Pilot Pioneer Expert FAQ

V10.5

Powering Network Experience

Contents

1 Installation and Operation

1.1 What is the recommended PC configuration to install Pilot Pioneer?

To guarantee the operating efficiency of Pilot Pioneer, the following minimum PC configuration is required:

- CPU: Intel (R) Core (TM) i5
- Memory: 2 GB
- VGA: SVGA, 16-bit or above color display mode
- Resolution: 1280*800
- Spare Hard Disk Space: 10 GB

1.2 Which operating systems are compatible with Pilot Pioneer?

- Pilot Pioneer 10.3 supports the following OS:
- Window 8(32/64-bit)
- Windows 7 (32/64-bit)

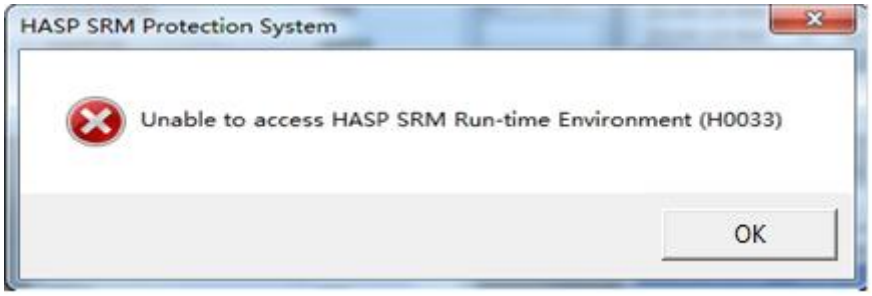
1.3 Why does an XML error occur during installation?

The Pilot Pioneer installation process will help to install MSXML by default. If there are other programs using XML, an MSXML installation error may occur and the installation will be stopped. In this case, restart the computer and install Pilot Pioneer again.

1.4 Why can't Pilot Pioneer run properly?

Case 1: After running Pilot Pioneer, an error message "Unable to access HSPA SRM Run-time Environment (H003)" is displayed.

Figure 1-1 Error message "Unable to access HSPA SRM Run-time Environment (H003)"



Reason: This error indicates that the program has difficulties in communicating with the local HASP license. There are various reasons that may lead to this error, which include:

- Improper installation of the HASP SRM driver
- Firewall blocking communication with the HASP license
- Other programs occupying the same port number (1947) as HASP

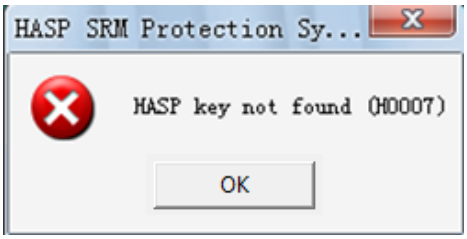
Solutions: To solve the problem, follow the instructions below to identify the reason:

1. Open the Web browser and enter http://localhost:1947.
    a. This is the HASP license center. If it can be loaded, the HASP SRM is successfully installed. The error may be caused by other reasons, and you need to move to the next item for verification.
    b. If the user prompt "page cannot be displayed" appears, the HASP SRM driver is not properly installed (go to step 2) or the SRM service is blocked (go to step 3 and step 4).
2. Choose Window's **Start** > **Run**, and then enter **services.msc**.
    a. In the service list, check whether the HASP License Manager is in the **Started** status.
    b. If you cannot find the HASP License Manager in the list, the HASP SRM driver is not properly installed. You need to install the driver.
    c. If the status is not in the **Started** status, check the event history to find whether there are some items related to the HASP License Manager.
3. Check your personal firewall program, such as Norton Internet Security/Zone alarm or others.
    a. Normally, most firewall programs will ask for permission to grant HASP License Manager Service the first time. If permission is granted, the firewall program will not block the license service.
    b. If the access is denied, communication errors may occur. To solve the problem, you need to shut down the firewall completely (Note: This may lead to risk, please contact your firewall provider for more details) or add a specific rule for HASP License Manager (If you add the outbound and inbound rules, please grant the 1947 port.).
    c. Since there are many personal firewalls, it is hard to list all the steps to configure the software. Please contact your firewall provider to get the instructions to create the exception rule.

4. Check whether there are other programs occupying the same 1947 port. If there is, stop the program and run the HASP application again.

Case 2: After opening the main program or during operation, an error message "HASP Key not found (H0007)" is displayed.

Figure 1-2 Error message "HASP Key not found (H0007)"



Reason: The program cannot detect the encryption dongle.

Solution:

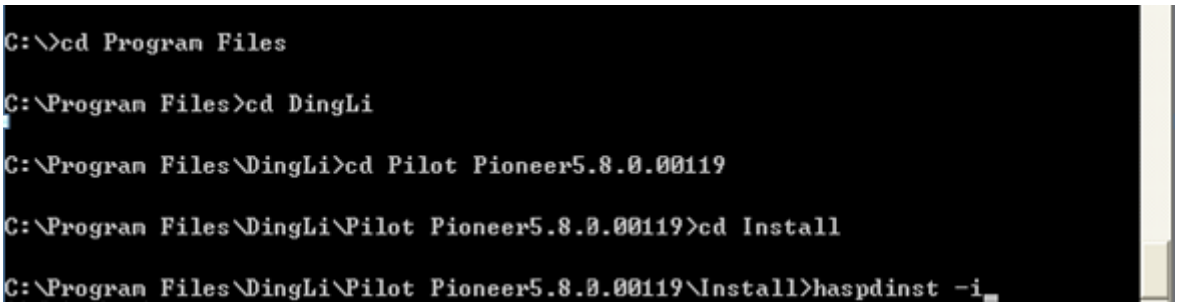
1. If the encryption dongle does not have hardware problems, change the USB port and try again.
2. Re-install the dongle driver. If the OS requires restart, restart and continue.

1.5 How can users resolve abnormal dongle installation?

Generally, after a dongle is plugged into the PC, the OS will recognize the dongle automatically and install the driver. However, the system may be unable to recognize the driver in some cases; for example, when there is VMware within Windows or the OS environment has changed. In such circumstances, follow the instructions below to solve the problem.

Choose Windows **Start** > **Run**, enter **cmd.exe**, and go to the directory where the encryption dongle driver is located. Run **haspdinst -i** and it will install the driver as shown in the following screenshot:

Figure 1-3 Command interface



1.6 Why does an NET Framework initialization error occur?

After the program starts, an error message "Pioneer.exe - .NET Framework initialize error" is displayed.

Reason: Pilot Pioneer 10.10 or later versions are based on **.NET Framework4.0.30319** or a later version. If the version is prior to **.NET Framework4.0.30319**, Pilot Pioneer will not work.

Solutions: The **.NET Framework4.0** installation package is included in **PioneerDriverSetup.exe**, or you may search on the Internet for the latest version.

1.7 Why is the error message "HRESULT 0xc8000222" displayed after the .NETFramework installation 4.0 fails in Windows 7?

The installation of **.Net Framework 4.0** failed and the error message "HRESULT 0xc8000222" is displayed.

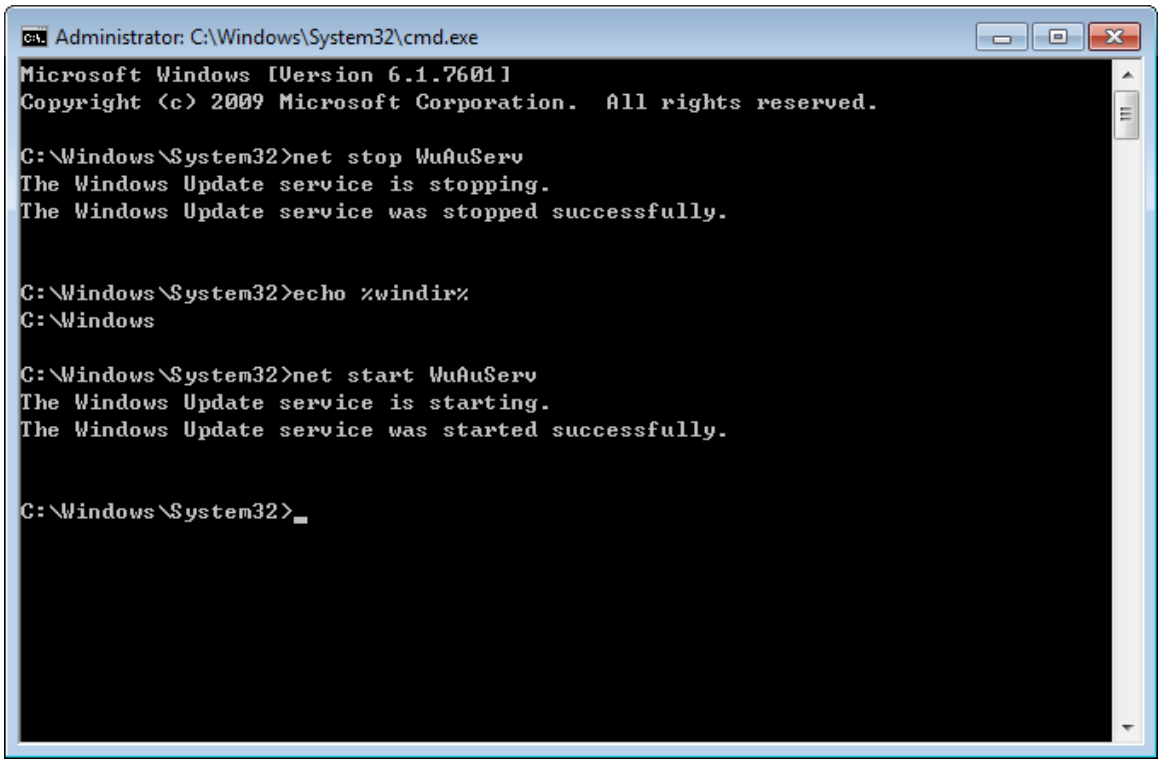
Reason: This error is related with the Windows update.

Solutions:

1. Find **cmd.exe** in the path **C:\Windows\System32 with Windows 7**, right click it, and select **Run as administrator**.
2. Enter **net stop WuAuServ** in the command line.
3. Enter **echo %windir%**.
4. Find **SoftwareDistribution** in the pop-up folder (normally it will be in **C:\Windows**) and rename it to **SDold** or other names.
5. Enter **net start WuAuServ**.
6. After completion, re-install **.NET Framework 4.0**.

A screenshot of the steps above is shown as follows:

Figure 1-4 Screenshot of the solution steps

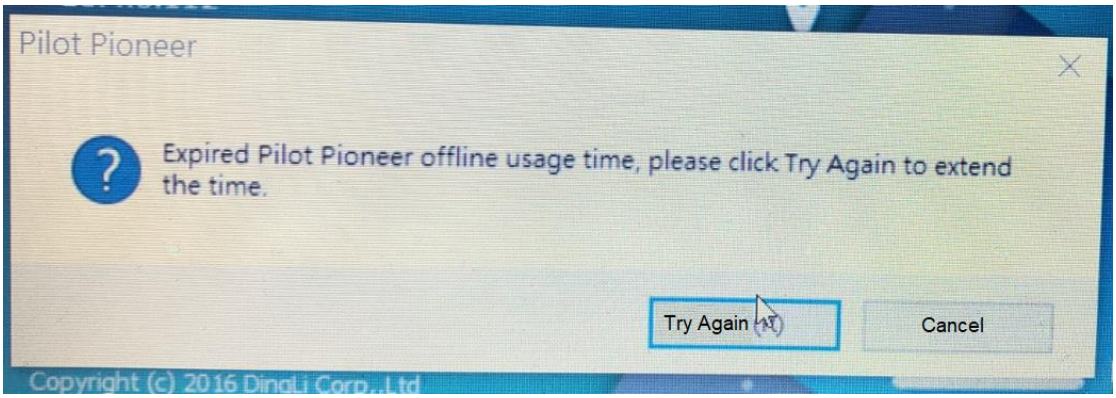


1.8 How to deal with expired offline usage time?

Problem: when launching Pilot Pioneer, there is a dialog box that prompts the user that Pilot Pioneer offline usage time has expired.

