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**PERFORMANCE SPECIFICATION FOR
RADIO FREQUENCY IDENTIFICATION (RFID)
EQUIPMENT OPERATING IN THE
865 – 868 MHz AND/OR 920 – 925 MHz BANDS**



FOREWORD

1. This specification is prescribed under section 32D of the Telecommunications Ordinance (Cap 106) (“the Ordinance”) to set out the technical and evaluation requirements for Radio Frequency Identification (RFID) equipment operating in the 865 – 868 MHz and/or 920 – 925 MHz bands. Radiocommunications apparatus falling into the scope of this specification shall meet the stipulated requirements.
2. Under the Ordinance, the possession or use of any radiocommunications apparatus or any apparatus emitting radio frequency energy must be covered by an appropriate licence issued by the Communications Authority (CA) with the exception of those specifically exempted from licensing under the Ordinance, such as those covered by the Telecommunications (Telecommunications Apparatus) (Exemption from Licensing) Order (Cap. 106Z).
3. At present, the Office of the Communications Authority (OFCA) operates a **Hong Kong Telecommunications Equipment Evaluation and Certification (HKTEC) Scheme**. Details of the HKTEC Scheme can be found in the information note OFCA I 421. Under the HKTEC Scheme, suppliers or manufacturers may apply for certification of their apparatus against this specification. The application procedures for certification of radiocommunications apparatus can be found in the information note OFCA I 401.
4. CA may amend any part of this specification as and when it deems necessary.
5. In case of doubt about the interpretation of this specification, the methods of carrying out the test and the validity of statements made by the manufacturers or suppliers about the apparatus, the decision of CA shall be final.
6. The HKCA specifications and information notes issued by CA can be downloaded from OFCA’s website at <https://www.ofca.gov.hk>. Enquiries about this specification may be directed to -

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AMENDMENT TABLE

Item	Issue No.	Clause	Description
1.	Issue 1 April 2005	All	First Release
2.	Issue 2 March 2026	-	Removed the clause on electrical safety requirements
		-	Removed the clause on radiation protection
		2	Updated the titles of standards under reference and supplemented the technical requirements
		3	Added the clause on evaluation requirements
		4	Added the clause on reference

CONTENT

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1. SCOPE

This specification sets out the technical and evaluation requirements for Radio Frequency Identification (RFID) equipment operating in the 865 – 868 MHz and/or 920 – 925 MHz bands (hereafter referred to as “the equipment”).

2. TECHNICAL REQUIREMENTS

2.1 OPERATION IN THE 865 – 868 MHz BAND

- a) The equipment shall comply with the technical requirements specified in the standard ETSI EN 302 208 “Radio Frequency Identification Equipment operating in the band 865 MHz to 868 MHz with power levels up to 2 W and in the band 915 MHz to 921 MHz with power levels up to 4 W; Harmonised Standard for access to radio spectrum” published by the European Telecommunications Standards Institute (ETSI).
- b) The peak output power of the equipment shall not exceed 2 W effective radiated power (e.r.p.).
- c) The power of any spurious emission shall not exceed the corresponding frequency band indicated below:

Operating Band	Spurious Emission Level
47 – 74 MHz 87.5 – 118 MHz 174 – 230 MHz 470 – 862 MHz	e.r.p. not to exceed 4 nW
Other frequencies below 1000 MHz	e.r.p. not to exceed 250 nW
Frequency above 1000 MHz	e.r.p. not to exceed 1 µW

2.2 OPERATION IN THE 920 – 925 MHz BAND

- a) The equipment shall comply with the technical requirements specified in Title 47 of the Code of Federal Regulations, Part 15, Section 247 (47 CFR 15.247) of the United States, except those set out in this specification.
- b) The equipment shall use frequency hopping spread spectrum modulation.
- c) The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz. The equipment shall use at least 10 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 4 second period.
- d) The peak transmitter power shall not exceed 1 W and the equivalent isotropically radiated power (e.i.r.p.) from the equipment shall not exceed 4 W.

- e) The spurious emission level of the equipment shall not exceed 10 μ W e.r.p. outside the frequency band in which the fundamental frequencies are located.

3. EVALUATION REQUIREMENTS

Compliance of the equipment with the technical requirements shall be evaluated in accordance with the procedures specified in the respective standards given in clauses 2.1(a) and 2.2(a) above.

4. REFERENCE

- (a) ETSI EN 302 208 “Radio Frequency Identification Equipment operating in the band 865 MHz to 868 MHz with power levels up to 2 W and in the band 915 MHz to 921 MHz with power levels up to 4 W; Harmonised Standard for access to radio spectrum”
- (b) Title 47 of the Code of Federal Regulations, Part 15, Section 247 (47 CFR 15.247) of the United States

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