

## **LEGISLATIVE COUNCIL BRIEF**

Telecommunications Ordinance  
(Chapter 106)

### **TELECOMMUNICATIONS (CONTROL OF INTERFERENCE) (AMENDMENT) REGULATION 2014**

#### **INTRODUCTION**

A At the meeting of the Executive Council on 13 May 2014, the Council ADVISED and the Acting Chief Executive ORDERED that the Telecommunications (Control of Interference) (Amendment) Regulation 2014, at Annex A, should be made under section 37 of the Telecommunications Ordinance to update and modify the classes of apparatus under control, the control limits and the scope and conditions under which the Communications Authority is empowered to amend the control limits in the future.

#### **JUSTIFICATIONS**

2. The classes of apparatus that are subject to the Telecommunications (Control of Interference) Regulations (the Regulation) were last updated in 1993. With the advent of new technologies, new types of apparatus such as light-emitting diode (LED) lighting equipment, electrical vehicles, etc. which may emit electrical or radiated interference but are not yet covered by the Regulation have become increasingly popular. There have been complaints of interference caused by unregulated apparatus to the proper functioning of radiocommunications service. Relevant international standards have also been revised to embrace these new types of apparatus. There is a need to bring these new apparatuses under control and to align our control regime with international practices.

3. The control limits of interference specified in the Regulation were based on international standards set by the International Special Committee on Radio Interference (i.e. Comité International Spécial des Perturbations Radio-électriques, or commonly known as CISPR). The limits as specified in the Regulation were last updated in 1993. There is a need to update the limits in order to take account of current technology and international requirements.

4. Apart from the CISPR standards, many products available in Hong Kong are manufactured and tested against conformance to other regional or national standards including those set by the European Union, the People's Republic of China and the United States of America. We see the need to make reference to an expanded set of widely recognised standards in our control regime. Furthermore, instead of following the current arrangement of specifying the exact control limits in the Regulation, we propose that direct reference be made to the relevant international, regional or national standards so that compliance with any one of the stipulated standards would be acceptable. This arrangement can save the efforts of manufacturers and suppliers from cross-checking whether products complying with the widely recognised standards are in compliance also with the control limits specified in the Hong Kong legislation.

5. In view of the rapid development of technologies, we also need a more flexible mechanism to keep our control limits of interference up to date. Currently, the Communications Authority (CA) may, by order published in the Gazette, amend the control limits in the Regulation. However, according to section 10(2) of the Regulation, no such order can be made without the prior approval of the Chief Executive in Council if such order would impose control limits tighter than those specified in the CISPR standards, or control limits in respect of which no recommendation has been made by CISPR. Having noted that there are other regional and national standards widely recognised in the market as mentioned in paragraph 6 above, we propose to amend the Regulation to the effect that CA may amend the control limits without the need for prior approval of the Chief Executive in Council provided that the control limits are set out in the standards or regulations published or adopted by one or more of the bodies stipulated in the Telecommunications (Control of Interference) (Amendment) Regulation 2014<sup>1</sup> (the Amendment Regulation).

6. To allow sufficient time for the industry to ensure that their products will comply with the new control limits, we propose the following transitional arrangements –

---

<sup>1</sup> The stipulated bodies in the Amendment Regulation are (a) International Electrotechnical Commission; (b) International Special Committee on Radio Interference; (c) European Committee for Standardisation; (d) European Committee for Electrotechnical Standardisation; (e) European Telecommunications Standards Institute; (f) General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; (g) Standardisation Administration of the People's Republic of China; (h) Federal Communications Commission of the United States of America.

- (a) for a period of one year beginning on the date when the Amendment Regulation comes into operation (i.e. the one-year transitional period), apparatuses continued to be covered by the Regulation as amended by the Amendment Regulation may comply either with the requirements specified in the current Regulation or the new requirements specified in the Amendment Regulation;
- (b) within the one-year transitional period, for new apparatuses covered by the Amendment Regulation but not covered by the current Regulation, failure of compliance with the requirements does not constitute an offence.

### **OTHER OPTIONS**

7. Maintaining the status quo is not desirable. The Regulation was last updated in 1993. We have a genuine need to update the control regime in view of the rapid technological development. We also need to align the regime with the latest international practices. Amendments to the Regulation are necessary to effect the proposed changes.

### **THE AMENDMENT REGULATION**

8. **Sections 4, 5, and 6** of the Amendment Regulation update the classes of apparatus subject to the Regulation and make the necessary consequential amendments to the Regulation.

9. **Section 7** of the Amendment Regulation rectifies the formatting error of the existing Regulation.

10. **Sections 8, 11 and 14** of the Amendment Regulation update the control limits of interference applicable to each class of apparatus that is subject to the Regulation and make the necessary consequential amendments.

11. **Sections 9, 10, 15 and 16** of the Amendment Regulation repeal the transitional arrangements for the last updating exercise in 1993 and provide for new transitional arrangements.

12. **Section 12** of the Amendment Regulation provides access to standards and regulations specified in the Regulation.

13. **Section 13** of the Amendment Regulation modifies the scope and conditions under which CA is empowered to amend the control limits under the Regulation.

B 14. The provisions of the existing Regulation are at Annex B.

