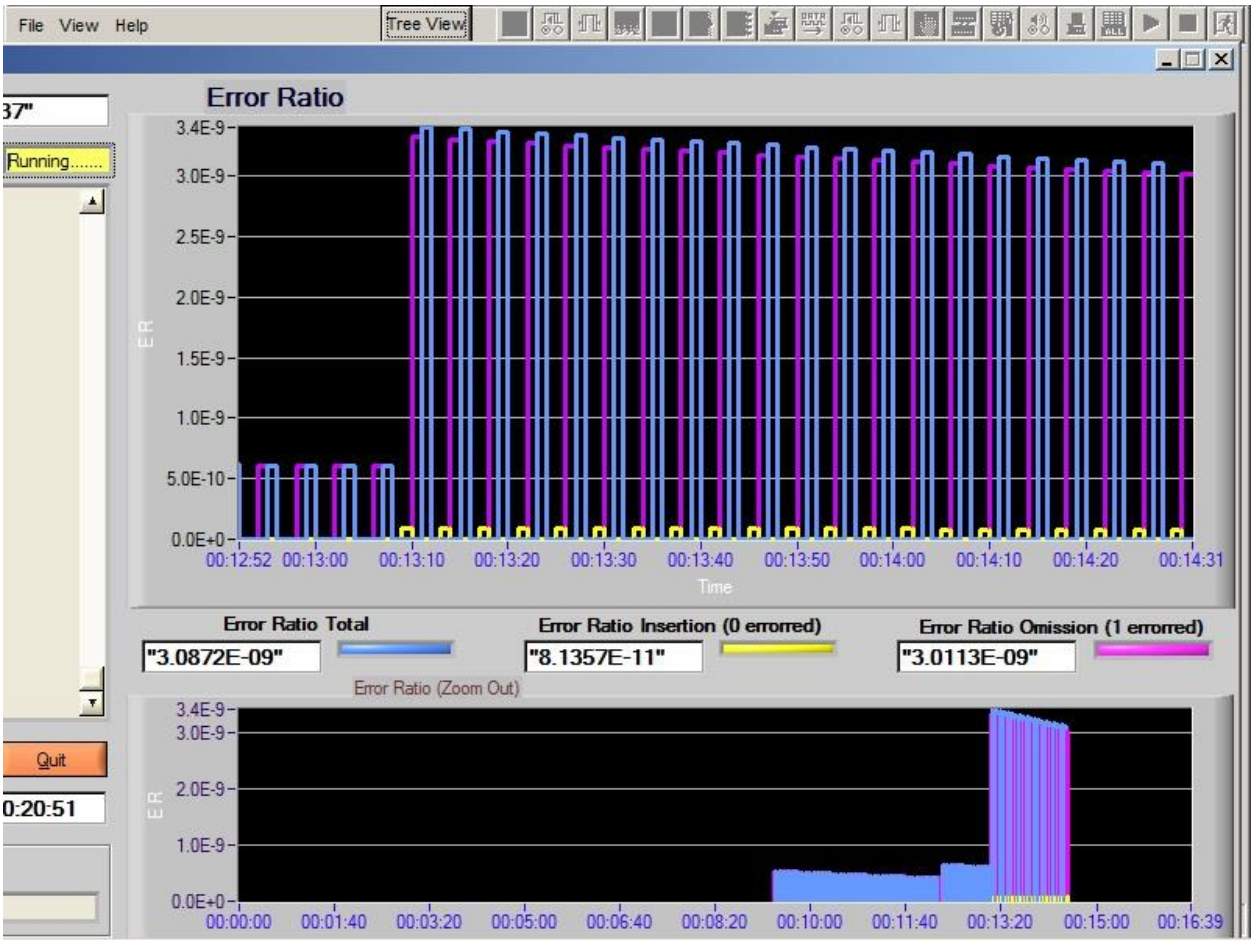


Fig.13. Testing one channel example (5) on an MP1800A

