

The VQuad™ installation follows the order below:

- VQuad™ Software Installation
- Optionally, VQuad™ SIP Call Control Installation
- License Installation - VQuad™ is licensed either via Hardware dongle or Dual UTA. Follow the instructions as per the purchase
 - Dual UTA Driver and License Installation
 - Hardware Dongle and License Installation

Pre-Requisites

- PC Requirements – Windows® 7 or Higher OS (32 bit or 64 bit).
- PCs which include GL hardware/software require Intel or AMD processors for compliance.
- Minimum CPU Requirements – Core i3 to i7 (or equivalent), 4 GB Memory, USB 2.0 ports.
- If the PC is new, ensure you have performed **All Windows® Updates** prior to the VQuad™ software install. Visit Microsoft Update website for completing Windows® updates.

Step 1: VQuad™ Software Installation

- Plug-in the **USB Installation Stick** (pen drive) to the PC. This is provided with the shipment package by GL Communications.
- Run the **VQuad.exe** executable from the installation USB stick (\\VQuad-VQT\\VQT010-VQT270-VQT241-VQuad-Related-Items\\VQT010-VQuad-Software-verXX) in **Run As Administrator** mode.
- Follow the on-screen instructions to complete the VQuad software installation.
- The software gets installed in 'C:\\Program Files\\GL Communications Inc\\VQuad' directory (or 'C:\\Program Files (x86)\\GL

Communications Inc\\VQuad' directory in 64-bit Windows® OS) and creates a shortcut icon  on the desktop.

- It is recommended to reboot the system after the software installation.

Step 2: (Optional) VQuad™ SIP Call Control Installation

This step is optional and is performed only if the customer has purchased VQuad™ SIP License

WinPcap and Hardware Dongle License installations have to be performed after VQuad™ software installation.

- Run the WinPcap installer **WinPcap_4_1_3.exe** in **Run as Administrator** mode from the installation USB stick (\\VQuad-VQT\\VQT010-VQT270-VQT241-VQuad-Related-Items\\VQT013-SIP-Option-WinPCap-Install\\WinPcap-ver4.1.3).
- Now, proceed to Hardware Dongle License (as explained in section [Dongle License Installation](#)) to install GL's SIP Call Control license.

Step 2: Dual-UTA Installation

This step is optional and is performed only if the customer has purchased VQuad™ with Dual UTA hardware and licenses.

Hardware and Driver Installation

- Plug-in Dual-UTA to the USB port of PC (or USB Hub if required).
- The Dual-UTA device drivers are automatically detected and installed.
- To verify the Dual-UTA installation, right-click on **My Computer** → **Manage** → **Device Manager**. Expand **Universal Serial Bus Controllers**, check for the **GL Communications USB Dual UTA** entry.


Step 3: License Installation

VQuad™ licensing is either via the Dual UTA (Option A) or via USB Hardware dongle (Option B). Only with proper Dual UTA or Dongle licenses the software can be invoked. Either Option A or Option B needs to be done for installing license.

The following steps need to be performed only during the FIRST TIME VQuad™ installation on a given PC.

Option A: License via Dual UTA

This step is required only if the customer has purchased Dual UTA hardware and licenses.

- Click **GLHwLicenseInstaller.exe** license installer from the installation USB stick (\GL-Hardware-License-Installer) in **Run As Administrator** mode.
- Follow the on-screen instructions to complete the license installation.
- To verify License installation, invoke the VQuad™ icon  application and verify that the VQuad™ Licensed Applications are enabled.


Option B: License via Hardware Dongle

This step is required only if the customer has purchased VQuad™ with hardware dongle and licenses.

- Run **GLDongleLicenseInstaller.exe** from installation USB stick (\GL-Dongle-License-Installer) in **Run As Administrator** mode.
- Plug the dongle to the USB 2.0 port of your PC. Windows® should install all required drivers automatically. A red light should appear on the dongle indicating that it is functioning correctly from a physical point of view.
- For any troubleshooting during hardware dongle license installation, refer to [Installation Instructions for Dongle Programs](#) document


Step 5: Quick Check-out Procedure

To verify the software installation, perform the following steps:

 **Note:** This can be quick check out procedure is performed using the **Balanced Audio I/O Interfaces** on Dual UTA and requires VQuad™ installation with Dual UTA hardware and licenses as explained in the above sections. It also requires the Balanced 3.5mm Audio In/Out cables included in the package.



