

Parrot unveils ANAFI Ai: The first 4G connected robotic UAV

ANAFI Ai provides professionals features that really matter.



Paris – June 30, 2021: [Parrot](#), a leading European drone group, is pleased to announce ANAFI Ai: a drone that sets new standards and capabilities for professionals.

ANAFI Ai is the first drone to use 4G as the main data link between the drone and the operator, which is a game changer for the drone industry. Users will no longer experience transmission limitations thanks to ANAFI Ai's 4G connectivity, which enables precise control at any distance. For Beyond Visual Line of Sight flights, it stays connected even behind obstacles.

For the first time, ANAFI Ai embeds a Secure Element in the drone and in its Skycontroller 4. The 4G link between the drone and the user's phone is encrypted. The Secure Element protects both the integrity of the software and the privacy of data transferred.

Parrot's large partner ecosystem delivers a wealth of specialized applications and services for a variety of professional uses. Parrot is the first in the industry to make its piloting application open-source. Parrot offers developers a Software Development Kit (SDK) to execute custom code in the ANAFI Ai drone during the flight. The SDK gives access to all flight sensors, including obstacle avoidance sensors, occupancy grid and internet access.

ANAFI Ai's uniquely designed obstacle-avoidance (OA) system detects obstacles in all directions, using stereo cameras to sense objects and automatically avoid them.

ANAFI Ai incorporates a 48 MP main camera and boasts a powerfully-stabilized 4K 60fps / HDR10 camera to capture finely-detailed aerial images and smooth video footage.

Originally the pioneer of consumer drones a decade ago, Parrot now seeks to set new standards for drones at work. Advanced artificial intelligence, autonomous flights, best-in-class imaging, photogrammetry accuracy and reliable 4G connectivity, put powerful new tools in the hands of professionals like never before.

ANAFI Ai will be available in the second half of 2021 through Parrot Drone Enterprise Partners and leading Enterprise Drone Reseller Network.

For more information, visit: <https://www.parrot.com/uk/drones/anafi-ai>



4G connectivity

4G is profoundly changing the use cases for drones. With 4G, the data link between the drone and the pilot becomes robust in all circumstances. Already widely and reliably deployed around the world, 4G offers long range transmission at low frequency bands at 700MHz - 900MHz.

Additionally, the 4G connection means professionals can operate the drone at any distance.

Many 4G operators offer quality-of-service guarantees for first responders, such as firefighters and police.

At Parrot, we have worked hard to develop a powerful streaming software adapted to any 4G situation. Our software quickly optimizes the definition and frame rate to the network quality. Our software is also robust to packet and frame losses.

ANAFI Ai itself does not require a subscription; users can utilize any SIM card capable of sending data. Parrot provides its users a secured infrastructure that works with all smartphones.



