

# EMI/EMC & ELECTRICAL TESTING

**Innovation.  
Integrity.  
Dependability.**



***Will your product cause or be adversely affected by electromagnetic interference? Once it goes through DTB's rigorous EMI testing and EMC services, you will confidently know the answer.***

## **COMMERCIAL AVIATION**

- RTCA/DO-160, including-  
Lightning Testing
- FAA
- Boeing, Airbus

## **TRANSPORTATION**

- Railroad
- DOT
- UMTA AREMA
- NYCTA
- Shipboard

## **MILITARY**

- MIL-STD-461/MIL-STD-462
- Naval MIL-STD-1399
- Components MIL-STD-202
- Military Vehicle MIL-STD-1275
- Aviation MIL-STD-704
- TEMPEST, EMP, HIRF, Lightning

## **EC DIRECTIVES**

- EMC/Medical/Low Voltage
- Safety/Machinery

## **TELECOMMUNICATIONS / ITE**

- FCC Part 15/Part 68
- IEEE/ANSI C 62.41

## **SPACE SYSTEMS**

- NASA
- JSP-30237, 30238

## **AUTOMOTIVE**

- SAE J1113/J551
- GM/Ford/Chrysler
- JASO/MES

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**Product Life Cycle Support Services**  
Serving Military and Commercial Markets  
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\* Accredited Test Lab  
767.01, 767.02, 767.03

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Visit our web site at: [www.dtb.com](http://www.dtb.com)



\* NVLAP LAB CODE  
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\* Please visit [www.dtb.com](http://www.dtb.com) for testing covered under our scopes of accreditation.

# ***ELECTRICAL & EMC TESTING SERVICES***

## **Basic Measurements**

Resistance, Capacitance, Inductance, Residual Magnetic Field, Frequency, Voltage, Current, Leakage Current, Volt-Amperes, Power, Power Factor, Impedance, Contact Resistance, Contact Bounce, Gain, Insulation Resistance, Insertion Loss, Return Loss, Crosstalk, Frequency Response, and VSWR

## **Basic Electrical Tests**

Dielectric Strength, AC Input Power Variations, DC Input Power Variations, Voltage Spike, Electrostatic Discharge, Bonding Compliance, Temperature Rise, Surge, Transients, and Harmonics

## **EM/EMC**

Conducted Emissions (Frequency and Time Domain)

Radiated Emissions (facilities: OATS, GTEM, Shielded Anechoic Room, Shielded Solid Room, Reverb Mode, and Site Surveys)

TEMPEST

Magnetic Field Emissions

Shielding Effectiveness

Conducted Immunity (methods: Audio, RF, Power Handling, Bulk Current Injection, EFT, Voltage Spike, EMP and Lightning)

Radiated Immunity (facilities: GTEM, Shielded Anechoic Room, Shielded Solid Room, Reverberation, Stripline, Triplate; capabilities 10 KHz-40 GHz, 200 V/m+) EMP

HIRF (System Level and Full Aircraft)

Magnetic Field Immunity (capabilities 20 Gauss on large items)

Lightning Testing (Indirect Effects; Multiple Burst/Multiple Stroke; in accordance with RTCA/DO-160 Section 22, SAE ARP5412, EUROCAE/ED-14E, FAA AC:20-136, SAE AE4L, MIL-STD-1757).

Note: The above specifications are the most frequently used. Similar tests can be provided for other specifications or for individual requirements.



*A World of Engineering and Testing Under One Roof™*

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