
Normal Instructions – Follow these precisely

DO NOT INSERT the LightSpeed1000™ Board to the PCI Express slot

Perform Software installation first, followed by Hardware Driver Licenses installation, and then Optional Application Licenses installation.

- PC Requirements –Windows® 7, or 8 – 32 bit or 64 bit.
- CPU Requirements – Core i7 or equivalent, 4 GB Memory, USB 2.0 Ports.
- Execute **LightSpeed1000Analyzer.exe** from the installation CD received from GL Communications Inc.

INSERT the LightSpeed1000 Board to the PCI Express slot

- First verify that the card is inserted properly in the slot and then boot the system.
- Plug the power cable of the **LightSpeed1000™** board to the SMPS outlet.
- The operating system detects the new hardware and prompts to install the driver automatically (provided software is already installed on the PC). Follow onscreen instructions, the device driver for the new hardware is automatically installed.
- Execute **GLHWLicenseInstaller.exe** from the installation CD to install hardware licenses
- To verify License installation, open **Licensed Applications** under **Help** menu, which displays the list of optional software applications that have been enabled. Confirm that the following licenses are listed:
 - LTS220 (OC-3/STM-1 UMTS IuCS over ATM)
 - LTS214 (OC-3/STM-1 SSCOP Server)
 - LTS217 (OC-3/STM-1 AAL2 Traffic Core)

Quick Checkout


For functional verification of **MAPS™ IuCS ATM** application, which can be configured as **RNC** (Radio Network Controller), and **MSC** (Mobile Switching Center) nodes simulating IuCS interface procedures. The following explains MAPS™ IuCS ATM configuration on the 2 PCs connected over LAN.

- For physical connection of the **LightSpeed1000™** boards, a cross-over optical cable is used to connect port#1 to port#2 of the **LightSpeed1000™** cards installed on PC1 (MSC) and PC2 (RNC). Once you have connected cross-over optical cable, perform the following settings in the analyzer -
- Invoke **OC-3 ATM Analyzer GUI**, and set Port #1 on PC1 (MSC) and Port #2 on PC2 (RNC) settings as below:
 - **Rx Signal:** Terminate
 - **Loopback:** None
 - **Scrambling:** Scrambled
 - **Clock Source:** Internal
 - **Mode Selection:** ATM
- Check for ports sync in monitor window
- From **Applications** menu -> invoke **Server** application (SSCOP)

On PC1, First MAPS™ IuCS (GUI) – (MSC)

- From **Applications** menu -> invoke **MAPS IuCS Emulator** application.
- While invoking the MAPS™ IuCS instance, verify the following in the **Protocol Selection** window -
 - Protocol Standard is set to **UMTS IUCS**
 - Protocol Standard is set to **3GPP**
 - Select **Node** as **MSC**
 - Protocol Transport to **ATM**
 - Click **Ok**
- This instance of MAPS™ is configured for **Call Reception**
- On the **Test Bed Default** window, load **Master Configuration** file and verify that **OCn Port Number** is by default set to **Port #1** (Active Sync Port in LightSpeed1000™)
- Select **Configuration > Incoming Call Handler Configuration** from the main menu.
 - Verify if the **Call Control_MO.gls** script is set against the **LOCATION UPDATING REQUEST** and **CM SERVICE REQUEST** messages.

On PC2, Second MAPS™ IuCS (GUI) – (RNC)

- Similarly, invoke **MAPS-IuCS** instance from **Applications** menu.
- While invoking the MAPS™ IuCS instance, verify the following in the Protocol Selection window -
 - **Protocol Standard** is set to **UMTS IUCS**
 - **Protocol Version** is set to **3GPP**
 - Select **Node** as **RNC**
 - **Protocol Transport** to **ATM**
 - Click **Ok**
- This instance of MAPS™ (RNC) is configured for **Call Generation**
- On the Test Bed Default window, load **Master Configuration** file and verify that **OCn Port Number** is by default set to **Port #2 (Active Sync Port in LightSpeed1000™)**
- In MAPS™ GUI (RNC), from **Editor** menu -> invoke **Profile Editor**. Load **RNC_Profiles.xml**, select TrafficType as the '**Auto Traffic File**' option. Exit from the Profile Editor window and navigate to the Testbed window.
- **Start** the testbed on both the MAPS™ IuCS instances.
- **Note:** Once the test bed setup is started on both the instances of MAPS™ IuCS (RNC and MSC) verify that the **Link Status** is **UP** in the Reports > Link Status window before placing the call.
- Select **Emulator > Call Generation** from MAPS™ IuCS (RNC) instance and load **Master Configuration** in the call generation window.
- Observe that by default, 10 instances are loaded with **CallControl_MO.gls** script and **Profile00**.xml** profiles. Click  button to initiate the script execution.
- Observe that the calls are automatically received at the **Call Reception (MSC)** window running the Rx script.
- Wait for the call to terminate, and verify the **Message Sequence** flow at both generation and reception end.
- Traffic received will be written to a file as per the settings in the **AutoTraffic_TxRxFile** profile, which can be verified by playing back the captured file.

Troubleshoot

- If the software does not come up, then re-execute Lightspeed1000™ software installation i.e. execute **Lightspeed1000Analyzer.exe** (or **Lightspeed1000Analyzer_x64.exe**) from the installation CD. LightSpeed1000™ software installation should load software and update the drivers automatically.
- If you inserted the OC-3/STM-1 board on the PCI slots prior to installing the software, then the proper device driver will not be installed. User has to search for the driver and install it manually. Do the following:
 - Go to Control Panel -> System -> Device Manager
 - Verify that there is an entry with “!” mark against the OC-3/STM-1 Analyzer board
 - Right click on the device, click Update Driver option, and choose Browse My Computer For Driver Software
 - Navigate to the path Lightspeed 1000 Analyzer installation folder under the C:\Program Files (x86)\GL Communications Inc\Lightspeed 1000 Analyzer\Lightspeed_Drivers directory. The driver should then be found and the device driver loaded and installed.
- If the optional software is not activated, you may have not installed the Hardware licenses. You can do so as explained in the section above at any time after installing the software.
- To verify License installation, open **Licensed Applications** under **Help** menu, which displays the list of optional software applications that have been enabled. Confirm that the following licenses are listed:
 - LTS220 (OC-3/STM-1 UMTS IuCS over ATM)
 - LTS214 (OC-3/STM-1 SSCOP Server)
 - LTS217 (OC-3/STM-1 AAL2 Traffic Core)
- If you continue to have issues, then follow the detailed instructions in the **LightSpeed1000™ Installation Guide**.
- If you are still having issues or have other questions call GL Communications Inc. @ 301 670 4784.