#### **LEGISLATIVE TIMETABLE**

15. The legislative timetable will be –

Publication in the Gazette	30 May 2014
Tabling at the Legislative Council	4 June 2014
Commencement of the Amendment Regulation	21 November 2014

#### **IMPLICATIONS OF THE PROPOSAL**

16. The proposal will update our interference control regime and align it with international practices, so as to more effectively prevent the electrical or electronic apparatus under control from causing interference to communications equipment and services. Given that most of the covered apparatus has already complied with the stipulated standards, the compliance cost to the trade is expected to be very small.

17. The proposal is in conformity with the Basic Law, including the provisions concerning human rights. It has no financial, civil service, productivity, family, environmental, or sustainability implications. The Amendment Regulation does not affect the binding effect of the Telecommunications Ordinance.

## **PUBLIC CONSULTATION**

18. The former Telecommunications Authority conducted a 7-week public consultation in November 2011 on the proposed amendments to the Regulation. Eight submissions were received and they generally supported the proposal. The Panel on Information Technology and Broadcasting of the Legislative Council was also briefed on the proposal on 13 February 2012 and it supported in principle the proposed amendments.

## **PUBLICITY**

19. A press release will be issued when the Amendment Regulation is published in the Gazette. A spokesperson will be available to answer media and public enquiries.

## **ENQUIRY**

20. For enquiries, please contact Mr Ivanhoe Chang, Principal Assistant Secretary for Commerce and Economic Development (Communications and Technology) at 2810 2713.

**Communications and Technology Branch**  
**Commerce and Economic Development Bureau**  
**28 May 2014**

## Telecommunications (Control of Interference) (Amendment) Regulation 2014

### Contents

Section	Page
1. Commencement .....	1
2. Telecommunications (Control of Interference) Regulations amended.....	1
3. Regulation 1A amended (interpretation) .....	1
4. Regulation 2 amended (application of regulations and classification of apparatus) .....	3
5. Regulation 3A added .....	5
3A. Manufacturers, assemblers and importers of certain boats and vehicles .....	5
6. Regulation 4 amended (users).....	6
7. Regulation 5 amended (enforcement of regulations as to use) .....	8
8. Regulation 7 amended (requirement) .....	8
9. Regulation 7A repealed (transitional).....	9
10. Regulation 7B added.....	9
7B. Transitional.....	9
11. Regulation 8 amended (measurement and computation of noise voltage and field-strength).....	12

Section	Page
12. Regulation 8A added .....	12
8A. Access to standards and regulations specified in Schedule 1 .....	12
13. Regulation 10 amended (amendment of Schedule) .....	13
14. Schedule 1 substituted .....	14
Schedule 1 Standards and Regulations for Purposes of Regulation 7 .....	14
15. Schedule 2 repealed (limits of interference voltage or radiated interference field for the purposes of regulation 7A).....	18
16. Schedule 3 added.....	18
Schedule 3 Limits of Interference Voltage, Interference Field Strength, Interference Power or Insertion Loss for Purposes of Regulation 7B .....	18

## Telecommunications (Control of Interference) (Amendment) Regulation 2014

(Made by the Chief Executive in Council under section 37 of the  
Telecommunications Ordinance (Cap. 106))

### 1. Commencement

This Regulation comes into operation on 21 November 2014.

### 2. Telecommunications (Control of Interference) Regulations amended

The Telecommunications (Control of Interference) Regulations (Cap. 106 sub. leg. B) are amended as set out in sections 3 to 16.

### 3. Regulation 1A amended (interpretation)

(1) Regulation 1A, English text, definition of *interference*—

**Repeal the full stop**

**Substitute a semicolon.**

(2) Regulation 1A, Chinese text, definition of 資訊技術設備, paragraph (c)—

**Repeal the full stop**

**Substitute a semicolon.**

(3) Regulation 1A—

**Add in alphabetical order**

“*boat* (舟艇) means a means of conveyance or of transit or any other mobile equipment used or capable of being used on the surface of water, with a length of 15 m or less;

*CFR* when preceded or followed by a number, or any combination of letters, numbers and punctuation marks, means the regulation that bears the number or combination and is adopted by the Federal Communications Commission of the United States of America;

*CISPR* when followed by a number, or any combination of letters, numbers and punctuation marks, means the international standard that bears the number or combination and is published by the International Special Committee on Radio Interference (Comité International Spécial des Perturbations Radioélectriques);

*device* (裝置) means a machine that—

- (a) is designed to be capable of being driven by an internal combustion engine;
- (b) is equipped with an internal combustion engine or traction batteries; and
- (c) is not primarily intended for carrying persons or goods;

*EN* when followed by a number, or any combination of letters, numbers and punctuation marks, means the European standard that bears the number or combination and is published by a European Standards Organization;

*European Standards Organization* (歐洲標準組織) means—

- (a) the European Committee for Standardization (Comité Européen de Normalisation);
- (b) the European Committee for Electrotechnical Standardization (Comité Européen de Normalisation Électrotechnique); or

(c) the European Telecommunications Standards Institute;

**GB** when followed by a number, or any combination of letters, numbers and punctuation marks, means the National Standard of the People's Republic of China that bears the number or combination and is published by—

- (a) the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China;
- (b) the Standardization Administration of the People's Republic of China; or
- (c) both;

**IEC** when preceded or followed by a number, or any combination of letters, numbers and punctuation marks, means the international standard that bears the number or combination and is published by the International Electrotechnical Commission;

**propulsion system** (推動系統), in relation to a boat or vehicle, means all the equipment in the boat or vehicle that propels the boat or vehicle, and includes all the other parts of the boat or vehicle that are automatically switched on when the equipment is switched on.”