48 MP imaging accuracy

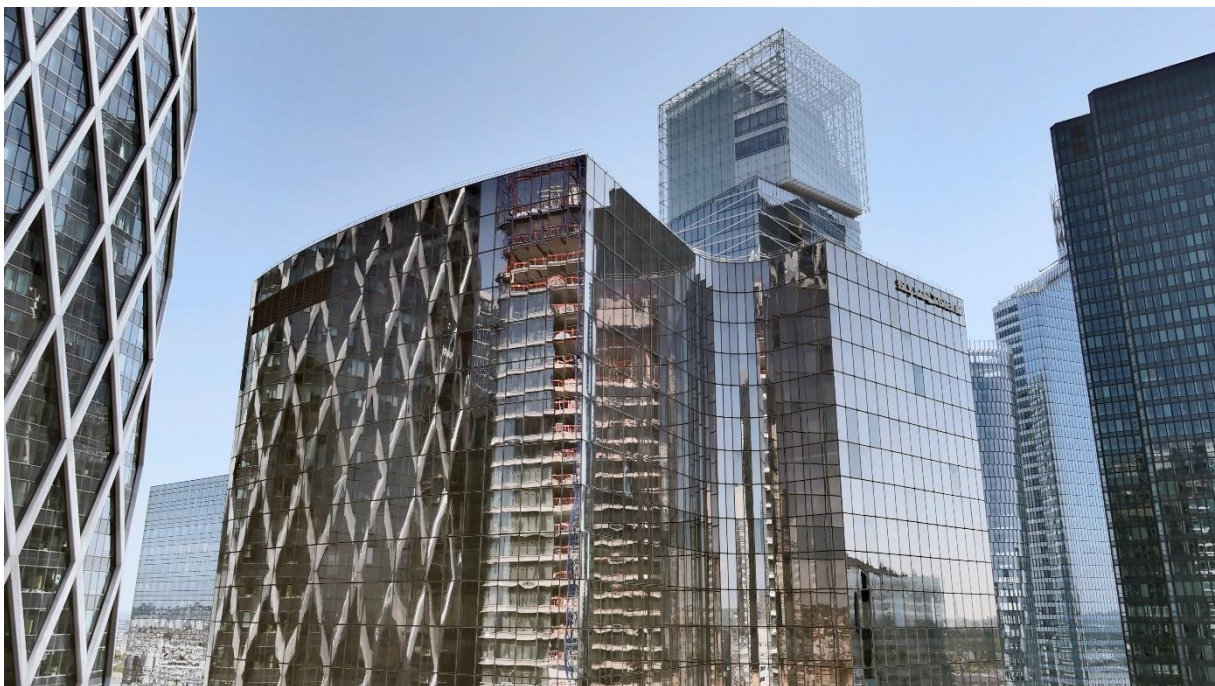
ANAFI Ai's Quad Bayer sensor offers 14 EV of dynamic range in HDR10 mode. It catches all the details both in highlights and shadows.

Inspection professionals can use the 6x digital zoom to observe 1 cm details at a distance of 75 m.

The controllable gimbal tilt range (from -90° to +90°) gives professionals access to complex points of view such as the underside of a bridge structure.

The hybrid image stabilization on 6 axis (3-axis mechanical, 3-axis electronic) ensures sharp photos even in crosswinds of up to 12.7 m/s.

P-Log format allows professionals to retain more information with raw files.



HDR10 IMAGE WITH 14 EV OF DYNAMIC RANGE, CAPTURED BY ANAFI AI.

Autonomous Photogrammetry

ANAFI Ai's biomimetic form factor mimics nature's fitness. Its swivel head has an omnidirectional camera, ensuring precise obstacle avoidance in every flight direction. When obstacles are detected, ANAFI Ai automatically determines the best trajectory to pursue its mission.

Embedded Artificial Intelligence allows for photogrammetry-specific flight plans to be performed automatically, optimizing productivity, and saving time. Professionals can generate optimized missions based on the land registry of the building selected in just one click.

ANAFI Ai's Quad Bayer 48 MP sensor delivers survey-grade accurate 2D and 3D models. It offers the same precision as drones with a 1" 20MP sensor, while flying 1.5 times higher. A GSD of 0.46 cm/px is obtained at an altitude of 30 m. Pictures can be captured at 1fps, 2x faster than any other drone in the market.



3D MODEL OF THE CITY OF POSITANO MAPPED IN 4G

ANAFI Ai images are compatible with all photogrammetry software suites. With PIX4D, the market leader in photogrammetry software, Parrot has pushed the integration one step further. During the flight, ANAFI Ai sends the pictures to PIX4Dcloud directly. Computation starts when the drone lands so that professionals gain productivity by avoiding manual time-consuming data transfer.

A unique robotic platform

Since the first Parrot A.R. Drone in 2010, open-source is at the heart of Parrot platforms. Parrot continually contributes to the open-source community.

