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▶ EM TEST

# Minds Over Matter

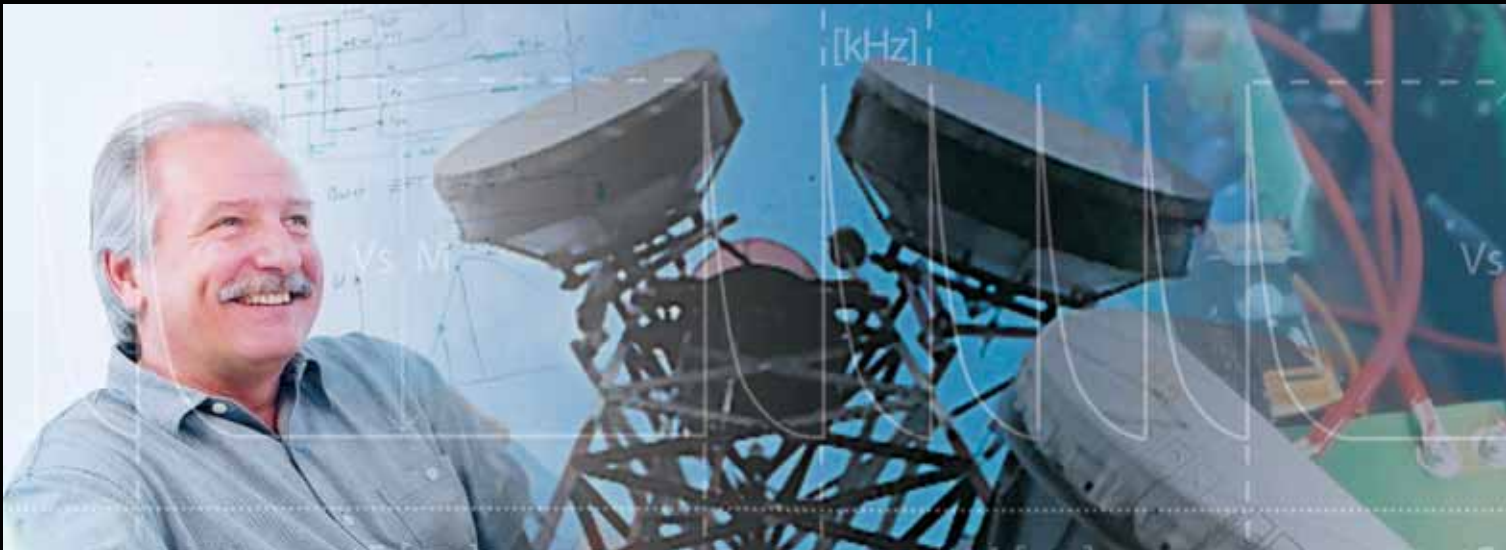


▶  
EM TEST

A New Generation of  
Transient Generators for  
Global Immunity Testing.

- Automotive
- CE Mark per IEC
- Medical
- Telecommunications
- Bellcore
- Component Testing
- Harmonics & Flicker Analyzers





## We've Been Thinking.

Actually, a lot of us at EM Test have been doing a great deal of thinking. Mostly, we think about what you do. And how we can make your work easier, faster and more reliable.

The transient generators in this booklet represent the results of that labor. Already recognized as the most sophisticated instruments in their class, EM Test transient generators contain not only what you need today, but also what you'll require tomorrow.

All EM Test generators come with current EMC standards pre-programmed in. You also have the ability to change parameters on the fly, as you test, using the Quick Start menu. Generator parameters exceed spec requirements—great for development testing and troubleshooting EMC failures—so you won't find yourself out scrambling for a new instrument when standards change or you need to test the margin of your design.

## What if each transient generator had a mind of its own?

With our easy-to-use, standards-driven software, testing couldn't be simpler. There's even a built-in standards library and report generator function. Everything is as automated as it can be.

## What's Next?

Standards and specs are constantly changing, and EM Test is in the center of the action. Our staff are contributing members of several international standards committees, with an eye on the future of testing.

With EM Test transient generators, you're prepared for whatever comes next. That makes EM Test a smart decision . . . and an extremely cost-effective choice.

