VISIONERF

awareness is power

Industrial 3D

CAMERAS

FOR MORE THAN 30 YEARS, VISIONERF HAS BEEN DESIGNING AND DEVELOPING *VISION AND IMAGE PROCESSING SOLUTIONS* FOR THE AUTOMATION OF PRODUCTION PROCESSES.

With several thousand systems installed worldwide across all sectors of industry, Visionerf has built up unparalleled experience and is now regarded as a leading player in the field of industrial vision.

Thanks to innovative developments in the design of its sensors and software, Visionerf has become the “go-to” partner for customers with increasingly demanding requirements.

Strengthened by its experience, Visionerf can support you in the realization of your projects from start to finish, with an expert and available technical team.

High end products that will meet your needs and a know-how already recognized throughout the world.

OUR RANGE OF INDUSTRIAL 3D CAMERAS

Cirrus3D CAMERAS

Our Cirrus3D cameras are specially designed to be integrated into the heart of your system, without any special development. Used as a fixed or mobile component, the Cirrus3D enables vision/robotics applications of incomparable efficiency and very high quality. Dedicated to industrial use, Cirrus3D scanners are not sensitive to the environment, dust, dirt or variations in brightness, guaranteeing unrivalled reliability and robustness of your installations (IP 65).

CIRRUS3D SENSORS CAN BE USED WITH ANY SOFTWARE:

MVTec · Euclid Labs 3D Vision and Robotics · Pickit robot vision made easy · ZEBRA · MATROX IMAGING · metrologic group

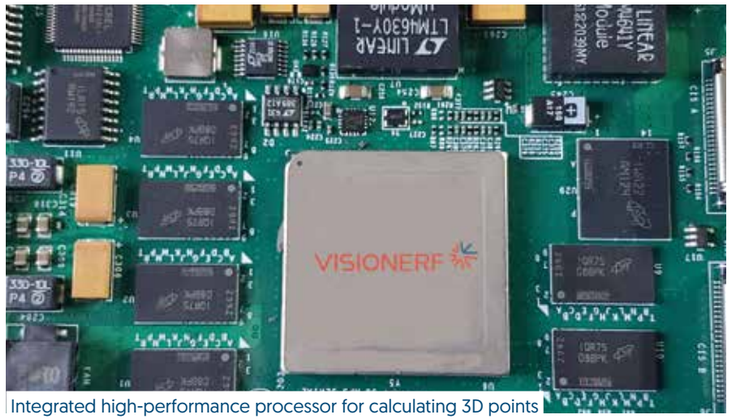
YOUR SOFTWARE
We can tailor the communication protocol to your software, and a SDK is available.

Cirrus3D sensors are class 3R laser products. Here is a copy of the label:

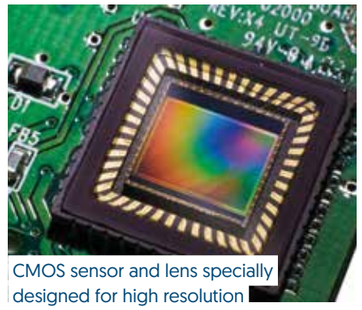
"MADE IN" VISIONERF


Waterproof industrial connectors


High-performance cooling



Integrated high-performance processor for calculating 3D points


CMOS sensor and lens specially designed for high resolution

ADVANTAGES Intended for use in industry, these scanners are **impervious to their environment, to dust, and to variations in light conditions,** ensuring your installations benefit from **peerless reliability and robustness** (IP 65). Assembly, inspection, identification, localization of single or bulk parts: these are just some of the industrial applications where **the Cirrus3D range can offer you a great return on your investment.**

WHY CHOOSE A VISIONERF CAMERA?
Since the first-generation Cirrus3D camera was launched in 2015, Visionerf has constantly improved its products to provide customers with a high-end scanner capable of operating in the harshest environments, such as foundries or dusty, humid environments.

The unique design of this camera, based on the principle of high-resolution stereoscopy, enables very small elements to be viewed with the utmost precision in the shortest possible time. Combined with powerful structured light, the quality of information remains constant across a wide range of materials. From black to high-gloss, measurement reliability remains flawless.

The choice of top-of-the-range components contributes greatly to the robustness and reliability of our products.

GiGE VISION

FOR WHAT USES?
Today, our cameras are used in all sectors of activity, for precise handling of parts of all sizes (screws, mechanical bodywork parts), for robot guidance in high-volume applications (from automatic detection of potential gas leaks on refrigerators to automatic changeover of drilling tools on giant tunnel boring machines), and for monitoring and inspecting objects directly on production lines.

