

ION M640X™

Short-Range Tactical Quadcopter

APPLICATIONS

DAY AND NIGHT ISR

SEARCH AND RESCUE

INFRASTRUCTURE INSPECTION

**TEAM SITUATIONAL
AWARENESS**



The ION M640x is the next generation of tactical quadcopter building on the capabilities of the ION M440 for defense, civil, and industrial use. Equipped with a Teledyne FLIR 640 thermal imager, the ION M640x tactical quadcopter is on the cutting edge of IR sensor packages. The Teledyne FLIR 640 thermal imager doubles the infrared resolution, increases maximum infrared standoff distance, and provides more clarity and definition than ever before.

The ION M640x features an NIR laser illuminator as one of its most-requested new features. The NIR laser illuminator allows operators to pinpoint objects of interest remotely for increased visibility. Illumination is visible only with night vision goggles without adversary's knowledge.

All-new smart object tracking supports new applications and use-cases for the ION M640x.

The ION M640x tactical quadcopter is an American designed, developed, manufactured, and supported system. This system is equipped with the best sensors Teledyne FLIR has to offer, unique capabilities for special missions, and Teledyne FLIR's high standard of service and support.

FEATURES

UPGRADED IR SENSOR RESOLUTION 640

The ION M640x has upgraded to a Teledyne FLIR 640 thermal imager. This doubles the infrared resolution, maximizes sensor detection, and clarity.

SMART OBJECT TRACKING

The ION M640x features smart object tracking. This enables the operator to direct the aircraft to track and follow while maintaining a set distance from a designated object.

NEW NIR LASER ILLUMINATOR

Equipped with an NIR laser illuminator, the ION M640x can pinpoint objects of interest remotely. Laser illumination only visible with night vision goggles.

OPEN SYSTEM ARCHITECTURE

Features a high-powered discrete mission computer for advanced autonomous functions, is MAVLINK compliant, and interoperable with C-GCS, including TOGA.

SPECIFICATIONS

ION M640x Kit Details

Standard Features

Air vehicle
Lithium-Ion rechargeable battery
Battery charger
Softshell portable case
Field repair kit
Handheld GCS
Removable SD Card for in-flight photos and video

Physical

Weight – with Payload	4.16lbs (1.88kg)
Dimensions – Folded	11.1" x 5.7" x 4.9" (28.2cm x 14.5cm x 12.4cm)
Dimensions – Unfolded	22.5" x 22" x 4.9" (56.4cm x 56cm x 12.4cm)

Payload

Wide EO Sensor	12.0 MP EO Sensor with 3.37mm 82° FOV Lens
Narrow EO Sensor	12.0 MP EO Sensor with 3.37mm 28° FOV Lens
IR Sensor	640 x 512, 14.0MM, f1.0, 32DEG HFOV 60HZ LENS
EO Sensor Zoom	4x optical, 10x digital
Time of Flight Sensor	Forward Collision Avoidance

Performance

Endurance	Up to 35 min
Speed	23 mph (10.3 m/s)

Environment

Wind Tolerance	20kts (10.3 m/s)
Precipitation	0.25" per hour (0.64cm per hour)
Ambient Temperature Limit	-20°C, +50° C

Data Link

Frequency	1625-1725MHz, 1780-1850MHz, 2015-2110MHz Triband or 2402-2478MHz
Encryption	AES 256
Protocol	MAVLink
Range	3 km
Radio	Military Triband DDL and Commercial DDL



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