

# Eureka!

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## REACHING OUT TO THE WORLDDMB COMMUNITY

### Making Progress

Welcome to this 3rd edition of EUREKA, a round-up of the latest news and information about digital radio and mobile TV. Interest in DAB and DMB amongst the world's broadcasters continues to grow as more countries make the inevitable transition to digital. One of the critical factors is that each country has unique digital broadcasting system requirements, often due to the ecology of its public and private broadcasters or method of spectrum and licence regulation. Broadcasters and regulators therefore demand systems, which are locally adaptable whilst recognising their citizens, are increasingly mobile and trans-national in nature. Broadcasting is no longer something that can be confined to national interests alone but has to be compatible with neighbouring states and whole continents, if not worldwide.

DAB is already the system of choice for broadcasters across Europe and Asia. In the UK and

Denmark, for example, over 20% of homes have one or more DAB digital radios and the platform is far and away the most popular and enduring method of listening after FM. The take up of DMB in Korea is around 5 million devices in the 18 months since launch. A trip on the Seoul subway system will see DMB being consumed not just on mobile phones but on personal media players and other passive devices, and many of Seoul's taxis and private cars are equipped with DMB screens. China's selection of DAB technology for its national digital radio standard is a major step with worldwide repercussions, not least because it will introduce many more manufacturers to DAB and DMB. Broadcasters in four of China's largest cities have already rolled out multi-channel DAB radio and mobile TV with more regions soon to follow. France announced DMB as one of its standards for multimedia radio and licences will be issued later this year. DAB+, the latest addition to the DAB family, has

received an unprecedented level of interest since it achieved ETSI standardisation in February and tests in France and Italy of DAB+ are typical of the level of interest. Many broadcasters are finalising plans to begin DAB+ services soon in Europe and Australasia and a number of receiver manufacturers are demonstrating their commitment to DAB+ products by showing DAB+ compatible receivers which will be on the market before Christmas 2007. Whether it is for local, regional or national digital radio, private or public, multimedia or mobile TV, free to air or subscription, WorldDMB provides broadcasters with the only truly adaptable and proven system which is used in more countries and with more receiver types than any other system.

Quentin Howard  
President of the WorldDMB Forum

Find out about the new cross border project "MI FRIENDS Lake Constance" on page 3



Read about the WorldDMB Pavilion at CCBN 2007 on page 4



Read page 6 to find out about the Australian DAB+ roll out



## Auction on commercial multiplexes in Denmark

Denmark will have five new commercial radio stations on DAB by 24 August 2007, when the Ministry of Culture auctions five nationwide channels providing cheap access to radio nationwide. The auction opens the market to new players - both Danish and international broadcasters will be able to bid and the licenses will last for 12 years.

The annual fee to the Ministry of Culture is relatively low, EURO 13,000, for a nationwide 256 kbit/s channel and EURO 6,500 for a 128 kbit/s channel. The transmitters belong to Denmark Radio (DR) and the commercial radio stations will rent the transmitters from DR which will be subject to negotiations. "But we have no interest in blocking commercial

radio stations from DAB what so ever", underlines DAB Denmark chairman Paul Samsøe.

Not only will existing radio stations in Denmark consider bidding for the new DAB stations, the market is open to international companies and in principle they could be used for new stations such as; FC Copenhagen national fan station, or banks wanting to deliver financial information could also start their own station. There are no restrictions on content on the new commercial channels. The only restrictions are Danish law.

"DR is expanding our network with ten new transmitters on air, at the latest by the end of June. We will then have 90% outdoor coverage nationwide.

The amount of Danes with access to a DAB radio in their homes has increased approximately four fold in the last year to more than 950,000. This is a tremendous growth and tells us, that DAB Digital Radio is the right choice in Denmark", says Paul Samsøe.

Due to the 12-year time frame there may well be very few analogue radios when the licenses come to auction again. The price for these new stations are currently attractive as the re-planning of the Danish FM network is still under consideration. Broadcasters and other interested parties will be in a good position to negotiate deals on Danish DAB channels.

Christian Kjeldsen  
Denmark Radio

## Swedish Digital Radio Market Update

The Swedish media operator, Teracom, arranged a seminar entitled "Radiopuls" at the end of April. The seminar was well attended by politicians, decision makers and representatives from the radio and music industries and addressed the international development of digital radio.

Ove Joanson, Chairman of the Swedish Radio Academy, opened the seminar by saying: "It is about time that radio is taken as seriously as other media in the future," He wanted to emphasise that Swedish television is now entirely digital and the same opportunity should be given to radio. Also neighbouring countries, Norway and Denmark, were the standard bearers in the field.