Solutions: 1. Make sure that the computer is connected to the internet, and then click Try Again in the dialog box that appears. 2. If the problem still exists even after applying method 1 above, just contact DingLi technical support to update the Pilot Pioneer version (V10.4.0.90 onwards)

Figure 1-5 Deal with expired offline usage time



2 Data Processing

2.1 Abnormal events and corresponding error messages

2.1.1 How can users solve problems related to device connection?

1. Device Lost:

If the cable between a handset and PC is unplugged, the information "Device Lost" is displayed in the Event window and a user prompt dialog message on the specific device appears. After the cable is plugged in again, Pilot Pioneer will automatically recognize the device and try to resume the connection. Then the information "Tag Event" will be displayed in the event window with "Try to restore" event details. After the device is connected normally again, the test will continue. See the following figures:

Figure 2-1 Device lost

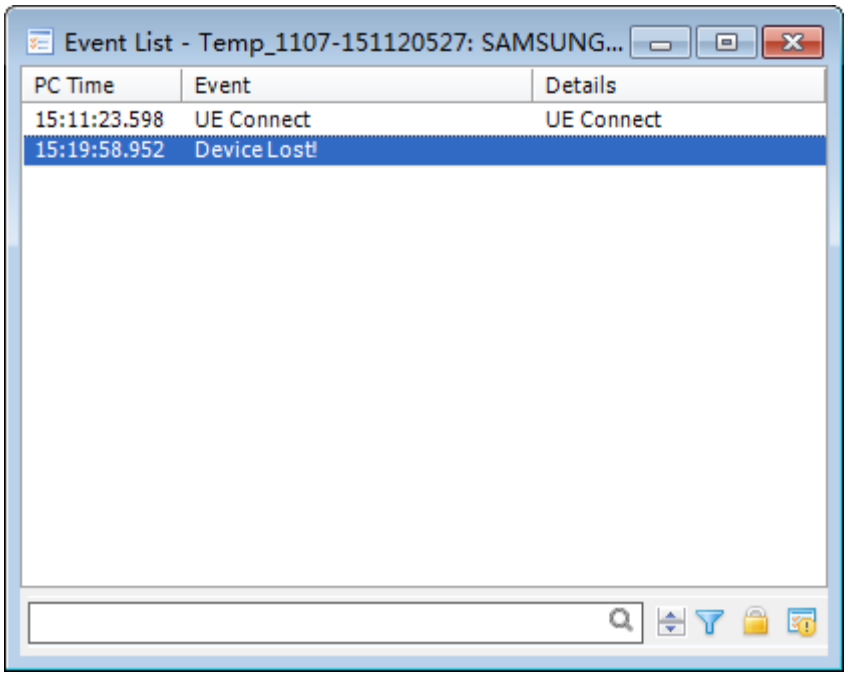


Figure 2-2 Dialog message about the specific device

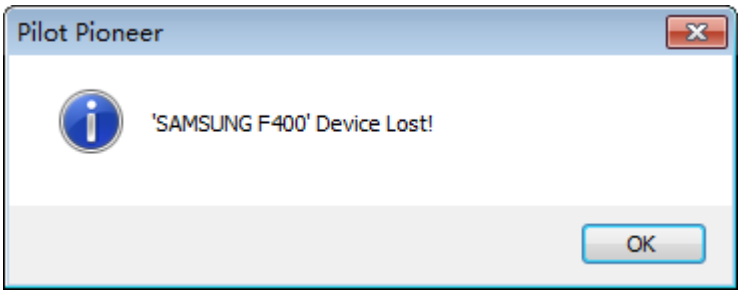
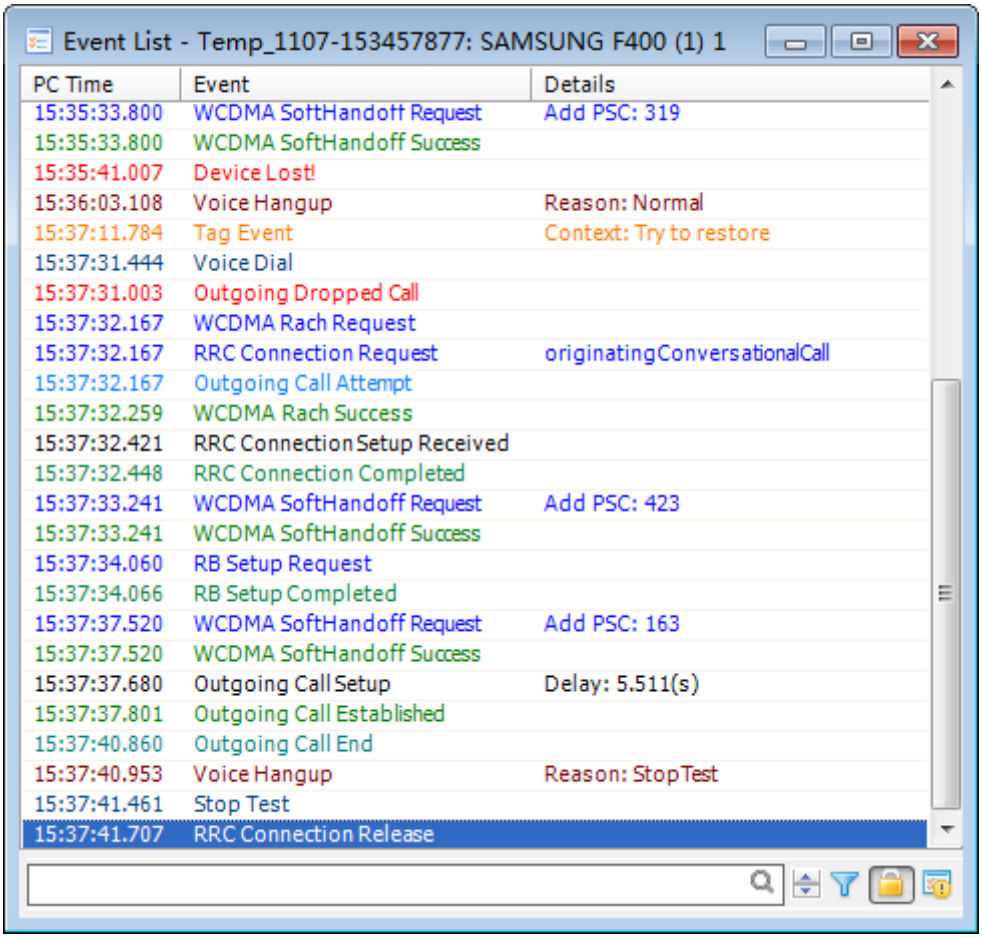


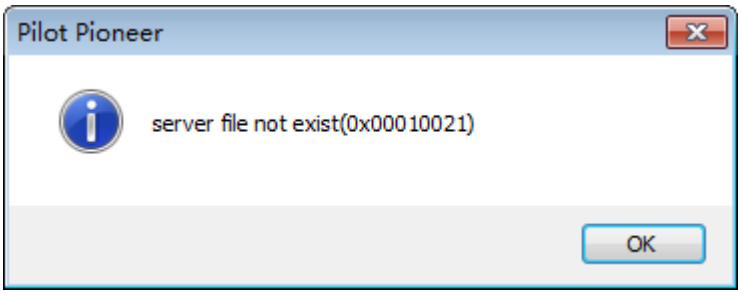
Figure 2-3 Tag Event and Try to restore



2.1.2 How can users solve problems related to data service?

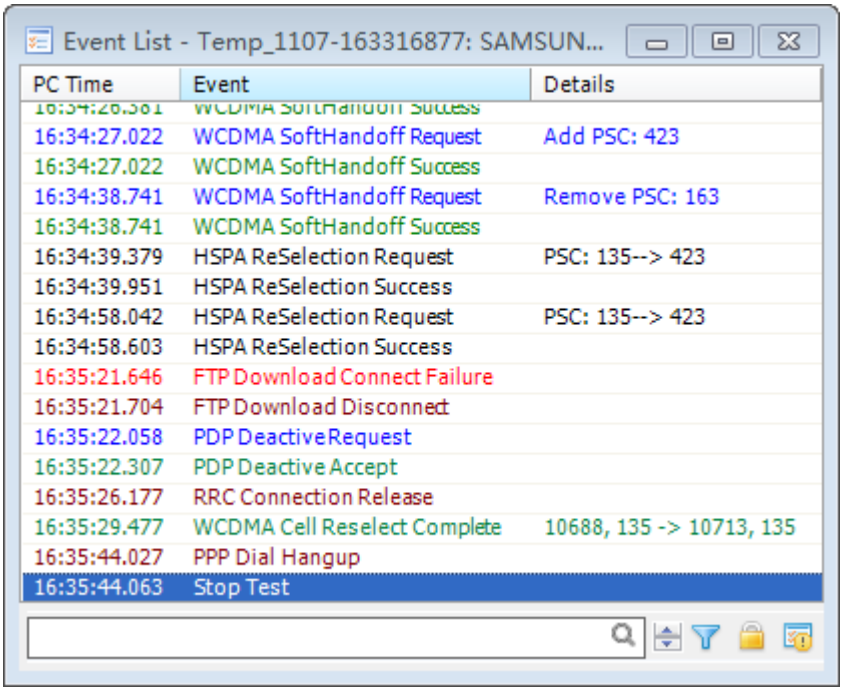
1. If the requested download file does not exist in the server, and the error message "server file not exist (0x00010021)" is displayed.

Figure 2-4 Error message "server file not exist (0x00010021)"



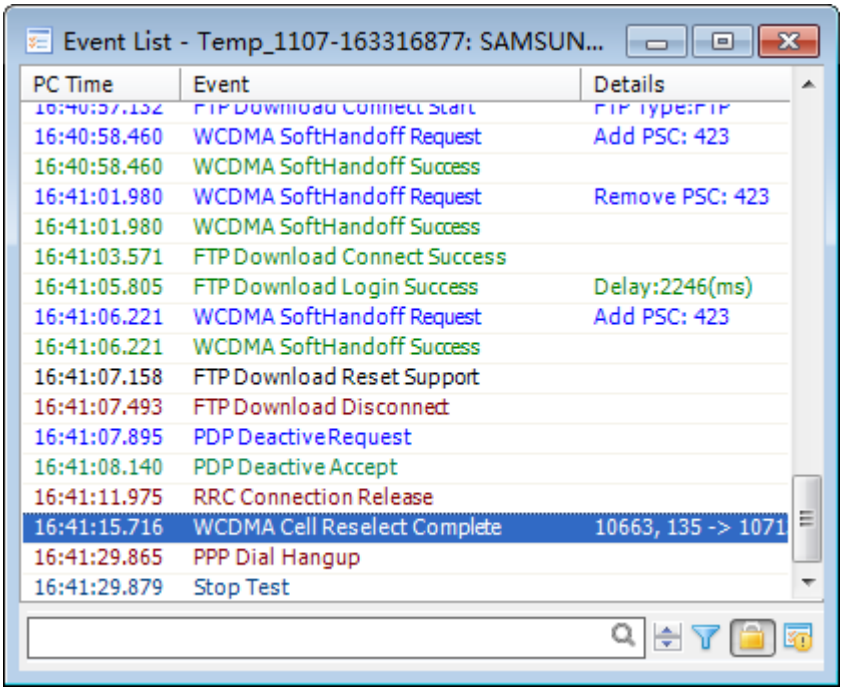
2. If the FTP server does not exist, and the error message "FTP Download/Upload Connect Failure" is displayed.

Figure 2-5 Error message "FTP Download/Upload Connect Failure"



3. If the download file size is 0 byte, the message "FTP Download Disconnect" will be displayed following the "FTP Connect Success" in the Event window.

