



MARKETS

Aerospace & Defence

Driving aerospace innovation through full-system integration

In aerospace and defence, electronics are not just components — they are safety-critical systems whose performance directly impacts mission success and operational reliability. Flights, satellites and mission-critical platforms rely on electronics that must withstand vibration, extreme temperature, radiation and long operating cycles without failure.

Because even a single defective connection or undetected fault can compromise an entire mission, aerospace and defence programs demand absolute precision, full traceability and zero-defect validation.

For this reason, test systems in these markets must go beyond functional verification: they must ensure repeatability, reliability and complete documentation of every unit tested. Exceptional test technology is not a competitive advantage here — it is a necessity.



The Aerospace & Defence market needs the highest standards in safety, reliability and performance. At 6TL, we turn these requirements into certainty through intelligent, modular and fully scalable test and integration solutions.

Backed by a highly experienced team of system engineers, automation specialists and integration experts, we don't just build test equipment — we take ownership of the entire project. Our engineers have a proven track record in aerospace and defence programs, managing complex specifications, documentation and compliance standards, making 6TL the safest and most efficient partner for high-stakes integration projects.

From avionics test benches, through fully automated handlers to advanced system-level integration, we support OEMs and Tier-1s in achieving mission-critical standards.

Our promise is clear: 6TL takes care of the complexity, so you can accelerate innovation with confidence.

Modular architecture

Our value lies not only in test equipment, but in systems integration – combining hardware, software, mechanics, switching modules, high-voltage and RF solutions into one cohesive build.

Our modular FastATE® architecture allows seamless integration of intelligent modules, minimum wiring, scalable performance and faster time-to-market.

The 6TL proposal is based on:

- High-level assembly of sub-systems or full box-build systems
- Modular architecture design and reuse
- Turn-key solutions: from concept up to delivery
- Collaboration at each stage offering efficiency and trust
- Managing supply chain, test, qualification and long-term service

Our key strengths

- ▶ **Modularity and scalability.** Our modules are intelligent, standardised and reusable, enabling cost-efficient upgrades and system growth.
- ▶ **Integration expertise.** We combine multiple disciplines (electronics, mechanics, automation, test) under one roof to deliver integrated systems.
- ▶ **Reduced Total Cost of Ownership (TCO).** By simplifying architecture and leveraging modularity, we reduce maintenance, wiring complexity and system lifecycle cost.
- ▶ **High-demand sector experience.** We understand the rigour of aerospace/defence markets—quality, traceability, reliability and compliance.
- ▶ **Flexible partnering model.** We can work as your integrator, OEM partner or EMS provider, adapting to the needs of your project.



Aerospace & Defence requirements	What it means in practice	The 6TL solution
Extreme reliability / zero-failure tolerance	Systems must operate flawlessly in mission-critical environments.	FastATE® modular architecture with intelligent modules → reduced wiring = fewer failure points and higher reliability.
Full traceability of every unit tested	Every product must be trackable through each step of its test and assembly process.	Integrated test software with automatic data logging, SN tracking and MES/ERP connectivity.
Compliance with aerospace standards (DO-160, IPC, ECSS, etc.)	Complete validation, documentation and controlled configuration.	Deliverables include documentation, IQ/OQ, FAT/SAT and full project configuration management.
Flexibility to manage change during the program lifecycle	Requirements evolve throughout the development and certification phase.	Modular test stations allow easy upgrades without redesigning the full system; reuse of fixtures and modules.
Integration of multiple technologies (electronics, RF, power, automation)	Complex assemblies require several disciplines working together.	6TL provides true system integration: hardware + software + mechanics + automation + documentation.
Multi-level testing (board, subsystem, full system)	Testing is required through several build stages to ensure compliance.	FastATE® platforms support PCB → subsystem → final assembly with the same core system.
Reduced Total Cost of Ownership (TCO)	Cost over lifecycle matters more than initial purchase price.	Modular + minimal wiring design = lower maintenance, faster serviceability, scalable upgrades.
Data security and confidentiality	Aerospace and defence programs require confidentiality and export-control compliance.	Controlled project environment, NDA compliance and secure data management throughout the lifecycle.



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