Quantum SOLUTIONS®

Q.FLY® EXPLORE

2 channel drone payload

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 target SWIR reflectance from the air

KEY FEATURES

- **World's First DJI Payload With Built-in SWIR Sensor**: 640 x 512 pixels, 400 - 1700 or 400 - 1900 nm spectral response
- **High-Resolution RGB Camera**: 16MP for visual positioning and context
- **Customizable Spectral Filters**: Quickly install and remove band-pass filters for targeting specific wavebands of interest.
- **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
Ext. spectral range	900 nm - 1900 nm (optional)
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

PPKmodule

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

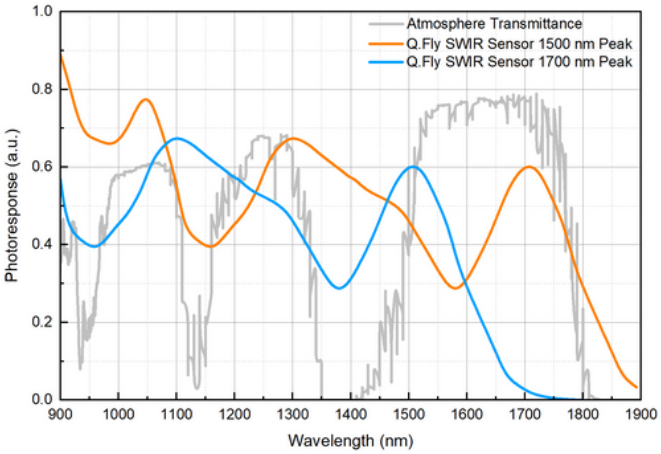
SWIR Filters *Optional add-ons*

Filter Type	Band-pass
Mount	C-Mount, 30.5 mm
Peak Transmission	> 95%
Bands available (nm)	850 | 1150 | 1300 | 1450 | 1500 | 1550 | 1600 | 1650 | 1700 | 1750

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 target SWIR reflectance from the air instantly.



Gain access to a wider range of information than ever before: Q.Fly® Explore captures data in the short-wave infrared spectrum, 400 nm - 1700 nm or in extended 400 - 1900 nm ranges, revealing hidden details invisible to standard cameras.

Weightless Remote sensing

The Q.Fly® Explore is a next-generation solution for remote sensing research finally giving researchers a lightweight payload that's sensitive to the key wavelengths used in index mapping. With built-in GNSS and a streamlined workflow, you can focus on data analysis while accurate georeferencing and orthomosaic readiness happen automatically in the background.

Real-time mapping ensures you never miss a moment, and the gimbal-stabilised multispectral system delivers crisp, stable imagery even in challenging conditions. Whether you're tracking NDMI, NDVI, or mineral indices, Q.Fly® Explore gives you the power to sense more.

Select the Wavebands that Matter Most

The Q.Fly® Explore is purpose-built for spectral imaging in the SWIR band, using interchangeable narrow-band filters to uncover chemical signatures vital to your research. Lightweight and easy to deploy, it provides a streamlined alternative to bulky, complex hyperspectral systems.

Designed for targeted fieldwork, it delivers the robustness and smooth workflow you need in challenging terrain ensuring you capture the right shot, exactly where and when it matters.

Freedom to Experiment

Remote sensing has changed. No longer is it confined to hyperspectral drones and satellites. Leveraging economies of scale and Quantum Dot Cameras we open the door - wide open.

The Q.Fly® Explore delivers exceptional value, offering one of the most affordable SWIR payload solutions for DJI drones. We believe these are essential tools and so we have made them affordable for the individual researcher.

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sales@quantum-solutions.com
www.quantum-solutions.com

Unit 8, Innovation Quarter, Oxford Technology Park, OX5 1RD, Oxford, UK