Overview

This user guide is designed for user to understand how the Bluetooth camera application works. It provides a step-by-step for each button or options of how they work. It is assumed that the Bluetooth network has been installed or the PC or laptop has an inbuilt Bluetooth network.

The Bluetooth camera should also be placed at a desirable distance so that connectivity between the system and the camera can be maintained. The speed of the streaming depends on:

1) Resolution of the streaming image
2) Distance between the camera and the system
3) Interruption from the environment.

PC Installation	**Smart Phone Installation**	**PDA Phone Installation**
This guide is for Bluetooth communication between the laptops or PC and the Bluetooth camera.	This guide is for Bluetooth communication between Smartphone and the Bluetooth camera.	This guide is for Bluetooth communication between the PDA or pocket PC and the Bluetooth camera.
PC Requirements:	**Smart Phone Requirements:**	**PDA Phone Requirements:**
1) Bluetooth of class 1.0 or higher. 2) Ram of 512 or higher is preferred. 3) Pentium 3 or higher is preferred. 4) Hard disk of 25MB. 5) Optieyes 6) Optieyes Charging cable 7) .Net Framework version 2 or higher	1) Windows Mobile 5 or higher. 2) Bluetooth connection functions in Windows Mobile. 3) Optieyes 4) Optieyes Charging cable	1) Windows Mobile 5 or higher 2) Bluetooth connection function in Windows Mobile 3) Optieyes 4) Optieyes Charging cable

Installation Guide (PC)	Installation Guide (Smartphone)	Installation Guide (Pocket PC)

1) Double clicked on the icon to begin installation. The icon for PC application is **GeniesysCam.msi**. An application will be prompted to allow user to choose the path to install. Once the path is confirmed, click **Next**.
 	
2) Once the program has been installed, click **Finish**.
 	
3) Once installation is done, GeniesysCam.exe will appear in the designated path and in Start -> All Programs -> Geniesys -> GeniesysCam.exe.
 	
4) The application requires dot net framework version 2 or higher to be installed in the PC. If it is not installed, it can be installed through **dotnetframework.exe**.
	Before Installation, you must verify the version of your Window Mobile and if .NET is in stalled on your phone
	
	Step to verify Window Mobile Version
	Click on Start -> Setting -> System -> About
	
	Step to verify if you have .NET
	Note: If your phone is WM6, you do not need to go through this step
	Clink on Start -> Setting -> Remove Program
	
	Installing the program to your phone.
	
	1) Insert the Optieye CD to you computer.
	
	2) Copy installer file to your phone
	    a. If your Phone is WM6, copy " **GenieCam smartphone.CAB**" to your phone folder
	    b. If your Phone is WM5 without .NET, copy
		Before Installation, you must verify the version of your Window Mobile and if .NET is in stalled on your phone
		
		Step to verify Window Mobile Version
		Click on Start -> Setting -> System -> About
		
		Step to verify if you have .NET
		Note: If your phone is WM6, you do not need to go through this step
		Clink on Start -> Setting -> Remove Program
		
		Installing the program to your phone.
		
		1) Insert the Optieye CD to you computer.
		
		2) Copy installer file to your phone
		    a. If your Phone is WM6, copy "**GenieCam WM6.CAB**" to your phone folder
		    b. If your Phone is WM5 without .NET, copy

	"**GenieCam smartphone (with .Net).CAB**" to your phone folder 3) Remove the connection between the Phone and PC 4) Go to the folder in the Phone where the copy file is being saved. 5) Clicked on the icon to begin installation. The icon for installer is **"CAB" file**. 6) Once the program has been installed, click **Done**. 7) Once installation is done, **OptiEyes.exe** will appear in the designated path and in File Explorer -> Program Files -> BTCam folder.	"**GenieCam wm5 (with .Net).CAB**." to your phone folder c. If your Phone is WM5 with .NET, copy "**GenieCam wm5.CAB**" to your phone folder 3) Remove the connection between the Phone and PC 4) Go to the folder in the Phone where the copy file is being saved. 5) Clicked on the icon to begin installation. The icon for installer is **"CAB" file** 6) Once the program has been installed, click **Done**. 7) Once installation is done, **OptiEyes.exe** will appear in the designated path and in File Explorer -> Program Files -> BTCam folder.

