



Twenty First Century Aerospace Technology (Asia) Pte. Ltd. (21AT Asia) has been established in Singapore since July 2014. 21AT Asia is a provider of commercial high-resolution satellite imagery products and value-added services. 21AT Asia is the subsidiary of Twenty First Century Aerospace Technology Co., Ltd.(21AT) which is the owner and operator of a fleet of satellites: BJ1 4m, BJ3A 0.5m and BJ3B 0.3m, and the operator of Triplesat Constellation 0.8m (comprises 3 identical optical satellites).
21AT Asia aims to provide rapid response, guaranteed data and efficient delivery. Our space technology R&D center carries out research and development on image processing, EO information services and applications, new application software and systems. We have a team of well trained and experienced engineers that manages and processes the data for customers worldwide.









Triplesat	Specifications
Orbit	SSO (Sun-synchronous
	Orbit) Altitude 651 km
	LTAN 10:30 local time
	Push broom imager
	Inclination: 98.1°
Launch Date	July 10, 2015, 16:28 UTC
Spectrum bands	Panchromatic –450 to 650
(in nm)	Blue –440 to 510
	Green –510 to 590
	Red –600 to 670
	NIR -760 to 910
<b>Resolution GSD</b>	0.8m panchromatic
	2m multispectral at nadir
Accuracy (CE90)	< 20m
Dynamic range	10 bits
Swath width	23 km (at Nadir)
Revisit	daily (at 40°N)

## **Key Features**

Large swath collection Three identical satellites in array Daily revisit anywhere on earth Abundant archive history data





BJ3A	Specifications
Orbit	SSO (Sun-synchronous Orbit) Altitude 500km LTAN 11:00 local time Inclination: 97.0° Altitude: 500 km
Launch Date	June 11, 2021
Spectrum bands	Panchromatic – 450 to 700
(in nm)	Blue – 450 to 520
	Green – 520 to 590
	Red – 630 to 690
	NIR – 770 to 890

## **Key Features**

High capacity in various collection mode Half million km2 collection capacity per day Multi direction targeting Stereo accuracy RMSE less than 7.5m without GCP



Resolution GSD	0.5m panchromatic 2m multispectral at nadir
Precision	Better than 1:10000 map scale
Dynamic range	12 bits
Swath width	23.5 km (at nadir)
Revisit	4 day (at 40°N)



BJ3B	Specifications	Key Features
Orbit	SSO (Sun-synchronous Orbit) Altitude 610 km LTAN 11:00 local time Inclination 97.942°	High agility in various collection modes Multi direction targeting Mono, stereo and tri-stereo acquisitions
Launch Date	August 24, 2022	
Spectrum bands (in nm)	Panchromatic – 450 to 900 Blue – 450 to 520 Green – 520 to 590 Red – 630 to 690 NIR – 770 to 890	
Resolution GSD	0.3m panchromatic 1.2m multispectral at nadir	
Precision	Better than 1:10000 map scale	
Dynamic range	11 bits	
Swath width	11.5 km (at Nadir)	sequence of the second s
Revisit	5 days (at 45°N)	

# Our dedication elevates your insights into details

# **ELEVATION PRODUCT**

A digital elevation model (**DEM**) is a 3D computer graphics representation of elevation data to represent terrain of the Earth. DEMs are used often in geographic information systems, and are the most common basis for digital maps. While a digital surface model (**DSM**) may be useful for landscape modeling, city modeling and visualization applications; a digital terrain model (**DTM**) is often required for flood or drainage modeling, land-use studies, geological applications, maritime transportation and other applications.

### **DIGITAL TERRAIN MODEL**

A DTM represents the earth's surface without objects like vegetation and buildings.

#### Key features:

- > High accurate engineering-grade bare Earth elevation data
- > Automatic mass point generation and 3D breaklines
- > Hydro enforcement and road flattening
- > Accurate contours derived from the DTMs
- > High volume scalability using GRID processing computing

## **DIGITAL SURFACE MODEL**

A DSM represents the Earth's surface and it includes vegetation and man-made objects.

#### Key features:

- > High-resolution DSM at one post per pixel
- > High-fidelity DSM with sharp edges
- > Smooth building and ground surfaces
- > Hydro enforcement and road flattening
- > High volume scalability using GRID processing computing





21AT is an established leader in the creation of high-quality custom Elevation product. Our expertise includes decades of advanced image processing algorithm development, as well as image analyst and application experience.

## Contact

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