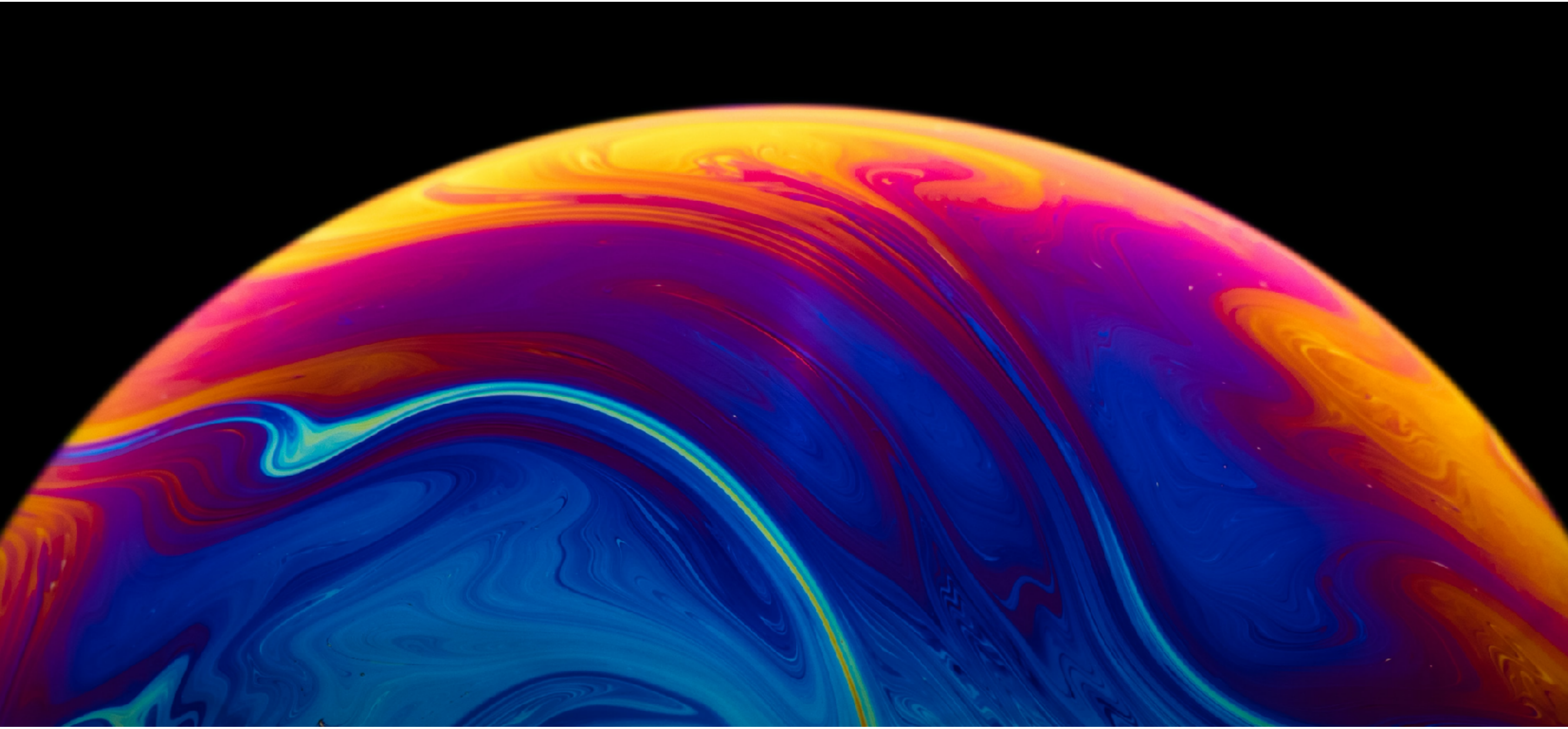


IRIDSENSE SWIR1

MultiSpectral Perception



3D

Long Range

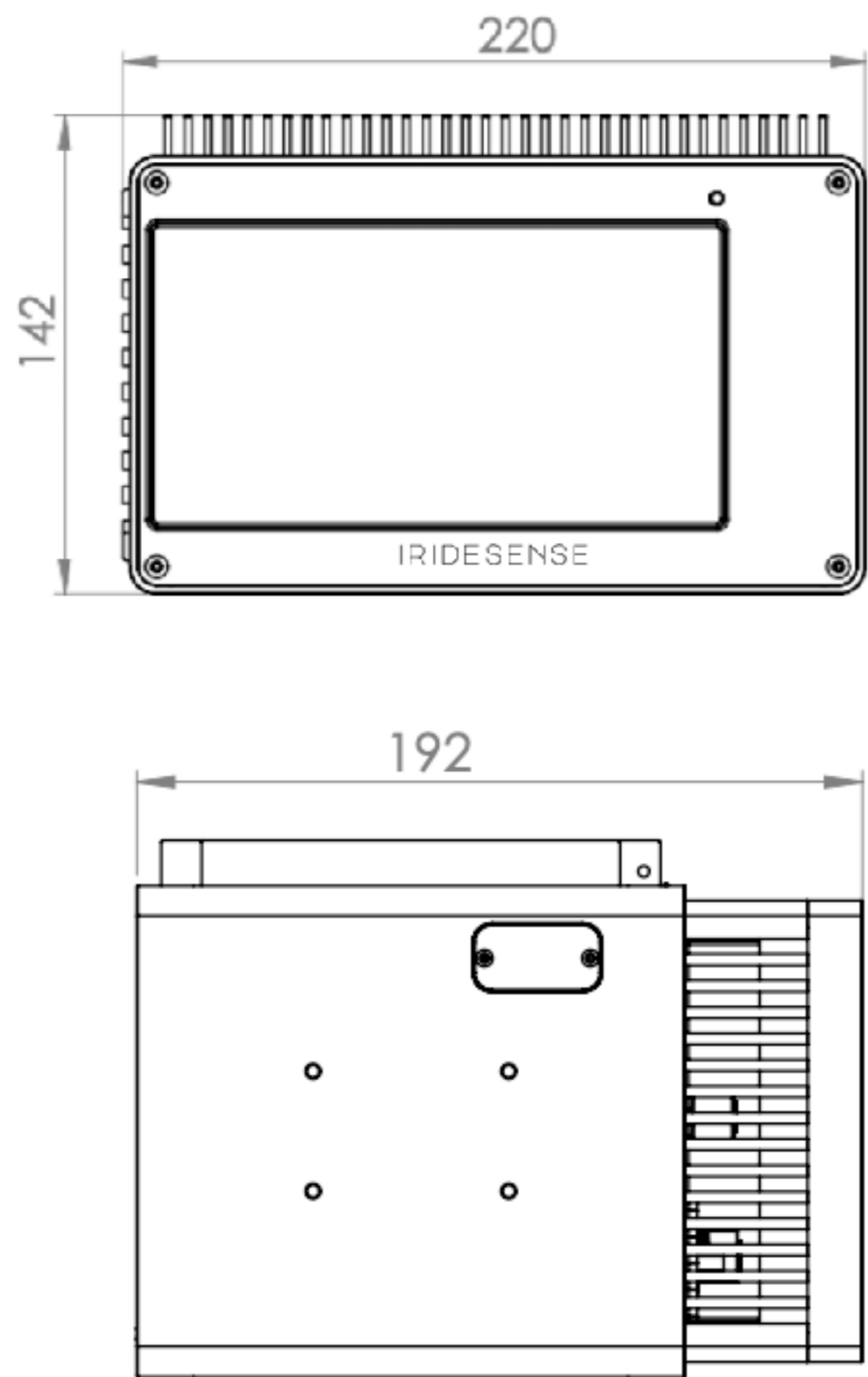
