

ISTAR IS A FULLY AUTOMATIC, HIGH RESOLUTION IMAGING SYSTEM THAT CAPTURES FULL 360 DEGREE SPHERICAL IMAGES OR VIDEO OF A LOCATION INSTANTLY AND ACCURATELY

EASE OF USE AND ZERO SET UP TIME

Designed for rapid 360° imaging, ISTAR precisely captures 360° full spherical images and high resolution panoramic video streams for efficient visual documentation of an environment.

ISTAR is rugged, lightweight and has a small footprint making it easy to transport and deploy. With zero set up time, ISTAR does not require photographic experience to operate. With one-button capture, it's fast and easy-to-use either indoors or outdoors.

FAST, ACCURATE AND PRECISE

ISTAR has 4 x pre-calibrated sensors delivering a 50MP full spherical accurate image with excellent high dynamic range. ISTAR is fast at capturing images with typical capture times of 2 to 3 seconds. Typically 80 to 100 panoramas can be captured on one battery charge. This can be increased to over 600 when using the optional external battery allowing you to capture throughout the full day.

Processing and stitching the images is also fast. NCTech's desktop application Immersive Studio, which is supplied with ISTAR, can batch stitch images in seconds. Full 360° video can also be processed in a matter of minutes.

SEAMLESS INTEGRATION

ISTAR deliverables can be seamlessly integrated into your work flow. The deliverables from ISTAR are industry standard compatible and can be used with your existing software.

MODELS AND VERSIONS

ISTAR is available in two software models, FUSION and PULSAR, both of which capture the full spherical environment. PULSAR offers extended capabilities over FUSION, including 360° video capture at high frame rates with live full immersive video preview, and fast capture for mobile mapping and surveillance applications.

An Infrared (IR) ISTAR version is available for capturing both panoramic images and 360° video in zero light conditions.

MULTIPLE APPLICATIONS

ISTAR has been designed to provide rapid imaging, site documentation and accurate measuring across a variety of applications in geographic information systems (GIS), law enforcement, military and media.

ISTAR is well suited for any application requiring high-resolution, fast, accurate 360° images that not only capture the location precisely but also the position. Typical applications include forensic image documentation, situation awareness, geospatial documentation and vehicle-base photogrammetry.

ISTAR SDK FOR INTEGRATIONS

A developer SDK platform is available for authorised development partners to create bespoke solutions and allow ISTAR imaging technology to be integrated into existing hardware and software systems and for developing new proprietary applications.



KEY FEATURES OF ISTAR

Rapid image capture: **Capturing images take approx. 2 to 3 seconds**

Easy-to-use with one button push to operate

Capture 360° **still images and video**

Generates GIS map positions from captured images or video

Seamless integration of images into third party applications

Totally mobile: capture over **600 images** on one charge using optional external battery.

Automatic HDR

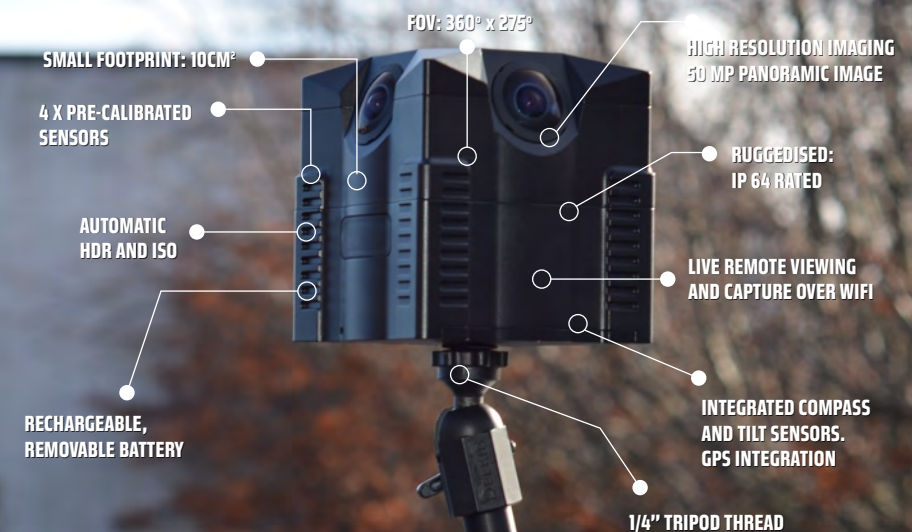
3 ISTAR models: Fusion for **capturing still images**, Pulsar for **360° video** and IR for **no light**

