

AE TECHRON[®] EST[™]

EMC SMART TEST

The EST Concept

- Use modern electronics to allow a single piece of hardware/software to merge the functions of Sine Wave Generator, Arbitrary Waveform Generator, Power Amplifier, Data Logger and System Controller into a single system that has both function and configuration under software control.
- Make the system modular so that power levels can be changed or accessories added to extend the performance of the EST system without having to repurchase pieces that you already have.
- Give the user a flexible, intuitive interface that allows both manual and automated operation locally through a Windows8-based software interface or remotely through Ethernet.
- Give it the ability to display and store test results so they can be electronically transferred into test reports.

For more details, see a description of our first EST-enabled system below.

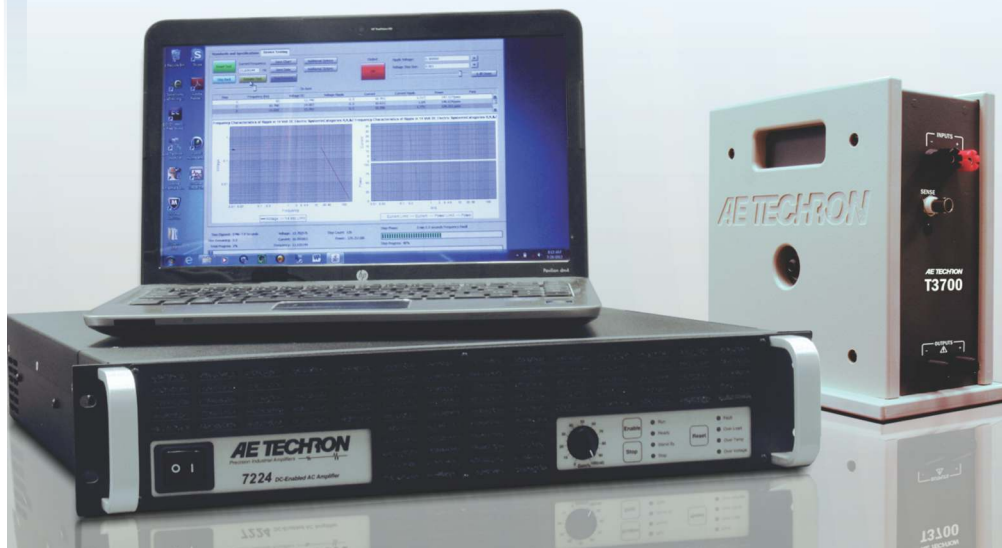
EST Electric and Magnetic Susceptibility (EMS) System

The EST EMS System is a complete, automated test solution for AF electrical or magnetic susceptibility testing. The system provides an environment where the amplitude, voltage (when using T3700) or magnetic field (when using T1000), frequency, and duration of the interference can be user-defined, or will follow pre-loaded standards like DO 160 Section 19 CW or the more stringent Boeing D6-16050-5 Section 7.2.

Press the start button and the Test begins. Real-time test progress is displayed on screen. You can easily capture snap shots of events that occur during the test (without test interruption) and save these along with event notes as PDFs. PDFs and complete test conditions and results (CSV format) can be output from the system to be compiled in your choice of Window's software.

The system comes complete with laptop, control software, AE Techron 7224 amplifier, EST AWG/Sine Gen and control hardware, plus both the T3700 and T1000 transformers.

EST EMS—a better way to do AF electrical and magnetic susceptibility testing.



Introducing some Common Sense into AF Testing

Traditionally, Pulse and Surge systems have been an expensive, purpose-built solution for a single or limited number of standards.

An EMC test system should be:

- Optimized for EMC test requirements
- Cost effective both to purchase and use
- Flexible enough to adapt to new or different standards
- Modern in appearance, design and quality of data output
- Able to automate repetitive processes

Which will you choose?

THIS?

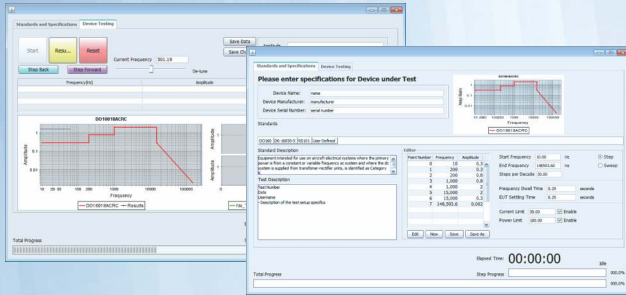


OR THIS?



