AERIALTRONICS
COMMERCIAL UNMANNED AIRCRAFT SYSTEMS

PENSAR™

World's first dual spectrum computer vision platform

Real-time insights powered by artificial intelligence

POWERED BY
NVIDIA® JETSON™

Sony 30x zoom HD vision

Never miss a detail, no matter how small, with the built-in Sony 30x zoom camera.

FLIR Boson IR

The integrated FLIR Boson camera allows users to easily identify heat signatures and determine their temperature.
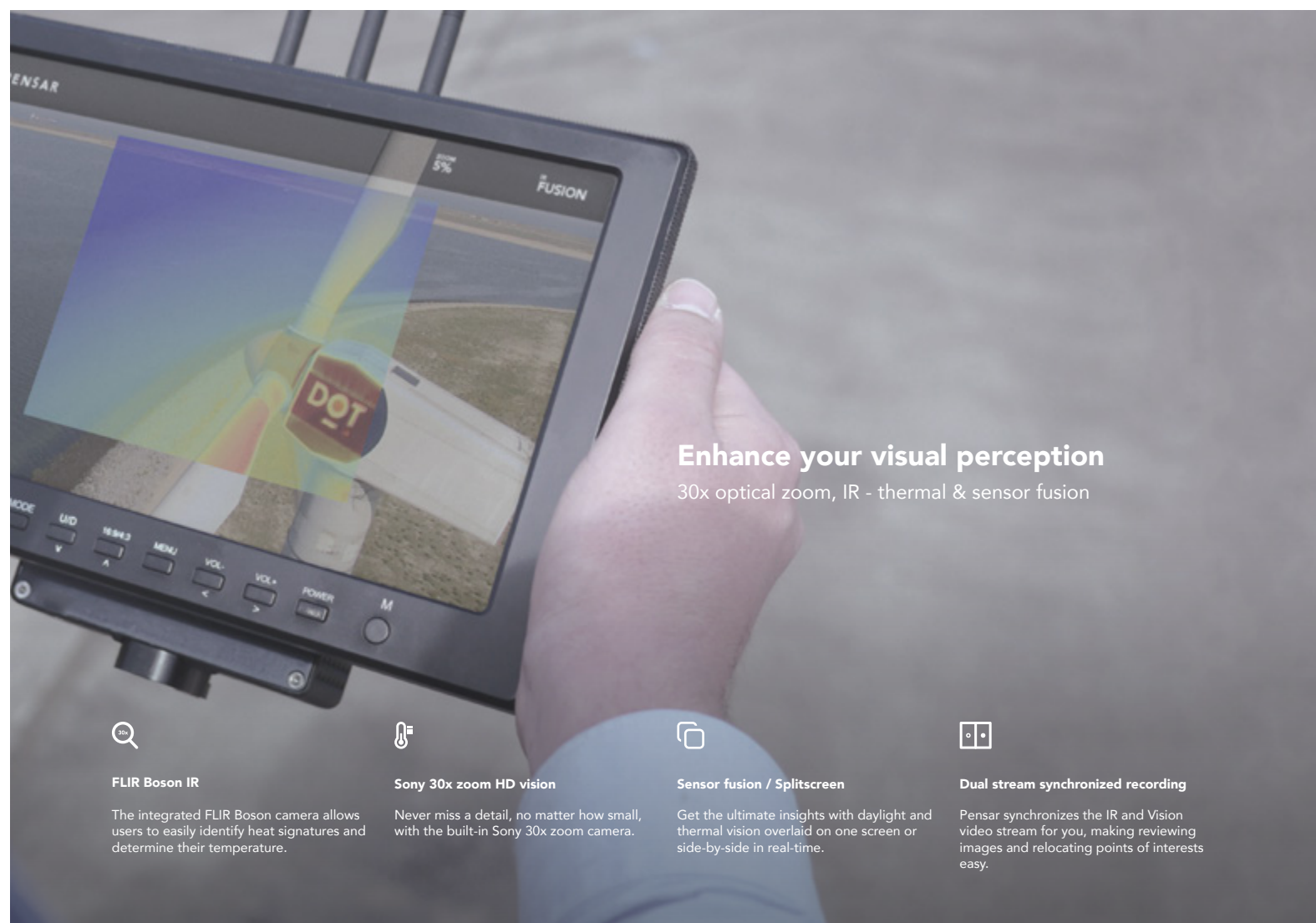
NVIDIA® Jetson™ GPU

AI-based real-time aerial processing is possible due to the integration of the world's first supercomputer on a module.

Real-time AI apps

Programmed by the operator or learned autonomously over time, the dual-camera can detect, classify and track points of interest as they are captured on screen.

