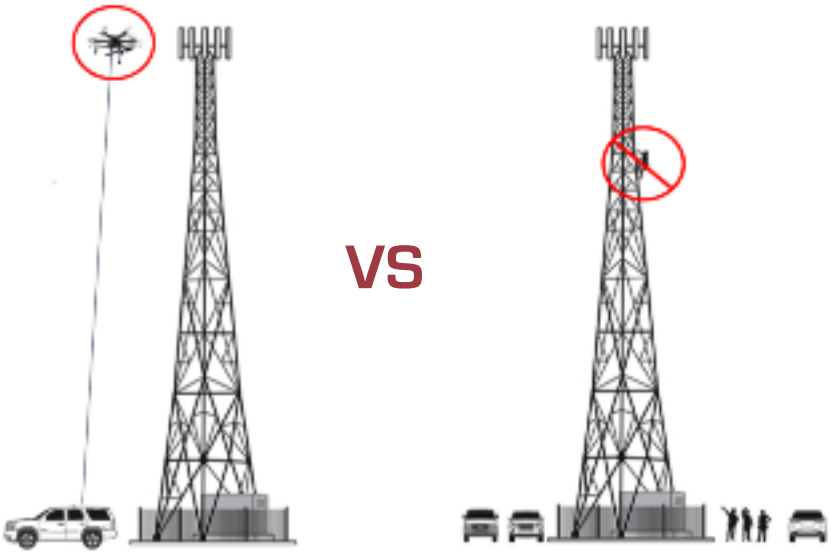
EQUINOX
INNOVATIVE SYSTEMS

INSPECTOR

INFRASTRUCTURE INSPECTION DRONE FUSING VISUAL AND THERMAL IMAGERY



PRODUCT OVERVIEW

The Inspector is a multi-sensor infrastructure inspection drone perfectly suited for rust, corrosion, and delamination detection as well as equipment inspection on power lines, power stations, cell towers, and refineries — providing an alternative to expensive climbing and helicopter crews. Equipped with an optional power/data tether for lengthy operations, its payload capacity and bandwidth support the use of multiple high resolution sensors, including a 20+ Mp camera, HD video, LiDAR, and/or thermal imaging.

CAPABILITIES

The Inspector can fly for 30 minutes of free flight or tethered for 8+ hours for stationary or vehicle-based operation. It measures 31 in x 38 in x 21.7 in, weighs 10.3 pounds, is able to carry a max payload of 33 pounds, and can operate at 150m on its tether above a stationary or moving vehicle for more than 8 hours without landing. Compact and efficient, the system can easily be operated with a 12A 240 VAC generator in the field.

ADDITIONAL FEATURES

The Inspector is designed for infrastructure inspection. Data transmission in the tether eliminated the need to land and empty or change SD cards so the drone can fly the entire work day without landing. The Inspector supports camera packages that include multiple high resolution still image, thermal, HD video cameras and more. This package can also be upgraded to include an electrical corona camera.

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www.equinoxinnovativesystems.com

SPECIFICATIONS FOR INSPECTOR

DRONE

Ready to Fly *for Equinox Innovative Systems*

Dimensions	31 in x 38 in x 21.7 in
Weight	10.3 lbs

Flight control and networking:

DJI Option:	DJI A3 Flight controller
	DJI Light Bridge 2
	RTK-G for precision timing and location
Pixhawk-2 Option:	Pixhawk 2 flight controller
	Non-DJI FPV video link
	Optional combined drone and payload control and/or sensor data storage and video link display on a laptop (free flight and tethered)
	RTK GNSS or Precision GPS

Optional 2nd payload controller

Configured for both free flight (30 minutes) and tethered flight (8+ hours)

Optional configuration for operation above a moving vehicle

GROUND UNIT

Line or Generator Supply

12A @ 240 VAC

Tether with power supply and auto-tensioned reel with tether up to 150m

Optional HD video display

Optional data-over-power (Ethernet) sensor data storage on a laptop

PAYLOAD

Optics: *(Options for one or two sensors)*

Digital Still Camera	30x optical z oom
	1080p/60 Video
	20.4MP Exmor R CMOS sensor
	High speed/quality processor designed for difficult lighting
HD Video Camera	4K HD Resolution
	12x optical zoom
	Video recording capability and media storage systems
	Back-illuminated sensor
	Focal distance of 9.3–111.6 millimeters
	Image stabilization technology
	Auto control range shutter speed of 1/8–1/10000 with flash
Thermal Imager	640 x 512 radiometric imager
	Operating on less than 1 watt of power, via a USB 2.0 connection
	Real-time radiometric recording

Default: Configured for 3D photogrammetry

Optional LIDAR	16 channels
	300,000 pps, 100m range
	360x20 degree FoV

Sensor controller and data storage module

Gremsy H3 Gimbal	Optional H11 or H16

Optional data storage on the ground via tether to eliminate SD card capacity limitation

"Equinox offers the first fully functional drone-based inspection platforms, mobile communications towers and test systems with variable elevation control, ultra-high bandwidth, operation on the move & unlimited flight time."

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COMPANY OVERVIEW

Headquartered in the Washington D.C. area, Equinox Innovative Systems is a products and services company focused on drone-based communications and inspection systems with an emphasis on RF engineering. Equinox is changing the face of Defense and Public Safety C4ISR and Broadband Communications. Our drones replace towers when they fail, or are not there when needed. We provide more power to sensors and bandwidth to communications than ever before through the optimization of ultra-efficient aerial platforms and our patent-pending technology in an ultra-high bandwidth tether system.

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