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管理無線電頻譜 保持技術優勢 Managing the Radio Spectrum and Sustaining Technical Excellence

管理香港電訊設備鑑定及驗證計劃

為了配合國際最佳做法，由2009年10月1日開始，原先由前電訊管理局負責的電訊設備測試和驗證服務已移交予合資的本地測試實驗室。這些實驗室獲通訊局認可為本地認證機構，可提供全面的電訊設備測試和驗證服務。在2016/17年度，本地認證機構簽發了429份設備認證，以應付電訊設備市場的需求。

為確保提供電訊設備測試和驗證服務的所有本地認證機構符合通訊辦訂下的服務質素及表現標準，我們會繼續密切監察認證機構的表現，包括定期查核文件、視察實驗場所和檢查他們的工作。目前，所有本地認證機構的表現均符合通訊辦所指明的標準。

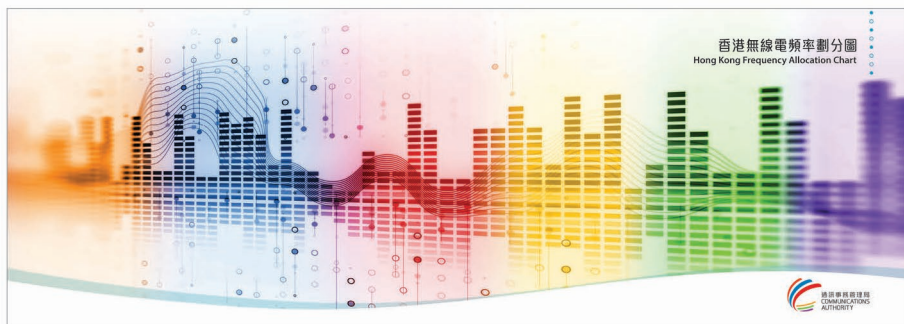
我們一直監察電訊技術標準化的國際發展趨勢，並更新本地技術標準，以滿足業界和公眾的需要。在2016/17年度，我們共發出六份有關技術標準化事宜的文件諮詢業界。經參考業界意見後，通訊局批准和發出了四項新訂和一項經修訂的技術標準。

大廈內同軸電纜分配系統頻道的頻率指配

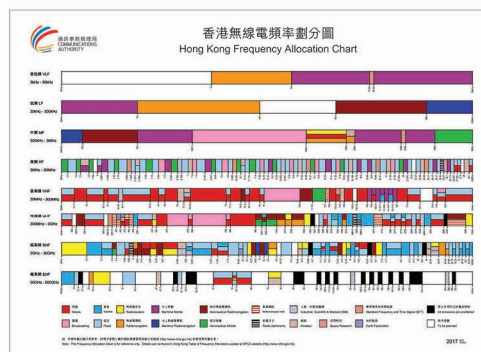
在2016/17年度，通訊辦協助通訊局處理有線電視提出使用大廈內同軸電纜分配系統頻道傳送本身的本地收費電視服務及奇妙電視的本地免費電視服務的申請。

規劃頻帶以引進新用途

為滿足業界和公眾對須使用無線電頻譜的新應用的需求，我們一直密切監察海外各地在頻譜管理和提升技術方面的發展，務求適時編配新頻帶，利便引進該等應用。在2016/17年度，通訊局就把57至66吉赫頻帶用於短程無線電通訊和把77至81吉赫頻帶用於短程汽車雷達進行公眾諮詢。諮詢結束後，通訊局於2017年1月發出兩個涵蓋該等設備售賣、管有和使用的類別牌照。



◀ 無線電頻譜是珍貴的公共資源。
Radio spectrum is a scarce public resource.



Administration of the Hong Kong Telecommunications Equipment Evaluation and Certification Scheme

To keep pace with international best practices, commencing 1 October 2009, the testing and certification services for telecommunications equipment, which were previously provided by the then Office of the Telecommunications Authority, were transferred to qualified local testing laboratories. Laboratories accredited by the CA as local certification bodies (“LCBs”) can offer a full range of telecommunications equipment-testing and certification services. In 2016/17, the LCBs issued 429 equipment certificates to meet the needs of the telecommunications equipment market.

To ensure that all LCBs providing telecommunications equipment-testing and certification services meet the service quality and performance standards prescribed by OFCA, we will continue to closely monitor their performance by conducting documentary checks, plant visits and reviews on a regular basis. So far, all LCBs have been performing up to the standards prescribed by OFCA.

We constantly monitor international developments in telecommunications standardisation, and update local technical standards in order to meet the needs of the industry and the public. In 2016/17, a total of six papers were issued

to consult the industry on matters related to standardisation. Taking into account views of the industry, four new and one revised technical standards were approved and issued by the CA.

