

F E L O N Í

Felon 1.0 Series



FELON 1.0



Multiple Mission Types



Quick Detach Multi-Axis
Gimble Mounting System for
AR Platform

5.56 x 45mm NATO
16.25" Quick-Change Barrel

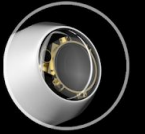
Night-Vision &
Thermal Imaging
Camera



Belt Fed Ammunition System
& High Capacity Internal
Magazine
Accepts ALL AR15/M1 & M27
Linked Ammunition



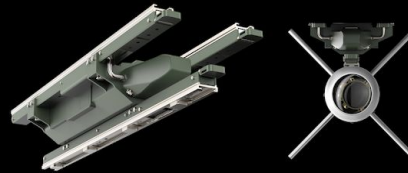
Electro-optical &
Semi-active
Laser Targeting
System



FelonX



Multiple Mission Types



Quick Detach Converted
Longbow Missile Launcher
System For Spike Missile

Warhead Weight 1lb (450g)

Simultaneous
Localization and
Mapping Provides 720°
Obstacle Avoidance

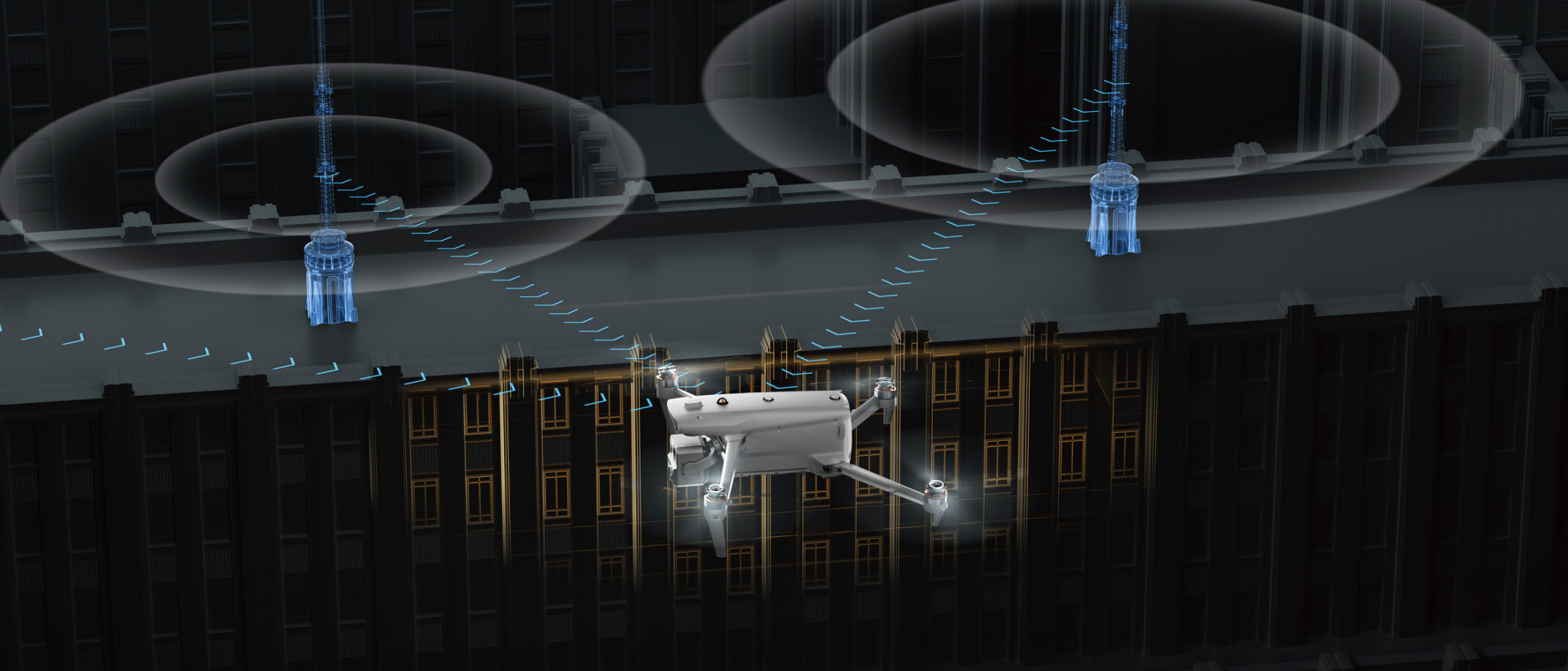


40 min Flight Time &
12.4 miles Transmission
Range with Encrypted
Data Security



Felon X Series





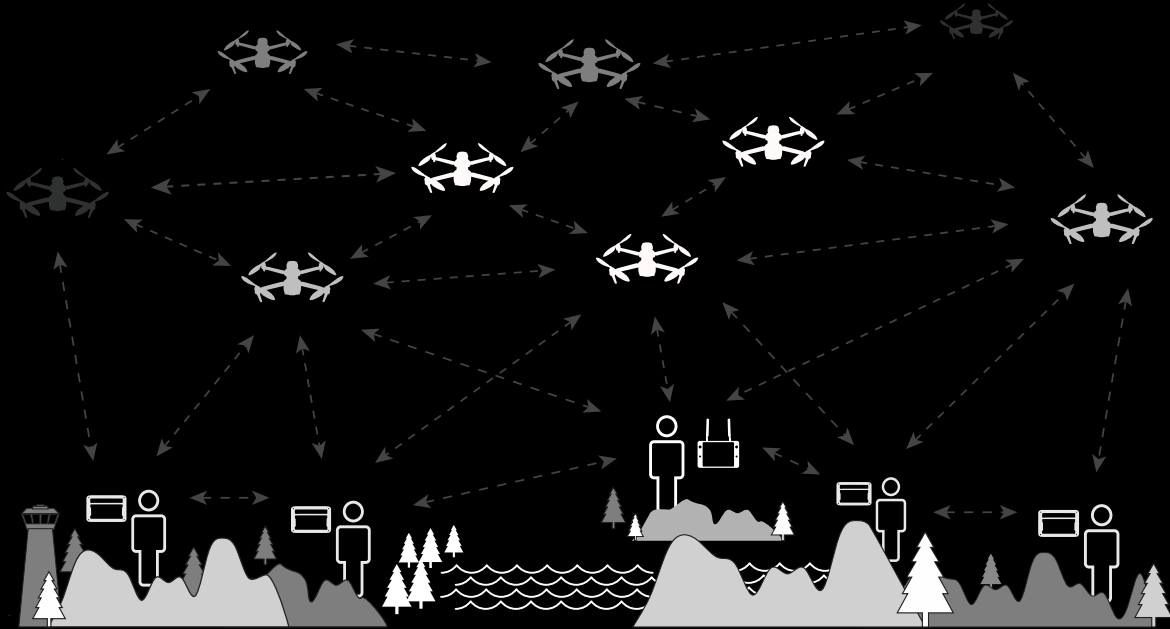
Anti Jam, Anti Interference

The Felon series uses advanced flight control modules and algorithms specially designed to counter RFI, EMI, and GPS spoofing. This enables the Felon series to fly confidently in combat, critical structures, and in complex areas.

A-Mesh 1.0

The Industry's First Mesh Networking

The Felon series features the new A-Mesh system, enabling drone-to-drone autonomous communication, connection, and collaboration.



A-Mesh 1.0

The Industry's First Mesh Networking



Enhanced Anti-Interference

The Felon series can communicate seamlessly with other drones in the vicinity, unlike a traditional chain structure. If a single drone fails or exits unexpectedly, the entire system will independently self-organize and continue to relay critical information.



Beyond-Line-of-Sight Applications

With A-Mesh, multiple drones in the vicinity can act as relay points to greatly improve BVLOS operation effectiveness.



Full-Fleet Control

Multiple drones can be controlled autonomously by 1 pilot or by a group of pilots simultaneously with or without LTE coverage.



