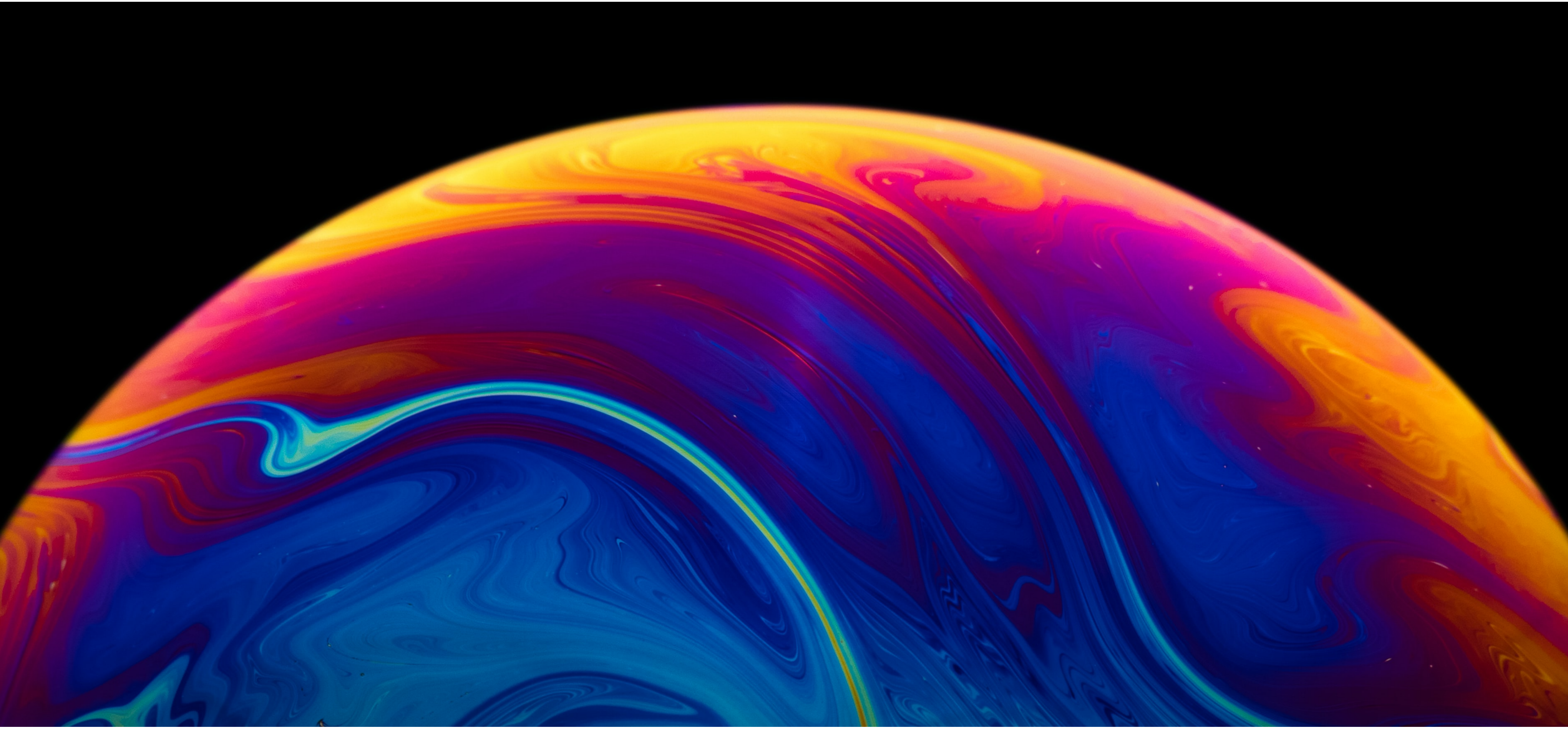


# IRIDSENSE SWIR1

## MultiSpectral Perception

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