Frequency Assignment of In-building Co-axial Cable Distribution System Channels (“IBCCDS channels”)

In 2016/17, OFCA assisted the CA in processing applications for the use of IBCCDS channels submitted by HKCTV for conveyance of its domestic pay TV services and the domestic free TV services provided by Fantastic TV.

Frequency Band Planning for the Introduction of New Applications

To meet the demand of the industry and the public for new applications that require the use of radio spectrum, we constantly monitor overseas developments of spectrum management and progress of related technology advancement, with a view to allocating new frequency bands timely to facilitate the introduction of these applications. In 2016/17, the CA conducted public consultations on the use of the 57-66 GHz and 77-81 GHz bands for short-range radiocommunications and short-range automotive radar applications respectively. Following consultation, the CA issued two class licences in January 2017 covering the sale, possession and use of such equipment.

規劃頻譜以引進5G流動服務

無線電頻譜是稀有的公眾資源，對提供公共流動服務來說必不可缺。為應付業界對用作提供公共流動服務的頻譜的需求，並讓香港能夠作好準備，以適時推出5G服務，香港有需要於2020年及之後提供更多頻譜作公共流動服務之用。

在2016/17年度，通訊辦協助通訊局於2017年3月公布工作計劃，當中闡明會在26吉赫頻帶（24.25至27.5吉赫）、28吉赫頻帶（27.5至28.35吉赫）及3.4至3.6吉赫頻帶提供更多頻譜等事項。

由於部分26吉赫頻帶在香港用於固定鏈路，通訊辦正研究把現時於26吉赫頻帶的頻率指配遷移到其他頻帶。28吉赫頻帶除編配作固定衛星上傳鏈路之用外，並未作其他用途，可在適當時間推出作公共流動服務之用。

3.4至3.6吉赫頻帶現時編配和用於固定衛星下行鏈路。這段頻帶現時獲全球多個經濟體系考慮編配作流動服務用途。鑑於3.4至3.6吉赫頻帶用作提供公共流動服務帶來的潛在影響，通訊辦協助通訊局在2017年7月就使用3.4至3.6吉赫頻帶提供公共流動服務的安排展開公眾諮詢。此外，通訊辦亦會委聘顧問研究緩解無線電干擾的可行措施，令衛星服務與流動服務可在3.4至4.2吉赫頻帶內並存。

衛星網絡的頻譜和軌道位置管理

衛星頻譜和軌道位置屬有限的天然資源。我們的職責是確保在香港註冊的通訊衛星在使用該等資源時恪守國際電信聯盟（「國際電聯」）訂定的國際做法。在亞太9號衛星這枚新衛星於2015年投入服務後，共有十枚在軌衛星由香港兩家提供衛星通訊服務的持牌公司操作。



Spectrum Planning for the Introduction of 5G Mobile Services

Radio spectrum, a scarce public resource, is essential for the provision of public mobile services. In order to cope with the industry's spectrum demand for the provision of public mobile services, and to better prepare Hong Kong for the timely launch of 5G services, there is a need for Hong Kong to make available additional spectrum for public mobile services towards 2020 and beyond.

In 2016/17, OFCA assisted the CA in issuing a work plan in March 2017 on, among others, making available additional spectrum in the 26 GHz band (24.25-27.5 GHz), 28 GHz band (27.5-28.35 GHz) and the 3.4-3.6 GHz band.

As part of the 26 GHz band has been used for fixed links in Hong Kong, OFCA has been working on relocation of existing frequency assignments in the 26 GHz band to other frequency bands. The 28 GHz band is not utilised other than allocation for fixed satellite uplinks and can be timely released for public mobile services.

The 3.4-3.6 GHz band, which is currently allocated and used for fixed satellite downlinks, is being considered by

many economies in the world for allocation to mobile service. Having considered the potential impact brought by the use of the 3.4-3.6 GHz band for public mobile services, OFCA assisted the CA in launching a public consultation in July 2017 on using the 3.4-3.6 GHz band for public mobile services. In addition, OFCA will also commission a consultancy study on the feasible radio interference mitigating measures to enable the co-existence of satellite and mobile services within the 3.4-4.2 GHz band.

Management of Spectrum and Orbital Positions for Satellite Networks

Satellite spectrum and orbital positions are limited natural resources. It is our duty to ensure that the use of these resources by communications satellites registered in Hong Kong adheres to the international practices of the International Telecommunication Union ("ITU"). Following the launch of a new satellite APSTAR 9 in 2015, there are ten satellites in orbit operated by two Hong Kong companies licensed to provide satellite communications services.