RealScan SG10

Proven and Powerful 10-Print Live Scanner.

User Manual

REV01



[RealScanG10-REV01-250618-EN]

Introduction

The RealScan SG10 is a FAP60 live scanner compliant with the FBI Appendix F certification standard.

Based on Xperix's advanced optical and biometric technologies, it rapidly captures high-resolution fingerprint images regardless of finger condition.

Its compact design and improved capture speed enable efficient operation even in space-constrained environments.

In addition, Xperix's proprietary fingerprint algorithm accurately detects spoof fingerprints made from various materials, including clay, rubber, silicone, adhesive, paper, and film.

The RealScan SG10 is a high-performance live scanner suitable for a wide range of applications, including national ID enrollment.

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Disclaimer

1. Restrictions of Use

This passport reader must be used only for legal and authorized purposes. We are not responsible for any illegal activities or unauthorized usage.

2. Accuracy of information

The content of this manual is accurate as of the date of writing. Although the passport reader is designed to read the provided information as accurately as possible, the accuracy of the information cannot be guaranteed due to data input errors, technical issues, or other external factors. We are not responsible for any damage or loss resulting from these inaccuracies. The information in this manual is subject to change without notice due to product improvements.

3. Technical Support

This product must be installed and maintained according to the technical support provided by the manufacturer. We are not responsible for any damage or loss resulting from unauthorized repairs, modifications, or alterations.

4. Interference and Malfunction

This device may generate, use, and radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. We are not responsible for any interference or malfunction occurring in specific environments.

5. Legal Compliance

This product is designed to comply with various international and domestic regulations. Users are responsible for complying with local laws and regulations, and we are not responsible for any issues arising from non-compliance with legal requirements.

6. Liability

We are not liable for any direct, indirect, incidental, special, or consequential damages arising from the use of this product. This includes, but is not limited to, loss of profits, loss of data, inability to use the product, or other economic losses.

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This manual provides reliable information, but we accept no liability for any loss caused by typographical errors. The information in this manual is subject to change without notice due to product improvements.

Safety Instructions

Please read the following instructions carefully before using this product. This information is crucial to ensure user safety and prevent damage to the user's property.



Failure to follow these instructions may result in serious injury or death.

Installation Instructions

Do not install the product in direct sunlight or in locations with high humidity or dust.

- This can cause fire or electric shock.

Install the product in a dry location.

- Moisture can cause product damage or electric shock.

Do not install the product near heat sources such as electric heaters.

- Overheating can cause fire or electric shock.

Install the product in a location free from electromagnetic interference.

- This can cause product damage or electric shock.

Install and repair the product through a qualified professional.

- Failure to do so may result in fire, electric shock, or injury.
- If the product is damaged due to unauthorized installation or disassembly by the user, repair costs will be charged.

Operation Instructions

Take care not to spill liquids such as water, beverages, or chemicals into the product.

- This can cause fire, electric shock, or product damage.

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CAUTION **Non-compliance may cause minor injury or product damage.**

Installation Instructions

Protect the power cord from damage by foot traffic or pinching.

- This can cause product damage or injury.

Keep the product away from strong magnetic objects such as magnets, TVs, monitors (especially CRT monitors), and speakers.

- This can cause product malfunction.

Operation Instructions

Do not drop the product or subject it to impact or collision during use.

- This can cause product malfunction.

Do not press the product's buttons with excessive force or use sharp tools.

- This can cause malfunction.

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Revision History

Version	Change	Date
REV01	Initial creation of the User Guide	2025-06-18

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System Requirements

Before installing the SDK, please ensure the following.

- A device with the following specifications:

  - OS: Windows 7 or higher, Linux Ubuntu, Debian, Fedora, OpenSUSE, CentOS 32/64bit, Android 5.0 or higher

- This scanner must be used in an environment that supports USB 2.0 or higher to ensure stable data transmission.If a USB hub is used, it must provide sufficient power. In cases where the power supply is unstable or disconnected, please connect the scanner directly to a USB port on the main PC.

RealScan SG10 Unpacking Procedure

Before unboxing the RealScan SG10, please check the list below.

- Remove the contents from the box and separate the components from the packaging material.
- Verify that all parts have been received. If any parts are missing, contact Xperix service.
- Check the product for damage. If the product is damaged, contact Xperix Service.

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Components

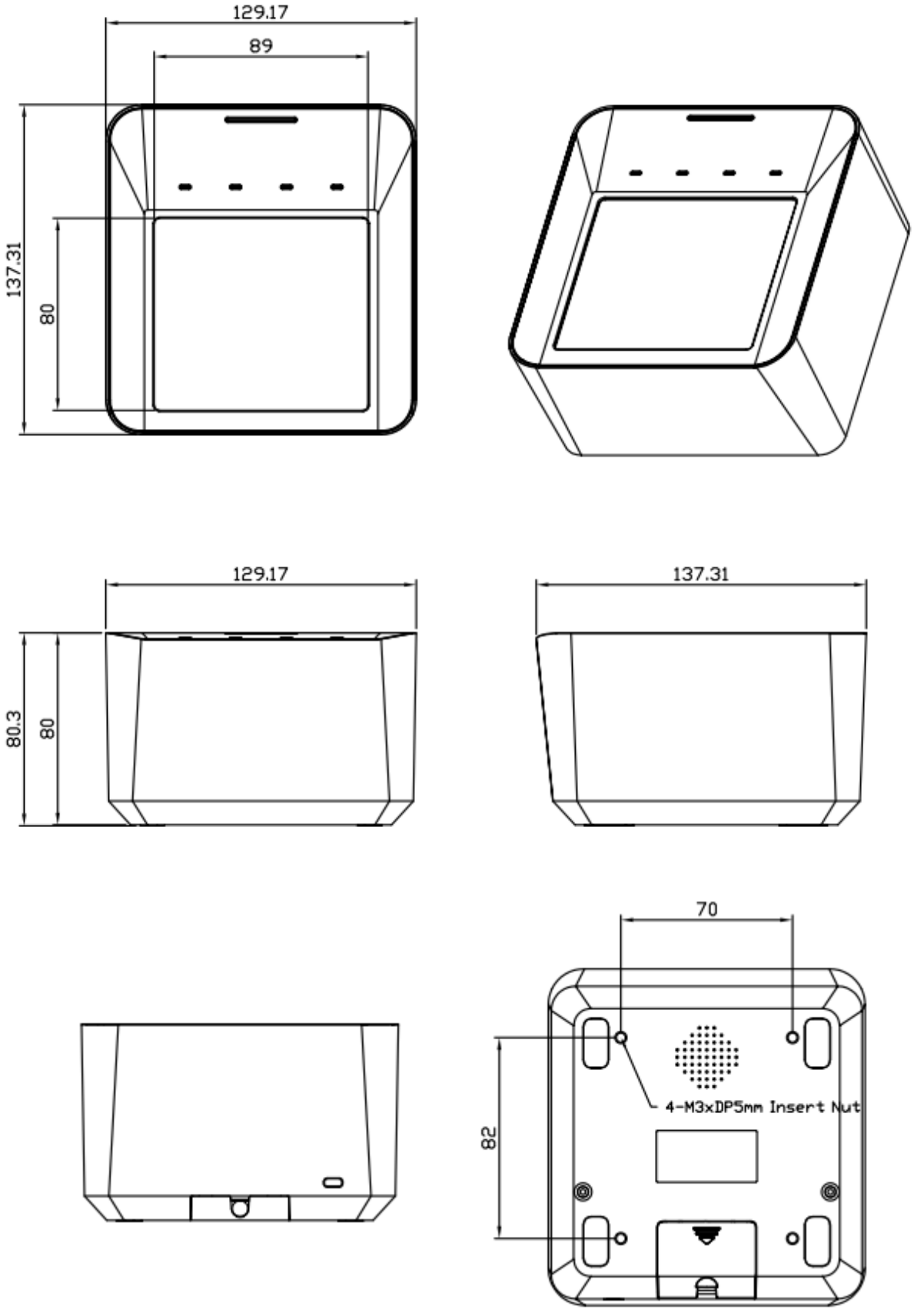
To use the product at its best performance, please use only the USB cable and power adapter provided.

Using any cable or adapter may result in reduced performance or damage to the product. Failure to follow these precautions will void the warranty.

Item	Quantity	Image
RealScan SG10	1EA	
PE-BAG + Screw 2ea (M2xL7) + PORT COVER UPPER	1EA	
USB Cable	1EA	
WIPER	1EA	

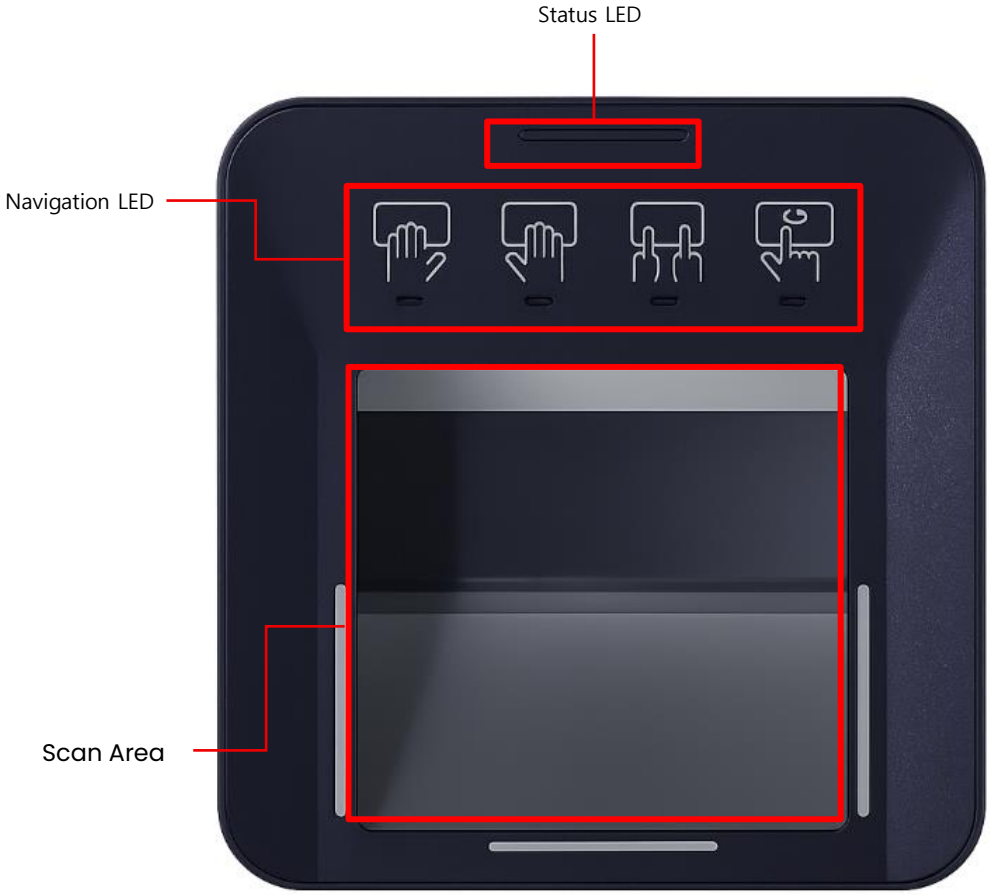
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External View (Diagram)



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External View



Name	Description
Scan Area	Used for placing fingers to capture fingerprint images.
Status LED	Used to check the current status of the scanner.
Navigation LED	Displays the currently active capture mode.

