

# HySpex Mjolnir

Contracted by the Norwegian and French Ministry of Defense, NEO designed a high-end airborne hyperspectral sensor, with an optical architecture different from the classic cameras. Upon completion of the project, NEO used the optical architecture to develop Mjolnir [ˈmjɔːlnir] – a very compact camera designed specifically for UAV use.

The HySpex Mjolnir hyperspectral imaging system for UAVs provides a unique combination of small form factor and low mass, combined with high-performance specifications and scientific grade data quality. The UAV bundle offered by NEO integrates a hyperspectral camera with an onboard computer and an integrated navigation system, all fitted into a self-contained module.



	V-1240	S-620	VS-620	
Spectral range [nm]	400-1000	970-2500	400-2500	
Spatial pixels	1240	620	620	
Spectral channels	200	300	490	
Spectral sampling [nm]	3.0	5.1	3.0	5.1
Field of View	20°	20°	20°	
Pixel FOV across/along [mrad]	0.27/0.27	0.54/0.54	0.54/0.54	
Bit resolution	12 bit	16 bit	16 bit	
Noise floor	2.3 e-	80 e-	2.3 e-	80 e-
Dynamic range	4400	10000	4400	10000
Peak SNR (at full resolution)	> 180	> 900	> 180	> 900
Max speed (at full resolution)	285 fps	100 fps	100 fps	
Power consumption*	50 W	50 W	50 W	
Dimensions (l-w-h) [mm]*	250-175-170	365-175-170	374-202-178	
Weight*	< 4 kg	< 4.5 kg	< 6.0	

\*Includes IMU/GPS and DAU