Bluetooth setup and camera orientation

1) On the Bluetooth folder/application, scan for the devices in range. If the camera is detected, 'GenieSys BT cam' icon will appear. Camera needs to be turned on. Camera is ON when a yellow LED is flashing.

2) Right click on the 'Geniesys BT cam' icon and click on Pair Device. (Depends on the model of Bluetooth, different model may have different setup).

3) Dialog on Bluetooth Passkey Request will be prompted. Passkey for the camera is '1234'.

4) Right click on the 'Geniesys BT cam' icon and click on Connect to the device.

Bluetooth device and camera setup

You will need to set up the Bluetooth connection before using the application.

1) Click Settings -> Connections -> Bluetooth. On the 'Bluetooth Devices' panel, click on 'Menu' at the bottom right of the screen and click 'Turn On Bluetooth'.

2) On the same page, click on 'Add new device…' and let the Bluetooth to scan for the camera. Camera needs to be turned on. Camera is ON when a yellow LED is flashing.

3) If the Bluetooth camera is detected, 'Geniesys BT Cam' name will appear on the list. Click on it. Dialog on Bluetooth Passcode Request will be prompted. Passcode for the camera is '1234', click 'Next'. If it is correct, it will

Bluetooth device and camera setup

1) Click Start -> Settings -> Connections -> Bluetooth. On the 'Mode' panel, checked both 'Turn on Bluetooth' and 'Make this device discoverable to other devices'.

2) On the 'Devices' panel, click on 'New Partnership…' and let the Bluetooth to scan for the camera. Camera needs to be turned on. Camera is ON when a yellow LED is flashing.

3) If the Bluetooth camera is detected, 'Geniesys BT Cam' name will appear on the list. Click on it and click 'Next'. Dialog on Bluetooth Passkey Request will be prompted. Passkey for the camera is '1234'. If it is correct, it will go to 'Partnership Settings', checked 'Serial Port' and Save.

5) Dialog will be prompted to indicate which COM port it is assigned to and LED will **flash twice in quick succession** to indicate that it is connected. User will need to know which COM port the Bluetooth camera is assigned to.

prompt that the Smartphone is connected to Geniesys BT Cam.

4) Click 'Ok' and option of changing the name for the device appears. Click 'Next' and check on 'Serial Port' on the next page and click 'Done'.

5) Click on 'Menu' and select 'COM Ports', click on Menu -> New Outgoing Port and select GenieSys BT Cam, choose a desired port for the camera. Once it is assigned, the COM port will appear at the side of the name, e.g GenieSys BT Cam (COM6).

6) User is required to remember the Outgoing Port assigned as it is used to connect to the application.

Caution: If Outgoing Port is not assigned, the application may hang because it fails to connect.

Chapter 2: Program application

4) On the 'COM Ports' panel, click on New Outgoing Port -> GenieSys BT Cam and click Next and choose a desired port for the camera. Make sure that there is an incoming port assigned.

5) User is required to remember the Outgoing Port assigned as it is used to connect to the application.

Caution: If Outgoing Port is not assigned, the application may hang because it fails to connect.

Chapter 2: Program application

Double click on the Geniesys Technologies Bluetooth application.exe, an application of Figure 1 will pop out. PC require the dot net framework 2.0. The options on top of the screen (preview, capture, record, playback) are disabled.
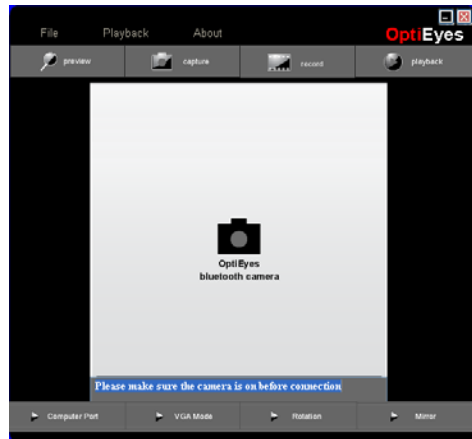

Figure 1: Interface of the application

1) If this is the first time the application is being opened, choose a communication port [Computer

Click on the OptiEyes.exe, an application of Figure 1 will pop out. The options on bottom left of the screen (preview) are disabled. Portrait or landscape options are available in the 'Menu' -> Portrait or landscape view.

Figure 1: Interface of portrait view

Click on the OptiEyes.exe, an application of Figure 1 will pop out. The options on top of the screen (preview, capture) are disabled.