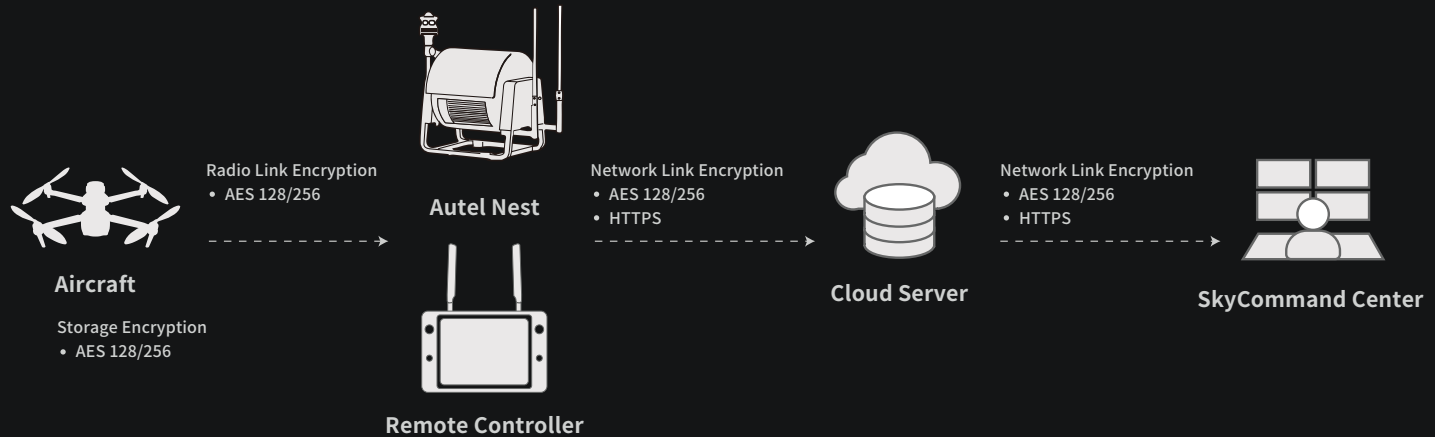
Enhanced Anti-Interference

Communication nodes can be placed statically on hills or poles to provide full coverage to an area, or a swarm of drones can provide mobile communication points to extend the coverage of the entire group.

Data Security

Data* can only be physically accessed via the aircraft locally, and can be encrypted using AES-256 and passwords.

*User and aircraft information, including flight logs, locations, and accounts.



Specifications

Aircraft	
Felon 1.0 Weight	5.50 lbs (battery and gimbal included)
FelonX Weight	6.52 lbs (battery and gimbal included)
Max. Takeoff Weight	7.50 lbs
Dimensions	562*651*147 mm (unfolded, incl. propellers) 318*400*147 mm (unfolded, excl. propellers) 257*145*131 mm (folded, excl. propellers)
Diagonal Wheelbase	1.53 ft (466mm)
Max Flight Time	42 mins
Operating Temperature	-4°F to 122°F (-20°C to 50°C)
Max Wind Resistance	27 mph* *Takeoff and landing can withstand wind speeds up to 27 mph (12 m/s).
Hovering Accuracy	Vertical: ±0.1 m (Vision System enabled); ±0.3 m (GPS enabled); ±0.15 m (RTK enabled); Horizontal: ±0.15 m (Vision System enabled); ±0.3 m (GPS enabled); ±0.1 m (RTK enabled);
IP Rating	IP43
GNSS	GPS+Galileo+BeiDou+GLONASS

Image Transmission	
Operating Frequency	2.4G/5.8G/900MHz* 900MHz is only applicable for FCC regions.
Max Transmission Distance (unobstructed, free of interference)	12.4 miles/20km (FCC) 4.9 miles/8km (CE)
Transmitter Power (EIRP)	2.4GHz FCC: <30dBm, CE/SR-RC/MIC: <20dBm 5.8GHz FCC/SRRC: <27dBm, CE: <14dBm 5.15-5.25GHz FCC/CE: < 23dBm 902-928MHz FCC: <30dBm 5.65-5.755GHz MIC: <27dBm

Visual Sensing System	
Obstacle Sensing Range	Forward: 19.7-1220.5in (0.5-31m) Backward: 19.7-984.3in (0.5-25m) Sideward: 19.7-1023.6in (0.5-26m) Upward: 0.66-85.3ft (0.2-26m) Downward: 0.98-75.5ft (0.3-23m)
FOV	Forward/Backward Sensor: 60°(H), 80°(V) Upward/Downward Sensor: 180°(side-ward), 120°(forward & backward)