Figure 2-6 Error message "FTP Download Disconnect"



4. In the HTTP Page service test, the average throughput value exceeds the maximum theoretical value. A possible reason is that many websites use gzip technology and display the currently decoded data, which reduces the network data transmission volume and improves the website access speed. Our service database may automatically decode the received data, and thus the received data volume will increase and the throughput may increase.

5. For the Facebook service test, why can't users log in with a created account?

   Only if the following requirements are met can the created account be used for login:

   - The created account must be activated.
   - The created account must be granted permission when it is used for the first time. The method is as follows:
     a. Enter the following URL address and log in to Facebook with the created account: *https://www.facebook.com/dialog/oauth?redirect_uri=https://www.facebook.com/connect/login_success.html&response_type=token&client_id=172503689551631&scope=publish_actions,create_note,xmpp_login,email,video_upload,user_notes,user_photos,user_videos,friends_notes,friends_photos,friends_videos*
     b. After logging in, click **OK** to verify permission and functions.
     c. If the login is successful, the message "Success" is displayed.
     d. Users may use the service database to log in to Facebook and perform the test.

6. Facebook login failed, and the error message "Not target page" is displayed. A possible reason is that the account is used for login in another place or an exception has occurred in

the computer (when users change to another computer or use an IP address for login). In this case, users may directly log in to the personal web page through the Web.

2.2 LTE Related Problems

2.2.1 How can users check whether the device is attached to the network?

Users may check whether the device is attached to the network based on the following information:

- It is recommended to open the Graph window after the software starts to record logs, and to check if any of the parameters such as **RSRP**, **SINR**, and **RSRQ** are updated. Updated details indicate the device is attached to the network.
- User may check the function interface such as Serving Cell, Cell Measurement, etc. If the radio access parameters are refreshing with the serving cells, it indicates the device is attached to the network.
- If only the message "LTE PRACH START" is displayed but no "PRACH SUCCESS" is displayed, it indicates that the device is not attached to the network.

If the device has problem to attach to the network, users may follow the steps below for reference:

1. Contact the engineer responsible for the access network, and check whether any new settings may have caused the device to unable to attach to the network.
2. Try to un-plug and re-plug the LTE device and reconnect the device to eliminate the possibility of an unresponsive device.
3. Try to use the FORCE command to reset the device, power down and power up to reboot the device.

2.2.2 How can users solve the DETACH and ATTACH problems?

It has been observed that Qualcomm based devices have unpredictable behavior during "Detach". For example, after being detached from the network, the device will hang or becomes unresponsive. It is therefore not recommended at this stage to perform the ATTACH and DETACH service tests before Qualcomm publishes an update regarding how to fix the driver.

2.2.3 What is the impact of a device being plugged in and plugged out while the driver is loading?

Every time a user re-plugs the Qualcomm terminal, the user needs to check the Network Adapter under the device manager. If there is an exclamation mark (!) after the Qualcomm Adapter, it means Windows has failed to load the driver; this problem is often found in Windows 7.

If the system failed to load the driver, users may right click the corresponding port to uninstall the driver and reject the device. Try to scan for device change, and then new unidentified devices may be found. Install the driver according to the guide. After the driver has been properly installed, there are in total four ports that comes with the Qualcomm device.

2.2.4 What is the impact of the RESET force command?

As the Qualcomm terminal will automatically attach to the network every time it is powered on, Pilot Pioneer is unable to capture the first ATTACH. If users need to test the ATTACH or PRACH, they may use the RESET force command. The reset command will trigger the device to power off and power on again. The process will take several seconds. Information will be updated in the Message windows, which indicates the RESET was successful. When users check the Basic Information/UE STATUS/MIMO and other windows, they will find that the parameters are now updating. If the Message window information is not being updated, users may go to the device manager to check whether the devices are with exclamation mark or the network adapter is not activated. In this case, users may disconnect the device and reinstall the Qualcomm driver.

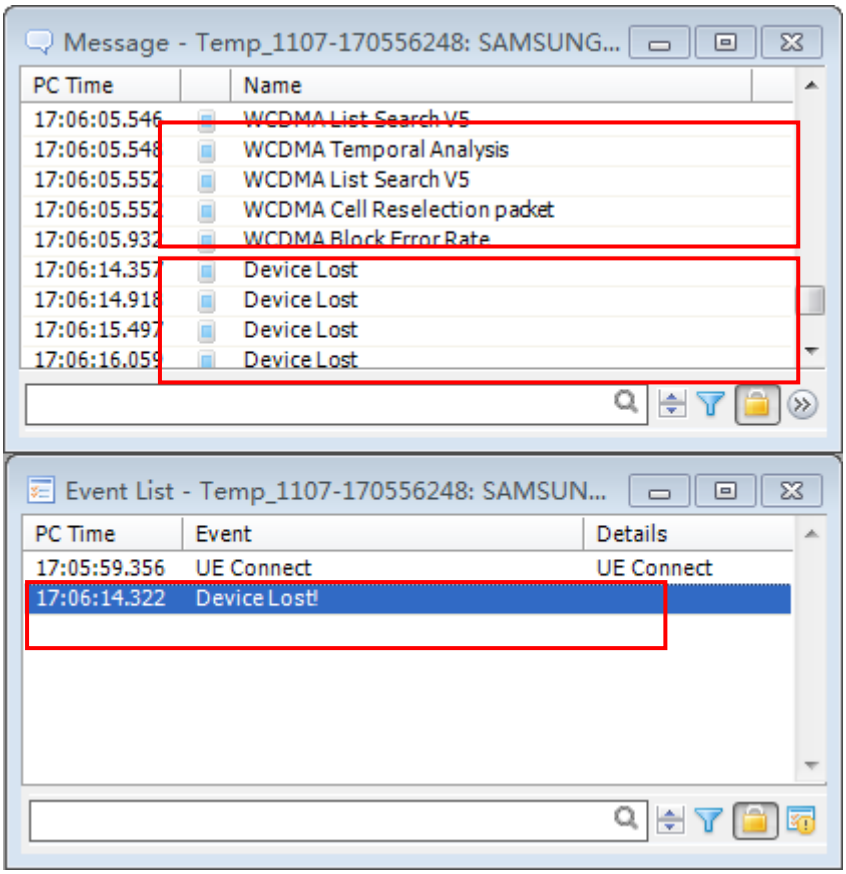
2.3 How can users check the interaction between Pilot Pioneer and the test devices?

Users may check to see if the interaction between Pilot Pioneer and test devices is normal through the Message and Event windows.

1. In the message window, if the interaction process is normal, the messages will continuously refresh. If the device is disconnected, the message "Device Lost" will be displayed.
2. In the event window, if the interaction process is normal, corresponding events will be reported based on the actions of the device. If the device is disconnected, the message "Device Lost" will be displayed.

3. If there are no message updates after users have connected the device, users may check if each port is properly configured on the device settings page.

Figure 2-7 Checking interaction between Pilot Pioneer and test device



2.4 How can users solve problems related to FTP service?

1. Users may check if the network environment has changed, if there are some non-operational base stations or cells, or if the network is in the ATTACH status.
2. Users may switch the SIM card or even device with other colleagues to troubleshoot problems.
3. If the FTP connection failed, users may try the CONNECT Forcing function. Connect to the Internet first and ping the server via CMD command line, or connect with QMI and check whether the connection is normal.
4. If there is a larger fluctuation with the FTP throughput, users may test with QXDM in the same environment and compare the results. Alternatively, users may use another commercial UE to

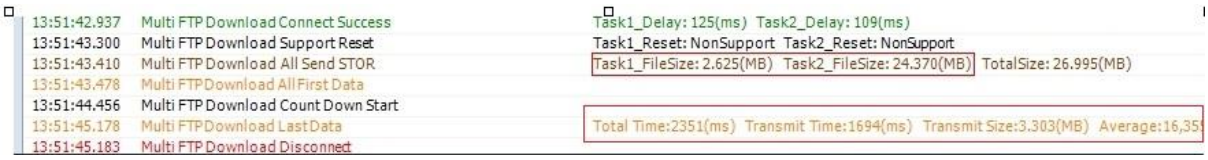
test FTP with other client tools in the same environment and check the difference with the result.

5. When testing FTP download or upload, if two or more testers upload a file with the same filename, and there is somebody else downloading that file, the file will be locked and errors will occur based on FTP server rules.

2.5 Multi FTP Test Related

2.5.1 Why is the Multi FTP session terminated when some task is not completed?

Problem: Users set two FTP download tasks (2.65M for one file and 24.37M for the other) with duration of 300s, but the whole FTP download session is terminated after 2 seconds even when one of the task is not yet completed.



Reasons: Currently, for Multi-FTP (download/upload) test, if one of the tasks is completed, the whole session will be terminated based on the software program logic. Therefore, it is recommended that users select files with similar size for tests.

2.5.2 Why the downloaded files are suffixed with numbers such as ".0" or ".1" during multi-FTP download test?

Problem: During multi-FTP test, downloaded files are automatically suffixed with ".0" or ".1". See the figure below:

Reason: During multi-FTP download test, the downloaded files are saved in the same directory. To avoid repetitive file name, the software automatically adds numbers such as ".0" or ".1" to the

downloaded files as suffixes based on the download order.

2.6 How can users avoid operational error that may lead to application hang?

1. Strictly adhere to the operation instructions. After clicking the log-recording button, do not perform any operation until the default windows are launched.
2. Follow the standard process to start and end the test.
   - Start test: Click **Connect** to connect the device → Start recording log files→ Start test
   - End test: Stop test → Stop recording log files → Click **Disconnect** to disconnect the device
3. After re-plugging the UE or using the RESET command from force function, Pilot Pioneer may remember the ports. As a result, it is recommended not to operate the software during this time.
4. When the UE is not yet attached to the network (the event window showing the device is attempting PRACH), it is recommended not to click the **Start** button to start the test. The service test will not start before the UE is connected to the network.

2.7 How can users solve problems related to the LTE Attach service test terminals?

For Qualcomm devices, it is recommended to use the **Reset** solution. For HiSilicon devices, it is recommended to use the **Power-off-and-On** solution.

Due to the performance difference between Qualcomm based devices, the Detach test may cause devices some difficulty to resume the operation. This is why it is recommended to use the **Reset** solution as the default procedure.

Based on our test experience in Shenzhen, it has been concluded that the failure rate is higher if **Detach** is performed in advanced. Be sure to turn the mobile power off and then on before proceeding to test the **Attach** procedure for HiSilicon based devices.

2.8 How can users troubleshoot Pilot Pioneer database problems?

Users may solve FTP database problems by following the instructions:

1. Users may use the **List** command to obtain the file size, because some servers cannot support the **Size** command.
2. The **List** command may fail to get the size in the PORT mode.
3. We have added some timeout processing, which can be configured.

   ////////////////////////////////// Descriptions //
   //
   // ReGetTimeout: During the test, if there is no data received within a specified period of time, it will stop the socket and reconnect.
   // NoDataTimeout: During the test, if there is no data received within a specified period of time, it will report Drop.
   // ConnectTimeOut: The timeout for socket setup when the test begins or during the test.
   // SocketConnectCount: The socket connection attempt counts when the test begins or during the test.
   // FTPConnectTimeOut: The connection time for logging in to the FTP server.
   // TryConnectCount: The socket connection attempt counts when the test begins. If **TryConnectCount** is set, do not set **FTPConnectTimeout**.
   // FtpConnectInterval: The interval duration for reconnection when the test begins.
   // DownloadWinSize: The TCP window size for download test.
   // UploadWinSize: The TCP window size for upload test.
   //
4. We have resolved problems related to relative path and absolute path. However, we still recommend users to use the absolute path to avoid other problems.
5. We have resolved the scenario in which one thread is stuck and other threads timeout, leading to high failure rates.
6. We have added a process to change the file name of the server that does not support the Append command. In the case of congestion in an abnormal network and the server has blocked the file transmission, we use the same approach.
7. To avoid server build up during upload test, the files will be automatically deleted after the test.
8. The upload completion event will be reported only after the software has received the response of transmission completion. This is to avoid Pilot Pioneer from disconnecting after storing data to the cache. The FTP server will block the file in this case and the instant throughput will become higher. For this reason, Pilot Pioneer only reports upload completion after the transmission has been completed.

