

HKCA 1035
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**PERFORMANCE SPECIFICATION FOR
RADIO EQUIPMENT
EXEMPTED FROM LICENSING**



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 equipment exempted from licensing, as covered by Schedule 2 of the Telecommunications (Telecommunications Apparatus) (Exemption from Licensing) Order (“the Order”).
2. Under section 39 of the Ordinance, a person is exempted from the obligation to hold a licence under the Ordinance so long as the conditions set out in the Order are satisfied. Radiocommunications apparatus falling into the scope of this specification, unless covered by other specification with more specific scope, shall meet the requirements stipulated to fulfil the conditions of the Order.
3. It is the responsibility of the suppliers to ensure that their radio equipment under the Order (“Radio Equipment”) comply with this specification. Compliance with this specification should be determined in accordance with the method of measurement contained in clause 3 of this specification. Where a test method specified in this specification cannot be followed, an alternatively appropriate method may be used. Suppliers may seek advice from the Communications Authority (CA) if necessary.
4. 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 Scheme, suppliers or manufacturers of the radiocommunications apparatus 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. A label prescribed by the CA may be affixed to the certified equipment. Details of the labelling arrangement can be found in the Standardisation Guide HKCA 3211.
5. In addition to this specification, radiocommunications apparatus capable of being used for connection as customer premises equipment (CPE) to the public telecommunications networks (PTNs) in Hong Kong should comply with the relevant network connection specification(s) issued by the CA. Manufacturers or suppliers may also apply for a separate certification to verify conformity of the apparatus with the relevant specification(s) before it is connected to the PTNs. Details concerning the application procedure for certification of CPE can be found in the information note OFCA I 412.
6. The Radio Equipment are required to operate on a “no-interference no-protection” basis, i.e. they may not cause radio interference and cannot claim protection from interference. Manufacturers or suppliers of Radio Equipment are advised to consider the potentiality of interference due to the shared use of the frequencies.

7. The CA may amend any part of this specification as and when it deems necessary.
8. 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 equipment manufacturers or suppliers about the equipment, the decision of the CA shall be final.
9. The HKCA specifications and information notes issued by the CA can be downloaded from OFCA's website at <http://www.ofca.gov.hk>. Enquiries about this specification may be directed to:

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AMENDMENT TABLE

Item	Issue No.	Paragraph	Descriptions
1.	Issue 2 Feb 2003	Title	Re-title document from "Method of Measurement for Low Power Devices" to "Performance Specification for Low Power Devices"
2.	Issue 2 Feb 2003	Foreword and Body	Define scope and technical requirements for LPDs.
3.	Issue 2 Feb 2003	Annex 1	Incorporate a recommended method of measurement as an Annex which has similar content as contained in HKCA 1035 Issue 1.
4.	Issue 3 April 2005	1.2, 2.1 and 2.2	Add new frequency bands which are included in the Telecommunications (Telecommunications Apparatus) (Exemption from Licensing) Order.
5.	Issue 4 May 2010	Title	Re-title document from "Performance Specification for Low Power Devices" to "Performance Specification for Radio Equipment Exempted from Licensing"
6.	Issue 4 May 2010	2	Amend paragraph 2 to make reference to Schedule 2 of Cap. 106Z of Hong Kong legislation and provide description of specifications with more specific scope.
7.	Issue 4 May 2010	3	Add paragraph 3. Add reference to ETSI EN 300 220-1, ETSI EN 300 330-1, ETSI EN 300 440-1, ETSI EN 300 422-1, ETSI EN 301 091-1, FCC Part 15.
8.	Issue 5 October 2010	2.2	Revise paragraph 2.2 to list the frequency bands covered by the other HKCA specification
9.	Issue 6 May 2011	3	Modify paragraph 3 to remove domestic measurement method. Delete Annex 1 for domestic measurement method.
10.	Issue 7 May 2016	2.2	Remove the frequency band 1895 – 1906.1 MHz for PHS and the associated reference to HKCA 1027 specification.

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1 GENERAL

1.1 SCOPE OF SPECIFICATION

This specification defines the technical requirements for radio equipment exempted from licensing, as covered by Schedule 2 of the Telecommunications (Telecommunications Apparatus) (Exemption from Licensing) Order (“the Order”) except those with specific applications which are covered by the more specific specifications as stipulated in clause 2.2 below.