Millimeter-wave Radar Sensing System

Frequency	60GHz/24GHz* *For 60GHz use, please fly safely and comply with your local laws and regulations.
Sensing Range	60GHz Radar: Upward: 0.98-787.4in (0.3-20m) Downward: 5.9-3149.6in (0.15-80m) Forward and Backward: 0.98-98.43ft (0.3-50m) 24GHz Radar: Downward: 2.62-39.4ft (0.8-12m)
FOV	Horizontal (6dB): $\pm 60^\circ / \pm 22^\circ$ (60GHz/24GHz) Vertical (6dB): $\pm 30^\circ / \pm 20^\circ$ (60GHz/24GHz)

Radar and Visual Sensing Systems

Sensing Range	Forward & Backward: 11.8-1968.5in (0.3-50m) Sideward: 19.7-1023.6in (0.5-26m) Upward: 0.66-85.3ft (0.2-26m) Downward: 0.49-262.5ft (0.15-80m) (60GHz radar)
FOV	Forward/Backward Sensor: 80°(H), 120°(V) Upward/Downward Sensor: 180°(sideward), 120°(forward & backward)
Operating Environment	Forward, Backward, Upward, Downward: supports all-weather obstacle avoidance for glass, water, twigs, buildings and high voltage lines. At least one of the 2 conditions should be met: sufficient lighting or the obstacle has strong reflection ability to electromagnetic waves. Sideward: The surface has rich texture, under sufficient lighting environment (>15 lux, normal indoor fluorescent lighting environment)

Felon 1.0/X Starlight Camera

Sensor	Effective Pixels: 2.3M
Lens	Focal Length: 35mm (equivalent 41.4mm) FOV: 52° Zoom Range: 1-8x (synced zoom supported)
ISO Range	Auto: ISO100-ISO450000 Super Sensitive Mode: Auto ISO100-ISO450000

Felon 1.0/X Wide Camera

Sensor	1/1.28" CMOS, Effective pixels: 50M
Lens	DFOV: 85° Focal length: 4.5 mm (equivalent: 23 mm) Aperture: f/1.9 AF motor: 8-line SMA, PDAF focusing Focus Range: 1m ~ ∞
ISO Range	Photo: ISO100~ISO6400 Video: ISO100~ISO64000 (Night mode: up to ISO64000)

Felon 1.0/X Zoom Camera

Sensor	1/2" CMOS, Effective pixels: 48M
Lens	Focal Length: 11.8-43.3mm(35mm, equivalent: 64-234mm) Aperture: f/2.8-f/4.8 Focus Range: 5m ~ ∞
ISO Range	Normal Mode Auto: Auto: ISO100 - ISO6400 Manual Photo: ISO100 - ISO12800 Video: ISO100 - ISO6400

Felon 1.0/X Laser Rangefinder

Measurement Accuracy	± (1m + D×0.15%) where D is the distance to a vertical surface
Measuring Range	5-1200m

Felon 1.0/X Thermal Camera

Thermal Imager	Uncooled VOx Microbolometer
Lens	DFOV: 42° Focal length: 13mm Aperture: f/1.2 Focus Range: 6m ~ ∞
Infrared Temperature Measurement Accuracy	±3°C or reading ±3% (using the larger value) @ambient temperature from -4°F to 140°F (-20°C~60°C)
Video Resolution	640×512@25FPS
Temperature Measurement Range	-4°F to 302°F, 32°F to 1022°F (-20°C to 150°C, 0 to 550°C)
Temperature Alert	High and low temperature alarm thresholds, reporting coordinates and temperature values

Felon 1.0/X Thermal Camera

Thermal Imager	Uncooled VOx Microbolometer
Lens	DFOV: 61° Focal length: 9.1mm Aperture: f/1.0 Focus Range: 2.2m ~ ∞
Infrared Temperature Measurement Accuracy	±3°C or reading ±3% (using the larger value) @ambient temperature from -4°F to 140°F (-20°C~60°C)
Video Resolution	640×512@25FPS
Temperature Measurement Range	-4°F to 302°F, 32°F to 1022°F (-20°C to 150°C, 0 to 550°C)
Temperature Alert	High and low temperature alarm thresholds, reporting coordinates and temperature values