Live remote control with full immersive view from tablet PC **over WiFi**

Fast "real-time" stitching of images

Can be **vehicle mounted** or **inverted** for surveillance and remote monitoring

ISTAR RAPID 360° IMAGING SYSTEM



KEY APPLICATIONS OF ISTAR

- TACTICAL RESPONSE PLANNING
- 3D FORENSIC DOCUMENTATION
- RGB OVERLAY FOR LIDAR SCANNING
- STREET VIEW TYPE MOBILE MAPPING
- ROAD COLLISION DOCUMENTATION
- ASSET DOCUMENTATION AND VISUALISATION
- REMOTE SURVEILLANCE AND OBSERVATION
- 3D MODELLING AND MAPPING

ISTAR TECHNICAL DATA

ISTAR FUSION

BODY

Dimensions: 104mm x 104mm x 115mm
Weight approx. 1.4Kg
Material: Aluminium hard anodised
Protection IP64: Rugged, robust, splash proof, dust proof
Mount: 1/4" tripod thread
Removable battery
Internal Wifi antenna
Rubber seals reveal DC input, SD, USB and Ethernet ports
White LED night pack (Optional/available soon)

IMAGING

Full spherical 360° x 275° +/- 5° image
Simultaneous and independent capture from 4 lenses
4 x 10Mp sensors/effective 50 megapixel output
Up to 10,000 x 5000 +/- 7%
Capture time approx. 4 to 6 seconds for full 360° image (1 exposure)
Auto white balance
Fixed focus, fixed aperture
No moveable mechanics in lens and optics assembly
HDR - Automatic HDR processing on/off

OUTPUT FILE TYPES

PNG, JPG, Equirectangular and cube formats

INTERNAL PROCESSING

Enhanced HDR: Configurable sequential exposures (3 up to 9 exposures)
Select HDR processing on/off
In-picture mode (does not capture user in image)
Immersive playback of images with zoom and pan controls

CONNECTIVITY

DC input socket
Gigabit Ethernet (RJ45) port
SD/SDHC card socket
WiFi 802.11b/g/n
USB2 ports: type A/mini type B
AdHoc remote WIFI connectivity

CAMERA CONTROL INTERFACE

18bit colour 2.4" resistive LCD touchscreen, can be used with gloves on
Power on/off
Factory reset
All ISTAR features available through touchscreen and configureable
Audio alert indicator
Timer capture delay

BATTERY AND POWER

12V mains power adapter, 2.1mm jack
Rechargeable, removable lithium ion 7.4V 4400mAh battery
In-camera battery charging/Optional external charger
Approx. 6 to 8 hours battery life in use /48 hours standby mode
Soft power on/off
Battery level display/power down when low

STORAGE

Removable SD/SDHC card supports 32GB, FAT format

RATINGS

IP64 . CE/FCC

FIRMWARE

Updatable online

COMPATIBILITY

Windows

ISTAR PULSAR

Below are the extended functionalities included with iSTAR PULSAR. Firmware update from iSTAR FUSION required.

LIVE REMOTE CONTROL AND PREVIEW TO OPTIONAL TABLET

Live up to 25 to 60 FPS preview
Live interactive "street view style" video preview and 2D flat view
Pinch zoom, swipe to pan

SECURE WIRED REMOTE CONTROL

Global remote operation over Ethernet, infrastructure
Live interactive "street view style" video preview and 2D flat view
Full screen view in live and playback modes

SENSORS

Tilt & roll: auto level image correction
Digital compass: magnetic north tagging to image data

OPTIONAL EXTERNAL PC PROCESSING

Batch post processing feature
Batch exposure stacking (HDR) 1 to 9 exposures per image

FAST CAPTURE FOR POST PROCESSING

4 unprocessed image streams
Full res: 50 megapixel output, 1 to 2 FPS/
Half res: 3 to 5 FPS/Quarter res: 10 to 15 FPS
Output: gigabit ethernet connection

ADVANCED INTEGRATION - SDK

MS Windows compatible Software Development Kit available to allow integration with existing 3rd party software applications. The SDK will allow the iSTAR to be controlled or communicate directly with systems such as remote monitoring or face detection and much more.

VIEW SAMPLE DATA:

www.nctechimaging.com

CONTACT US:

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Descriptions and technical specifications are not binding and may change without notice.
Certain specifications and features listed may require a Firmware update to be operational.

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360°
VIDEO

360°
MEASUREMENTS

360°
PANORAMICS

360°
LiDAR



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