



SIMBA TELECOM PTE LTD

Response to IMDA's Consultation on
Proposed Allocation of 6GHz Band in
Singapore

14 March 2023

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MS. AILEEN CHIA

Director-General (Telecoms and Post)

Deputy CE (Connectivity Development & Regulation)

Infocomm Media Development Authority

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BY EMAIL

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Dear Ms. Chia,

CONSULTATION ON PROPOSED ALLOCATION OF 6 GHz BAND

INTRODUCTION

1. We refer to the Public Consultation ("**Consultation Paper**") issued by the Info-Communications Media Development Authority ("**IMDA**") on the "Proposed Allocation of 6GHz Band in Singapore" dated 14 February 2023.
2. We thank IMDA for the opportunity to provide a response to the Consultation Paper. In this response, SIMBA Telecom Pte Ltd ("**Simba**") submits its views and comments regarding the Consultation Paper.

STATEMENT OF INTEREST

3. Simba is an Australian-owned Singapore incorporated company in the business of the provision of mobile telecommunication services; and has a Facilities-Based Operator (FBO) licence to provide mobile services in Singapore.

COMMENTS

4. Simba is largely in agreement with IMDA's approach in paragraphs 9 and 10 of the Consultation Paper, in particular that the lower 500MHz of the 6 GHz band (i.e. 5,925 MHz – 6,425MHz) be allocated for RLAN/Wi-Fi use.
5. While we support the lower 6GHz band for licence-exempt RLAN usage, we are of the opinion that the band should be technology neutral and should not be restricted for Wi-fi usage only.
6. **First**, Simba is appreciative of IMDA's important role in promoting and preserving the competitiveness of the info-comm sector in Singapore as the industry regulator.

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7. In this regard, we hope that IMDA will properly consider a lightly regulated approach of licensing the lower or upper 6GHz bands, or both.
8. We suggest that IMDA can consider adopting rules for shared commercial use that are similar to Federal Communications Commission's approach for the CBRS band, where spectrum will be deployed more efficiently and effectively as long as interference with other wireless services and devices is managed.
9. A dedication to promoting fair and efficient spectrum allocation will underscore IMDA's unwavering commitment to fostering a competitive and innovative telecommunications industry that provides equal access to all. Their efforts in this regard have not gone unnoticed thus far, but we can all take inspiration from IMDA's outstanding leadership and steadfast pursuit of excellence in this critical area.
10. **Second**, IMDA should be allowing multiple technologies to coexist in the lower 6GHz band by adopting a technology-neutral approach, which should lead to increased innovation. Different technologies can be developed and deployed by consumers, enterprises and service providers without restrictions, allowing for more experimentation and ultimately leading to more innovative and efficient use of the spectrum. This approach is particularly important given the growing demand for wireless communications and the need to find new ways to manage and utilize the spectrum more effectively.
11. Simba highlights that spectrum is a finite resource. IMDA, by allowing multiple technologies to operate in the 6GHz band, will be encouraging more effective spectrum utilization. The demand for wireless communications is growing rapidly. Adopting a technology-neutral approach will enable a wider range of services and applications to operate in the band, thereby increasing the overall efficiency of spectrum usage. This will be particularly important as new applications and services are developed that require greater bandwidth and more spectrum.
12. Moreover, a technology-neutral approach to the lower 6GHz band is also expected to increase competition among technology providers and service providers alike. By allowing multiple technologies (e.g. Wi-fi, 5G NR-U, 4G), to operate in the same band, IMDA will be enabling a more competitive market environment, where companies can compete on the basis of the quality and efficiency of their technologies. This is expected to lead to better services for consumers at lower costs, as companies are incentivized to innovate and improve their offerings to remain competitive in the market. In turn, this could lead to increased adoption of wireless technologies and greater economic growth.
13. **Third**, Simba submits that IMDA should implement a balanced approach for the 6GHz band allocation in Singapore.

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14. Based on field test trials in Europe, the 6GHz band when used with larger antenna arrays, provides similar coverage results as the 3.5GHz band. We believe that a balanced approach, meaning allocating the lower 6GHz band for license-exempt RLAN usage and upper 6GHz band for licenced IMT-usage will be more beneficial in the long run.
15. Additionally, Simba urges IMDA to consider permitting IMT services to be deployed on the 6GHz band in Singapore.
16. There are several benefits to deploying IMT services on the 6 GHz band in Singapore:
 - 16.1. More available spectrum: The 6 GHz band provides a much larger amount of spectrum than the current 3.5 GHz and 5GHz bands, which means that there is more bandwidth available for wireless communication. This spectrum is much needed to supplement existing IMT mid-band spectrum and allow the growth and expansion of 5G.
 - 16.2. Reduced interference: The 6 GHz band is higher frequency and less crowded than the 3.5 GHz and 5GHz bands, which means that there is less interference among stations or cells. This can result in better signal quality and improved network performance/capacity.
 - 16.3. Improved coverage: The 6 GHz band can provide better coverage than mmWave, and is a more suitable band to supplement existing mid-band wireless systems.
17. **Fourth**, with reference to the Proposed Technical Requirements stated in Annex A of the Consultation Paper, we wish to highlight that if the lower 6GHz band is allocated for licence-exempt RLAN usage, other than ensuring that there is sufficient protection to the services currently provided, the RLAN deployment should also not impact any future services (IMT services like 5G NR and/or 6G) that may be deployed on the upper 6GHz band.
18. We are also in support of the proposed power limits tabled by IMDA in Annex A as they will ensure mitigation of any interference issues to incumbent services and future services that may be deployed on the upper 6GHz band.

CONCLUSION

19. In conclusion:
 - 19.1. Simba is in support of IMDA's allocation of the lower 500MHz of the 6GHz band for licence-exempt RLAN use;
 - 19.2. The process of spectrum allocation must be equal, fair and transparent to promote competitiveness amongst the MNOs
 - 19.3. IMDA ought to consider technology-neutral usage of the license-exempt lower 6GHz band in Singapore.

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- 19.4. IMDA may consider adopting a balanced approach for the spectrum allocation of the entire 6GHz band, and allocating the lower band for license-exempt use and the upper band for licensed IMT-use.
20. We thank IMDA for the opportunity to provide our views to the Consultation Paper and hope that IMDA would take up our recommendations for the benefit of Singapore.



Richard Chung Yaw Tan
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