



EMI/EMC Testing

We Take A Closer Look

EMI & EMC Testing

Applied Technical Services conducts EMI & EMC testing to analyze the interference and compatibility of a subject to ensure industry compliance. EMI, or electromagnetic interference, tests for the emission of any signal or noise from a subject that causes interference with other vehicles, equipment, or machinery. EMC, or electromagnetic compatibility, tests a subject's ability to operate without creating electromagnetic interference for other devices in the subject's environment. Manufacturers of electronic devices, medical equipment, aerospace/military vehicles and machinery, and consumer goods rely on EMI & EMC testing, as all electronic devices have the potential to cause electromagnetic interference. As the number of electronic devices increases, so does the potential for interference between devices.

- Automotive
- Electronic Devices
- Medical Equipment
- Aerospace/Military
- Semiconductors
- Consumer Goods

Applied Technical Services

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Testing Procedures

RTCA-DO-160

This testing standard establishes the criteria for environmental aircraft testing. This standard applies to all sizes of aircraft in various fields, including but not limited to general aviation aircraft, helicopters, commercial wide-body airliners, and supersonic transport aircraft. Applied Technical Services performs the following EMI & EMC-related RTCA-DO-160 testing procedures:

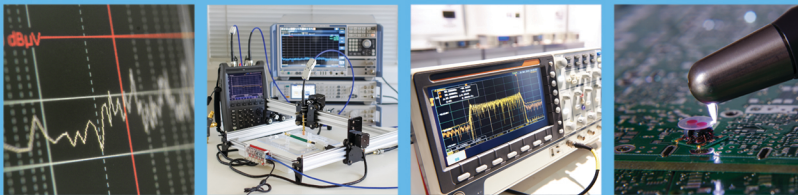
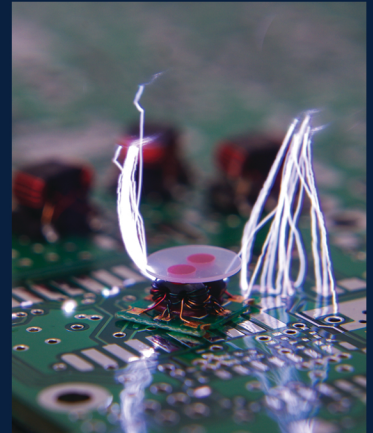
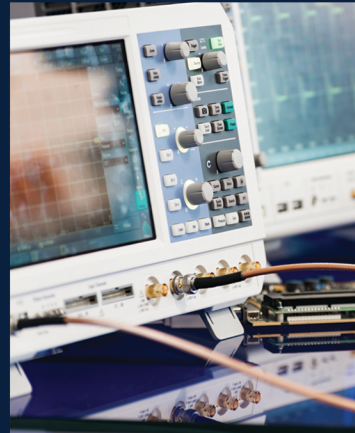
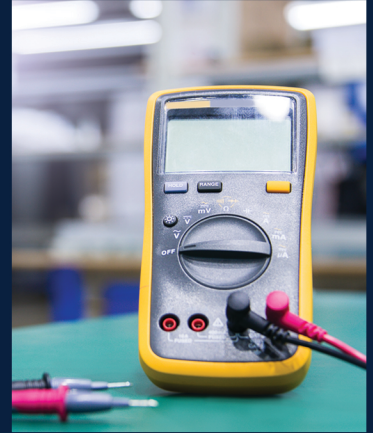
- S15 Magnetic Effect
- S16 Power Input (28VDC and 115VAC 400Hz)
- S17 Voltage Spike
- S18 Audio Frequency Conducted Susceptibility
- S19 Induced Signal Susceptibility
- S20 Radio Frequency Susceptibility Conducted (Radiated coming 2022)
- S21 Emission of Radio Frequency Energy (Radiated and Conducted)
- S22 Lightning Induced Transient Susceptibility (up to Level 3)
- S25 Electrostatic Discharge

MIL-STD-704

This standard establishes the requirements and characteristics of aircraft electric power provided at the input terminals of electric utilization equipment.

The MIL-STD-704 EMI testing procedures we offer include:

- LDC (28VDC)
- SAC (115V AC 400Hz single phase)
- TAC (115V AC 400Hz three phase)



MIL-STD-461

This standard establishes EMI & EMC testing procedures and limits for military subsystems and equipment. MIL-STD-461 determines the interface and verification requirements for electromagnetic interference emissions and the vulnerability characteristics of electromechanical equipment used by the US Department of Defense. Applied Technical Services offers the following MIL-STD-461 testing procedures:

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|---------|-------------------------------|
| • RE101 | • RE102 (up to 18GHz) |
| • RS101 | • RS103 (up to 18GHz, 200V/m) |
| • CE101 | • CE102 |
| • CS101 | • CS114 |
| • CS115 | • CS116 |
| • CS117 | • CS118 |

At Applied Technical Services, our certified experts are highly trained, experienced professionals committed to providing the highest level of client satisfaction with innovative technologies, reliable information, and excellent customer service. ATS is ISO 17025 accredited in calibration, mechanical, nondestructive, and chemistry by the A2LA and ISO-9001 certified. ATS will be increasing our testing capabilities with a significant equipment expansion in 2022, including the addition of MIL-STD-461 RS101, MIL-STD-461 RS103 (up to 18GHz and 200 V/m), and DO-160 Section 20 tests. Get in contact with us to schedule EMI testing today.

ATS, founded in 1967 and headquartered in Marietta, GA, is one of North America's leading engineering firms with extensive testing and inspection capabilities delivering a combination of experience, professionalism, and decisive responsiveness for our clients.