# SATREC INITINE

# Sensing to Intelligence

World-Leading Solutioin Provider for Earth Observation Missions

Satrec Initiative was founded in 1999 by the engineers who developed the first Korean satellite and a series of advanced small satellites. We have been focusing on developing high-performance small/medium satellite systems for Earth observation missions. Today, we provide from remote sensing satellites, ground systems, imaging services to Al-based geospatial analytics integrating the Earth observation value-chain.



Satellite Systems

**Electro-Optical Payloads** 

**Ground Systems** 

**Imaging Services** 

**Geospatial Analytics** 



EO SOLUTION PROVIDER THROUGH VALUE-CHAIN INTEGRATION

30+ SPACE PROJECTS



13
SATELLITES
UNDER DEVELOPMENT









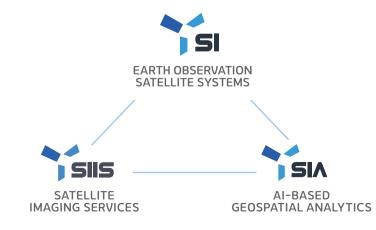




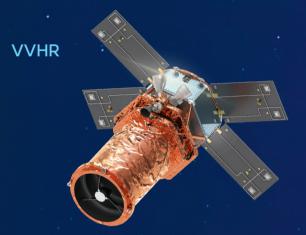
AI PACKS

50+

ISO 9001 AS 9100



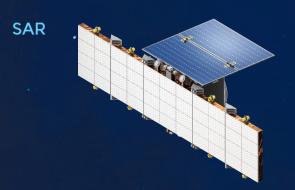
# Satellite System Portfolio



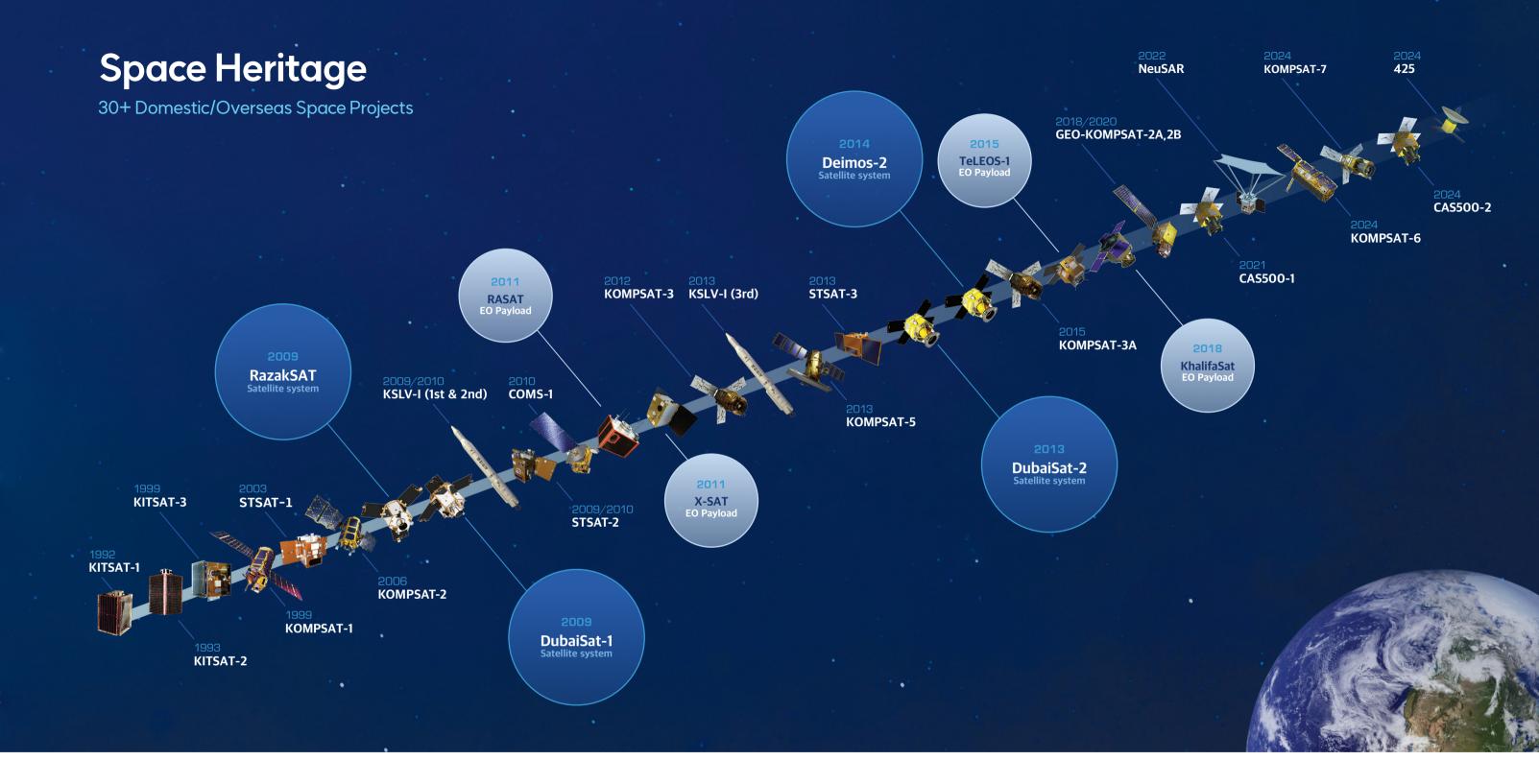
SpaceEye-T	@ 600 km
Bands	PAN + 4 MS
GSD	PAN 0.3 m, MS 1.2m
Swath Width	14 km
D/L Speed	1.6 Gbps