International speakers such as Jim Receveur of Talpa Radio International, Jonathan Marks of Critical Distance and Nick Banks of Unique explained how the development of digital radio has given new life to their respective radio sectors. The Swedish speakers

expressed a wish that radio in Sweden be given the same developmental opportunities.

An investigation by the Radio and TV Authority into the future of digital radio is under way in Sweden and is expected to be completed during the summer of 2008. This inquiry includes a report by the Stelacon an independent consulting firm, concerning choice of technology. The report, which was presented at the seminar, concludes that the Eureka-147 DAB solution would be the best choice for the Swedish market.

Teracom's President, Crister Fritzson, concluded the seminar by saying "Teracom definitely wants to be involved in the development of digital radio in Sweden. We hope that our politicians are able to make quick, wise decisions enabling the radio industry to offer listeners across the country the kind of programming that is in demand."

During the seminar, Teracom reported

that eight of the Danish DAB channels would be broadcast over the digital radio network in Stockholm during the next two weeks. The purpose of these broadcasts is to provide the Swedish radio industry with inspiration and knowledge on the kind of programmes and quality available in other countries on DAB digital radio.

Lotta Darlin  
Teracom



Crister Fritzson, President Teracom

# United innovations for the new cross border project "MI FRIENDS Lake Constance"

The growing mobility of today's information society provides media and information services with the new challenge of increasingly adapting their concepts for mobile use. In order to achieve this, an interdisciplinary cooperation between domestic and international companies in the broadcasting and telecommunications industry as well as in research is paramount.

The European DMB pilot project MI FRIENDS was launched and developed at the "Bayerische Landeszentrale für neue Medien (BLM)" in November 2005 for the purpose of mastering this task. It has already run a number of projects on mobile multimedia and received the European CELTIC label as well as the EUREKA signet.



Over the last few months, MI FRIENDS has done intensive preparatory work for its latest subproject; an extended mobile multimedia trial on the Lake of

Constance on the border of Germany, Austria and Switzerland. The trial should be ready to launch in the last quarter of 2007 and is planned to feature two major phases. The first one is designed to be a "mixed mux approach", during which DAB, DMB and DAB+ will be broadcast on the same ensemble. The second phase, which will take place during and after the UEFA European



Football Championship "EURO2008", is planned to become a unique multi-standard approach, enabling listeners to enjoy services in all of today's digital multimedia standards DAB, DMB, DVB-H, TPEG and GPRS/UMTS on a single device. Five regulatory authorities for commercial broadcasting in Austria, Switzerland, the Principality of Liechtenstein and Germany will work together on this new cross border project, driving it in the spirit of united innovations.



The Lake of Constance is a highly developed cultural area with touristic significance, and an important focus of the trial will be typical mobile "media-user-scenarios" in the user's leisure time. The fact that this region is also a main traffic junction further offers an excellent opportunity for detailed tests in new telematics services.

At present, about 30 services can be received on a DAB digital radio in this "overspill" region. The challenge of "MI FRIENDS Lake Constance" will be to create the best showcase for a mobile media future with DMB/DAB on the European continent. For more information on MI FRIENDS Lake Constance, please visit [www.worldddab.org](http://www.worldddab.org) and [www.mi-friends.org](http://www.mi-friends.org)

Peter Kettner  
BLM

## French to build regional and national networks

The French government has recently announced that the Eureka 147 family of standards was chosen as its digital radio standard, with DMB being the preferred choice. Technical decrees are now being prepared to precisely define the allowed technologies for digital radio. The advice of the French regulatory body, the CSA, suggests that the DMB standard is a good choice for the digital broadcasting of radio programmes on L-Band and Band-III.

The CSA have further noted that 'it is too early to agree other standards from the Eureka 147 family and that several standards could make the regulation of digital radio more complex.' The French broadcasters and regulators are keen for a fast roll-out of digital radio and digital mobile TV in France.

During the '06 CEPT meetings, the French authorities asked for (and

obtained) enough Band-III to fulfil its wish to build full regional and national DAB networks needed by the country. The CSA plans to send out calls for tender in Band III and L-Band before Autumn 2007, for a commercial launch in 2008.

Bruno Duchemin  
VDL

# Digital radio in the UK

Take-up of DAB digital radio in the UK continues to grow with the DRDB poised to announce cumulative set sales of five million. 20% of the UK's adult population now lives in a DAB household, that's nearly 10 million people tuning in via DAB each week. And household penetration stands at 18%, which is well on the way to achieving the DRDB's forecast figure of 20.6% penetration by the end of 2007. Awareness is at an all-time high with 72%, or 36 million adults knowing what DAB digital radio is.