EST EMS SYSTEM INCLUDES:

EMC SMART TEST



EMC Smart Test Software/Control Hardware

- Complete AF Test Automation Solution
- Includes software, laptop, supporting signal generation and control hardware
- Standards pre-loaded for AF Magnetic Field and AF Electrical Field Susceptibility
 - DO-160 Section 19
 - Boeing D6-16050-5 Section 7.2
- Flexible – Edit pre-loaded standards or create entirely new tests
- Expandable – Additional standards and accessories under development
- Windows 8 Environment – Makes it easy to include generated data in test reports

The next big thing in EMC Testing, the EST Smart Test system will streamline the way you conduct many time-consuming AF tests. It provides two, independent waveform generators: a 1µs rise-time ARB and a sine-wave generator that can produce waveforms up to 1MHz. The EST system can also remotely monitor the EUT and use these observations to provide intelligent system control, such as automatically adjusting the system output levels. Data observed by the EST system is recorded in common PC file formats, making it easy to transfer the data for report creation.

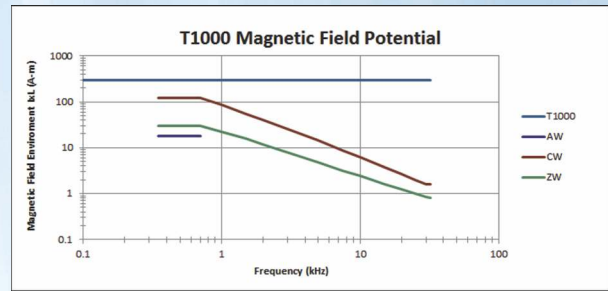
Together with one of AE Techron's amplifiers and an EST-enabled matching transformer, the EST system can operate as a complete Susceptibility system for a wide range of AF Testing. With additional standards and accessories currently in development, **now** is the right time for EMC Smart Test.

EST-enabled 7224 Amplifier

- Turns amplifier into an intelligent, powered Arbitrary Waveform Generator
- Same 1kW power and 300kHz performance as a standard AE Techron 7224 amplifier
- More capabilities, same bench space

The EST-enabled 7224 amplifier is a modified version of AE Techron's standard 7224 amplifier that includes the EST generation and control hardware. It can be controlled locally from the supplied laptop or remotely via Ethernet connection. When combined with the supplied laptop and installed EST software, the EST-enabled 7224 amplifier operates as the most basic of EST-enabled systems.

7224



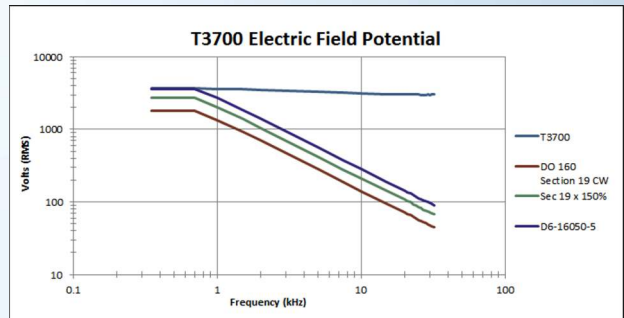
T1000 AF Magnetic Field Susceptibility Transformer

- Up to 300 A-m
- Exceeds DO 160 Section 19 requirements
- EST compatible



The T1000 Transformer is able to generate up to a 100A potential. Its current output meets or exceeds the requirements of DO 160 Section 19. It has a scaled voltage output for more convenient monitoring. The T1000 is EST compatible and, when used with the EST Smart Test system, forms a complete automated test solution. It is compliant with EN 61010-1:2010.

T1000



T3700 AF Electric Field Susceptibility Transformer

- Up to 3,700 volts, 11,000 V-m
- Meets or exceeds requirements of DO 160 Section 19 and Boeing D6-16050-5 Section 7.2
- Safety, EN 61010-1:2010 compliant
- Robust design, withstand tested to 5,000V_{RMS}
- EST compatible



The T3700 Transformer is able to generate up to a 3700V potential. Its voltage output meets or exceeds the requirements of DO 160 Section 19 and Boeing D6-16050-5 Section 7.2. Withstand tested to 135% of rated output to ensure a long, trouble-free life. It has a scaled, current-limited 1/5 sense output for more convenient voltage monitoring. The T3700 is EST compatible and, when used with the EST Smart Test System, forms a complete automated test solution. It is compliant with EN 61010-1:2010.

T3700