

Eureka!

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REACHING OUT TO THE WORLD DMB COMMUNITY

DIGITAL BROADCASTING AND INTEROPERABILITY

For the past eighty five years radio has proven itself to be a consistently successful and enduring medium, engaging listeners with music, news, weather, talk shows - in fact all types of information and entertainment. The advent of digital platforms have not damaged it, in fact DAB digital radio is making radio stronger and more popular in countries that have adopted it. Mobile TV on the other hand appears to be struggling to make its mark in the new digital multimedia world. Whilst this is a surprise to many people who have been predicting it as the 'next big thing', others recognise that mobile TV content has to compete head on with conventional television, MP4/MP3, internet services and radio, many of which are delivered "free" to the consumer. Mobile TV can be delivered on a variety of platforms including 3G, DVB-H and T-DMB. Nevertheless, it is still unclear how the service can attract consumers and pay for itself.

In July, the European Commissioner Viviane Reding released a communication expressing her concerns that unless a particular mobile TV standard is mandated for Europe the region would not see a successful roll out of these services. The key themes in the press were interoperability across the single market and sustainable business models. However, most of the leading industry players voiced their concerns at the suggestion of mandating a technology, preferring a market-led

approach to platforms and services. The two leading European technologies for Mobile TV are T-DMB and DVB-H. Both have launched commercial services in Europe but have yet to succeed in gaining the mass-market successes each expected. Some commentators are sceptical about the cost of the services, the handsets or content. There may also be a factor in the incompatible expectations of broadcasters and mobile operators. Traditional PSB and commercial broadcasters are used to a free to air business model with network costs under their own control and are naturally concerned when telecoms operators control their access to a Mobile TV platform. Meanwhile Telecoms operators require a subscription model with many channels under their control and, inevitably, much higher network costs. If there is any discernible pattern emerging, it could be that DMB is more suited to broadcaster controlled, low cost, free to air models whilst

DVB-H is finding favour as a telecoms operated subscription network. Silicon manufacturers had already informed Madame Reding via the European Mobile Broadcasting Council (EMBC) that interoperable chips for both T-DMB and DVB-H are available, obviating the need to mandate one or the other standard. Any penalty of receiver complexity is outweighed by the benefits of multi-standard flexibility. Countries with no available

UHF spectrum for DVB-H could roll out Mobile TV services using T-DMB, enabling European citizens to access TV services in many more countries using their mobile phones.

The European Commission cites one of the reasons for mandating a single Mobile TV standard is to ensure Europe can compete with Asia. Yet China has not chosen DVB-H for its Mobile TV standard, instead it has adopted a combination of two standards - a homegrown CMMB standard and T-DMB. Dual standard receivers for both T-DMB and CMMB are already emerging, enabling Chinese consumers to access Mobile TV in time for the Olympics. The world's most successful Mobile TV market, South Korea, also has a mixture of DMB and S-DMB to allow consumer the most variety and a choice between free to air mobile TV services and a pay per view model. European citizens, like their counterparts elsewhere, are best served by allowing the market to innovate and offer whatever combination of technology is appropriate. T-DMB is proving to be the enduring and common technology employed in both Europe and Asia and therefore likely to be central to interoperability across not one but two continents. For many of us at WorldDMB, this comes as no surprise!

Quentin Howard
President of the WorldDMB Forum

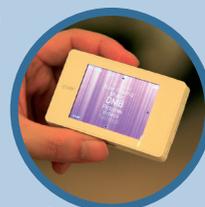
Find out about the latest products on pages 6-7



Read about The World's first high power DAB+ tests on page 5



Read page 6 to find out about the credit card size iRiver B20, delivering DAB and DMB



WORLD
DMB

Technology trends in DAB

The very first digital radios were just what the name implies: radio receivers. But given the power and capability of the processors included inside them it was a relatively short period before manufacturers started to introduce advanced features that set DAB apart from its analogue counterparts.

With the addition of flash memory, pausing and rewinding live radio became possible, while SD-Cards enabled timed recordings and electronic programme guides to be stored on the radios. PURE introduced Intellitext® – an advanced layer of text information to complement DAB's scrolling text and textSCAN™ which has enabled pausing and rewinding of the text.

With the DAB processor also often handling MP3 and CD playback it might have seemed the radios were packed with as many features as possible.

Of course not! DAB is set to see a wide range of new features on models released in 2007 and 2008.