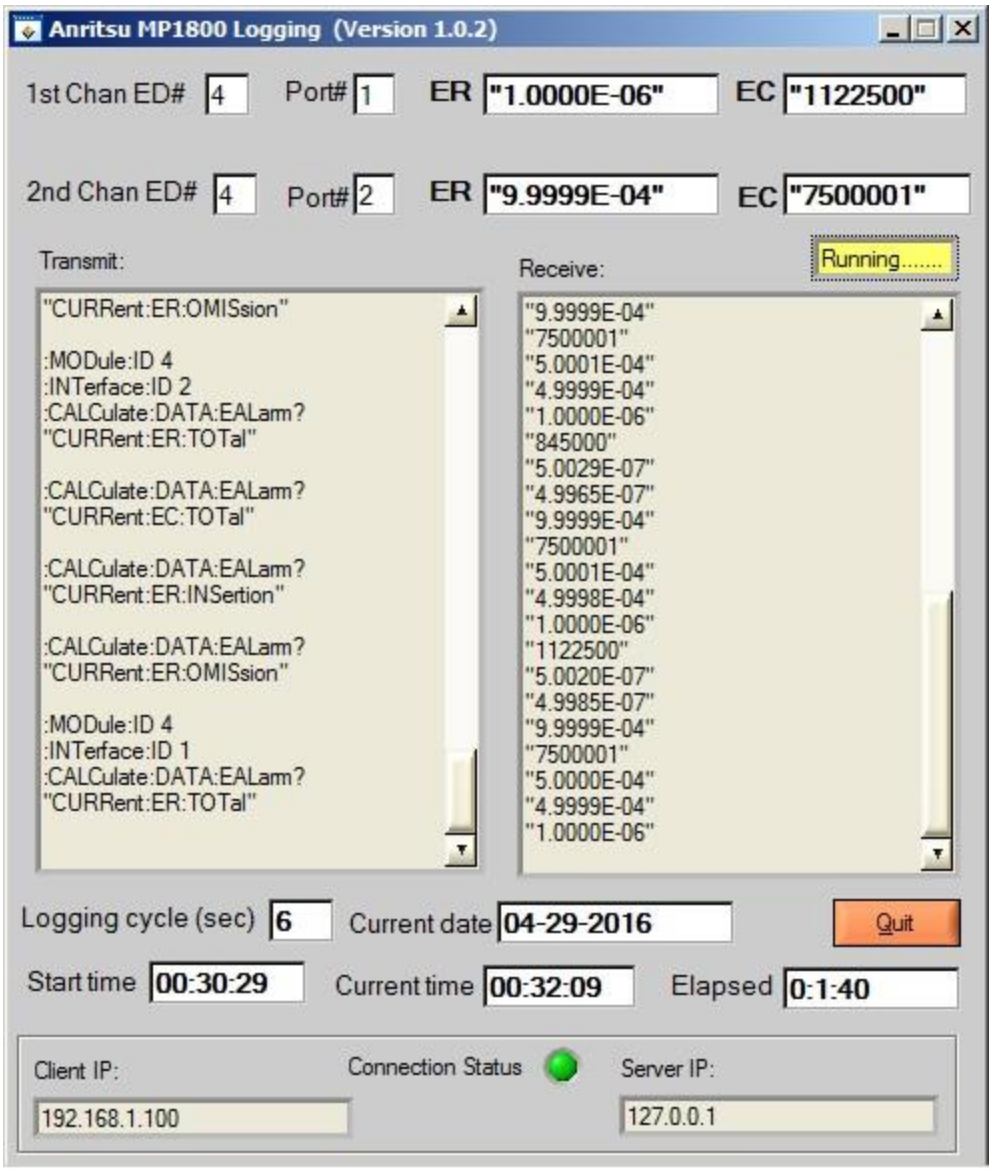


Fig.14. Testing two channel example (1)