**4. Regulation 2 amended (application of regulations and classification of apparatus)**

(1) Regulation 2(1)—

**Repeal**

“for or in respect of which limits of interference or insertion loss are specified in Schedule 1”.

(2) Regulation 2(1)—

**Repeal subparagraph (a)**

**Substitute**

“(a) propulsion system—

- (i) installed in a boat that is registered in Hong Kong and is driven by an internal combustion engine or electrical means or both; or
- (ii) installed in a vehicle that is driven by an internal combustion engine or electrical means or both;

(ab) device;”.

(3) Regulation 2(1)—

**Repeal subparagraph (d)**

**Substitute**

“(d) electrical lighting and similar equipment;”.

(4) Regulation 2(1)—

**Repeal subparagraph (e)**

**Substitute**

“(e) household appliances, electric tools and similar apparatus.”.

(5) Regulation 2(3), before subparagraph (a)—

**Add**

“(aa) These regulations do not apply to an apparatus that is not regulated by any of the standards or regulations specified in Schedule 1.”.

(6) Regulation 2(3)(a)—

**Repeal**

everything after “paragraph (1)”

**Substitute a full stop.**

(7) Regulation 2(3)(b)—



**Repeal**

“(other than the ignition apparatus of an internal combustion engine)” (wherever appearing)

**Substitute**

“(other than an apparatus belonging to the class specified in paragraph (1)(a))”.

**5. Regulation 3A added**

After regulation 3—

**Add****“3A. Manufacturers, assemblers and importers of certain boats and vehicles**

- (1) This regulation applies in relation to an apparatus belonging to the class specified in regulation 2(1)(a).
- (2) The requirement referred to in regulation 7(1)(a) must be complied with in the circumstances specified in paragraph (3) for a boat or vehicle in which an apparatus to which this regulation applies is installed.
- (3) The circumstances are that a person described in paragraph (4)—
  - (a) sells otherwise than for export, or offers or advertises for sale otherwise than for export the boat or vehicle;
  - (b) lets on hire or offers or advertises for letting on hire the boat or vehicle; or
  - (c) installs the boat or vehicle.
- (4) The person is one—
  - (a) who in the course of business manufactured or assembled the boat or vehicle in Hong Kong

(whether on the person’s own account or as agent of some other person);

- (b) whose principal in the course of business manufactured or assembled the boat or vehicle in Hong Kong;
  - (c) who in the course of business imported the boat or vehicle into Hong Kong (whether on the person’s own account or as agent of some other person); or
  - (d) whose principal in the course of business imported the boat or vehicle into Hong Kong.
- (5) If paragraph (2) is contravened in relation to a boat or vehicle, a person described in paragraph (4) in carrying out an act mentioned in paragraph (3) in relation to the boat or vehicle commits an offence and is liable on summary conviction—
- (a) to a fine at level 2 on the first occasion on which the person is convicted of the offence; and
  - (b) to a fine at level 3 on each subsequent occasion on which the person is convicted of the offence.
- (6) If the person acts as an agent for another person in carrying out an act mentioned in paragraph (3), that other person is liable under paragraph (5) as if that other person had personally carried out the act.”.

**6. Regulation 4 amended (users)**

- (1) Regulation 4(1), proviso—

**Repeal**

“the ignition apparatus of an internal combustion engine”

**Substitute**

“an apparatus belonging to the class specified in regulation 2(1)(a) or (ab),”.

- (2) Regulation 4(1), proviso (a)—

**Repeal**

“the vehicle, vessel or engine of which the apparatus forms part”

**Substitute**

“—

- (i) the apparatus; or
- (ii) if the apparatus belongs to the class specified in regulation 2(1)(a), the boat or vehicle concerned”.

- (3) Regulation 4(1), proviso (c)—

**Repeal**

everything after “at the time when”

**Substitute**

“—

- (i) the apparatus was manufactured or assembled; or
- (ii) if the apparatus belongs to the class specified in regulation 2(1)(a), the boat or vehicle concerned was manufactured or assembled,

or that any components that had been substituted for those components had the same electrical characteristics and had been correctly fitted.”.

- (4) Regulation 4(3)—

**Repeal**

“any internal combustion engine the ignition apparatus of which”

**Substitute**

“an apparatus belonging to the class specified in regulation 2(1)(a) or (ab) that”.

7. **Regulation 5 amended (enforcement of regulations as to use)**

Regulation 5(1)—

**Repeal subparagraph (c)**

**Substitute**

“(c) that the use of the apparatus is likely to cause undue interference with the working of any other apparatus for telecommunications and in fact has caused or is causing such interference in a case where the Authority considers that all reasonable steps to minimize interference have been taken in relation to the station or apparatus receiving the telecommunications,

the Authority may serve on the person in possession of the apparatus a notice in writing requiring that, after a date fixed by the notice, not being less than 14 days from the date of service of the notice, the apparatus is not to be used, whether by the person given the notice or any other person, or, if the Authority thinks fit so to frame the notice, the apparatus may only be used in such manner, at such time and in such circumstances as may be specified in the notice:”.

