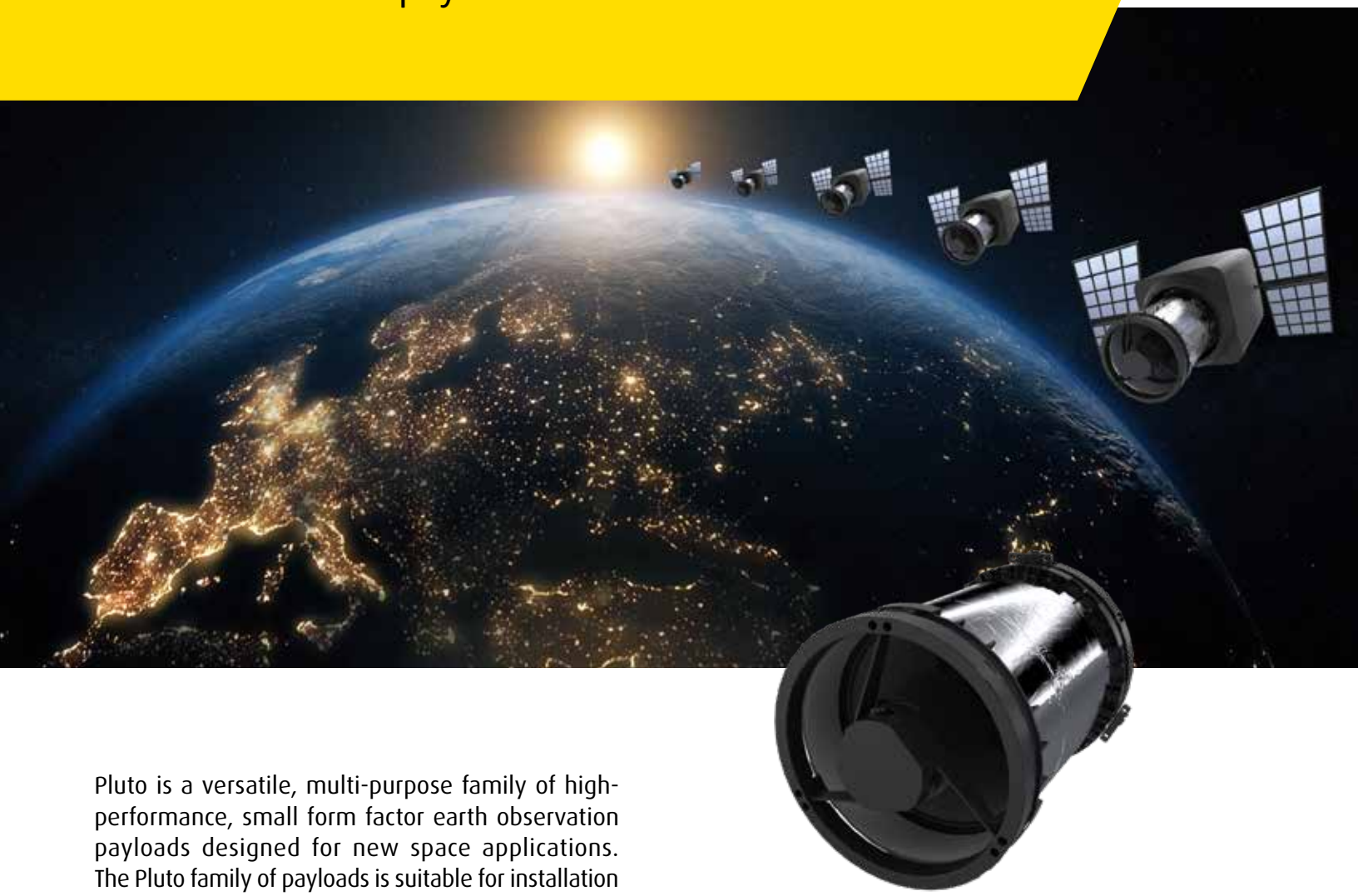
PLUTO

Earth observation payloads



Pluto is a versatile, multi-purpose family of high-performance, small form factor earth observation payloads designed for new space applications. The Pluto family of payloads is suitable for installation on small/micro satellites for diverse defense, homeland security, commercial and scientific applications.

Legacy space electro-optical systems

Elbit Systems ISTAR Division has a prestigious record and proven expertise in developing legacy space imaging systems. A global leader and national knowledge center in the field of innovative space cameras, the ISTAR Division's complex electro-optic observation systems have been in orbit since 1995, playing a vital role in major space programs for military, government and civilian applications.

Elbit Systems™ ISTAR

PLUTO

Earth observation payloads

System overview

The Pluto family of payloads delivers high spatial resolution and detailed earth imaging via wide spectral range and accurate mapping. The solution provides high quality situational awareness, featuring advanced imaging capabilities that enable enhanced detection, monitoring and operational planning.

Multi-mode imaging capabilities

The Pluto family offers diverse imaging modes, including high resolution panchromatic and multispectral (MS) images, RGB video clips, NIR channel (optional) and SWIR (optional). Pluto features a step & stare mode of operation with optional push-broom scanning mode. The multi-purpose observation payloads provide optimum visibility and enhanced imaging capabilities in degraded visual environments, such as cloud and smoke covered areas.

Multi-mission applications

The Pluto family of payloads is suitable for a variety of applications, including border control, disaster/ environmental monitoring, emergency planning and operations, materials identification, agriculture management and critical infrastructure protection. In addition, the solution offers advanced surveillance and reconnaissance capabilities.

Key Features

- Small weight and power consumption (SWaP)
- Scalable apertures
- Configurable sensors to meet customers' needs
- Wide field of view

Key Benefits

- New space applications
- Detailed earth imaging
- High performance/low mass
- Versatile, multi-purpose payload
- Scalable and configurable system architecture

Technical Specifications

PAN/MS GSD (m) @ 500km	0.5m
Swath (km) @ 500km	8km
Aperture (m)	0.35 - 0.5
PAN spectral range (µm)	0.45 - 0.9
MS spectral bands (µm)	Typical R,G,B,NIR
SWIR spectral bands (µm)	1-1.7
Video	RGB
Mass (kg)	<40
Power (W)	<50

Elbit Systems Ltd.
Advanced Technology Center, P.O.B 539, Haifa 3100401, Israel
E-mail: istar@elbitsystems.com www.elbitsystems.com

Follow us on