## Value: Partnering with AR to give you more.

Now all EM Test products are backed by an Amplifier Research (AR) 3-year warranty, plus technical and product support from AR's service network. You'll find AR quality amplifiers inside the CWS500C and CWS500D as well.





## Thinking On All Cylinders. Automotive "200 Series" Testing.

Designed to meet the many test needs of today and the rigors of converging world standards, EM Test Automotive "200 Series" generators offer a full range of conducted immunity transient tests to ISO, JASO, SAE and manufacturer standards.

The Automotive Series consists of five generators--

### LD200B Series (load dump simulator)

ISO 7637-1:1990-- – 12V system: pulse 5,7; ISO 7637-2:1990--- – 24V system, Pulse 5; ISO/DIS 7637-2-2 – 12V & 24V system pulse 5a, 5b; JASO D001-94 – 12V system pulse A1, B1, 24V system pulse D1. SAE J1113 –12V 5a, 5b, 24V 5a, 5b; also specifications for DaimlerChrysler, Ford, GM and most European & Japanese manufacturer standards.

### MPG200B Series (micropulse generator)

ISO 7637-1:1990 12V system: Pulse 1, 2, 6; ISO 7637-2:1990 24V System: Pulse 1a, 1b, 2; ISO/DIS 7637-2-2 12V System: Pulse 1, 2a; ISO/DIS 7637-2-2 24V system: Pulse 1, 2a; JASO D 001-94 12V System: Pulse A2, B2, D2; SAE J1113/11 (Rev. 2000);12V System: Pulse 1a,1b, 2a; 24V System: Pulse 1c, 2a; also specifications for DaimlerChrysler, Ford, GM and most European & Japanese manufacturer standards.

### EFT200B Series (electrical fast transient simulator)

ISO 7637-1:1990 12V System: Pulses 3a, 3b; ISO 7637-2:1990 24V System: Pulse 3a, 3b; ISO 7637-3:1995 I/O Lines: Pulse 3a, 3b; ISO/DIS 7637-2-2 12V System: Pulse 3a, 3b; SAE J1113/11 (Rev. 2000) 12V System: Pulse 3a, 3b; 24V System Pulse 3a, 3b; also specifications for DaimlerChrysler, Ford, GM and most European & Japanese manufacturer standards.

### VDS200B Series (voltage drop simulator)

ISO 7637-1:1990 12V System: Pulse 4; ISO 7637-2:1990 24V System: Pulse 4; ISO/DIS 7637-2-2 12V System: Pulse 2b, 4, 24V System: Pulse 2b, 4 ; JASO D 001-94 12V System, Sinusoid; 12V System: Inverse Polarity, Overvoltage 1, Overvoltage 2; SAE J1113/11 (Rev. 2000) 12V System: Pulse 2b, 4; also specifications for DaimlerChrysler, Ford, GM and most European & Japanese manufacturer standards.

### PFS200B Series (power fail simulator)

Voltage drops and dips for DaimlerChrysler, Ford and other manufacturers.

Data sheets, specs and pulses, as well as product updates and upgrades can be found at [www.amplifiers.com/emtest](http://www.amplifiers.com/emtest).



## The SmartRack – Sophisticated Housing for Sophisticated Instruments.

The best place to put your generators is in the SmartRack. A wired, "intelligent" rack, the SmartRack not only holds, but also interconnects and controls equipment. When you slide your generators into the SmartRack, you can run entire test routines from your PC with no plugging or unplugging.

Select from a comprehensive directory of the most recent pre-programmed-in automotive and manufacturer standards – including custom pulse waveforms – and the SmartRack does the rest. You can modify test parameters and even create your own tests.

Just how easy is testing with the SmartRack? Consider this:

- The Equipment Under Test (EUT) voltage has one easy connection at the CNA200B coupling unit
- No need to keep plugging and unplugging EUTs
- The test rack has a ground reference plane that mates with the test table specified in ISO 7637
- ISM ISO (SmartRack) software controls the entire test process. It generates test reports as well
- Tests can be initiated from front panels, as well as from a PC

Contact an EM Test product specialist at (215) 723-8181 to get a free automotive CD-ROM including demo software and get a peek at the industry's most comprehensive, up-to-date spec and device lists.