9. If users perform the FTP service test when the FTP server is powered off or disconnected from the Internet, a login or connection success event may be reported. The reason is that the server IP is an internal IP address, and the server host will return login information when users try to connect to the server, which may cause Pilot Pioneer to report a login or connection success event.

3 Device Settings

3.1 How can users modify the band in the HiSilicon (Huawei) device?

To modify the frequency band, do as follows:

1. Enter the AT command in the AT channel window.
2. Power off and then power on the device.

AT command:

AT^NVWR=0x22d,68,01 00 00 00 28 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

Description:

- The highlighted number "***28***" indicates 0x28 that is **40** in decimal number, representing Band 40.
- The AT command above is an example to modify the band to Band 40.
- After the execution, if the system sends an "**OK**" response message, it indicates the writing operation has been successful.
- The AT command above cannot be modified excluding the highlighted part.

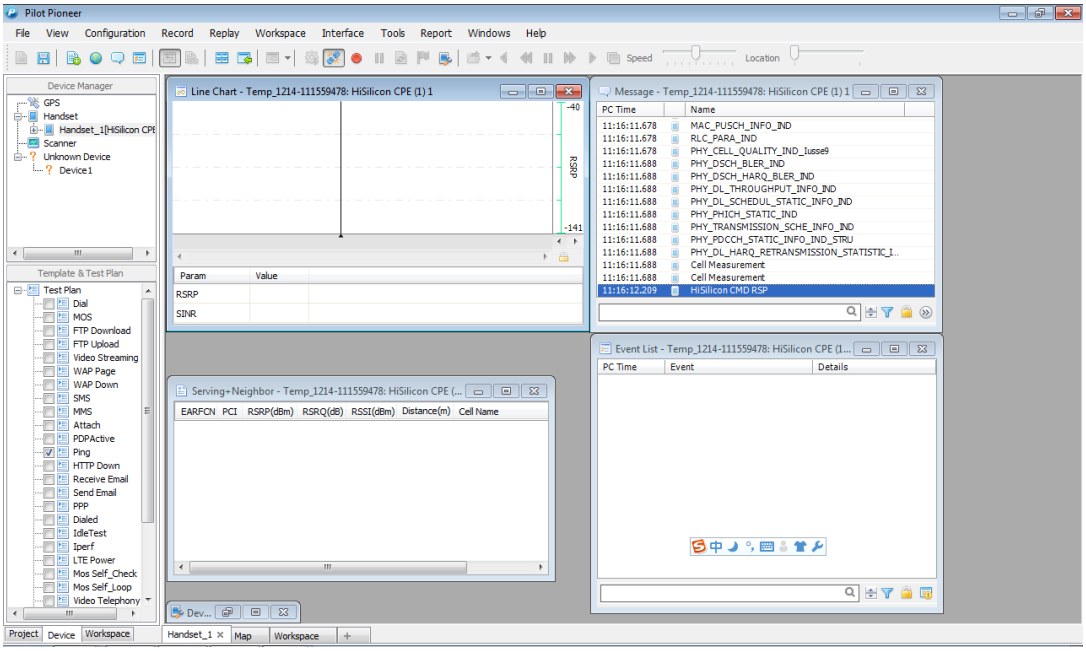
Example: Modify Band to 38

AT^NVWR=0x22d,68,01 00 00 00 26 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

3.2 Why is there no parameter captured during the HiSilicon (Huawei) CPE test?

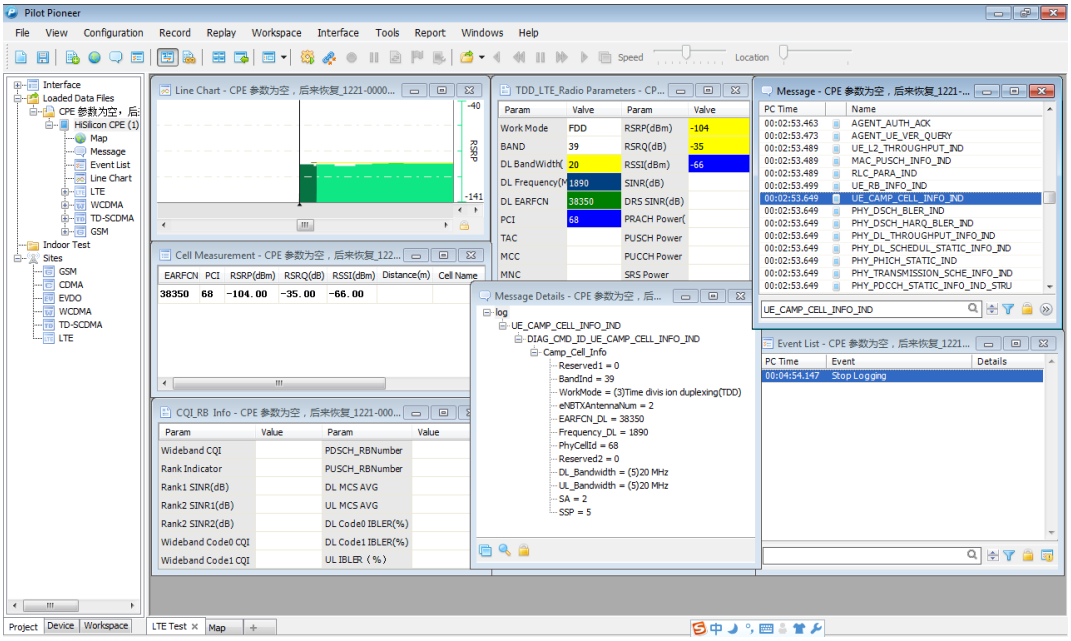
After the HiSilicon CPE has been connected, the message is updated in the message window, but there is no value in the line chart and status windows. See the following figure:

Figure 3-1 No parameter captured during the HiSilicon CPE test



Reason: When Pilot Pioneer is processing the HiSilicon CPE data, it needs to receive a message named "UE_CAMP_CELL_INFO_IND" so that the software can identify the parameter. See the following figure. In the actual case, after a PowerOff/PowerOn procedure, this message will appear. As a result, you may manually power off and power on the device.

Figure 3-2 Message "UE_CAMP_CELL_INFO_IND"



3.3 How can users solve the PIN code problem?

LTE devices cannot register to the network if the Attach command cannot be sent. In this case, users need to check if the SIM card is protected by the Pin code (generally, the Pin code is 1234 or 0000).

3.4 What is the matching relationship between HiSilicon LTE devices and the client software version?

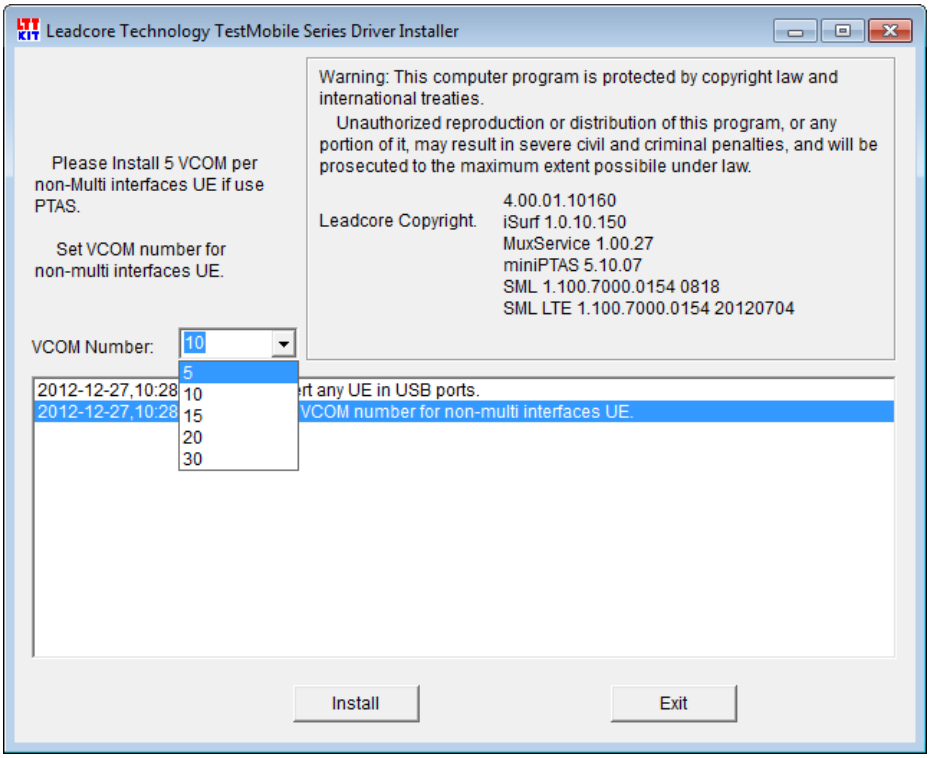
Currently, there are 3 type of LTE devices: HisiE398/ HisiCPE (B593) /Hisi MIFI (E5776S-860). The client software of these three devices are different. See the following table:

Device Model	Client Version
HiSilicon E398	1.0.26.0
HiSilicon CPE	2.4.0
HiSilicon MiFi E5776s-860 (black)	3.0.1
HiSilicon MiFi E5776s-860 (white)	2.2.0.0
HiSilicon E3276S-861/150	2.2.0.0

3.5 How can users select ports for the Leadcore LTE device driver?

When installing the driver **LeadcoreTestMobile Toolkit.4.00.01.10160** for Leadcore LTE devices, users need to select at least five VCOM ports for each device.

Figure 3-3 Select ports



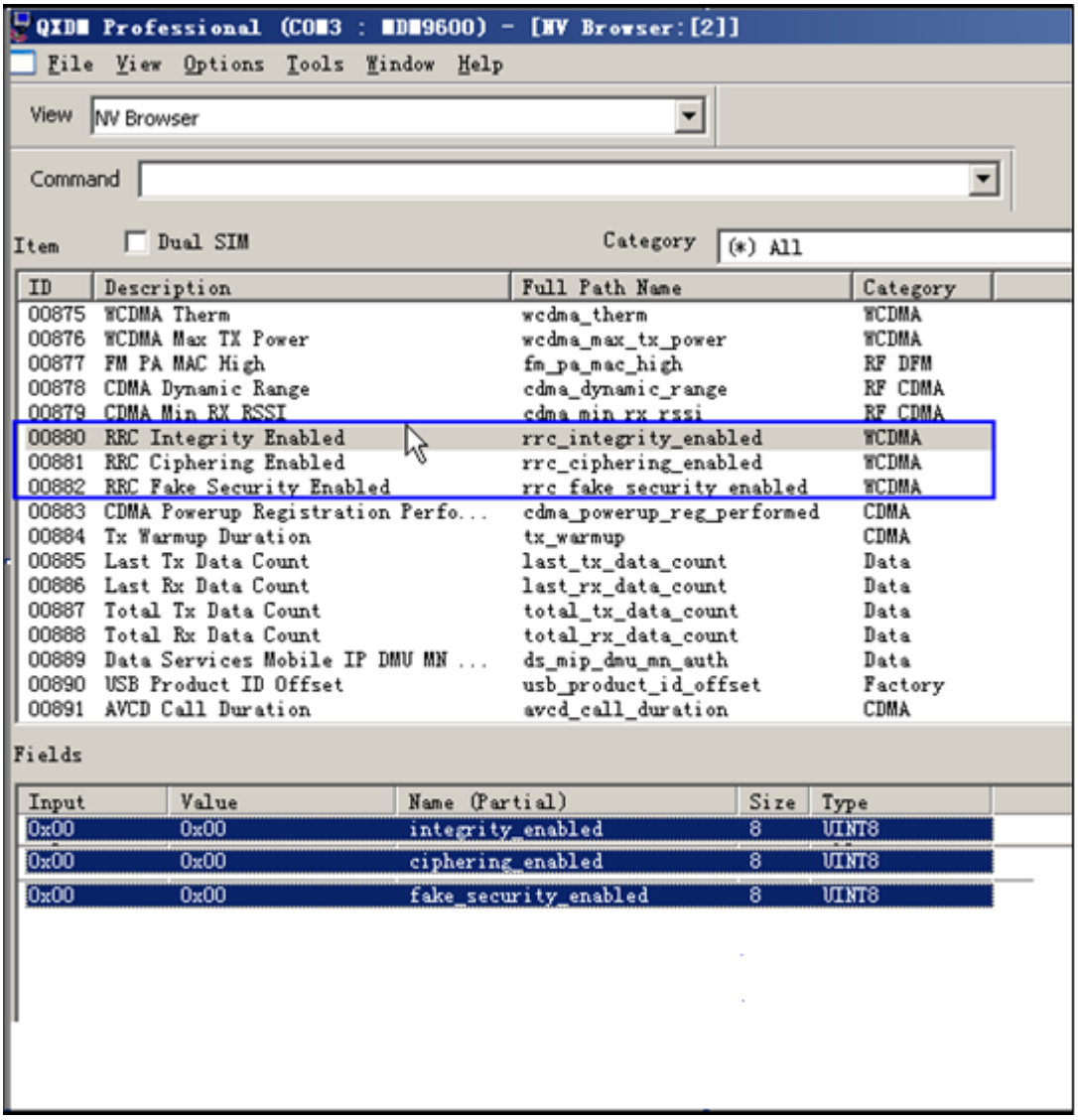
3.6 How can users enable or disable network authentication for Qualcomm devices?