The first major trend is away from mains-only radios and traditional battery technologies to rechargeable solutions, like ChargePAK. Changes in the design of radios, more frequently putting the processor on a single PCB with the other components, and chip level technologies like clock-gating have

enabled much improved battery life: the Move radio offers over 40 hours on a charge for example.

Cosmetically, radios are starting to move from LCD screens to a graphical OLED (Organic Light Emitting Diode) display. OLED provides crystal-clear readability from any angle. This can be coupled with a light sensor which automatically adjusts display brightness for maximum user comfort and convenience.

All consumer electronics providers are rightly taking account of public feeling about making products ecologically appropriate and managing the recycling of products. With EVOKE-1S and Siesta, PURE has created an EcoPlus range which has been designed to minimise environmental impact. These products typically feature a standby power consumption of less than 1W, support for a rechargeable ChargePAK battery, packaging made from a minimum of 70% recycled material, finished with water based varnish, and documentation printed with soya-based ink on 100% recycled paper.

All EcoPlus products are designed and manufactured to minimise their environmental impact, with: reduced power consumption; use of materials from recycled and sustainable sources; optimum packaging size for transport efficiency; selection of components with

minimised environmental impact. Whilst EcoPlus is the first such initiative from a DAB manufacturer others will surely follow.

In terms of new features in the next year you should expect DAB to be integrated not just with MP3 and CD but also into devices that enable iPod connectivity, Internet radio listening and audio distribution.

One interesting new feature will be a service being created by Imagination Technologies and UBC Media Group which will allow listeners to purchase music directly from DAB digital radios. This service combines Imagination's upcoming DAB and Internet digital radio platform with UBC's 'Cliq' instant music purchase technology, providing digital radio users with a "buy now" facility while listening to selected DAB radio stations. The service will capitalise on radio's acknowledged ability to encourage music purchase.

Overall, with these new technologies being implemented today, DAB has plenty of excitement in store for the year ahead. And of course DAB+ is coming soon – indeed the first radios with DAB+ upgradeability are already on sale.

David Harold
Head of PR, PURE Digital

A plus for DAB in Switzerland

Switzerland has proven to be one of the most promising European DAB markets of the last two years. New transmitters are built almost every week, receiver sales are booming and listener awareness on digital-only channels has reached an impressive 80%.

Now Switzerland is making DAB headlines again. In only a few weeks, the first two of a whole series of new digital radio stations will go on air in Switzerland. Public broadcaster SRG SSR idée suisse is launching two new programmes in November, exclusive to DAB digital radio.

Meanwhile, commercial media companies are busy planning their digital launch. 16 applicants are competing for the second DAB multiplex in the German-speaking

part of Switzerland. Or are they? If everything goes according to plan, every single one of them can be accommodated on the new multiplex – thanks to DAB+.

At the end of June, SRG SSR idée suisse received word that its application for two new digital radio stations had been accepted by the Swiss regulatory body. One of the proposed new programmes is a 24-hour information and news format called 'DRS 4 News' targeted at the German-speaking Swiss population, which will cover all fields of general interest like politics, economy, sports and science with well researched and profound information bulletins. All broadcasts are to be moderated live, and a news bulletin will be run every half

hour, along with regular traffic updates.

The other public programme to be launched at the end of this year is an English-speaking programme called 'World Radio Switzerland', which will serve the ever-growing Swiss international community with news and information bulletins on all aspects of life in Switzerland. The channel is derived from an existing local FM station, World Radio Geneva, and is a joint venture of SRG and the BBC.

Only a few days after SRG received authorisation for its two new public programmes, eight commercial media companies were awarded licences by the Swiss Federal Office of Communication (BAKOM) to launch the first commercial digital multiplex in the German-speaking

area of Switzerland. The original call for tender, which had opened in summer 2006, had offered only three licences to commercial digital competitors, but the interest was such that the Swiss authorities decided a change of plan only a few days before the closing date for applications: It announced that 8 instead of a mere 3 licences were to be issued, and the technology to enable this more efficient use of capacity was to be DAB+. By the end of December, 18 applicants had handed in their proposals for new digital formats. Eight of them have now been awarded a licence. Two applications had to be withdrawn for legal reasons (the new Swiss radio and television law does not allow a media company to hold more than two radio licences), but the remaining eight competitors may broadcast their programmes licence-free, provided an agreement with new the network providers can be reached.