- Using the included balanced cables, connect the **Dual UTA USB port** to the **USB port of the PC** with VQuad™ using USB 2.0 complaint cable.
- Connect the **Audio IN of Side #1** to the **Audio OUT of Side #2** and similarly, the **Audio OUT of Side #1** to the **Audio IN of Side #2** using 3.5mm In/Out Jacks (Balanced Audio - Side 1 & 2).

Device Configuration

- To invoke the VQuad™ application, right-click on the VQuad  icon created on the desktop and choose to **Run as Administrator**.
- Click **Setup VQuad Device** button from the VQuad™ Control Panel (Left Pane)
 - Select **Number of Device** as **2** from the drop-down list
 - Select **Device Type** from the drop-down list and set it as **Dual UTA** for device1 and device2
 - Select **UTA Type** as **Balanced** for both device1 and device2
 - Enter the **Device Name** as **Bal1** for device1 and **Bal2** for device2

- Verify the **Dual UTA Port #** displayed, select (SN: 15XXXX Port1) on **device1** and (SN: 15XXXX Port2) on **device2**.
- **Exit** from the **Device Configuration** screen to save the configuration; click **Yes** for the Alert message displayed.
- On the left side **Control Panel** in the VQuad™ main screen, confirm that you now see two **Balanced** devices.

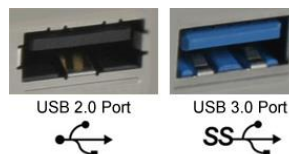
Manual Call Setup

- Click  button from main window to open the manual call window for device1 and device2. By default, **Device Name** is displayed as **Bal1** in both the **Manual Call** window.
- Choose from the **Device Name** drop-down and set **Bal1** in Manual Call (1) window and **Bal2** in Manual Call (2) window
- The **Call Connected** status for the devices is automatically displayed in both the Manual Call (1) and Manual Call (2) window
- In Manual Call (1) window, set traffic direction to **Sending**, traffic type to **Send Digits**, and set digit type to **DTMF**. Click on the  icon in order to key in the desired digits.
- In Manual Call (2) window, set traffic direction to **Receiving**, traffic type to **Detect Digits**, and set digit type to **DTMF**.
- Click **Start Rx** option in Manual Call (2) and then click **Start Tx** option in Manual Call (1) window.
- Similarly, user can also send traffic from side 2 and receive traffic on side 1
- In the **All Events** pane (bottom of the Main VQuad screen), click **Detected Digits** tab to observe the digits detected and ensure that the digits are sent and received properly on both the sides.

Troubleshooting

If you did not follow the above instructions in the given sequence, troubleshoot using the steps below

- If you connected the Dual UTA to the PC prior to installing the software, then the proper USB device driver may not be installed. User has to search for the driver and install it manually. Do the following:
 - Ensure that you have performed the Software Installation steps as explained in the [VQuad™ Software Installation Instructions](#) section.
 - On the Desktop, right-click on **My Computer** → **Manage** → **Device Manager**
 - Verify that there is an entry with “!” mark against the GL Dual UTA unit
 - Right click on the device, click **Update Driver** option, and choose **Browse My Computer For Driver Software**
 - Navigate the path to VQuad™ installation folder under the ‘C:\Program Files\GL Communications Inc\VQuad\DualUTA Driver\DualUTA’ directory. Follow the on-screen instructions to complete the driver installation.
 - Please refer to detailed installation instructions in the [VQuad™ Installation Supplement](#) document if you are still having problems.
- Ensure that the USB cable is securely connected to the Dual UTA and to the USB 2.0 Port on the PC. Do not plug the unit to the USB 3.0 port. One can identify the type of USB port as shown in the image below.



- If any of the optional software is not activated, you may not have installed the Hardware licenses or Dongle licenses properly. You can do so as explained in the above section at any time after installing the base software.
- If you are still having issues or have other questions, please reach GL Communications Inc. for technical support at info@gl.com.