8. **Regulation 7 amended (requirement)**

- (1) Regulation 7—

**Repeal paragraphs (1) and (2)**

**Substitute**

“(1) The requirement referred to in regulations 3, 3A and 4 is that the apparatus must be designed, constructed,

assembled and installed, and precautions must be taken in relation to it (by fitting suppressors or otherwise), so as to ensure that when the apparatus is used—

- (a) for an apparatus belonging to the class specified in regulation 2(1)(a)—the interference of the boat or vehicle concerned complies with at least one of the standards or regulations specified in Part 1 of Schedule 1; or
- (b) for any other apparatus—its interference complies with at least one of the standards or regulations applicable to the apparatus as specified in Schedule 1.”.

(2) Regulation 7(3)—

**Repeal**

“a fluorescent lamp or luminaire”

**Substitute**

“electrical lighting and similar equipment”.

**9. Regulation 7A repealed (transitional)**

Regulation 7A—

**Repeal the regulation.**

**10. Regulation 7B added**

Before regulation 8—

**Add**

**“7B. Transitional**

- (1) During the transitional period, the requirement referred to in regulation 7 is to be regarded as having been complied with in respect of a continuously regulated

apparatus in the circumstances specified in paragraph (2).

- (2) The circumstances are that the apparatus is designed, constructed, assembled and installed, and precautions are taken in relation to it (by fitting suppressors or otherwise), so as to ensure that when the apparatus is used, at any defined frequency or at any frequency within the defined frequency range—
  - (a) the interference voltage at the electric supply line terminals, aerial terminals, load terminals or additional terminals of the apparatus does not exceed the limit of interference voltage specified in Schedule 3 for that frequency or frequency range;
  - (b) the interference field strength of the electromagnetic energy radiated in any direction from the apparatus or its associated cables does not exceed the limit of interference field strength specified in Schedule 3 for that frequency or frequency range and at any distance not less than the given distance for the same frequency or frequency range;
  - (c) the interference power of the electromagnetic energy radiated in any direction from the apparatus or its associated cables does not exceed the limit of interference power specified in Schedule 3 for that frequency or frequency range; or
  - (d) the insertion loss of the apparatus does not fall below the minimum value specified in Schedule 3 for that frequency or frequency range,

in respect of the class or subdivision of the class of apparatus to which the apparatus concerned belongs.

- (3) During the transitional period, a failure to comply with the requirement referred to in regulation 7 in respect of a newly regulated apparatus does not constitute an offence under regulation 3, 3A or 4.
- (4) In this regulation—
- commencement date** (生效日期) means the date of commencement of the Telecommunications (Control of Interference) (Amendment) Regulation 2014;
- continuously regulated apparatus** (持續受規管器具) means an apparatus to which the regulations as in force immediately before the commencement date applied and to which these regulations apply;
- defined frequency** (界定頻率), in relation to an apparatus belonging to a class or subdivision of a class of apparatus referred to in Schedule 3, means the frequency or, if there is more than one, any of the frequencies specified in that Schedule in respect of the class or subdivision in the column or row with the heading referring to “Frequency”;
- defined frequency range** (界定頻率範圍), in relation to an apparatus belonging to a class or subdivision of a class of apparatus referred to in Schedule 3, means the frequency range or, if there is more than one, any of the frequency ranges specified in that Schedule in respect of the class or subdivision in the column with the heading referring to “Frequency Range”;
- given distance** (給定距離), in relation to an apparatus belonging to a class or subdivision of a class of apparatus referred to in Schedule 3, means the distance specified in that Schedule for the limit of interference field strength in respect of the class or subdivision and for the relevant frequency range;

**newly regulated apparatus** (新近受規管器具) means an apparatus to which the regulations as in force immediately before the commencement date did not apply but to which these regulations apply;

**transitional period** (過渡期間) means the period of 12 months beginning on the commencement date.”

**11. Regulation 8 amended (measurement and computation of noise voltage and field-strength)**

Regulation 8(c)—

**Repeal**

“use methods of statistical sampling recommended by the International Special Committee on Radio Interference”

**Substitute**

“, in relation to an apparatus, use any method of statistical sampling that is set out in any of the standards or regulations applicable to the apparatus as specified in Schedule 1, or any other method of statistical sampling that the Authority considers appropriate”.

**12. Regulation 8A added**

After regulation 8—

**Add**

**“8A. Access to standards and regulations specified in Schedule 1**

The Authority must—

- (a) keep a copy of each of the standards and regulations specified in Schedule 1 at its office; and
- (b) allow the public to inspect them during normal office hours free of charge.”

**13. Regulation 10 amended (amendment of Schedule)****(1) Regulation 10(1)—****Repeal**

everything after “amend”

**Substitute**

“the limits of interference at any frequency or within any frequency range in respect of any class of apparatus specified in regulation 2(1), including by (but not limited to) referring to or setting out standards or regulations in Schedule 1.”

**(2) Regulation 10(2)—****Repeal**

everything after “any class of apparatus”

**Substitute**

“specified in regulation 2(1), a limit of interference that is not set out in any standard or regulation applicable to the class of apparatus published or adopted by one or more of the bodies specified in paragraph (2A).”