The scope of new commercial digital formats is quite wide. There is an education and entertainment programme called 'Radiolab', a so-called 'Radio For

Youngsters' targeted at 10 to 14-year-olds, a channel broadcasting information from the tourist regions named 'Swiss Mountain Radio', 'SoundCity' which will focus on urban music, a Swiss folklore channel called 'Radio Eviva', an innovative project called 'Radio.ch' which aims at providing information and support for all areas of life, 'RadioJay' which will play contemporary hits, and finally 'Djradio DELUXE' with music and lifestyle issues for young urban listeners.

Among the licence-free digital programmes, there are a number of music formats such as 'Radio 32 Goldies' playing everything from the 50es to the 80es, 'ToxicFM' serving young listeners or 'Swiss Music Radio' specialising in rock and pop music of Swiss origin. Also, there are some special-interest channels such as an oddity called 'IMMO-Radio' which will offer information and support for house-owners and renters.

A body of commercial radio and media companies has been founded only a few weeks ago, just after the commercial

licences had been issued. It is currently planning the new network of transmitters for the upcoming DAB+ multiplex which will cover the main urban centres in German-speaking Switzerland and is expected to launch in the second half of 2008.

The current DAB multiplex, which is run by SRG SSR idée suisse, will be kept in the original DAB standard to ensure continuity and stability in a growing digital market.

Larissa Anna Erismann
Swiss Satellite Radio



Netherlands tests DMB

MTVNL is leading a DMB consortium in the Netherlands. MTVNL has a number of key partners including Mobile Fernsehen Deutschland (MFD) and T-Systems, and is well connected to the Telecoms, Broadcasting, Content and Government value chain.

MTVNL is aiming to obtain a licence for DAB/DMB broadcasting in L-Band and Band III, and is currently running a Mobile TV trial on the L-Band using the same platform and expertise as proven from MFD and T-systems in Germany. The current trial has one transmitter (1.2kw) and covers 20km radius around The Hague. The service broadcasts four video channels over DMB. Within Band III there are also 9 Digital Radio Channels, which are already live in the Netherlands from the Public Broadcaster. Indoor coverage of the service is also good and the devices in the trial have proven to have excellent reception.

The timing of the DMB trial is good for MTVNL as the auction for DAB frequencies in both the Band III and L-Band in the Netherlands is most likely to take place

Q4 2007. From an infrastructure point of view the Netherlands – being a flat country - is very cost effective for the roll out of digital broadcasting. Therefore low investment for high coverage of DAB/DMB is possible. There is already approximately 50% DAB coverage in the Netherlands and the major four cities are already covered.

There are many potential business models for mobile TV and digital broadcasting in general. Recent market research shows that the Dutch population is open for new technologies, which is good news for the mobile TV market. More importantly the telecoms landscape in Netherlands is very competitive. This is a great opportunity for DMB as the service providers are keen to compete for new unique services to offer consumers. Mobile TV, Radio and Data Interactivity will be a clear differentiator for the Dutch Service Provider. This is why there is high confidence in the Netherlands that DMB will be the new service and stimulus for mobile phone operators in obtaining new customers.

MTVNL's position in comparison to its competition for the L-Band and Band III spectrum is favourable, as the main competitor in Netherlands is the Incumbent Operator KPN. KPN currently dominates the telecoms industry in the country and would also like a large piece of the Radio and Mobile TV market. KPN has obtained a license for DVB-H, however this is not likely to be activated in the near future. The Dutch Government would like to stimulate more innovation and competition against the Incumbent KPN and is ready to act accordingly. This is good news for DMB in the Netherlands and MTVNL is very hopeful for the outcome of the auction of the spectrum. Allowing both DVB-H and DMB in the Netherlands would offer the Dutch citizens more opportunities stimulate new services faster within the wireless industry.

Bas van den Heuvel
MTVNL



DMB in Malaysia

The MCMC (Malaysian Communications and Multimedia Commission), under the Technical Standard Forum (MTSFB), has formed a Mobile TV Working Group to look into the various Mobile TV standards. This Working Group, which is comprised of broadcasters, telecommunication companies, manufacturers, suppliers and consultants, has been tasked with the responsibility of submitting a recommendation to the MCMC on a mobile TV standard for Malaysia by early next year.

