Annex 1 to SSAC Paper 5/2021

HKCA 2001
ISSUE 1~~43~~
~~DECEMBER 2020~~
MM 2022

COMPLIANCE TEST SPECIFICATION - SAFETY AND ELECTRICAL PROTECTION REQUIREMENTS FOR SUBSCRIBER TELECOMMUNICATIONS EQUIPMENT

通訊事務管理局
COMMUNICATIONS AUTHORITY

Foreword

1. This specification is issued pursuant to Section 32D of the Telecommunications Ordinance (Cap. 106). This specification stipulates the safety and electrical protection requirements to be met by subscriber telecommunications equipment.

2. At present, the Office of the Communications Authority (OFCA) operates the **H**ong **K**ong **T**elecommunications Equipment **E**valuation and **C**ertification (HKTEC) scheme. Details of the scheme can be found in the Information Note OFCA I 421. Under the scheme, suppliers or manufacturers may apply for certification of their subscriber equipment against the specifications prescribed by the Communications Authority (CA). For the purpose of certification, subscriber equipment shall comply with the safety requirements set out in this specification, among other technical requirements.

3. Technical requirements other than safety and electrical protection are given in the HKCA series specifications issued by the CA. 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:

Senior Telecommunications Engineer (Standards),
Office of the Communications Authority,
29/F, Wu Chung House,
213 Queen's Road East,
Wanchai,
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4. The CA reserves the right to revise the contents of this specification without prior notice. Amendments or re-issues of this specification may not be distributed automatically to equipment manufacturers/suppliers and it will be the responsibility of the manufacturers/suppliers to ensure that their equipment conform to the latest requirements.

Amendment Table[1]

Item	Issue No.	Paragraph	Description
1.	Issue 08 5/98	2. Safety Requirement Point (a)	EN 60950 is adopted and the three standards BS 6301, BS 7002 and BS 415 are removed.
2.	Issue 08 5/98	2. Safety Requirement Point (b)	"Electrical Product (Safety) Regulation" is adopted and the "Plugs and Adapters (Safety) Regulation" is removed.
3.	Issue 09	2.2 Radiation Protection	The safety requirement on radiation protection is added. 12/02
4.	Issue 10 11/07	2.1 Electrical Protection	UL 60950 is adopted and UL 1950 is removed. UL 1642 is adopted.
5.	Issue 10 11/07	Title	Title is amended to remove reference to connection to the public telecommunications networks.
6.	Issue 11 05/10	2.2 Radiation Protection	IEC 62209-1 and EN 62209-1 are adopted.
7.	Issue 11 05/10	2.1 Electrical Protection	Update the reference to international standards.
8.	Issue 12 03/12	2.2 Radiation Protection	Update reference number of IEEE Std C95.1. Remove EN 50361. Add IEC 62209-2 and EN 62209-2. Update reference number and title of IEEE Std C95.3.
9.	Issue 12 03/12	3 How to obtain specifications and regulation	Update source for Electrical Products (Safety) Regulation.
10.	Issue 13 12/20	Foreword 2.2 Radiation Protection	Consequential changes after the establishment of OFCA.
11.	Issue 13 12/20	2.1 Electrical Protection	Replace IEC 60950-1, EN 60950-1 and UL 60950-1 by IEC 62368-1, EN 62368-1 and UL 62368-1 respectively. Add hyperlink to the Electrical Products (Safety) Regulation.

[1] Amendment history before Issue 7 of HKTA 2001 is not available

12.	Issue 13 12/20	3 How to Obtain Specifications and Regulation	Remove section 3.
13.	Issue 14 MM/22	1 Principle of Protection	Update the principle of protection.
14.	Issue 14 MM/22	2.1 Electrical Protection	Remove sections 2.1.1 and 2.1.2.

CONTENT

1. PRINCIPLE OF PROTECTION

In order to safeguard ~~operating personnel,~~ users ~~and plant~~, it is essential to ~~prevent the transmission of excessive voltages from subscriber equipment and to~~ limit the human exposure to radio frequency electromagnetic fields in case the subscriber equipment is a hand-held mobile station for connection to the public mobile radiocommunications networks.

2. SAFETY REQUIREMENTS

2.1 Electrical Protection

Void.

~~2.1.1 The subscriber equipment shall comply with specification (i), (ii) or (iii) below. For lithium batteries of subscriber equipment, they shall comply with specification (i), (ii), (iii) or (iv) below.~~

~~(i) IEC 62368-1 "Audio/video, information and communication technology equipment - Part 1: Safety requirements" issued by International Electrotechnical Commission (IEC)~~

~~(ii) EN 62368-1 "Audio/video, information and communication technology equipment - Part 1: Safety requirements" issued by European Committee for Electrotechnical Standardization (CENELEC)~~

~~(iii) UL 62368-1 "Audio/video, information and communication technology equipment - Part 1: Safety requirements" issued by Underwriters Laboratories Inc.~~

~~(iv) UL 1642 "Lithium Batteries" issued by Underwriters Laboratories Inc.~~

~~2.1.2 The subscriber equipment shall also comply with the following regulation:~~

~~Electrical Products (Safety) Regulation of the Electricity Ordinance (Cap. 406), Hong Kong Law (https://www.elegislation.gov.hk/hk/cap406G).~~

2.2 Radiation Protection

2.2.1 From 1 April 2003 onwards, subscriber equipment which is a hand-held mobile station for connection to the public mobile radiocommunications networks shall meet the radiation protection requirements stipulated in this clause. For subscriber equipment certified or type approved by the former Office of the Telecommunications Authority

before 1 April 2003, compliance with the requirements stipulated in this clause is not compulsory.

2.2.2 The subscriber equipment shall comply with the Specific Absorption Rate (SAR) limits for general public exposure specified in:

"Guidelines for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic Fields (up to 300 GHz)" issued by International Commission on Non-Ionizing Radiation Protection (ICNIRP)

or

IEEE Std C95.1 "IEEE Standard for Safety Levels with respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3kHz to 300 GHz" issued by Institute of Electrical and Electronics Engineers (IEEE).

2.2.3 Reference Test Method

To demonstrate the compliance with the SAR limits, assessment method should be made reference to:

IEC 62209-1 "Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Human models, instrumentation, and procedures - Part 1: Procedure to determine the specific absorption rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)" issued by International Electrotechnical Commission (IEC)

or

EN 62209-1 "Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Human models, instrumentation, and procedures -- Part 1: Procedure to determine the specific absorption rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)" issued by European Committee for Electrotechnical Standardization (CENELEC)

or

IEC 62209-2 "Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Human models, instrumentation, and procedures - Part 2: Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)" issued by International Electrotechnical Commission (IEC)

or

EN 62209-2 “Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Human models, instrumentation, and procedures - Part 2: Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)” issued by European Committee for Electrotechnical Standardization (CENELEC)

or

IEEE Std C95.3 “IEEE Recommended Practice for Measurements and Computations of Radio Frequency Electromagnetic Fields With Respect to Human Exposure to Such Fields, 100 kHz–300 GHz” issued by IEEE

or

Other measurement practices issued by relevant organisations which are acceptable to the CA.

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