

©JAXA/JOE NISHIZAWA











# **Company Overview**

IHI Aerospace Co., Ltd. has been participating in space and defense development in Japan as a leading manufacturer of solid propellant rocket since 1953.

Japan has been carrying out very unique space development and IHI Aerospace Co., Ltd has been playing key role in the development through great contribution primary focused on design, development, and production of rocket systems.

JAXA has been leading the development of Epsilon launch vehicle as an important space project for Japan and IA has been playing the key role in the development as the system integrator based upon such successful heritage.

# **IHI AEROSPACE Co., Ltd.**

Address: Toyosu IHI Bldg., 1-1, Toyosu 3-chome, Koto-ku, Tokyo 135-0061 JAPAN

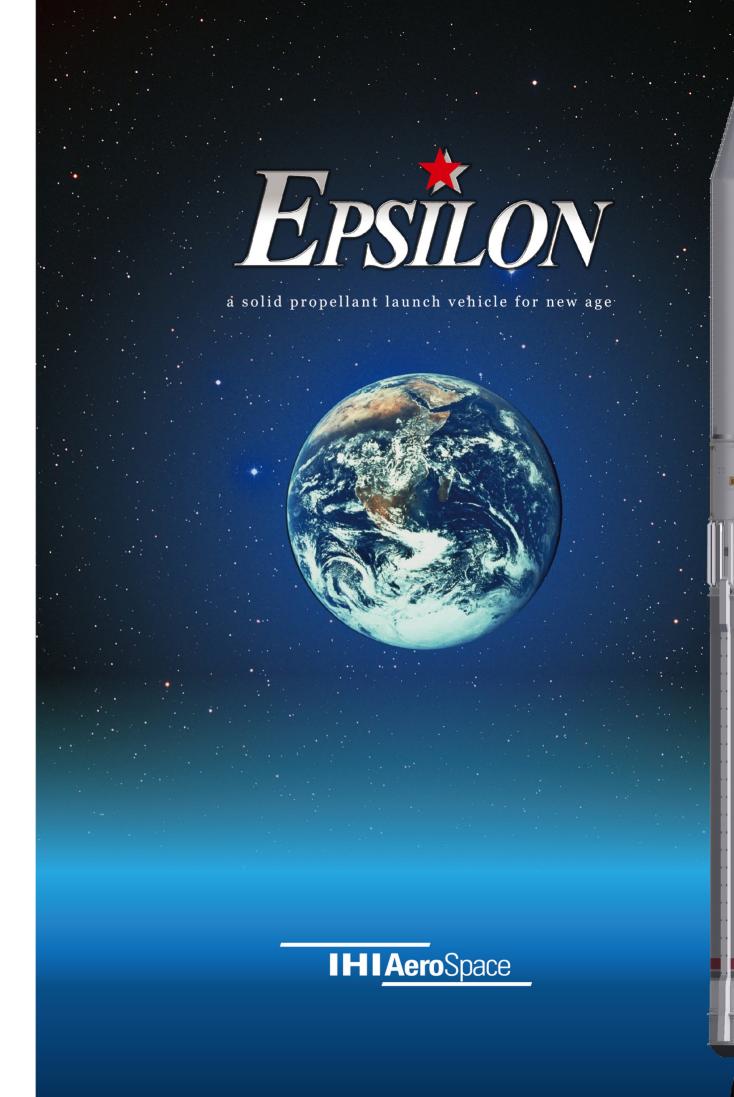
For more information about Epsilon,

Please visit website http://www.ihi.co.jp/ia/en/

or contact Mr. Atsushi Murakami, General Manager of Sales and Marketing Department,

**TEL:** +81(Japan)-3-6204-8015(Direct) E-mail: atsushi-murakami@iac.ihi.co.jp

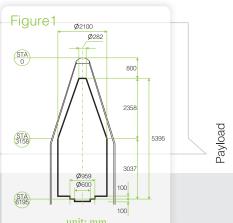
FAX: +81(Japan)-3-6204-8810





# Vehicle Description

- Three-staged rocket with Post Boost Stage
- Total Length: 26m Diameter: 2,5m Weight: 96ton
- Payload Adapter: Standard 937mm Marmon-Clamp band type
- Payload Envelope: Figure 1



#### Overview

Epsilon Launch System is a solid propellant launch vehicle suitable for a new age, with high performance and best value. The autonomous on-board checkout system can realize the minimum launch campaign period.

Epsilon can offer affordable dedicated launch service to customers for small satellites of various LEO missions such as science, technology demonstration and earth observation.

# Technical Heritage

There are two streams of heritage from predecessor rockets, H-IIA/H-IIB and M-V. The technology accumulated in H-IIA/H-IIB and M-V rockets are fully applied for Epsilon development in order to maintain the well-established reliability and to carry out development in a timely manner for reliable launch vehicle development. Ample heritage can be seen in every aspect such as 1st stage, 2nd stage, 3rd stage, PBS, fairing, avionics, guidance system and guidance software etc. Incorporated flight-proven subsystems make Epsilon highly reliable system.



©JAXA

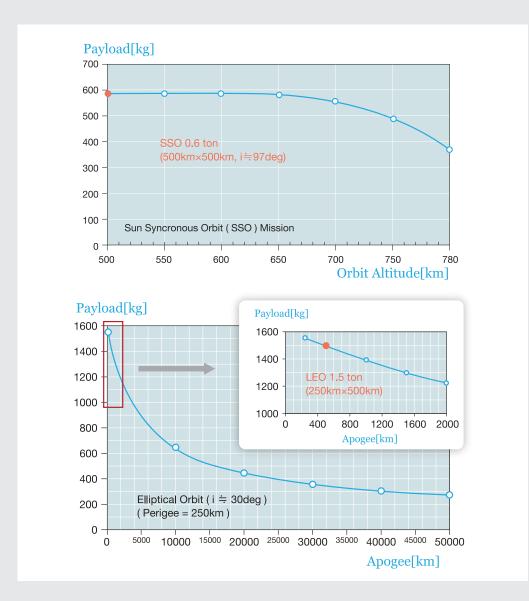
### Flight Heritage

Its inaugural flight was successively achieved on 14th September 2013 from JAXA's Uchinoura Space Center with an observation payload of SPRINT-A (Hisaki), one of space telescope series in LEO for solar planetary observation, not any test dummy payload as usually seen in test flight.



©JAXA/JOE NISHIZAWA

### Performance



# Advantages

- Very precise orbit injection by the PBS on the upper stage.
- · Comfortable launch environment, the same level as liquid propellant vehicle, with vibration suppression atop of third stage, acoustic blanket in fairing and sophisticated flue in the launch pad.
- · Late access for payload down to 3hrs before lift-off
- Minimum launch campaign period of less than 10 days
- · Dedicated launch with schedule flexibility
- · Best total solution for launching small satellites