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SDK Installation Guide

This page provides instructions for installing the SDK. Please follow the guide below to proceed with the installation.

1. **Run the file RealScan SDK_for_Windows_Installer_v2.x.x.xxx.exe.**

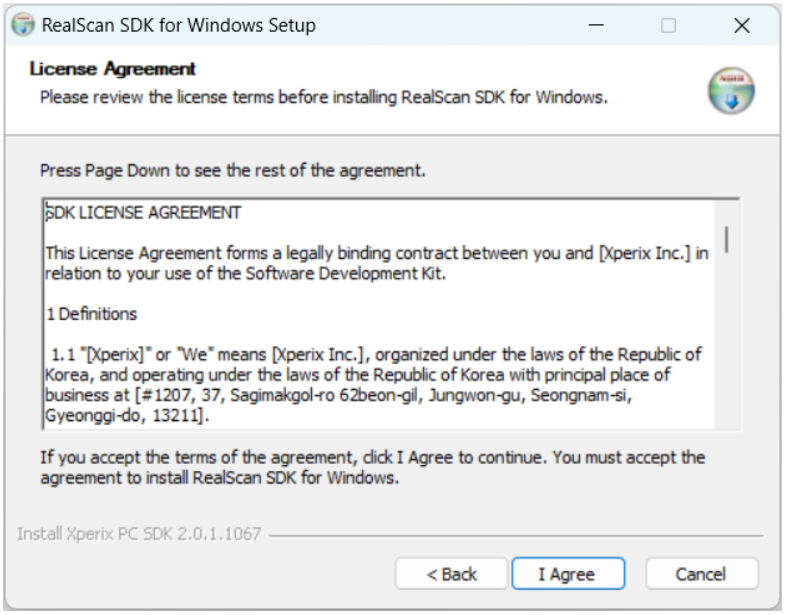
2. **SDK Introduction Screen.**



➔ Click the [Next] button.

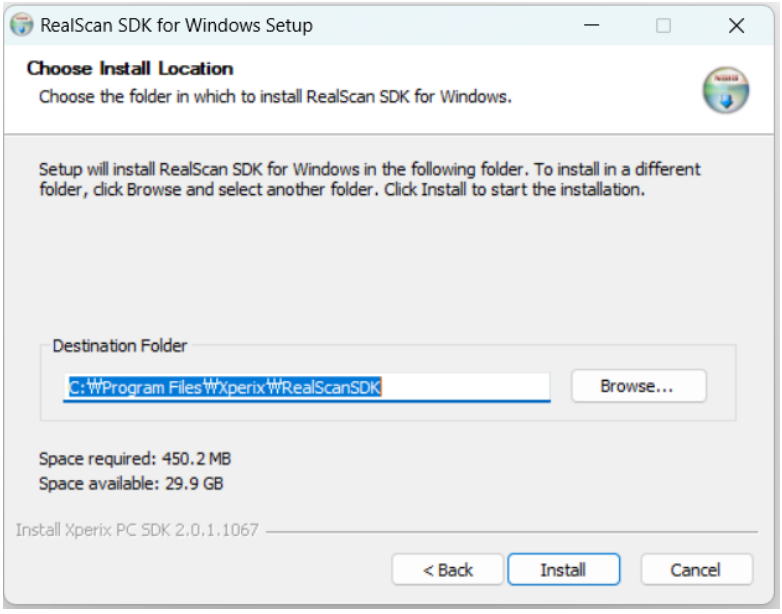
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3. License Agreement



➔ Click the [I Agree] button.

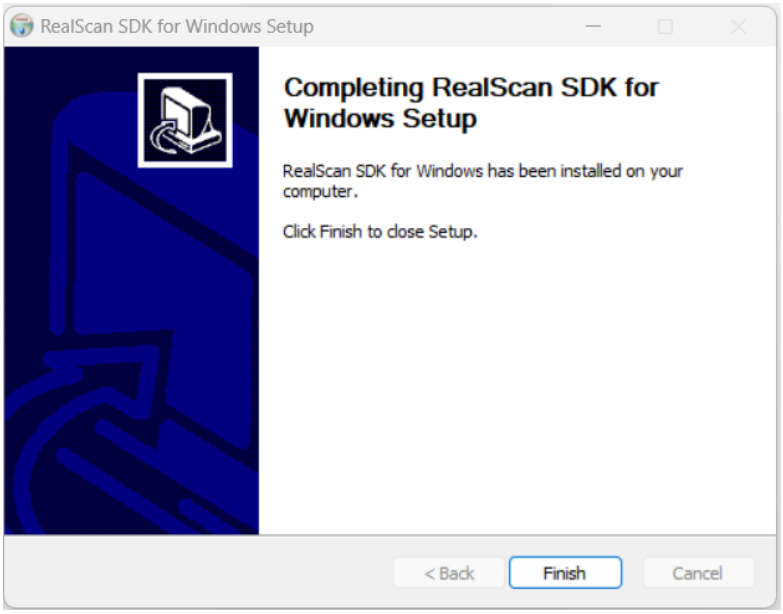
4. Choose Installation Location



➔ Click the [Install] button.

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5. **Installation Successful**



➔ Click the [Finish] button.

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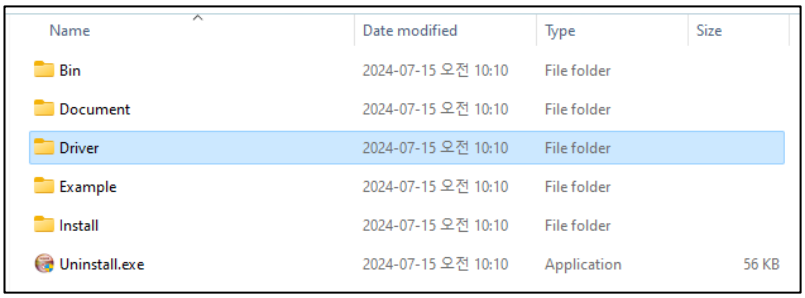
Device Driver Installation Guide

This page provides instructions for installing the device driver. Please follow the guide below to proceed with the installation.

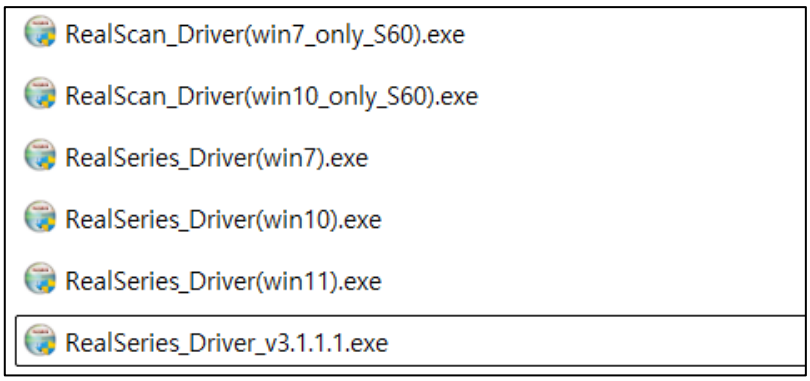
Note:

If the driver is installed while the device is connected to the PC via USB cable, the installation may not complete successfully. Ensure that the USB cable is disconnected from the PC before proceeding with the driver installation.

1. **Navigate to the Driver folder located at \Program Files\Xperix\RealScanSDK .**

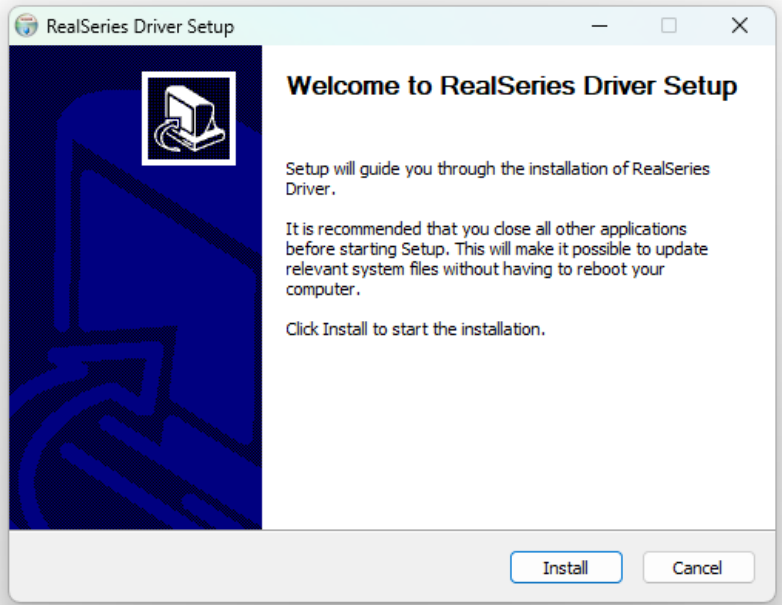


2. **Run the file RealSeries_Driver_v3.1.1.1.exe.**



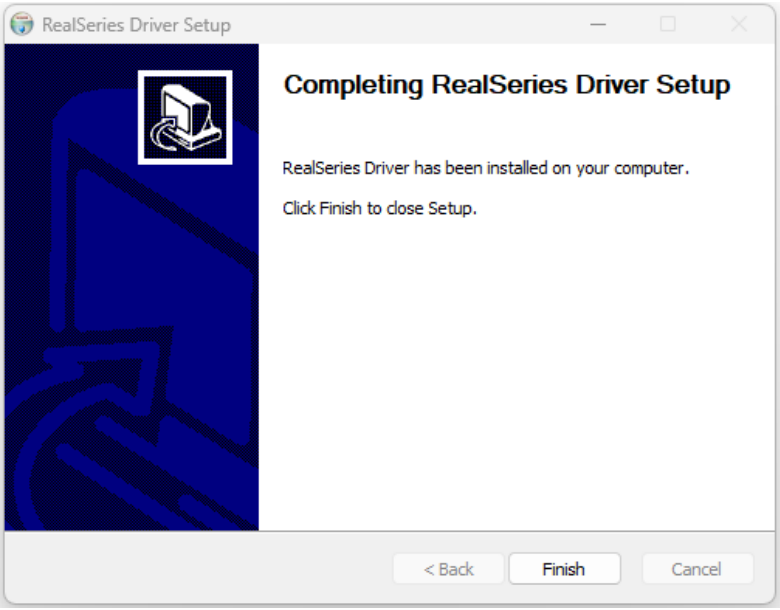
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3. Driver Introduction Screen



➔ Click the [Next] button.