High resolution

Real-time

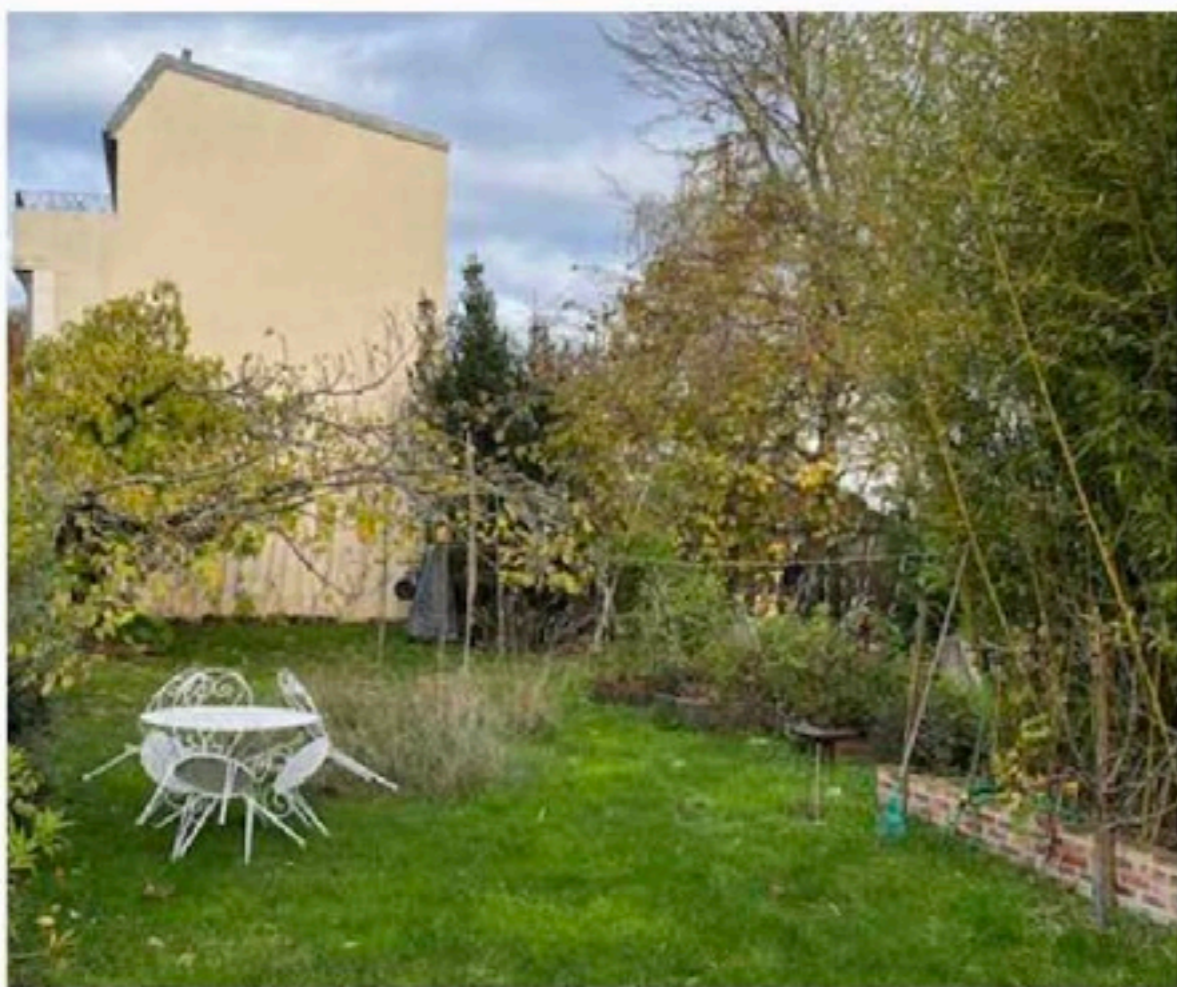
SWIR Spectral Sensing without Calibration



