

CASE STUDY FIRST WIMAX FORUM – TAIWAN



Advance Data Technology (ADT) Corporation in Taiwan is a leading laboratory for a wide range of certification testing including EMC, SAFETY, RF, TELECOM, SAR, DTV, Wi-Fi and now WiMAX. ETS-Lindgren's Model AMS-8500 will be used primarily to conduct Radiated Performance Testing (RPT) developed by the WiMAX Forum™ to evaluate the radiated performance of mobile WiMAX devices. Now, network operators may be assured that WiMAX certified devices operate reliably on their networks. In addition, Model AMS-8500 will be used to test mobile handsets in accordance with CTIA - The Wireless Association™ - Test Plan for Mobile Station Over The Air (OTA) Performance, Revision 2.2.1.

“We’re very proud to have installed our turn-key wireless test solution at one of the most technically progressive companies in Asia,” commented Mark Mawdsley, Managing Director for ETS-Lindgren Asia Pacific Operations. “ADT had confidence in us based upon our considerable wireless testing expertise and our designation as the world’s first supplier of a CTIA, The Wireless Association, Authorized Testing Laboratory (CATL) for Over The Air (OTA) Performance Testing.” He added, “ETS-Lindgren is an active member of the organizations driving the wireless test standards, such as the WiMAX Forum and CTIA. With this direct involvement, our customers can count on our expertise in providing a successful solution to their wireless testing needs.”

AMS-8500 Technical Specifications
Antenna Measurement System, Model AMS-8500, is a convenient turnkey system that includes the chamber, software and supporting test instrumentation. Notable features include:

- A high-performance RF shielded rectangular anechoic chamber with nominal dimensions of 7.5 m long x 4 m wide x 4 m high
- Designed for Radiated Performance Testing of 2G, 3G and 4G wireless equipment and mobile handsets
- Measures active mobile radios at a far-field and/or radiating near-field test distance for testing low directivity equipment and antennas
- Provides far-field measurements at a separation distance of approximately 5 m
- Provides required far-field test distance for an EUT with a maximum dimension of 50 cm for bands I, II and III. For bands IV and V, provides radiating near-field test conditions with a minimum measurement uncertainty penalty in the frequency range of 3.4 to 3.8 GHz for the same 50 cm maximum EUT dimension
- For 3G WiMAX testing, the operational frequency range for the five bands is between 2.4 to 3.8 GHz
- Multi-Axis Positioning System (MAPS) features a turntable, removable mast, motor drives, rotary joint and fiber-optic interface to the controller
- EMQuest™ EMQ-100 Antenna Pattern Measurement Software acquires data and provides full post processing capabilities
- Standard gain and octave horn transmit and receive antennas operating from 0.96 GHz to 40 GHz

Customer Training

To maximize ADT’s investment in its new wireless test system, ETS-Lindgren provided on site training for ADT personnel on wireless device testing upon project completion. ADT was ready when its customers contracted for certification testing of mobile WiMAX devices and CTIA OTA testing.

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Experts in Wireless Testing

ETS-Lindgren has long been at the forefront of wireless testing with numerous “industry firsts” to its credit, including:

- Design and installation of the world’s first WiMAX Forum Designated Certification Laboratory for performing WiMAX RPT testing
- Design and installation of the world’s first CTIA Authorized Test Lab (CATL) approved for performing CTIA Part 2 Over The Air (OTA) performance testing

Today, an estimated 75% or more of the over-the-air radiated performance test systems used globally by authorized test labs for the CTIA, Wi-Fi Alliance, and WiMAX Forum certification programs have been provided by ETS-Lindgren. ETS-Lindgren’s goal is to maintain its leadership expertise in the test and measurement of wireless devices. To meet this goal, the company will continue its collaboration with and technical contributions to the wireless industry organizations leading the technology and standards development for the testing of wireless devices, including CTIA - The Wireless Association, the WiMAX Forum, and the Wi-Fi Alliance. With manufacturing and customer service offices in Europe, Asia and the US, ETS-Lindgren is committed to providing state-of-the-art, turnkey wireless test solutions worldwide.

About ETS-Lindgren

ETS-Lindgren is an international manufacturer of components and systems that measure, shield, and control electromagnetic and acoustic energy. The company’s products are used for electromagnetic compatibility (EMC), microwave and wireless testing, electromagnetic field (EMF) measurement, radio frequency (RF) personal safety monitoring, magnetic resonance imaging (MRI), and control of acoustic environments. Headquartered in Cedar Park, Texas, ETS-Lindgren has manufacturing facilities in North America, Europe, and Asia. Additional information about ETS-Lindgren is available at www.ets-lindgren.com. Additional information about ETS-Lindgren’s parent company ESCO and its subsidiaries is available at www.escotechnologies.com.