



Digital Multimedia Broadcasting (DMB) is an enhancement to the DAB standard. The technology enables audio and video to be broadcast in the same datastream. DMB is ideal for mobile devices (e.g. DMB-compliant cell phones).

What does the technical procedure look like? In addition to conventional DAB audio programs encoded using MPEG Audio Layer 2, DMB now also enables video data to be broadcast. This was actually already possible with DAB. But the new procedure broadcasts data using a transport stream (MPEG-TS) and additional error protection. As a result, transporting video data is just as secure and reliable as transporting audio data. The video data is encoded in MPEG-4 format (H.264), the audio data using MPEG-4 HE AAC. DMB has already been standardized around the world - the *European Telecommunications Standards Institute* (ETSI) approved DMB as a standard in 2005.

Unlike, say, UMTS, DMB supports real mass usage as a fully-fledged radio technology. While only around a dozen users can dial into a cell using UMTS, any number of users can access DMB. DMB also supports 1:1 TV signal distribution.

DMB in Germany and around the world

In May 2005, DMB was handed over to normal operations in South Korea. In the wake of this development, cell phone manufacturers such as Samsung and LG have started mass-producing portable DMB receivers. In the first three weeks after the start of normal operations alone, over 100,000 devices were sold in Korea. According to Korean Broadcasting Commission (KBC) figures from March 2006, 450,000 people are already using DMB in South Korea. By the end of the year, 5 million devices will have been sold and 90 percent of the country enjoy DMB coverage, according to KBC figures.

Samsung is working together with T-Systems on rolling out DMB in Germany. The appeal and capabilities of DMB will be demonstrated at the 2006 World Cup with the commercial launch of a suitable offering from Mobiles Fernsehen Deutschland GmbH (MFD), including four video programs and one audio program. debitel, the cross-network mobile operator, will initially offer DMB-compliant handsets. T-Systems will be providing the transmitter network for DMB at five match venues for the 2006 World Cup. Football fans will then be able to receive goal action highlights or statistics on DMB-compliant devices.

In parallel to DMB, development of DVB-H (Digital Video Broadcasting – Handheld) provides another mobile device technology, which is ideally suited for use in large conurbations. While DVB-H is competing in many countries and regions for the same frequencies that DVB-T uses, DMB is based on frequency resources available throughout Europe – namely on the L-Band.