

# Consultative Study Results for Development of Mobile TV Service in Hong Kong

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Contact person: Dr. John J.W. Eun  
138 Gajeongno, Yuseong-gu, Daejeon,  
305-700, Korea  
E-mail: [jweun@etri.re.kr](mailto:jweun@etri.re.kr)  
Tel (Office): +82-42-860-6414  
Fax: +82-42-860-6199  
Mobile: +82-10-6485-0786

Person in charge of the consultative study  
Dae Ung Kim  
Vice President of the ETRI  
Tel (Office): +82-42-860-6100

1. Introduction
2. Summary on Results of Consultative Study
3. Spectrum Availability
4. Spectrum Allocation
5. Spectrum Assignment
6. Licensing Arrangements
7. Access to Hilltop Transmission Sites and Geographical Coverage for Broadcasting-type Mobile Television
8. Work Plan
9. Other Views
10. Expression of Interest in Participating in the Mobile TV Services in Hong Kong

- **What pleased the ETRI were that the ETRI had been invited to give appropriate comments on five issues, viz, spectrum availability, spectrum allocation, spectrum assignments, licensing arrangements as well as access to hilltop transmission sites and geographical coverage for broadcasting-type mobile TV by the OFTA (Office of the Telecommunications Authority) in Hong Kong.**
- **Firstly, T-DMB (Terrestrial wave-Digital Multimedia Broadcasting), an approved European standard, is designed to broadcast AV (audio and video) streaming and multimedia to mobile handsets, using DAB as a transport medium and integrated wherever a DAB infrastructure already exists.**
- **T-DMB in Korea continues to be a high growth market with more than seven million devices sold up to 2007. The development of T-DMB in China has been rapid with the Chinese Government announcing in 2007 that DAB/ T-DMB would be the standard used in China.**

- **Most importantly, the cost of deploying T-DMB is about twice less expensive than DVB-H deployment cost because T-DMB utilizes lower frequency Band III (VHF). Whereas, DVB-H uses UHF.**
- **If T-DMB is set up in Hong Kong, then users are able to use both DAB and T-DMB with many varieties of devices. The cost of DMB deployment is about twice cheaper than that of DVB-H deployment.**
- **It is said that the DMB Nusantara in Indonesia is going to provide the soft launching in May 2008, and also the commercial launching in June, 2008, respectively for the T-DMB services..**
- **It was already announced that the Black Star of Ghana in Africa declared to get the commercial services for T-DMB started in June, 2008.**

## 2. Summary on Results of Consultative Study

**Based on the ETRI's experiences of the development and implementation for T-DMB system world widely the following things can be described in short;**

- 1) T-DMB standard on Band (174 MHz – 230 MHz) is recommended to use for the development of mobile TV services in Hong Kong.**
- 2) The pro-mobile TV approach is preferred.**
- 3) The ETRI prefer the beauty contest. However, the OFTA decided to use an auction. Then, the ETRI have no choice but to bid for the auction.**
- 4) Light-handed regulations to foster the growth of mobile TV in the initial stage are favored.**
- 5) BO (Broadcasting Ordinance) included the co-regulatory and self-regulatory codes should be examined.**
- 6) It should be required to establish some plans for setting up repeaters and gap fillers in black-out area of the targeted coverage.**

### 3. Spectrum Availability

- The ETRI would like to recommend to use T-DMB standard on Band (174 MHz – 230 MHz). In particular, the ETRI wish to utilize two multiplexers in Band such as 219.584 MHz – 222.832 MHz for the development of mobile TV service with DAB and data service as provided by auxiliary services.

### 4. Spectrum Allocation

- The ETRI prefer “pro-mobile TV” approach as whereby at least 50% of the transmission capacity used to convey mobile TV contents.

## 5. Spectrum Assignment

- **The auction may cause high costs to operators and may not be the best interests for general public. Thus, the ETRI prefer the beauty contest. However, the OFTA decided to use an auction. Then, the ETRI have no choice but to bid for the auction.**
- **As far as Band is concerned, the loss of transmission for VHF frequency is better than UHF frequency. The cost of deploying T-DMB is much less expensive than that of DVB-H.**

## 6. Licensing Arrangements

- **The ETRI support favorable, light-handed regulations to foster the growth of mobile TV in the initial stage. And BO included the co-regulatory and self-regulatory codes should be examined to be clear for the immediate new mobile TV services.**
- **Mobile TV contents should be regulated to the same extent as the pro-mobile TV approach.**
- **Mobile TV operators should be required to include conditional access system mechanism for special contents.**
- **Mobile TV would not be a substitute for conventional TV services. It is the value-added TV services newly developed in a different fashion.**



## 7. Access to Hilltop Transmission Sites and Geographical Coverage for Broadcasting-type Mobile Television

- **It should be required that for executing the commercial broadcasting by using the mobile TV services, the broadcasting geographical coverage with spatial and time rate should be over 95 %. Therefore, it is also required that the mobile TV services should have capacity to have the reception rate of over 95% in the targeted coverage.**
- **It is required that since the mobile TV services in Hong Kong may be dealt with rather small area in comparison with that of big country like mainland China the mobile TV services can be accomplished with a couple of transmitters. However, for receiving the mobile TV broadcasting services in elsewhere in which the airwaves for the mobile TV broadcasting can not reach, it should be required to establish some plans for setting up repeaters and gap fillers.**

## 8. Work Plan

- In reviewing the work plan suggested, the exact date on which a relevant RFP (Request for Proposal) regarding the implementation plan for mobile TV services in Hong Kong shall be required to be clarified.

## 9. Other Views

- The current market environment in Hong Kong is suitable for the rollout of mobile TV. T-DMB is the best among the various mobile TV technologies by considering the cost of deployment for the T-DMB system. Also, the advanced T-DMB technologies being developed by the ETRI can provide the variety of devices such as middleware T-DMB, 3D DMB, and personalized DMB with very many affordable prices due to many different DMB products available in Korea.
- In case of acquisition of the relevant frequency spectrum for T-DMB services in Hong Kong, it seems to be easy for the ETRI setting up the T-DMB broadcasting network cost-effectively by using the existing DAB network.

## 10. Expression of Interest in Participating in the Mobile TV Services in Hong Kong

- **Submitting the outcomes of consultation on the document of “Second consultation on Development of Mobile Television Services” is to participate in bidding for the development of mobile Television Services in Hong Kong in the near future.**

# T-DMB

*Thank you for your interest  
in T-DMB in advance*