## Two Minds are Better Than One.

### The UCS500M Series.

Why have multiple generators when one exceptionally smart generator can run multiple tests?

Now available in two versions, the UCS500M Series transient generators from EM Test offer simple solutions to the complex new requirements of multi-phenomena immunity testing.

Both the UCS500M/4 and the UCS500M/6B meet full compliance testing requirements to the latest versions of IEC specifications for

- burst
- surge
- pulsed magnetic field
- power magnetic field
- voltage drop-outs and dips

Specify for European-based IEC requirements with the UCS500M/4. Or for US and specialized IEC, UL and IEEE C62.41 requirements, including ringwave, with the UCS500M/6B. Add the CWS500C and "dito" to meet most conducted immunity requirements.

## The AR Interior Makes it Great.

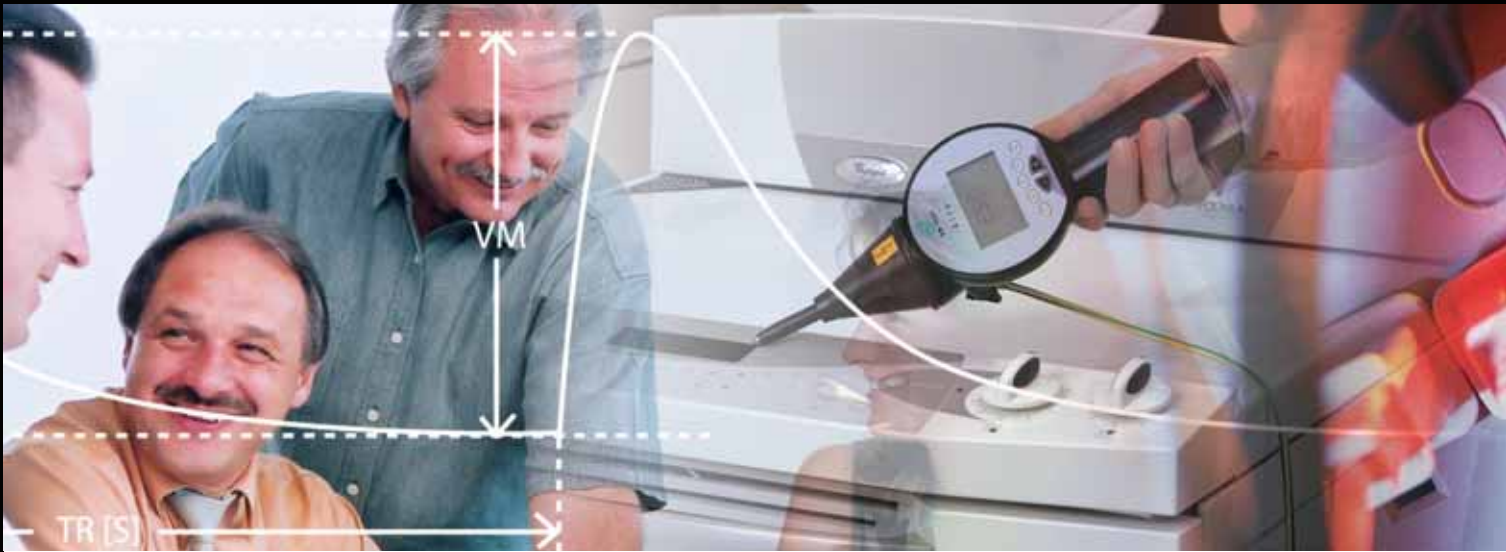
### The CWS500 Series

The new CWS500C (for IEC) and CWS500D (for IEC, MIL-STD, and Automotive RF conducted immunity testing) eliminates the messy hookups, multiple instrumentation and time-consuming procedures that are part of most RF conducted immunity tests for IEC. Included in one compact, ergonomic package—

- signal generator
- system controller
- power meters
- AR amplifier (75 watts, 9 kHz to 250 MHz with the CWS500C, or 10 kHz to 400 MHz with the CWS500D).
- directional coupler (CWS500D only)
- pre-programmed test routines, calibrated and ready to go.

