

KNIGHT is at the forefront of New-Space Technology

The KNIGHT satellite will be jointly developed by ST Engineering Satellite Systems and ImageSat International (ISI). The KNIGHT satellite is planned for launch in 2027 and it offers high-end capabilities and performance for earth observation missions. These will include very high-resolution true color imagery at 50cm, full motion video (FMV) at 28 frame-per-second, along with cutting-edge SWIR imaging technology at 1.5m. The satellite also features an onboard mission processing system and comes with an intersatellite link to support dynamic tasking.

KEY CAPABILITIES

KNIGHT is a New-Space satellite that offers high-end capabilities and performance for earth observation missions whilst maintaining high reliability.

KNIGHT satellite will be operating from the Sun-Synchronous Orbit (SSO) at an altitude of 500km. Apart from the very high-resolution imaging, the 250kg satellite will also be able to image in night-time, low-light, dust and haze conditions via its high-resolution SWIR technology.

The unique SWIR capability will enhance the satellite's ability to better support infrastructural and environmental monitoring, as well as the monitoring of disaster-prone and forest-fire regions.

The KNIGHT satellite will be added to ST Engineering & ISI existing satellite constellation to extend satellite services & geospatial insights-as-a-service to worldwide customers.

< DEFENSE & SECURITY



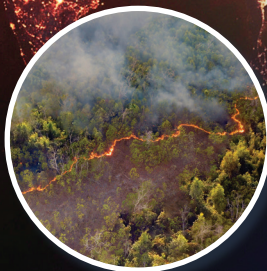
NATURAL DISASTERS >



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TECHNICAL SPECIFICATIONS

| PARAMETER | NOMINAL VALUE |
|------------------------|---|
| Resolution | VIS – 0.5 m SWIR – 1.5 m |
| Swath | VIS – Minimum 7 km SWIR – 4 km |
| Imaging Products | Panchromatic, Multispectral (RGB), SWIR, True color HD video, SWIR HD video |
| Imaging Modes | Spot, Strip, Mosaic, Stereoscopic, Video |
| Off-Nadir Imaging | Up to 45° |
| Spectral Band | VIS – 400 nm to 900 nm SWIR – 1000 nm to 1700 nm |
| Lifespan | 7 years |
| Near Real-Time Tasking | Ground station network & Inter-satellite Data Relay System (IDRS) |
| Onboard Storage | 8 TB |
| Launcher Compatibility | Compatible with Rideshare programs from commercial launchers |
| Mass | 250 kg |
| Orbit | 500 km, SSO |

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