TEKEVER

PUSHING THE BOUNDARIES IN SPACE

Space is playing an increasingly important role for humankind and is an integral part of our economy. From space exploration, Earth observation and new technology development, TEKEVER delivers advanced technology to push the boundaries in space.

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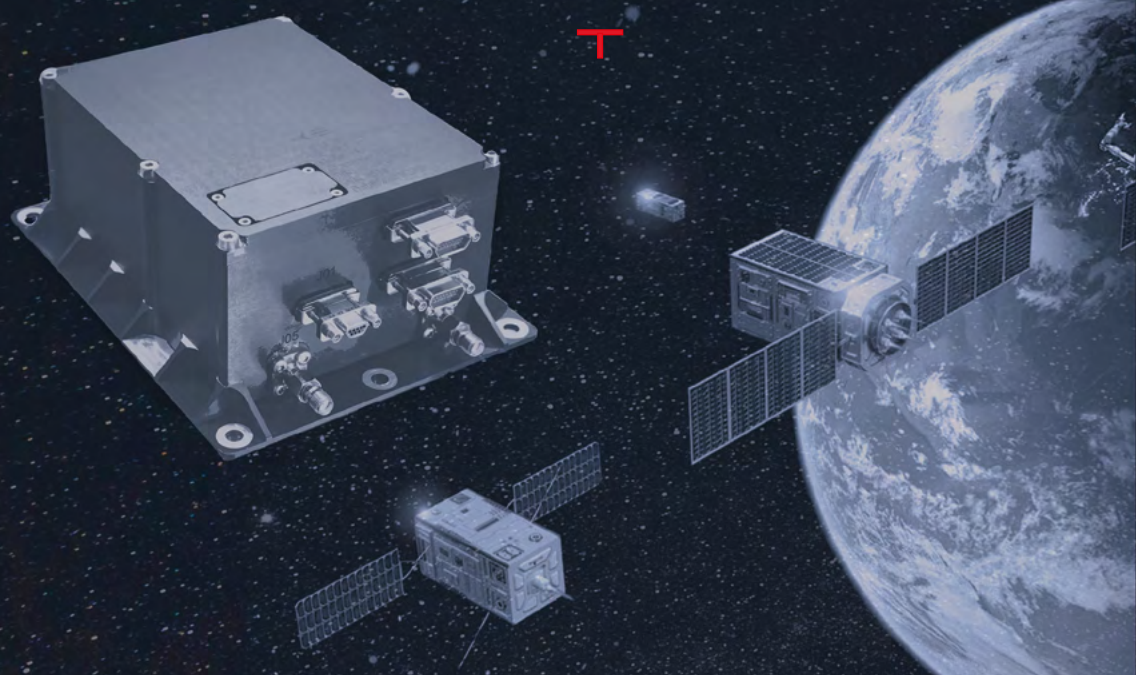
YOUR EYES ON THE UNKNOWN

GAMALINK

COMMUNICATION SUBSYSTEMS & INTER-SATELLITE LINK

GAMALINK is one of the most advanced and flexible software-defined radios on the market. It provides simultaneous support for multiple types of ground and inter-satellite links. It is characterised by high flexibility in frequency allocation, robust RF protocol, ranging measurements and correlation mechanisms embedded in the data communications and networking features allowing different topologies and data relaying. **GAMALINK** is the technology enabler for creating a unique communications network incorporating not only the space, but also the ground segment.



GAMASAR

SYNTHETIC-APERTURE RADAR

GAMASAR technology provides cloud-penetrating and light-independent capability to capture key terrain data for security applications, resource management, environmental monitoring and others. Identification and rapid response to environmental or event-based phenomena (e.g. oil spill, forest fire) is invaluable in situations of emergency. Flexibility of TEKEVER solution allows installation in any platform of choice: either UAV or SAR-enabled satellite, providing users with low-latency data upon mission request.

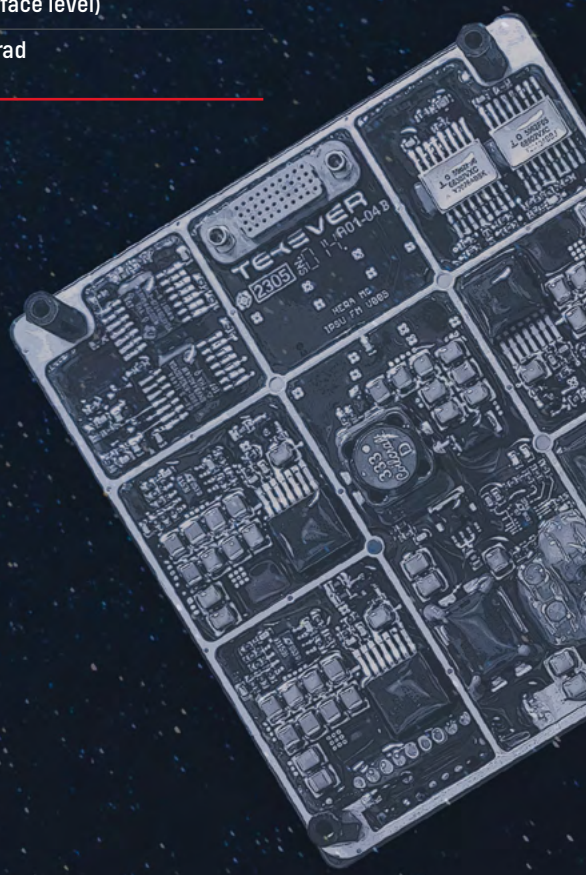
SDR-based Inter-Satellite Link (ISL) for flexible in-orbit connectivity

GAMALINK

GAMALINK is a RF communications platform, optimised for in-orbit connectivity. It supports point-to-point and multi-node packet-oriented communications and offers seamless ranging, range rate and time correlation/synchronisation capability together with data exchange. It is the perfect enabler for formation flying, swarm missions or radio science applications.