4. Installation Successful

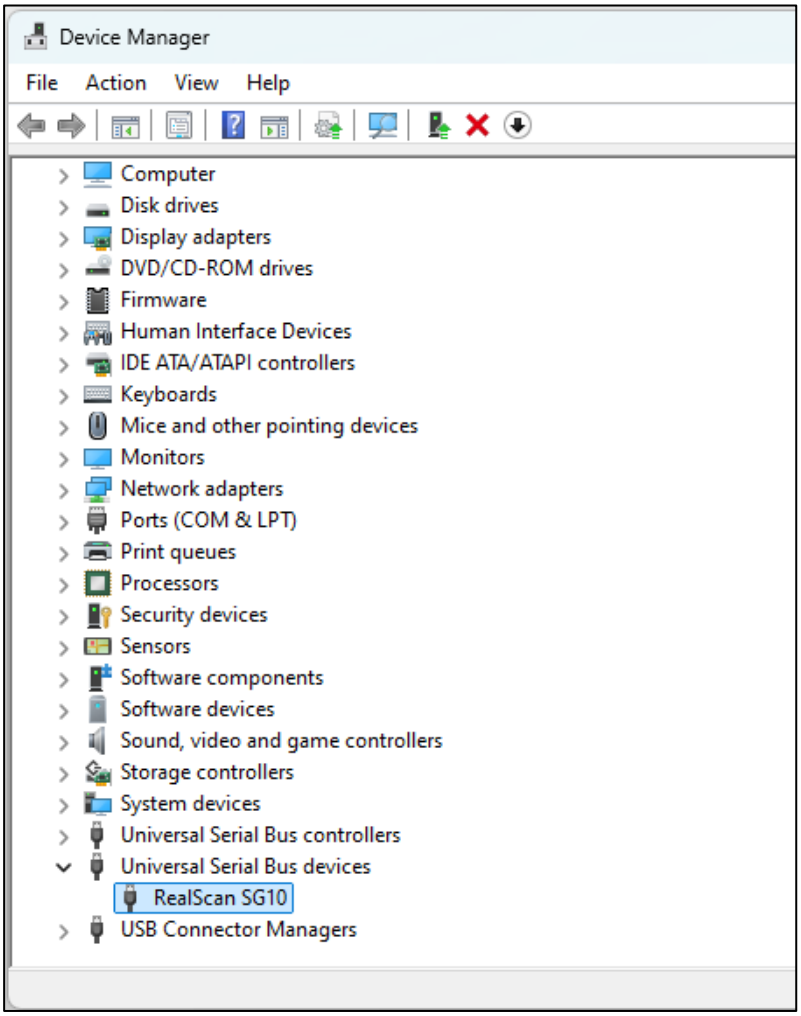


➔ Click the [Finish] button.

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5. After installation, you need to check in Device Manager to see if the device driver is installed properly.

Press the Windows key + R to open the Run dialog, type devmgmt.msc, and click OK. If the device is installed correctly, it will appear under 'Universal Serial Bus devices as RealScan SG10.

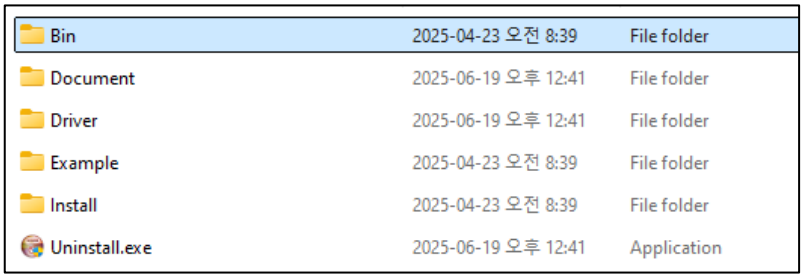


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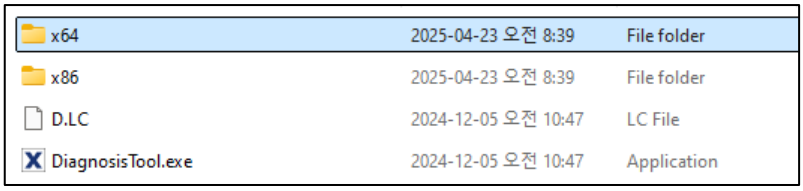
Sample APP(Example) User Guide

This page provides instructions on how to use the Sample APP. Please follow the guide below to utilize the Sample APP.

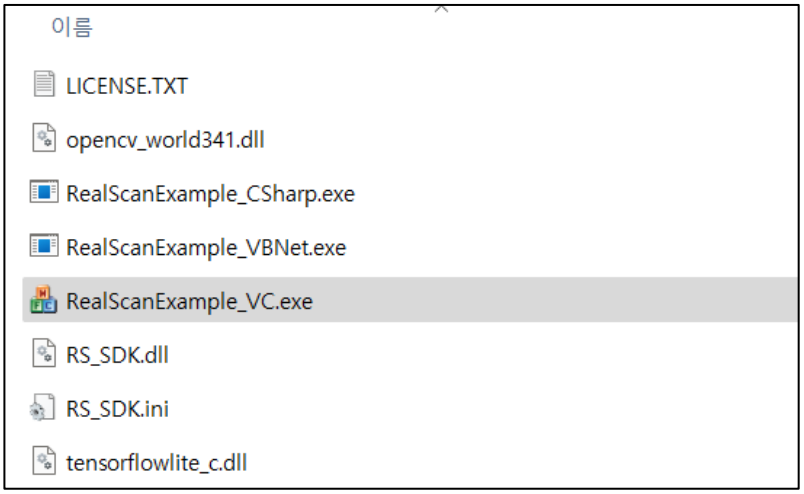
1. Navigate to the BIN folder located at \Program Files\Xperix\RealScanSDK.