To enable or disable network authentication, users may use QXDM for configuration in the UE.

Follow the instructions below:

In the QXDM main menu, choose **View** > **New** > **NV Browser**, select the records with ID **00880**, **00881**, **00882**, set the values to **0**, **0**, **1** respectively to disable network authentication, or set the values to **1**, **1**, **0** respectively to enable network authentication.

Figure 3-4 Enable or disable network authentication



3.7 How can users set the engineering mode for Samsung Galaxy SIII?

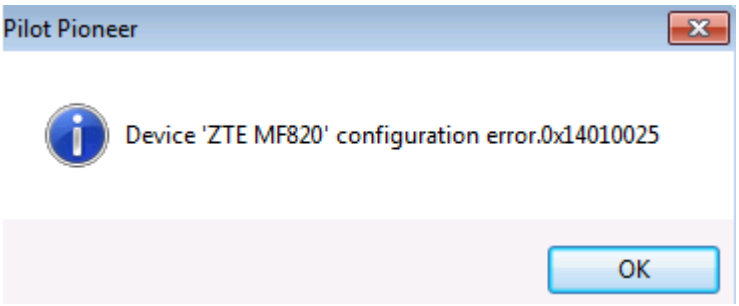
Users need to set the engineering mode before the test. Do as follows:

1. Enter ***#7284#** with the dial panel on the mobile phone. The default mode is **PDA**.
2. Click **Qualcomm USB Settings**, select **MTP+ADB** in the window that is displayed, and click **OK**.
3. Restart the phone.

3.8 Why can't users perform the test normally after LTE devices have been connected to Pilot Pioneer?

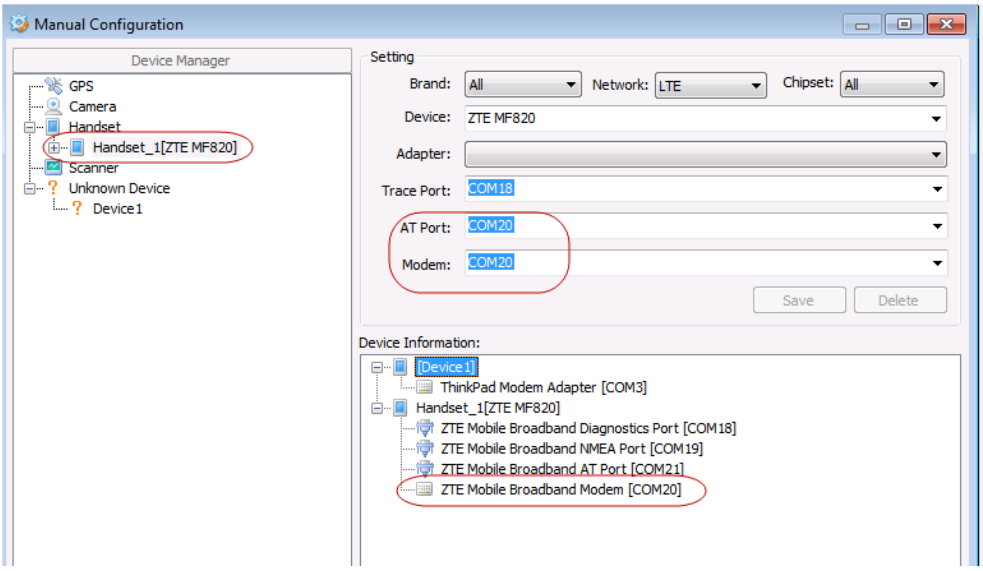
If users cannot perform the test normally after the LTE device has been connected to Pilot Pioneer, the window shown in the following figure is displayed:

Figure 3-5 Error message



It indicates that the AT port cannot be accessed. Users may check whether the AT port and Modem configuration is correct. See the following figure:

Figure 3-6 Check AT port and Modem configuration



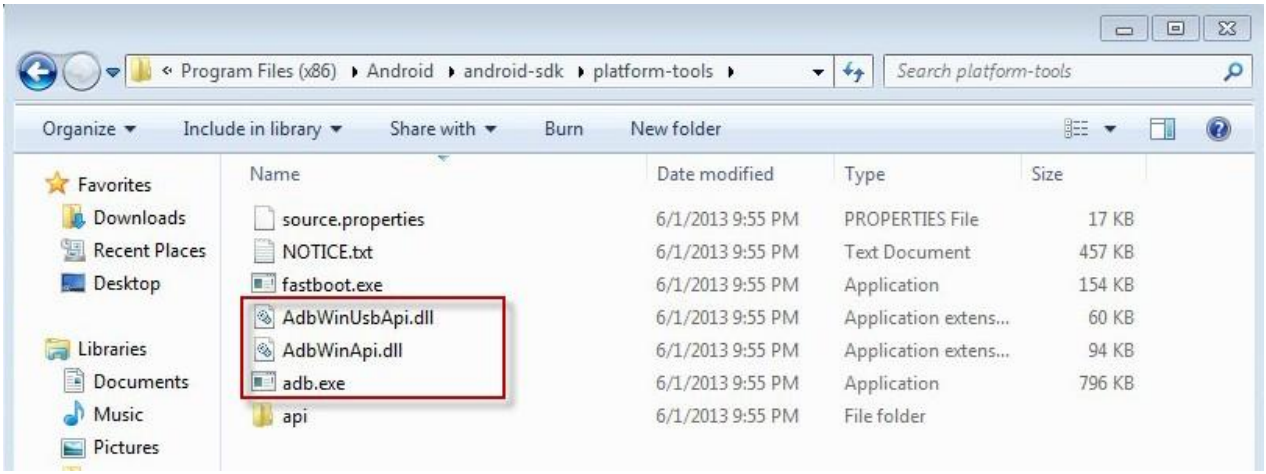
3.9 How can users solve problems related to cell/frequency lock for HiSilicon (Huawei) LTE devices?

The configuration of the cell/frequency lock for HiSilicon (Huawei) LTE devices will be activated at all times, unless force unlock is performed.

3.10 What should users pay attention to while connecting Samsung S 3 (ADB) to Pilot Pioneer?

1. Pilot Pioneer needs to send commands to the device to enable the USB Network Sharing mode for automatic device detection. A network adapter will be mapped in the PC system for the device, and the PC system will perform automatic detection, that is, to load the device. If users connect the device before the device is completely loaded, no information may be displayed on the interface.
2. Keep the USB Tethering option disabled before connect Samsung S3 to Pilot Pioneer and do not modify it during the service test.
3. If no device is detected, do as follows:
   - Check if any Android management tool (such as Snap Pea) on the phone is running. Make sure to close them before the test.
   - Check if the ROOT software/tool is installed on the Android phone, as the ROOT tool will generate some dynamic databases that may conflict with those of Pilot Pioneer (such as AdbWinUsbApi.dll, AdbWinApi.dll, and adb.exe. in the following figure).
     If the problem is caused by the installation of the ROOT tool, there are two methods to solve the problem.
     a. Uninstall ROOT and restart the PC.
     b. Copy the three dynamic databases mentioned above to the **ADB** file in the Pilot Pioneer installation path (**Program Files\DingLi\Pilot Pioneer9.1.*.****\ADB**\) to replace the existed ones.

Figure 3-7 Check software/tool installation



3.11 How can users solve problems related to disconnection during the parallel service test for Samsung S4?

The Modem port and AT port are the same for Samsung S4. During voice and data parallel service tests, do not select **Disconnect Every Time** for the data service if the terminal uses AT command to dial up or hang; otherwise, the QMI program may be crashed and the dial up cannot disconnect.

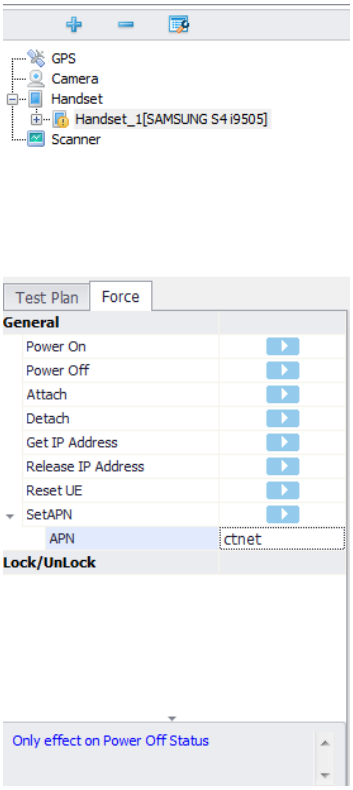
3.12 Why can't Samsung S4 (I9505) connect to LTE network technology?

After inserting a SIM card into Samsung S4 (I9505), the device cannot connect to LTE network.

Reason: The reason is that the APN has not been set, which causes Attach rejection.

Solution: In this case, users may ask the operator for the correct APN, and set the APN information under **SetAPN** on the **Force** tab page after the device is connected to Pilot Pioneer. See Figure 3-8. Alternatively, users may manually add new APN information on the handset in case the handset cannot connect to Pilot Pioneer.

Figure 3-8 Setting APN information



3.13 What should users do if Pilot Pioneer cannot detect iOS devices?

If Pilot Pioneer cannot detect iOS devices, users need to verify the following items:

- If iTunes has been installed and corresponding services (such as Apple Mobile Device and Bonjour) are enabled. Users do not need to start iTunes during test.
- If **Personal Hotspot** is enabled on the handset.
- If iTunes has been installed and corresponding services and **Personal Hotspot** are enabled, but Pilot Pioneer cannot detect the device after multiple attempts, users may reboot the handset and reconnect the device.

3.14 Why can't users enable 4G service after starting iOS devices?

Problem: Users cannot enable 4G service after starting iOS devices?

Reason: For iOS devices, users cannot enable 4G service if the carrier version is earlier than 15.7.

Solution: Users may choose **Settings** > **General** > **About**, and tap **Carrier** to automatically update the carrier version.

3.15 Why did data service tests fail while Personal Hotspot is enabled and data traffic exists?

Problem: After iOS devices connect to a PC through USB cables, data service tests failed while Personal Hotspot is enabled and data traffic exists in the USIM card.

Reason: The reason is that the wireless network adapter IP address is not automatically obtained.