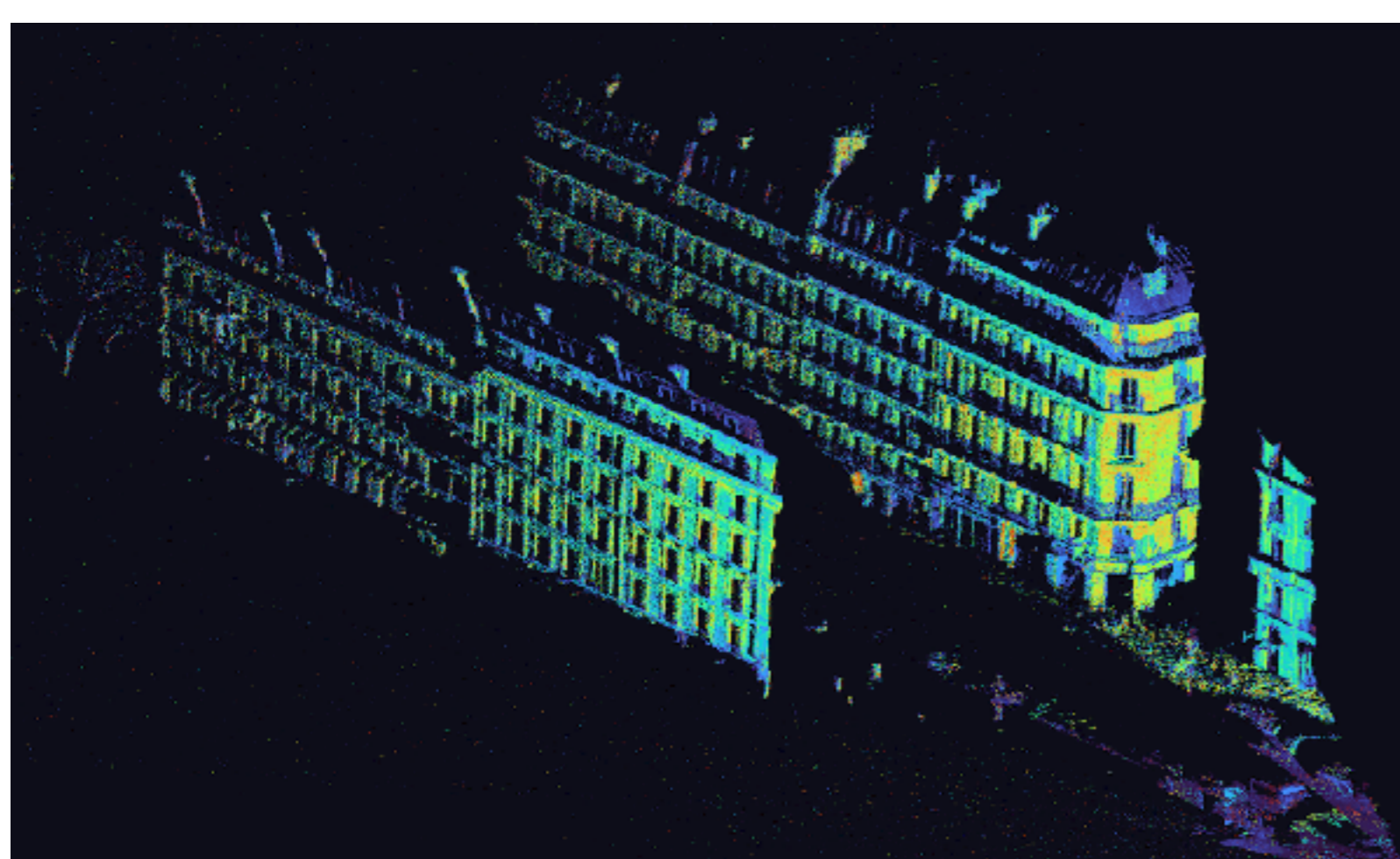