SpaceEye-M	@ 500 km
Bands	PAN + 4 MS
GSD	PAN 0.8 m, MS 3.2 m
Swath Width	9.6 km
D/L Speed	600 Mbps



SpaceEye-R	@ 500 km
Band	X-band
GSD	< 1 m (spot)
D/L Speed	600 Mbps



### **Customers/Partners**







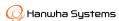




















































### **High-Performance Small/Medium Satellites**

### **Satellite Platform**



High-speed maneuvering, rapid data trsnamission, and stable power supply to complete mission of satellite

### **EO Payload**



Provides high-quality images with large diameter optics and low-noise detectors

### **Ground System**



Maximizes satellite operational efficiency and image quality through optimized systems

### Satellite Systems Development



1 Design & Analysis 02

**Assembly** 

Manufacturing & 03 Space Environment Test 04 Launch & Early Operation

# **Ground Systems**



### **Mission Control System**

- Satellite Control
- Flight Dynamics
- Mission Planning
- · Data Management & Archiving
- Satellite Simulator



### **Image Receiving and Processing System**

- High-Speed Image Data Acquisition
- Radiometric/Geometric Correction
- Image Collection Planning
- · Catalogue Search & Browsing
- Post-launch CAL/VAL

# **Defense Programs**



### **Mobile ground station**

- Mobile ground receiving processing system for EO/IR satellites
- Mobile ground receiving processing system for SAR satellites
- Movable antenna, trailer, shelter, and support equipment
- Image receiving, processing, and analysis



### **SMUDI Secure Satellite Imaging Platform**

- Satellite/Aerial Image Fast Display
- 2D/3D Terrain and Image Display
- 2D/3D Simulation
- Image Analysis
- 2D/3D Engine and Server Equipment

# **Space Components**

Satrec Initiative develops and provides different types of in-house space components such as highaccuracy attitude control sensors, compact electrical components, and high-efficiency electric propulsion components.

Through our in-house design and manufacturing capabilities for space components, we provide costeffective solutions optimized for system performances.









X-band Transmitter

**Sensors** 





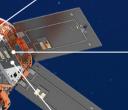


Star Tracker Sun Sensor

**Propulsion** 



Elec. Propulsion



### **Storage**



Solid State Recorder

### **Electro-Optical Payload**



Electro-Optical Payload

**Power Supply** 





Power Processing Unit

**Primary Power** 

# **Knowledge Transfer**

### **Training Courses for Satellite System**

SI provides tailored training courses that cover a wide spectrum of satellite system development from mission analysis to ground station operation and post-launch calibration/validation.

### **On-the-Job** Training

Our experienced engineers provide the on-the-job training (OJT) to design, manufacture, test, and operate satellite systems.

## Launch & Early Operation (LEOP) and In-Orbit Commissioning and In-Orbit Commissioning

We provide support during launch campaign, early operation, and in-orbit test, which is one of the most critical phases in satellite system development.



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441 Expo-ro, Yuesong-gu, Daejeon, 34051, Republic of Korea

### Jeonmin R&D Complex:

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