2. Move to the folder corresponding to your PC specifications.

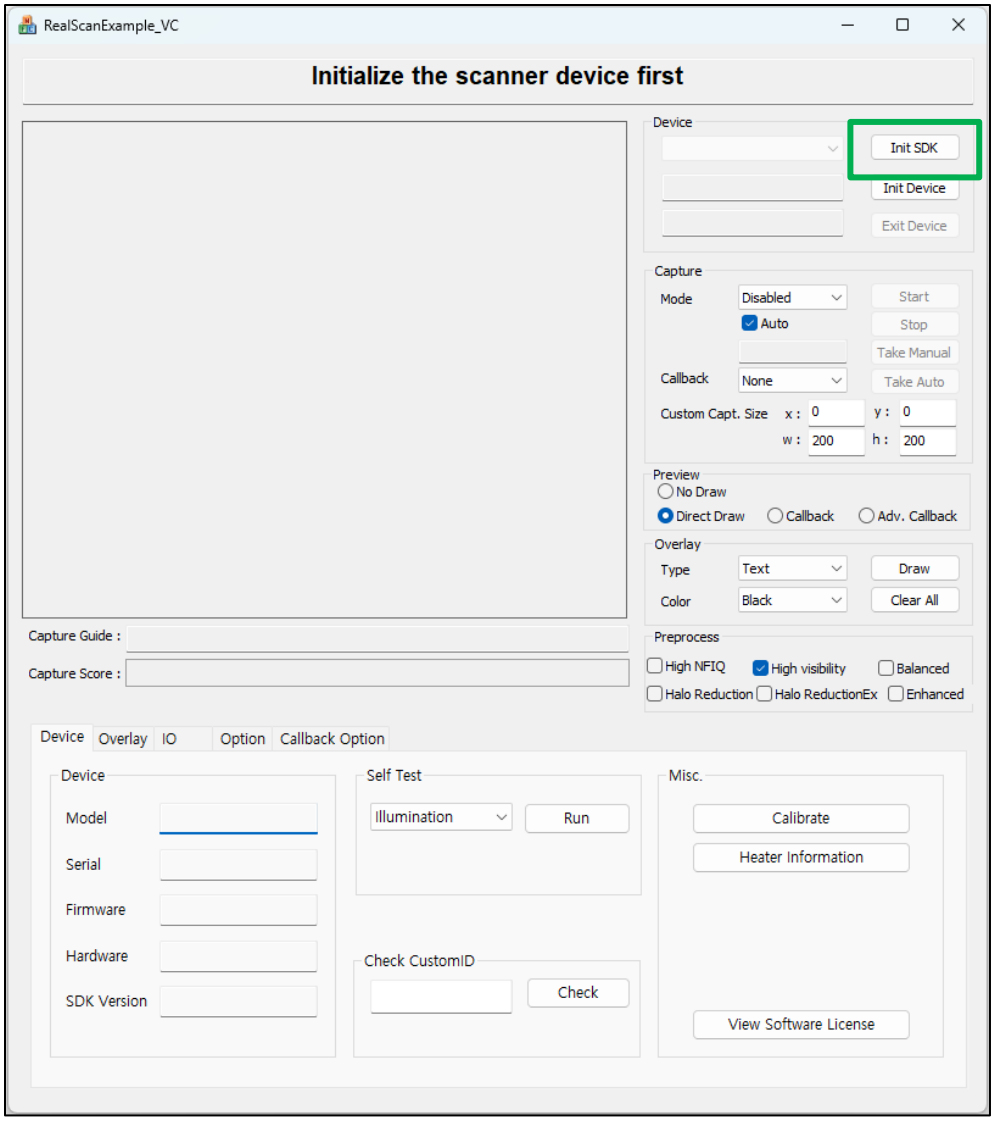


3. Run the program RealScanExample_VC.exe



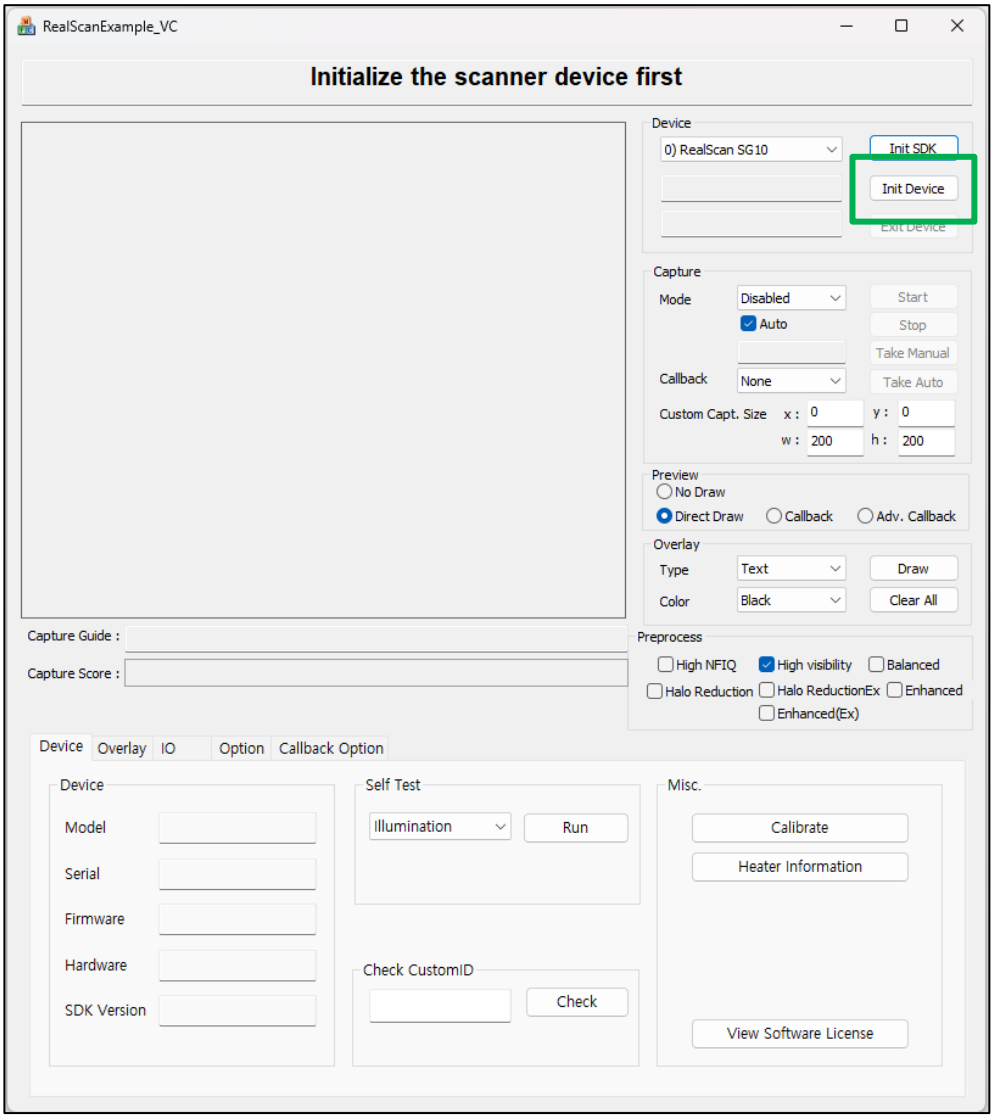
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4. Click the Init SDK button



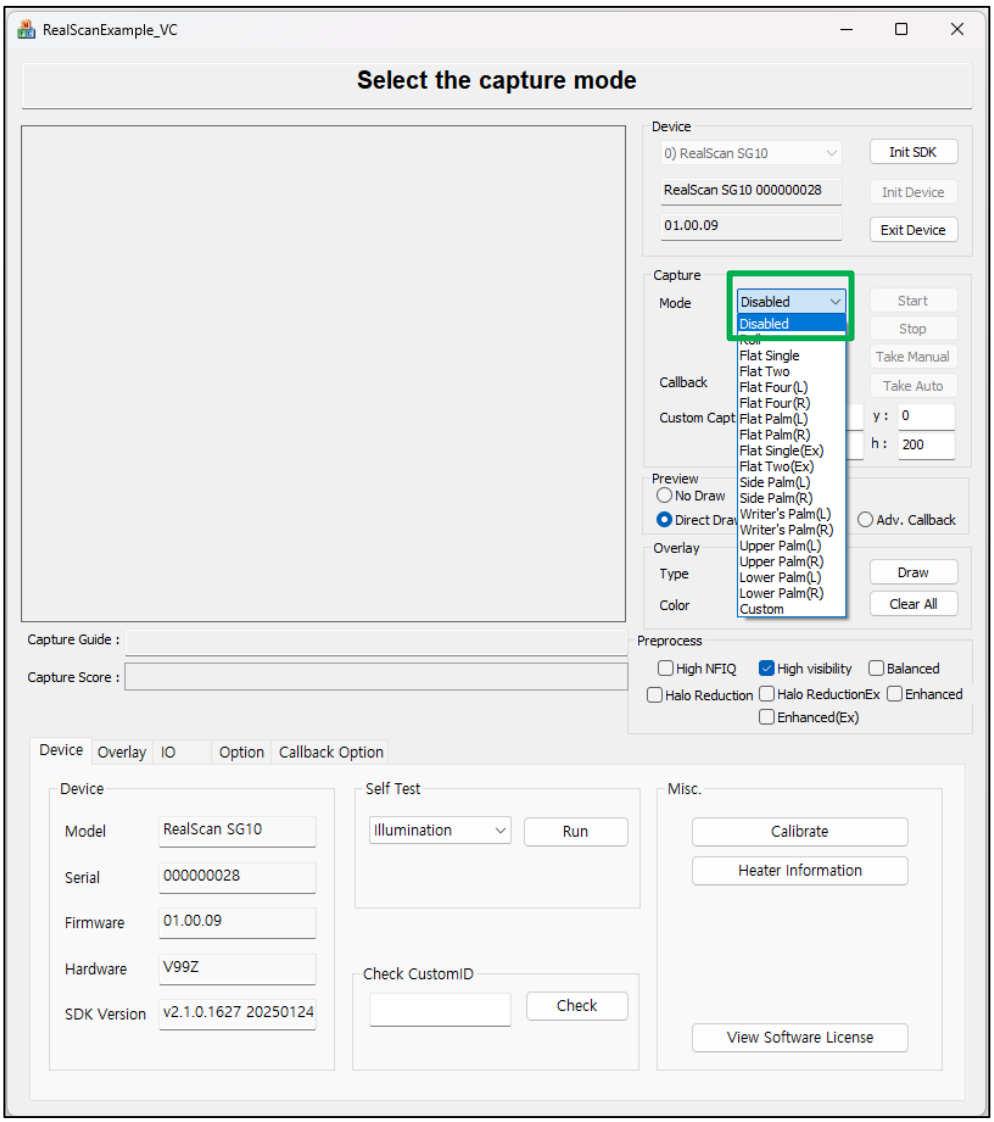
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5. Click the Init Device button

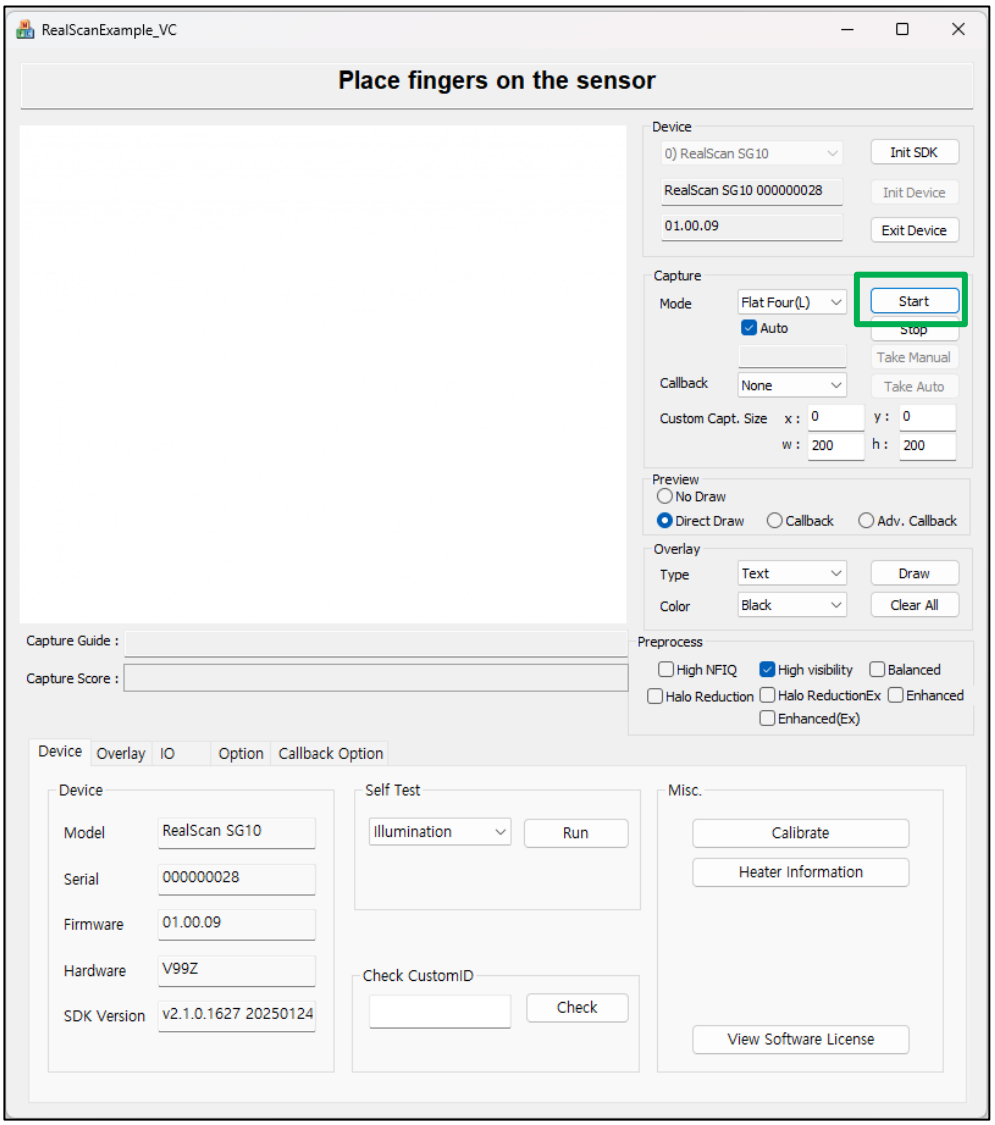


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6. Configure the capture mode.

