

NuFLIGHTER

A LIGHTWEIGHT EMBEDDABLE MODULE FOR AERIAL RADIOLOGICAL INVESTIGATION



Dose rate measurement without constraints: ISYmap NuFLIGHTER enables easy and quick aerial investigations.

Mountable on any kind of drone, ISYmap NuFLIGHTER embeds on lightweight UAVs like DJI Mavic Air. It's fully integrated with the DJI Go app, allowing the pilot to control the radiological measurement as well as the actual drone, within the same interface.

Benefits

- Real-time measurement
- Lightweight module embeddable on any kind of drone
- Autonomous and independent of the drone
- GPS positioning of each measurement
- Safe measurement for the operator
- Plug and play system
- Measurement system fully integrated to the drone piloting software (dedicated application)
- Scaffold-free ALARA measurement at heights

Key Figures

Si-Csl(Tl)

↳ Modular Sensor

2 hours

↳ Autonomy

75 g

↳ Weight

Measure: Modular Sensor

	Gamma spectrometry		Dose rate		
	S-60	S-500	DR-H	DR-M	DR-L
Sensor	CZT (60 mm ³)	CZT (500 mm ³)	Si	Si	CsI (TI)
Emitter	Gamma	Gamma	Gamma	Gamma	Gamma
Unit	Count / keV	Count / keV	Gy.h ⁻¹	Gy.h ⁻¹	Gy.h ⁻¹
Measure range	≤ 10 mGy.h ⁻¹	≤ 1 mGy.h ⁻¹	1 μGy.h ⁻¹ to 10 Gy.h ⁻¹	1 μGy.h ⁻¹ to 100 mGy.h ⁻¹	10 nGy.h ⁻¹ to 1 mGy.h ⁻¹
Energy range	59 keV to 2 MeV	59 keV to 2 MeV	59 keV to 2 MeV	59 keV to 2 MeV	59 keV to 2 MeV
Channels	1024	1024	-	-	-
Energy resolution	<2.5% at 662 keV	<3% at 662 keV	-	-	-
Dimensions	55 x 65 x 30 mm	55 x 65 x 30 mm	50 x 45 x 30 mm	50 x 45 x 30 mm	50 x 45 x 30 mm
Weight	85 g	85 g	65 g	65 g	65 g

Applications

- *Aerial radiological mapping*
- *Indoor or outdoor aerial radiological measurement and filming*

Related Material

- ISYdrone App
- Unmanned Aerial Vehicle

Electrical Data

Battery.....	Lithium Polymer
Voltage.....	3.7 V
Battery power.....	1 Ah
Autonomy.....	2 hours
Monthly discharge.....	~2%
Charging system.....	Qi inductive charger, 85–264 VAC @ 50/60 Hz

Mechanical Data

Ingress protection.....	IP63
Dimensions.....	55 x 45 x 30 mm
Weight.....	75 g

Communication

Name.....	iCOM
Long-range communication.....	LoRa (868 MHz)
Short-range communication.....	Bluetooth, Wifi (820.11 b/g/n 2.4 GHz)
Outdoor localisation.....	GPS (+/- 3 m)
Indoor localisation.....	Pseudolites
Security.....	AES-256 / RSA-1024
Display.....	PC, tablet, smartphone

Environment

Operational temperature.....	-20°C to +60°C
Storage temperature.....	-20°C to +60°C
Charging temperature.....	0°C to +45°C

Norms

Compliant with CE standards and RED Directive (2014 /UE)