



SATELLITE TESTING, AIT AND SIMULATION

PROVE MISSION READINESS FROM EARLY DESIGN
AND INTEGRATION TO LAUNCH AND OPERATIONS



TERMA[®]
ALLIES IN INNOVATION

50+
years of space
experience

100+
missions supported for ESA,
NASA, DLR, and defense

1000+
satellites supported
by Terma

Space missions depend on complex hardware, software and systems working together correctly before launch. AIT and simulation teams must **detect issues early, protect valuable flight hardware** and complete increasingly demanding missions within tight schedules.

With 50+ years of space experience, Terma ensures that customers can verify satellite performance across the full lifecycle, from software development and subsystem testing to integrated satellite AIT, launch readiness and mission operations.

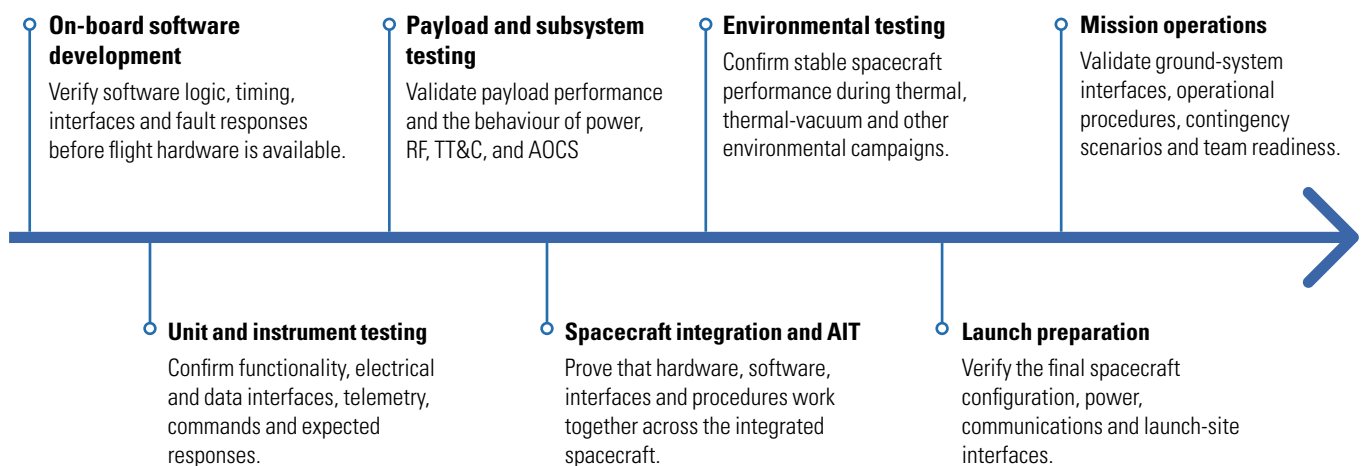
From focused subsystems to complete or hybrid test environments, Terma helps detect issues earlier, reduce integration risks, and build confidence before launch.

Key outcomes

- Reduce manufacturing and test risks
- Automate repeated test activities
- Accelerate verification
- Protect flight hardware
- Reuse procedures, data and configurations
- Scale from one instrument/subsystem to complete satellite and constellation production
- Validate operational procedures and team readiness before launch

Test Competence across the mission lifecycle

From early software development to operations, Terma helps customers determine what must be tested, proves that each function performs as intended and selects the right combination of test, checkout, simulation capabilities and prepare the staff operating the satellites.





Combining testing expertise, systems engineering and proven mission experience, Terma works as a trusted AIT partner by helping customers to:

- **define what must be verified,**
- **design the right test approach,**
- **implement an infrastructure suited to their mission, organization and future needs.**

End-to-End Testing for Satellite Verification

Prove electrical power stability

Confirm that the satellite can be safely powered, monitored and protected throughout integration, environmental testing and launch preparation with software defined, configurable Power SCOE, independent, and synchronized monitoring and power-system simulations. Verify power interfaces, loads, distribution behavior and responses to abnormal conditions throughout AIT and launch preparation.

Verify communication performance

Prove that TT&C chains, transponders and RF payloads operate accurately and consistently with automated RF and TT&C test systems, and integration with central checkout. Validate end-to-end communication paths before they become mission critical.

Demonstrate instrument and payload readiness

Confirm that instruments and payloads perform their intended functions and interact correctly with spacecraft electrical, data and command interfaces by combining flexible Instrument and Payload EGSEs.

Coordinate complex test campaigns

Bring satellite, test equipment, procedures and data together in a controlled environment. Improve consistency, reduce manual handling and maintain clear visibility of test progress and results.

Validate software and spacecraft behavior early

Use processor emulation, Software Verification and Validation Facilities to find software, system and operational issues before complete flight hardware is available. Test faults, recovery actions and mission scenarios earlier in the program.

Confirm environmental resilience

By connecting thermal test control, data acquisition, alarms, archiving and spacecraft checkout, monitoring, control and documenting spacecraft performance throughout thermal and environmental campaigns, enabling teams to identify anomalies quickly and demonstrate compliance with test objectives.

Define and scale the AIT infrastructure

Through test-architecture consultancy, systems integration and experience from individual missions and serial production, Terma helps customers determine what must be tested, select the required capabilities and develop an AIT environment that can evolve from a single spacecraft to constellation-scale production.

Scale satellite testing

By standardizing test configurations, reusing validated procedures and automating repeatable activities, Terma helps manufacturers establish consistent test processes across multiple stations and spacecraft.

Proven across demanding mission

Terma supports more than 100 missions in the domains Earth observation, Science, Exploration, Telecommunications, Navigation, Space Safety and Defense from small satellites and complex spacecraft to large constellations, including **OneWeb, Euclid, Copernicus, SARah, Galileo and Space Rider.**

If you have any questions, please contact our team

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Operating in the aerospace, defense, and security sector, Terma supports customers and partners all over the world. Our dedicated and talented global workforce develops and manufactures mission-critical products and solutions that meet rigorous customer requirements.

At Terma, we believe in the premise that creating customer value is not just about strong engineering and manufacturing skills. It is also about being able to apply these skills in the context of our customers' specific needs. Only through close collaboration and dialog can we deliver a level of partnership and integration unmatched in the industry.

Our business activities, products, and systems include: command and control systems; radar systems; self-protection systems for ships and aircraft; space technology; and advanced aerostructures for the aircraft industry.

Terma has decades of hands-on know-how in supporting and maintaining mission-critical systems in some of the world's most hostile areas. Terma Support & Services offers through-life support of all our products to maximize operational availability, enhance platform lifetime, and ensure the best possible cost of ownership.

Headquartered in Aarhus, Denmark, Terma has subsidiaries and operations across Europe, in the Middle East, in Asia Pacific as well as a wholly-owned U.S. subsidiary, Terma Inc., with offices in Washington D.C., Georgia, and Texas.