The Working Group will carry out a technical DMB trial, which was approved

for implementation in September 2007. The DMB trial will be carried out by a collaboration of members of the working group as well as international DAB/DMB manufacturers and suppliers who will work together in order to ensure accurate and correct data is recorded. The installation and commissioning of the trial system is expected to begin at the end of August in order to ensure the two trials can begin in mid September. There will be two transmission sites during the trial, which will cover the city of Kuala Lumpur during the two-month period.

The DMB trial will provide useful technical

information for the Mobile TV Working Group to derive a set of frameworks and policies with respect to the DMB standard, which is one of the mobile TV standards under scrutiny in Malaysia. In addition, the trial allows the Working Group to test the SFN operation of the two transmission sites. The trial will involve the use of assorted versions of DMB devices; a total of 50 receivers are expected for use during the trial.

Mohd Jaaffar Mohd Daud
Telecom Malaysia

Ensuring the successful uptake of the chinese mobile tv market through innovative receiver & terminal design

China's rapidly expanding mobile TV market is unique when compared to other markets around the globe. In most cases, a geographically defined area employs a single mobile TV technology. The most dominant examples are Japan's ISDB-T, Italy's DVB-H, MediaFLO in the US, and so on. The upcoming Chinese mobile TV market is quite different in this respect – China will have numerous mobile TV technologies living side-by-side. The most prominent ones today are T-DMB, CMMB and T-MMB.

This situation poses a few enormously challenging aspects to both the mobile TV receiver makers and end-device makers alike. Since capitalization of market potential is the key factor for each consumer-related company, product designers are scratching their heads regarding which products to develop and market, so that the target audience will be as large as possible.

Let's take a quick look at the challenges posed on the receivers. First, various transmission bands are used by each technology: T-DMB and T-MMB use VHF and optionally L-band, while CMMB uses

UHF and S-band. Secondly, T-DMB, T-MMB and CMMB are obviously different mobile TV technologies, although some elements resemble one another. Each of these technologies has various target devices and requirements in terms of form factor, interfaces, etc...

In addition, device manufacturers also face many obstacles that must be overcome. Since device manufacturers target as many consumers as possible, they must make devices that can suit more than a single network and technology. The result is that they must include various bands and technologies in one device. The mobile TV market is such that some networks may employ free-to-air services while others will use conditional access to ensure the Pay per view model. Such network characteristics mean that device manufacturers must also include conditional access if they wish to target to the mass market. The third major challenges facing device manufacturers are the variety and types of devices for mobile TV. Currently in the market, one can find mobile TV in mobile phones, PDAs, PMPs, notebook computers,

UMPCs etc... These devices may not seem that different to the consumer, however the device manufacturer can see the complexity between connected (i.e. devices that have a cellular uplink channel) and non-connected devices, which have their unique challenges in the manufacturing world.

So how can companies, both IC and device manufacturers, come up with the right mix? This is definitely the big challenge! It looks like the most reasonable solution is to start with T-DMB and CMMB, as T-MMB still poses some IP issues that are yet to be resolved. However, the multi-mode paradigm is no longer the sole domain for the receiver manufactures. Device manufactures will have to absorb, understand and accept this concept and make sure that their devices for the Chinese market, starting with the 2008 Olympics, offer multi-mode functionality.

Ronen Jashek
Siano

Australia switches on world's first high power DAB+ test

With just over a year to go until digital radio hits the airwaves in Australia's major capital cities, commercial radio broadcasters are getting down to business to ensure the new services hit the market with a bang.

Australia switched on its first DAB+ test broadcast in Sydney in July – the first fully compliant, high-power broadcast of DAB+ technology in the world. Over the next few months, commercial broadcasters will be switching on more DAB+ stations to test broadcast quality over various bit rates in preparation for commercial rollout in January 2009. They are also working on the development of slide show and electronic program guide technology.

Peak industry body Commercial Radio Australia has been holding a series of briefings for radio stations, advertisers and retailers around the country to provide information on digital radio and demonstrate the capabilities.

"Now that we are getting closer to the one year countdown, interest in digital radio is starting to build and stations are thinking about what this will mean for their listeners and what value it will add for advertisers,"

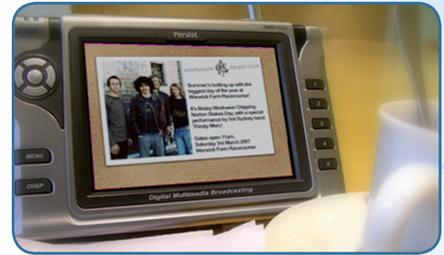
said Joan Warner, CEO of Commercial Radio Australia.