On the product front, manufacturers continue to launch new designs in DAB sets, and we are starting to see form factors evolve with DAB chips appearing in mobile phones, docking stations and more MP3 and MP4 players.

2007 has already seen more innovation for DAB digital radio as leading commercial broadcasters came together to trial Slideshow delivery of high resolution jpg images to a colour DAB screen. Slideshow can be used to enhance the listener's audio experience with programme related images, or it can be utilised by advertisers to enrich their message. The BBC is also trialling a pilot Slideshow service. Later this year, a music download service developed by UBC will launch on DAB equipped mobile phones allowing users to buy tracks as they hear them on the radio with just one click.

Ofcom, the UK radio industry's regulator, has already advertised a second national multiplex for which two bids, 4 Digital Group and National Grid Wireless, have been received. The winning bid will be announced in July. At the

same time, Ofcom is half way through advertising a series of new local and regional multiplexes which will bring DAB digital radio to areas of the UK with little or, in some cases, no DAB coverage.

In the meantime, coverage continues to grow with Digital One announcing roll-out of 10 new transmitters over the next two years to bring its coverage up to 90% of the population. The BBC also has a robust transmitter roll-out schedule and is committed to 90% coverage.

Mandy Green  
DRDB

**DRDB** DIGITAL  
RADIO  
DEVELOPMENT  
BUREAU

## Costing-up DAB+

The enthusiasm for DAB+ is warranted because it offers clear advantages for digital radio broadcasting; it provides greater bandwidth efficiencies enabling more channels to be broadcast, and it possesses extra error correction coding to improve the robustness of transmissions. However, there is a price to pay on the receiver side that needs to be understood.

In order to support the two audio codecs (AAC+ for DAB+ and Musicam for DAB), the radio receiver needs to have extra memory for code and program storage to implement the additional error protection (Reed-Soloman) and AAC+ audio decoder used in DAB+.

The additional memory adds cost to the receiver, so manufacturers have to decide if they want to carry the extra cost by supporting both standards. While the Chorus2 processor from Frontier Silicon minimises the add-on cost impact by utilizing its built-in hardware Reed-Solomon decoder, it is

likely that some additional memory is required for the AAC+ audio decoding.

It is therefore likely that although dual-standard radios will start rolling out soon, low cost models targeting the DAB-only markets will also continue to be produced by radio manufacturers to keep costs down. However, with DAB+ triggering a new impetus in digital radio uptake across the world, the extra memory is a small price to pay for the benefits that these new derivatives of the DAB standard will bring to the market.

Frontier Silicon is already in mass production of a module that can be upgraded to DAB+. The Venice 6 module can receive DAB, FM, WiFi and PC streaming, and the DAB+ upgrade software will be available by the end of the year.

[www.frontier-silicon.com](http://www.frontier-silicon.com)

Prem Rajalingham  
Frontier Silicon



## WorldDMB at CCBN 2007

The 15th CCBN, was held from 30 March to 1 April 2007 at the China International Exhibition Centre, with 12 exhibition halls totalling 60,000 square meters. CCBN attracts more than 1,000 enterprises from over 30 countries. It was expected that there would be a trading volume of over \$1.12 billion and more than 60,000 professional visitors were expected to attend this event.

WorldDMB's Pavilion was a great success with the following members joined; Coding Technologies, Futurewaves, Iriver, Mtech, Radioscape, Siano and SMCNS. Feedback from both members on the pavilion, members' attending CCBN and visitors to the stand was extremely positive.

The press coverage generated by WorldDMB at this event; media interest in the technology and the pavilion was an excellent opportunity for WorldDMB to promote DAB+ in

China. The coverage on this topic and also led to greater interest from local stakeholders within the industry. Meetings with broadcasters and the distribution of leaflets on DAB+ during CCBN added to increased awareness.

Quentin Howard, President of WorldDMB, also spoke at the conference session and in the two-hour panel discussion at CCBN and received a very positive reception. The public statement made by the Chinese Government at the panel session confirmed that DMB is the accepted and necessary component for the 2008 Olympic Games' mobile TV delivery. There was also a strong consensus that DMB would co-exist with CMMB to become the dual standard solution for China.

WorldDMB was also pleased to announce during CCBN the Academy of Broadcasting Sciences (ABS), State Administration of Radio, Film and



Television (SARFT) became a member. This is WorldDMB's first strategic member from mainland China and it was a pleasure to welcome them at CCBN.

