BLACK HORNET® 4 PRS

Airborne Personal Reconnaissance System (PRS) for Dismounted Soldiers

APPLICATIONS

IMMEDIATE ISR

COVERT OPERATIONS

SITUATIONAL AWARENESS

BEYOND LINE-OF-SIGHT RECONNAISSANCE

FORCE PROTECTION



With the ever-evolving battlefield, Soldiers confront a multifaceted operational landscape, pitting them against adversaries spanning near peers, hybrid threats, and even beyond Line-of-Sight (LoS) challenges. The Black Hornet 4 UAV swiftly provides situational awareness and enhances effectiveness while minimizing cognitive strain on soldiers.

A substantial advancement from its predecessor, Black Hornet 4 incorporates a high-resolution Thermal Imager (TI), an Electro Optical (EO) camera with exceptional low-light capabilities, and a Software-Defined Radio (SDR) datalink, boasting extended range and heightened resilience. Enhanced flight performance comes from an upgraded rotor system and an advanced battery.

The Black Hornet 4 platform establishes the groundwork for Artificial Intelligence (AI), fostering greater autonomy and alleviating cognitive burdens, aligning perfectly with the present and future requirements of Soldiers in the field. The Black Hornet 4 redefines reconnaissance capabilities, empowering soldiers with critical insights for mission success.

FEATURES

SQUAD-LEVEL IMMEDIATE COVERT SITUATIONAL AWARENESS

Save lives and minimize collateral damage. Detect and identify threats day and night without being detected. Increase operational tempo and expand maneuver options.

COVERT AIRBORNE SENSOR

Extraordinarily low visual and audible signatures and a light, small profile allow covert operation and increased security for dismounted soldiers.

BEYOND VISUAL LINE-OF-SIGHT CAPABILITY

Expand visual range in complex and urban environments. Provide viewing angles not available to larger systems, e.g. indoors and in confined areas. Rapidly engage targets beyond visual line-of-sight and conduct real-time weapon effectiveness assessment.

NON-SPECIALIST NANO UAV SYSTEM

A total system weight of 1.3 kg (depending on configuration) and small enough for a dismounted soldier to carry on a utility belt, Black Hornet PRS deploys easily, with minimal training required.

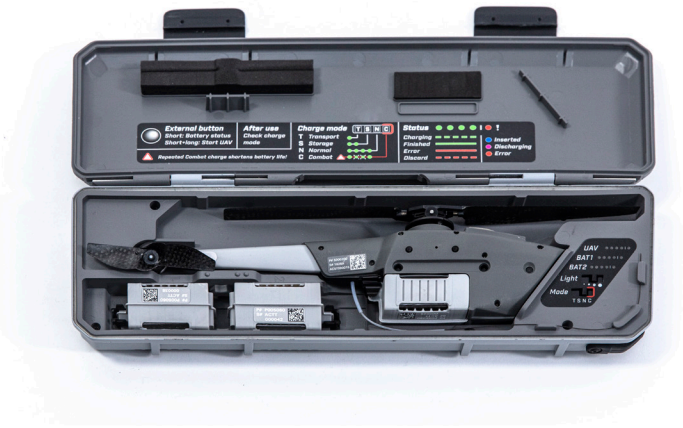
RESILIENT

MIL-STD-810.H compliant the Black Hornet 4 PRS G3 is wind tolerant up to of 25 knots + gust (12 m/s) and multi-mission capable with ground speeds up to 10 m/s.

SPECIFICATIONS

Black Hornet® 4 PRS	
Rotor diameter	190 mm (7.5 in)
Total length	255 mm (10 in)
Weight	~70 grams (2.5 oz)
Signature	
Visual detection	Best in class, details upon request
Audio	Best in class, details upon request
Electromagnetic Signature	Best in class, details upon request
Payload	
Electro optical main camera	12 MP, excellent in low light
Electro optical navigation camera	3 x low resolution camera for indoor navigation and collision avoidance
Night Imager	650 x 512, high sensitivity TI camera
LED	Illuminating white LED
Performance	
Endurance	More than 30 minutes
Max. speed	10 m/sec ground speed (~33 ft/sec)
Environment	
Ground Station	IP54
UAV	IP52
Temperature	-20°C to +43°C
Wind	25 knots/ gust 30 knots
Precipitation	7.6 mm/hr
Data Link	
Frequency	Details on request
Radio Range	2 km using the internal antenna More than 3 km using the external antenna, or internal antenna under ideal conditions
Performance	Encrypted, dynamic power, frequency hopping, designed for beyond line-of- sight
Resolution	
EO Video	1280 x 720 pixels
EO Snapshot	3024 x 4032 pixels
Thermal Imaging Video	512 x 640 pixels
Thermal Imaging Snapshot	512 x 640 pixels
Navigation	Seamless GNSS/GNSS denied navigation, day and night Collision avoidance Embedded DTED, Vector and Raster maps (upgrade option)
Mission Data	AES 256 encrypted Video, Snapshots, and Metadata Removeable 256 GB SD-card for mission data (encrypted) STANAG 4609 and Cursor on Target (COT) compliant RAS-A / MAVLINK compliant ATAK Compatible Can be integrated with selected BMS
Launch Time	Less than 20 seconds





AMERICAS

1600 Broadway, Suite 2550
Denver, CO 80202

575 Kumpf Dr.
Waterloo, ON N2V 1K3,
Canada

EUROPE

2 Kings Hill Avenue - Kings Hill
West Malling, Kent ME19 4AQ
United Kingdom

MIDDLE EAST

Building No. DLC-FH-03
Dubai World Central
P.O. Box 713153
Dubai, UAE

ASIA

10 Kallang Avenue #09-10,
Aperia Tower 2
Singapore 339510

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