1.2 DEFINITION

- (a) “effective radiated power” has the meaning assigned to it by Article 1 of the Radio Regulations published by the International Telecommunication Union, as revised from time to time;
- (b) “equivalent isotropically radiated power” has the meaning assigned to it by Article 1 of the Radio Regulations published by the International Telecommunication Union, as revised from time to time;
- (c) “necessary bandwidth” has the meaning assigned to it by Article 1 of the Radio Regulations published by the International Telecommunication Union, as revised from time to time;
- (d) “spurious emission” has the meaning assigned to it by Article 1 of the Radio Regulations published by the International Telecommunication Union, as revised from time to time;
- (e) “carrier power” has the meaning assigned to it by Article 1 of the Radio Regulations published by the International Telecommunication Union, as revised from time to time;

1.3 MECHANICAL AND ELECTRICAL DESIGN

The equipment shall be so designed, constructed and manufactured in accordance with good engineering practice, and with the aim of minimising harmful interference to other equipment and services. Control knobs and the like, which if maladjusted might increase the interfering potentialities of the equipment, shall not be made accessible to the end user.

1.4 ELECTRICAL SAFETY REQUIREMENTS

If the equipment is for connection to the public telecommunications network, it shall comply with the electrical safety requirements set out in HKCA 2001 "Compliance Test Specification - Safety and Electrical Protection Requirements for Subscriber Telecommunications Equipment" issued by the CA.

2. TECHNICAL REQUIREMENTS

- 2.1 The frequency band in which the telecommunications apparatus shall operate and the upper limits of the output level and spurious emission level generated by the apparatus shall be as stipulated in Schedule 2 of Chapter 106Z “Telecommunications (Telecommunications Apparatus) (Exemption from Licensing) Order” of Hong Kong legislation. The above-mentioned Hong Kong legislation may be accessed via the following hyperlink:

<https://www.elegislation.gov.hk/hk/cap106Z>

- 2.2 Unless otherwise approved by the Authority, radio equipment operating in the following frequency bands listed in Schedule 2 of the Order shall be covered by the other HKCA specifications given in the table below:

Frequency Band (MHz)	HKCA specifications
1.6275 – 1.7965 47.43 – 47.56	HKCA 1006
43.71 – 44.49 46.6 – 46.98 48.75 – 50	HKCA 1026
26.96 – 27.28	HKCA 1041
253.85 – 255 380.2 – 381.325	HKCA 1045
409.74 – 410	HKCA 1044
864.1 – 868.1	HKCA 1015
865 – 868 920 – 925	HKCA 1049
1880 - 1900	HKCA 1034
2400 – 2483.5 ^{Note}	HKCA 1039
5150 – 5350 5470 – 5725	
5725 – 5850 ^{Note}	

Note: Radio equipment with e.r.p. not exceeding 100 mW for any modulation shall follow the technical requirements and measurement methods under clause 2.1 and 3 respectively for compliance with this specification.

3. METHOD OF MEASUREMENT

The method of measurement of the equipment shall be in accordance with one of the following:

- (i) ETSI EN 300 220-1
Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment to be used in the 25 MHz to 1 000 MHz frequency range with power levels ranging up to 500 mW; Part 1: Technical characteristics and test methods

- (ii) ETSI EN 300 330-1
Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment in the frequency range 9 kHz to 25 MHz and inductive loop systems in the frequency range 9 kHz to 30 MHz; Part 1: Technical characteristics and test methods
- (iii) ETSI EN 300 440-1
Electromagnetic compatibility and Radio spectrum Matters (ERM); Short range devices; Radio equipment to be used in the 1 GHz to 40 GHz frequency range; Part 1: Technical characteristics and test methods
- (iv) ETSI EN 300 422-1
Electromagnetic compatibility and Radio spectrum Matters (ERM); Wireless microphones in the 25MHz to 3 GHz frequency range; Part 1: Technical characteristics and method of measurement
- (v) ETSI EN 301 091-1
Electromagnetic compatibility and Radio spectrum Matters (ERM); Short range devices; Road Transport and Traffic Telematics (RTTT); Radar Equipment operating in the 76 – 77 GHz range; Part 1: Technical characteristics and test methods for radar equipment operating in the 76 – 77 GHz range
- (vi) FCC 47 CFR Part 15
Code of Federal Regulations (USA); Title 47 Telecommunication; Chapter 1 Federal Communications Commission, Part 15 Radio Frequency Devices
- (vii) Other test methods subject to agreement by the CA.

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