KEY SPECS

Communications Range	10 cm to 1000+ km
Frequency Band	S-band (2.0 to 2.5 GHz)
RF Output Power	100mW to 4W
Net Data Rate	10kbps to 500kbps (adaptive)
Supply Voltage	22V to 32V unregulated
Data Interfaces	2 x RS-422 (up to 460800 baud) 2 x PPS input 2 x PPS output
Ranging Accuracy	Better than 50 cm (3-sigma)
Range Rate Accuracy	Better than 1 mm/s with 60s of integration time
Time Correlation Accuracy	Better than 1 ms (at interface level)
Radiation Protection	Qualified for TID up to 20krad SEE/SEL tolerant.



CONFIGURATION OPTIONS

GAMALINK is available in two different configurations:

- Deep Space version, with a robust mechanical housing, providing additional radiation shielding.
- New Space version, more compact and streamlined design, compatible with the CubeSat form factor.

	Deep Space	New Space
Dimensions	160 x 120 x 65 mm	96 x 94 x 45 mm
Mass	910 g	450 g

THEY TRUST US

esa · OHB · OHB ITALIA We Create Space · sener · TYVAK INTERNATIONAL A Terran Orbital Corporation

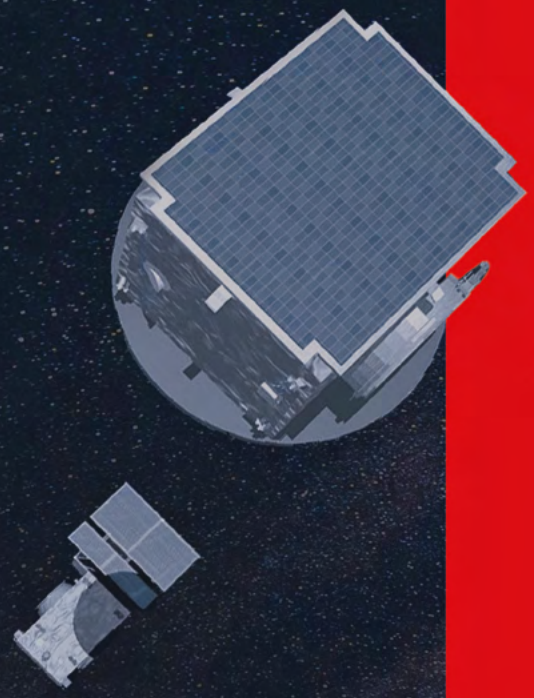
CASE STUDIES

ESA HERA MISSION

TEKEVER provided its Inter-Satellite Link (ISL) technology for the **ESA Hera Mission**, now en route to the asteroid Didymos to study the aftermath of NASA's DART impact on its moonlet, Dimorphos. The ISL technology enables communication and relative positioning between the mission's three satellites. This unique integration is a vital asset to Hera, which will gather critical data with the potential to pave the way for a repeatable and well-understood planetary defence technique to protect Earth from future asteroid threats.

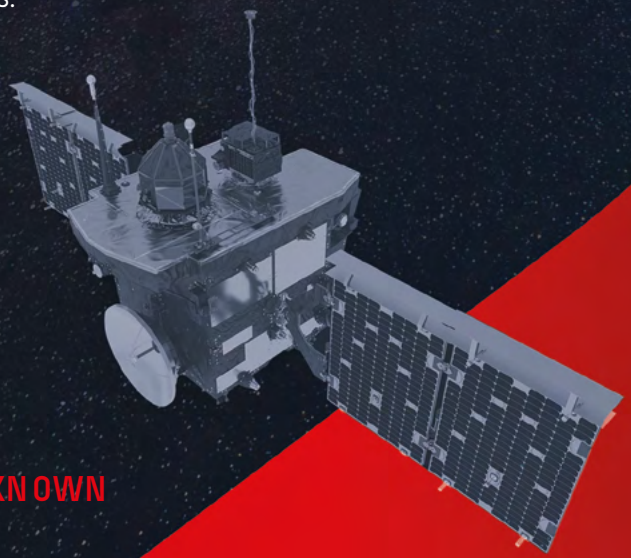
ESA PROBA 3 MISSION

TEKEVER's ISL, based on its GAMALINK technology, also contributed to the **ESA Proba-3 Mission**. Our technology validates precision formation flying in space and enables coordinated manoeuvres between spacecraft flying just metres apart. These advanced techniques — such as high-precision pointing, reorientation, and maintenance — pave the way for future multi-satellite missions in space science, Earth observation, and in-orbit servicing.



ESA COMET INTERCEPTOR

TEKEVER is supplying its ISL technology for **ESA's Comet Interceptor Mission**, which will deploy two probes to observe a pristine comet or interstellar object — an unprecedented glimpse into the early Solar System or distant planetary systems. The ISL enables real-time communication and coordination between the three spacecraft, ensuring consistent data sharing during high-speed flybys. This capability is key to unlock new scientific insights from dynamic, multi-angle observations.



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