**(3) After regulation 10(2)—****Add**

“(2A) For the purposes of paragraph (2), the bodies are—

- (a) the International Electrotechnical Commission;
- (b) the International Special Committee on Radio Interference (Comité International Spécial des Perturbations Radioélectriques);
- (c) a European Standards Organization;
- (d) the Federal Communications Commission of the United States of America;

- (e) the General Administration of Quality Supervision, Inspection and Quarantine of the People’s Republic of China; and
- (f) the Standardization Administration of the People’s Republic of China.”

**(4) Regulation 10(3)—****Repeal**

“purpose of regulation 3”

**Substitute**

“purposes of regulations 3 and 3A”.

**14. Schedule 1 substituted**

Schedule 1—

**Repeal the Schedule****Substitute**

**“Schedule 1** [regs. 2, 7, 8,  
8A & 10]

**Standards and Regulations for Purposes of  
Regulation 7**

**Part 1**

**Propulsion System Installed in Certain Boat and  
Vehicle**

1. CISPR 12:2001 with Amendment 1:2005
2. CISPR 12:2007

3. CISPR 12:2007 with Amendment 1:2009
4. EN 55012:2002 with Amendment 1:2005
5. EN 55012:2007
6. EN 55012:2007 with Amendment 1:2009
7. GB 14023-2006
8. GB 14023-2011

## **Part 2**

### **Device**

1. CISPR 12:2001 with Amendment 1:2005
2. CISPR 12:2007
3. CISPR 12:2007 with Amendment 1:2009
4. EN 55012:2002 with Amendment 1:2005
5. EN 55012:2007
6. EN 55012:2007 with Amendment 1:2009
7. GB 14023-2006
8. GB 14023-2011

## **Part 3**

### **Information Technology Equipment**

1. CISPR 22:2005 with Amendment 1:2005
2. CISPR 22:2005 with Amendment 1:2005 and Amendment 2:2006
3. CISPR 22:2008

4. EN 55022:2006 with Amendment 1:2007
5. EN 55022:2006 with Amendment 1:2007 and Amendment 2:2010
6. EN 55022:2010
7. GB 9254-2008
8. 47 CFR Part 15, 1 October 2005 Edition
9. 47 CFR Part 15, 1 October 2006 Edition
10. 47 CFR Part 15, 1 October 2007 Edition
11. 47 CFR Part 15, 1 October 2008 Edition
12. 47 CFR Part 15, 1 October 2009 Edition
13. 47 CFR Part 15, 1 October 2010 Edition
14. 47 CFR Part 15, 1 October 2011 Edition
15. 47 CFR Part 15, 1 October 2012 Edition
16. 47 CFR Part 15, 1 October 2013 Edition

## **Part 4**

### **Sound and Television Broadcast Receivers and Associated Equipment**

1. CISPR 13:2001 with Amendment 1:2003 and Amendment 2:2006
2. CISPR 13:2009
3. EN 55013:2001 with Amendment 1:2003 and Amendment 2:2006
4. GB 13837-2003
5. 47 CFR Part 15, 1 October 2005 Edition

6. 47 CFR Part 15, 1 October 2006 Edition
7. 47 CFR Part 15, 1 October 2007 Edition
8. 47 CFR Part 15, 1 October 2008 Edition
9. 47 CFR Part 15, 1 October 2009 Edition
10. 47 CFR Part 15, 1 October 2010 Edition
11. 47 CFR Part 15, 1 October 2011 Edition
12. 47 CFR Part 15, 1 October 2012 Edition
13. 47 CFR Part 15, 1 October 2013 Edition

### Part 5

#### Electrical Lighting and Similar Equipment

1. CISPR 15:2005 with Amendment 1:2006
2. CISPR 15:2005 with Amendment 1:2006 and Amendment 2:2008
3. CISPR 15:2013
4. EN 55015:2006 with Amendment 1:2007
5. EN 55015:2006 with Amendment 1:2007 and Amendment 2:2009
6. GB 17743-2007

### Part 6

#### Household Appliances, Electric Tools and Similar Apparatus

1. CISPR 14-1:2005

2. CISPR 14-1:2005 with Amendment 1:2008
  3. CISPR 14-1:2005 with Amendment 1:2008 and Amendment 2:2011
  4. EN 55014-1:2006
  5. EN 55014-1:2006 with Amendment 1:2009
  6. EN 55014-1:2006 with Amendment 1:2009 and Amendment 2:2011
  7. GB 4343.1-2009".
15. **Schedule 2 repealed (limits of interference voltage or radiated interference field for the purposes of regulation 7A)**  
Schedule 2—  
Repeal the Schedule.
16. **Schedule 3 added**  
At the end of the Regulations—  
Add

**“Schedule 3** [reg. 7B]

#### **Limits of Interference Voltage, Interference Field Strength, Interference Power or Insertion Loss for Purposes of Regulation 7B**

### Part 1

#### **Ignition Apparatus of Internal Combustion Engines**

Limits of radiated interference field strength based on quasi-peak measurements in the frequency range of 30 MHz to 1 000 MHz, measured at a distance of 10 m.

Frequency Range (MHz)	Field Strength Limit (Quasi-peak) (dB $\mu$ V/m)
30–75	34
75–400	34–45 <sup>[1]</sup>
400–1 000	45

<sup>[1]</sup> The limit increases linearly with the logarithm of the frequency.