WorldDMB would like to say a special thanks to ABS, Level Design, Coding Technologies, Futurewaves, Iriver, Mtech, Radioscape, Siano and SMCNS for their support and making this event such a success.

If you would like to join the WorldDMB Pavilion at IBC please contact:  
Rosemary Smith, Admin & Events Manager, WorldDMB Project Office,  
[rosemary.smith@worlddab.org](mailto:rosemary.smith@worlddab.org)

Rosemary Smith  
WorldDMB Project Office

# Join the WorldDMB Pavilion at IBC

**IBC 2007 - the world of content creation management delivery**

Exhibition 7-11 September  
Conference 6-10 September  
RAI Amsterdam

For further details please contact:  
Rosemary Smith, WorldDMB Project Office,  
Tel +44 (0)20 7288 4645 or  
[rosemary.smith@worlddab.org](mailto:rosemary.smith@worlddab.org)



# Multi-Standard CMMB/DMB Solution for the Emerging Chinese Mobile Digital TV Market

As the 2008 Olympic Games in Beijing are fast approaching, China is in the process of establishing its Mobile Digital TV (MDTV) strategy. The Olympic Games will act as a major catalyst and launching pad for MDTV in China, thus key players in the market have already begun vigorous preparations to secure their share of business.

As in the past, the Chinese authorities have declared that China will have its own industry based mobile digital TV standard, forsaking any existing standards such as DVB-H (primarily a European standard) and MediaFLO (the standard choice in the USA). However, there is one exception, T-DMB, which has been accepted as a possible solution for the Chinese market or a dual standard solution.

The industrial standard formally adopted for mobile digital TV in China is called China Multimedia Mobile Broadcasting (CMMB). This technology is based on the transmission

protocol, STiMi (Satellite Terrestrial Interactive Multiservice Infrastructure), developed by the Academy of Broadcasting Science of SARFT. The system uses an SFN network in the 2.67GHz band, implementing satellite nationwide coverage, rural and urban repeaters and gap-fillers allowing for adequate coverage in the populated cities. This model is very similar to the Korean S-DMB network.

For T-DMB to fit into this picture, about a year ago, the government issued trial licenses to certain operators for providing T-DMB services. During this time CMMB was still in its early developmental stage, and the market demanded a solution for mobile TV. As a result, T-DMB was rolled out and is currently used in 3 major cities in China, but has spread no further. One reason for this lack of expansion of the services is that China insists on having its own home-grown mobile TV standard for deployment to the mass market.

The reality, however, always paints a

different picture. T-DMB has a viable market today, with services and devices being offered to the Chinese consumers, and this market is probably here to stay. Granted, within its limited boundaries, but will probably face fierce competition with the rise of its native Chinese counterpart, CMMB.

As a result, device makers are again faced with the dilemma of how to successfully launch a device to the Chinese MDTV market, satisfying the needs for both sub-markets (and eventually maximizing their potential revenues). The answer is quite simple—once multi-standard solutions that combine CMMB and DMB are available, one of them being Siano's planned development of such a receiver chip, device makers can benefit from a combined potential of two markets.

Ronen Jashek  
Siano

## Exciting Developments for DAB and iPod

Roberts Radio and Frontier Silicon are working together to bring the first ever DAB/FM plug-in radio for iPods to the market. The device will be available in late autumn and will retail for around £49.99. All leading electrical retailers, both independent and multiples, are expected to stock the plug-in which allows you to tune in DAB digital radio using your iPod. In DAB mode, a small screen on the device displays the name of the radio station.

With more than 13 million iPods already in the pockets of UK music fans of all ages, the plug-in is expected to boost

radio listening on the move significantly. Radio plays a meaningful part in the media day of most people, and combining the latest radio technology with the world's leading MP3 player is a move welcomed by both the BBC and commercial radio.

Mandy Green  
DRDB



# Australia well on the way to DAB+ rollout

Australians will be among the first in the world to experience full commercial DAB+ radio broadcasts with the Australian Government passing legislation in May allowing for digital radio to be rolled out by 1 January 2009.

"Digital radio ushers in a new era for radio and for the 95 percent of Australians who listen to radio in Australia every week," said Joan Warner, chief executive officer of peak body Commercial Radio Australia, which represents 98 percent of commercial radio stations.

The industry plans to start switching on some trial DAB+ broadcasts in Sydney from June 2007. Radio stations are eager to test their ability to transmit more than one audio channel or a combination of audio and data under their entitlement to 1/9 of a mux.

