![DVB Digital Video Broadcasting logo]

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MOBILE TV GOES WILD AT IBC

Live DVB-H Demos & Product Offerings At Over 35 Locations Throughout IBC.

Amsterdam – 9th September 2005 – With the explosion of interest in the DVB-H standard for mobile TV, IBC'05 sees the largest display to date of DVB-H products and services that are paving the way for the introduction of the most exciting new broadcasting opportunity in years. The official IBC conference programme is also offering an entire day devoted to mobile applications on Saturday 10 September and the exhibition organisers have included the 'Mobile Zone' a showcase for application developers, content providers and technology companies.

In excess of 30 companies representing the DVB-H supply chain are exhibiting at IBC demonstrating their huge commitment to broadcasting to the mobile handset market that analysts are predicting will be a $600 billion a year worldwide market. (*See attached list.*)

Some of the highlights of the demonstrations include: Dutch network operator Nozema Services transmitting live DVB-H signals over the entire IBC exhibition area with five programmes including BBC World; complete platform solutions from Nagravision and Thales; content security solutions from Irdeto, NDS and Viaccess; transmitters from Elti and Harris Corporation; as well as mobile device manufacturers Nokia, Samsung and Siemens.

Peter MacAvock, Executive Director of the DVB Project Office, commenting on the impact of the DVB-H standard remarked, "DVB-H has captured the imagination of the entire industry. From advertisers and content developers to broadcasters and mobile network operators, everyone has quickly realised the impact that this exciting new technology will have on the future of broadcasting. It is hardly surprising to see the amount of companies exhibiting DVB-H products and services at this year's IBC."

DVB-H is defined as a system where the information is transmitted as IP datagrams. Time slicing technology is employed to reduce power consumption for small handheld terminals. IP datagrams are transmitted as data bursts in small time slots. The front end of the receiver switches on only for the time interval when the data burst of a selected service is on air. Within this short period of time a high data rate is received which can be stored in a buffer. This buffer can either store the

downloaded applications or playout live streams. The achievable power saving depends on the relation of the on/off-time. If there are approximately ten or more bursted services in a DVB-H stream the rate of the power saving for the front end could be around 90% compared to standard DVB-T receiver.

Background

The DVB Project

The Digital Video Broadcasting Project (DVB) is an industry-led consortium of over 250 broadcasters, manufacturers, network operators, software developers, regulatory bodies and others in over 35 countries committed to designing global standards for the delivery of digital television and data services. The DVB standards cover all aspects of digital television from transmission through interfacing, conditional access and interactivity for digital video, audio and data. The consortium came together in 1993 to create unity in the march towards global standardisation, interoperability and future proofing.

To date, there are numerous broadcast services using DVB standards. There are hundreds of manufacturers offering DVB compliant equipment, which is already in use around the world. DVB dominates the digital broadcasting world. A host of other services is also on-air with DVB-T, DVB-S and DVB-C including data on the move and high-bandwidth Internet over the air. Further information about DVB can be found at: www.dvb.org.

DVB is a registered trademark of the DVB Project.

This press release is available in Brazilian Portuguese, Latin American Spanish, and Chinese languages by request or can be downloaded from the DVB website.

What they're saying about DVB-H

"The ability to watch TV-like content on a mobile phone is a logical next step in the evolution of mobile multimedia streaming services. Embedded DVB-H technology in an open standard end-to-end environment is one of the key drivers to set up a promising business model."
Harry Strasser, Senior Vice President Innovation & End-to-end Solutions, Siemens Communications

"Mobile networks combined with DVB-H can create an opportunity for new mobile mass markets by providing a rich selection of paid, interactive media services. With our trials last year in Berlin we have taken a pioneering role with this technology."
Dr. Bernd Wiemann, Managing Director, Vodafone Pilotentwicklung Germany

"Open, non-proprietary standards such as DVB-H provide the best opportunity for broadcasters and content providers to play in multiple areas and get the most revenue from the DTV market."
Marc Cetto, General Manager Mobile Connectivity, Texas Instruments

"DVB-H is a groundbreaking technology that will facilitate the widespread adoption of mobile TV around the world. As a provider of mobile TV handsets and server systems Nokia is currently involved in pilots in several countries."
Richard Sharp, VP Rich Media, Nokia Multimedia

"Microsoft believes the proposed DVB-H standard is an ideal bearer for streamed video and multimedia content using the latest generation of high-efficiency codecs."
Kevin Unangst, Director Windows Digital Media, Microsoft

"Samsung believes that DVB-H technology will be an excellent complement to 3G mobile telecoms. The technology should open doors to a new family of products and services that end users will truly appreciate and take wireless usage to a new level."
Muzibul Khan, VP Product Management and Engineering, Samsung Telecommunications

"Philips sees DVB-H as central to making TV-on-Mobile a reality with our recently announced solution providing all the functionality of a complete digital TV receiver in an area the size of a thumbnail."
Rutton Ruttonsha, VP & General Manager, Personal Entertainment Solutions, Philips Semiconductors

"Crown Castle Mobile Media's selection of DVB-H has proven to be a key success factor in our delivery of rich media services to mobile devices. DVB-H as an open standard is fostering innovation and broad industry support."
Michael Schueppert, President, Crown Castle Mobile Media

"Mobile broadcast technologies such as DVB-H will play a key role in making Motorola's Seamless Mobility vision come to life. Motorola has helped in driving several aspects of DVB-H and will continue to support its evolution through the commercialization of converged mobile devices."
Jim O'Connor, VP Early Stage Accelerator, Motorola

