



# Simplifying street-level data capture and GIS workflows

iSTAR Pulsar+ builds on the success of the groundbreaking iSTAR Pulsar and adds a number of significant new functions such as data export for local processing, sync to external GPS and IMU sensors and direct integration to existing systems via the NCTech SDK.

iSTAR **pulsar+**

# iSTAR Pulsar+ takes 'big data' capture to the next level



## Streamlined Workflow

iSTAR Pulsar+ allows for post-processed integration with 3rd party GPS and IMU device data, enabling precise GIS positioning. Export of encrypted data via USB for local processing ensures total data control from capture to delivery. Our Immersive Studio Application for PC provides an intuitive interface for effortlessly batch processing iSTAR Pulsar+ data.

## Fully Calibrated

Every Pulsar system is calibrated at NCTech to sub pixel level. Combined with our own advanced depth stitching process allows capture speeds of up to 70mph.

## No Cloud Needed

Direct export to SSD via USB-C allows local storage of data for maximum security and data control. iSTAR Pulsar+ lets you own, store and control your data.

## Data Formation License

iSTAR Pulsar+ offers data portability without cumbersome license transfer systems or restrictions. The annual Data Formation License is in the data itself instead of the software, letting you concentrate on your workflow.

## Embedded GPS

The new JPG file format option for iSTAR Pulsar+ includes full GPS EXIF metadata in every image, allowing direct import into GIS applications and systems.

## Bespoke Accessories

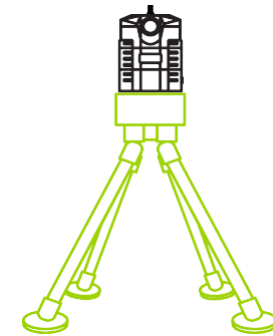
iSTAR Pulsar+ has a range of accessories designed to make the device as easy to use as possible. Magnetic car mounts and custom backpacks mean that the device is simple to operate when driving or on foot.

## High Dynamic Range

High contrast Lighting conditions are efficiently handled by iSTAR Pulsar+, offering uncompromised detail retention in shadow and highlight areas.

## High Resolution Output

The impressive detail provided by the output of iSTAR Pulsar+ provides more opportunity for feature interpretation and interrogation within captured data.



VEHICLE MOUNT



BACKPACK MOUNT

# Applications & market sectors



## STREET VIEW VIRTUALISATION



### Google Street View Ready

Publish updated or previously uncaptured content on the Google Street View Platform using VR.World. iSTAR Pulsar+ is one of a handful of Google approved devices for Street View Virtualisation.

## ASSET DOCUMENTATION



### Road Condition Surveys

High resolution output imagery allows road conditions to be assessed, i.e potholes, Cracks. Geotagged imagery gives approximate locations of problem areas. iSTAR Pulsar+ 7fps capture rate ensures consistent data density at highway speeds.



### Waterways documentation

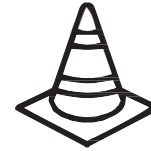
The ruggedized, IP64 rated exterior of the device ensures confidence for use on waterways, where infrastructure conditions can be documented.



### Railway Documentation

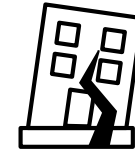
Visual documentation of rail networks, improving maintenance efficiency. Rugged and robust mounting options offer users a flexible solution to suit their operational preferences

## CONSTRUCTION & DISASTER RESPONSE



### Construction Progress Documentation

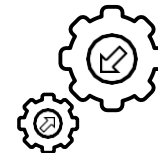
Increase documentation efficiency by monitoring the construction progress of sites of any scale, inside and out.



### Disaster Response Documentation

Document the effects of disasters for identifying the most damaged areas for targeted investment of resources. Use captured data for improving best practice in relief efforts.

## INTEGRATED SOLUTIONS & MACHINE LEARNING



### Integrated Solutions

Integration into our solution allows for the capabilities of the iSTAR Pulsar+ to be utilised and enhanced for specialised use-cases. iSTAR Pulsar+ allows automated synchronisation with external devices such as GPS, IMU and LiDAR to provide the highest level of positional accuracy.



### Machine Learning & AI

High resolution output imagery enables ML/AI tools for uses in advanced fields like smart cities, autonomous vehicle learning, intelligent capture and automated asset management.

# Key Technical Specifications

Dimensions	118 x 118 x 191mm	Power	12v DC
Weight	2.1Kg	GPS	U-BLOX Neo M8N (up to 3 GNSS)
360 Resolution	60.5MP (11000 x 5500px)	GPS Antenna	Multi GNSS Helicore
Storage	256GB SSD	IMU	6-axis
Output File Formats	MP4, PNG, JPG	Magnetometer	3-axis
Frame Rate	Up to 7fps	CPUs	2 x Apollo Lake
Sensor	4 x Sony Exmor RS	Casing	CNC Hard Anodised Aluminium
Sensor Size	4 x 12.3MP (3042 x 4062)	IP Rating	IP64
Lens	4 x f/2.6 fisheye lenses	Regulatory Compliance	CE, FCC, RoHS
FOV	360 x 145° +/- 5 deg	Operating Temperature	0 —40 Celsius