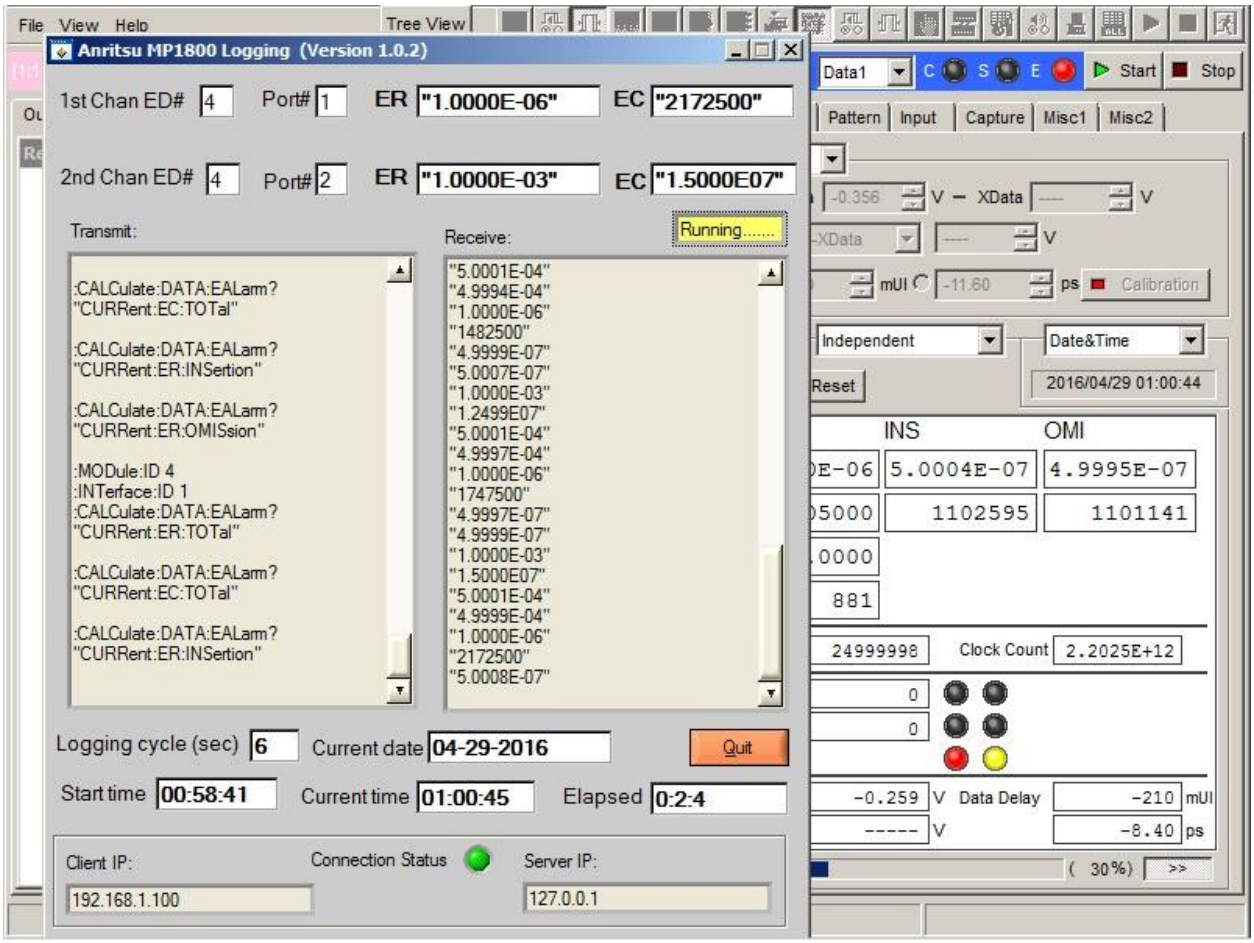


Fig.15. Testing two channel example (2)

