



Draft Position paper for Latin America on Digital Dividend/UHF band plans

Introduction

At the World Radio Conference in 2007, the band 698 to 806 MHz was identified for IMT (International Mobile Telecommunications) in ITU Region 2 (which covers the Americas). However the exact band plan to be used was not specified at WRC07.

There are significant benefits from countries in the region trying to harmonise this band, as far as possible. This helps improve roaming, reduces cross border interference, and perhaps most importantly reduces device costs. The GSMA therefore seeks to limit the number of options under consideration and offer guidance on what the best approach might be.

Discussion

Administrations and spectrum managers are looking for solutions to maximise the socio-economical benefits of spectrum assets. In particular, national regulatory authorities are considering the policy options which enable the rapid and effective extension of mobile broadband services. The need for broadband in Latin America is very clear: to stimulate economic development and to allow citizens to participate in the global knowledge based economy.

The GSMA is in favour of the harmonisation of frequency bands used for mobile broadband services, because this helps to reduce the cost of terminals for consumers. GSMA studies have shown that spectrum fragmentation can significantly increase the costs of ownership to consumers, and that developing markets are particularly sensitive to such costs.

From a spectrum point of view, optimisation of the use of the UHF band is crucial, for ensuring the widest geographical coverage of mobile broadband. This means that there is a need to maximise the amount of spectrum available to offer significant extra coverage benefits.

Globally, the GSMA favours the harmonisation of frequency bands used for mobile broadband services. With particular reference to the UHF band, the GSMA supports three band plan options, namely:

Option 1. The CEPT FDD preferred band plan 790-862 MHz¹ developed for Region 1; [Take reference to EU band plan.](#)

Option 2. The Optimised “2 x 45” MHz conventional FDD band plan in 698-806 MHz, agreed within the Asia-Pacific Telecommunity’s Wireless Forum (AWF) for Region 3²; and

Option 3. The US band plan in 698-806 MHz as specified by 3GPP³.

With regards to Region 2 and Latin America, the GSMA believes that options 2 and 3 should be considered. Option 1 (the CEPT band plan) does not align well with the identified IMT band of 698 to 806 MHz in Region 2. The US band plan has the obvious attraction that it has been deployed in North America, and the ecosystem of devices is likely to grow rapidly. It will also more easily facilitate roaming for those visiting the US, and for roamers from the US.

Option 2 (the Asian band plan) may also be an option that some countries wish to consider. It has the advantage that it has been designed assuming the spectrum is clear of other users, and therefore does not need to support US specific legacy issues. The Asian band plan could also offer significant benefits from economies of scale (with over 50% of the world’s population in Asia Pacific). However the adoption of the band plan by Asian countries has yet to occur. This will mean that the availability of devices for this band will likely lag behind that of option 3 (US band plan).

Conclusion

Both options 2 and 3 should be considered in Latin America. Option 2 is likely to be better for those administrations that can wait until more countries adopt the Asian band plan. Option 3 (US band plan) is likely to be better for those Administrations that can move more quickly and want to make spectrum awards in the shorter term.

[Improvements in balancing wording for conclusion.](#)

¹ ECC/DEC/ (09)03 - <http://www.erodocdb.dk/Docs/doc98/official/pdf/ECCDEC0903.PDF>

² AWF-9/OUT-13 / September 2010

³ 3GPP TS 36.101 V10.1.1 (2011-01) – bands 12,13,14,17

Annex 1 - Band Plans

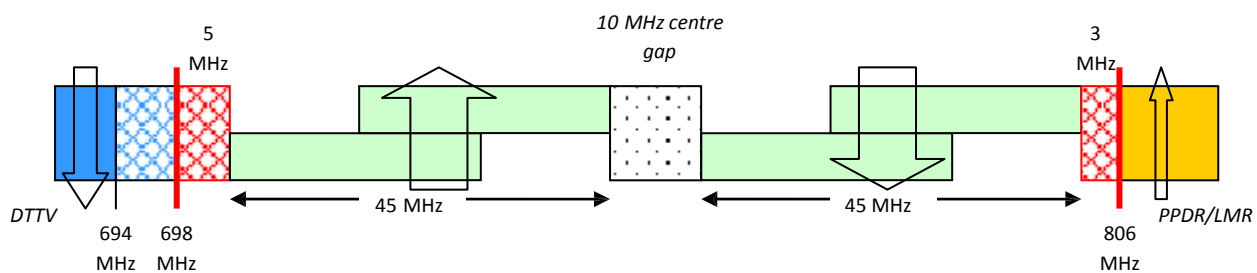
Option 1

CEPT preferred band plan - ECC/DEC/(09)03

790-791	791-796	796-801	801-806	806-811	811-816	816-821	821-832	832-837	837-842	842-847	847-852	852-857	857-862
Guard band	Downlink						Duplex gap	Uplink					
1 MHz	30 MHz (6 blocks of 5 MHz)						11 MHz	30 MHz (6 blocks of 5 MHz)					

Option 2

The Asia Pacific region, as specified in “APT COMMON VIEWS ON HARMONISED FREQUENCY ARRANGEMENTS FOR IMT IN THE BAND 698-806 MHz”.



Option 3

US band plan as specified in 3GPP Table 5.5-1 E-UTRA operating bands (3GPP TS 36.101 V10.1.1 (2011-01))

12	699 MHz – 716 MHz	729 MHz – 746 MHz	FDD
13	777 MHz – 787 MHz	746 MHz – 756 MHz	FDD
14	788 MHz – 798 MHz	758 MHz – 768 MHz	FDD
15	Reserved	Reserved	FDD
16	Reserved	Reserved	FDD
17	704 MHz – 716 MHz	734 MHz – 746 MHz	FDD