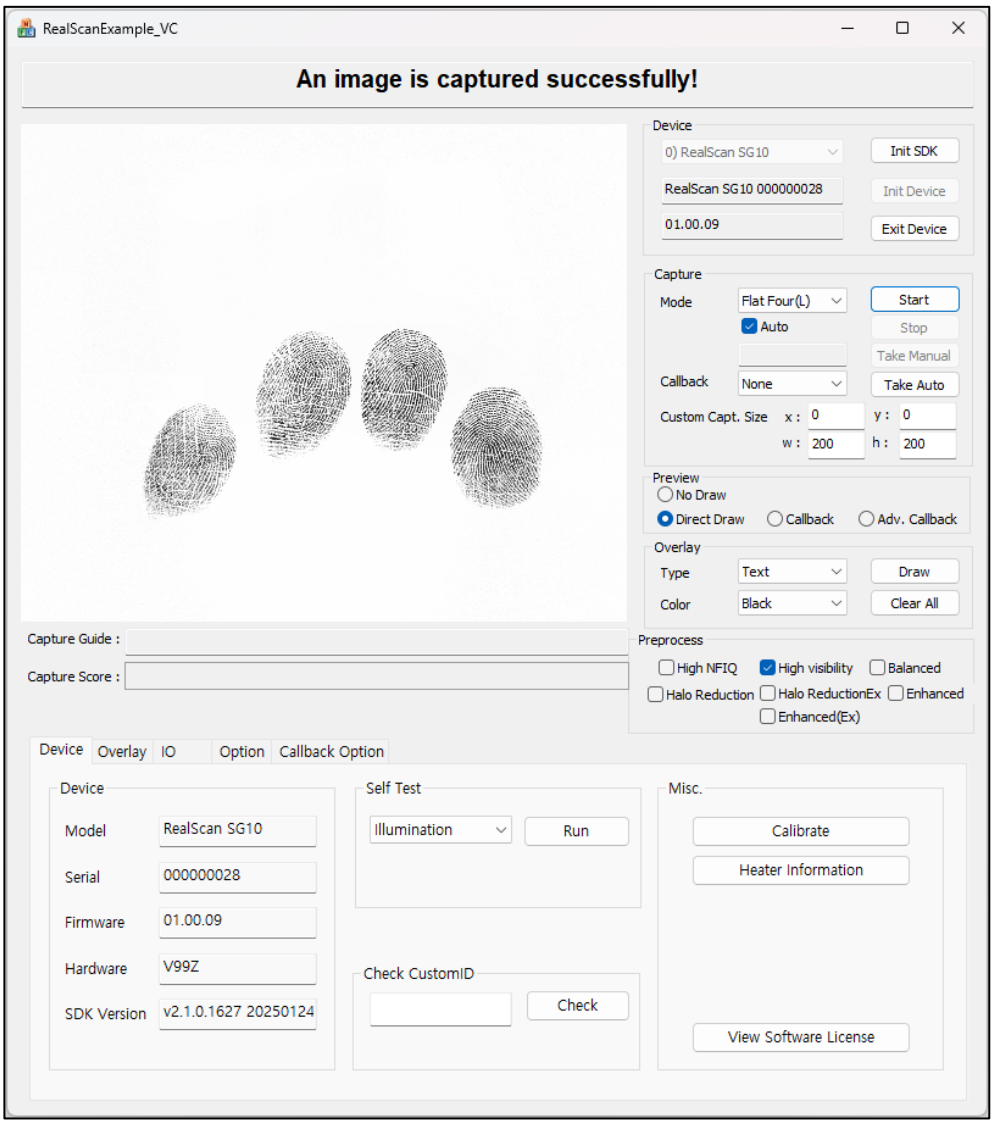


7. Click the Start button and place your finger on the scanner.



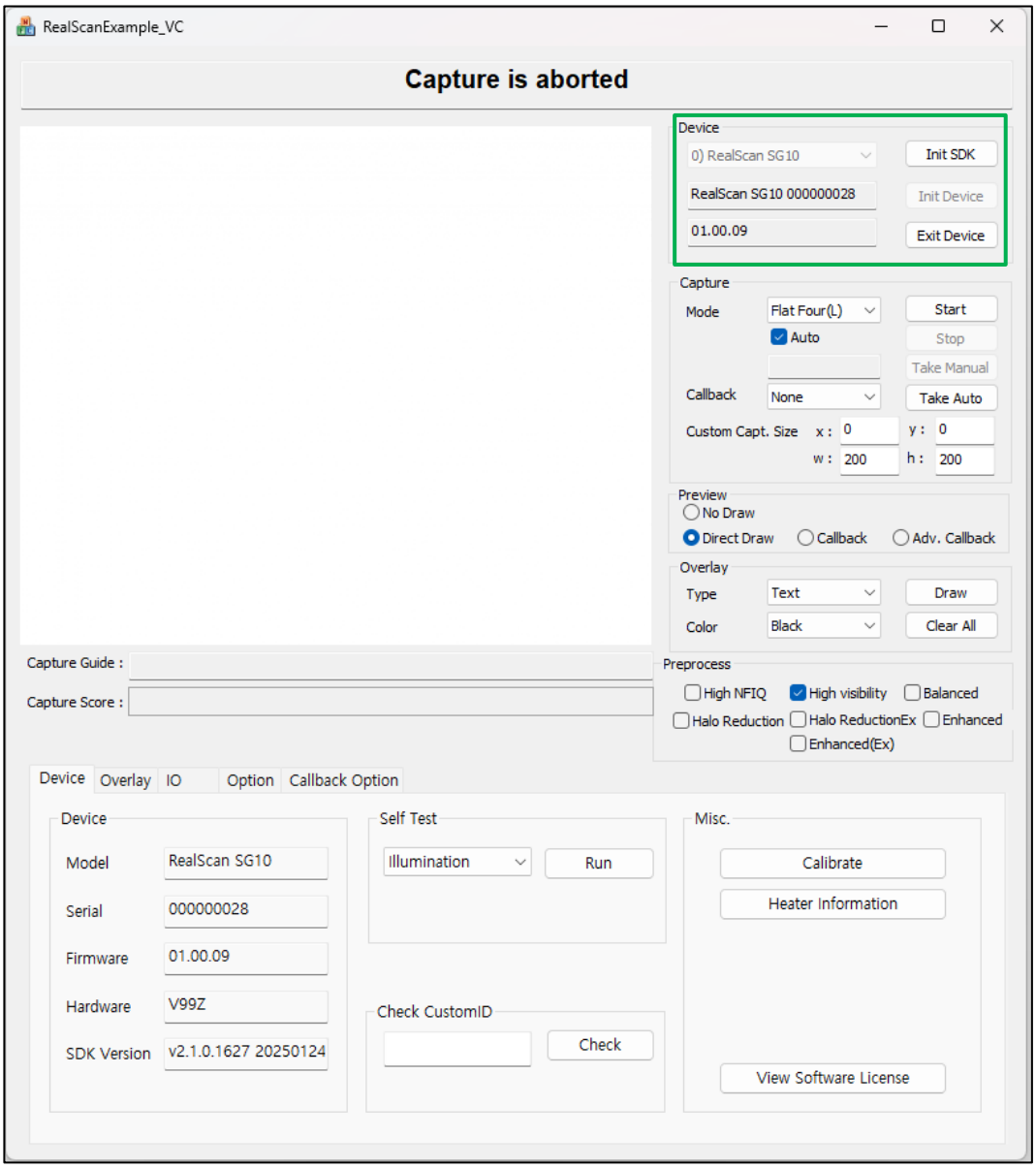
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8. Once the finger is placed, the fingerprint will be captured successfully.



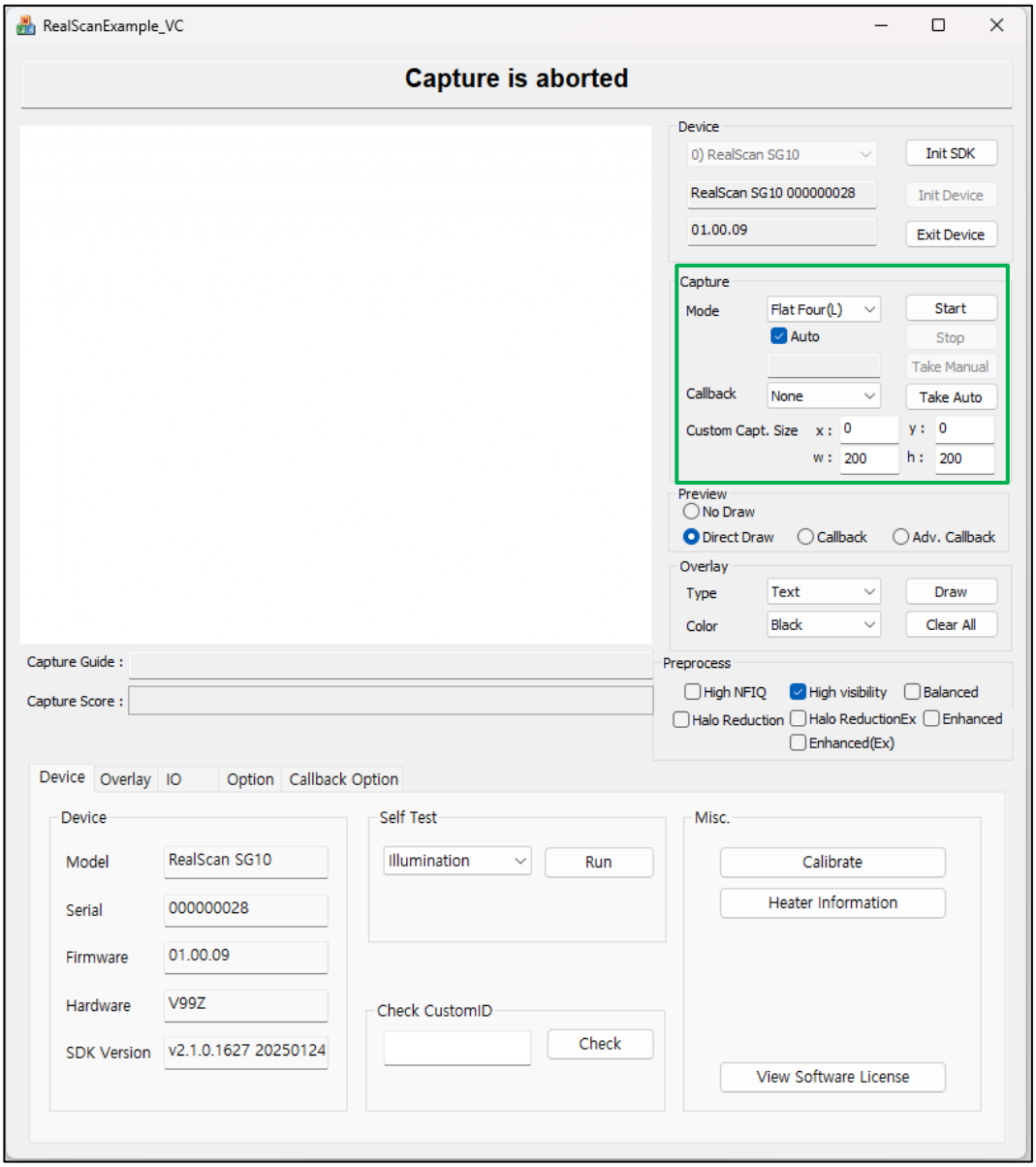
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9. Review the components of the Sample Application.