2.1 Changing of screen interface

This allows the user to change the layout of the application to best fit the screen size.

1) On the bottom left of the screen, user can change the screen layout by clicking **Portrait view** or **Landscape view** .

Port] **▶ Computer Port** from the dropdown list at the bottom left of the window to connect. The port is previously being assigned by the Bluetooth application.

2) If the communication port is not available, an error message will be written.

Cannot connect, try again

Note: If Comm port cannot be connected after a few tries, connect the Bluetooth dongle to another USB port and try again. Application may only detect selected port.

3) If the port is available and connected, message will be written to confirm connection. Subsequent running of the application will skip these steps.

Comm port 4 is connected
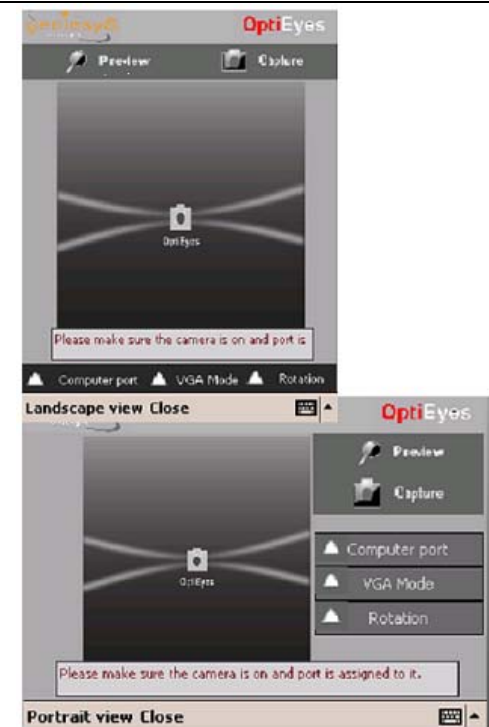

Figure 2: Interface in landscape view

2.2 Connection to the Comm. port

Figure 2: Interface in landscape view of application

2.1 Change of destination directory

This is to allow user to have their recorded video or captured image to save into their designated path.

1) Click **File** > **Change Destination Directory.**
2) **Browse For Folder** dialog box will be prompted.
3) Application saves the path, captured image or recorded video will be saved to this path until another directory to defined.

---

1) If this is the first time the application is being opened, choose a communication port by focusing on Comm. port and press Enter. List of port number (COM1 COM2…) will be shown, select the Comm. port that is assigned to the device.
2) If the Comm. port is not available, an error message will be written.

Not Connected

If the camera is ON, press Enter and choose the Comm port to connect it again. If it still fails, then check that the Comm. port is correctly being assigned to by going Settings -> Connections -> Bluetooth.
If all of the above fail, OFF and ON the camera and go to step 1 again.

2.2 Connection to the Comm. port

1) If this is the first time the application is being opened, choose a communication port [Computer Port] Computer port from the dropdown list at the bottom left of the window to connect. The port is previously being assigned by the Bluetooth application.
2) If the Comm. port is not available, an error message will be written.

Comm port 2 is not connected

Check that the Comm. port is correctly being assigned to by going Start -> Settings -> Connections -> Bluetooth. User may need to go through the process of setting up the connection between the Bluetooth in the PDA or pocket PC and the
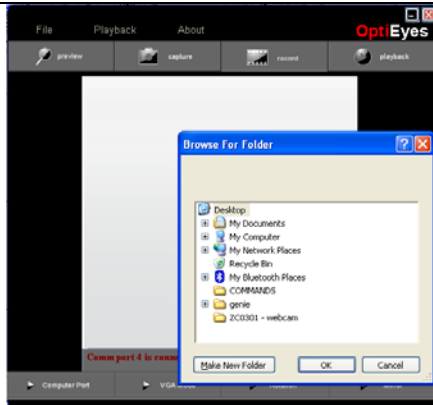
Figure 2: Dialog box to browse for folder for designated path.

4) Message will be shown once the path is changed.

3) If the port is available and connected, message will be written to confirm connection. Note that the application connects to the camera when the LED **flashes twice in quick succession**. Subsequent running of the application will skip these steps.

2.3 Preview mode of the Bluetooth camera

Bluetooth camera.

3) If the port is available and connected, message will be written to confirm connection. Note that the application connects to the camera when the LED **flashes twice in quick succession**. Subsequent running of the application will skip these steps.

