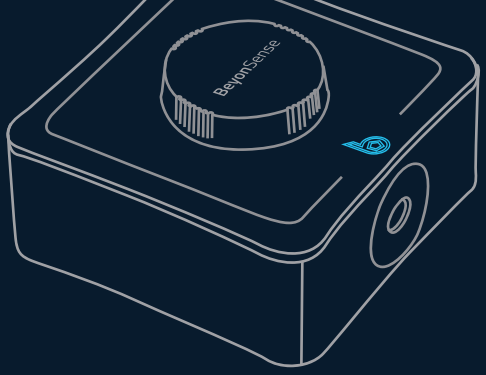
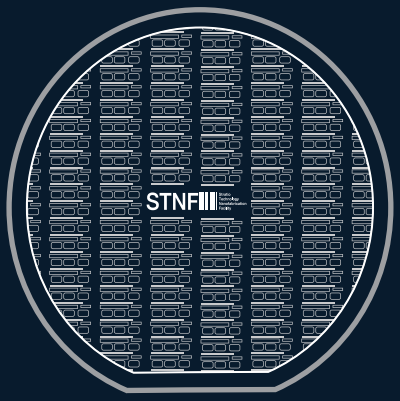
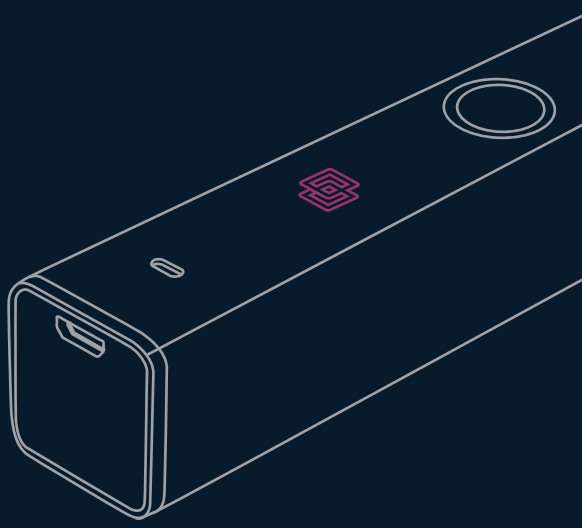


Stratio, Inc.





SWIR SENSING RE-ENGINEERED TO BETTER OUR LIVES

stratiotechnology.com | contact@stratiotechnology.com

Stratio, Inc.

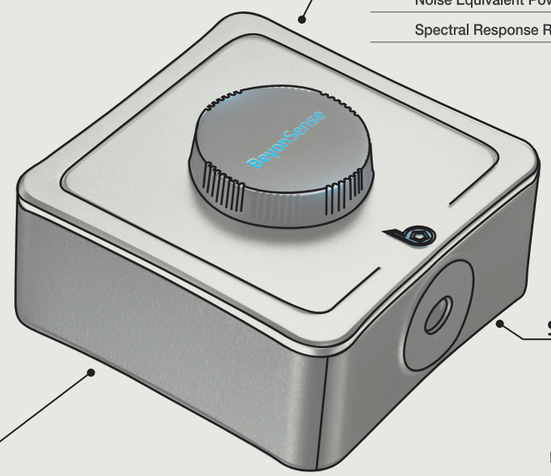
INFRARED VISION TO THE MASS MARKET

At Stratio, using our own facility (https://stnf.io/), we are building a low-cost and compact Germanium-based SWIR camera (https://beyonsense.io/) as well as spectroscopy (https://linksquare.io/), and the camera is already commercially available, and we did sell to many researchers to big companies so far. Now we are trying to improve the quality and the resolution (Full HD) through using a well-known commercial foundry, which I think will only less than a year with proper resources, to even compete with market leaders such as Raytheon, Teledyne, and Sony.

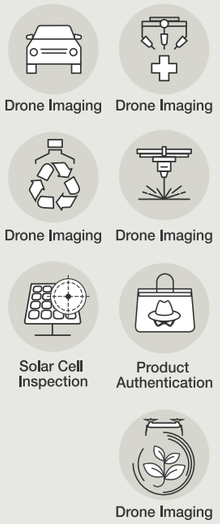
Product Details

IMAGE SENSOR SPECIFICATIONS

Chip Size	6.8 mm x 6.8 mm
Active Pixel (H x WI	128 x 128
Pixel pitch	35 um
Noise Equivalent Power	< 30 uW /cm2 (@10 fos)
Spectral Response Range	400 mm - 1600 m.