Device Connection Section

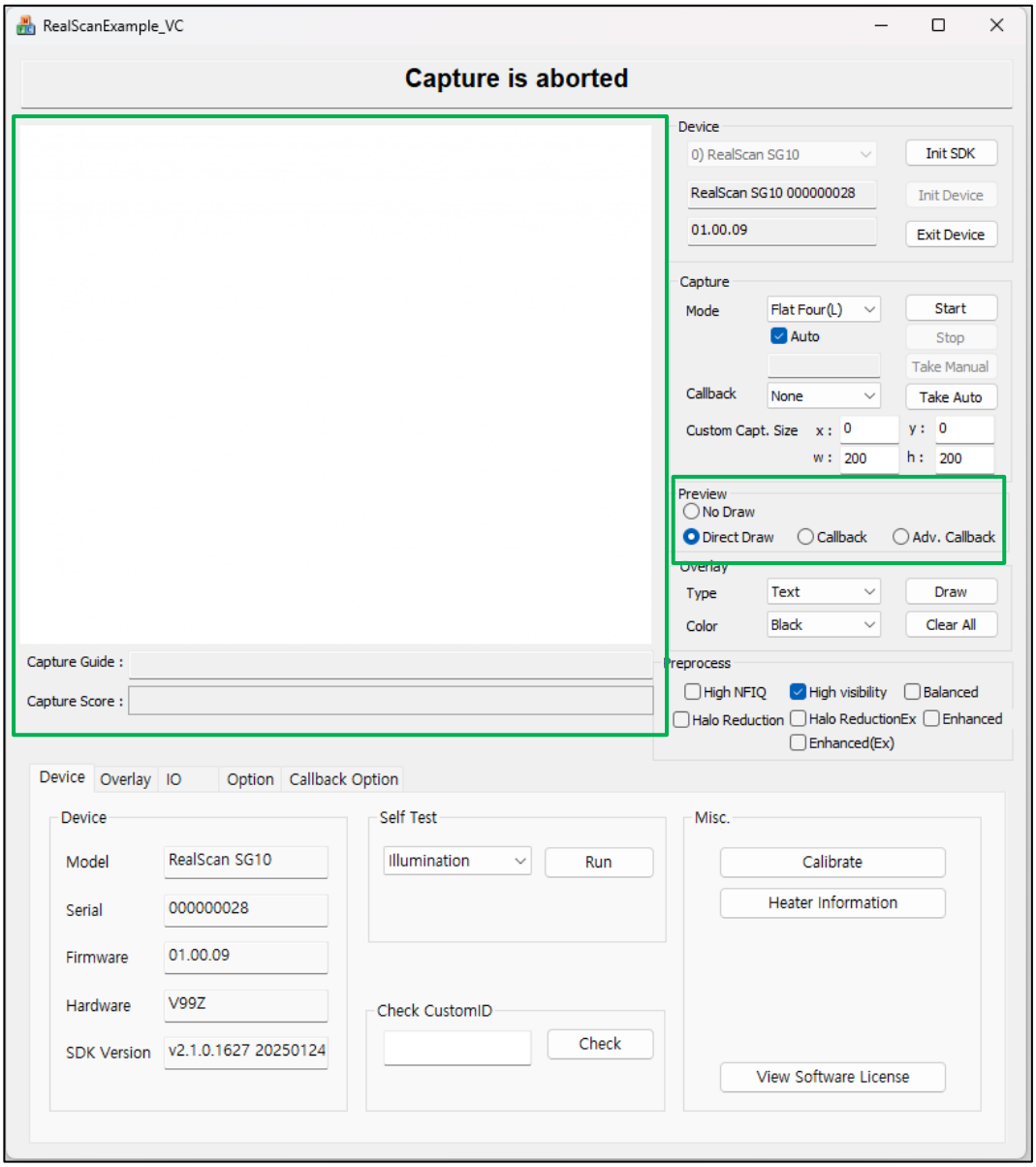
Item	Function
Init SDK	Initializes the SDK.
Init Device	Initializes the device and obtains the device handle.
Exit Device	Releases the device and associated resources.



Capture Settings Section

Item	Function
Mode	Sets the capture mode.
Auto	Enables automatic capture using a callback function.
Start	Starts fingerprint scanning.
Stop	Stops fingerprint scanning.
Take Manual	Allows manual capture after disabling the Auto checkbox.
Take Auto	Automatically invokes the configured callback function.
Custom Capt. Size	Configures the capture coordinates and image size.

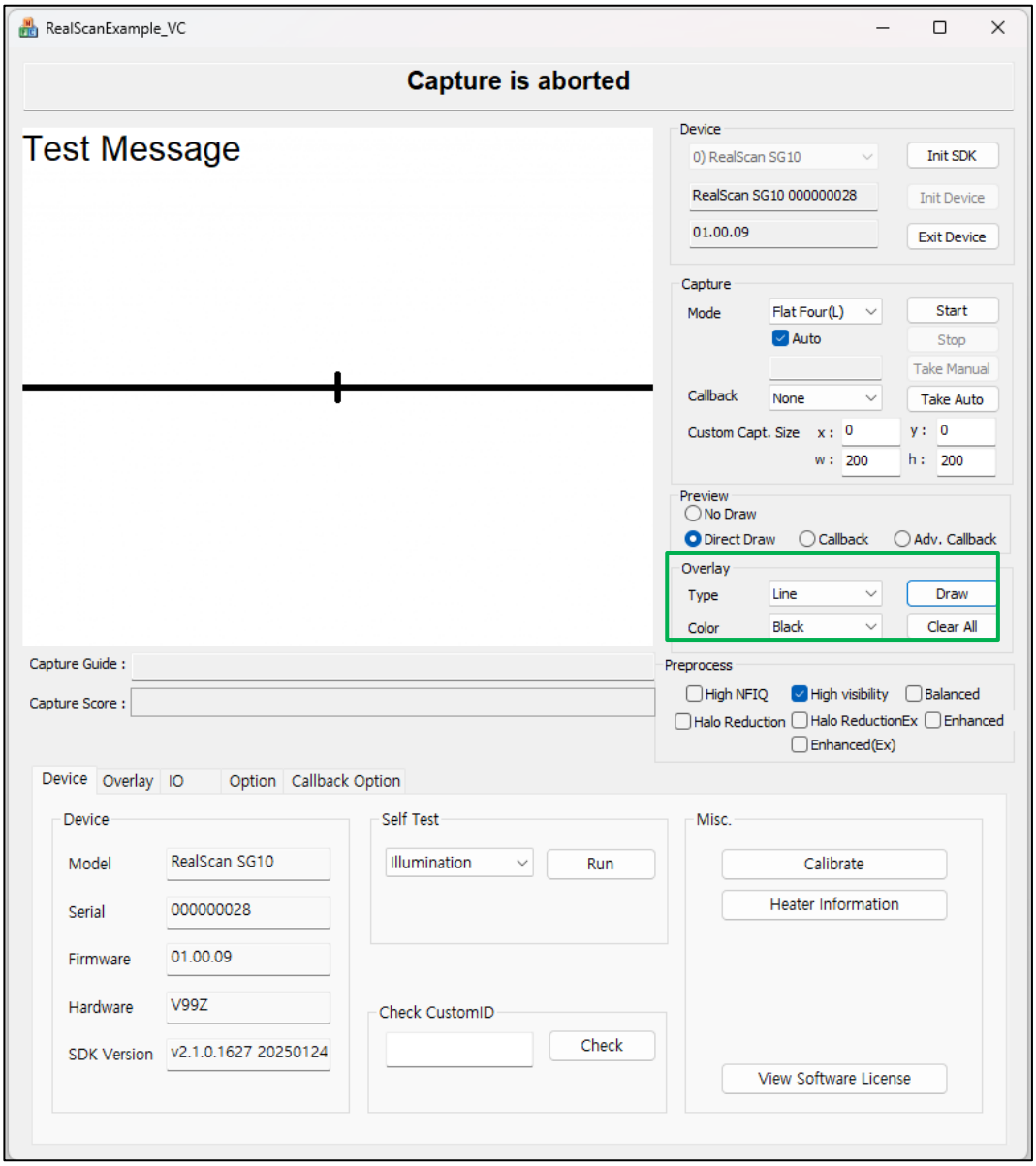
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Preview Section

Item	Function
Preview	Displays the captured image in the preview area.
No Draw	Does not display the captured image in the preview area.
Direct Draw	Directly displays the captured image in the preview area.
Callback	The image received via callback is displayed in the preview area.
Adv Callback	Displays the guide image and score along with the captured image.

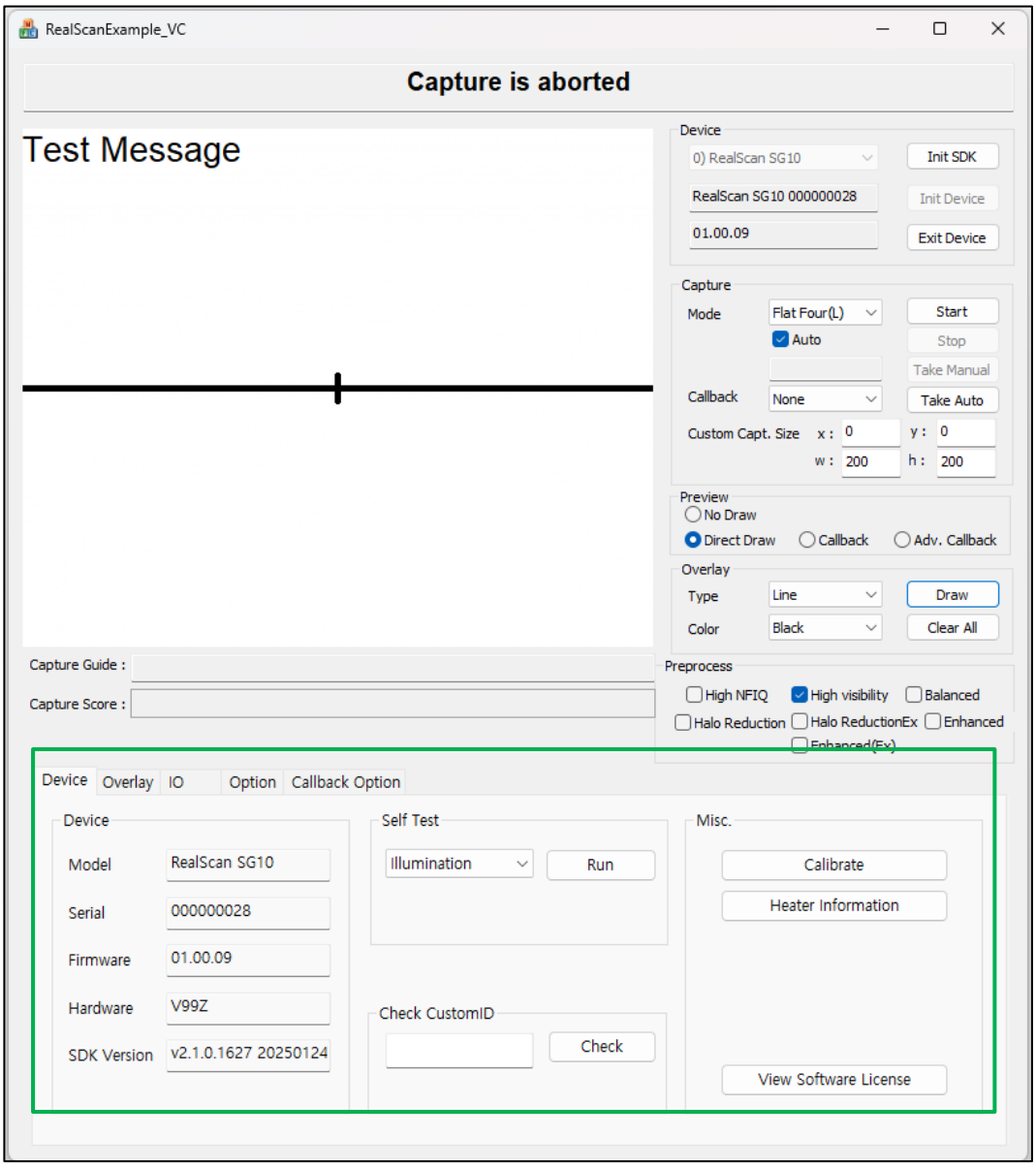
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Overlay Section