3D

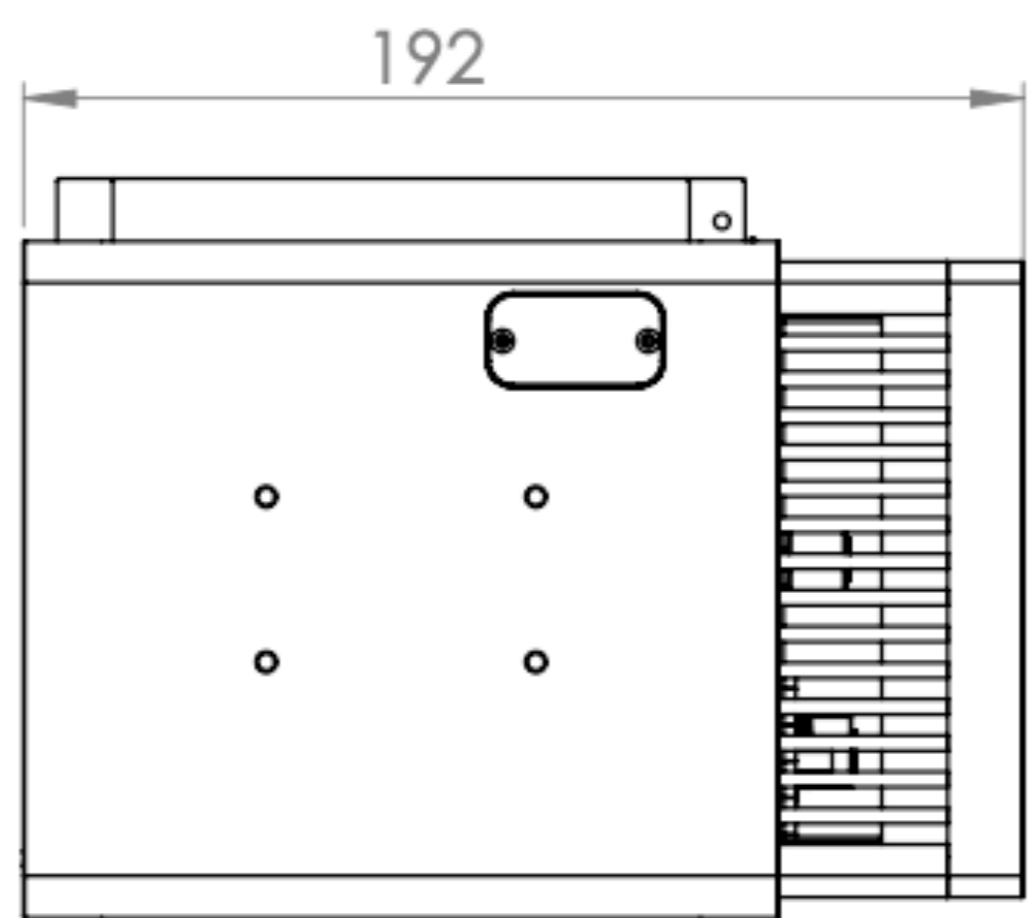
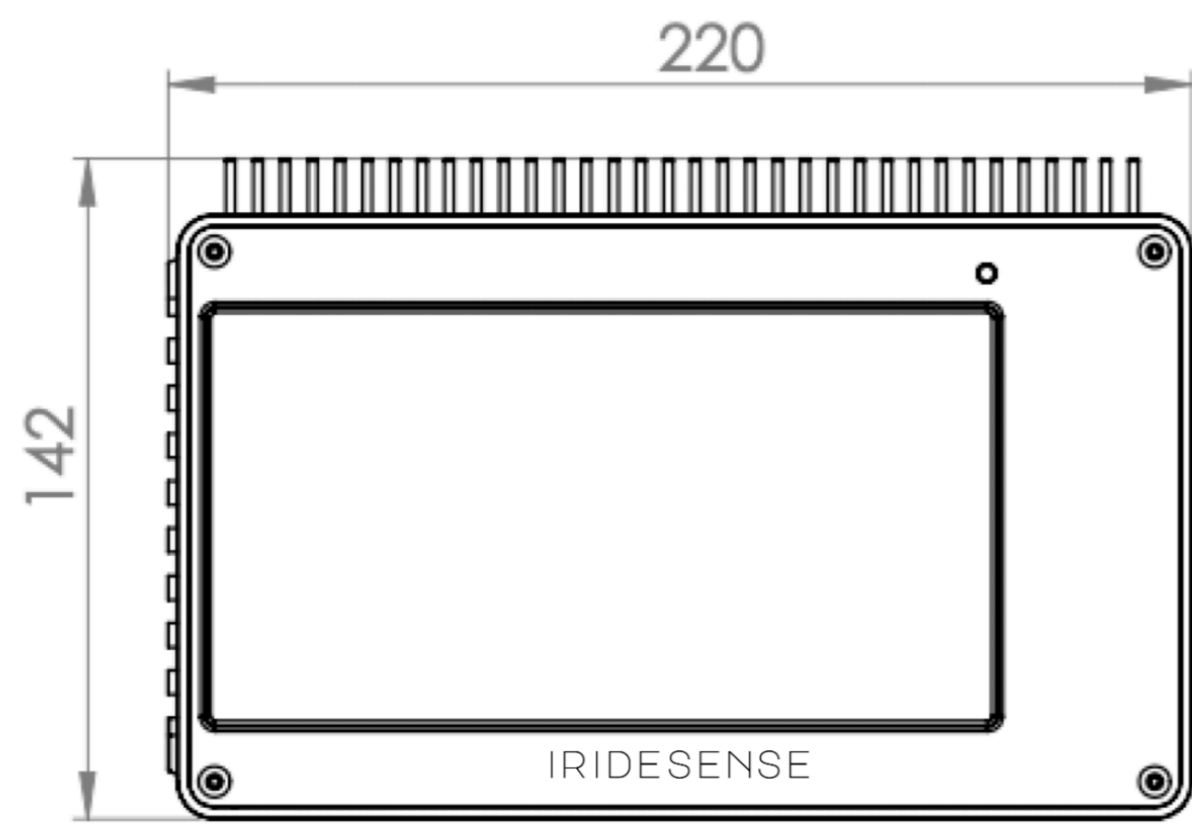
Long Range