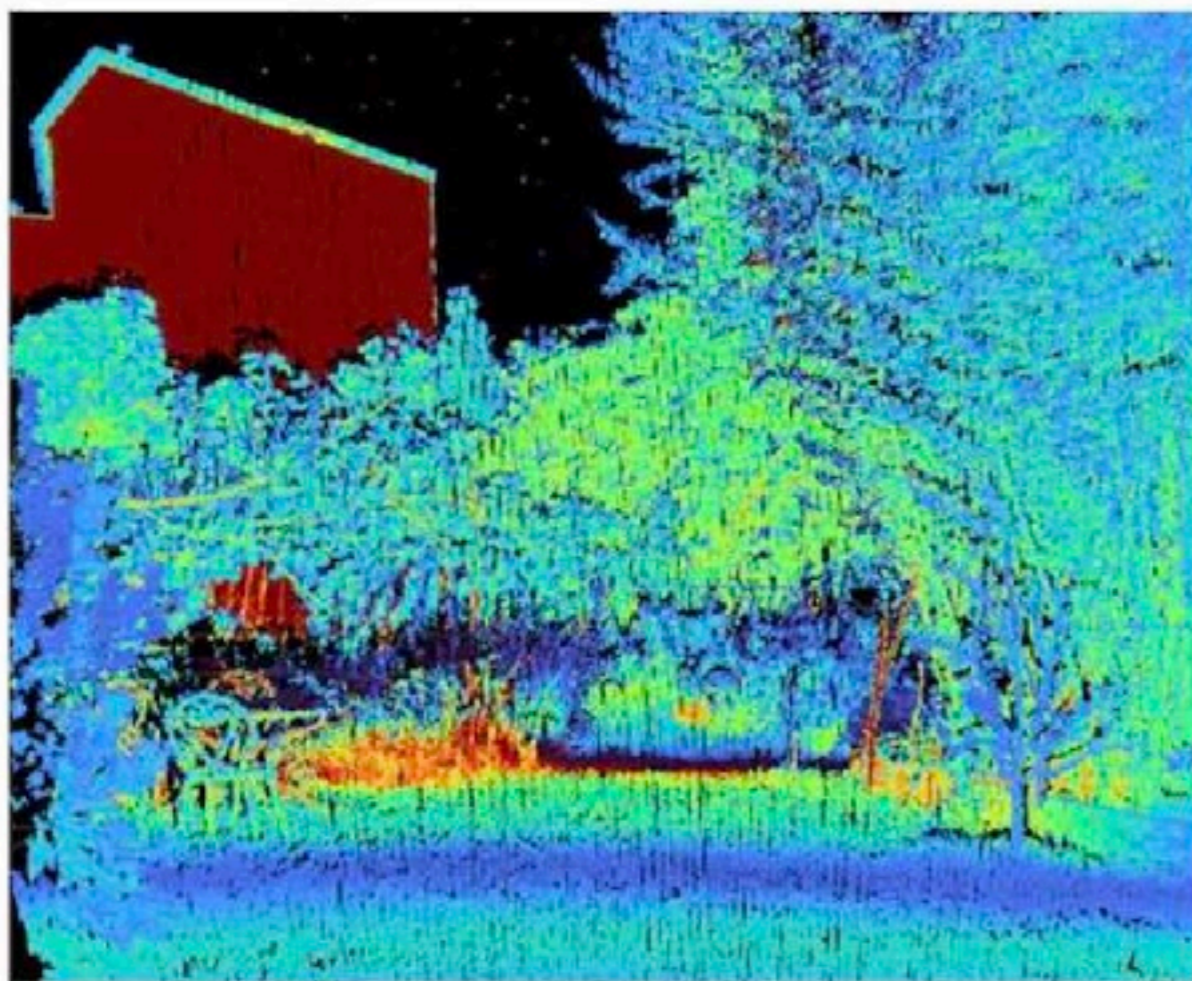
MultiSpectral Perception