Item	Function
Type	Sets the type of overlay to be displayed in the preview area.
Color	Sets the color of the selected overlay type in the preview area.
Draw	Displays the configured overlay type and color in the preview area.
Clear All	Removes all overlays displayed in the preview area.

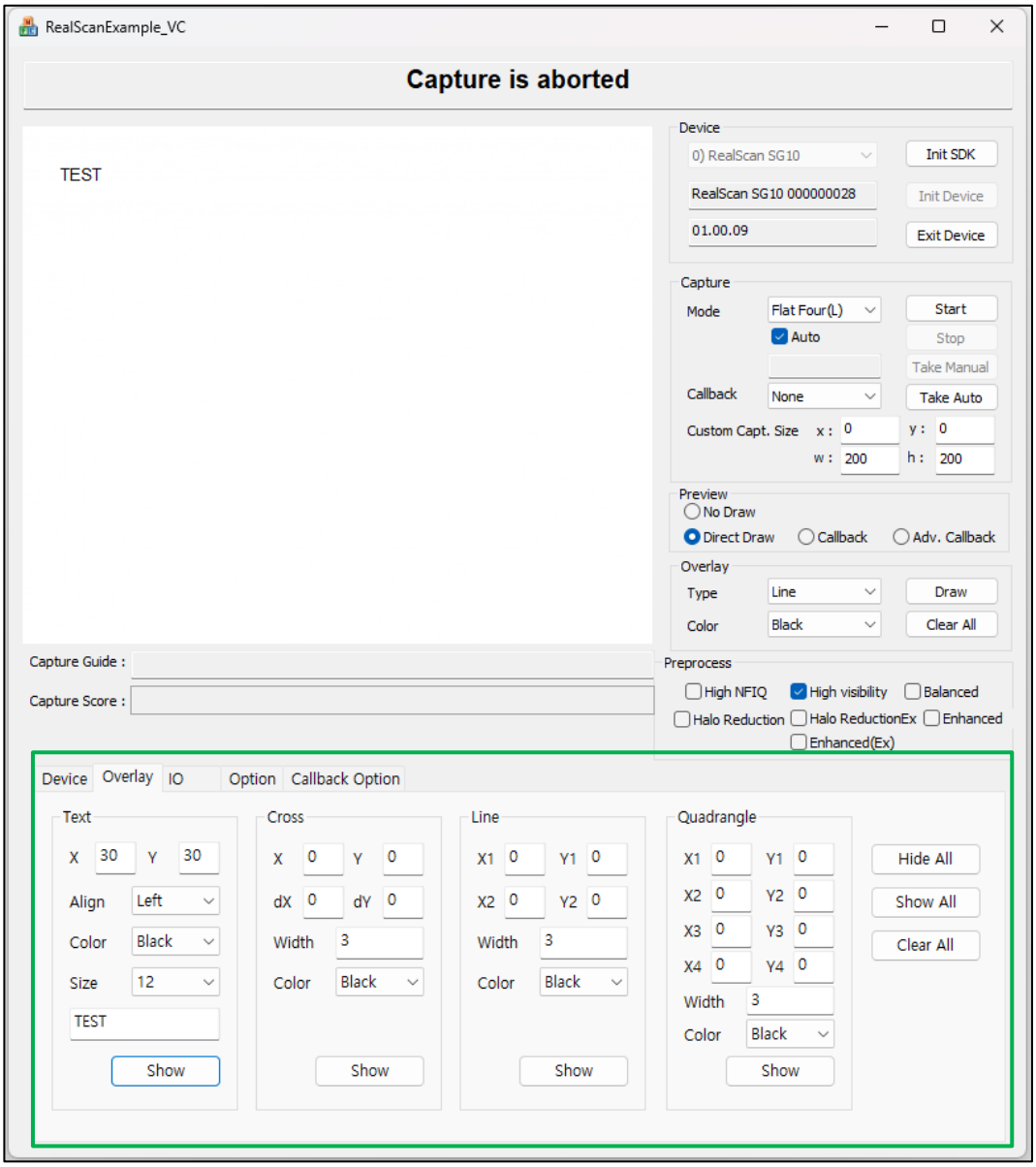
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Device Section

Item	Function
Device	Displays device information.
Self-Test	Checks the device's illumination and contamination (dirty) status.
Check CustomID	Checks the custom ID of the device.
Calibrate	Checks for contamination on the surface of the scan area.
Heater Information	Not supported on RealScan-G10.
View Software License	Displays the software license.

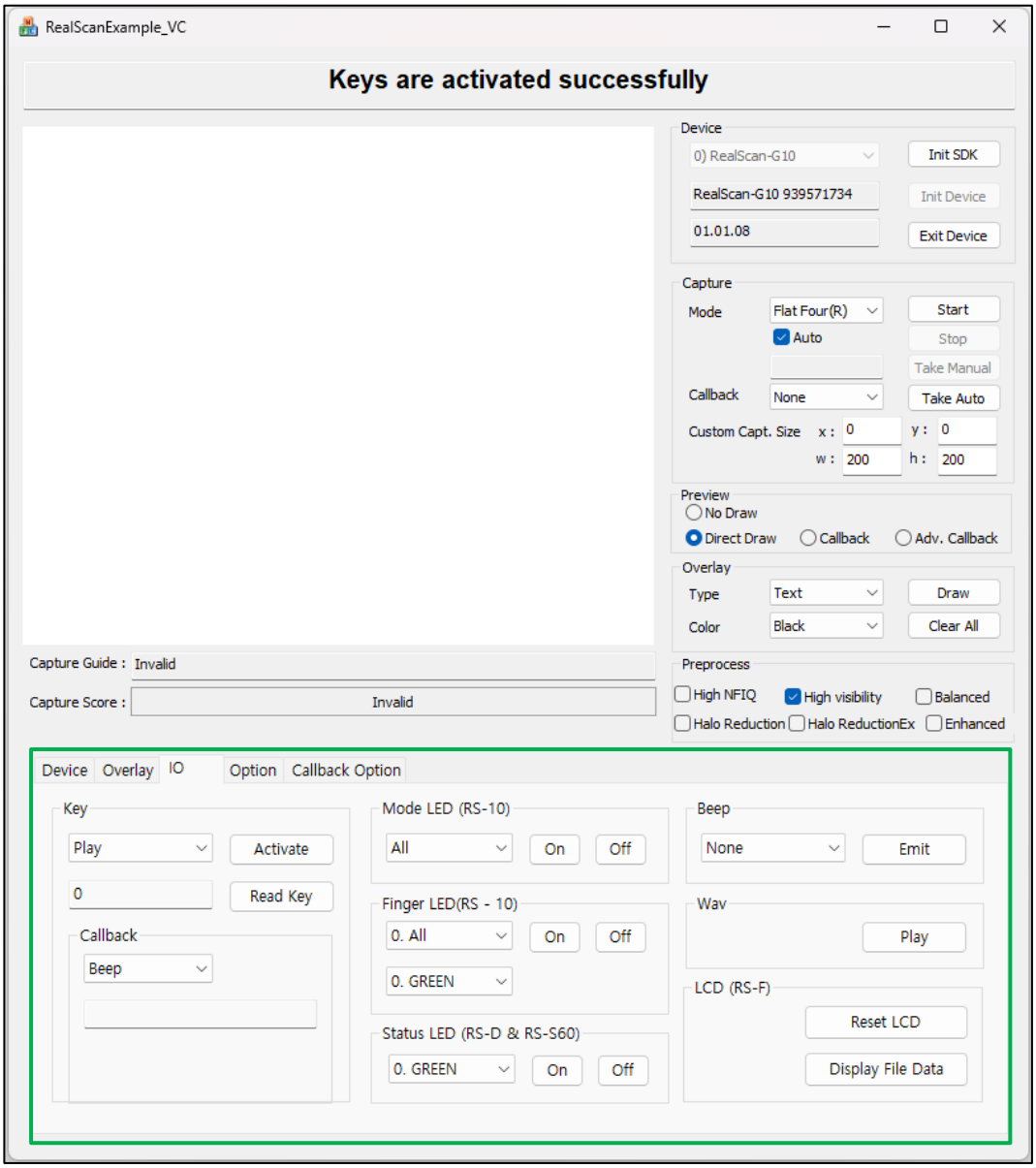
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Overlay Section

Item	Function
Text	Displays text in the preview area.
Cross	Displays a cross marker in the preview area.
Line	Displays a line in the preview area.
Quadrangle	Displays a quadrangle in the preview area.
Hide All	Hides all overlays in the preview area.
Show All	Shows all overlays in the preview area.
Clear All	Resets all overlay settings.