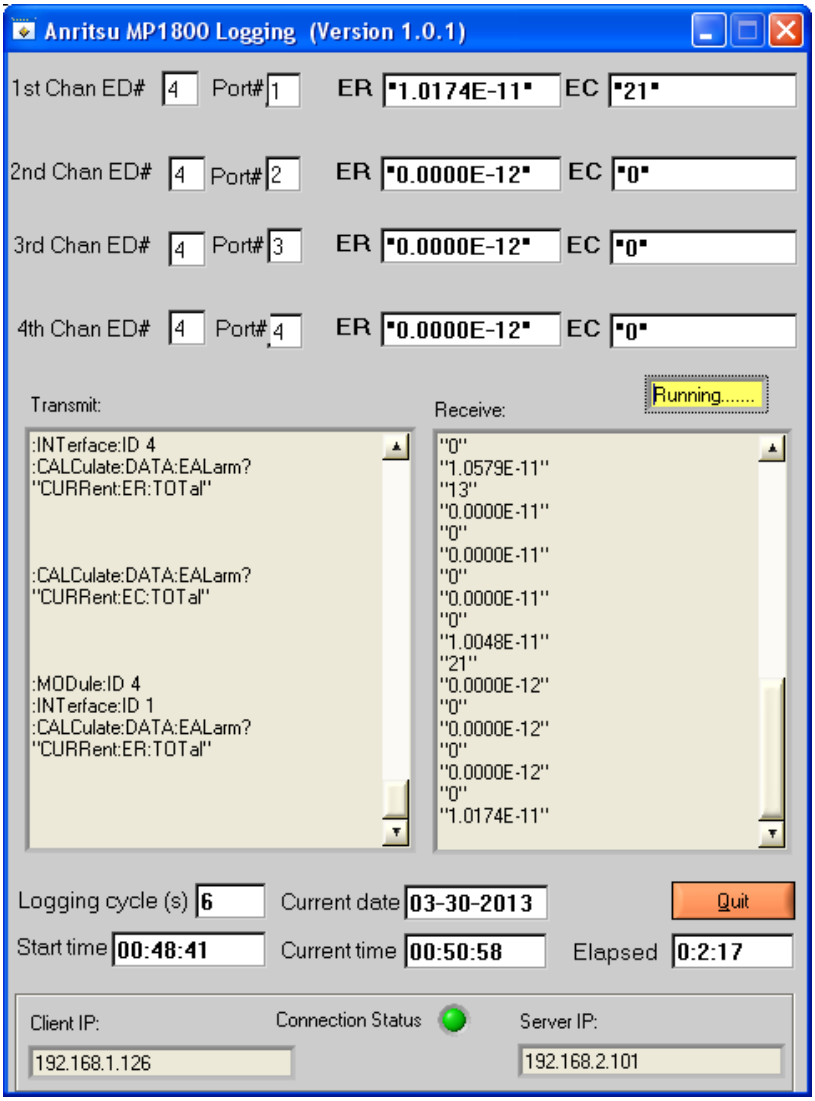
