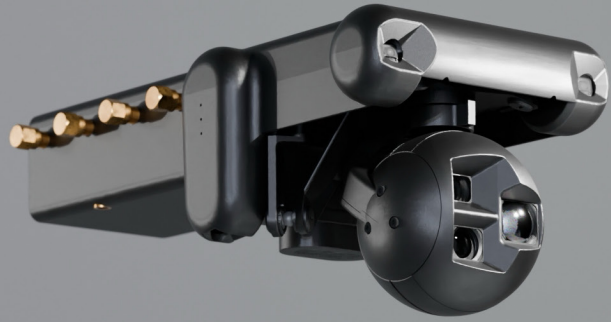


Parrot

# CHUCK 3.0

THE SOVEREIGN AI AUTOPILOT  
POWERING ALL UAV PLATFORMS



## PRODUCT DESCRIPTION

CHUCK 3.0 is designed to bring Parrot's state of the art flight software, optics and Ai technology for integration to various types of UAV platforms (multi- and single-rotors, fixed-wings and VTOLs), on top of bringing a 35x zoom camera and FLIR Boson 640 thermal imaging, combined with a stabilized 3-axis gimbal, and two pairs of obstacle avoidance sensors (front and bottom).

CHUCK 3.0 also features MARS a frequency hopping radio, resistant to jamming and spoofing, 5G connectivity & optical navigation for GNSS-denied flight.

CHUCK 3.0 is compatible with Parrot's advanced app (FreeFlight 8) and ground control station (Skycontroller UKR).

## KEY FEATURES

### MULTIPLE SECURE RADIO ARCHITECTURE

- 5G
- MARS (Frequency Hopping Radio)
- Over 1.5 GHz bandwidth spread over 10 bands across 1.8 - 5 GHz
- Encrypted backup LoRa radio
- Direct video stream resolution: 1080p at 30 fps
- AES 256 encryption: packet and radio level

### SENSORS

- Satellite navigation: GPS, GLONASS, Galileo & BeiDou
- Barometer and magnetometer
- Front and vertical stereo cameras, and vertical range sensor
- 4 x 6-axis IMU (3-axis accelerometers + 3-axis gyroscopes)  
(Flight IMU: ICM-40609-D)

### EO IMAGE CHAIN

- 2 sensors: 1/2.4"
- Digital zoom: 35x
- Electronic shutter speed: 1/25 s to 1/10,000 s
- ISO range: 100 - 12,800
- Video resolution: 4K / FHD / HD
- Video format: MP4 (H.264 & H.265)
- Photo resolutions:
  - Wide: 21 MP (84° FOV)
  - Rectilinear: up to 16 MP (up to 75.2° FOV)
- Photo formats: JPEG, DNG (Digital Negative RAW)

### IR IMAGE CHAIN

Sensor: FLIR BOSON

- Resolution: 640 x 512 px
- Temperature range: -40 °C to +250 °C (-40 °F to +482°F)
- Thermal sensitivity: ≤60 mK
- Measured IR wavelength range: 8 to 14 micrometers
- Video resolution: UHD (2160p) at 8.6 fps
- Video format: MP4 (H.264 / H.265)
- Photo formats: JPEG

### IMAGE STABILIZATION

- 3-camera IR/EO stabilized gimbal:
  - Hybrid: 3-axis
  - Mechanical: 3-axis
  - Electronics (EIS): 3-axis
- Controllable gimbal tilt range: -90° to +90°

### HARDENED CYBERSECURITY

- Zero data shared without user consent
- Manage your data privately between drone and device or share anonymous data on secured European servers
- MicroSD card AES-XTS encryption with a 512-bit key
- Digitally signed firmware
- Compliant with FIPS140-2

### CONNECTIVITY & STORAGE

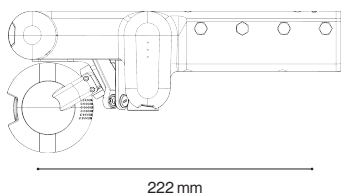
- Ports: USB-C, Ethernet
- Connectors: XT30 power jack, GPS, Interface board, (x2) TELEM, (x8) external SMA antenna
- MicroSD and SIM cards ports
- 512 GB internal memory

### ADVANCED FLIGHT APP - FREEFLIGHT 8

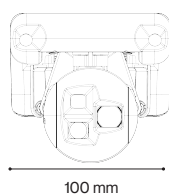
- Flight Planning with waypoints and points of interest
- Object recognition & tracking
- Cursor On Target
- Video streaming & recording
- EO and IR cameras settings management
- Touch & Fly
- System settings and management
- Flight logs recording and reviewing

### MEASUREMENTS

- Size: 222 x 100 x 85 mm (8.7 x 3.9 x 3.3")
- Mass: 390 g (0.86 lb)



222 mm



100 mm

85 mm

10/25  
v2.9.7



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INTEGRATES WITH UAV PLATFORMS INCLUDING:



MULTICOPTERS



L & XL MULTICOPTERS



VTOLs



HELICOPTERS