2.2 Preview mode of the Bluetooth camera

This function allows user to view from the Bluetooth camera. Will be enabled once the Comm port is connected.
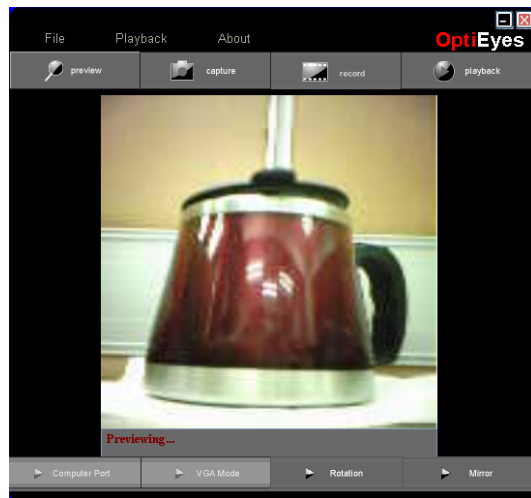
1) Click **Preview.**

Figure 3: Screen of video being played

2) If camera is switched on and the port is properly connected, when the preview is being clicked the

This function allows user to view from the Bluetooth camera. This button will be enabled once Comm. port is connected.

1) Click **Preview.**

Note: if there is no image on the screen and the Comm. port is connected, click Stop and then Preview to try again. If fail again then restart the application.

Figure 3: Screen of video being played

2) If the port is connected and camera is switched on, once the preview
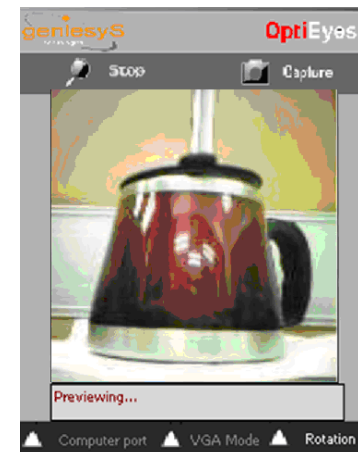
2.3 Preview mode of the Bluetooth camera

This function allows user to view from the Bluetooth camera. User can click on this button once Comm. port is connected.

1) Click **Preview.**

Note: if there is no image on the screen and the Comm. port is connected, click Stop and then Preview to try again. If it fails again then restart the application.
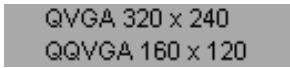
video streaming will be shown on the screen (Beware that even if the port number chosen is not correct, it can still be connected).

3) Changing of port or VGA mode is not allowed during preview mode, but rotation and mirror options are still available.

4) If **Preview** is clicked again, the video will stop streaming.

mode is on and video streaming will be shown on the screen (Beware that even if the camera isn't on the port, text will still shown to be connected).

3) Changing of port or VGA mode is not allowed during preview mode.

Stop button will appear.

If **Stop** button is clicked, the camera will stop streaming.

2.4 VGA options for preview

This function allows user to change the size of the image preview and capture.

Figure 3: Screen of video being played

2) If the port is connected and camera is switched on, once the preview mode is on and video streaming will be shown on the screen (Beware that even if the camera isn't on the port, it is still able to be connected).

3) Changing of port or VGA mode is not allowed during preview mode, but rotation and mirror options are still available. **Stop** button will appear.

4) If **Stop** button is clicked, the camera will stop streaming.

2.3 VGA options for preview

This function allows user to change the size of the image preview and capture. Note that when the application is in preview mode, this option will be disabled.

1) Click **VGA Mode**

    .

2) A list of mode will be shown. Currently there are 2 options to be selected.

3) **QVGA** has the size of 320x240 pixels, while previewing it will have around 3 frames per second.

4) **QQVGA** has the size of 160x120 pixels, while previewing it will have between 6-8 frames per second.

Note that when the application is in preview mode, this option will be disabled.

1) Click Menu -> VGA Mode

2) A list of mode will be shown. Currently there are 2 options to be selected.

3) **QVGA** has the size of 320x240 pixels, while previewing it will have around 3 frames per second.

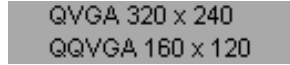4) **QQVGA** has the size of 160x120 pixels, while previewing it will have between 6-8 frames per second.

