

**RADIO SPECTRUM AND TECHNICAL STANDARDS
ADVISORY COMMITTEE**

**Proposed Revision to HKCA 1039
Performance Specification for Radiocommunications Apparatus
Operating in the 2.4 GHz or 5 GHz Band and
Employing Frequency Hopping or Digital Modulation**

Purpose

This paper proposes the adoption of the following revised HKCA specification:

HKCA 1039 Issue 7	Performance Specification for Radiocommunications Apparatus Operating in the 2.4 GHz or 5 GHz Band and Employing Frequency Hopping or Digital Modulation
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Background

2. The World Radiocommunication Conference (“WRC”) held by the International Telecommunication Union in 2003 resolved in Resolution 229 (WRC-03)¹ that among others, the 5.15 – 5.35 GHz band should be globally allocated to the mobile except aeronautical mobile service. In order to protect the incumbent services allocated in the 5.15 – 5.35 GHz band², the use of this band for the mobile service should be restricted to indoor use with a maximum equivalent isotropically radiated power (“EIRP”) of 200 mW under Resolution 229 (WRC-03). Having conducted the relevant studies, the WRC held in 2019 further resolved in Resolution 229 (Rev. WRC-19)³ that among others, the use of the 5.15 – 5.25 GHz band (“5.2 GHz band”) inside road vehicles (i.e. automobiles) with a maximum EIRP of 40 mW should be allowed.

¹ Resolution 229 (WRC-03) is available at:
<https://www.itu.int/oth/R0A0E00002E/en>

² The incumbent services to be protected are fixed-satellite (Earth-to-space), aeronautical radionavigation, Earth exploration-satellite (active), radiolocation and space research (active) services.

³ Resolution 229 (Rev. WRC-19) is available at:
https://www.itu.int/dms_pub/itu-r/oth/0C/0A/R0C0A00000F0076PDFE.pdf

3. According to the Hong Kong Table of Frequency Allocations⁴, the 5.15 – 5.35 GHz band is allocated to the mobile except aeronautical mobile service, and the majority of existing radiocommunications apparatus operating in this band are wireless local area network (“WLAN”) devices. Pursuant to the Telecommunications (Telecommunications Apparatus) (Exemption from Licensing) Order (Cap. 106Z)⁵ (“the Exemption Order”), radiocommunications apparatus, including WLAN device, operating in the 2.4 – 2.4835 GHz, 5.15 – 5.35 GHz and 5.47 – 5.85 GHz bands is exempted from licensing if it complies with the requirements of the Exemption Order and any relevant standards and specifications prescribed by the Communications Authority (“CA”). The Exemption Order and the current version of HKCA 1039 have incorporated the technical requirements set out in Resolution 229 (WRC-03) in relation to the 5.15 – 5.35 GHz band, which limit the use of this band to indoor use with a maximum EIRP of 200 mW.

4. WLAN devices operating in the 5.2 GHz band specially designed for use inside road vehicles have been made available in the global market recently, and such usage is allowed in some major economies such as the European Union⁶, which is in line with Resolution 229 (Rev. WRC-19). Since enquiries from the industry (including manufacturers and certification bodies) on this matter have been received recently, it is proposed to clarify in the revised HKCA 1039 that the use of the 5.2 GHz band inside road vehicles in Hong Kong is allowed, in alignment with Resolution 229 (Rev. WRC-19).

Proposed Revision to HKCA 1039

5. In view of the above considerations, it is proposed that HKCA 1039 be revised as follows –

- (a) add a note to clarify that the use of the 5.2 GHz band inside road vehicles in compliance with Resolution 229 (Rev. WRC-19) is allowed, but not for the 5.25 – 5.35 GHz band;
- (b) clarify that the requirements on marking of brand name and type number on the casing of the apparatus are applicable to cordless telephones only;

⁴ The Hong Kong Table of Frequency Allocations is available at:
https://www.ofca.gov.hk/filemanager/ofca/en/content_144/hk_freq_table_en.pdf

⁵ Cap. 106Z is available at:
<https://www.elegislation.gov.hk/hk/cap106Z>

⁶ <https://docdb.cept.org/download/4501>

- (c) delete the electrical safety requirements as a result of the amendment of section 32D of the Telecommunications Ordinance (Cap. 106) that has come into operation since June 2022 to remove the objective of ensuring electrical safety of telecommunications apparatus for standards and specifications prescribed by the CA; and
- (d) update the titles of the standards under reference.

The proposed revised HKCA 1039 is given at **Annex**.

Certification Requirement

6. Radiocommunications apparatus falling into the scope of HKCA 1039 is classified under the Voluntary Certification Scheme of the Hong Kong Telecommunications Equipment Evaluation and Certification Scheme. Certification of such apparatus is on a voluntary basis, but manufacturers, suppliers and dealers must ensure that their apparatus complies with HKCA 1039 even if they do not apply for certification.

World Trade Organization Notification

7. As the proposed revised HKCA 1039 is based on open standards, notification to the World Trade Organization is not required.

Recommendation

8. It is recommended that the proposed revised HKCA 1039 be submitted to the CA for adoption.

Advice Sought

9. Members are invited to offer comments on the recommendation above.

Office of the Communications Authority
July 2024