

SUCCESS STORY

ACCELERATING A MISSION-CRITICAL RF PLATFORM LAUNCH THROUGH EMBEDDED TEST DEVELOPMENT PARTNERSHIP

AEROSPACE & DEFENSE

RF COMMUNICATIONS SYSTEMS

OVERVIEW

A leading aerospace and defense contractor was preparing for the fastest product launch in its history—a highly complex RF communications platform requiring simultaneous product development and manufacturing test readiness.

The organization needed to design and deploy sophisticated board-level, module-level, and system-level test infrastructure in parallel with engineering development. To meet the aggressive schedule, the customer partnered with **Creation Technologies** and its **Test Development Services (TDS)** team to execute a fully integrated, parallel development strategy.

STRATEGY

Becoming an Embedded Extension of the Customer's Team

Creation Technologies approached the engagement as more than a supplier relationship. The TDS team embedded directly into the customer's development timeline, operating as a true extension of the engineering organization.

- Dedicated Engineering Task Force**

Successfully navigating the intense complexities of this rapid product launch required a true all-hands effort. This was achieved through a seamless, collaborative implementation amongst Creation's cross-functional staff of program management, regional manufacturing operations, and the Test Development Services (TDS) team. Guided by Creation's robust **LEAP processes** and a disciplined stage-gate system, this unified team successfully managed early-stage launch chaos, transforming a highly complex NPI into a predictable, scalable manufacturing success
- Parallel Product + Test Development**

Rather than waiting for product completion before developing manufacturing tests, Creation executed test development in parallel with hardware engineering—enabling faster transition into manufacturing, reduced production bottlenecks, and greater schedule predictability.
- Advanced RF Test Infrastructure**

Creation developed a comprehensive RF test ecosystem: stand-alone PC-controlled pre-functional test systems, shared instrumentation racks, functional, parametric, and burn-in test capability, and high-complexity RF calibration systems.

CHALLENGE

The Fastest Product Launch in Company History

The customer was operating under extraordinary timeline pressure. Product engineering and manufacturing test development needed to occur simultaneously—compressing what would traditionally be a multi-year effort into an accelerated production schedule.

The program required development of:

- Board-level functional testing
- Module-level testing
- System-level functional and RF parametric testing for contested comms environment
- Burn-in testing infrastructure
- Shock, vibe, powered and under test temp cycled burn-in environment

Supporting **3 PCBAs**, **2 RF modules**, and a highly complex RF communications system. RF testing requirements included:

FREQUENCY RANGE 600 MHz – 6 GHz	RECEIVE SENSITIVITY Down to -40 dBm	TRANSMIT OUTPUT Up to 35 dBm
CALIBRATION COVERAGE Thousands of frequencies & power levels	RUGGEDIZED SYSTEMS Built for harsh operating environments	

RESULTS

Compressing a Multi-Year Effort into 11 Months

Creation successfully completed more than **five man-years of engineering effort in just 11 months**, enabling the customer to meet one of the most aggressive launch schedules in its history.

11MONTHS
Full deployment timeline

12VISITS
On-site installations & training

9/10NPS
Net Promoter Score — TDS

Following launch success, the customer awarded Creation support for **three additional systems** over the next two years, establishing Creation as a trusted strategic partner for future programs.

"They didn't just drop off equipment; they embedded themselves in our timeline and saved our launch."

— PROGRAM DIRECTOR, AEROSPACE & DEFENSE CUSTOMER

CONSOLIDATE YOUR MANUFACTURING FOOTPRINT WITHOUT THE CAPITAL PENALTY OF REBUILDING TEST INFRASTRUCTURE.

Discover how we de-risk complex line transitions.

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CONTACT
OUR TEAM

KEY CAPABILITIES DELIVERED

- ✓ Parallel Product + Test Development
- ✓ Advanced RF Validation 600 MHz – 6 GHz
- ✓ 11-Month Full Deployment
- ✓ 12 On-Site Installations & Training
- ✓ Trusted Partner for 3 Additional Programs



SERVICES DELIVERED

- Functional Test Development
- RF Validation
- System Integration
- Production Support



INDUSTRY

- Aerospace & Defense
- RF Communications Systems