High resolution

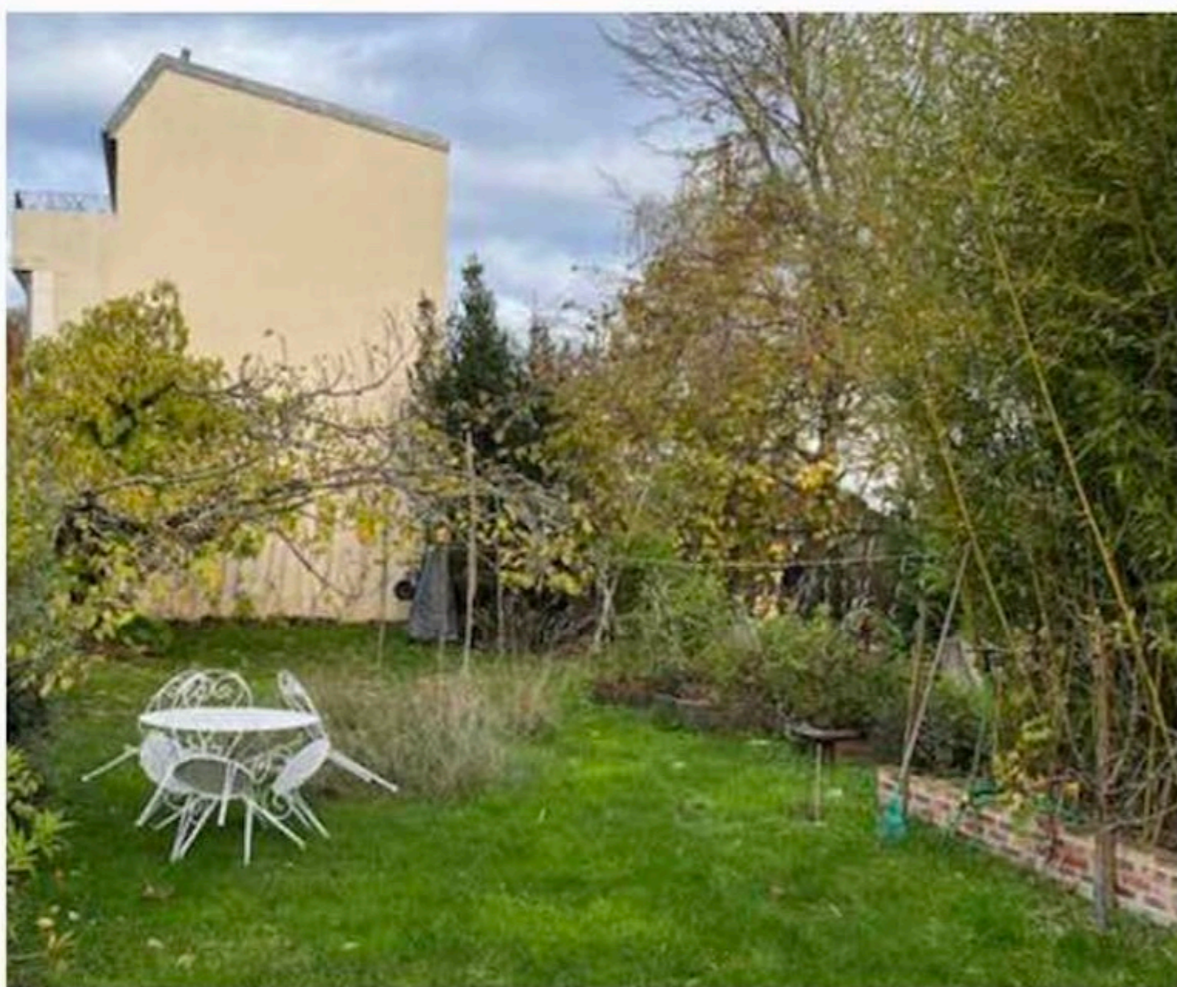
Real-time