3D STEREO SCANNER

COMPACT, ROBUST AND LIGHT

HIGH DEFINITION PROCESSOR
for the calculation of 3D points

WATERPROOF INDUSTRIAL CONNECTORS
(power supply and Ethernet)

CMOS SENSOR
up to 30µm/1.2mil resolution

HIGH PROTECTION RATING
and cooling system

IMPERVIOUS TO DUST AND DIRT
can adapt very easily to complex environments (IP65 standard)

EASY TO EMBED
on a robot arm

LASER LIGHT
for better precision on shiny parts

An innovation in the compact 3D camera range, the Cirrus3D's laser scanning allows it to **scan parts with excellent resolution, even on shiny or matte parts.**

STANDARD FEATURES ON ALL MODELS	
Scanning time	From 0,2s
Number of 3D points per scan	Up to 5 million
Image processing software	Option
Calibration	In factory
Communication interface	TCP/IP or GigE
Box material	Aluminium
Connectors	Power supply and inputs/ outputs, Ethernet M12
Power supply	24V/2A max
Light source	Blue laser / Selectable class 2 or 3R
Operating temperature	0 °C...50 °C / 32 °F...122 °F

THE WIDEST RANGE OF 3D SENSORS

Scanners	Cirrus3D 100	Cirrus3D 150	Cirrus3D 300	Cirrus3D 600	Cirrus3D 610	Cirrus3D 800	Cirrus3D 1200	Cirrus3D 1600
Dimensions (L x W x H)	195x53x131 7.67"x2.1"x5.16"	195x53x131 7.67"x2.1"x5.16"	269x53x131 10.6"x2.1"x5.16"	389x53x131 15.3"x2.1"x5.16"	269x53x131 10.6"x2.1"x5.16"	439x53x131 17.3"x2.1"x5.16"	599x53x131 23.6"x2.1"x5.16"	749x53x131 29.5"x2.1"x5.16"
Dmin	150mm 5.9"	215mm 8.5"	410mm 16.1"	800mm 31.5"	800mm 31.5"	1020mm 40.2"	1600mm 63	2040mm 80.3"
X/Y resolution at Dmin	60µm 2.3mil	80µm 3.1mil	150µm 5.9mil	300µm 11.8mil	300µm 11.8mil	380µm 15mil	600µm 23.6mil	770µm 30.3mil
Z resolution at Dmin	30µm 1.2mil	50µm 2mil	100µm 4mil	230µm 9mil	370µm 14.6mil	320µm 12.6mil	530µm 20.9mil	670µm 26.4mil
Standard deviation at Dmin	2µm 0.08mil	3µm 0.12mil	6µm 0.24mil	10µm 0.39mil	15µm 0.6mil	15µm 0.6mil	25µm 1mil	30µm 1.2mil
Width at Dmin	100mm 4"	140mm 5.5"	285mm 11.2"	530mm 20.9"	530mm 20.9"	650mm 25.6"	1050mm 41.3"	1350mm 53.1"
Length at Dmin	120mm 4.7"	170mm 6.7"	330mm 13"	640mm 25.2"	640mm 25.2"	800mm 31.5"	1250mm 49.2"	1650mm 65"
Dmax	185mm 7.3"	285mm 11.2"	580mm 22.8"	1350mm 53.1"	1350mm 53.1"	2000mm 78.7"	4000mm 157"	5000mm 197"
X/Y resolution at Dmax	70µm 2.7mil	100µm 4mil	210µm 8.3mil	490µm 19.3mil	490µm 19.3mil	720µm 28.3mil	1.43mm 56mil	1.79mm 70mil
Z resolution at Dmax	40µm 1.6mil	80µm 3.1mil"	190µm 7.5mil"	620µm 24.4mil	1.03mm 40mil	1.12mm 44mil	3.02mm 119mil	3.62mm 142mil
Standard deviation at Dmax	3µm 0.12mil	4µm 0.16mil	8µm 0.32mil	15µm 0.6mil	20µm 0.8mil	20µm 0.8mil	40µm 1.6mil	"50µm 2mil
Width at Dmax	125mm 4.9"	180mm 7.1"	360mm 14.2"	750mm 29.5"	750mm 29.5"	1100mm 43.3"	2000mm 78.7"	3000mm 118"
Length at Dmax	150mm 5.9"	220mm 8.7"	460mm 18.1"	1000mm 39.4"	1000mm 39.4"	1400mm 55.1"	2700mm 106"	4000mm 157"
Weight	1.9kg 4.2Lb	1.9kg 4.2Lb	2.3kg 5.1lb	3.3kg 7.3lb	2.3kg 5.1lb	3.8kg 8.4lb	5kg 11lb	6.3kg 13.9lb

The resolutions indicated correspond to the minimum distance between two 3D points.
The standard deviation is calculated on the variation in position of a 25 or 50 mm diameter aluminium sphere over 50 successive scans.