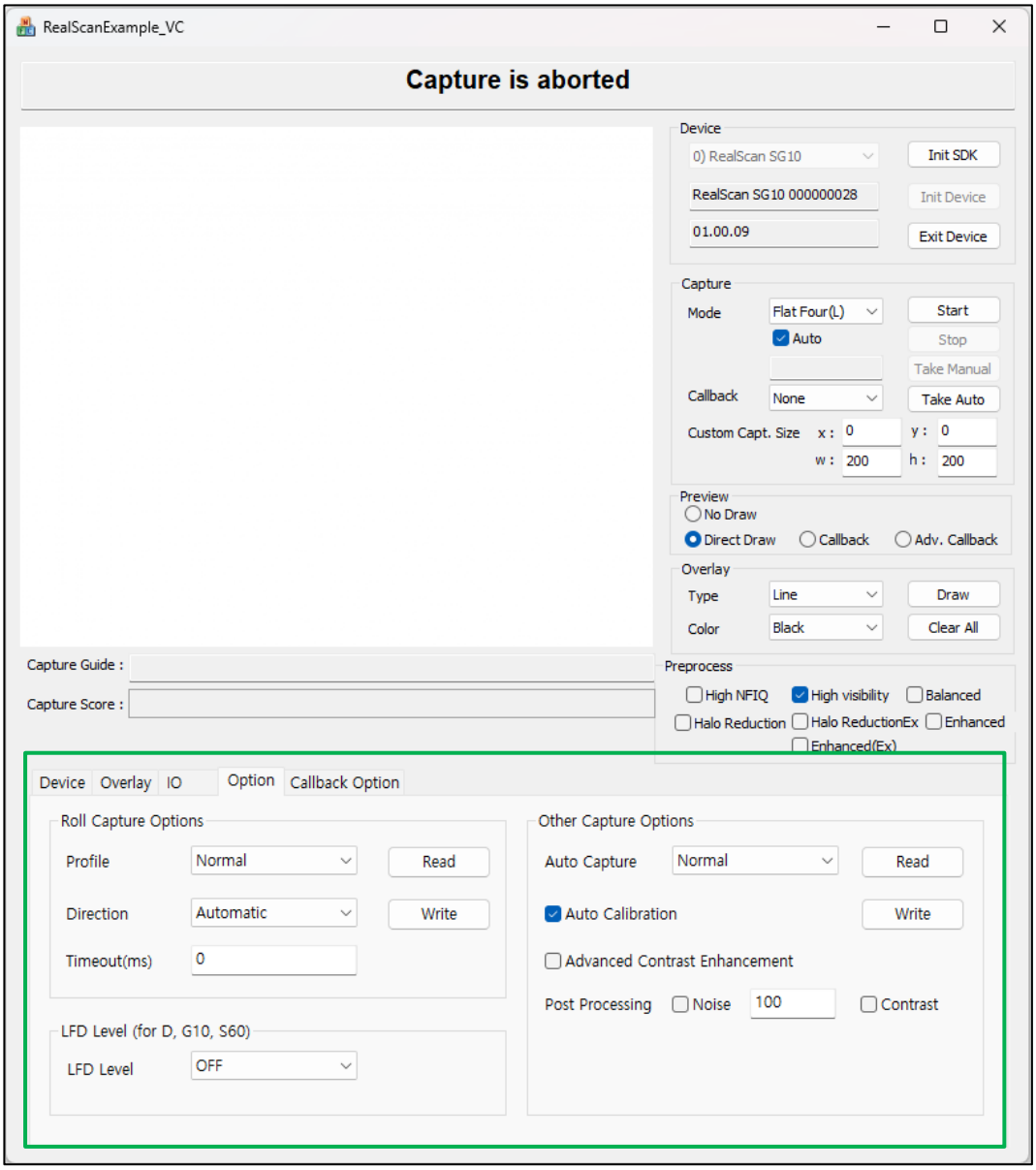
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IO Section

Item	Function
Key	Assigns a callback function to the preset button.
Mode LED	Configures the navigation LED.
Finger LED	Configures the finger navigation LED.
Status LED	Not supported on RealScan-G10.
Beep	Plays a beep sound.
Wav	Plays an audio file.
LCD	Not supported on RealScan-G10.

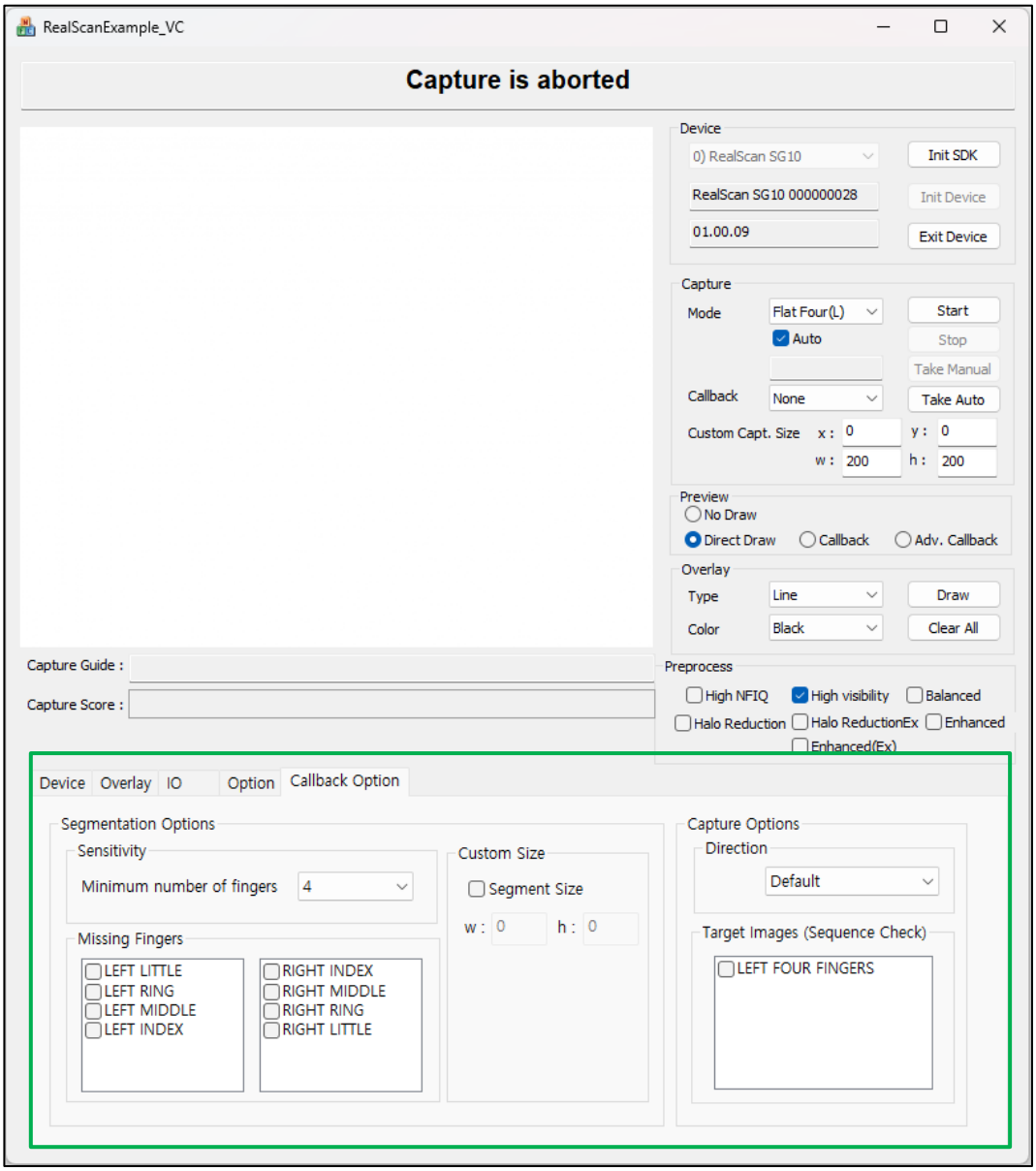
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Option Section

Item	Function
Roll Capture Options	Configures detailed options for roll capture.
LFD Level	Sets the LFD (Live Finger Detection) level.
Other Capture Options	Configures additional options related to fingerprint capture.

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Callback Option Section

Item	Function
Segmentation Options	Sets the actual number of segmented fingers and related information.
Custom Size	Configures the image size for segmented output.
Capture Options	Sets the capture orientation.

Trouble Shooting Guide

This document provides instructions on how to handle errors that frequently occur while using the product.

If you need any further technical support, please visit, please visit https://tech.xperix.com to create a new ticket and share your inquiry.

If you would like to learn more about error handling methods,

please visit https://tech.xperix.com/en/support/solutions and refer to the FAQ section.

Symptoms	Causes	Solutions
The device does not power on.	This may occur when the device is not properly connected.	Check the USB cable connection.
		Try connecting the device to a different USB port on the PC.
Dirty errors occur continuously.	Triggered when the surface of the scan area is contaminated.	Clean the surface of the scan area using a soft cloth.
The device powers on but does not scan.	This may occur when the device is not properly connected to the SDK.	Reinstall the device driver.

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Specifications

Dimensions (WxLxH)	129.5 mm x 137.5 mm x 80.0 mm
Sensing Area (WxL)	81.28 mm x 76.2mm
Weight	1,350 g
Resolution (DPI)	500DPI
Capture Mode	Flat (Four/Two/Single) and Rolled(Single) fingers
Image Size (WxL)	Four finger slap: 1600 x 1500 pixels Two finger flat: 900 x 900 pixels Single flat / roll: 800 x 750 pixels
Supported Image Formats	RAW, BMP, WSQ, JPEG2000, ISO19794-4
Suface Protection	Optic Glass + AR coating (Pencil 6H)
Ingress Protection	IP65
User Feedback Elements	Speaker, LED Indicator
Operating Temperature	-10 ºC ~ 55 ºC (-50 ℉ ~ 131 ℉)
Operating Humidity	10% ~ 90%
Power Source USB Voltage Level	USB 3.0, USB-C / 5.0V ±10%
OS	Windows 7 or higher 32/64bit Linux Ubuntu, Debian, Fedora, OpenSUSE, CentOS 32/64bit Android 5.0 or higher

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Regulatory Information

FCC Compliance Information

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.

Note: 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 or more of the following measures:
• Reorient or relocate the receiving antenna.
• Increase the separation between the equipment and receiver.
• Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
• Ask an operator or a skilled technician for assistance.
Unauthorized modifications or changes not expressly approved by the manufacturer could void the user's authority to operate the equipment under FCC regulations..

European Union CE Mark and Compliance Declaration

This product is CE marked in accordance with the R&TTE Directive (1999/5/EC). Xperix Inc. declares that this product complies with the essential requirements and other relevant provisions of Directive 1999/5/EC.
This device is a Class 1 radio equipment under the European Radio and Telecommunications Terminal Equipment (R&TTE) Directive (1999/5/EC)..

CE

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WEEE Mark and Compliance Information

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