



For technical inquiries, please contact technical support through WhatsApp +41 76 360 9940 or our website chat.

Operation Note: S2 and S2X

The difference between S2 and S2X is the chip design. S2X is more optimized for lower frequency. For example, from standard LN source, S2X sensitivity is approximately x5 that of S2.

1. **Software** is continuously updated here:

<https://www.swissterahertz.com/rigis2-x>

Password: S2X 1988. Software name is the release date.

- LabVIEW is the currently supported software. It does not require a LabVIEW program. Only the runtime environment from NI is needed. Free to download.
- C ++: is fully functional but no longer supported. Much simpler than LabVIEW and no installation is required. However, it has its limitations:
 - As it does not require installation (plug and play), you need to run the software one time to initiate communication; close; run again.
 - There is no port assignment. In case other devices are connected to the same computer, port conflict can happen. In such case, the camera runs in the demo mode. If the camera is well-connected, the fps should be 9.

2. Precautions

- The detector is vacuum sealed. Dropping the camera or pressing the window can break the vacuum. This damages the detector. Repair cost is 60-80% of the original price as the detector needs to be replaced.
- Damage by NIR laser is the most common cause of camera damage. Many times, the users forget to block the residual IR after the generation crystal. Note that although the camera has a silicon window, sufficient 800 nm can penetrate the silicon window and damage the camera.
- Damage by THz depends on the source. CO₂-based laser and QCL are the sources with highest risk. High average THz power from organic crystals

or laser plasma may damage the sensor. The camera has an intensity count of about 16k. This is the saturation level. Exceeding it by 20% should not be a problem. This count can be used as an indication of safe operation.

3. Sensor Position: The sensor is in the center of the enclosure.

