

**RADIO SPECTRUM AND TECHNICAL STANDARDS
ADVISORY COMMITTEE**

**Proposed Revision to HKCA 1049 Performance Specification
for Radio Frequency Identification (RFID) Equipment Operating in the
865 – 868 MHz and/or 920 – 925 MHz Bands, and
HKCA 1078 Performance Specification for Radio Equipment Operating in
the 920 – 925 MHz Band**

Purpose

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

HKCA 1049 Issue 2	Performance Specification for Radio Frequency Identification (RFID) Equipment Operating in the 865 – 868 MHz and/or 920 – 925 MHz Bands
HKCA 1078 Issue 2	Performance Specification for Radio Equipment Operating in the 920 – 925 MHz Band

Background

2. The technical requirements for RFID equipment operating in the 865 – 868 MHz and/or 920 – 925 MHz bands, exempted from licensing in accordance with Schedule 2 of the Telecommunications (Telecommunications Apparatus) (Exemption from Licensing) Order (Cap. 106Z)¹, are set out in HKCA 1049 Issue 1². The technical requirements of other radio equipment operating in the 920 – 925 MHz band for the provision of public telecommunications services, covered by the Wireless Internet of Things Licence³,

¹ Cap. 106Z is available at:
<https://www.elegislation.gov.hk/hk/cap106Z>

² HKCA 1049 Issue 1 is available at:
https://www.ofca.gov.hk/filemanager/ofca/en/content_401/hkta1049.pdf

³ The Wireless Internet of Things Licence is available at:
<https://www.coms-auth.hk/en/licensing/telecommunications/wiot/index.html>

are set out in HKCA 1078 Issue 1⁴.

3. Both HKCA 1049 and HKCA 1078 set out requirements on electrical safety. Following the amendment of section 32D of the Telecommunications Ordinance (Cap. 106) to focus on telecommunications functions, relevant electrical safety requirements in these two specifications should be removed accordingly.

4. Besides, both HKCA 1049 and HKCA 1078 set out requirements on radiation safety. As radiation safety requirements are already covered in HKCA 1084, the corresponding radiation safety requirements in these two specifications should be removed accordingly.

5. Both HKCA 1049 and HKCA 1078 make reference to Title 47 of the Code of Federal Regulations, Part 15, Section 247 (“47 CFR 15.247”) of the United States for RFID and other radio equipment operating in the 920 – 925 MHz band. To cater for the difference in the operating frequency band of 920 – 925 MHz in these two specifications compared to the operating frequency band of 902 – 928 MHz in 47 CFR 15.247, the following requirements are proposed in these two specifications to supplement those set out in 47 CFR 15.247:

- (a) The equipment shall use at least 10 hopping frequencies; and
- (b) the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 4 second period.

6. HKCA 1049 makes reference to ETSI EN 302 208-2 published by the European Telecommunications Standards Institute (“ETSI”) for RFID equipment operating in the 865 – 868 MHz band. Given ETSI EN 302 208-2 was superseded by ETSI EN 302 208, the reference in HKCA 1049 for operation in the 865 – 868 MHz band should be updated accordingly. In ETSI EN 302 208, the use of respective frequency channels with effective radiated power (“e.r.p.”) limited to 0.1 W and 0.5 W by RFID interrogators was removed. In this connection, it is proposed to revise the relevant descriptions in HKCA 1049 to reflect such changes.

⁴ HKCA 1078 Issue 1 is available at:
https://www.ofca.gov.hk/filemanager/ofca/en/content_401/hkca1078.pdf

7. The title and scope of HKCA 1078 is currently limited to radio equipment operating in the 920 – 925 MHz band for the provision of public telecommunications services. To meet the spectrum demand of other radio equipment in this band, such as wireless Internet of things for private use, HKCA 1078 should be made applicable to all radio equipment operating in the 920 – 925 MHz band.

Proposed Revision to Specifications HKCA 1049 and HKCA 1078

8. In view of the above considerations, it is proposed that HKCA 1049 and HKCA 1078 be revised as follows –

- (a) remove the electrical safety requirements in both HKCA 1049 and HKCA 1078;
- (b) remove the radiation safety requirements in both HKCA 1049 and HKCA 1078;
- (c) supplement the technical requirements for operation in the 920 – 925 MHz band in both HKCA 1049 and HKCA 1078;
- (d) update the reference in HKCA 1049 for operation in the 865 – 868 MHz band to ETSI EN 302 208, and align the relevant descriptions in HKCA 1049 with the current version of ETSI EN 302 208; and
- (e) update the title and scope of HKCA 1078 to cover radio equipment including but not limited to those for the provision of public telecommunications services.

The proposed revised specifications HKCA 1049 and HKCA 1078 are given at **Annex 1** and **Annex 2** respectively.

Certification Requirement

9. Equipment falling into the scope of HKCA 1049 or HKCA 1078 is classified under the Voluntary Certification Scheme of the Hong Kong Telecommunications Equipment Evaluation and Certification Scheme. Certification of such equipment is on a voluntary basis (except where certification is required under licence conditions), but manufacturers, suppliers and dealers must ensure that their equipment complies with these specifications even if they do not apply for certification.

World Trade Organization (“WTO”) Notification

10. As the proposed revised specifications HKCA 1049 and HKCA 1078 are based on open standards, notification to the WTO is not required.

Recommendation

11. It is recommended that the proposed revised specifications HKCA 1049 and HKCA 1078 be submitted to the Communications Authority for adoption.

Advice Sought

12. Members are invited to provide comments on the recommendation above.

Office of the Communications Authority
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