"The super efficiency of DAB+ will give us the ability to provide listeners with a lot more programming and content choices, including visuals," Ms Warner said. "From a commercial radio

perspective it's about being able to tailor content to retain our large and loyal commercial radio listener base of the 80% of Australians who listen to commercial radio and also to attract more listeners to commercial radio in a changing market where consumers clearly want more from their media."

The legislation covers the licensing, planning and regulation for digital radio in the six major cities of Sydney, Melbourne, Brisbane, Adelaide, Perth and Hobart. While the initial rollout is focussed on metropolitan areas, regional and rural Australia won't miss out.

"There are around 220 commercial radio stations in regional and rural Australia. We have already started reviewing the needs of some regional licence areas and the metropolitan roll out will allow us to realistically cost the regional roll out," Ms Warner said.

The legislation protects incumbent radio stations during the implementation phase, providing for a six-year

moratorium on new entrants and the gives broadcaster consortiums in each area the first option to control the multiplex licences for their services.

The Government announced recently that it would provide A\$10.5 million to help community radio broadcasters go digital. The public broadcasters ABC and SBS will also receive funding. Commercial radio broadcasters in regional areas also anticipate Government financial assistance with infrastructure funding for rollout.

Communications Minister Helen Coonan has said the new technology would help to significantly improve the quality of radio services and enable a range of new services such as play list information, still pictures and news and weather updates to be delivered.

Joan Warner  
Commercial Radio Australia Limited

# MODIBEC China workshops in August

The MODIBEC project successfully held the first Priority Workshop & Kick-off Meeting in Brussels on 15 March 2007. This project promotes and supports RTD cooperation on digital broadcasting convergence with mobile communications between the EU and China. Further workshops will be held in three Chinese cities that currently have DAB/DMB services on air. These three workshops will have different target audiences and aim to boost knowledge-exchange, best practise and cooperation between European and Chinese stakeholders.

## 19-20 August 2007 - Beijing

This workshop is designed primarily for Chinese government officials, regulators, the European Commission, members of the Ministry of Information Industry, the Olympic Committee and governmental research bodies.

Discussion topics include:

- overview of Mobile TV
- the Chinese market potential
- barriers for Chinese broadcasters
- business models and suitable content development for Mobile TV.

## 27 August 2007 - Guangzhou

Guangdong province is the production centre for receiver and chip manufacturers in China, therefore this workshop will concentrate on these areas. This session will focus on:

- IPR
- implications of digital broadcasting for manufacturers
- the development of Chinese chipsets

## 29 August 2007 - Shanghai

The Shanghai workshop will centre around the applications and latest R&D on convergence. Experts from Europe and other countries, who

have researched data applications will present their knowledge and experience. There will be a detailed discussion on the intelligent transportation system on DAB.

The workshops are free to representatives from Europe and China. However, the number of the attendees is strictly controlled. If you would like to attend these workshops or would like any further information please write to Murphy Wu at [Murphy.wu@worldddb.org](mailto:Murphy.wu@worldddb.org) or visit the MODIBEC website [www.modibec.org](http://www.modibec.org)



# London Digital Radio Show

**The Digital Radio Show & Mobile TV Forum,**  
11–12 June,  
Olympia, London

**WorldDMB Seminar,**  
12 June, 14.15–16.20,  
Session 3

The Digital Radio Show & Mobile TV Forum is an opportunity for the industry to come together and discuss all areas for digital radio and mobile TV. During this event WorldDMB will be hosting a seminar entitled DAB+ on 12 June, Session 3, 14.15-16.20. This session is designed to introduce delegates to the new audio coding in DAB. This seminar will introduce the technology and illustrate the benefits it offers to broadcasters. By gaining an understanding of what DAB+ has to offer it will be easier to understand how it can be introduced into the worldwide market.



## Session 3: DAB+

### 14.15 Opening Address

Leif Lonsmann,  
Vice Chairman, WorldDMB and  
Danmarks Radio

### 14.30 Technical Overview of DAB+

Frank Herrmann,  
Project Leader, DAB/DMB,  
Panasonic, Germany

### 14.50 Opportunities and advantages with DAB+

Larissa Erismann,  
Chairperson of WorldDMB  
Marketing Committee,  
Switzerland

### 15.10 What's in it for the Broadcaster?

Kath Brown,  
Head of Strategic Development  
– Digital Radio, Commercial Radio  
Australia Ltd

### 15.30 DAB+ Receivers

Colin Crawford,  
Director of Marketing,  
PURE Digital

### 15.50 Panel: DAB+ Future in Europe

Les Sable,  
Vice President Technology,  
RadioScape

Frank Herrmann,  
Project Leader DAB/DMB,  
Panasonic, Germany

Larissa Erismann,  
Chairperson of WorldDMB  
Marketing Committee,  
Switzerland

Colin Crawford,  
Director of Marketing,  
PURE Digital

Steve Evans,  
VP Sales and Marketing,  
Frontier Silicon Limited

Kenneth Lundgren,  
President, Factum Electronics AB

### 16.20 Afternoon Break & Exhibition

If you would like to visit the WorldDMB stand at the Digital Radio Show Exhibition please come to **Stand 5**.