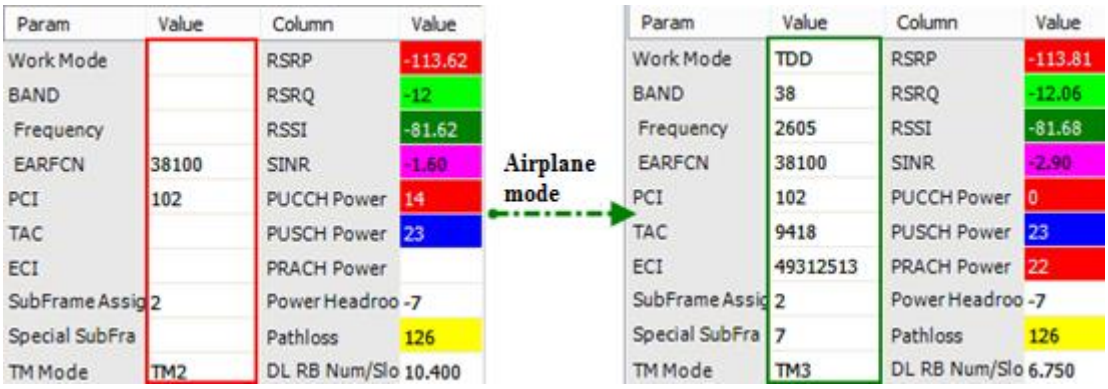
Solution: Users may choose **Control Panel** > **Network and Internet** > **Network Connection**, right-click the corresponding network adapter and select **Property**, double-click **4(TCP/IPv4)**, and then select **Automatically obtain IP address**.

3.16 Why is no LTE network parameter displayed after iOS devices are connected to Pilot Pioneer for the first time or during indoor tests?

Problem: No basic LTE network parameter (such as **Band/ UARFCN**) is displayed after iOS devices are connected to Pilot Pioneer for the first time or during indoor test.

Solution: After iOS devices are connected to Pilot Pioneer through sharing mode, users may enable or disable **Airplane Mode** (**Setting** > **Airplane Mode**) on the handset to attach and detach the network and obtain basic wireless parameters.

Figure 3-9 Airplane Mode



Note:

1. For outdoor tests, wireless parameters can be obtained by cell reselection or handover, and without the need to enable or disable **Airplane Mode**.

2. It is normal that the virtual wireless network adapter disappears when **Airplane Mode** is enabled and appears when **Airplane Mode** is disabled. For multi-device tests, users need to enable and disable **Airplane Mode** for the devices one by one, and cannot simultaneously perform the operation on all devices.

3.17 What is the compatible iOS system and Windows operating system?

iOS: iOS 7.0.4 to iOS 7.1.2 that allows untethered jailbreak

Windows: Windows 8.1(32 bit/64 bit)/ Windows 7(32/64 bit)

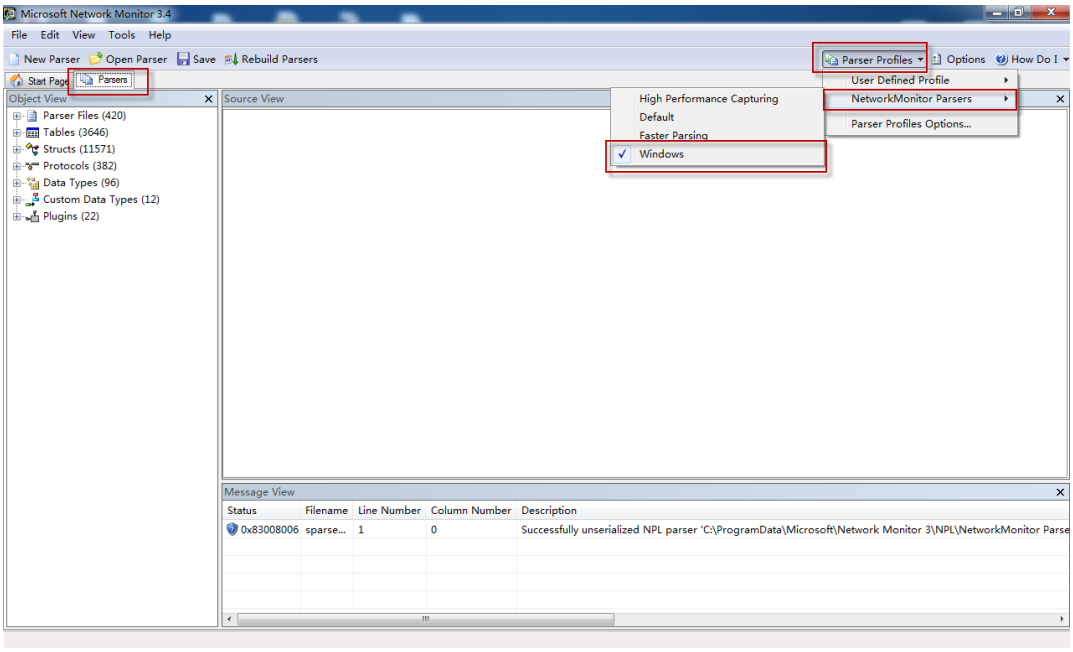
3.18 How can users solve problems related to the SAMSUNG Note III N7509V 3G service test not launching?

When using the SAMSUNG Note III N7509V to perform Interoperability Test (IOT) for 3G/4G, the test terminal cannot start service test in 3G network if a beta version is used. In this case, users need to change the value of **NetGenerationRunFor2** in the **SystemConfig.ini** file that is in the Pilot Pioneer installation directory/system. The corresponding values include **2** (for 3G), **3** (for 4G), and **5** (for any network).

3.19 How can users set TCP/IP packet capture in the Win7 32-bit system?

Pilot Pioneer version 9.4 or later versions may capture TCP/IP packets in the Win7 32-bit system. Users need to install the newest **PioneerDriveSetup**, and follow the steps in the figure below to set required information.

Figure 3-10 Set TCP/IP packet capture



3.20 Why is MOS box 3.1 recognized as a sound card by default?

Problem: The MOS box 3.1 is recognized as a sound card by default after connecting to a PC, and tests events replay sound is recorded in the MOS voice file, which will affect the MOS score.

Reason: This problem may be caused because of no PC sound card or sound card driver failure.

Solution: Install and make sure that the sound card driver is normal, or disable the event replay sound on Pilot Pioneer.

3.21 Why can't 64-bit operating system connect iPhone 6 for test?

Problem: Computers with 64-bit operating system cannot connect iPhone 6 for test.

Reason: The internal structure of iTunes 12.1 released by Apple changes, and therefore some 64-bit computers cannot connect iPhone 6.

Solution: It is recommended that users install iTunes version 12.0 or an earlier version.

3.22 What should users do if HTC M8 cannot register to the IMS server after power on?

Problem: When users use HTC M8 to perform VoLTE test, the phone cannot register to the IMS server after power on.

Solution: Users may choose **Settings** > **Data Connection** > **IMS Service** to manually enable the IMS service.

3.23 What should users do if Pilot Pioneer fails to report any MOS scores during VoLTE test?

Problem: Pilot Pioneer fails to report any MOS scores during VoLTE test.

Solution: There are two solutions to the problem:

1. If this problem occurs as soon as the test starts, users need to install vcredist_x86 and restart the computer.
2. If this problem occurs during the VoLTE test, users need to unplug and then plug in the audio cables of the two cell phones.

3.24 What should users do if the MOS score remains low (1-2) during test?

During MOS test with MOS box version 4.0, if the MOS score remains at low value (ranging from 1 to 2), users may disconnect the device, power off the MOS box, reinsert the MOS box into the USB port, power on again, and proceed to conduct the test.

3.25 What is the relationship between iOS/Android device version and Pioneer tools version?

Pioneer tool is a software that is installed on iOS devices to connect the device to Pilot Pioneer.

The compatible versions between Pioneer tools and iOS device versions are as below:

Pilot Pioneer Version	Pioneer Tools	Windows 7/8/10	iOS Version	iTunes
10.3	V20181226 (Android)	32/64-bit		
10.2	V 2018.01.24 (Android)	32/64-bit		
10.1	V3.0.0.1230 (Android) V3.3.0.0520 (iOS) (Please update the iOS version in the Cydia source.)	32/64-bit	iOS 10.1	12.6.1.25
10.0	2.4.2 (iOS)	32/64-bit	iOS8/9.0	12.3

3.26 Why can't the Carrier Aggregation function be enabled with G9200 and G9209 handsets?

The EFS on G9200 and G9209 is locked and cannot be modified. Therefore, the CA function cannot be enabled with these two handsets.

The CA function can be enabled with G9208.

3.27 What is the difference between Band26 and Band5?

Band26 includes Band5.

- Band26: 814MHz - 849MHz
- Band5: 824MHz - 849MHz

Google Nexus 5x supports Band26 and verified with real network test, but cannot support VoLTE or Band5.

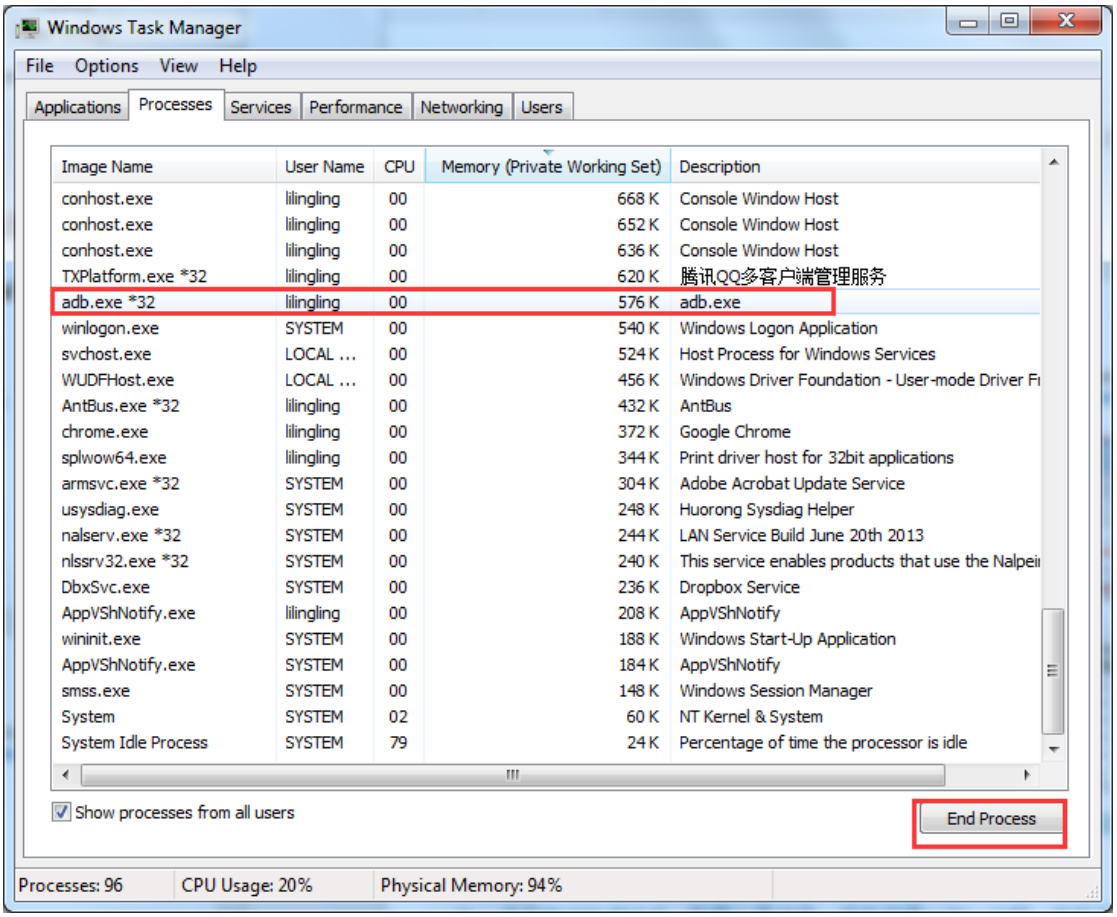
Please contact Dingli technical support for assistance if you need to test Band26.

3.28 What should users do if PioneerTools always displays the message of waiting to connect when VoLTE service is conducted with Samsung?

