

**RADIO SPECTRUM AND TECHNICAL STANDARDS
ADVISORY COMMITTEE**

**Proposed Allocation of the 39.5 – 40.5 GHz Band
to the Fixed Service and Mobile Service**

Introduction

This paper seeks Members' views on the proposed allocation of the 39.5 – 40.5 GHz band to the fixed service and mobile service¹ on a primary basis².

Background

2. The World Radiocommunication Conference (WRC-19) to be held in November 2019 would consider identification of frequency bands for use by the International Mobile Telecommunications (IMT³) services for year 2020 and beyond, i.e. the fifth generation mobile ("5G") services, including possible additional allocations to the mobile service on a primary basis. In particular, Agenda Item 1.13 of WRC-19 would consider eleven candidate frequency bands between 24.25 GHz and 86 GHz for IMT identification. The candidate frequency bands are: 24.25 – 27.5 GHz, 37 – 40.5 GHz, 42.5 – 43.5 GHz, 45.5 – 47 GHz, 47.2 – 50.2 GHz, 50.4 – 52.6 GHz, 66 – 76 GHz and 81 – 86 GHz which have allocations to the mobile service on a primary basis; and 31.8 – 33.4 GHz, 40.5 – 42.5 GHz and 47 – 47.2 GHz which may require additional allocations to the mobile service on a primary basis.

3. Among these frequency bands, the industry has significant interest in the 24.25 – 27.5 GHz and 37 – 40.5 GHz bands. For the 24.25 – 27.5 GHz band, in line with international development, the Communications Authority has

¹ 5G services may be provided in the form of mobile or wireless fixed applications.

² Different services are classified as "primary" or "secondary" services. Stations of a "secondary" service shall not cause harmful interference to or claim protection from stations of "primary" services operating in the same frequency band.

³ IMT is a generic term commonly used to designate broadband mobile systems.

decided to make available the 24.25 – 27.5 GHz band, along with the 27.5 – 28.35 GHz band, as the first batch of spectrum for the provision of 5G services in Hong Kong. As a continuous effort to supply additional spectrum to support the development of 5G services, the Office of the Communications Authority is considering allocating part of 37 – 40.5 GHz band to the fixed service and mobile service.

4. In Hong Kong, the 37 – 39.5 GHz band is allocated to the fixed service while the 39.5 – 40.5 GHz band is unplanned. As regards utilisation, the 37 – 39.5 GHz band is being used by both private and government users for fixed link applications, and no change to this band is proposed. On the other hand, since the 39.5 – 40.5 GHz band is unplanned and vacant, it can readily be made available for 5G services.

5. Elsewhere, the United States, Canada and Mainland China have all included all or part of the 39.5 – 40.5 GHz band for use as IMT services including 5G services. The proposed allocation of the 39.5 – 40.5 GHz band to the fixed service and mobile service to support 5G services are largely in line with international development. We would continue to monitor international development and WRC-19 decisions with a view to allocating additional spectrum adjacent to the 39.5 – 40.5 GHz band in future to support 5G services.

Proposed Frequency Allocation

6. It is proposed that the 39.5 – 40.5 GHz band be allocated to the fixed service and mobile service on a primary basis.

Advice Sought

7. Members are invited to offer comments on the proposed frequency allocation.

Office of the Communications Authority
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