Dmin and Dmax are the minimum and maximum distance between Cirrus3D and scanned volume

3D STEREO LINE SCANNER

COMPACT, ROBUST AND LIGHT

HIGH DEFINITION PROCESSOR
for the calculation of 3D points

WATERPROOF INDUSTRIAL CONNECTORS
(power supply and Ethernet)

CMOS SENSOR
up to 30µm/1.2mil resolution

HIGH PROTECTION RATING
and cooling system

IMPERVIOUS TO DUST AND DIRT
can adapt very easily to complex environments (IP65 standard)

EASY TO EMBED
on a robot arm

LASER LIGHT
for better precision on shiny parts

The Cirrus3D is also available for scanning moving parts, such as on a conveyor (up to 250 mm/s) or on a rotating system. **Detect the defect of your parts in the blink of an eye!**

STANDARD FEATURES ON ALL MODELS	
Scanning speed	Up to 1,000 3D profiles/s
Number of 3d points per profile	2,500
Image processing software	Option
Calibration	In factory
Communication interface	TCP/IP or GigE
Box material	Aluminium
Connectors	Power supply and inputs/ outputs, Ethernet M12
Power supply	24V/2A max
Light source	Blue laser / Selectable class 2 or 3R
Operating temperature	0 °C...50 °C / 32 °F...122 °F

THE WIDEST VOLUMES OF WORK ON THE MARKET

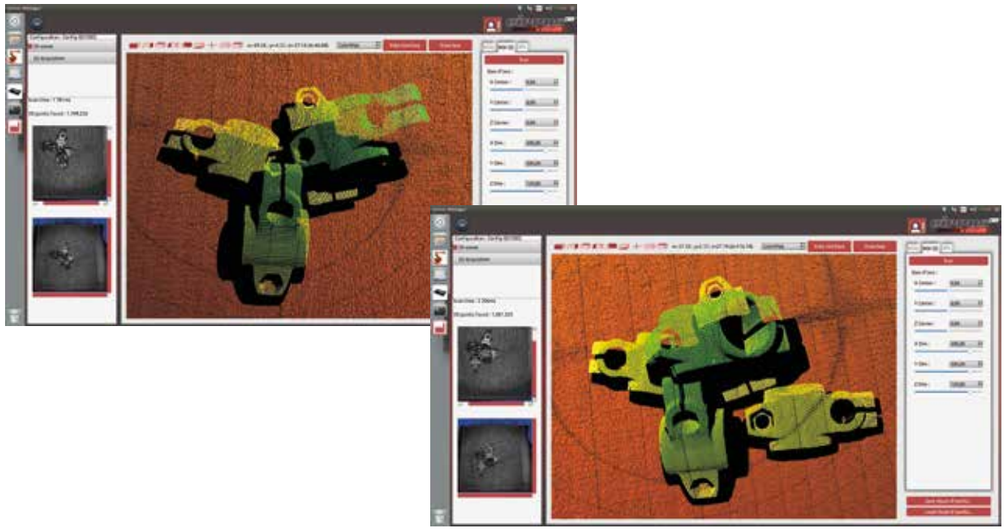
	Cirrus3D 100	Cirrus3D 300	Cirrus3D 500	Cirrus3D 1000	Cirrus3D 1500
Dimensions (L x W x H)	195x53x131 7.67"x2.1""x5.16"	269x53x131 10.6"x2.1"x5.16"	389x53x131 15.3"x2.1"x5.16"	599x53x131 23.6"x2.1"x5.16"	749x53x131 29.5"x2.1"x5.16"
Dmin	150mm 5.9"	410mm 16.1"	630mm 24.8"	1280mm 50.4"	1850mm 72.8"
X/Y resolution at Dmin	60µm 2.3mil	150µm 5.9mil	240µm 9.4mil	490µm 19.3mil	700µm 27.5mil
Z resolution at Dmin	30µm 1.2mil	100µm 4mil	150µm 5.9mil	350µm 13.8mil	560µm 22mil
Length at Dmin	120mm 4.7"	330mm 13"	500mm 19.7"	1000mm 39.4"	1500mm 59"
Dmax	185mm 7.3"	580mm 22.8"	1000mm 39.4"	3000mm 118"	4000mm 157"
X/Y resolution at Dmax	70µm 2.7mil	210µm 8.3mil	370µm 14.5mil	1.08mm 42mil	1.44mm 57mil
Z resolution at Dmax	40µm 1.6mil	190µm 7.5mil	350µm 13.8mil	1.7mm 67mil	2.34mm 92mil
Length at Dmax	150mm 5.9"	460mm 18.1"	750mm 28.5"	2200mm 86.6"	3000mm 118"
Weight	1.9kg 4.2Lb	1.9kg 4.2Lb	3.3kg 7.3lb	5kg 11lb	6.3kg 13.9lb

The resolutions indicated correspond to the minimum distance between two 3D points.
The standard deviation is calculated on the variation in position of a 25 or 50 mm diameter aluminium sphere over 50 successive scans.

