April 27, 2009

Radio (and Other) Technology at the 2009 NAB Show

Last week's NAB Show (www.nabshow.com) was a showcase of new technology and new ideas with over 1,600 exhibitors and over a dozen conference tracks. Below are some of the radio (and other) technology highlights from this important annual industry event.

FM Radio in cell phones – NAB's initiative to increase the penetration of FM radios in cell phones was evident at the NAB Show in a number of ways. In his opening address to the convention, NAB President and CEO David Rehr said that NAB has been "...reaching out to U.S. mobile phone carriers to include FM chips in cell phones" noting that Verizon Wireless, AT&T and T-Mobile are including FM radio-capable handset devices in their offerings. Mr. Rehr also pointed out how FM radios in cell phones would give cell phone users access to the Emergency Alert System.

On display in one portion of the NAB "Radio Heard Here" booth in the North exhibit hall (see photo below and also www.radioheardhere.com) were a number of FM radio-enabled cell phones including the Motorola Rokr, the first phone with an integrated FM antenna (see the March 23, 2009 issue of *Radio TechCheck* for additional information on cell phones with integrated FM antennas). Four of the Motorola phones were raffled off to attendees that visited this booth (one each day the exhibit hall was open) as were eight Sony tabletop HD Radios.

Also, during the Technology Luncheon on Wednesday, sponsor LG gave away an LG Incite cell phone which includes an FM radio. The LG Incite is shown in the inset at the bottom right of the photo). This is a Windows Mobile "smart phone" and its FM radio circuitry also supports the Radio Data System (RDS).

HD Radio – iBiquity Digital Corporation (Columbia, MD, www.ibiquity.com) had over 40 receivers on display in the HD Radio booth (listed in the table below) including a prototype portable HD Radio (shown in the photo below) which will soon be available to consumers. Two HD Radio-based navigation solutions from Navteq/BTC and Clear Channel, and a demonstration of advanced emergency alerting features were also being demonstrated in the booth.

Automotive radios	Tabletop radios	AV/tuner shelving units
Alpine TUA-T550 (Tuner Box) w/ IVA-W505 HU	Acoustic Research ART-7	Coby HDR-650
Dual XHD7714, XHD7720	Coby HDR-700	Denon AVR4308CI, AVR5308CI, U604CI
Jensen VM8013HD, VM9022HDN, VM9312HD	Denon S-52	Insignia NS-HDTUNE
JVC KD-HDAHD59, KD-HDR20, KD- HDR50	Gigaware iPod Dock	Integra DTR 8.9, DTR 9.9, TUN3.7
Kenwood MP942U, PKG-MP242HD	iLive ISP809B	Marantz AV8003, SR8002
Pioneer PKG-DEH-P4001HD, PKG- MP242HD	iLuv I168, I171	Onkyo T4555, TX-SR876, TX- NR906
Sony XT-100HD, Marine	Insignia NS-HD3113	Sony XDRF1HD
	JBL OnTime 400iHD	Yamaha RX-V1900, RX- V863, RX-Z7
	Jensen JiMS-525i	
	Polk ES2, HDX3	
	Sony XDR-S10HiP	
	TEAC HD1	

Just prior to the NAB Show, iBiquity made a number of important announcements relating to advances in HD Radio technology, including the availability of a new firmware load for Samsung EM's HD Radio chipset (SEMHDR C200A/100A). According to iBiquity, the new firmware decreases overall power consumption down to as low as 165 mW, enabling the chipset to be used in a wide range of portable devices.

"We view the release of this firmware as a major milestone in the further development of core HD Radio technology designed for emerging mass-market segments. The Samsung chipset is a fully functional HD Radio solution, and this new firmware release enables that full functionality to be brought to a wide range of low-power devices," said iBiquity's COO Jeff Jury. "This brings full HD Radio feature options to a far larger market of battery-operated, portable devices," he added.

iBiquity said that Samsung's HD Radio chipset targets a wide range of product categories, including home, automotive aftermarket and portable battery operated devices. With the reduction in power consumption, Samsung chipset is appropriate for battery-operated portable devices such as MP3 players, portable navigation devices (PND), personal media player (PMP), and other portable devices.