- Unplug the handset and click Restart Pilot Pioneer in PioneerTools interface.
- Terminate the antivirus software and phone assistant software in PC

- End the process of **adb.exe** in Windows Task Manager

Figure 3-11 End the process of adb.exe



- Connect the handset to PC. Click "**Always allow from this computer**" and "**OK**" in the "**Allow USB debugging?**" dialogue box.
- Create a project in Pilot Pioneer
- Click **Automatic Detection** and configure the corresponding Samsung handset in Pilot Pioneer. Note that the handsets need to be connected to PC one by one and click **Automatic Detection** and create a new project each time when one handset is connected to PC.

3.29 Why Samsung handset failed to answer the VoLTE call automatically?

To check the reasons, do as follows:

- Check whether the Pilot Pioneer used has the valid VoLTE license and PioneerTools with VoLTE and SIP license.
- Check whether PioneerTools displays the message "Connected" when the handset is connected to PC.
- If PioneerTools displays the message "Connected", configure the test plan and start test; then check whether PioneerTools display the message "Voice Test"

4 Software Settings

4.1 How can users add user-defined parameters?

In the **Custom Parameter Manager** window, a certain number of parameters without value are provided for each technology by default. To add a user-defined parameter, do as follows:

1. In the **Custom Parameter Manager** window, select a parameter without a value to perform the operation (such as rename, set range and color) as required.
2. Find the added parameter under the corresponding technology, and double click the parameter to enter the **Custom Parameter** window to set the parameter value.
3. In the **Custom Parameter** window, select parameters and mathematical symbols to create algorithm expressions.
4. Click the **OK** bottom to finish parameter setting.

4.2 How can users add customized events?

In the **Custom Event Manager** window, Pilot Pioneer provides a default directory tree that is dedicated to managing customized events. To add a customized event, do as follows:

1. Select an event without definition in the **Custom Event Manager** window to perform an operation (such as rename, set display color, etc.) as required.
2. Create an event that will be displayed under the corresponding network technology.
3. Double click the event to enter the **Custom Event Edit** window, where users may define the event conditions based on three mode: messages and parameters, the interval between messages, and the appearance counts of specified parameters.
4. After defining the event conditions, select a name from the Report drop-down list in the **Custom Event Edit** window as the reported event name, and click **OK** to complete the configuration.

4.3 How can users export reports in the PPT format?

During the installation of Office 2010, **Visual Basic For Applications** under **Office Shared Features** is not installed by default. See the following figures:

Figure 4-1 Office Shared Features

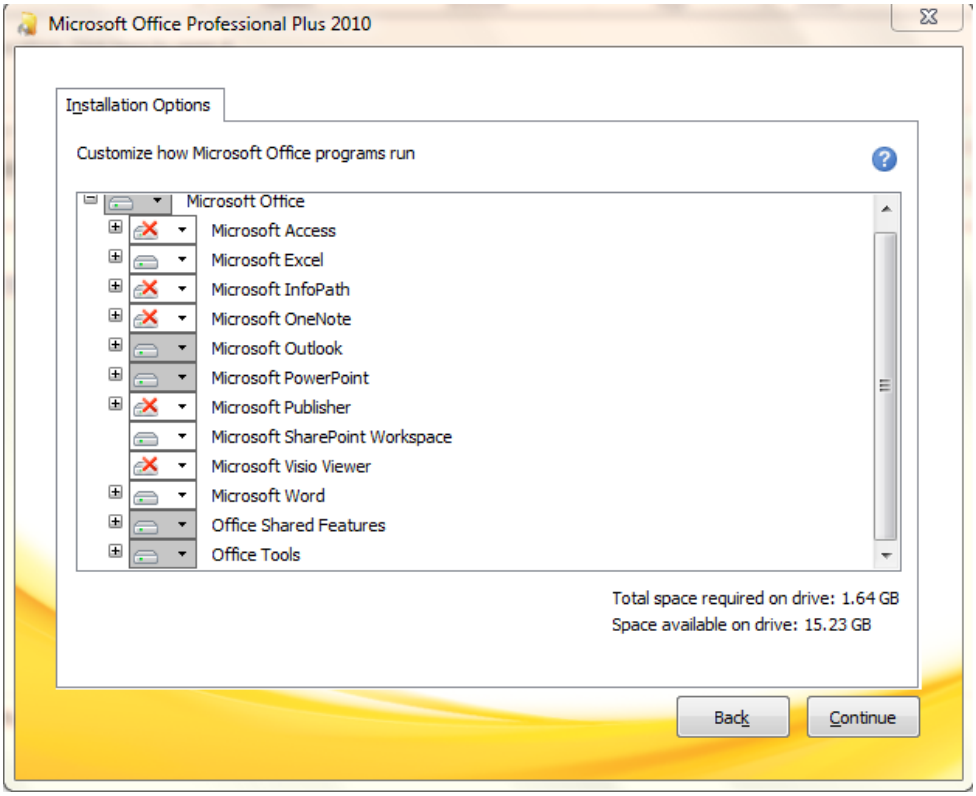
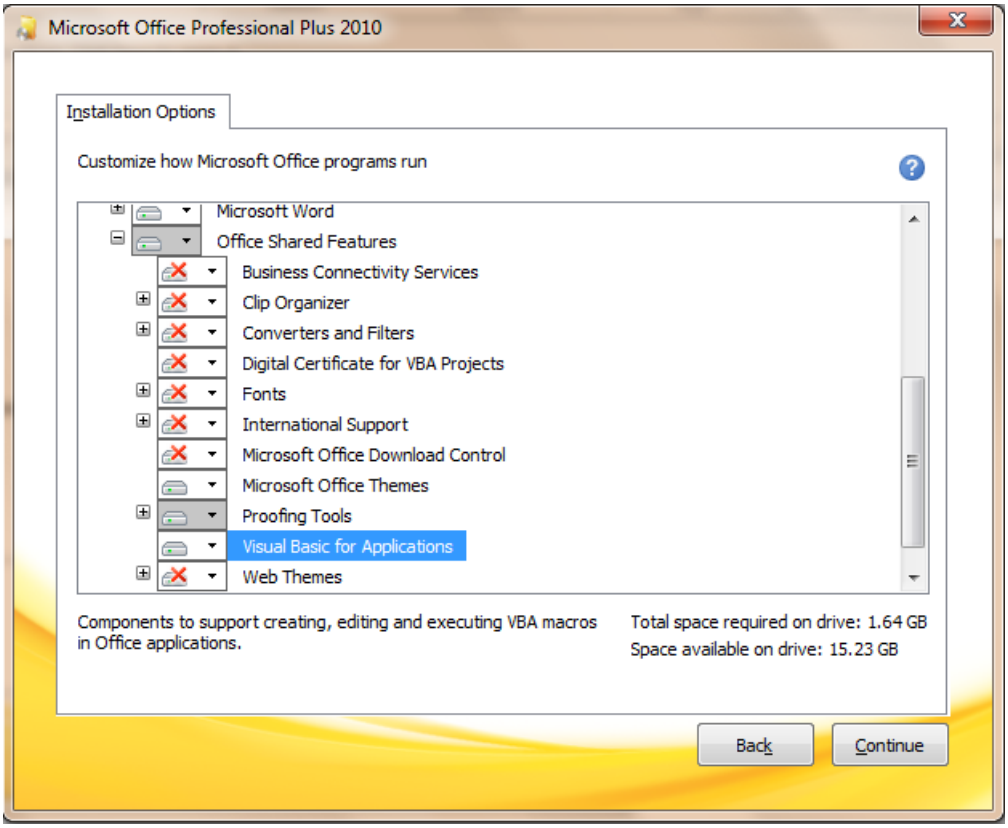


Figure 4-2 Visual Basic For Applications



Users need to select **Visual Basic for Applications**, and installed it. After installation, PPT format report can be exported.

4.4 What should users pay attention to during automatic device configuration for the LTE service test?

During LTE service tests with multiple test terminals, if two or more devices are of the same type, users need to check whether the network adapter configuration is correct after automatic detection, as devices with the same type may be automatically configured with the same network adapter.

4.5 How to deal with MOS score failure or no MOS score?

(1) Check whether the Pilot Pioneer driver is installed properly?

(2) Check whether the handsets are properly connected to the MOS box?

(3) Check whether the MOS box is properly connected to the computer over the USB 3.0 interface?

(4) Check whether the SYS indicator on the MOS box is in normal operation mode (always green)? If not, please plug the MOS box out and in the computer.

(5) Check whether there is any VoLTE MOS test software that is provided by other third part solution or test and measurement vendor in the computer? If yes, please uninstall it.

(6) Check whether the antivirus software is enabled during the test or during which the software is installed? If yes, please disable the antivirus software and restart the test or reinstall the Pilot Pioneer.

(7) Check whether the dongle is granted with VoLTE or VoNR license? Please contact DingLi technical support to find out how to verify this.

4.6 Reasons for Low MOS Score

The reasons for Low MOS score:

(1) Audio cable is not connected properly.

(2) The handsets volume does not adjust to the maximum

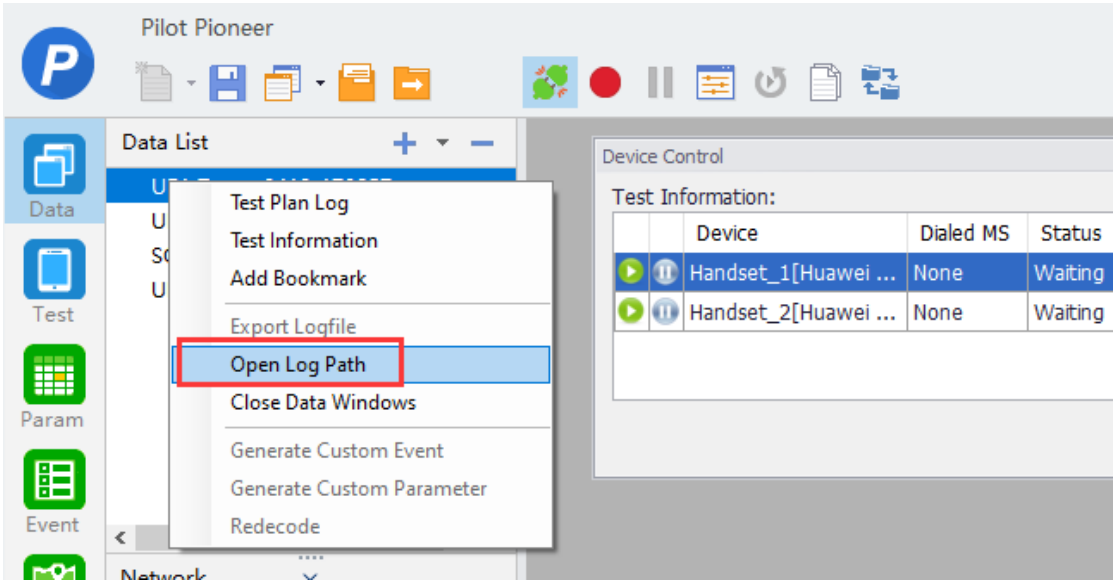
(3) The handsets were not set to VoLTE HD or SD mode.

