

RTHK Digital Sound Broadcasting Test 2004

Background

1. Digital Sound Broadcasting (DSB) offers a robust form of transmission using digital compression technology to deliver audio, text, pictures, data and provides digital quality and reliability.
2. The present AM and FM frequency spectrum in Hong Kong is crowded and congested, AM coverage in particular suffering from poor territory-wide reception.
3. The DSB system serves an area by using one single frequency. This significantly expands the number of channels available and makes more efficient use of the available spectrum by enabling more programme services to be compressed into the frequency currently required to transmit one analogue service. The benefits of digital broadcasting include the possibility of an increase in the number of channels, new interactive multimedia services and high sound quality.
4. A pilot study on DSB has been on the top of the agenda in RTHK's technical development plan. RTHK believes that digital radio possesses the potential and power to revitalize radio broadcasting.

Digital Sound Broadcasting Test

5. RTHK will conduct DRM and Band III DAB tests in 2004. The DRM test will commence in March and lasts for a month while the Band III DAB test, an on-going exercise for RTHK, will commence in August.
6. The Office of the Telecommunications Authority (OFTA) shares our interest in DRM testing in Hong Kong and advises that some frequencies allocated to Hong Kong by ITU-R are available for the DRM test.

DRM test

7. The commencement date for DRM test has been scheduled for 1 March 2004. RTHK will need to preempt Radio 5 (AM 783 kHz) from 0100 to 0500 for one month to make way for the test. The power level for the DRM test is about 4.5kw, which is around 7db below the normal analogue AM transmission power. The test aims at covering all urban areas as well as Shatin and Tsuen Wan in the New Territories.

8. The table below shows the schedule of Radio 5 DRM broadcast content:

	Mon	Tue	Wed	Thurs	Fri	Sat	Sun
DRM Transmission	R5 signal	R3 signal	Multimedia content	R5 signal	R3 signal	R5 signal	Back to AM transmission

9. Through the above arrangements, a comparison can be made between the audio quality of analogue AM and digital AM service. Listeners can also opt for either Chinese or English service, and at the same time download multimedia content.

Band III DAB test

10. Having mounted the L Band DAB test in 1998, RTHK is Hong Kong's leading broadcaster in digital technology development and application. To explore the implementation of digital sound broadcasting, the second part of our test is the Band III DAB scheduled in August for which OFTA has agreed to allocate frequencies.

Public Awareness

11. The proposed tests planned for DRM and Band III DAB in 2004 will definitely generate public interest. RTHK has launched a special web page for the tests in mid February: (<http://www.rthk.org.hk/about/digitalbroadcasting>). Members of the public can access relevant information on DSB technology via the RTHK web hyperlink.

12. In parallel, seminars and exhibitions jointly presented with industry players and retailers could further arouse the awareness of radio listeners. The first seminar will be held on 26 March 2004 in the Hong Kong Science Museum, during which the initial DRM test results will be made known to the industry and public.

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