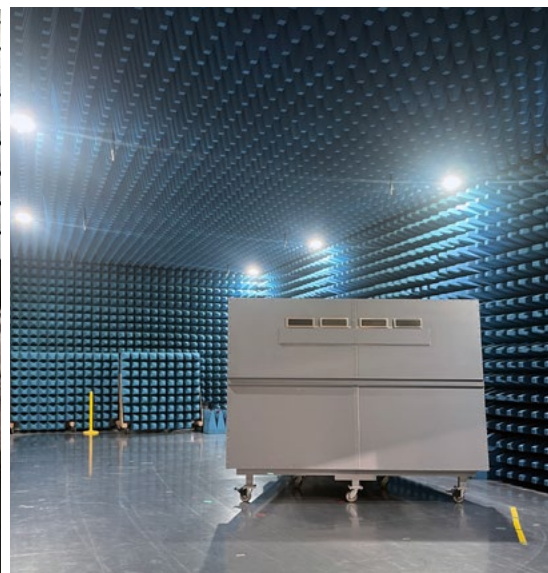




## END-TO-END VALIDATION FOR MISSION-CRITICAL PRODUCTS

### ONE PARTNER. ONE REGION. TOTAL CONFIDENCE.

Element's Chicagoland laboratories—Rockford and Chicago (Mount Prospect)—deliver an integrated, end-to-end product qualification solution. By aligning EMI/EMC, environmental, dynamics, mechanical, chemical, and electrical testing under one regional footprint, Element helps manufacturers reduce technical risk, compress qualification timelines, and achieve compliance with confidence.

This coordinated approach supports complex, multi-standard qualification programs from early development through final certification across aerospace, defense, automotive, medical device, industrial, electronics, and energy markets.

### COMPREHENSIVE PRODUCT QUALIFICATION CAPABILITIES

#### EMI/EMC & ELECTRICAL COMPLIANCE

- RTCA DO-160 (D-G)
- MIL-STD-461 (D, E, F)
- MIL-STD-464
- FCC, CISPR
- IEC 61000-X-X
- ISO automotive EMC standards
- IEC 60601-1-2 (medical devices)
- Reverb and HIRF testing

#### ENVIRONMENTAL & CLIMATIC TESTING

- Temperature, humidity, altitude, rapid decompression
- Thermal shock and thermal cycling
- Blowing sand and dust, salt fog, solar radiation
- Icing, freezing rain, ingress protection (IPX1-IPX9K)
- Explosive atmosphere and corrosion testing
- Standards: MIL-STD-810, IEC 60068, ASTM, SAE, ISO
- RTCA DO-160

#### DYNAMICS & MECHANICAL TESTING

- Vibration (sine and random)
- Mechanical shock, drop, and impact
- Centrifuge and loose cargo vibration
- Transportation and packaging testing
- HALT / HASS
- Standards: MIL-STD-810, RTCA DO-160, MIL-STD-202, ASTM, ISTA, IEC, OEM requirements





## COMPREHENSIVE PRODUCT QUALIFICATION CAPABILITIES (CONTINUED)

### CHEMICAL, MATERIALS & BATTERY TESTING

- Fluid compatibility and chemical resistance
- Corrosion, porosity, contamination
- Solderability and material characterization
- Dielectric strength, insulation resistance
- Power and current cycling
- UN / IATA lithium battery testing
- Standards: ASTM, ISO, IEC, SAE, UN

### LARGE & COMPLEX TEST ARTICLES

- High-capacity environmental chambers
- Heavy-payload shakers and large turntables
- Full-system aerospace and automotive configurations
- Support for integrated assemblies and complete systems

### SUPPORTED STANDARDS & MARKETS

- Aerospace & Defense
- Automotive & Transportation
- Medical Devices
- Industrial & Electronics
- Energy & Battery Systems

**Key Standards:** RTCA DO-160, MIL-STD-810, MIL-STD-461, MIL-STD-464, IEC 60068, ISO, SAE, ASTM, FCC, CISPR, UN/IATA, IEC 60601-1-2

### WHY ELEMENT CHICAGOLAND

- Integrated regional testing reduces handoffs and duplication
- Faster qualification timelines with coordinated test strategies
- Early identification of failure modes and performance limits
- Direct access to experienced engineers and standard interpretation
- Support beyond testing: fixtures, troubleshooting, iterative validation
- Clear data continuity from component-level testing to full-system qualification

### THE ELEMENT ADVANTAGE

Product qualification is more than passing a test—it protects schedules, budgets, and certification pathways. Element Chicagoland delivers clarity, consistency, and confidence through technically rigorous, fully integrated product qualification testing.

**When performance, safety, and reliability are non-negotiable, partner with Element Chicagoland.**