With the launch of ANAFI Ai, Parrot expands its [Software Development Kit](#) (SDK) by open-sourcing the 7th version of its FreeFlight ground control station application:

- **Air SDK:** provides a breakthrough technological architecture to run code directly on ANAFI Ai. Developers can program custom-designed autonomous flight missions by accessing all drone sensors, connectivity interfaces, and autopilot features.
- **Ground SDK:** allows developers to create iOS and Android mobile applications for Parrot drones. All the features of the drone (control, video, settings) are accessible.
- **OpenFlight:** the open-source core of FreeFlight 7 application. Developers can focus on adding their own features and immediately get a professional-looking App ready to be published on the application stores.
- **Sphinx:** enables developers to test their algorithm and flight strategy in a photorealistic 3D simulation environment running through Unreal Engine, with accurate physical interaction.

Parrot's industry-leading SDK facilitates the implementation of tailored end-to-end solutions for professionals from public safety, search & rescue to defense and inspection fields.

Parrot platforms are built on industry standards (WIFI, RTP/RTSP, MAVLINK), making interoperability much easier.

Parrot keeps on expanding its mature software ecosystem: from enterprise drone platforms ([Skyward, a Verizon Company](#), [Measure, an AgEagle Company](#)), flight logs services ([DroneLogbook](#), [Airdata](#)), public safety programs ([DroneSense](#)) and advanced mission planning ([QGroundControl](#), [UgCS](#)), to media and data cloud platforms ([Survae](#)), real time geospatial situational awareness ([Rapid Imaging](#), [Textron Systems](#)), surveying and mapping ([PIX4D](#)).

Today, Parrot has the largest partner ecosystem for professional drones.

Cybersecurity by design

Pioneering flight, Parrot is also pioneering security.

ANAFI Ai embeds a [WiSeKey](#) Secure Element which is NIST FIPS140-2 Level 3 compliant and Common Criteria EAL5+ certified. The Secure Element:

- performs cryptographic operations.
- stores and protects sensitive information.
- protects the integrity of the embedded software.
- provides a unique identity to the drone for 4G pairing and strong authentication.
- features a unique digital signing of the pictures taken by the drone.

Users have full control over their data. No data is shared by default without the user's express consent. ANAFI Ai is compliant with the European Union General Data Protection Regulation

(GDPR) and in some cases goes even further. For example, users can delete all data with 1-Click, easily maintaining control over what is stored.

A bug bounty program is currently running in partnership with [YesWeHack](#), the first European crowdsourced security platform. Parrot benefits from their vast community of cybersecurity researchers to identify potential vulnerabilities in its drones, mobile applications and WebServices.

A cool drone

By its design, Parrot's new Skycontroller 4 is a milestone for the industry. Cumbersome cables are no longer required, and it enables the use of an iPad mini and all large smartphones. The controller also features an HDMI output, which allows streaming videos from ANAFI Ai.

With ANAFI Ai, Parrot believes "pleasure in the job puts perfection in the work" - Aristotle.

ANAFI Ai is Parrot's new cool drone: it looks nice, it is intriguing, foldable, operational in 1 minute and resistant to rain.

Parrot

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About Parrot

Founded in 1994 by Henri Seydoux, Parrot is today the leading European group in the fast-growing industry of drones. Visionary, at the forefront of innovation, Parrot is the only group to be positioned across the entire value chain, from equipment to services and software.

- Parrot, the world's number 2 of the consumer drone market, designs drones known for their high performance and ease of use.
- Parrot has a portfolio of outstanding companies and interests in commercial drones, covering equipment, software and services. Its expert capabilities are focused primarily on three vertical markets: (i) agriculture, (ii) 3D Mapping, Surveying and Inspection, and (iii) Defense and Security.

The Parrot Group designs and engineers its products in Europe, mainly in France and Switzerland. It currently employs over 500 people worldwide and makes the majority of its sales outside of France. Parrot, headquartered in Paris, has been listed since 2006 on Euronext Paris (FR0004038263 - PARRO). Financial information can be found on <http://corporate.parrot.com>. For more information: www.parrot.com and its subsidiaries www.pix4d.com, www.sensefly.com.