SERVICE APPLICATIONS



DEVICE SPECIFICATIONS

Maximum Frame Rate	> 10 fos
Power Consumption (Standby)	600 mW (Typ.)
Power Consumption (Standby)	900 mW (Typ.)
Connectivity	Wi-Fi
Module Size	60 mm x 60 mm
Power	USB (5-pin)
Lens Mount	C-mount
Operating Temperature	-5 °C - 45 °C

INFRARED VISION TO THE MASS MARKET

Short-wave infrared (SWIR) light ranges from 0.9 - 1.7µm wavelength, outside the typical range of silicon sensors. SWIR imaging provides high resolution images in situations where visible light is insufficient, including night vision and difficult environmental conditions. Historically, InGaAs sensors have been used to provide the benefits of SWIR imaging, but the material requires expensive and heavy equipment limiting use to industrial, laboratory and defense applications.

With innovation in the sensor materials - unlocking germanium to be responsive to infrared light waves - the Stratio team has successfully reduced the size, cost and power consumption of the infrared camera. Paired with the sensor technology, Stratio's AI platform translates the data into meaningful insights. Use case examples include Autonomous and Driver Assistance Systems (ADAS), robotic surgery, and precision agriculture. Examples of the full use of Stratio's hardware and software are: farmers' ability to identify best harvest times; and enhancing driver capabilities with precise hazard detection.

Putting SWIR Technology On Your Palm

We believe our lives will be better guarded when you have shortwave infrared (SWIR) technology in the palm of your hand. We've re-engineered the technology from ground up to introduce BeyonSense.

BeyonSense

KNOW YOUR WORLD BETTER WITH LINKSQUARE ®

LinkSquare is a smart spectrometer to determine its spectral fingerprint for material identification. As the world's first portable, affordable, and accessible spectrometer, LinkSquare will bring the power of infrared spectroscopy to everyday use.

Scan anything. Scan anywhere.

LinkSquare® is a smart handheld spectrometer born out of a mission to make infrared spectroscopy available for everyday use.

A product of accumulated experience in designing compact optics systems, LinkSquare can fit in your pocket, sit on your kitchen table, hit the road with you to wherever you want to take it.

Simply scan an object of your interest with LinkSquare. You can check the quality of food, verify the veracity of product information, assess plant growth, and do so much more.

See what your naked eye might miss.

LinkSquare uses machine learning algorithms to detect differences in objects' spectral fingerprints and determine a myriad of properties including but not limited to authenticity, identity, degree of freshness, sweetness, and overall quality.

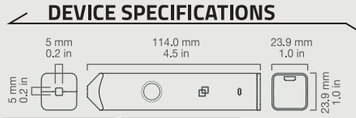
Accessories

LinkSquare can be even more powerful when equipped with our accessories.

Liquid Station

Product Details

DEVICE SPECIFICATIONS



Wavelengths	LinkSquare 1	450-1000 nm
	LinkSquare NIR	700-1050 nm
Weight	57g / 2oz	
Connectivity	Wi-Fi	
Battery	Active	< 1000 scans
	Idle	< 72 hours
Charging	Micro-USB cable	

SERVICE APPLICATIONS

Our AI Platform provides a DIY applet creation tool – feed your own spectral data with a subscription and make your own applet! Or, reach out to us for a custom-built applet from the ground-up. Check out our AI Platform at https://ai.linksquare.io.

Agriculture · Manufacturing · Fine Jewelry

Distribution · Customs & Law Enforcement · Pharmaceuticals

Packages

You can mix and match our hardware and software options – the LinkSquare app provides numerous life-enhancing applets, while our collector software helps collect and view the spectral data of whatever matters to you.

