

Product Approval Testing

at TDK RF Solutions' Test Facilities



3m Semi-Anechoic Chamber

10m O.A.T.S.

Shielded Room





Testing Capabilities

TDK RF Solutions Inc. performs testing to U.S. and European standards as well as engineering development testing.

Antenna Calibration

TDK RF Solutions performs antenna calibration based on ANSI C63.5-1998 "American National Standard for Electromagnetic Compatibility - Radiated Emission Measurements in Electromagnetic Interference (EMI) Control – Calibration of Antennas (9 kHz to 40 GHz)" and SAE ARP958, Rev. D. "Electromagnetic Interference Measurement Antennas, Standard Calibration Method."

Engineering Development

TDK RF Solutions' facilities are available on a space available basis. Customers are free to bring in their products for developmental testing. The minimum amount of test time is four hours.

U.S. Federal Standards

CFR47 Parts 2, 15, 22, and 90.

European Union Standards

EN 55011	"Limits and methods of measurement of radio disturbance characteristics of industrial, scientific and medical (ISM) radio-frequency equipment"
EN 55022	"Information technology equipment – Radio disturbance characteristics – Limits and methods of measurement"
ENV 50204	"Radiated electromagnetic field from digital radio telephones Immunity test"
EN61000-3-2	"Limits for harmonic current emissions (equipment input current ≤16A per phase)"
EN 61000-4-2	"Electrostatic Discharge Immunity"
EN 61000-4-3	"Radiated, Radio-Frequency, Electromagnetic Field Immunity Test"
EN61000-4-4	"Electrical fast transient/burst immunity test "
EN 61000-4-5	"Surge Immunity Test"
EN 61000-4-6	"Immunity to Conducted Disturbances, Induced By Radio-Frequency Fields"
EN 61000-4-8	"Power Frequency Magnetic Field Immunity Test"
EN 61000-4-11	"Voltage Dips, Short Interruptions and Voltage Interruptions and Voltage Variations Immunity Tests"

Product Approval Testing

Testing Facilities

TDK RF Solutions' state-of-the-art testing site in Cedar Park, Texas is equipped with a:

- 3 meter semi-anechoic chamber,
- Shielded room, and
- 10 meter Open-Area-Test-Site (OATS).

All facilities are well-equipped and fully-automated to support EMC testing. Our full-time test staff is dedicated to the facilities' operation and maintenance. All instrumentation is calibrated to NIST-traceable standards.

Test Facility Certifications

The 10m OATS, the 3m semi-anechoic chamber, and the shielded room are listed with the Federal Communications Commission (FCC) per CFR47 Part 2.948.



The test lab is NVLAP-accredited. Our lab code is 200430-0.*



As an ISO Guide 17025 audited, NVLAP-accredited facility, TDK RF Solutions is authorized to issue Declaration of Conformities per CFR47, Part 2.



TDK RF Solutions is a member of Technology International's laboratory network. Their Competent Body in England reviews TDK RF Solutions Technical Construction Files for compliance to the EU EMC Directive.

* Accredited by the National Voluntary Laboratory Accreditation Program for the specific scope of accreditation under Lab Code 200430.

Note

TDK RF Solutions Inc., a TDK Group Company, cannot be held responsible for product test failures using the relevant test standards/methods. TDK RF Solutions is not responsible for product certification delays caused by external (i.e., governmental) entities.

at TDK RF Solutions

Product Review Process

1. The prospective customer contacts TDK RF Solutions either by telephone or other electronic means. Contact information is listed on the back of this brochure.
2. The customer describes the product/type of testing to be performed in consultation with the Test Facility Manager.
3. TDK RF Solutions will prepare a quotation based upon the requirements.
4. Upon acceptance of the quotation, the Test Facility Manager/ EMC Engineer will develop a test plan based on the customer's needs, standard requirements, and sound engineering judgment.
5. TDK RF Solutions performs the agreed upon testing. Upon completion of the testing, a report is generated.
6. If the results are not satisfactory, an effort is made to identify the problem to assist customer engineers in repairing the non-compliance. Re-testing will be necessary.
7. If the results are satisfactory, the appropriate documentation is filed with the European/U.S./customer representatives.
8. The customer is notified upon acceptance of the product.

Customer-Supplied Materials

You will need to submit the following information/materials for the compliance process:

1. One (preferably two) representative samples of the product.
2. All information regarding the customer's name, address, and other relevant contact information. A single-point customer contact for all issues pertaining to the product.
3. Sufficient customer-supplied auxiliary equipment/software to operate the product.
4. Photographs of the product both assembled and disassembled.
5. Photographs of the product under test.
6. Parts List for the product.
7. Assembly drawings for the product.
8. If required, a description of the location and the wording of the of the approval label (i.e., FCC ID).
9. Sample brochures for the product.
10. A functional block diagram for the product.
11. Operational description of the product.

Items 4 and 5 can be handled by TDK RF Solutions. It is best if the information is presented in electronic format.

Interested in Development Testing Only?

TDK RF Solutions also offers development testing only. The best way to do this is to obtain a Purchase Order (P.O.) with TDK RF Solutions. We recommend authorizing a minimum of twenty hours on the P.O. The customer would then make arrangements with the Test Facility Manager to schedule testing. Testing is scheduled on a space-available basis. TDK RF Solutions will only invoice for the testing performed during the week testing occurred.

The customer should arrive at TDK RF Solutions at the appointed time with the product and any necessary hardware. During the allotted time, the customer will have use of the test facilities and the assistance of TDK RF Solutions personnel.

