DTV Link-A

Moseley/Rohde & Schwarz Participate in Single-Frequency Network Test Bed for Fixed/Mobile Digital Television Research in Canada

COLUMBIA, MD OCTOBER 8, 2009 — Rohde & Schwarz, Inc. and Rohde & Schwarz Canada are collaborating with Moseley Broadcast and the Communications Research Centre Canada (CRC) to create one of North America's first single-frequency network (SFN) test beds for both ATSC fixed and mobile digital television (ATSC Mobile DTV). The research and development agreement is being conducted under the auspices of the CRC.

The digital television SFN test bed will facilitate R&D for fixed, as well as advanced ATSC Mobile DTV SFN technology including field verification, with the benefit of over-the-air testing via the test bed. The ATSC Mobile DTV SFN test bed, which will cover about 250 km2 in the Ottawa, Ontario area, provides the greatest possible flexibility for the partnership. Its in-depth evaluation and development will be conducted in a dedicated network using an available TV channel in Ottawa to enable the freedom to explore new technologies, including types of ATSC Mobile DTV SFN distribution networks. The headend for the network is located at CRC facilities, with one transmitter located on a communications tower at CRC and others on structures in and around the city of Ottawa. A wireless WAN was constructed in Ottawa to enable remote communications via Internet (VPN) for the remote labs, or field measurement vehicles for control and monitoring of all equipment in test bed.

It is anticipated that it will also allow the team to demonstrate the potential of ATSC Mobile DTV technology to broadcasters and government regulators. The results are expected to benefit both the U.S. and Canada, which have adopted the same format for digital television broadcasting.

Rohde & Schwarz, a world leader in broadcast transmitters and related components as well as test equipment, will provide both ATSC Mobile DTV SFN transmission equipment and expertise. The company is one of the pioneers in development of the underlying ATSC Mobile DTV technologies used in the ATSC standards. Moseley Broadcast, a major manufacturer of wireless and broadcast equipment, will supply the point-to-point microwave communication systems that link the head-end to the SFN sites. The CRC, having designed the SFN topology for Ottawa, will provide the transmitter sites along with its extensive expertise in the area of digital television broadcasting research. CRC sees this collaboration as an opportunity to perform state-of-the-art research in DTV broadcasting and to conduct testing of ATSC Mobile DTV receivers in a real-life SFN situation.

The ATSC A/53 DTV standard implemented by the U.S. and adopted in Canada makes no provision for mobile reception. As a result, terrestrial over-the-air (OTA) TV broadcasters cannot offer services to mobile receivers. The new emerging ATSC A/153 Mobile DTV standard builds on the A/53 standard by adding capabilities required for mobile reception. An ATSC Mobile DTV standard is expected to be completed in the fourth quarter of 2009.

With ATSC Mobile DTV, broadcasters can potentially increase viewers and create a new revenue source from their digital OTA investment. Mobile DTV has many potential benefits, including the ability to provide highly diverse programming and unique, targeted local TV content. Mobile DTV will likely be a feature in consumer devices ranging from smartphones to netbook computers, media players, and automotive "infotainment" systems.

An ATSC Mobile DTV SFN is employed to enhance mobile and fixed DTV coverage. It is a virtual necessity in urban and other areas in which continuous coverage is not possible because of the effect of buildings or terrain on reception. In an ATSC Mobile DTV SFN, multiple towers send the same program content at exactly the same time and on the same frequency. This makes efficient use of spectrum resources, and the resulting transmitter diversity can help mitigate the challenges associated with mobile and fixed reception.

About Rohde & Schwarz

Rohde & Schwarz is an independent group of companies specializing in electronics. It is a leading supplier of solutions in the fields of test and measurement, broadcasting, radio monitoring and radio location as well as secure communications. Established more than 75 years ago, Rohde & Schwarz has a global presence and a dedicated service network in more than 70 countries. It has about 7,400 employees and achieved net revenue of € 1.2 billion in fiscal year 2008/2009 (July 2008 to June 2009). Company headquarters are in Munich, Germany.

http://www2.rohde-schwarz.com/

About Communication Research Centre Canada

For more than 40 years, the Communications Research Centre (CRC) has conducted research and development in wireless communication systems, satellite communication, broadcast and broadband network technologies. Through its research, CRC helps address emerging challenges in information and communications technologies (ICT). It is a source of advice and support for the Canadian federal government in the development of policies, regulations and standards; and in applications such as national defense, public safety, and space-based communications. CRC also shares its expertise with Canada's ICT sector to develop and commercialize products and services.

Media relations
Communications Research Centre Canada
613-991-6577
www.crc.gc.ca

About Moseley Broadcast

Moseley, established in 1961, designs and manufactures wireless communications equipment for the radio and television broadcast industries, as well as custom-configured voice and data networking applications.

Moseley products are in service in more than 100 countries and are actively represented in 60 countries worldwide.

Moseley

805.968.9621 sales@moseleysb.com www.moseleysb.com