## Part 2

### Information Technology Equipment

- Limits of mains terminal interference voltage in the frequency range of 0.15 MHz to 30 MHz for class A equipment\*.

Frequency Range (MHz)	Interference Voltage Limit (dB $\mu$ V) <sup>[1]</sup>	
	Quasi-peak	Average
0.15–0.5	79	66
0.5–30	73	60

<sup>[1]</sup> The lower limit applies at the transition frequency.

- Limits of mains terminal interference voltage in the frequency range of 0.15 MHz to 30 MHz for class B equipment\*\*.

Frequency Range (MHz)	Interference Voltage Limit (dB $\mu$ V) <sup>[2]</sup>	
	Quasi-peak	Average
0.15–0.5	66–56 <sup>[3]</sup>	56–46 <sup>[3]</sup>
0.5–5	56	46
5–30	60	50

<sup>[2]</sup> The lower limit applies at the transition frequency.

<sup>[3]</sup> The limit decreases linearly with the logarithm of the frequency.

- Limits of radiated interference field strength in the frequency range of 30 MHz to 1 000 MHz at a test distance of 30 m for class A equipment\*.

Frequency Range (MHz)	Field Strength Limit (Quasi-peak) (dB $\mu$ V/m) <sup>[4]</sup>
30–230	30
230–1 000	37

<sup>[4]</sup> The lower limit applies at the transition frequency.

- Limits of radiated interference field strength in the frequency range of 30 MHz to 1 000 MHz at a test distance of 10 m for class B equipment\*\*.

Frequency Range (MHz)	Field Strength Limit (Quasi-peak) (dB $\mu$ V/m) <sup>[5]</sup>
30–230	30
230–1 000	37



<sup>[5]</sup> The lower limit applies at the transition frequency.

- \* Equipment used or located in commercial or non-residential premises.
- \*\* Equipment used or located in domestic or residential premises.

### Part 3

## Sound and Television Broadcast Receivers and Associated Equipment

Limits of conducted interference and radiated interference.

1. Limits of interference voltage injected into the mains.

Equipment Type	Frequency Range (MHz)	Interference Voltage Limit (dB $\mu$ V) <sup>[1][2]</sup>	
		Quasi-peak <sup>[3]</sup>	Average <sup>[3]</sup>
Sound and television receivers and associated equipment <sup>[5]</sup>	0.15–0.5	66–56 <sup>[4]</sup>	56–46 <sup>[4]</sup>
	0.5–5	56	46
	5–30	60	50

<sup>[1]</sup> The higher value measured with and without the aerial input outer conductor screen connected to earth is considered.

<sup>[2]</sup> The lower limit applies at the transition frequency.

<sup>[3]</sup> If the limits for the average detector are met when using the quasi-peak detector, then the limits for the measurements with the average detector are considered to be met.

<sup>[4]</sup> The limit decreases linearly with the logarithm of the frequency.

<sup>[5]</sup> Television receivers with teletext facilities should be tested in teletext mode with teletext picture.

2. Limits of radiated interference field strength due to the local oscillator at its fundamental and harmonic frequencies and due to all other sources at a distance of 3 m.

Equipment Type	Source	Frequency Range / Frequency (MHz)	Field Strength Limit (Quasi-peak) (dB $\mu$ V/m) <sup>[6]</sup>
Television receivers and video recorders	Local oscillator	300–1 000	Fundamental 56 <sup>[7]</sup> Harmonics 56
	Other	121.5 243	40 47
Frequency modulation sound receivers <sup>[8]</sup>	Local oscillator	30–300	Fundamental 60 Harmonics 52
		300–1 000	Harmonics 56

<sup>[6]</sup> The lower limit applies at the transition frequency.

<sup>[7]</sup> If a standard intermediate frequency is used, the limit at the local oscillator fundamental frequency of television receivers and video recorders can be relaxed to 70 dB $\mu$ V/m.

<sup>[8]</sup> For frequency modulation car radios, no radiation limits apply.

3. Limits of interference voltage at the aerial terminals.

Equipment Type	Source	Frequency Range (MHz)	Interference Voltage Limit <sup>[9][10]</sup> (dBμV) 75 Ω Quasi-peak
Television receivers and video recorders working in channels between 30 MHz and 1 GHz	Local oscillator	30–950 950–1 750	Fundamental 46 Harmonics 46 Harmonics 54
	Other	30–1 750	46
Television receivers for broadcast satellite transmission: tuner units at 1st IF <sup>[11]</sup>	Local oscillator	30–950 950–1 750	Fundamental 46 Fundamental 54
	Other	30–1 750	46
Frequency modulation sound receivers	Local oscillator	30–300 300–1 000	Fundamental 54 Harmonics 50 Harmonics 52
	Other	30–1 000	46
Frequency modulation car radios	Local oscillator	30–300 300–1 000	Fundamental 66 Harmonics 59 Harmonics 52

<sup>[9]</sup> The interference voltage limits for receivers with nominal impedance other than 75 Ω are calculated according to the following formula—

$$L_z = L_{75} + 10 \log (Z/75) \text{ dB}\mu\text{V}$$

where  $Z$  = nominal impedance in Ω

$L_{75}$  = interference voltage limit for 75 Ω nominal impedance

$L_z$  = interference voltage limit for  $Z$  nominal impedance

<sup>[10]</sup> The lower limit applies at the transition frequency.