## Upcoming events

19 – 22 June	Broadcast Asia	Singapore	Discount for members
19 – 22 June	Radio Asia	Singapore	Discount for members
18 – 20 August	DMB Forum and Expo	Beijing	20% discount for members
20 – 21 August	MODIBEC Workshop	Beijing	Free for members
22 – 25 August	BIRTV	Beijing	
27 August	MODIBEC Workshop	Guangzhou	Free for members
29 August	MODIBEC Workshop	Shanghai	Free for members
31 August – 5 September	IFA	Berlin	
6 – 11 September	IBC	Amsterdam	WorldDMB Pavilion

# WorldDMB at Broadcast Asia 2007

## Broadcast Asia Conference 19 – 21 June 2007

WorldDMB presents a

### 'Comparison of Digital Broadcasting Technologies and Convergence'

**Broadcast Asia Conference  
Day 2: Session 5  
Monday 20 June  
Conference Room 9B**

Chairperson

*Dr. Young Kyun Kim,  
Samsung / Vice President,  
WorldDMB*

This session is designed to introduce delegates to the different technologies and service platforms that can deliver digital broadcast services to mobile devices. A comprehensive comparison of the deployment and roll out of the various technologies will be discussed in order to better illustrate the costs to the broadcaster. By looking further into the content development and broadcast opportunities, one will better understand which technology is best for each market. Further discussion on receiver capabilities and availabilities will also be introduced. To conclude, the session will focus on lessons learned from trials and commercial deployments and how future rollout can be improved. The technologies included in this session are: DAB/DAB+/DMB, DVB-H, MediaFLO, HD Radio, DRM and CMMB. For further information please go to the Broadcast Asia website

[www.broadcast-asia.com](http://www.broadcast-asia.com)

## Broadcast Asia Exhibition 19 – 22 June 2007

Asia's most successful broadcasting and digital multimedia technology event, BroadcastAsia has been the chosen sales and marketing platform for industry leaders who have the Asia Pacific market as their focus. BroadcastAsia showcases the latest digital multimedia technology, professional equipment and services from over 800 exhibiting companies. It is a one-stop sourcing ground for broadcasters, production and post-production companies. For event highlights and pre-registration visit

[www.Broadcast-Asia.com](http://www.Broadcast-Asia.com).

**Visit us at the WorldDMB pavilion at Broadcast Asia 2007 located at:  
Hall 7 Stand 7H2**

**Our Members at Broadcast Asia:**

**Asia-Pacific Broadcasting Union (ABU)**

**Hall 8 Stand 8G2-06**

**Broadcast Australia**

**Hall 8 Stand 8J3-10**

At this year's Broadcast Asia exhibition, visitors are invited to convene

with leading broadcast transmission services provider, Broadcast Australia, to discuss the business of digital broadcasting. The company's team of industry professionals will be on-hand to lend insight into the design, deployment, operation and management of digital and mobile networks-insight gained from more than eight years' experience with what is now part of the world's largest combined digital broadcast transmission network.

**DIGIDA**

**Hall 8 Stand 8L2-09**

DIGIDA will showcase its new FlexiDAB solution, which is an innovative and flexible platform allowing set up easily and efficiently of any application following the Eureka 147 core technology with different standards; DAB, DAB+, DMB & DAB IP with EPM possibilities. In addition to the FlexiDAB Head End system, DIGIDA will also showcase its new EasyWay product, allowing the carriage of an ETI frame from a multiplexing site to distant re-multiplexing or transmitting sites using a standard IP network, instead of contribution or distribution networks.

**Factum Electronics  
– WorldDMB Pavilion**

**Hall 7 Stand 7H2-07**

Factum Electronics is a world leader in the areas of DAB/DMB and NICAM with professional broadcasting customers in more than 40 countries and more than 20 years of experience within the broadcasting area. Factum also develops and sells middleware for receiver chip manufacturers. At BCA Factum among other things will demonstrate the new DAB+ encoding technology.

