



New Smart Antenna Shown at CEDIA

In March 2008, NAB partnered with St. Louis-based Antennas Direct to initiate development of a so called "Smart Antenna" based on the CEA-909A Antenna interface. A prototype of this antenna was shown at the Custom Electronics Design & Installation Association's (CEDIA) fall Expo held last week in Denver.



A smart antenna is a TV receive antenna that can exchange information such as channel number, gain, direction, polarization, etc. with a CEA-909A-compliant receiver allowing the Smart Antenna to be electronically steered and tuned to find the optimum setting for each received channel. The TV set stores these settings and automatically reconfigures the antenna as the viewer changes channels. This allows consumers to channel surf without having to get off the couch to adjust the antenna.

CEA-909A is a technical standard that defines the physical interface and communications protocol between a compliant TV set and a Smart Antenna. The original CEA-909 standard specified a 2-cable interface consisting of the coax (for RF) and a control cable (for data and power) connected via an offset RJ-45 connector. This standard has received some recognition relatively recently as it is an explicitly permitted feature for digital converter boxes certified through the NTIA DTV

coupon program. At least some of the certified models of converter boxes from AccessHD, Alpha Digital, Apex, GE, Goodmind, Philco, RCA and Tivax are among those that include the smart antenna interface feature. However, no integrated DTV set has implemented the smart antenna feature yet. At the present time, the only known commercially available smart antenna remains the DTA-5000 antenna from DX Antenna, available from such online retailers as www.solidsignal.com. Audiovox is expected to release the RCA ANT2000 indoor smart antenna later this year and potentially others will enter the market as well. But the requirement for two wires between antenna and TV set (or converter box) in order to implement the smart antenna function has certainly been a factor in dampening the enthusiasm of manufacturers for including the feature in their products..

Revised in 2007, CEA-909A added the provision for the RF, data and power to be combined on a single wire (the coax) allowing for one simple, less-confusing connection to the television. The antenna introduced at CEDIA is the first implementation of a CEA-909A Smart Antenna for digital television. The prototype antenna uses reconfigurable elements to achieve performance on par with antennas normally found in military applications. It is highly efficient and was designed and optimized for the post-February 2009 digital TV frequency plan using the CEA-909A single-wire control protocol.

The goal of the Smart Antenna project – part of NAB's FASTROAD (Flexible Advanced Services for Television and Radio On All Devices www.nabfastroad.org) technology advocacy program – was to create an indoor antenna that was easy and convenient for a consumer to use and would aid viewers in the task of tuning in over-the-air DTV stations. While manually re-aiming the ordinary "rabbit ear" antennas for analog signals may not have been a big deal, re-adjusting an indoor antenna for optimum DTV reception can be difficult sometimes calling for precise adjustments. It is hoped that receiver manufacturers will begin to build CEA-909A capability into their sets. CEA-909A Smart Antenna technology can make a huge difference in the overall consumer DTV experience, allowing access to all local television signals without having to spend a lot of time aiming or re-aiming antennas.

For additional information on Antennas Direct, visit <http://www.antennasdirect.com>.

63rd NAB BROADCAST ENGINEERING CONFERENCE CALL FOR PAPERS



NAB Show will host the 63rd NAB Broadcast Engineering Conference on April 18 – 23 at the Las Vegas Convention Center in Las Vegas, Nevada.

The NAB Broadcast Engineering Conference is a highly technical conference where presenters deliver technical papers ranging over a variety of topics relevant to the broadcast and allied industries. We invite you to submit a proposal to present a technical paper at our conference. The deadline for submitting your proposal is **October 17, 2008**.

To submit a technical paper proposal, [click here and complete the electronic form](#). If you have questions regarding the NAB Broadcast Engineering Conference, please contact [John Marino](#).

NAB365 TV Thought Leadership Series Videos



One of the features of NAB365 is an exclusive series of [video interviews](#) designed to provide you with expert viewpoints on technology's impact on digital media and the world of broadcast content for video, radio, broadband, and more.

With technological advancements arriving at a steady pace, it can be a challenge understanding the creative and financial impact of each technology on the world of content creation, content management, content distribution & delivery, content commerce, and content consumption.

In the latest of the NAB365 Thought Leadership series, NAB's top technical expert, [Lynn Claudy](#), discusses digital media and the competitive media landscape, and NAB's [Jonathan Collegio](#) provides an update on the DTV transition. Enjoy and please feel free to provide us feedback on this series through our [NAB Show YouTube channel](#).

NAB Satellite Training Offers Techniques for Keeping Satellite Transmission Costs Reasonable for DTV

September 29 – October 2, 2008
Washington, D.C.



If you are concerned about keeping your satellite transmission costs reasonable, the NAB Satellite Uplink Operators Seminar can help you. The seminar that will be at NAB Headquarters on September 29 – October 2 can teach you techniques to give you the best performance and keep your station's transmission costs under control. For more information call Cheryl Coleridge at (202)

429-5346 or go to [NAB Satellite Uplink Operators Seminar](#).

ATSC Digital Television Transmission Systems 8-VSB Fundamentals Seminar Wednesday, September 24, 2008 – KNME, Albuquerque, N.M.

The 1-day 8-VSB Fundamentals seminar, conducted by Gary Sgrignoli, will help you develop a fundamental understanding of the digital VSB transmission system and its performance attributes as well as current practical application information. The seminar includes an optional site visit to KNME's DTV Tx site on Sandia Crest. For additional information contact the instructor Gary Sgrignoli, Meintel, Sgrignoli & Wallace at 847 259 3352 or Gary.Sgrignoli@IEEE.org or Jim Gale, KNME-DT, 505 277 2049, jgale@knme.org.

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