Enhance your visual perception
30x optical zoom, IR - thermal & sensor fusion

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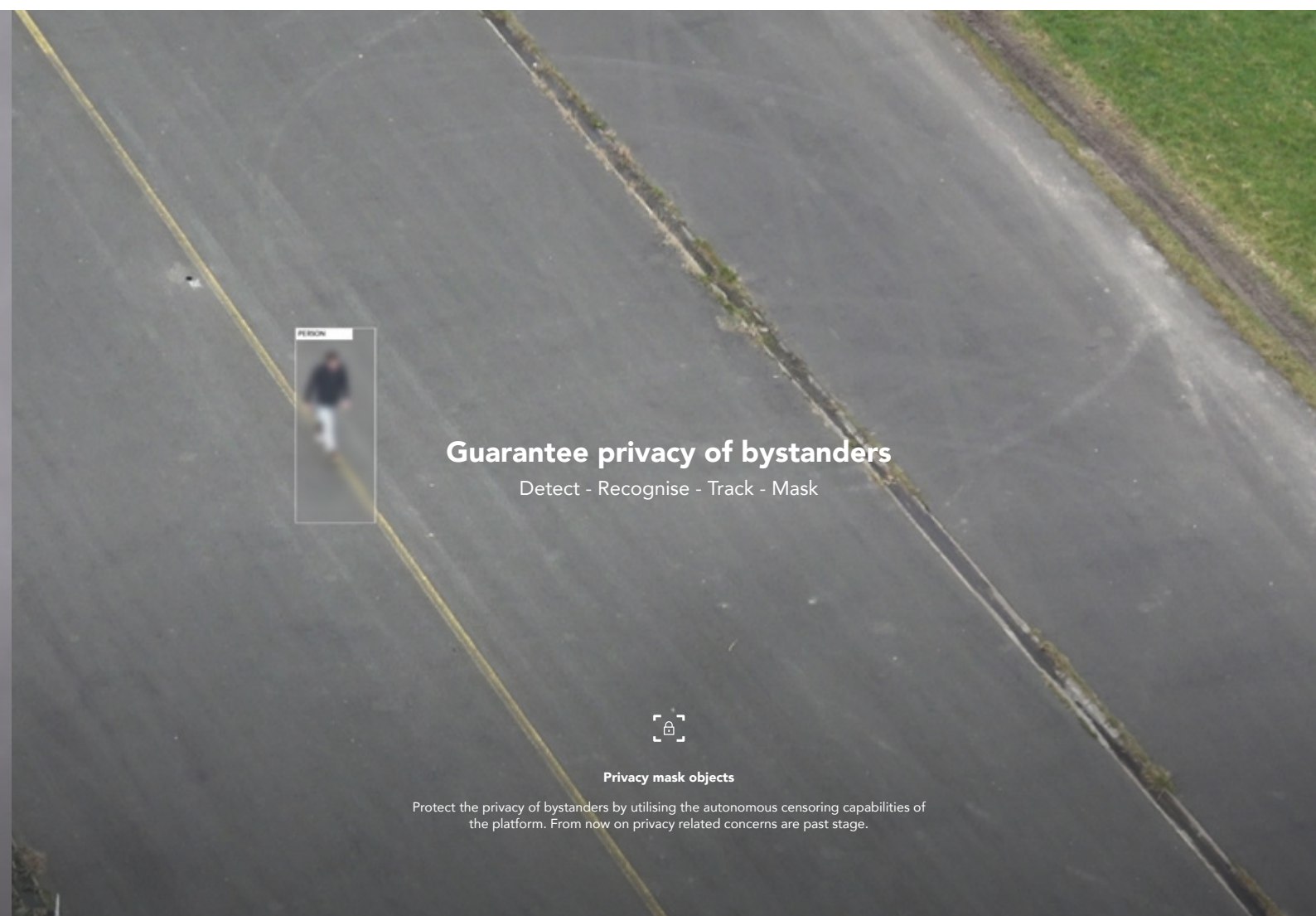
Sensor fusion / Splitscreen

Get the ultimate insights with daylight and thermal vision overlaid on one screen or side-by-side in real-time.

Dual stream synchronized recording

Pensar synchronizes the IR and Vision video stream for you, making reviewing images and relocating points of interests easy.

Guarantee privacy of bystanders
Detect - Recognise - Track - Mask

Privacy mask objects

Protect the privacy of bystanders by utilising the autonomous censoring capabilities of the platform. From now on privacy related concerns are past stage.

Detect, recognise and annotate objects of interest

Harness the power of computer vision & deep learning

Deep learning

During flight, PENSAR leverages deep learning networks in real-time to detect, recognize, track, classify and annotate certain objects or deviations of interest and conversely, to blur out and mask objects for privacy reasons.

Augmented annotations

Improve your insights with labels created in real-time by Pensar's AI detection and recognition abilities.

Recognise characters and characteristics

Fly, collect and convert into actions

Recognise characteristics

Automatically detect object characteristics such as colours and shapes.

Read texts

Detect license plates, text on signs, or virtually any other alphanumeric figure captured by the duo camera.

PENSAR | Actionable insights in real-time

The future of drone data processing is onboard

Code and deploy

Develop and discover the endless capabilities of PENSAR

Software development kit

Take advantage of NVIDIA®'s JetPack software development kit which includes access to a bustling interactive community of developers and allows users to develop customized algorithms based on their requirements.

Customize & develop

The intelligent platform comes with Ubuntu Linux, an open-source operating system that makes it accessible for users to make small or big changes to the platform to customize its capabilities for their desired needs.

PENSAR™ apps available today

1/1 and 1/2" view
View daylight and thermal livestreams simultaneously with ease.

Sensor fusion
Overly the daylight and thermal streams into one comprehensive view.

Car detection & tracking
Autonomously recognise and track cars with PENSAR's computer vision.

OCR / License plate reading
Auto-detection of license plates ensures no detail is skipped or incorrect.

People detection & tracking
Let the computer vision automatically detect and track subjects of interest.

Privacy masking
Protect the privacy of bystanders or sensitive content by instantly blurring out the details.

Image stabilization
Ensure the video & images collected are easy to view by correcting shaky movements.

Custom apps
Tell us about your desired use and let us create your custom solution.

Specifications that exceed expectations

30x zoom (HD)
Vision HD (1920 x 1080) 1/1 (16:9)

IR - FLIR Boson
Thermal IR view / Radiometric 1/1 (3:2)

NVIDIA® Jetson™ GPU
Jetson™ TX1 / TX2

Wifi / Bluetooth connectivity
UART (Mavlink), CANbus & PWM

Sensor fusion
IR overlay on vision image stream

AI apps
Hand-coded / Deep learning algorithms

OCR
Optical character recognition

SDK
Software development kit

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Interested in Aerialtronics products, have any questions about our products or would like to request a demonstration?
Feel free to contact us.

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