Standard 2D camera view



Multispectral LiDAR view



SWIR LiDAR

Field of View	Adjustable within 90° x 50° maximum	90° on slow axis, 50° on fast axis, directions changeable
Laser wavelengths	SWIR : 1400 nm -1700nm continuum spectrum	Frame dependant, all wavelengths + 4 bands
Range	250m @10% NIST, 300m max range	With all wavelength, 10% less for multispectral analysis
Frame rate	Selectable, up to 25 Hz single wavelength band	up to 5 Hz for multispectral analysis
Spatial Resolution	500 kpts/s	Non repetitive scan, depends on integration time and Field of view
SWIR Colours	8 bits Calibrated reflectivity in 5 SWIR bands	all wavelengths from 1400nm to 1700nm + 4 bands inside the whole band
Range Resolution	3cm	
Monostatic architecture	Sun blooming and interferences resilient	

RGB COLOR SENSOR * Passive, In Option

Field of View	90° x 50°
Colors	RGB over 12 bits
Resolution	up to 5 MPix
Frame rate	15 Hz for 5Mpix, 20Hz for 3Mpix

MULTISPECTRAL LiDAR OUTPUT

Formats	UDP Packets over Ethernet, 1000BaseT
Content	Azimuth, Elevation, Distance, Intensity, Calibrated reflectivity at 8 colours (5 SWIR colours)

CONNECTORS

Ethernet	M12x1 X coded industrial ethernet connector female	Data Transfer to host PC
Power	M12x1 T coded	