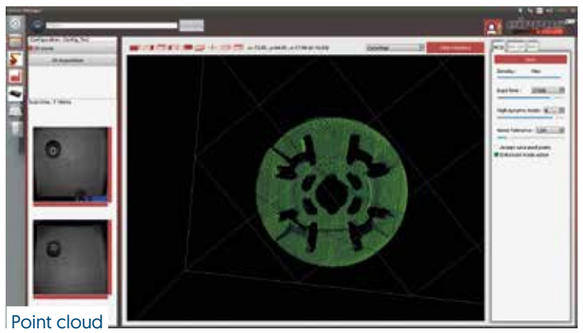
Dmin and Dmax are the minimum and maximum distance between Cirrus3D and scanned volume

SENSOR MANAGER

A simple and intuitive configuration software available for Windows or Linux systems
in just a few steps!

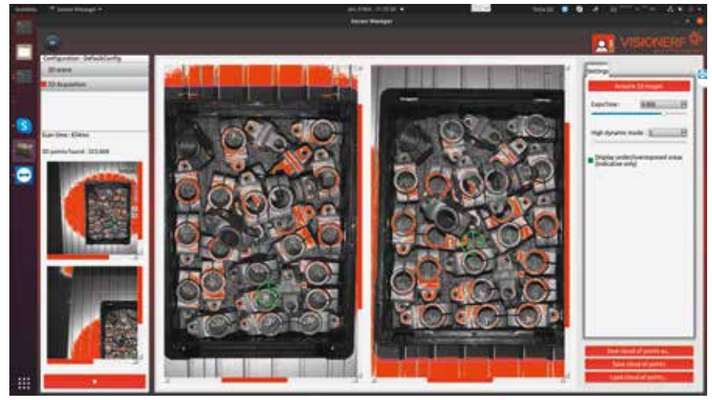


Highly dynamic sensor for digitalizing work scenes involving matte or shiny parts or those consisting of multiple materials.

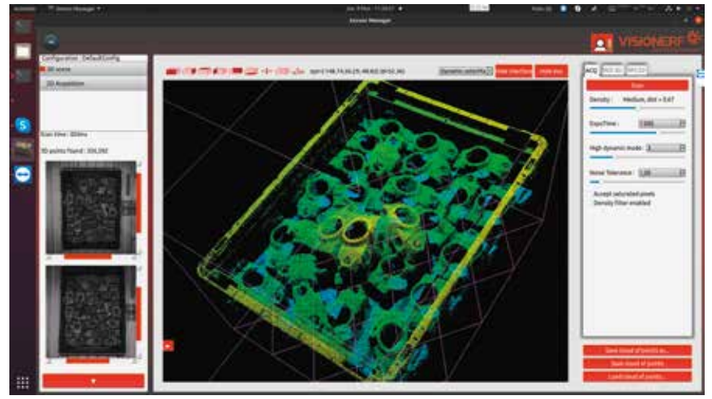

Point cloud


Actual part

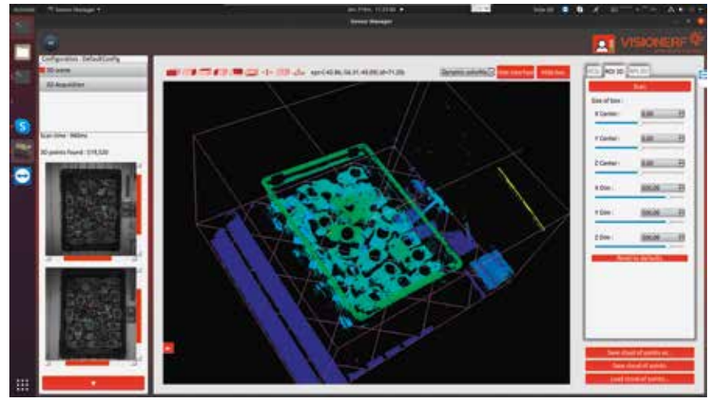
NOTES



1 **Take a scan of your parts to get a first impression.**



2 **Set the 3D point density, sensitivity and dynamic range using sliders.**



3 **Save scanning time by setting up the work area.**

VISIONERF,
YOUR WORLDWIDE SUPPLIER

CONTACT US

VISIONERF SA - FRANCE
ZI de la Caille - 49 340 Nuaillé
+33 (0) 2 41 30 00 10

welcome@visionerf.com
Member of Pattyn group

www.visionerf.com

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