Australia is also working to encourage other countries to adopt DAB+ in the hope that it will lead to the availability of low-cost DAB+ digital radios. China is keen to introduce digital radio in time for the Beijing Olympics in August 2008. Ms Warner said if the Chinese could be persuaded to use DAB+ technology, the mass production of digital radios in China would be a boost for the Australian market.

"We are trying to negotiate a deal with the patent holders of DAB+ technology that will be attractive to larger markets such as China and India," she said.

Commercial Radio Australia is also planning a marketing campaign for late 2008 to push the take-up of digital radio in Australia when it rolls out in the six capitals from January 2009.

"Digital radio will give one of Australia's favourite mediums a new lease of life. Listeners today are still wedded to their radios – Australians spend more than two and half hours each day on average listening to



commercial radio. With digital technology, radio stations will be able to stay fresh and relevant into the future through the ability to broadcast a variety of audio, multimedia, data and interactive programming." Ms Warner said the industry would also brief advertisers on how digital radio can deliver their messages more effectively through a range of new features. "The rewind feature on digital radio will allow listeners to hit a button to replay an advertiser's telephone number or website address. Radio ads can be complemented by text or images about the products on sale. Information such as price, opening hours, store locations, web site addresses and contact details can be displayed as text," Ms Warner said. "As receivers become more advanced, advertisers will also be able to use animated brand logos and product shots, while e-coupons and broadcast websites will also help radio ads to evolve."

Commercial Radio Australia

WORLD-LEADING SUPPLIER OF MOBILE TV SOLUTIONS.

Factum Electronics AB is a world leader in the areas of **DAB** (Digital Audio Broadcasting), **DAB+**, **DMB** (Digital Multimedia Broadcasting) and **NICAM**, digital stereo sound for television broadcasting.

Factum Electronics develops and sells system solutions for signal encoding, decoding and processing and serves professional broadcasting customers in more than 40 countries.

Additionally Factum Electronics develops and sells middleware for receiver chip manufacturers and test & monitoring equipment.

For more information about Factum, please visit www.factum.se and more information about **DAB/DMB** is available at www.worlddab.org.

FACTUM
ELECTRONICS



It's the size of a credit card so how can it do DAB and DMB?

Iriver, well known for its ultimate perfection in delivering multimedia devices, broadens its offer with the launch of a new product line - The B-Series. The B-series, which is made specifically for broadcasting devices, was first launched in Korea, Japan and China, but will now make its debut throughout Europe from 1st September 2007. The first model in this new series for the European market will be the B20.

The B20, with its Iriver trademark CLICK allows users seamless access to navigate through different categories of entertainment, such a MP3 and FM radio, while drawing its main focus on Digital Audio Broadcasting (DAB Digital Radio) and Digital Multimedia Broadcasting (DMB Mobile TV).

For the first time in the history of the digital radio world, the B20 will offer consumers a new sort of experience while listening to digital radio services. The B20 will be easily differentiated from existing handheld DAB radio receivers by

its size, weight and trendy design. This device can be hidden behind a credit card and the 2.4 inch color screen display supports new features in digital radio such as slide show. The user of the 21st century is sure to enjoy radio in a whole new light with this device.

The B20 supports DLS and SLS in countries that have the services available. Also integrated into the device are EPG and a recording feature, which allows users more control over content. In this new digital age, consumers are able to scan ahead (up to seven days) and record content to play back during a convenient time.

All DMB TV channels, which do not require a CAS, are also viewable on the B20. The DMB trial in The Hague is currently using the B20 as the device of choice. It is anticipated that as more broadcasters continue to enter the Mobile TV market DAB/DMB receiver uptake will see its numbers increase drastically. Since its initial launch in Korea in



April 2007 the B20 has sold over 85,000 units. However, the success of the device is also attributed to countries such as China and Japan, which have also seen a quick uptake in receivers sold. Iriver has ensured that the B20 will compatible with the growing European market making it firmware upgradeable. New technical standards, such as DAB+, will be included in the device in the fourth quarter.