"We believe that DVB-H is a key complement to third-generation mobile telecoms technology. The one-to-many characteristics of DVB-H together with the one-to-one characteristics of cellular technology create a very strong combination."
Mike Short, VP Research & Development, O2 Group Technology

Company	Stand	Description of Demonstration
Arqiva	1.259	Arqiva demonstrates its trial of multichannel mobile TV which carries 16 channels of live TV in the Oxford (UK) area using DVB-H.
Cardinal Systems	3.430, M112	Cardinal will be demonstrating its products and a live broadcast of DVB-H and DVB-MHP streams to different receivers.
DigiTAG	10.410	DVB-H services are showcased live at the DigiTAG stand: on a Nokia 7710 receiver, view content from leading international broadcasters transmitted by Nozema Services.
Elti	5.320	The Elti SKY Transmitter is dedicated to a show-wide DVB-H demonstration, put together by DiGiTienne, KPN, Nokia, Nozema and Elti. Experience DVB-H reception on the Elti stand.
ENENSYS Technologies	3.320	IP real-time encapsulation with time-slicing and FEC processing, DVB-H modulation and RF transmission of 2 streams in hierarchical mode. Received on mobile and fixed receivers.
Envivio, Inc.	1.351	Envivio will be demonstrating its MPEG-4 H.264 video and audio headend optimized for DVB-H and 3GPP mobile broadcast services.
Fraunhofer HHI, Heinrich-Hertz-Institute	8.221	Multi-programme H.264 Streaming Server for DVB-H with dynamic bit rate allocation through a statistical multiplex.
Fraunhofer IMK, Institut Medienkommunikation	1.481	IPmux - DVB-H playout solution for IP encapsulation and transport stream multiplexing.
Frontier Silicon	6.006	A DVB-H receiver showcasing Frontier's PHY/MAC silicon and module technology.
Harmonic Inc.	1.361, M310	A multi-service/multi-codec encoder displays the simultaneous encoding of mobile video services using low-res H.264 baseline profile transmitted to handheld devices, along with high-res MPEG-2 and MPEG-4 AVC services.
Harris Corporation	8.291	End-to-end DVB-H demonstration of typical live broadcast TV programming; featuring the Synchrony SFN Adapter and the Atlas DTV 660 transmitter.
INSTINCT - EU IST Project	6.005, 10.412, M252	INSTINCT is committed to assisting DVB in realising the commercial provision of convergent mobile services, for which it presents possible scenarios and end-to-end solutions.
Irdeto	1.469	Proven content security products for DVB-H mobile TV, as well as DRM for video, music, games and ringtones.
MAINDATA	M221	DVB-H IP Encapsulator, DVB-H Modulator, H.264/AAC Encoder, H.264/AAC Decoder/Player for WinCE PDAs, complete DVB-H platform for Mobile TV. 3GPP Server for Mobile Video Streaming.
MAYAH Communications	1.541	MAYAH's IO [io] 8001 for encoding and streaming audio/video; R&S Encapsulator and Modulator; Reception and Conversion to WLAN; Decoding on PDA with FhG Software (AVC/AAC-HE)
Nagravision - Kudelski Group	1.420	Complete DVB-H Platform, from broadcast to receivers, with Content Management, ESG, CA/DRM and differentiating revenue generating pay business models.

NDS	1.171, M210	Mobile DRM and DVB-H solutions - see DVB-H in the ultimate mobile situation - in a car.
Nokia	4.259	A live Mobile TV demonstration shows what popular TV-like content can look like when efficiently broadcast to mobile mass audiences with IP Datacast over DVB-H.
Nozema Services		DVB-H signals originating from our trial in the Hague are being transmitted from the tower near the RAI. There are 5 live TV programmes including BBC World.
Pace Micro Technology plc	1.221	Pace is demonstrating its PVR2GO with integral DVB-H receiver, which will enable live TV reception on the move.
ProTelevision Technologies	4.240, 1.481	ProTelevision, a manufacturer of DVB-T/H modulators, demonstrates a live DVB-H transmission. The signal is received on several different phones and receivers.
Rohde & Schwarz	8.250	Video goes Mobile: complete solutions for R&D, manufacturing of mobile terminals and terrestrial transmitters: DVB-H and DVB-T.
Samsung Electronics	4.343, M322	Demonstrating live reception of DVB-H broadcasting using our DVB-H RF tuner and baseband demodulator chip set.
SIDSA	1.481	SIDSA will demonstrate its demodulador reference design platform with a live DVB-H broadcast using the SIDSA IP Encapsulator.
Siemens	9.240	Mobile TV - from innovation to open standard end-to-end solution: Siemens shows live DVB-H demonstrations.
Silicon & Software Systems		S3 will be demonstrating onHandTV, its DVB-H software stack, in partnership with a number of its customers.
TeamCast	1.481	TEAMCAST will show its ModulCast in operation and the RF flexibility of live DVB-H transmissions in VHF, UHF and L-Band.
Tektronix, Inc.	9.429	MTS400 Series Transport Stream Compliance Analyzer with DVB-H real and deferred time measurements includes MPE and INT table analysis.
Thales Broadcast & Multimedia	8.171, M131	H.264 encoding, DVB-H encapsulation, modulation and transmission, and mobile TV services management.
UDcast	1.493	UDcast demonstrates its DVB-H IP encapsulator (IPE-10) and IPE-Manager - a central DVB-H network administration system.
UBIT	M251	The MS2 environment allows non-engineers to design mobile sites enabled for video delivery and other interactive services – a powerful Service Delivery Platform for DVB-H.
Viaccess	1.151	End-to-end embedded security solution, implementing Rights Management and Conditional Access to DVB-H programmes via a secure scrambling of the content layer (based on IsmaCryp).