

Specialists in Compliance Engineering and Testing Services

National Technical Systems, 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 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 onsite solutions. NTS is North America'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.

Engineering Services

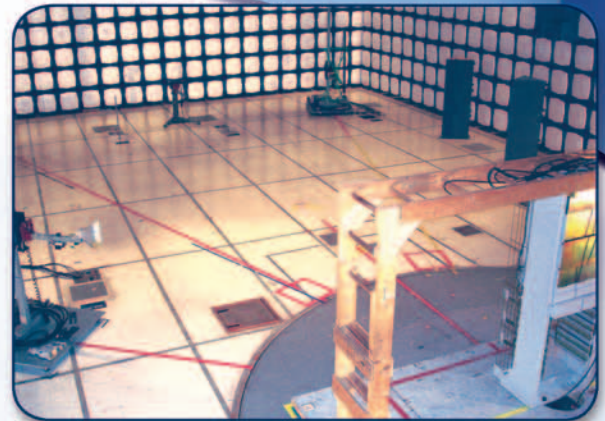
The experienced compliance professionals and technological leadership at NTS Calgary are able to solve your toughest product integrity problems and your most demanding product introduction needs in the areas of design analysis, testing, and compliance. NTS engineers are experts in product design and program management. An integrated approach utilizing various tools and industry proven techniques is used to assist the customers in incorporating cost-effective compliance and reliability solutions during the development cycle. From start to finish, the NTS comprehensive offering of value-added engineering design and test services can help get new products from concept to market faster. NTS Calgary serves telecommunications, industrial, aerospace, consumer and many other markets.

Advanced Wireless and Telecommunication Testing

NTS Calgary specializes in compliance testing of telecommunication and wireless products. The laboratory is equipped to handle the full set of Radio, EMC, Safety and Telecom certification testing according to FCC Part 15 subparts C, D, E and F, Parts 2/22/24, Part 68, the European R&TTE Directive, UL/CSA/EN 60950 and 61010 and other international specifications. NTS Calgary offers a range of capabilities and test systems including state-of-the-art 3-meter and 10-meter semi-anechoic chambers for EMC/EMI testing. In addition to Wireless and Telecommunications, NTS Calgary serves the Aerospace, Industrial, Consumer and Medical markets.

International Safety, EMC and Telecommunication Approvals

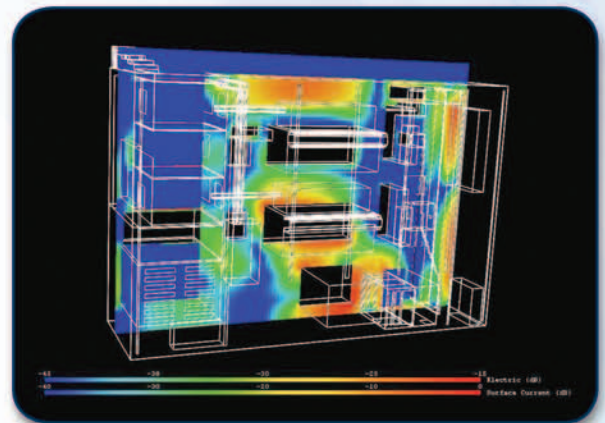
NTS Calgary is fully accredited by the Standards Council of Canada to ISO 17025 and is designated by Industry Canada as a Conformity Assessment Body. NTS Calgary holds approvals from the FCC, IC, BSMI (Taiwan), Korea, Australia, Japan – VCCI and JATE, and Europe. This global market access is vital in the international arena that today's manufacturers compete. NTS can provide the approvals your products need to compete globally.



FCC and Industry Canada listed State-of-the-Art 10m semi-anechoic EMC chamber.



Uncompromised quality in dedicated 3m immunity test chamber.



Integrated design solutions to ensure product compliance.

Highlights and Primary Test Specifications

EMC/EMI/ESD/Power

Highlights

- FCC and IC listed 3-meter and 10-meter semi-anechoic chambers, TEM cell and G-strip
- Radiated and conducted emissions, frequency range 10 kHz to 110 GHz
- Radiated susceptibility, frequency range 10 kHz to 18 GHz, 3V/m to 200V/m
- Lightning surges and full CE marking EMC directive requirements: emissions, ESD, RFI, EFT, surge, conducted Immunity, power magnetic Immunity, voltage dips, drops & Interruptions, flicker and harmonics

Primary Specifications

FCC parts 15/18/22/24, IC ICES-003, IC RSS 118/128/129/131/133/210, MIL-STD 461/462, RTCA DO 160, GR 1089-CORE, EN 300 386, EN55024, EN 55022, EN 55011, EN 61000-4-xx, EN 61000-3-x.

RF/Wireless

Highlights

Testing and Type Approvals of Wireless and Cordless Products including: Cellular and PCS terminals and systems (CDMA, W-CDMA, GSM, UMTS and TDMA), unlicensed transceiver, Mobile Radios, GPS, Point-to-Point/Point-to-Multipoint, Bluetooth and WiFi. State-of-the-Art Spectrum Analyzers, EMI Receivers, Power Meters, Low-Noise Amplifiers, Filters, Couplers, Mixers and Horn antennas.

Primary Specifications

FCC Parts 2/15/22/24, IC RSS 118, 128, 129, 131, 133, 210, ETSI 3GPP, ETSI 300 328, EN 301 489, European R&TTE Directive.

Product Safety and Telecom

Highlights

Fully equipped ITE and Telecommunications Safety test laboratory covers all the testing necessary to get the product certified for national and international standards. Multiple high speed data acquisition data logger for heating tests, Leakage Current, Dielectric Strength testing up to 10kV, Ground Continuity, Flammability and AC Power cross testers. Accredited by FCC and Industry Canada, the Telecom laboratory can test and assist customers in declaring conformance on Analog and T1/E1 Digital interfaces.

Primary Specifications

Safety: UL/CSA/EN/IEC and AS/NZS – 60950 and 61010, UL 50, IEC 529, Low Voltage Directive (LVD).

Telecom: FCC Part 68, TIA/EIA/IS-968, IC CS-03, CTR/TBR 12, 13.

Environmental / Dynamics / Reliability

Highlights

Electro-Dynamic shaker system T-1000 with up to 1.0" stroke and 9000 force pounds, 5Hz to 3000Hz. Three-axis capability covers all the operational and transportation vibration and resonance search. A large selection of temperature/humidity chambers from 2'x2'x2' to 20'x10'x12' walk-in chambers cover basic steady state and cycling tests to design maturity, component life and reliability demonstration testing. A heavy duty HALT/HASS chamber with temperature range of -80°C to +180°C, transition rate 60°C /min, 5 Hz to 10 kHz and up to 50 G rms to uncover most design and process flaws. MTBF predictions to MIL-HDBK-217 and Telcordia SR-332.

Primary Specifications

GR 63-CORE, GR-487-CORE, UL 50, ETSI 300-019-xx, IEC 60068-2-xx, MIL-STD 810, RTCA DO160, MIL-HDBK-338B, MIL-HDBK-217 and Telcordia SR-332.

Support Features

- Trained personnel available to support your product during testing
- Pre-wired facilities to support most common interfaces
- Various power supplies able to provide up to 400 Amps of current
- Staging area for customer equipment setups prior to testing in the chambers



Power quality, functional verification and CE/NEBS compliance testing.



Vibration testing for up to 2500lbs payload.



Accredited telephone network interface testing.