Nina Han
Iriver Europe GmbH

Latest in the receiver market



LG-KH1400

KH1400, DMB HSDPA (High-Speed Downlink Packet Access) with 2.2-inch LCD, Bluetooth, video calls, music player and optical sensor called 'Digital Eye'. The 'Time Machine' feature, allows users to watch DMB during phone calls. The KH1400 also offers PC-out function, 3.6Mbps transmission speed, 2M camera, external memory, electronic dictionary, subway map and portable disk. It retails for approx. \$550.

Multi-mode OTT-M20

The OTT-M20 is a multi-mode USB receiver and can receive T-DMB, DAB, DAB+ and DVB-T. In addition, the device enables the reception of global T-DMB service and Interactive data service (BIFS). This means that T-DMB can be received around the world where services are available using the OTT-M20.



PURE SIESTA

PURE Siesta, DAB and FM clock with large auto-dimming display, easy-to-find snooze button, three independent alarm settings and extra broadcast text from participating stations thanks to Intellitext and pause and control scrolling text with TextSCAN. Siesta minimises environmental impact, with a standby power consumption of less than 1W, packaging made from a minimum of 70% recycled material, finished with water based varnish, and documentation printed with soya-based ink on 100% recycled paper. Available in black, charcoal or silver for SRP of £49.99.

PURE EVOKE-1S

EVOKE-1S is the latest evolution of the EVOKE range from Pure. New features include; a graphical OLED (Organic Light Emitting Diode) display, more station presets (30 DAB or FM in a convenient combined list), auxiliary input for iPod or MiniDisc player. Optional extras available are: ChargePAK, textSCAN™ and Intellitext® and S-1 standalone speaker. EVOKE-1S is the second member of the EcoPlus range from PURE, available in real maple or cherry veneer and will be available at an SRP of £99.99 in September.



COWON D2 DMB and iAudio 7

COWON's D2 DMB and iAudio 7 will enjoy 16GB of flash storage each. The COWON D2, a mini-PMP with the ability to tune in to DMB signals in Korea, will get 8GB onboard and an additional 8GB thru SDHC and will be retailing for 419,000 won (\$451) and 329,000 won (\$354) for 8GB version without the added 8GB SD card, while the 16GB iAudio 7 will set Koreans back 299,000 won (\$322). 2.5-inch screen resolution 320x240, 4GB internal storage, 45 hours battery life, DMB, SD expandability, touchscreen, support for WMV9, MPEG4, MP3, Ogg, WMA and FLAC.

DAB/DAB+/DMB Trials

Brunei

In 2007 the public broadcaster, Radio Television Brunei (RTB), began a DAB trial, which will last for five years and will include five simulcast services. A task force has been set up within RTB, which is working closely with AITI on the plans for a commercial launch.

Czech Republic

TELEKO and the public broadcaster, Cesky rozhlas, began a DAB+ trial in the Pribram region on 2nd August 2007. The service covers almost 130,000 people on channels 12D and LI. The transmission is provided from the same site to compare both bands and their coverage. The chairman of the Czech Administration has decided to remain neutral on the DAB audio codec, but it is likely that DAB+ will become the standard used.

France

In the first half of 2007, the CSA, the French regulatory body, created a working group on digitalradio and has now authorised eight trials to take place in France for a duration of six months; six in T-DMB, one in DMB and DAB+, and one in DRM, after which calls for tender should be launched in Autumn 2007 ready for a commercial launch in 2008.

Ghana

In the Summer of 2007 Ghana Telecom in collaboration with Blackstar TV started the first mobile TV test transmission on the OneTouch network in Ghana. The test is being held in the city of Accra and there is currently one channel available though the operators hope to broadcast six video, four audio and two data channels when the service commences in full. They hope to launch the service commercially in October 2007 with coverage of two markets be Accra and Ashanti followed by a nationwide rollout.

New WorldDMB Members

CoreTrust Inc

CoreTrust, Inc. is a solution providing company, which specializes in the development of CA (Conditional Access) and DRM (Digital Rights Management) technologies for broadcasting content and services.

Deutschlandradio

Deutschlandradio is the national German public radio broadcaster has two radio programmes, "Deutschlandfunk" and "Deutschlandradio Kultur" comprising content in the area of culture and information. Both audio services are transmitted on a terrestrial network using various analogue and digital radio transmission systems like AM (LF/MF/SW), FM, DRM and DAB. Additional services (PAD) like slide show, EPG and further data service are also elements in our DAB streams.

