



GENE



## **Space optics for finding our treasures**

## **HISTORY**

Genesia has developed more than 30 optical instruments on small/medium/large size of satellites and sounding rockets in 20 years. We are proud that all the instruments, as bus components and/or mission components, have operated normally and properly on orbit. Based on our achievements of maintaining high performances against temperature fluctuation, vibration, shock, vacuum and radiation, we have recently expanded applications of optical instruments from aerospace equipment to others, for example, high energy plants(nuclear fusion reactor).

## **BUSINESS**

Development & mass production of :

- Optical(UV/VIS/IR) systems for aerospace equipment, high-energy plants, and other applications.
- Hyperspectral imagers utilizing LCTF(Liquid Crystal Tunable Filter) especially. Our strong merits are
  - its wide wavelength band (from 0.4 $\mu$ m to 2.5 $\mu$ m by a single LCTF) as the world's leading.
  - Wide FOV with fast F number thanks to optical design based on our patented technology acquired in Japan & USA.

# PRODUCT



Space telescope with a diameter of up to 200 mm in diameter. Spectroscopic units of various types, especially LCTF(Liquid Crystal Tunable Filter) unit, can be mounted as options.

For example, the hyperspectral imager with a LCTF unit (the photo above) is the only space-qualified instrument in the world that satisfies both

- GSD is 5m from 650km above
- Number of wavelength bands  $\geq 300$



Wide-angle & hyperspectral imager with LCTF

This hyperspectral imager (the photo above) that can be installed on drones & UAVs is the only instrument in the world that satisfies both

- FOV is 90° (full width, diagonal)
- F# is 2.5
- Spectral range is from 0.4 $\mu$ m to 1.6 $\mu$ m by this single unit
- Spectral characteristics do not depend on the viewing direction

HQ Location	Mitaka city in Tokyo, Japan
Overseas Office	(None)
Year of Establishment	1996
Main Products	Optical(UV/VIS/IR) systems , hyperspectral imagers for aerospace equipment and high-energy plants.
Main Client	JAXA, NAOJ, QST and other national research institutes. Universities & Colleges in Japan and other countries.
Company Website	<a href="http://www.genesia.co.jp/">http://www.genesia.co.jp/</a>
Contact Form	Please send your email directly to the Point of Contact below
Point of Contact	Sales division, <a href="mailto:sales@genesia.co.jp">sales@genesia.co.jp</a>
Category	Component