<sup>[11]</sup> “1st IF” stands for “first intermediate frequency”. For tuner units, *aerial terminals* (天線接線端子) means 1st IF input terminals.

## Part 4

### Fluorescent Lamps and Luminaires

- Minimum value of insertion loss of luminaires with or without starters designed for the following types of fluorescent lamps—
  - linear fluorescent lamps with a nominal diameter of 15 mm, 25 mm or 38 mm;
  - circular fluorescent lamps with a nominal diameter of 28 mm or 32 mm;
  - U-type fluorescent lamps with a nominal diameter of 15 mm, 25 mm or 38 mm;
  - single-capped fluorescent lamps, without integrated starter and with a nominal diameter of 15 mm.

Frequency (kHz)	160	240	550	1 000	1 400
Minimum value of insertion loss (dB)	28	26	24	22	20

2. Mains terminal interference voltages for all types of luminaires for which the insertion loss limits do not apply are to comply with the mains terminal interference voltage limits as shown in the table below. These limits are also to apply to self-ballasted fluorescent lamps.

Frequency Range	Interference Voltage Limit (dB $\mu$ V) <sup>[1]</sup>	
	Quasi-peak	Average <sup>[2]</sup>
9 kHz–50 kHz	110	—
50 kHz–150 kHz	90–80 <sup>[3]</sup>	—
150 kHz–0.5 MHz	66–56 <sup>[3]</sup>	56–46 <sup>[3]</sup>
0.5 MHz–5 MHz	56	46
5 MHz–30 MHz	60	50

<sup>[1]</sup> The lower limit applies at the transition frequency.

<sup>[2]</sup> If it is certain that only broadband interference sources are present, then the average measurements need not be made.

<sup>[3]</sup> The limit decreases linearly with the logarithm of the frequency.

## Part 5

### Household Electrical Appliances, Similar Electrical Apparatus and Portable Tools

Limits of radio interference in the range of 0.15 MHz to 300 MHz.

1. Continuous conducted interference

Limits of continuous conducted interference voltage for the frequency range of 0.15 MHz to 30 MHz.

- (a) Household electrical appliances and similar electrical apparatus causing similar interference:

Frequency Range (MHz)	Interference Voltage Limit (dB $\mu$ V) <sup>[1]</sup>	
	Quasi-peak	Average <sup>#</sup>
0.15–0.5	66–56 <sup>[2]</sup>	59–46 <sup>[2]</sup>
0.5–5	56	46
5–30	60	50

<sup>[1]</sup> The lower limit applies at the transition frequency.

<sup>[2]</sup> The limit decreases linearly with the logarithm of the frequency.

- (b) Electrical apparatus with regulating controls incorporating semi-conductor equipment:

Frequency Range (MHz)	Interference Voltage Limit (dB $\mu$ V) <sup>[3]</sup>			
	At mains terminals		At load terminals and at additional terminals	
	Quasi-peak	Average <sup>#</sup>	Quasi-peak	Average <sup>#</sup>
0.15–0.5	66–56 <sup>[4]</sup>	56–46 <sup>[4]</sup>	80	70
0.5–5	56	46	74	64
5–30	60	50	74	64

<sup>[3]</sup> The lower limit applies at the transition frequency.

<sup>[4]</sup> The limit decreases linearly with the logarithm of the frequency.

(c) Portable tools

(i) with rated power of motor<sup>##</sup> not exceeding 700 W:

Frequency Range (MHz)	Interference Voltage Limit (dB $\mu$ V) <sup>[5]</sup>	
	Quasi-peak	Average <sup>#</sup>
0.15–0.35	66–59 <sup>[6]</sup>	59–49 <sup>[6]</sup>
0.35–5	59	49
5–30	64	54

(ii) with rated power of motor<sup>##</sup> above 700 W and not exceeding 1 000 W:

Frequency Range (MHz)	Interference Voltage Limit (dB $\mu$ V) <sup>[5]</sup>	
	Quasi-peak	Average <sup>#</sup>
0.15–0.35	70–63 <sup>[6]</sup>	63–53 <sup>[6]</sup>
0.35–5	63	53
5–30	68	58

(iii) with rated power of motor<sup>##</sup> above 1 000 W:

Frequency Range (MHz)	Interference Voltage Limit (dB $\mu$ V) <sup>[5]</sup>	
	Quasi-peak	Average <sup>#</sup>
0.15–0.35	76–69 <sup>[6]</sup>	69–59 <sup>[6]</sup>
0.35–5	69	59
5–30	74	64

<sup>[5]</sup> The lower limit applies at the transition frequency.

<sup>[6]</sup> The limit decreases linearly with the logarithm of the frequency.

2. Continuous radiated interference

Interference power limits for the frequency range of 30 MHz to 300 MHz:

(a) Household electrical appliances and similar electrical apparatus:

Frequency Range (MHz)	Interference Power Limit (dBpW)	
	Quasi-peak	Average <sup>#</sup>
30–300	45–55 <sup>[7]</sup>	35–45 <sup>[7]</sup>

<sup>[7]</sup> The limit increases linearly with the logarithm of the frequency.