The CWS500D lets you test to MIL-STD and Automotive BCI requirements in addition to IEC requirements. But the real bonus is the simplicity. We've reduced chaos to a streamlined procedure. Plug it in, hook it up, and press the front panel button or a mouse.





## Minds Over Mother Nature.

### The TSS500M Series.

The new TSS500M Series from EM Test are the transient generators you need to simulate the harsh forces of Mother Nature. This compact and versatile series of generators can be used to test to most US and Worldwide Telecommunications standards including:

- Bellcore GR-1089-Core including 2 and 4 telecom ports and AC power ports for Section 4 Lightning surge tests (TSS500M/6B & TSS500M/2B)
- Bellcore GR-1089-Core for the 10/250 pulse to the second level on broadband coaxial ports (TSS500M/4B)
- FCC Part 68 Type A Metallic and Longitudinal surge and power line surge (TSS500M/2F)
- FCC Part 68 Type B Metallic and Longitudinal surge (TSS500M/4)
- ETS 300 046-3, ETS 300 047-3, -5 and ITU-T K.17, K.20, K.21 and K.44 10/700 waveforms (TSS500M/4 or TSS500M/10)
- Test routines are pre-programmed in each generator

The optional software is pre-programmed with all the EMC standards needed to make testing easy and accurate, including customizable routines and test report capability. Each generator can be operated from the front panel or by using the standard RS232 and IEEE 488 data bus.

## We've solved the problem of exhausting ESD tests with "dito".

The large number of events required for ESD testing makes it a labor-intensive, tiring process. The portable, lightweight, handheld "dito" ESD simulator makes it quick and easy.

With "dito's" new, standard software you can download the complete test or series of tests you need to run directly from your computer directly onto "dito". Testing occurs automatically from there.

"dito's" on-board digital display shows you both discharge voltage and the actual test status at once, ensuring proper discharging and testing.

Upload the data to your computer to generate test reports.

- 16.5 kV air and 10 kV contact discharge
- Ergonomic lightweight design for comfortable use for long periods of use
- 25 kV discharge is available for the ESD30C/P30C unit





## Harmonics and Flicker Analyzers.

### Smart Enough to Meet the Latest Specs.

The engineers at EM Test are always thinking ahead. Our single-phase and three-phase Harmonic and Flicker Analyzers meet all the requirements for the current and proposed IEC standards.

- Measurements are in accordance with IEC 61000-3-2 (10-2001) including Amendment A1, A2 and A14, and IEC 61000-3-3 (03-2002).
- Functional and design specifications are in accordance with IEC 61000-4-7 (08-2002) and IEC 61000-4-15 (01-2003).
- Ability to make "long cyclic" measurements greater than 2.5 minutes are easily handled, as the analyzer can store up to 30 hours of voltage and current data.

Get a free demo CD-ROM of our Harmonics & Flicker test software by calling (215)723-8181 and asking for the EM Test product specialist.



## Log on at [www.amplifiers.com/emtest](http://www.amplifiers.com/emtest)

Get the latest information on products that make your work easier – and find out about current offers, upgrades and specials – even sign up for our quarterly newsletter – at [www.amplifiers.com/emtest](http://www.amplifiers.com/emtest)

### Don't Take Our Word for It.

Equipment demos are available for most products. Contact AR Customer Service at 215-723-0275.

### AR Options.

The AR Options program offers you flexible ways to acquire the amplifiers, antennas, transient generators and related equipment you need. Rent or rent-to-own.





160 School House Road,  
Souderton, PA 18964-9990 USA

TEL 215-723-8181 • FAX 215-723-5688

**A thinking, not just a manufacturing  
business.**

Designed to be responsive to the needs and expertise of the test engineer, EM Test transient generators are known as the state-of-the-art in phenomenon testing made easy.

We're constantly refining these savvy, Swiss instruments. Try one today, and experience a new level of test possibility

[www.amplifiers.com/emtest](http://www.amplifiers.com/emtest)



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