

exTV's response to the Second Consultation Paper on Digital Terrestrial Broadcasting in Hong Kong

Positive public benefit must be the objective of any change or impact on the use of the public's finite frequency resource.

1. Participation

At this time exTV is not considering direct involvement in the introduction of Digital Terrestrial Television in Hong Kong. At a later date exTV may express an interest in the acquisition of frequency and the associated operational license for the use of a DTV multiplex or part thereof.

DTV will have a profound effect on the subscription television business and the public's ability to receive our service and the services of other television providers in Hong Kong.

2. Introduction to exTV

exTV is currently introducing a multi channel and interactive subscription television service. We have introduced a DVB compliant origination and delivery system. exTV has built a state of the art origination, transmission, uplink, downlink and Set Top Box receiver and all associated systems.

At the roof top satellite reception sites, exTV provides two methods of distribution to consumers:

- I. Direct to Home (DTH). A single satellite receiving dish and Low Noise Block Feeding (LNBF) a DVB compliant Set Top Box decoding and presenting an output signal to a conventional television set.
- II. Medium Density Units (MDU). From a Television Receive Only (TVRO) Antenna, or Master Satellite Receiver, the Quadrature Phase Shift Keying (QPSK) signal is Transmodulated to 64 Quadrature Amplitude Modulation (64QAM). The QAM is injected into the Building Networks SMATV or CABD System tuned to 3 (and soon 4) x 8Mhz UHF channels. The QAM signals are presented to our customers premises' wall plate

thence to the DVB Set Top Box, decompressed and presented to a conventional television set.

3. DVB-T and Building Networks

The clear or usable UHF channels currently available for use by exTV or other licensed providers over the "In the Building" networks are scarce and often impossible to find due to overcrowding. The analogue frequencies are often unmanaged, particularly when the networks contain HK Cable TV's channels in the VHF band.

The introduction of the proposed additional DTV Multi Frequency Network (MFN) Multiplex and 4 Single Frequency Networks (SFN) Multiplex Channels into an already over crowded spectrum and Building Network band plan, will have adverse and profound effect on the consumers' ability to receive their current and future television services. These additional frequencies further complicate an already untenable Building Network frequency management scheme for various businesses including exTV.

Whilst general frequency band planning has been determined with regard to our terrestrial neighbours including China, we do not believe enough regard has been given to the "practical" In Building management of frequencies. The theory of frequency allocation alone is not a practical method to determine how to proceed. In the field at the Building level, there are many issues of interference and incidental use of channels that need to be addressed.

4. License and frequencies

exTV's Pay TV license provides for "the use of 4 frequency channels" within HK In Building Networks meaning the use of 4 UHF 8Mhz channels. Unfortunately OFTA did not support the license by allocating fixed frequencies for the licensee to use. In practice, in the field, finding just 4 frequencies for use in the lower UHF band is often impossible now that the recommendation to make way for the proposed DTV frequencies has been made.

Using lower band of the UHF frequency is the only solution if a provider is to co-exist with HK Cable on a shared building network. At times there are some channels available in the higher section of the UHF band however they can not provide sufficient technical performance to supply a minimum signal strength of > 64dBuV.

5. DVB-T or Mainland DTV?

Hong Kong is but 2 million homes geographically embraced by greater China. The decision of which system to select should not be a matter of timing. Introducing a new technology because others have, is not a sound reason to do so. The decision to launch DTV is inextricably linked to political, physical, economic and technical issues.

We do not believe these issues have been explored sufficiently to provide an answer to what system Hong Kong should choose.

A "market lead" approach is discussed in the Consultation paper. We believe that a new technology with many potential formats may bring about consumer confusion and dissatisfaction. The dissatisfaction will be directed at the provider and the regulator.

DTV will evolve over a long period of time therefore it can not be assumed that the initial market leader or leaders will be the eventual long term provider/s of DTV.

Hong Kong already has more than 3 Pay TV companies using a DVB transmission system. exTV adheres strictly to the DVB standard including the provision of the Electronic Program Guide (EPG) by way of the DVB Serial Data format. The consultation paper does not explore this issue or raise the negative, or positive, impact of common SI data and co-existence between the DTV and Subscription TV systems.

If Hong Kong introduces multiple DTV formats as contemplated in the consultation paper, it will block the potential for consolidation of Set Top Boxes and retard the potential to integrate receiver technology into television sets. Moreover there will be a further reduction of the potential to introduce a compatible or common middleware into Free to Air and Subscription TV Set Top Boxes.

6. Why DTV

Introducing DTV just to add competition is not a sufficient reason to do so. We are not convinced that simply adding more television is what the Hong Kong consumer is looking for on their spectrum. Technology for technologies sake has historically failed. Television technology can only succeed if sufficient suitable and relevant content production is

encouraged and provided. Content will drive the consumer into the store to purchase DTV decoders and that will ultimately allow the “switch off” of the analogue frequencies therefore leading to additional frequency that can be redeployed for public good.

When you examine the very high penetration of wide and flat screen television sets in Hong Kong, it is reasonable to assume the public want better television. Better signal quality, screen definition as well as better content quality most likely in the form of 16:9 High Definition Television (HDTV) of at least 720 lines in Progressive scan.

There are many international examples of the regulators encouraging the production of content to support the successful introduction of DTV. The second consultation paper makes no mention of content encouragement, methodology or benefit.

Whilst content may provide a reason for DTV, the HKSAR Government has a responsibility to ensure it is providing the best receiver solution on behalf of consumer, the owner of the spectrum.

7. Recommendations

exTV could make many recommendations, however as a new player in the broadcast arena we are keen to raise awareness of the many issues in introducing DTV rather than a lot of specific recommendations. At this point of time we would like to make two recommendations that have a direct impact on our current business and the consumers' ability to receive the existing licensed HK television services.

1. The introduction of DTV should not proceed until the frequency planning of the Broadcast Spectrum and the In Building Network frequencies are structured in a manner to cater for the existing licensed providers to conduct their business.
2. DTV must not proceed until Hong Kong Cable Television completes their digitisation process fully and removes their analogue carriers from all shared or common building networks and risers.

exTV Executives and Technical staff will make themselves available to the HKSAR Government at any time for further consultation and discussion on

the introduction of DTV. We look forward to assisting and playing our part in making the new Digital Terrestrial Television system a success.

exTV
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