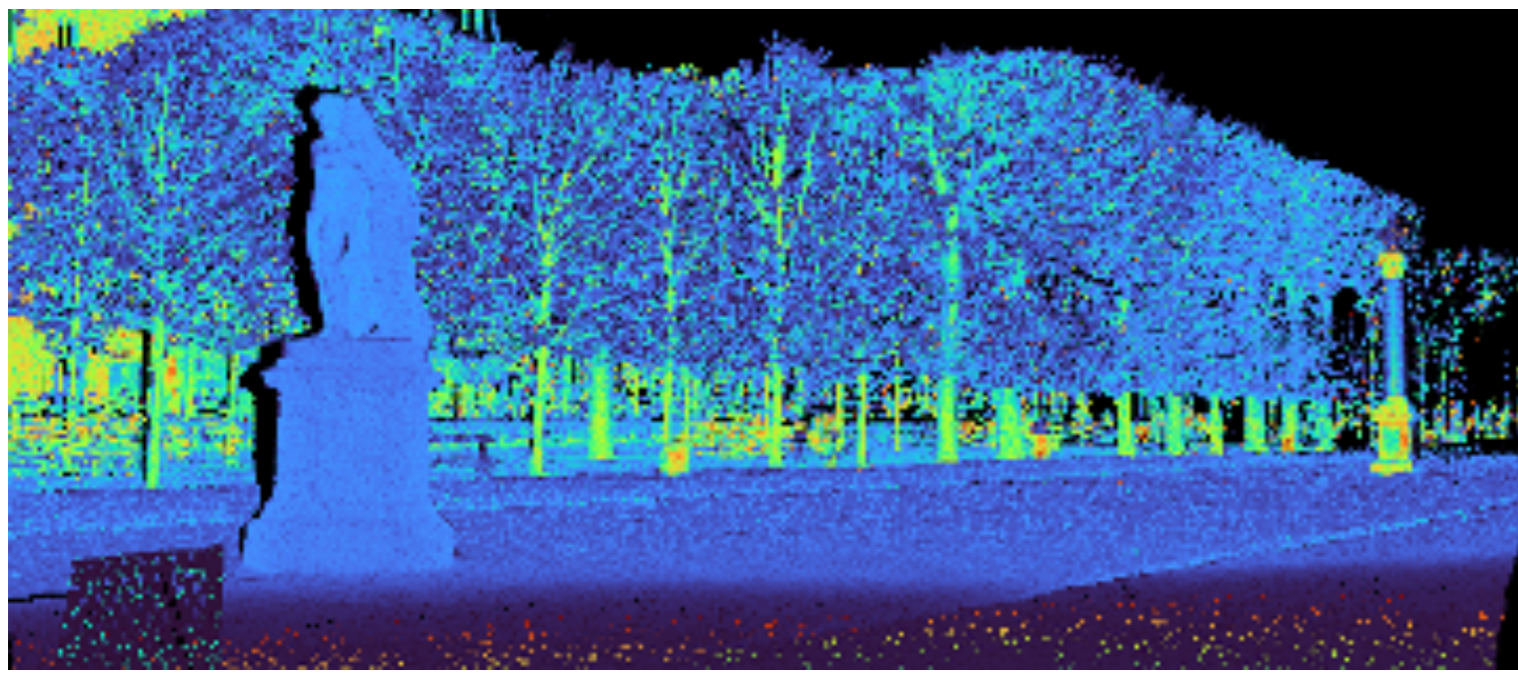
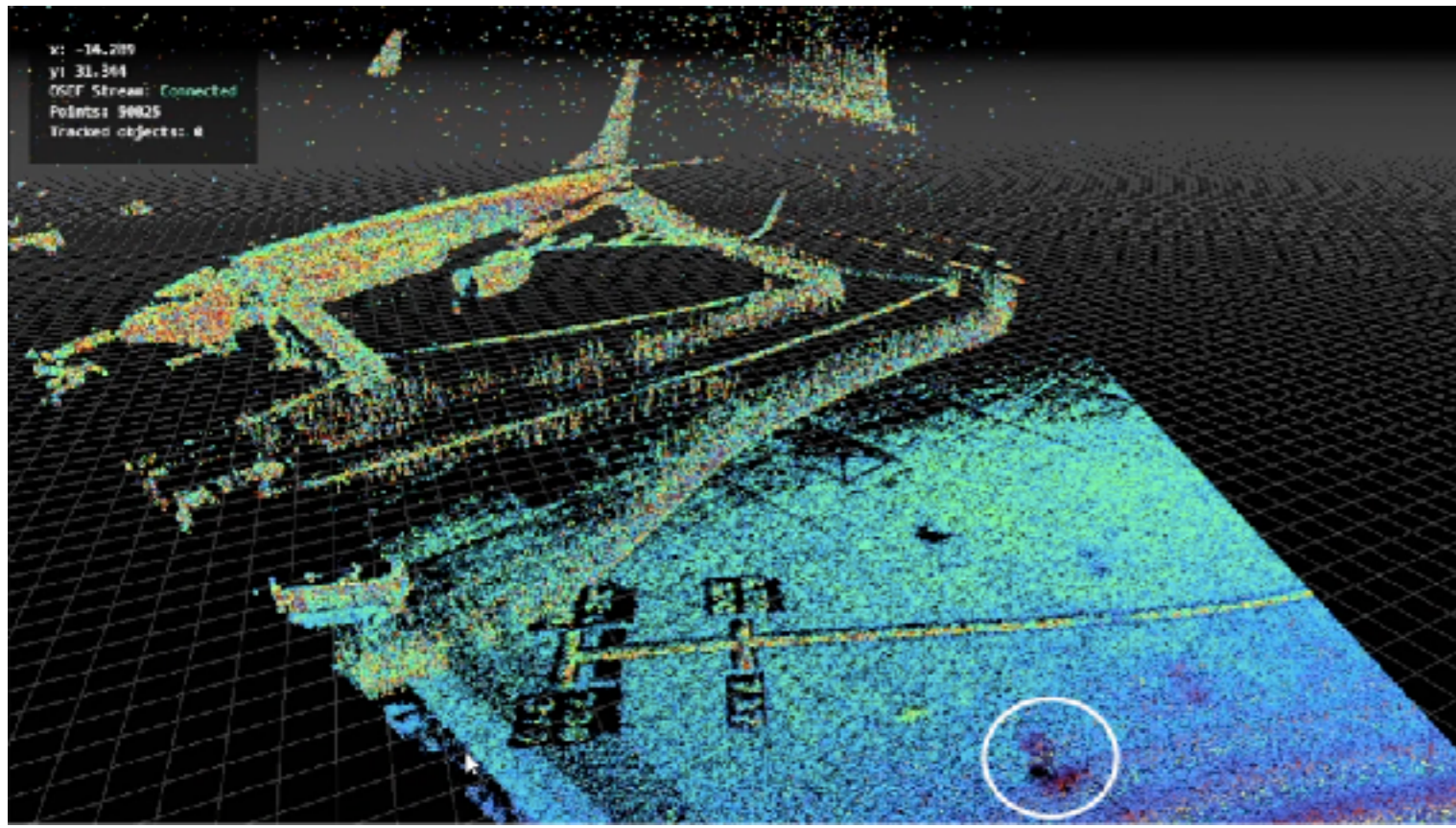
MECHANICAL

