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| APTlogogreen3 | ASIA-PACIFIC TELECOMMUNITY |  |
| **The 23rd Meeting of the APT Wireless Group (AWG-23)**  |  |
| 9 – 13 April 2018, Da Nang City, Socialist Republic of Viet Nam | 13 April 2018 |

Source:AWG-23/OUT-20

Working Group on Spectrum Aspects

**QUESTIONNAIRE ON THE STATUS OF IMPLEMENTATION OF APT700 BAND PLAN**

**Introductory Part**

**Background:**

The 9th Meeting of the APT Wireless Group (formerly known as APT Wireless Forum) held in Seoul, Republic of Korea from 13 -16 September 2009 adopted APT Report on Harmonized Frequency Arrangements for the Band 698-806 MHz ([APT Report No.: APT/AWG/REP-14](http://www.apt.int/sites/default/files/APT-AWF-REP-14_APT_Report_Harmonized_Freq_Arrangement.doc)). The arrangement or the band plan was named as APT700. The band plan included the arrangements for both FDD and TDD modes.

Following the development of APT700 at APT Wireless Group (AWG), 3GPP developed the radio interface specifications for both modes of APT700, FDD which is known as Band 28 and TDD which is known as Band 44. APT700 was also included in ITU-R Recommendation M.1036-4: ***Frequency arrangements for implementation of the terrestrial component of International Mobile Telecommunications (IMT) in the bands identified for IMT in the Radio Regulations (RR)*.**

APT700 has now been widely recognized as a “Digital Dividend” spectrum for LTE services. All regions around the world, except few exceptions, have decided or have an intention to adopt APT700 as the preferable band plan for LTE. Potential market size for APT700 covers more than 4 billion people. So far 49 countries/territories around the world either allocated or committed to or recommend APT700 FDD deployment. There had been cases of APT700 TDD deployment as well.

Considering the importance and wide acceptance of APT700, the 19th Meeting of the AWG (AWG-19) held in Chiang Mai, Thailand from 2 to 5 February 2016, developed the APT Recommendation on *Frequency Arrangements for the Implementation of IMT in the Band 698-806 MHz* which was then subsequently approved by the 40th Session of the Management Committee of the APT (MC-40) held in Nadi, Fiji from 29 November to 2 December 2016. The Recommendation ([No. APT/AWG/REC-08](http://www.apt.int/sites/default/files/Upload-files/AWG/APT-AWG-REC-08_APT_Recommendation_APT700.docx)) recommends APT Members to:

1. adopt the harmonized frequency arrangements given in Annex 1 for the deployment of IMT systems in the band 698 - 806 MHz;
2. take into account the implementation aspects detailed in Annex 2 when implementing the frequency arrangements given in Annex 1;
3. coordinate with neighboring countries to avoid risk of interference between Broadcasting and IMT use in this band;
4. coordinate the use of duplex schemes (FDD and TDD) to minimize interference between neighboring countries; a
5. avoid use of both duplex schemes (FDD and TDD) in the same country .

**Objective:**

The 22nd Meeting of the APT Wireless Group (AWG-22) from in Busan, Republic of Korea from 25 to 29 September 2017, instructed APT Secretariat to develop a report on the status of the implementation of the APT700 in Asia-Pacific region. AWG-22 also instructed APT Secretariat to make a related questionnaire to develop such status report. The objective of this questionnaire is to gather information from APT Members and Associate Members regarding the status of implementation of APT700. Based on the responses from APT Members and Associate Members, APT Secretariat will compiled the Report.

**APT Secretariat contact and reply to the questionnaire:**

For any comment, question or reply to the questionnaire please contact **Mr. Forhadul Parvez, Programme Officer, APT** (Email: parvez@apt.int; aptawg@apt.int).

**Questionnaire Part**

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| **Name of the APT Member/Associate Member:** |  |
| **Name of the organization:** |  |
| **Name & designation of contact person:**  |  |
| **Contact Email:** |  |

**Please answer the following questions. Please be informed that the replies to the questionnaire will be compiled into the report. If you have any concern regarding the publication of your replies into the Report please indicate here.**

**Note 1: Question 1 to 4 are related to the allocation and adoption of APT700**

**Question 1:**

Following the decision at WRC-15, whether the frequency band 698-806 MHz or portion of this band has been identified in your National Frequency plans for implementation of IMT?? If ‘Yes’ please indicate in what ways it has been incorporated (such as amending NTFA, Frequency Band plans or by notification or any other means)

**Ans:**

**Question 2:**

If the answer is ‘No’ please indicate the reason in brief. In such case when do you plan to make such identification?

**Ans:**

**Question 3:**

In case of deployment of IMT in 698-806 MHz, did you adopt APT700 band plan as attached in Annex 1 of APT Recommendation ([No. APT/AWG/REC-08](http://www.apt.int/sites/default/files/Upload-files/AWG/APT-AWG-REC-08_APT_Recommendation_APT700.docx))? Please indicate level of adoption such as complete adoption or partial adoption in case of lower duplex or upper duplex of the plan. Please also indicate which mode (FDD or TDD) you have adopted for such implementation.

**Ans:**

**Question 4:**

In case of deployment of IMT in 698-806 MHz, if you did not adopt APT700 band plan yet, is there any plan for such adoption in near future? Please indicate possible time frame for such adoption. Please also explain the reason for such delay in adoption.

**Ans:**

**Note 2: Question 5 to 8 are related to the implementation issues of APT700**

**Question 5:**

While implementing the APT700 band plan, did you take into account the implementation aspects as detailed in Annex 2 of APT Recommendation ([No. APT/AWG/REC-08](http://www.apt.int/sites/default/files/Upload-files/AWG/APT-AWG-REC-08_APT_Recommendation_APT700.docx))

**Ans:**

**Question 6:**

Did you coordinate with neighboring countries to avoid the risk of interference between Broadcasting and IMT use in this band? Please provide details.

**Ans:**

**Question 7:**

Did you coordinate the use of duplex scheme (FDD and TDD) to minimize interference between neighboring countries?

**Ans:**

**Question 8:**

Did you take necessary steps to avoid both duplex schemes (FDD and TDD) in your country?

**Ans:**

**Note 3: Question 9 to 11 are related to the commercial deployment of APT700**

**Question 9:**

Whether you have already assigned the band to commercial operators? If ‘Yes’ provide details in the following table

**Ans:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Frequency Block (MHz)** | **Operator** | **IMT Technology** | **Channel bandwidth (MHz)** | **License duration (Years)** |
| **Uplink** | **Downlink** |
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**Question 10:**

Further explain when and how the assignment was completed? Either through Auction or any other methods? Please provide detail process including the price in either case?

**Ans:**

**Question 11:**

In case if you have not yet assigned the band to commercial operators yet, please indicate probable time frame for such assignment and detail plan (such as possible plan for auction or any other mechanism). Please also indicate any difficulties that you are facing for the assignment?

**Ans:**

**Question 12:**

Did you have any feedback from the commercial operators regarding customer experiences about the IMT services provided at APT700? Please provide details if possible.

**Ans:**

**Note 4: Following questions are general in nature**

**Question 13:**

How do you think the prospects of APT700 as regional and international harmonized band plan for LTE? Please provide your views.

**Ans:**

**Question 14:**

Do you have any comment about the device ecosystem of APT700? Please explain your views.

**Ans:**

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