2.5 Rotation of preview

This function allows user to rotate the preview without physically changing the

2.4 VGA options for preview

This function allows user to change the size of the image preview and capture. Note that when the application is in preview mode, this option will be disabled.
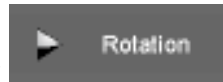
1) Click **VGA Mode** .

2) A list of mode will be shown. Currently there are 2 options to be selected.

3) **QVGA** has the size of 320x240 pixels, while previewing it will have around 3 frames per second.

4) **QQVGA** has the size of 160x120 pixels, while previewing it will have between 6-8 frames per second.
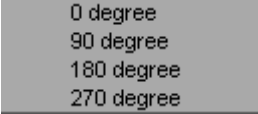
2.4 Rotation and mirroring of preview

This function allows user to rotate and mirror the preview without physically changing the orientation of the camera.
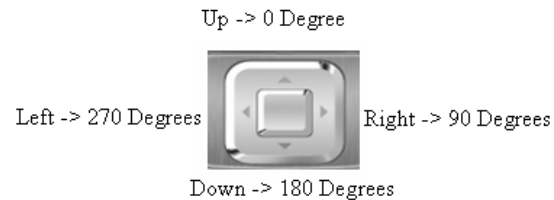
1) Click **Rotation.**

2) A list of degree values will be shown. Select one of the values and the image will be rotated.

3) If **Mirror** is clicked, then the image will be mirrored horizontally.

orientation of the camera.

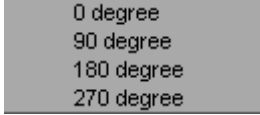1) The rotation of the picture can be done by clicking on up, down left and right button at the keypad.
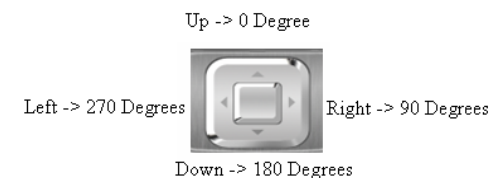

2.5 Rotation of preview

This function allows user to rotate the preview without physically changing the orientation of the camera.

1) Click **Rotation** .

2) A list of degree values will be shown. Select one of the values and the image will be rotated.

3) Alternatively you can use the keypad to rotate the picture.

Rotate at 0 degree

Mirror and rotate 0 degree

Rotate at 90 degrees

Mirror and rotate 90 degrees

Rotate at 180 Degrees

Mirror and rotate 180 degrees

Rotate at 0 degree

Rotate at 90 degrees

Rotate at 180 Degrees

Rotate at 270 Degrees

Figure 4 : Orientation of the image in the application

Rotate at 0 degree

Rotate at 90 degrees

Rotate at 180 Degrees

Rotate at 270 Degrees

Figure 4: Orientation of the image in the application

2.5 Capture picture from web camera

This function allows user to capture and save the picture to a specific path. It will be enabled once the Comm port is connected.
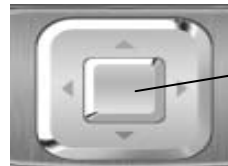
1) Click **Capture,** whether or not in preview mode.
2) If the destination directory path is not defined, dialog box will be prompted to allow destination of the captured picture to be saved. If the path is being defined, then it will be skipped.
3) Once the destination is confirmed, the image will be saved to the path as GeniePic dd-mm-yyyy hhmmss. Preview will continue if previously it was in preview mode.

2.6 Capture picture from Bluetooth camera

This function allows user to capture and save the picture to a specific path. It will be enabled only when the application is in preview mode.

1) Capturing of the picture can be done by clicking on the Enter keypad.

Enter -> Capture picture

2) The image will be saved to the path My Documents -> My Pictures as GeniePic dd-mm-yyyy hhmmss. If the path is not available, it will be created. Preview will continue after the picture is being captured.

2.6 Capture picture from Bluetooth camera

This function allows user to capture and save the picture to a specific path. It will be enabled only when the application is in preview mode.

1) Click **Capture** , application needs to be in preview mode.
2) The image will be saved to the path My Documents -> My Pictures as GeniePic dd-mm-yyyy hhmmss. If the path is not available, it will be created. Preview will continue after the picture is being captured.
3) If the camera failed to capture the image, application will prompt error and no image is saved.
4) If application prompt error, please

4) If the camera failed to capture the image, application will prompt error and no image is saved.

5) If application prompt error, please check whether the Bluetooth camera is on and connect to the PC. If not connected, then reconnect it and try again.

