Agilent & ETS-Lindgren: A Perfect Solution Partnership

Agilent and ETS-Lindgren have had a cooperative relationship since the 1980s when EMCO, a predecessor of ETS-Lindgren, supplied equipment for OEM resale to Agilent’s predecessor, Hewlett-Packard. Today the cooperation continues as Agilent and ETS-Lindgren combine their experience, expertise and specialization to create total system solutions for EMC test and measurement.

About Agilent

Agilent Technologies is the world’s premier measurement company and a technology leader in communications, electronics, life sciences and chemical analysis. The company has 20,000 employees and serves customers in more than 110 countries. The company’s stock trades on the New York Stock Exchange with the symbol “A.”

About ETS-Lindgren

ETS-Lindgren is an innovator of systems and components for the detection, measurement and management of electromagnetic, magnetic, and acoustic energy. The company employs more than 750 professionals at locations in the Americas, Europe and Asia. ETS-Lindgren is a subsidiary of ESCO Technologies Corporation. ESCO’s stock trades on the New York Stock Exchange with the symbol “ESE.”
Wherever you are in your development cycle, Agilent Technologies and ETS-Lindgren have an EMC measurement solution. From design verification to pre-compliance measurements and full compliance testing, we offer solutions that address your needs.

Agilent Technologies specializes in world-class EMI instrumentation including receivers and spectrum analyzers. Agilent’s instrumentation is a perfect complement to ETS-Lindgren’s EMC chambers, antennas, antenna towers and turntables, test accessories, and Totally Integrated Lab Environment (TILE™) software. Combined, the products, services, experience and expertise of Agilent and ETS-Lindgren provide a seamlessly integrated solution for EMC testing.
Typical ETS-Lindgren EMC Emissions Test System

Typical ETS-Lindgren EMC Immunity Test System
Antennas

Antennas have been at the core of our business since the late 1970’s. All of our antennas are calibrated at our onsite A2LA accredited lab.

Antenna Towers, Turntables and Controllers

ETS-Lindgren antenna towers, equipment turntables and positioning controllers work together in seamless integration. Advanced features, ruggedness, dependability and value made them a popular choice worldwide.

Broadband EMC Probes

ETS-Lindgren’s HI series of broadband E-field probes meet or exceed the requirements for automotive, MIL-STD and EMC immunity test standards. Their higher levels of performance mean the ability to meet today’s test requirements as well as tomorrow’s challenges, with ease.

Software

TILE! (Totally Integrated Lab Environment) software is an integrated environment for designing, performing, reporting and archiving Electromagnetic Compatibility (EMC) tests. TILE!’s unique visual interface eliminates the need for programming. Everything is managed in a Windows* environment with drag and drop simplicity.
ETS-Lindgren EMC Test Chambers

**GTEM**
The GTEM is a test cell that can be used for both radiated emissions and immunity testing, for both pre- and final compliance measurements.

**SpaceSaver™**
SpaceSaver chambers are compact in size with quiet zones up to 1.5 meter diameter. They are ideal for pre-compliance measurements.

**FACT™ 3**
Fact 3 chambers have quiet zones up to 2.0 meter diameter, and can be used for both pre- and final compliance measurements.

**FACT 10**
Fact 10 chambers have quiet zones up to 6.0 meter diameter, and can be used for both pre- and final compliance measurements.

### Systems Overview
ETS-Lindgren has the broadest range of systems for EMC measurement, from development through final certification.

