

Q.FLY® EXPLORE

3 channel drone payload

The Q.Fly® Explore is the world's first SWIR payload designed for seamless integration with DJI Matrice 350 and 400 RTK drones. Out-of-the-box compatibility and plug-and-play simplicity.

KEY FEATURES

- **World's First DJI Payload With Built-in SWIR Sensor:** 640 x 512 pixels, 900 nm - 1700 nm spectral response
- **High-Resolution RGB Camera:** 16 MP for visual positioning and context
- **LWIR Thermal Imager:** 640 x 512 pixels, 8 μm - 14 μm spectral response
- **Customizable Spectral Filters:** Quickly install and remove long-pass filters for targeted exposure.
- **Precise Geo-Referencing:** Accurate geotagging of images with embedded GNSS
- **Seamless DJI Integration:** Compatible with DJI Matrice 300/350/400 RTK drones and support for DJI PSDK protocol
- **Lightweight Design:** Weighing only 650 g, it extends flight time up to 35 minutes on a single battery



SPECIFICATIONS

SWIR Sensor

Sensor Type	Quantum Dots
Spectral range	900 nm - 1700 nm
Sensor resolution	640 x 512
Pixel size	5 μm x 5 μm
Sensor size	1/4 inch
Lens focal length	8 mm
Frame rate	30 fps

RGB Sensor

Sensor Type	CMOS
Spectral range	400 nm - 850 nm
Sensor resolution	4656 x 3496
Pixel size	1.12 μm x 1.12 μm
Sensor Size	1/2.8 inch
Lens focal length	16 mm
Frame rate	30 fps

Thermal Sensor

Sensor Type	Uncooled microbolometer
Spectral range	8 μm - 14 μm
Sensor resolution	640 x 512
Pixel size	12 μm x 12 μm
Lens focal length	18 mm
Frame rate	30 fps

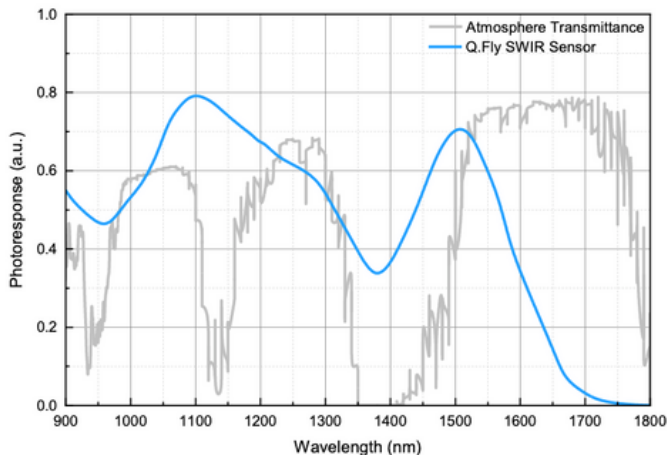
PPK module

Number of channels	1408
Frequency	20 Hz
Data accuracy	3-5 cm
GPS	L1C/A, L2C, L1C, L2P (Y), L5
Glonass	L1, L2, L3
BeiDou	B1I, B2I, B3I, B1C, B2a, B2b
Galileo	E1, E5b, E5a, E6
SBAS	L1C/A
QZSS	L1, L2, L5

UNLEASHING THE POWER OF SWIR IMAGING

Advanced sensing. Smooth functionality

The Q.Fly® Explore is the world's first SWIR payload designed for seamless integration with DJI Matrice 300, 350 and 400 RTK drones. Out-of-the-box compatibility and plug-and-play simplicity empower you to evaluate SWIR from the air instantly.



Gain access to a wider range of information than ever before: Q.Fly® Explore captures data in parallel in the short-wave infrared (900 nm - 1700 nm), visible and thermal spectra, revealing hidden details invisible to standard cameras.

Test what SWIR can do for you

The Q.Fly® Explore's SWIR channel is intentionally broad. This allows the user to have maximum sensor response across the SWIR range.

With the option to add long-pass filters, users can select which part of the spectrum matters most. The inclusion of RGB and LWIR is to provide a ultrabroad spectral coverage. The on-the-fly comparison allows the user to truly understand what SWIR brings to the table. This is ideal for a quick evaluation of how SWIR can add value to your robotics or surveillance platform.

Start your SWIR investigations now

The Q.Fly® Explore's SWIR technology opens up a world of possibilities to explore various applications. From penetrating smoke and fog for search and rescue operations to enhancing visibility in harsh weather conditions for firefighting support.

When testing the value of a new sensor on your platform, it's common to overlook the fact this is a two part challenge: there's integration efforts and sensing evaluation time. Rather than sink time and R&D budget into getting the camera to work we offer a ready to go solution. The Q.Fly® Explore enables you to start capturing and test your applications now.



Economic freedom to experiment

Accessing SWIR has changed. No longer is it only for niche advanced engineering projects. Leveraging economies of scale and Quantum Dot Cameras we open the economic use case for SWIR, wide open.

The Q.Fly® Explore delivers exceptional value, offering one of the most affordable SWIR payload solutions for DJI drones. This allows us to Explore what beyond-visible imaging has to offer without breaking the bank.