## Harris Corporation

### Hall 7 Stand 7E2-01

Radio Transmission - Solutions for broadcast workflows: The DMB 670 transmitter designed for the T-DMB version of the DAB standard, retains the exciter and control architecture of the Harris® Hirschmann series of DAB transmitters. The DMB 670 transmitter adds Harris-designed amplifiers and power supplies and improved cooling. The result is a new transmitter design featuring a very compact footprint, lighter platform and greater modularity.

## Qualcomm, Inc/Mediaflo

### Hall 7 Stand 7M2-05

## Radioscape

### – WorldDMB Pavilion

### Hall 7 Stand 7H2-08

## Somerdata

### – WorldDMB Pavilion

### Hall 7 Stand 7H2-06

SomerData will be displaying the latest versions of its DAB and DMB monitoring and recording products. DABSTOR is a versatile multi-stream ETI Monitor/Logger/Recorder/Replayer for head-end, network operation and developer applications. DABAIR is a multi-band Service Monitoring Receiver with a range of Player and Analyser options for on-air service quality monitoring.

## Unique Broadcasting Systems Ltd

### Hall 8 Stand 8J1-06

## VDL

### – WorldDMB Pavilion

### Hall 7 Stand 7H2-05

# The Future of Radio in the Age of Convergence

The Asian Media Information and Communication Centre (AMIC), the Asia-Pacific Broadcasting Union (ABU) and Singapore Exhibition Services (SES) are pleased to announce RadioAsia2007. The 3rd RadioAsia, held in conjunction with BroadcastAsia2007, brings together leading radio media practitioners, communication specialists, policy makers, and academics from across the Asia-Pacific and beyond. Some 40 eminent speakers who specialise in various aspects of radio and communications will attend to share their perspectives. The conference will consist of two half-day workshops followed by a three-day conference where leading radio experts will deliver papers and presentations. Register today at [www.radioasia.org](http://www.radioasia.org)

**RadioAsia**  
2007

# uniqueinteractive

DIGITAL RADIO + INTERACTIVE MEDIA SPECIALISTS

## Unique Interactive – Data Content Management for Digital Media

**Unique Interactive provide bespoke software and consultancy services to multiplatform digital radio broadcasters in the UK and across the world. Our services enable dynamic text and electronic programme guide data to appear alongside live and scheduled audio and visual content**

■ Our software interfaces with your existing content management system and sits seamlessly within your broadcast chain, saving on time and resources

■ Its flexibility allows information such as news headlines to be broadcast live, while adverts and promotions can be scheduled in advance to appear alongside specific output

■ Digital content can be repurposed in a number of formats to multiple platforms including DAB, DVB-T, DVB-S, DRM, HD Radio® and the internet

■ The ability to display dynamic text and electronic programme guide information increases interactivity with the consumer, thereby building audience loyalty

### Unique Interactive

50 Lisson Street

London NW1 5DF

T: +44 (0)20 7453 1600

E: [info@uniqueinteractive.co.uk](mailto:info@uniqueinteractive.co.uk)

ADD AN EXTRA DIMENSION TO YOUR OUTPUT

[www.uniqueinteractive.co.uk](http://www.uniqueinteractive.co.uk)

# Latest in the receiver market



## LG - Muvi DMB

The very attractive Muvi DMB is a compact portable device measuring 96 x 52 x 14mm, and weighing a slight 86.6g, this device features both music and movie DMB. Powered by a 950mAh battery, and with 1/2GB, the 2.4" 260 colour display this phone provides a fine image quality.

## Ontimetec – DMBO-1100

Ontimetec's DMBO-1100 is a USB receiver for DMB with DAB and DAB+. The TV & radio receiver is also available for interactive data service BIFS and other data service like DLS and BWS. In addition, time-shifting, real-time recording and scheduled recording function are supported.



## Mtech – UDR-A3/UDR-A3L

In response to the multimedia services UDR-A3(L) bundles dabMate® KOGAN to decode H.264 video streaming on the PC platform. Not only does UDR-A3(L) have a T-DMB video function but also DAB radio, Band III/L-Band and Internet radio. This device also supports EPG and Slide Show.

## PURE – DMX-25 DAB

PURE Digital presents the new PURE DMX-25 DAB. The compact DMX-25 enables playback of MP3/ WMA files from portable USB flash memory drives, SD memory cards and CDs. An iPod, MiniDisc or MP3 player can be connected and enjoyed through the system's speakers thanks to the two auxiliary inputs. DMX-25 is on sale now from major retailers and independent hi-fi dealers in the UK for just £129.99 (SSP inc. VAT).



## Digital Integrated System - Myxtic-LX350

Myxtic-LX350 DAB radio has a Sci-Fi design and includes such features as Band III/L-Band, FM radio with RDS, clear & bright white and blue LCD & alarm clock. Myxtic is completely remote control operated with a 10 member preset capability and dual antennas.