<table>
<thead>
<tr>
<th>Model</th>
<th>Frequency</th>
<th>Typical Exterior Dimensions (LxWxH in meters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FACT 10</td>
<td>26 MHz – 18GHz</td>
<td>20.4x12.81x9.91</td>
</tr>
<tr>
<td>FACT 5</td>
<td>26 MHz – 18GHz</td>
<td>12.06x7.95x6.78</td>
</tr>
<tr>
<td>FACT 3</td>
<td>26 MHz – 18GHz</td>
<td>9.02x7.34x6.12</td>
</tr>
<tr>
<td>FACT 25</td>
<td>70 MHz – 18GHz</td>
<td>7.25x6.94x4.75</td>
</tr>
<tr>
<td>SpaceSaver 26</td>
<td>26 MHz – 1 GHz</td>
<td>6.88x3.20x3.22</td>
</tr>
<tr>
<td>SpaceSaver 26 H</td>
<td>26 MHz – 18GHz</td>
<td>7.47x3.2x3.22</td>
</tr>
<tr>
<td>SpaceSaver PC</td>
<td>30 MHz – 18GHz</td>
<td>6.25x3.25x2.60</td>
</tr>
<tr>
<td>MIL-STD 461E</td>
<td>80 MHz – 40 GHz</td>
<td>6.31x6.31x3.91</td>
</tr>
<tr>
<td>SMART 80</td>
<td>80 MHz – 18 GHz</td>
<td>Interior Dimensions: 13.44x6.09x4.87</td>
</tr>
<tr>
<td>SMART 200</td>
<td>200 MHz – 18 GHz</td>
<td>Interior Dimensions: 13.44x6.09x4.87 4.83x3.60 x 3.04</td>
</tr>
<tr>
<td>5400 Series</td>
<td>9 kHz – 5 GHz</td>
<td>Four Various Sized Models</td>
</tr>
</tbody>
</table>
Precompliance
Whether you’re focused on time-to-market, time-to-volume or cost of test, the Agilent N9010A EXA signal analyzer eliminates the compromise between speed and price. The EXA also lets you accelerate the transition from design into manufacturing and helps reduce your overall cost of test. When you need speed without compromise, the Agilent EXA signal analyzer lets you make every millisecond count.

The Agilent N9020A MXA signal analyzer drives signal and spectrum analysis to the next generation offering the highest performance in a midrange analyzer. Innovative breakthroughs enable the MXA signal analyzer to achieve the industry’s fastest signal and spectrum analysis - eliminating the compromise between speed and performance.

Full Compliance
Combine the world-class performance of the PSA Series spectrum analyzer and the new N9039A preselector and the result is an accurate, fast EMI measurement receiver. Agilent's EMI measurement receiver consists of an E4440A series PSA with option 239, N9039A RF preselector and a N5181A MXG signal source for filter alignment. A disk is provided with regulatory limit lines for most of the agencies and typical correction factors for a wide variety of transducers.

MXG Signal Generator
Microwave signal generation from Agilent is optimized for manufacturing, and maximizes uptime with simplified self-maintenance. The Agilent N5183A MXG microwave analog signal generators deliver the performance needed for broadband component manufacturing up to 40 GHz. Excellent power and level accuracy make the MXG microwave a reliable stimulus for driving high power devices. The MXG microwave can be configured to meet your test needs today, and is easily upgraded to meet your needs in the future.

Power Meter
Every power meter from Agilent consistently delivers great results. Code-compatibility between power meters reduces the need for re-coding. Not only that, all Agilent power meters are backward-compatible with most legacy power sensors. The Agilent E4419B EPM series dual-channel power meter is designed for bench and automatic test equipment (ATE) use with two simultaneous power readings, fast measurement speed (up to 100 readings per second over the GPIB with E-series sensors), GPIB and RS232 connector for remote control of all functions, and internal rechargeable battery option that offers up to 4 hours continuous use.
ETS-Lindgren is the largest integrated manufacturer of EMC test equipment. Our products include turnkey anechoic, reverb and acoustic chambers; EMC, microwave and acoustic absorbers; antennas, antenna towers, turntables, RF shielding, shielded doors, probes, GTEMs, TILE! software and more. Services include NSA measurements, antenna and probe calibrations at our A2LA accredited lab. With offices in North and South America, Europe, and Asia, ETS-Lindgren has worldwide reach and local presence. Through these locations, and our independent distributor network spanning more than 30 countries, we provide local product support, program management and installation services. Wherever you are, ETS-Lindgren has the global presence to support you.

Where ever you are in your development cycle, Agilent Technologies has an EMI measurement solution. From precompliance measurements and EMC diagnostic evaluation of your breadboard design to full compliance testing of your completed product, Agilent Technologies is with you. Agilent now offers a fully compliant EMI measurement receiver using the E4440A series PSA performance spectrum analyzer and the new N9039A RF preselector. This new EMI measurement receiver meets all the CISPR 16-1-1 requirements. These Agilent products give you the confidence that the measurements you make are precise and repeatable.