

RADIO SPECTRUM AND TECHNICAL STANDARDS ADVISORY COMMITTEE

**Proposed Allocation of the 5850 – 5925 MHz Band
to the Mobile Service**

Introduction

This paper seeks Members' views on the proposed allocation of the 5850 – 5925 MHz band to the mobile service, among other existing services, on a co-primary basis.

Background

2. According to Region 3¹ allocation of the International Telecommunication Union ("ITU"), the 5850 – 5925 MHz band is allocated to the fixed service, fixed-satellite service (Earth-to-space) and mobile service on a co-primary basis. In Hong Kong, the 5850 – 5925 MHz band is not allocated to the mobile service yet. The respective allocations of the 5850 – 5925 MHz band under the Radio Regulations published by ITU and in Hong Kong are given in the **Annex**.

3. Under Agenda Item 1.12 of the coming World Radiocommunication Conference of ITU to be held in 2019 ("WRC-19"), ITU will consider possible global or regional harmonised frequency bands for the implementation of Intelligent Transport Systems ("ITS")² under the existing mobile service allocation. Based on input from the European Conference of Postal and Telecommunications Administrations ("CEPT"), consideration is being given to the use of the 5855 – 5925 MHz band for current and future ITS applications. ITU is now working on a recommendation on the harmonisation of frequency arrangements for ITS for conclusion in WRC-19.

¹ ITU Region 3 covers Asia and Australasia, including China.

² ITS pertains to vehicle-to-vehicle and vehicle-to-infrastructure communications for exchange of information on road safety and traffic efficiency with a view to improving traffic management and assisting safe driving.

International Development

4. CEPT harmonised the use of the frequency band 5855 – 5925 MHz for ITS within the concerned European administrations in 2008. Under the CEPT allocation, the 5855 – 5925 MHz band is allocated to the mobile service, among other services, on a co-primary basis.

5. In the United States, the Federal Communications Commission (“FCC”) allocated the frequency band 5850 – 5925 MHz for Dedicated Short-Range Communications (“DSRC”) service in ITS in 1999. DSRC service covers vehicle-to-vehicle and vehicle-to-infrastructure communications. Under the FCC allocation, the 5850 – 5925 MHz band is allocated to the mobile service, among other services, on a co-primary basis for non-federal use.

6. In Mainland China, the Ministry of Industry and Information Technology has approved the use of the frequency band 5905 – 5925 MHz for pilot tests of Long Term Evolution (“LTE”)-Vehicle technology, which is a technology based on time division-LTE for vehicle-to-everything communications. In Mainland China, the 5850 – 5925 MHz band is allocated to the mobile service, among other services, on a co-primary basis too.

Proposed Frequency Allocation

7. The proposed additional allocation of the 5850 – 5925 MHz band to the mobile service, among others, on a co-primary basis in Hong Kong is in compliance with the Region 3 allocation of the ITU Radio Regulations.

8. In view of the above-mentioned international development and ITU allocation, and subject to the support of the Members, the Office of the Communications Authority will make a recommendation to the Communications Authority in respect of the allocation of the 5850 – 5925 MHz band, in addition to the existing allocations, to the mobile service on a co-primary basis with a view to facilitating the timely introduction of ITS applications in Hong Kong in the near future.

Advice Sought

9. Members are invited to provide comments on the proposed frequency allocation.

Office of the Communications Authority
August 2017

Current ITU and Hong Kong Allocation of the 5850 – 5925 MHz Band

ITU REGION 3 ALLOCATION	HONG KONG ALLOCATION
5850-5925 MHz FIXED FIXED-SATELLTE (Earth-to-space) MOBILE Radiolocation	5850-5875 MHz FIXED FIXED-SATELLTE (Earth-to-space) INDUSTRIAL SCIENTIFIC AND MEDICAL (ISM)
	5875-5925 MHz FIXED FIXED-SATELLTE (Earth-to-space)
Note: Services in “capitals” : primary services Services in “normal characters” : secondary services	