LinkSquare App

Download on the App Store · GET IT ON Google Play

Collector Software

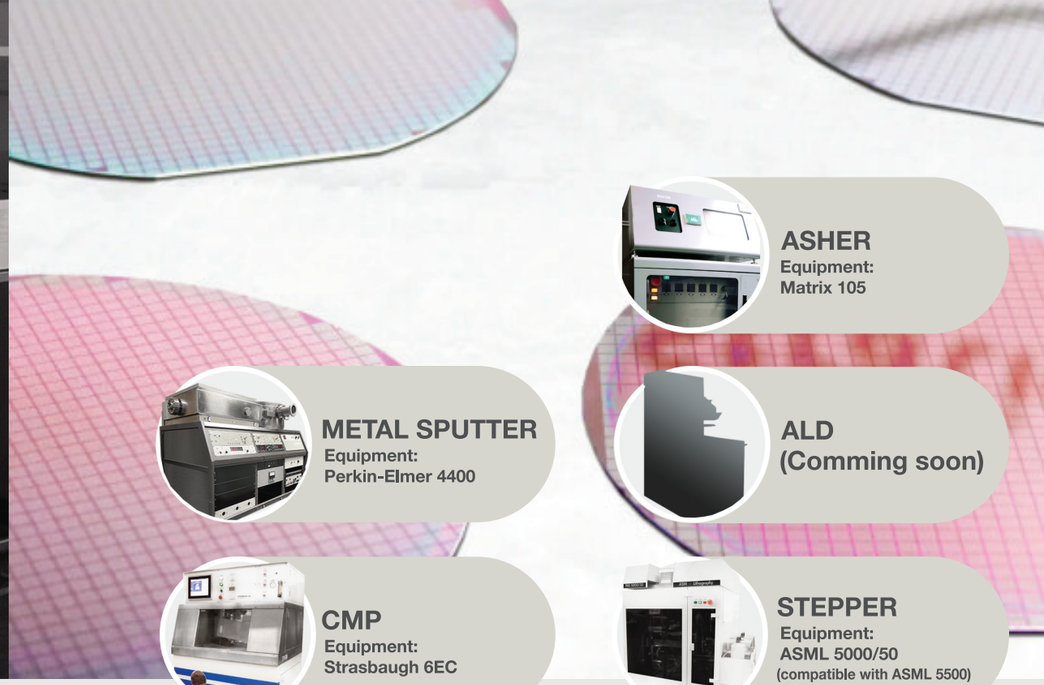
Windows · mac OS

For those who want to make their own software or platform around LinkSquare, we provide APIs, a software library that provides connectivity and data acquisition with LinkSquare devices.

Basic Package	Professional Package
Spectrometer	Spectrometer
LinkSquare App	LinkSquare App
LS Collector *	LS Collector *
AI Platform **	AI Platform **
APIs	APIs

* Windows-, MacOS-, iOS-, and Android-compatible
** Subscription to AI Platform required

LinkSquare



ASHER
Equipment:
Matrix 105

METAL SPUTTER
Equipment:
Perkin-Elmer 4400

ALD
(Comming soon)

CMP
Equipment:
Strasbaugh 6EC

STEPPER
Equipment:
ASML 5000/50
(compatible with ASML 5500)

PR COATER
Equipment:
TEL Mark 5z

WIRE BONDING
Equipment:
WestBond 7476E-79

Silicon Valley based SENSOR FOUNDRY

Build your breakthrough innovations at STNF

You can build your own Read Out Integrated Circuit (ROIC) with 1 µm technology node around your invention. Our sensor foundry service for the ROIC/CMOS starts from US$ 35K for one batch and your per wafer cost reduce quickly as you increase your batch size.

The STNF team has a combined experience of 20 years in fabricating micro and nano technologies in both CMOS and MEMS, beginning from within the walls of Stanford Nanofabrication Facility (SNF) and now continuing in San Jose at our in-house fab.

As a consultant of SNF, we also provide consultation services for device fabrication as well as seamless transition into and out of SNF.

HISTORY

STNF was created by Stratio, Inc. in its journey to bring infrared vision to the mass market with our smart infrared devices LinkSquare® and BeyonSense®.

Originating from building these novel devices with in-house resources, STNF has acquired our own cleanroom and ensured control over quality and efficiency in production.

We finally opened STNF to the public in 2020, a 4" fab in the San Francisco Bay area, designed to support our own innovation and to serve as the starting point of others'. Today we yearn to enable great ideas to come to fruition and better the world altogether.

The Stratio Technology Nanofabrication Facility (STNF) is located in San Jose, California, in the proximity of Stanford Nanofabrication Facility (SNF).

We are proud to be a part of the semiconductor tradition in the heart of Silicon Valley and to continue the history of "made in California".

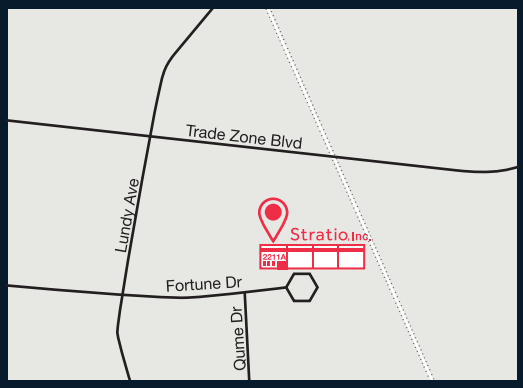
2211 Fortune Drive, Suite A, San Jose, CA 95131, U.S.A.

STNF@stratiotechnology.com

STNF Stratio Technology Nanofabrication Facility

Stratio, Inc.

We believe our lives will be better guarded
when you have SWIR technology
in the palm of your hand.



HQ Office
2211 Fortune Drive, Suite A
San Jose, CA 95131

LAB
3003 N. 1st Street #315,
San Jose, CA 95134

KOREA Office
06668, 106, Myeongdal-ro, Seocho-gu
2nd Floor
Seoul 06720

stratiotechnology.com | contact@stratiotechnology.com