## Digital Integrated System - SQ2-CX100

This new digital radio boasts a clear, bright LCD display with 5 memory presets and both mains and battery power. This portable radio is Dual band with FM and it's customised antenna help the Sq2-CX100 receive maximum reception.



## Genus Type-R

The retro-styled Type-R DAB/FM radio from Genus, the design-led consumer electronics brand is the ultimate bridge between classic radio and modern technology. It combines quality materials such as real walnut, genuine leather and an aluminium chassis plus touch-sensitive controls and sensors that detect the presence of an approaching hand.

# DAB/DAB+/DMB/DAB-IP Trials

## Czech Republic:

TELEKO, in cooperation with the public broadcaster, Czech Radio, started a one-month DAB trial on channel 5A in the Příbram region on 16th May 2007. A trial in L-band will follow. The goal of these non-commercial trials is promotion of digital radio to the Czech public and administrators.

## France:

Following the decree project by the French Ministry of Industry, DR France has decided to launch 2 trials to compare DAB+ and T-DMB. The first will take place in Nantes at the end of May and will last for one month. The second will be in Paris later this summer. These tests will demonstrate the capacity of both standards for radio services and applications for associated data services.

## Luxembourg:

In Luxembourg at the end of May DR Belux with BCE is starting a series of lab tests to compare DAB, DAB+ and T-DMB capacities on one multiplex.

## Malaysia:

In Malaysia a number of working groups have been formed to look into the various standards available which could be adopted. The national commercial broadcaster in Malaysia, Astro, intends to start trials of DAB, DAB+ & DMB some time later this year. A proposal has been sent to the Malaysian Broadcasting Regulator (MCMC). These trials are dependent on receiving sufficient funding.

## Malta:

Digi B Network Ltd will be rolling out DAB+ in Malta by December 2007. This decision was taken after several manufacturers made the commitment that they would be delivering DAB+ enabled radios as early as September. Trials are likely to start in July as soon as the necessary DAB+ head end equipment can be delivered and installed. Trials are to start on Block 12A, following the ratifications of digital radio regulations issued by the Broadcasting Authority.

## New WorldDMB Members

### Bose Europe:

Bose is the leading developer of high-quality sound systems for the in-car, at-home, and professional users. Bose develops home theatre systems, headphones, stereo speakers and more to bring the best reproduction of music possible. Bose also develops professional sound systems and has a strong commitment to research and development to continue improving upon its technology.

### EtherWaves:

EtherWaves Ltd. develops and licenses Digital Radio and Mobile TV Intellectual Property (IP), targeting the Automotive, System-On-Chip (SoC) and Consumer Electronics markets. EtherWaves uses its core competencies and expertise to develop Digital Broadcast Receiving solutions based on Software and Silicon IP. Our products currently support DAB, DAB+, T-DMB, DRM and FM.

[www.etherwaves.com](http://www.etherwaves.com)

### Kordia:

Kordia is an experienced trans-Tasman business and is fast-becoming one of the region's leading providers of customised broadcast and telecommunications networks, network services and coverage solutions. Kordia enables customers to take advantage of convergence and operates and maintains an impressive network of transmission infrastructure across New Zealand and Australia that delivers television and radio programming into homes across both countries. Kordia also provides other broadcast services throughout the region.

### South African Broadcasting Corporation (SABC):

The South African Broadcasting Corporation (SABC) is South Africa's national public service broadcaster. It provides a comprehensive range of distinctive programmes and services. SABC must inform, educate, entertain; support and develop culture and education; and, as far as is possible, secure, fair and equal treatment for the various cultural groupings in the nation and the country.

### The Academy of Broadcasting Science (ABS):

The Academy of Broadcasting Science (ABS) is a national scientific research institution and forms part of the Chinese State Administration of Radio, Film and Television (SARFT). ABS is the top broadcasting and television research institution in China. It is a major base for the state's research, tracking, application and innovation in broadcasting and television technology. ABS is a supporting institution for SARFT's scientific and technological planning and also a base for the training of talented individuals in broadcasting and television technology.

### QUALCOMM /MediaFLO Technologies:

MediaFLO Technologies is redefining the global mobile media landscape, enabling the entire mobile TV ecosystem with an end-to-end mobile broadcast technology solution that cost-effectively delivers high-quality streaming television, video and integrated information services to handsets. The MediaFLO™ System is comprised of the MediaFLO Media Distribution System and FLO™ Technology. Visit [www.mediaflo.com](http://www.mediaflo.com).