

FRAUNHOFER INSTITUTE FOR INTEGRATED CIRCUITS IIS

PRESS RELEASE

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Fraunhofer IIS and Nokia jointly operating LTE-A test bed for new mobility and IoT applications

Erlangen, March 2, 2015 – A joint effort between Nokia and the Fraunhofer Institute for Integrated Circuits IIS in Erlangen has resulted in the development of a test bed that features a unique combination of wide network coverage and the latest long term evolution advanced (LTE-A) technology. Fraunhofer IIS is using the LTE-A test bed to evaluate new services and applications for the Internet of Things (IoT) and mobile connectivity.



The Fraunhofer IIS LTE test bed boasts 500-square-kilometer network coverage and LTE-A technology.

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Situated in Erlangen, Germany, the new test bed allows developers and users of mobile communication software and hardware to carry out tests over a 500 square-kilometer area using LTE-A technology to determine how applications or data transmissions behave in certain situations and under specific mobility criteria, such as different mobile network loads.

Head of Corporate Communications

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The tests provide companies valuable information regarding ways they can further improve their services. The coverage area includes a section of the A3 autobahn, the center of Erlangen, several suburban communities, and a selection of rural areas.

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LTE-A test bed for new applications and systems

The network consists of two locations, each with three macro cells for testing LTE transmissions and other applications in a real environment. Companies can run the tests using commercially-available end-user devices that operate in the 700 MHz and 2.6 GHz frequency ranges. The actual network is operated by Fraunhofer IIS while Nokia Networks provides the required base stations (eNodeB). The base stations are equipped with so-called mobile edge computing technology that makes it possible to locally run time-critical and bandwidth-hungry applications instead of having to first transmit the data across the mobile network.

Interested companies and organizations can use the test bed as part of a joint activity or project in order to test innovative networked applications and systems for environments such as the Internet of Things. Fraunhofer IIS is currently testing a camera link for security applications such as those used by the fire department or paramedics.



One of the two base stations for the test bed located at Fraunhofer IIS in Erlangen.
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IN COOPERATION WITH



The **Fraunhofer-Gesellschaft** is the leading organization for applied research in Europe. Its research activities are conducted by 66 institutes and research units at locations throughout Germany. The Fraunhofer-Gesellschaft employs a staff of nearly 24,000, who work with an annual research budget totaling more than 2 billion euros.

Founded in 1985, **Fraunhofer Institute for Integrated Circuits IIS** in Erlangen, Germany, ranks first among the Fraunhofer Institutes concerning headcount and revenues. As the main inventor of mp3 and universally credited with the co-development of AAC audio coding standard, Fraunhofer IIS has reached worldwide recognition. In close cooperation with partners and clients the Institute provides research and development services in the following areas: Audio & Multimedia, Communications Systems, Energy Management, IC Design and Design Automation, Imaging System, Medical Technology, Non-destructive Testing, Positioning, Safety and Security Technology, Sensor Systems plus Supply Chain Management.

More than 830 employees conduct contract research for industry, the service sector and public authorities. Fraunhofer IIS with its headquarters in Erlangen, Germany, has further branches in Dresden, Fuerth, Nuremberg, Coburg, Deggendorf, Ilmenau, Wuerzburg, Bamberg and Waischenfeld. The budget of 108 million euros is mainly financed by projects. Less than 25 percent of the budget is subsidized by federal and state funds.

Detailed information on www.iis.fraunhofer.de/en.