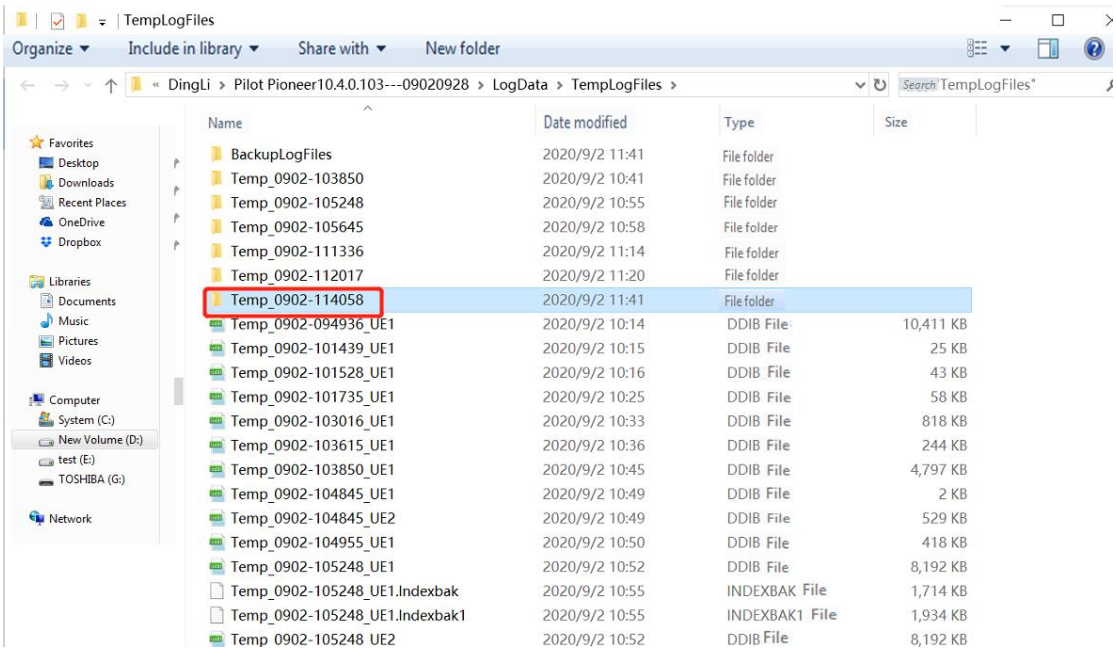
(4) The handsets were fully charged which would cause low MOS score.

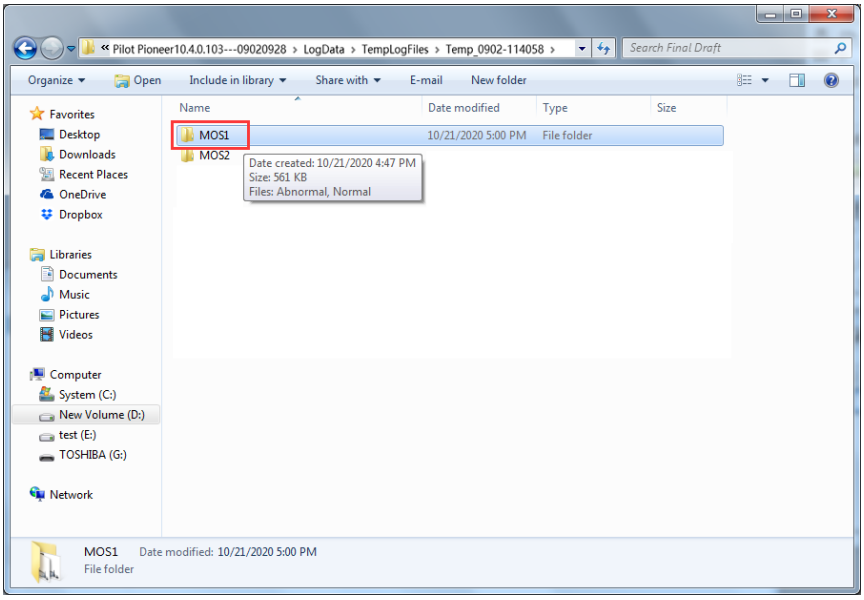
(5) Check whether the audio file's sound is indistinct (rustling sound)? If yes, change to connect to other USB interfaces. Please follow the instruction below to check the audio file's sound:

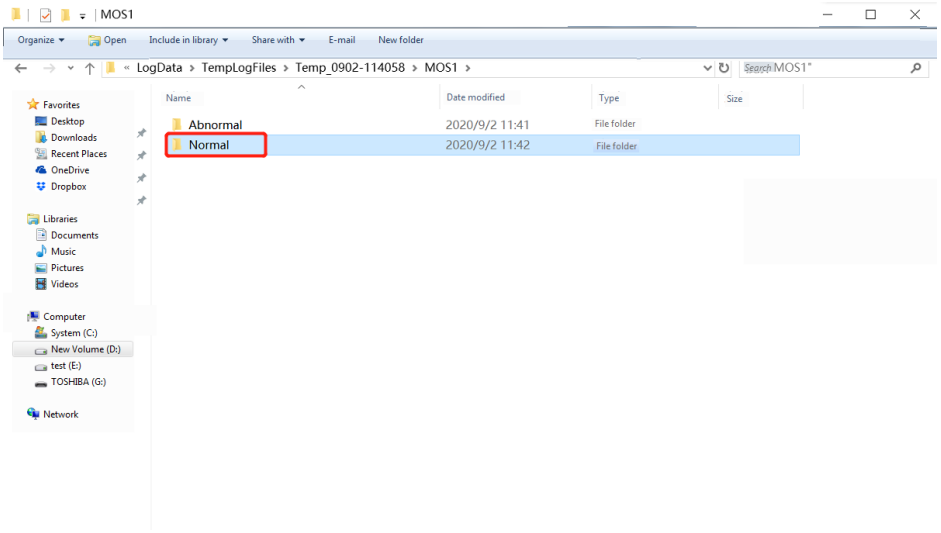
- Right click the data log under **Data** pane, and select **Open Log Path**.
- Click the last data folder
- Click the **MOS** folder
- Click the **Normal** folder
- Copy the audio file to the music software and play it.

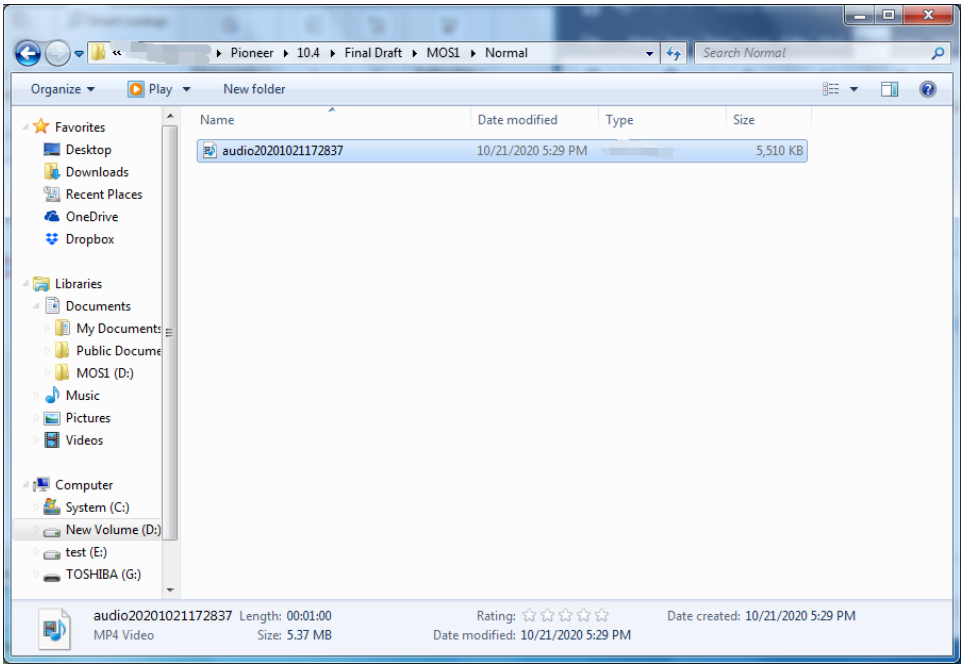
Figure 4-3 Low MOS




TempLogFiles
Organize
Include in library
Share with
New folder
DingLi › Pilot Pioneer10.4.0.103---09020928 › LogData › TempLogFiles ›
Search TempLogFiles
Name
Date modified
Type
Size
BackupLogFiles 2020/9/2 11:41 File folder
Temp_0902-103850 2020/9/2 10:41 File folder
Temp_0902-105248 2020/9/2 10:55 File folder
Temp_0902-105645 2020/9/2 10:58 File folder
Temp_0902-111336 2020/9/2 11:14 File folder
Temp_0902-112017 2020/9/2 11:20 File folder
Temp_0902-114058 2020/9/2 11:41 File folder
Temp_0902-094936_UE1 2020/9/2 10:14 DDIB File 10,411 KB
Temp_0902-101439_UE1 2020/9/2 10:15 DDIB File 25 KB
Temp_0902-101528_UE1 2020/9/2 10:16 DDIB File 43 KB
Temp_0902-101735_UE1 2020/9/2 10:25 DDIB File 58 KB
Temp_0902-103016_UE1 2020/9/2 10:33 DDIB File 818 KB
Temp_0902-103615_UE1 2020/9/2 10:36 DDIB File 244 KB
Temp_0902-103850_UE1 2020/9/2 10:45 DDIB File 4,797 KB
Temp_0902-104845_UE1 2020/9/2 10:49 DDIB File 2 KB
Temp_0902-104845_UE2 2020/9/2 10:49 DDIB File 529 KB
Temp_0902-104955_UE1 2020/9/2 10:50 DDIB File 418 KB
Temp_0902-105248_UE1 2020/9/2 10:52 DDIB File 8,192 KB
Temp_0902-105248_UE1.Indexbak 2020/9/2 10:55 INDEXBAK File 1,714 KB
Temp_0902-105248_UE1.Indexbak1 2020/9/2 10:55 INDEXBAK1 File 1,934 KB
Temp_0902-105248_UE2 2020/9/2 10:52 DDIB File 8,192 KB
Favorites
Desktop
Downloads
Recent Places
OneDrive
Dropbox
Libraries
Documents
Music
Pictures
Videos
Computer
System (C:)
New Volume (D:)
test (E:)
TOSHIBA (G:)
Network


Pilot Pioneer10.4.0.103---09020928 › LogData › TempLogFiles › Temp_0902-114058 ›
Search Final Draft
Organize
Open
Include in library
Share with
E-mail
New folder
Name
Date modified
Type
Size
MOS1 10/21/2020 5:00 PM File folder
MOS2
Date created: 10/21/2020 4:47 PM
Size: 561 KB
Files: Abnormal, Normal
MOS1 Date modified: 10/21/2020 5:00 PM
File folder


MOS1
LogData › TempLogFiles › Temp_0902-114058 › MOS1 ›
Search MOS1
Name
Date modified
Type
Size
Abnormal 2020/9/2 11:41 File folder
Normal 2020/9/2 11:42 File folder


Pioneer ▸ 10.4 ▸ Final Draft ▸ MOS1 ▸ Normal
Search Normal
Organize
Play
New folder
Favorites
Desktop
Downloads
Recent Places
OneDrive
Dropbox
Libraries
Documents
My Documents
Public Docume
MOS1 (D:)
Music
Pictures
Videos
Computer
System (C:)
New Volume (D:)
test (E:)
TOSHIBA (G:)
Name
Date modified
Type
Size
audio20201021172837
10/21/2020 5:29 PM
5,510 KB
audio20201021172837 Length: 00:01:00
MP4 Video Size: 5.37 MB
Rating:
Date modified: 10/21/2020 5:29 PM
Date created: 10/21/2020 5:29 PM

5 Fixing Bugs and Other Settings

5.1 Why does an error (10054) occur during the Email service test?

Figure 5-1 Error message

Case: Users may perform FTP and HTTP service tests normally, but an error (10054) occurs during the Email service test.

Solution: This error may be caused by the Kaspersky Anti-Virus. Users may close the Kaspersky Anti-Virus software or disable its email protection and Web antivirus protection modules.

5.2 What is the difference between HTTP Down and the HTTP Page?

HTTP_DOWN is similar to FTP_DOWN, which is used to download files and provides multiple thread download functions. Currently, HTTP_DOWN can only download the homepage, excluding the homepage display and sub-sources download (IE pictures).

HTTP_PAGE is used to open the website for browsing, which may download and display the homepage and download sub-sources (including pictures, FLASH, script, etc.) In addition, it may run the scripts. Users may select whether or not to refresh after opening the homepage and set the refresh counts.

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