SWIR Spectral Sensing without Calibration

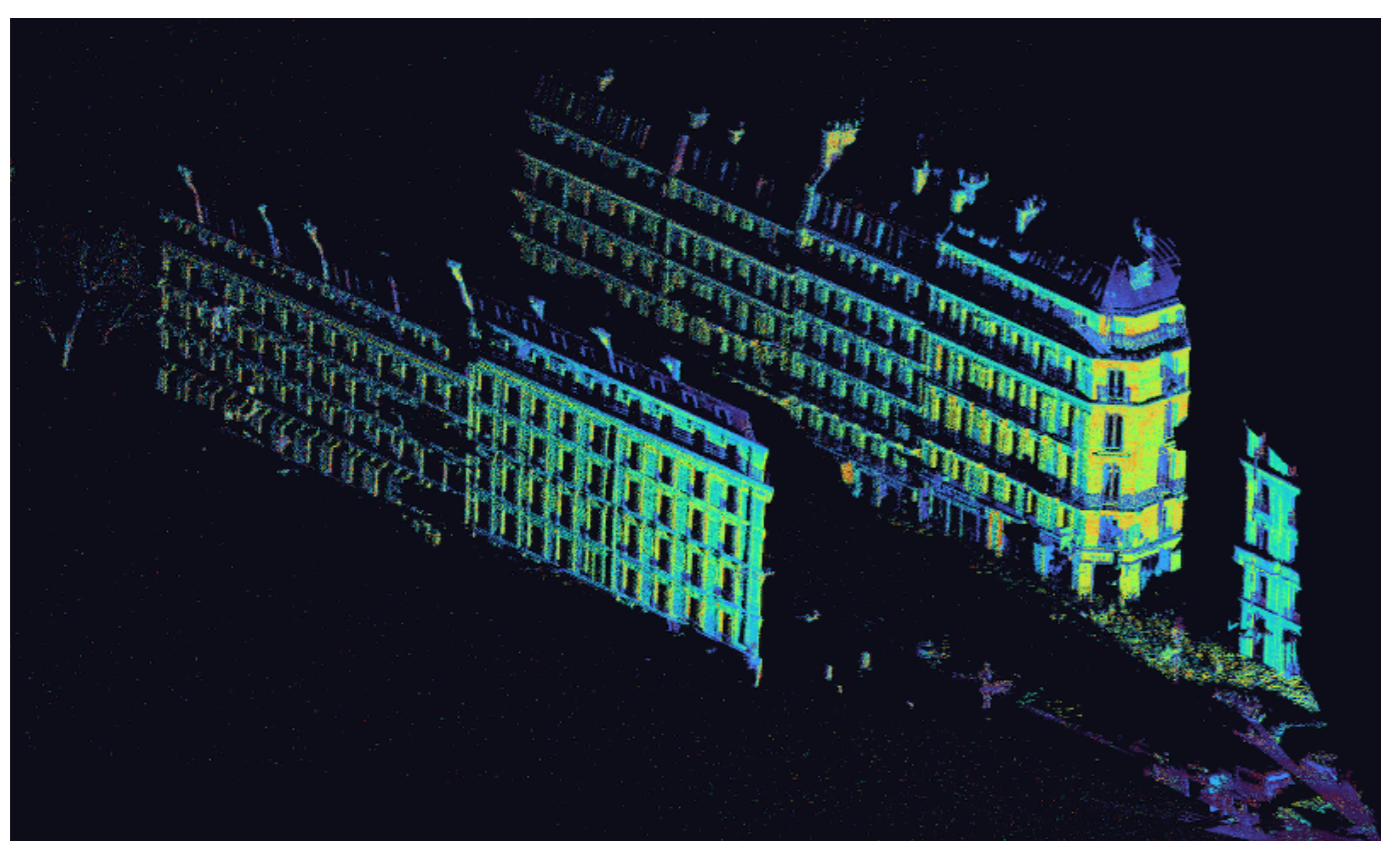
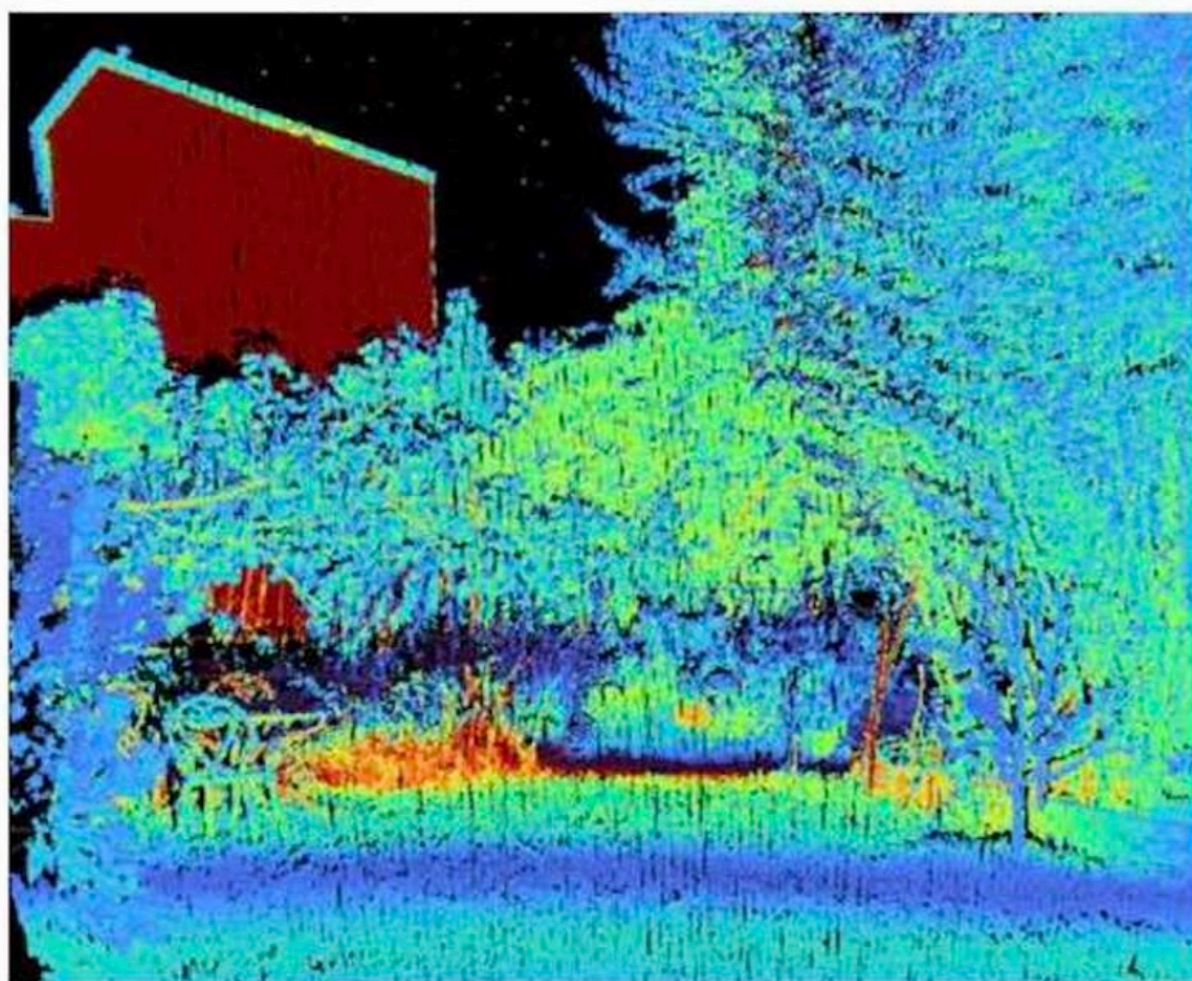