In addition, iBiquity announced that it has licensed more than 140 companies to develop HD Radio receiver components and products. This number was reached with announcements at the Hong Kong Consumer Electronics Fair (taking place just one week before the NAB Show) that the company granted HD Radio technology licenses to A-MAX Technology, EnGIS Technologies and Harbor Light Technology. In addition, iBiquity announced that 23 factories offer HD Radio product production capabilities, up from eight in 2006, and three in 2005.

Broadcast Electronics Demonstrating Twitter software – the latest twist on the Twitter phenomenon is a radio application introduced at the show by equipment manufacturer Broadcast Electronics, Inc. (BE) enabling broadcasters to send "tweets" to the iPhone and other Web-enabled cell phone devices. A live demonstration of the application at the BE booth involved not only "tweeting" song information, but also sending iTunes tags to the Twitter.com micro blog to be received by any Twitter-enabled mobile or PC devices. Shown in the photo is a picture of BE's exhibit and in the inset, a photo of an iPhone that has received tweets from BE's demo station "WNAB."

Ray Miklius, Vice President of Studio Systems for Broadcast Electronics, said that with this new BE software "...song tagging is no longer limited to the desktop or an expensive receiver. Any iPhone, iPod Touch, PC or Mac can not only tag music, but purchase it on the spot."

"Until now, tagging songs played over the air for purchase later through Apple's iTunes had been the exclusive function of radio receivers incorporating HD Radio™ technology," Miklius said. BE's demonstration showcased the new Twitter plug-in application for its The Radio Experience (TRE) data management system, which is used in radio studios to generate and schedule text for readout on text-enabled radios and Websites. With this new application, radio stations are able to bring song selection and acquisition to mobile platforms using the micro-blog social network.

NAB Video Blog – NAB employed "video blogging" technology to capture the experience of attending an NAB Show. This video blog (see screen capture) is available on the NAB Show Web page at http://www.nabshow.com/2009/newsroom/videoBlog.asp and has been compiled by a group of select "bloggers" including:

- *Grace Galloway, student and first-time attendee* – Grace is a senior at the University of Colorado at Colorado Springs and an NAB Show intern. She will be graduating in May with a degree in Communication with an emphasis in Media Management and a Visual Arts Minor.
- *Sarah Milligan, behind the scenes with NAB President and CEO David K. Rehr* – at NAB, Sarah runs the executive office of David Rehr. At the NAB Show, Sarah will be capturing a look behind the curtain as Rehr hosts NAB's biggest annual event;
- *Peggy Miles, Super Session speaker and new media expert* – Peggy was an early pioneer in Webcasting, and digital media, and is the CEO of InterVox Communications and founder of the International Webcasting Association. Peggy also interviewed Philip Rosedale, Founder of Second Life and co-presented with Brian Cooley in the Super Session: "Cool Gadgets, Hot Content" as well as a guest author on the NAB Show Blog;
- *Sandra Adamu, Nigerian educator and attendee* – Sandra is a Broadcast Lecturer at Ahmadu Bello University in Zaria, Nigeria. Her second time to the NAB Show, she will be conveying an international attendee perspective;
- *Shawn Canfield, NAB Show staff* – as Director of NAB Exhibit Services, Shawn is able to provide true backstage access to what it takes to pull off an event of this magnitude, serving more than 1500 exhibitors across 800,000+ square feet of exhibit space. Shawn also manages the NAB Show Exhibitor Blog;

● *Jessica Sheridan, NAB Show staff* – as Interactive Marketing Manager for NAB Show, Jessica is on the front line of Web promotion for the event. While on-site, she will be providing true backstage access to how the show unfolds from a staff perspective. Jessica also manages the NAB Show Blog.