Dimensions	142mm (H) x 220mm (W) x 192mm (L)
Weight	3,57 kg

ELECTRICAL

Power consumption	Average	60W
	Peak	80W
Power Supply	Min Voltage	10V
	Max Voltage	24V

MultiSpectral Perception



OPERATIONAL*

5

Ingress protection	IP65 when appropriate cables are connected or with waterproof connectors caps.
Operating temperature (ambient)	-25°C to +50°C
Storage Temperature	-40°C to +85°C
Electrical Safety	IEC/EN 62368-1:2014
Shock / Vibration	IEC 60068-2-27:2008
	50 g, 11 ms, +- 3 unique impacts/ axe
	25 g, 6 ms, +- 1000 impacts/ axe
	50 g, 3 ms, +- 5000 impacts/ axe
EMI / EMC	IEC 60068-2-6:2007 and IEC 60068-2-64:2008
	10 Hz..1000Hz
	10 Hz..500Hz, 5g, 20 frequency cycles
Eye Safety	IEC/EN 55032: 2012/AC: 2013, Class A
Certifications	IEC/EN 55024:2010
	FCC 47Cfr Part 15B, Class A
Eye Safety	Class 1 – Eye-safe per IEC60825-1:2014
Certifications	FCC, RoHS, CE

ACCESSORIES

Cable + Power Supply Unit	M12x1 T coded- cable 1,5m- 12V- 10A class 2 power supply
Ethernet Cable	M12 8P Plug, cable TPU Flx Inline to RJ45, 2m long

* undergoing certification

