

NTS Facility Spotlight: Tempe, Arizona

Specialists in EMI | Environmental | Dynamics | Solar



Space simulation capabilities include thermal vacuum cycling from -180°C to +180°C with TQCM monitoring



Shielded and anechoic chambers are on-site for emissions and susceptibility testing



Dynamic tests include vibration, shock, acceleration, and drop testing and can be performed at temperature extremes

About NTS Tempe

NTS Tempe is part of the largest worldwide network of independent testing laboratories, providing expert engineering and testing services to a wide range of industries. The technical personnel at NTS Tempe have extensive experience in hydraulics/pneumatics, dynamics, and environmental testing and has the expertise to accurately monitor equipment response and performance during the most severe test environments.

Customers are First

NTS works to anticipate your needs and to deliver on time and on budget. We know that our success depends on successfully meeting your requirements and your expectations. Why not let our extensive experience help your organization accelerate your product development time and verify international compliance to the necessary government and commercial regulations?

Engineering Services

NTS offers a full range of integrated engineering solutions. From idea to prototype, development to test, NTS can support you throughout your product lifecycle. The technical personnel at NTS Tempe have extensive experience in EMI/EMC, hydraulics/pneumatics, dynamics, and environmental testing. NTS has the expertise to accurately monitor equipment response and performance during the most severe test environments. Our extensive knowledge of current test and conformity requirements, both domestic and international, can assist you in your product assessment and define the proper requirements for your test program to achieve maximum customer acceptance. Aerospace,

defense, telecommunications and many other markets are served by our Tempe location.

Environmental / Dynamics

NTS is the largest independent company for environmental/dynamics testing with 14 facilities located nationwide. NTS Tempe is also a full service environmental test facility capable of managing your environmental test programs, both commercial and military.

Our technicians and engineers are recognized experts in the performance of a wide array of environmental simulations including thermal, combined environments, solar radiation, shock and vibration to name a few. Capabilities include over 35 different chamber, shaker, and drop tower test platforms. New this year is a full-service solar radiation lab with four large test chambers. Our in-house CAD and machine shop capabilities provides fixture design and fabrication services.

About NTS

NTS is a world leader in assisting organizations to access domestic and international markets. We are a single source for a full range of integrated engineering solutions, product testing, standards compliance, project management staffing solutions, engineering and managed services. Globally accredited by leading regulatory agencies, NTS can provide cost-effective programs to meet your requirements at one of our many U.S. or international facilities, or we can provide on-site solutions. NTS is the nation's largest independent standards compliance and product testing company serving companies within the aerospace, defense, automotive, telecommunications, electronics, power, medical device, computer, software and financial markets.



A large selection of climatic simulation chambers accommodate small to very large test articles



State-of-the-art solar radiation chambers can be configured to accommodate large or odd-sized test articles



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Highlights and Primary Test Specifications

Environmental

- ▶ Large selection of temperature/humidity chambers from 2'x2'x2' to 8'x8'x8' walk-in chamber
- ▶ Thermal shock, 3 shuttling chambers
- ▶ Altitude: up to 100,000 feet
- ▶ Thermal Vacuum: -180° to 180°C space simulation with TQCM capability, multi-zone temperature control; chambers: 8, 56, and 85 cubic feet
- ▶ Explosive decompression and Explosive atmosphere
- ▶ Salt fog chambers; wind driven rain, up to 40mph; blowing sand / dust
- ▶ Fluid susceptibility testing
- ▶ Solar Radiation: 4 chambers; up to 200 square foot test area

Primary Specification

MIL-STD 810, MIL-STD 202, RTCA D0160, ASTA, ASTM, NEMA, GR 63-CORE, GR 487-CORE, GR 13-CORE, UL 50, ETSI 300-019-xx, IEC 60068-2-xx

Dynamics

- ▶ Electro-Dynamic and mechanical shaker systems: up to 1" displacement; 1,200 to 20,000 force pounds; 5Hz to 3000Hz
- ▶ Up to 16 channels of data acquisition and analysis capability, including new Spectral Dynamics Jaguar control/analysis system
- ▶ Static / Dynamic load
- ▶ Acceleration: 57, 36, and 11-inch radius; up to 2000g's; up to 40 slip-rings
- ▶ Drop towers: up to 40 foot drop and package drop capability

Primary Specification

MIL-STD 810, MIL-STD 202, RTCA D0160, ASTA, ASTM, GR 63-CORE, GR 487-CORE, GR 13-CORE, UL 50, ETSI 300-019-xx, IEC 60068-2-xx

EMI / EMC

- ▶ Radiated Susceptibility 200 V/m, frequency range to 10kHz to 40GHz
- ▶ Radiated Emissions: 30 Hz to 40 GHz
- ▶ EMP pin and bulk cable testing
- ▶ Lightning
- ▶ Shielding effectiveness

Primary Specifications

RTCA/DO-160, MIL-STD-461

Fluids

- ▶ Proof pressure: hydrostatic pressure to 40,000 psig; pneumatic pressure to 6,000 psig; Leak testing

Primary Specification

MIL-STD 810, MIL-STD 202

Fixtures

- ▶ In-house CAD drafting, fixture design, and machine shop/fabrication capabilities