TomTom

TomTom NV is the world's largest navigation solution provider, who's products are developed with an emphasis on innovation, quality, ease of use and value. TomTom's products include all-in-one navigation devices which enable customers to navigate right out of the box. The company also provides navigation software products which integrate with third party devices. TomTom was founded in 1991 in Amsterdam and has offices in Europe, North America and Asia Pacific.

Maxscend

Maxscend Technologies Inc. is a venture capital backed IC company founded by a group of Silicon Valley returnees in April 2006. The founding team has many years of R&D, management and China local business experience. Located in the Zhangjiang High-tech Park, Shanghai, Maxscend provides mobile DTV chip solutions, and aims to become a world-class IC design company.

Upcoming events

4-5 October

13th WorldDMB General Assembly, Oslo

Free for members

10-13 October

CeBIT, Shanghai

13-16 October

Hong Kong Electronics Show, Hong Kong

4-6 November

NAB Europe, Barcelona

IBC Exhibition: DAB/DAB+/DMB

Exhibitor's Showing DAB/DAB+/DMB at IBC include

Arqiva 1.261
C&S Technology M384
Coding Technologies 12P.100/ BS18
Digidia 8.490a
EBU 10.411
Factum Electronics AB 8.392
Fraunhofer M282

Frontier Silicon M362
Irdeto M164/1.451
Iriver 5.139
IRT 10.659
JVC Professional Europe Ltd. 10.441
Korean Pavilion 4.180, 7.211
National Grid Wireless M271
Newport Media, Inc. M371
onTimetek Inc. 4.276

Qualcomm M595
Radioscape Ltd. 8.470
Samsung Electronics 1.210
Siano Mobile Silicon M174
Somersdata Ltd. 8.489
STMicroelectronics B26/BS5
Texas Instruments IP214 / B5
VDL 2.310
WorldDMB Pavilion 5.139

IBC WorldDMB pavillion stand 5.139



WorldDMB is an international, non-governmental organisation that will, at IBC 2007, be promoting awareness, adoption and implementation of Eureka 147 based technologies worldwide. On the WorldDMB Pavilion there will be demonstrations of the new highly efficient audio-codec DAB+ as well as the opportunity to test the latest DAB and DMB products from around the world.



CCBN is the largest broadcasting show in Asia as well as the No.1 exhibition of DTV and broadband network in the world. CCBN 2008 will be held on 21st – 23rd March in Beijing, China at the International Exhibition Centre. With 12 exhibition halls totalling 60,000 square meters, CCBN has attracted more than 1,000 enterprises from over 30 countries and regions, more than 70,000 professional visitors.



Maxscend has a top-tier R&D team with extensive experience in IC design, software and system development. Aiming at the emerging MDTV market, Maxscend announced DAB/DAB+/T-DMB demodulator, MXD0120, which can be used in mobile phone, PMP, USB dongle, and vehicle entertainment systems for MDTV function. Maxscend is developing next generation products which will support multiple MDTV standards. In addition to semiconductor ICs, Maxscend also provides complete software/hardware platform solutions.



onTimetek (OTT) is a leading company offering the total mobile TV and IPTV system. onTimetek provided the world's first DMB H/W encoder and interactive data service system for on-air services. They also provide DMB terminals as well as total measurement systems. In addition, new products including low bit-rate encoder will successfully enhance customers' business. onTimetek will demonstrate their head-end Systems for TV & Radio as well as DMB products at IBC.



Perfect sound thanks to digital radio signals; high-definition video transmissions on the Internet; TV images on the mobile phone... Munich's IRT (Broadcast Technology Institute) develops cutting-edge media and communication technologies. IRT is the primary research institute for public-broadcasting organisations in Germany, Austria and Switzerland. The institute finds innovative and real-world solutions which enhance the quality of radio, television and new media for the benefit of users.



Iriver, well known for delivering 'ultimate perfection' in their multimedia devices broadens its range with the launch of a new product line called the B-Series. The B-Series has been launched in Korea, Japan and China, the European launch will be on 1st September 2007. The new product named B20 has the iriver trademark CLIX, this easy to use system helps the user navigate through different categories of entertainment, focusing on Digital Audio Broadcast (DAB/DAB+) and Digital Multimedia Broadcast (DMB).