Not able to capture image

3) If the camera failed to capture the image, application will prompt error and no image is saved.

4) If application prompt error, please check whether the Bluetooth camera is on and connect to the PDA. If not connected, then reconnect it and try again.

Not able to capture image

check whether the Bluetooth camera is on and connect to the PDA. If not connected, then reconnect it and try again.

Not able to capture image

2.6 Recording of video

This function allows user to record video from the application and save to a specific path. Will be enabled only when comm. port is connected and application is previewing from the camera. If preview mode is off, user cannot record, i.e record can only be done when it is previewing.

1) Click **Record** .

   If the destination directory path is not defined, dialog box will be prompted to allow destination video to be saved, if the path is being defined, then it will be skipped.

2.7 Closing the application

User can close the application by clicking
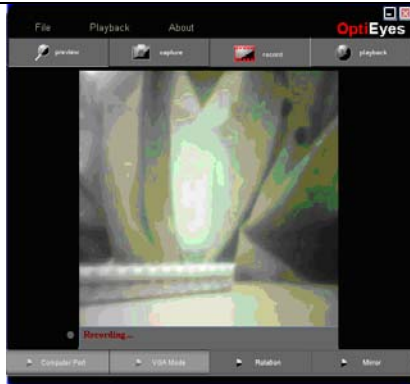

Close.

Once it is clicked, the application closes and Comm. port will be disconnected.

2.7 Closing the application

User can close the application by clicking **Close** .

Once it is clicked, the application closes and Comm. port will be disconnected.

Note: The destination will be similar with the captured image if capture option is being activated first or vice versa.

2) Once the destination is being defined, the application will start to record the video, the icon will change to red in color,

 ,

3) During recording, a message is written and blinking of color at the side of the message to state that it is recording.

Recording...

4) Once **Record** is being clicked again, it denotes the end of recording mode and the button icon will return back to its original color

record . Messagebox will be shown to confirm that the video is being saved.

Success

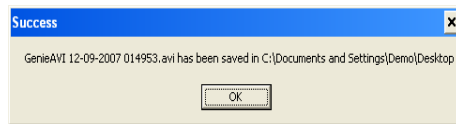GenieAVI 12-09-2007 014953.avi has been saved in C:\Documents and Settings\Demo\Desktop

OK

Figure 5: Message prompt to show that video is being saved.

Note: Video will be in avi extension unless stated otherwise

5) Changing of VGA mode is not allowed, but rotation and mirror option are still available.

6) Once recording mode is off, video will be saved at the designated path

with format GenieAVI dd-mm-
yyyy hhmmss. Preview will
continue.

2.7 Playback of video

This function is to allow user to view the
recorded video that he has recorded.

1) Click **Playback**.
2) A dialog will be prompted to
choose which video to play.
3) Once a video is chosen, another
window will be opened to play the
video.
4) Opening of video is also available
at the top menu if different video is
to be played, File > Open.

Note: Only avi file can be played.
Resolution of the video image is dependent
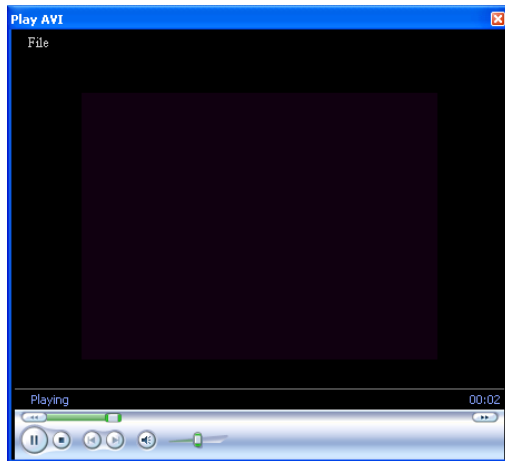on which VGA mode chosen during

recording.

Figure 6: Windows media player playing QVGA mode.

2.8 Closing the application

User can close the application by choosing from the menu **File -> Close.**

Once it is clicked, the application closes and Comm. port will be disconnected.

Regulatory

Notice:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
   (1) This device may not cause harmful interference.
   (2) this device must accept any interference received, including interference that may cause undesired operation.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

IMPORTANT NOTE:
Radiation Exposure Statement:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. To maintain compliance with FCC RF exposure compliance requirements, please follow operation instruction as documented in this manual.