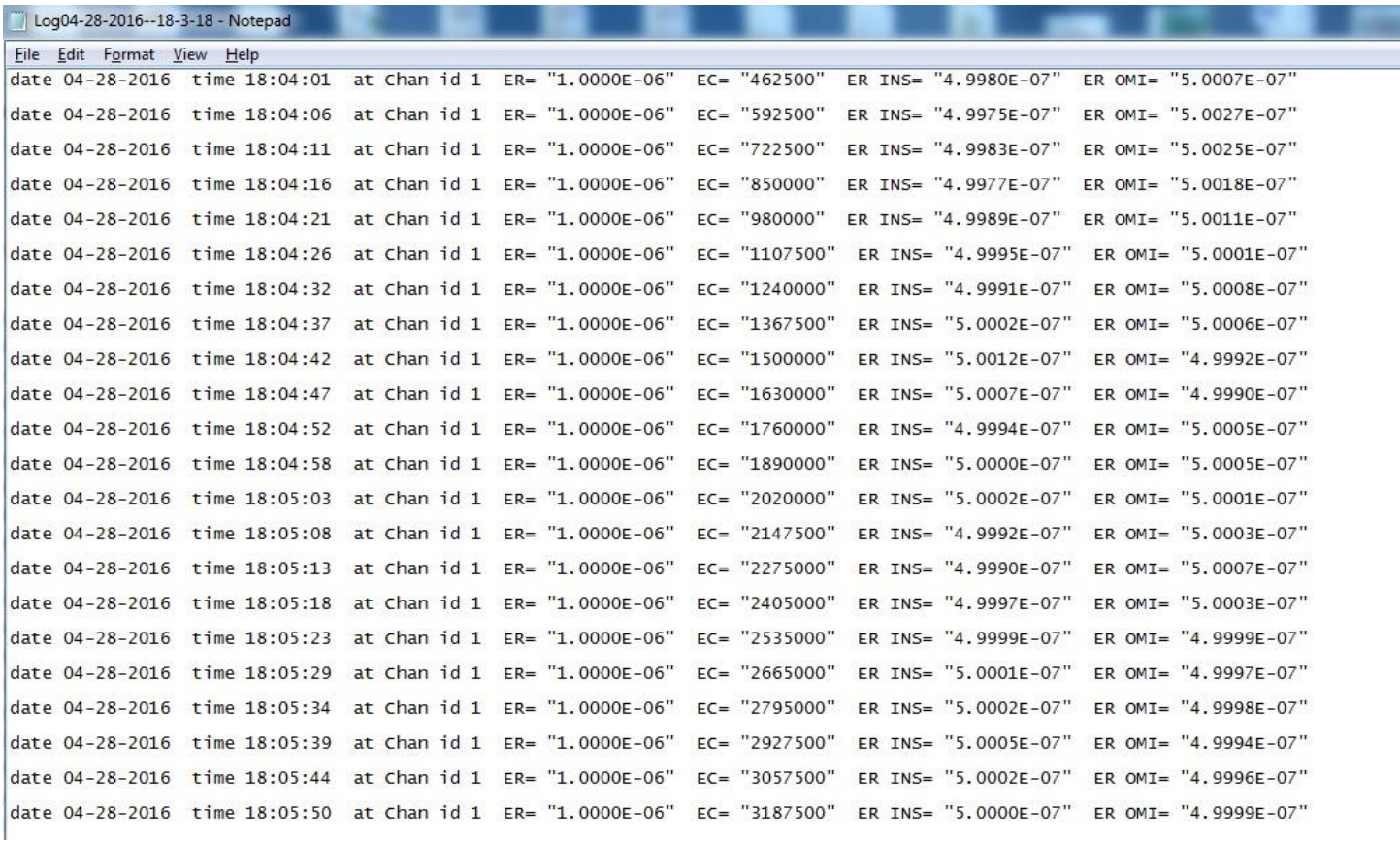


