



Image and Video
Systems for Space

20+ years of flight
heritage



ECLIPTIC

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ARQUIMEA-ECLIPTIC

Providing quality space avionics and sensor systems since 2001

Our product line includes Imaging and Video Acquisition and Processing Systems, as well as Payload and Experiment Controllers, Sequencers, and Data Routers/Switches and Managed Storage systems.

Image and Video Systems

The new generation of Image and Video Systems has been designed for agile aerospace philosophy in mind for small and large mission applications.

Contracted supplier for the Power and Propulsion Element (PPE) and the Habitation and Logistics Outpost (HALO) for Lunar Gateway, part of NASA's Artemis program.



Heritage

- › **20+** years of flight heritage
- › **75+** successful missions
- › **500+** cameras launched
- › **400+** contracts since 2001
- › Participation in major space programs from **Space Shuttle, ISS, to Artemis Gateway.**

Product Lines

- › **Earth observation**
- › **Spacecraft monitoring**
- › **Space Exploration**
- › **Surveillance**

Product Grades

- › **High-Rel & Rad-Hard**
 - › Level 1 & Level 2 parts (FPA Class 3)
 - › >15-years LEO, >10-years GEO, Lunar, cislunar
- › **Rad-Tolerant**
 - › Level 2 & Level 3 heritage parts
 - › >5-years LEO, 2-3 years GEO, lunar missions
- › **Standard**
 - › Level 3 Parts (COST) with flight heritage
 - › 2-3 years LEO, 1 year GEO missions

Image and Video Systems

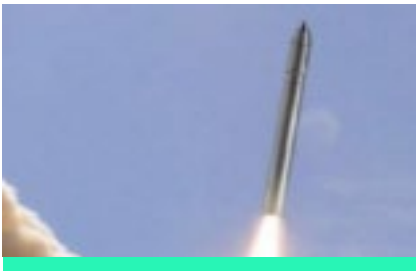
- › Modular camera systems enabling reuse of proven existing modules with extensive flight heritage providing interchangeable configurations of sensors and processing units
- › **Single Camera Video Systems**
 - › Visible (SD, Full HD, 4K)
 - › LWIR, SWIR, VNIR and Cooled MWIR
 - › Multispectral
 - › Spectrometers/ Hyperspectral
 - › Star Tracker
- › **Multi-Camera Digital Video Systems (DVS)**
 - › Supports 8 or more cameras in a single solution
 - › Optional sandbox with customer specific algorithms (e.g., AI-driven apps)
 - › Host Interface options:
 - MIL-STD-1553B CMD & TLM
 - LVDS, RS422, UART
 - Gigabit Ethernet
 - SpaceWire



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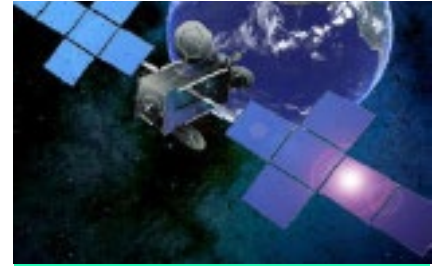
Ecliptic Notable Projects



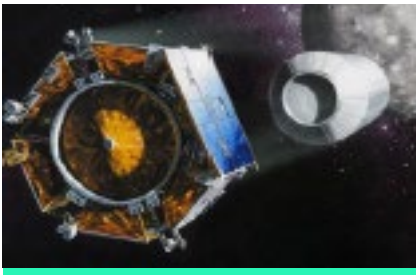
> 30 launches | Three US customers
2005+ | Missile defense
Video, payload control, data handling



Various | ~20 missions 2005+ |
Rockets and spacecraft Video, payload
control, data handling



10 GEO sats | Three US customers
2007+ | Comsat, tech-demo Video,
expt. control



LCROSS | NASA Ames 2006-2009 |
Lunar impact Complete payload control



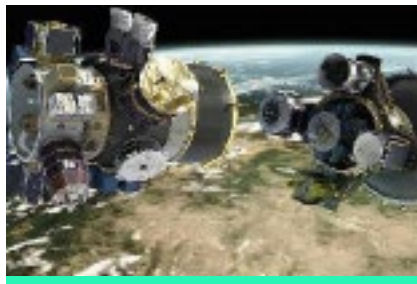
GRAIL A, B | JPL 2008-2012 | Lunar
gravity Video and imaging



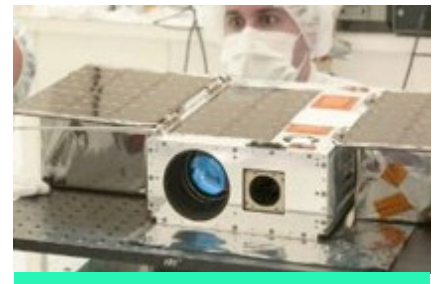
> 12 Cygnus | Orbital/NG 2010+ | ISS
cargo Video, expt. control



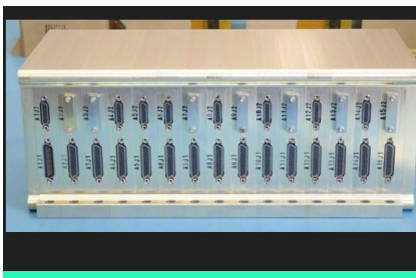
ROSA on ISS | DSS 2012-2017 | Array
demo Complete expt. control



SHERPA | Spaceflight 2016-2018 |
Rideshare 60 of 64 deployments



ASTERIA | JPL 2016-2017 | Exoplanets
Imaging electronics



Various missions
2019+ | Experiment Controller
Complete Experiment Control
Data Acquisition Controller and
Power Control Units



2 LEOs, 2 GEOs | MELCO 2017+ |
Comsat, tech-demo Video, expt. Control
(launching 2021+)



Lunar & cislunar | Nine missions 2020+
| Cargo and crew delivery, logistics
Payload control, video (launching
2021+)

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systems for space**



ABOUT US

Ecliptic is a space avionics and sensor systems company with 20+ years flight heritage, 100+ space mission and 500+ camera systems launched. The company has a long history of producing high reliability and radiation tolerant space avionics and imaging solutions.

From its facilities in Pasadena, California, Ecliptic develops, manufactures, and tests modular systems embedded in satellites, rockets and space vehicles for situation awareness, vehicle inspection and earth observation imaging, data management, storage and networking modules, experiment and payload data acquisitions and control, and sequencing, actuation, and deployment control and capture. Ecliptic's typical systems range from heritage-based COTS to 15-yr Space Grade systems allowing its customers to optimally configure their different mission needs.

Past missions includes launchers and spacecrafts for LEO, MEO, GEO, cislunar and lunar orbits and other exploration vehicles.

Ecliptic is part of **ARQUIMEA**, a Spanish technology company that operates globally in technically demanding sectors, such as the aerospace, defence, science, biotechnology and fintech sectors.

With over 18 years of experience, ARQUIMEA collaborates in the space sector with the leading space agencies, such as NASA and the ESA, leading companies in traditional space and New Space, international consortia, universities and research centers.

ARQUIMEA is a comprehensive supplier with the capability to develop and manufacture entire satellites, systems, subsystems and critical components for space.

For more info:

eclipticenterprises.com
arquimea.com