

# Thermal Imaging Solution

# THERMAL MAPPING SENSOR



## Horus Thermal Mapping Sensor

### Georeferenced Thermal Mapping

**DATASHEET**  
version 1.0

Thermal Mapping is a vehicle-based survey technique, scientifically proven to identify and quantify the distribution of temperature differences. It's a fast way to collect up-to-date data on a large scale in less time. The primary output of the Horus Thermal Mapping Sensor includes GIS data, digital maps and georeferenced images and video. Horus View and Explore combines high accurate GPS/IMU and Thermal Imaging cameras for georeferenced thermal mapping. The system can be utilized to carry out road and asset surveys, detection of energy, detection of heat and water leakages, observing electrical utility infrastructure, etc.

Horus View and Explore developed software modules to collect, extract, add and acquire meaningful information out of thermal imaging recordings. With the hardware independent Horus software modules, you can map the world safer, faster and it brings simplicity in making decisions. The Horus software modules are hardware independent, no post-processing of video data needed and easy to use. You can directly work with geo-content, update existing data or create databases. Horus View and Explore offers desktop software and a web-based platform.

[www.horus.nu](http://www.horus.nu)



## Hardware specifications

Thermal Mapping unit	120-degree FOV FLIR Tau 2 640 thermal imaging sensor (2 cameras per unit) *
Lens	9 mm, FOV 69° x 56°, detection 250/285, recognition 63/71, identification 31/36
Recording Hardware	Laptop with USB 3.0 connection
Triggering	Can be time or distance based
Time synchronisation	External <1 ms
GPS/IMU	Ublox NEO-7P, Xsens MTi-G-710, Applanix POS LV125/220/420 or any other
Dimensions and mass	209x166x86xmm (w x d x h), 1.06 kg

*\*any number of IT and RGB sensors per vehicle supported. Also full IR360 available in one sensor package.*

## TURNKEY MULTI SENSOR SOLUTION

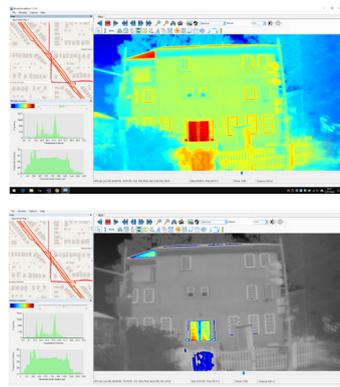
Based on several years of experience with georeferenced video based mobile mapping, Horus developed a turn-key system to support an easy workflow of capturing and exploring thermal infrared imagery data. The Thermal Mapping Sensor is a system, where GPS/IMU, recording and viewing software, capturing hardware and housing is included. The system can be mounted on standard roof rails of a car or even on an ATV, boat or train. Which makes it a flexible capturing system for various projects. The Horus software supports all sorts of sensor and camera types. For that reason the Horus Thermal Mapping Sensor can be extended with all RGB cameras, high resolution cameras, spherical cameras like FLIR Ladybug and GPS/IMU.

## Software specifications

Horus Movie Recorder	Record georeferenced thermal imagery
Horus Thermal IR Imaging module	Temperature visualisation and measurement. Adjustable color spectrum
Horus layer Manager module	Project CAD/GIS data, annotate and measure
Horus Movie Maker module	Create exports to MP4, AVI, JPEG, BMP, PNG

## Designed to Fit

The Horus Thermal Mapping Sensor can be mounted on standard roof rails and can be extended with 360° cameras, high resolution cameras, LiDAR, GPS/IMU and any other sensor.



## Advantages

- ▶ Fast thermal data collection
- ▶ No postprocessing of images
- ▶ Georeferenced
- ▶ Direct temperature read-out available from image
- ▶ Fast thermal evaluation