Fig.16. Testing four channel example

Please click “Quit” button to exit in the logging software, it might take up to a few seconds for the software to respond, since there is a delay set in the logging cycle.

Here is an example of a logging file automatically generated for testing two channels of ED(s). The logging file name contains test starting date and starting time, saved under “log” subdirectory.


Log04-28-2016--18-3-18 - Notepad

File Edit Format View Help

```
date 04-28-2016  time 18:04:01  at Chan id 1  ER= "1.0000E-06"  EC= "462500"  ER INS= "4.9980E-07"  ER OMI= "5.0007E-07"
date 04-28-2016  time 18:04:06  at Chan id 1  ER= "1.0000E-06"  EC= "592500"  ER INS= "4.9975E-07"  ER OMI= "5.0027E-07"
date 04-28-2016  time 18:04:11  at Chan id 1  ER= "1.0000E-06"  EC= "722500"  ER INS= "4.9983E-07"  ER OMI= "5.0025E-07"
date 04-28-2016  time 18:04:16  at Chan id 1  ER= "1.0000E-06"  EC= "850000"  ER INS= "4.9977E-07"  ER OMI= "5.0018E-07"
date 04-28-2016  time 18:04:21  at Chan id 1  ER= "1.0000E-06"  EC= "980000"  ER INS= "4.9989E-07"  ER OMI= "5.0011E-07"
date 04-28-2016  time 18:04:26  at Chan id 1  ER= "1.0000E-06"  EC= "1107500"  ER INS= "4.9995E-07"  ER OMI= "5.0001E-07"
date 04-28-2016  time 18:04:32  at Chan id 1  ER= "1.0000E-06"  EC= "1240000"  ER INS= "4.9991E-07"  ER OMI= "5.0008E-07"
date 04-28-2016  time 18:04:37  at Chan id 1  ER= "1.0000E-06"  EC= "1367500"  ER INS= "5.0002E-07"  ER OMI= "5.0006E-07"
date 04-28-2016  time 18:04:42  at Chan id 1  ER= "1.0000E-06"  EC= "1500000"  ER INS= "5.0012E-07"  ER OMI= "4.9992E-07"
date 04-28-2016  time 18:04:47  at Chan id 1  ER= "1.0000E-06"  EC= "1630000"  ER INS= "5.0007E-07"  ER OMI= "4.9990E-07"
date 04-28-2016  time 18:04:52  at Chan id 1  ER= "1.0000E-06"  EC= "1760000"  ER INS= "4.9994E-07"  ER OMI= "5.0005E-07"
date 04-28-2016  time 18:04:58  at Chan id 1  ER= "1.0000E-06"  EC= "1890000"  ER INS= "5.0000E-07"  ER OMI= "5.0005E-07"
date 04-28-2016  time 18:05:03  at Chan id 1  ER= "1.0000E-06"  EC= "2020000"  ER INS= "5.0002E-07"  ER OMI= "5.0001E-07"
date 04-28-2016  time 18:05:08  at Chan id 1  ER= "1.0000E-06"  EC= "2147500"  ER INS= "4.9992E-07"  ER OMI= "5.0003E-07"
date 04-28-2016  time 18:05:13  at Chan id 1  ER= "1.0000E-06"  EC= "2275000"  ER INS= "4.9990E-07"  ER OMI= "5.0007E-07"
date 04-28-2016  time 18:05:18  at Chan id 1  ER= "1.0000E-06"  EC= "2405000"  ER INS= "4.9997E-07"  ER OMI= "5.0003E-07"
date 04-28-2016  time 18:05:23  at Chan id 1  ER= "1.0000E-06"  EC= "2535000"  ER INS= "4.9999E-07"  ER OMI= "4.9999E-07"
date 04-28-2016  time 18:05:29  at Chan id 1  ER= "1.0000E-06"  EC= "2665000"  ER INS= "5.0001E-07"  ER OMI= "4.9997E-07"
date 04-28-2016  time 18:05:34  at Chan id 1  ER= "1.0000E-06"  EC= "2795000"  ER INS= "5.0002E-07"  ER OMI= "4.9998E-07"
date 04-28-2016  time 18:05:39  at Chan id 1  ER= "1.0000E-06"  EC= "2927500"  ER INS= "5.0005E-07"  ER OMI= "4.9994E-07"
date 04-28-2016  time 18:05:44  at Chan id 1  ER= "1.0000E-06"  EC= "3057500"  ER INS= "5.0002E-07"  ER OMI= "4.9996E-07"
date 04-28-2016  time 18:05:50  at Chan id 1  ER= "1.0000E-06"  EC= "3187500"  ER INS= "5.0000E-07"  ER OMI= "4.9999E-07"
```

Fig. 17. An example of logging file