Standard 2D camera view



Multispectral LiDAR view



## SWIR LiDAR

Field of View	Min 50°x50° Max 90° x 50°	90° on slow axis, 50° on fast axis
Laser wavelengths	SWIR : 1400 nm -1700nm continuum spectrum	Frame dependant, all wavelengths + 4 bands
Range	150m @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	+/- 5mm	
Monostatic architecture	Sun blooming and interferences resilient	

## MULTISPECTRAL LiDAR OUTPUT

Formats	UDP Packets over Ethernet, 1000BaseT
Content	Azimuth, Elevation, Distance, Intensity, Calibrated reflectivity at 5 SWIR colors

## CONNECTORS

Ethernet	M12x1 X coded industrial ethernet connector female	Data Transfer to host PC
Power	M12x1 T coded	
GPS synchro	Wires going out on demand	1 Hz PPS signal & NMEA sentences needed. Default baud rate 9600 bps

## MECHANICAL

Dimensions	142mm (H) x 220mm (W) x 192mm (L)
Weight	3,7 kg

## ELECTRICAL

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

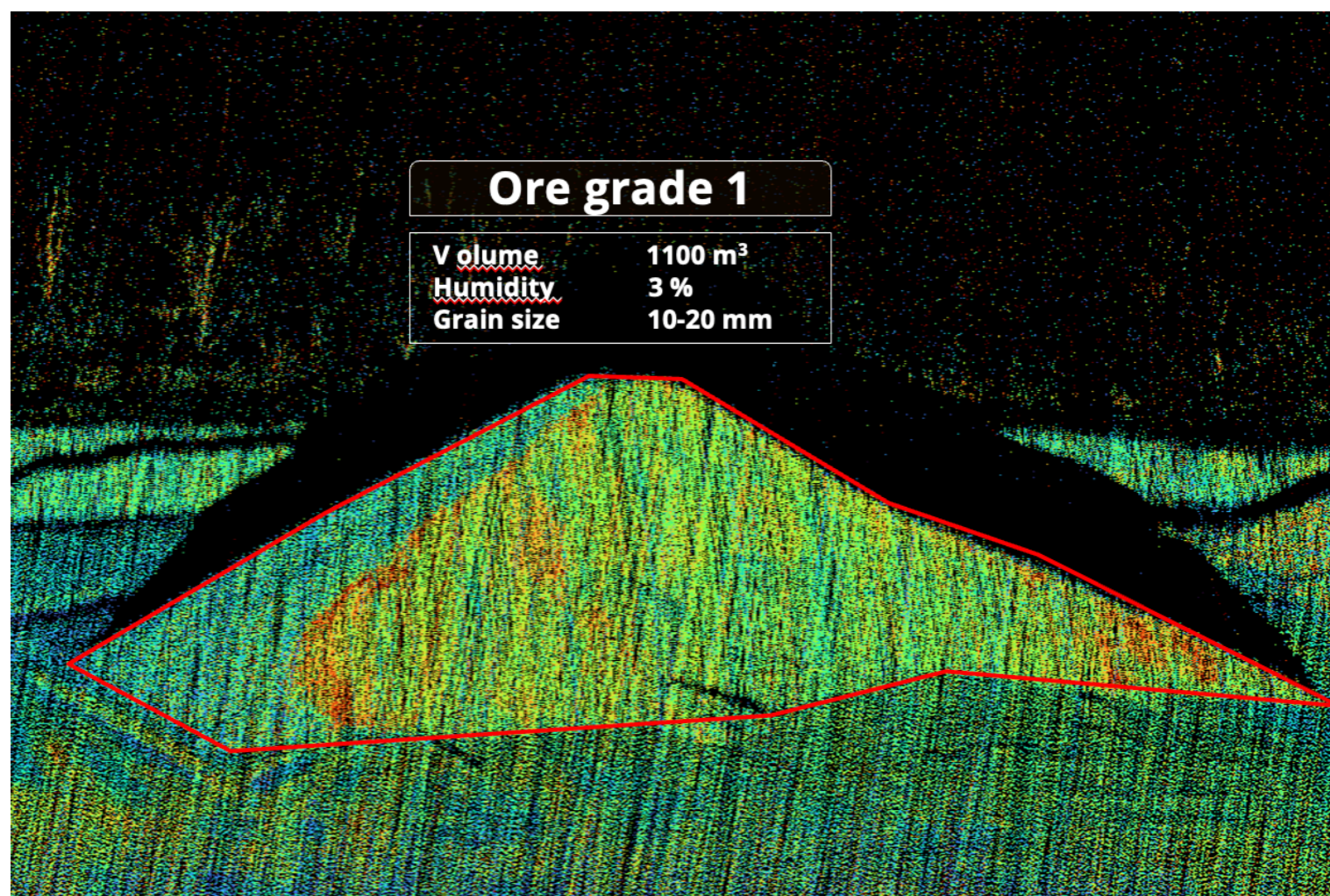
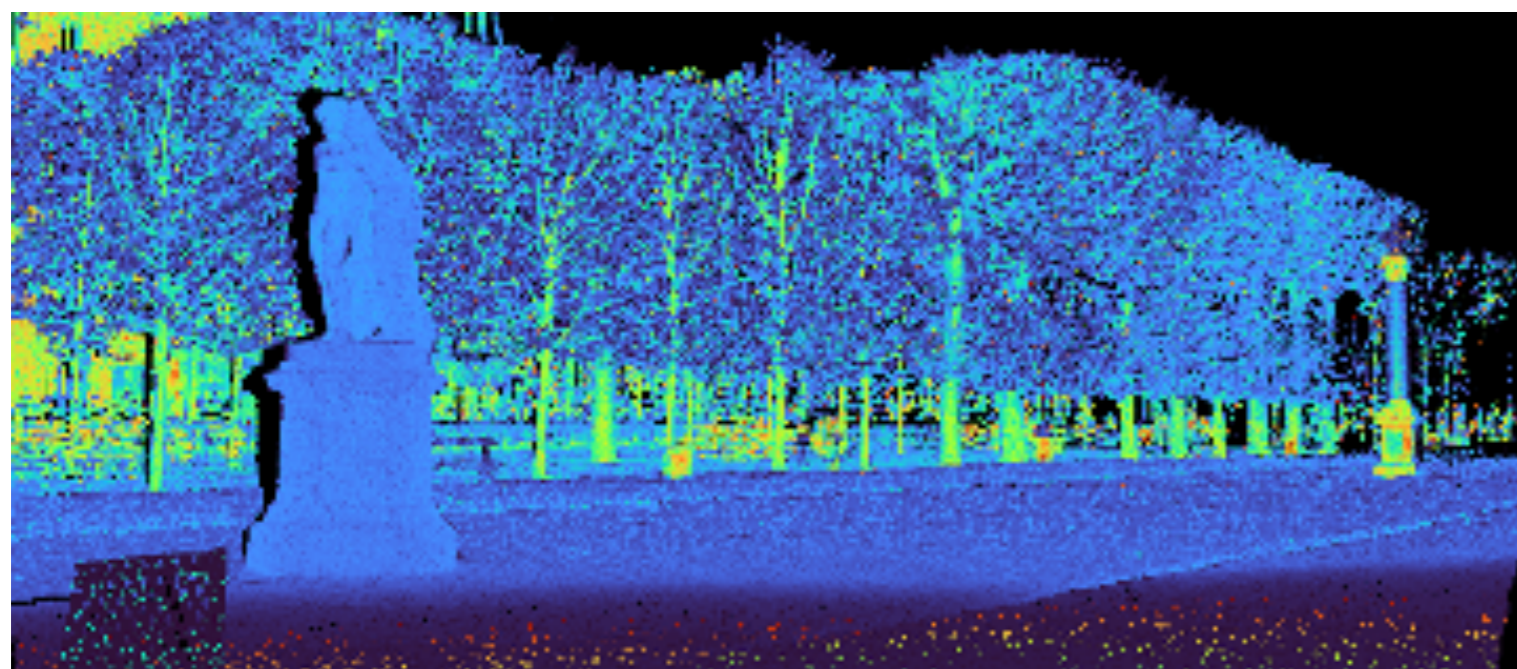
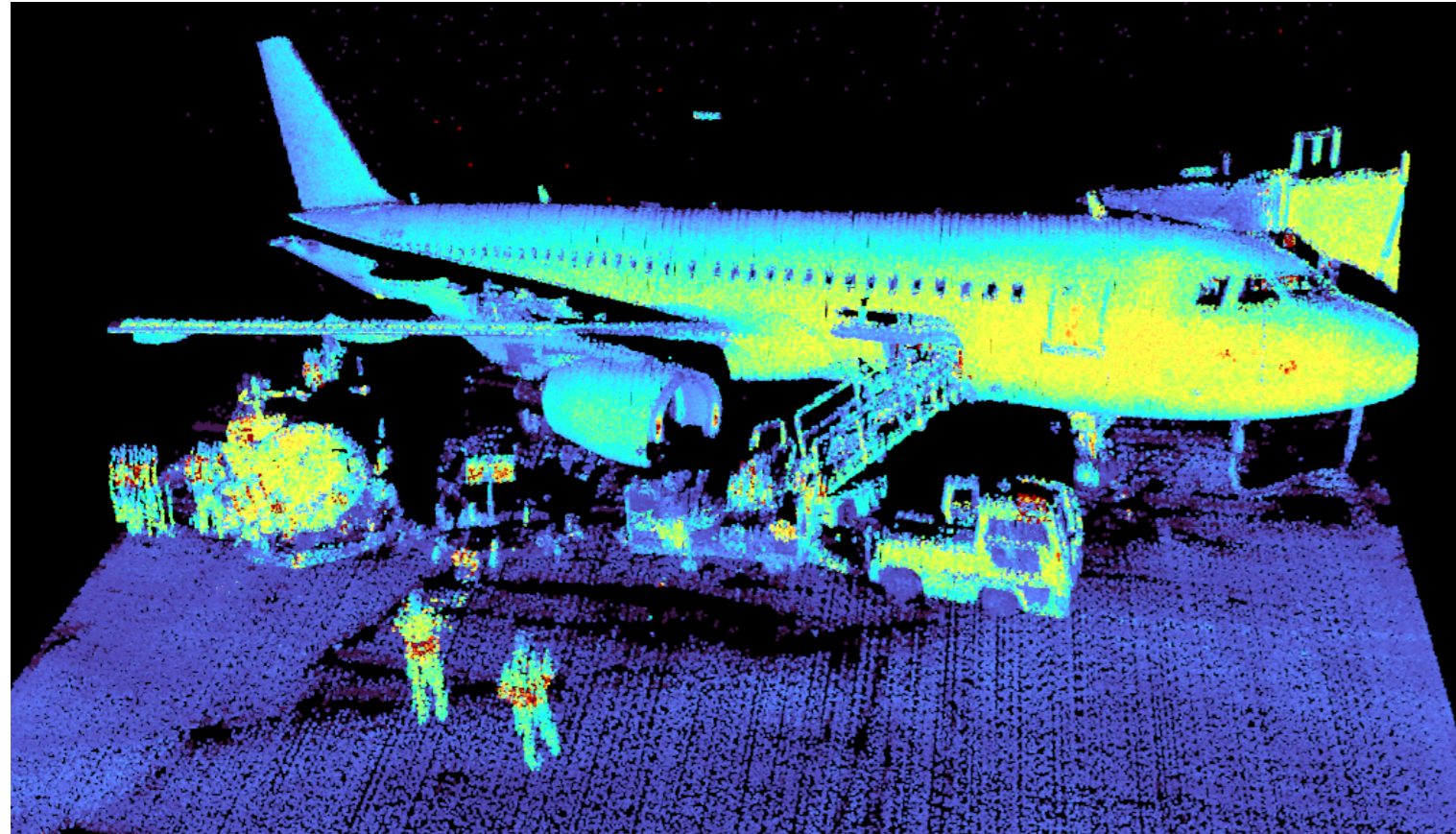
## OPERATIONAL\*

Ingress protection	IP54 when appropriate cables are connected or with waterproof connectors caps.
Operating temperature (ambient)	0°C to +50°C
Storage Temperature	-10°C to +60°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 IEC 60068-2-6:2007 and IEC 60068-2-64:2008 10 Hz..1000Hz 10 Hz..500Hz, 5g, 20 frequency cycles 10 Hz..250 Hz, 4.42 g RMS, 5h
EMI / EMC	IEC/EN 55032: 2012/AC: 2013, Class A IEC/EN 55024:2010* FCC 47Cfr Part 15B, Class A*
Eye Safety	Class 1 – Eye-safe per IEC60825-1:2014
Certifications	CE , FCC and RoHS ongoing

## ACCESSORIES

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

\* undergoing certification / Homologation



MASK HUMAN FACE

MASK HUMAN FACE OIL STAIN