(b) Portable tools

(i) with rated mains power<sup>##</sup> not exceeding 700 W:

Frequency Range (MHz)	Interference Power Limit (dBpW)	
	Quasi-peak	Average <sup>#</sup>
30–300	45–55 <sup>[8]</sup>	35–45 <sup>[8]</sup>

(ii) with rated mains power<sup>##</sup> above 700 W and not exceeding 1 000 W:

Frequency Range (MHz)	Interference Power Limit (dBpW)	
	Quasi-peak	Average <sup>#</sup>
30–300	49–59 <sup>[8]</sup>	39–49 <sup>[8]</sup>

(iii) with rated mains power<sup>##</sup> above 1 000 W:

Frequency Range (MHz)	Interference Power Limit (dBpW)	
	Quasi-peak	Average <sup>#</sup>
30–300	55–65 <sup>[8]</sup>	45–55 <sup>[8]</sup>

<sup>[8]</sup> The limit increases linearly with the logarithm of the frequency.

<sup>#</sup> If the average limit is met when using a quasi-peak detector receiver, the test unit is deemed to meet both limits, and measurement with the average detector receiver need not be carried out.

<sup>##</sup> The power of any heating equipment is to be excluded.

### 3. Discontinuous interference

The limits for continuous conducted interference specified in paragraph 1 of this Part, as increased by the following amount, apply—

- (a) 44 dB (for  $N^{[9]} < 0.2$ );
- (b)  $20 \log_{10} 30/N$  dB (for  $0.2 \leq N \leq 30$ );
- (c) 0 dB (for  $N > 30$ ).

<sup>[9]</sup> N is the click<sup>[10]</sup> rate determined from the formula  $N = n/T$ , T being 120 minutes or the observation time in minutes, whichever is less to produce 40 clicks, and n being the number of clicks registered during the observation time.

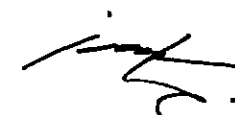
<sup>[10]</sup> A click is defined as a disturbance which—

- (a) exceeds the maximum limit<sup>[11]</sup> specified in paragraph 1 of this Part;

(b) lasts not more than 200 ms; and

(c) is separated from a subsequent disturbance by at least 200 ms.

<sup>[11]</sup> The apparatus under test is deemed to comply with the maximum limit if not more than a quarter of the number of clicks registered during the observation time exceed the limit.”



Clerk to the Executive Council

COUNCIL CHAMBER

13<sup>th</sup> May, 2014

### Explanatory Note

Under the Telecommunications (Control of Interference) Regulations (Cap. 106 sub. leg. B) (*principal Regulations*), certain classes of apparatus are required to conform to the interference limits specified in the principal Regulations.

2. This Regulation amends the classes of apparatus to which the principal Regulations apply. It also amends the interference limits by referring to certain standards and regulations published or adopted by certain regulatory or standards development bodies.
3. This Regulation also provides that during the transitional period of 12 months beginning on the commencement date of this Regulation—
  - (a) for an apparatus that continues to be regulated by the principal Regulations as amended by this Regulation (*new Regulations*), compliance with the relevant requirements in either the principal Regulations or the new Regulations is sufficient; and
  - (b) for an apparatus to which the principal Regulations did not apply but to which the new Regulations apply, failure of compliance with the relevant requirements does not constitute an offence.

Chapter:	106B	<b>Telecommunications (Control of Interference) Regulations</b>	Gazette Number	Version Date
		<b>Empowering section</b>	E.R. 1 of 2013	25/04/2013

(Cap 106, section 37)

[9 September 1966]

(Originally L.N. 65 of 1966)

(\*Format changes—E.R. 1 of 2013)

**Note:**\* **The format of the whole Regulations has been updated to the current legislative styles.**

Regulation:	1	<b>Citation</b>	E.R. 1 of 2013	25/04/2013
-------------	---	-----------------	----------------	------------

These regulations may be cited as the Telecommunications (Control of Interference) Regulations.

(36 of 2000 s. 28)

Regulation:	1A	<b>Interpretation</b>	E.R. 1 of 2013	25/04/2013
-------------	----	-----------------------	----------------	------------

In these regulations-

**information technology equipment** (資訊技術設備) means equipment designed for the purpose of-

- (a) receiving data from an external source (such as a data input line or via a keyboard);
- (b) performing certain processing functions on the received data (such as computation, data transformation or recording, filing, sorting, storage or transfer of data); or
- (c) providing a data output (either to other equipment or by the reproduction of data or images);

**interference** (干擾) means the effect of unwanted energy due to any or a combination of emission, radiation or induction upon reception in a telecommunications system, manifested by any performance degradation, misinterpretation or loss of information which could be extracted in the absence of such unwanted energy. (36 of 2000 s. 28)

(L.N. 153 of 1993)

Regulation:	2	<b>Application of regulations and classification of apparatus</b>	E.R. 1 of 2013	25/04/2013
-------------	---	---	----------------	------------

- (1) Subject to the provisions of paragraph (3), these regulations shall apply to every apparatus belonging to any of the following classes of apparatus for or in respect of which limits of interference or insertion loss are specified in Schedule 1- (L.N. 153 of 1993)
  - (a) ignition apparatus of internal combustion engines;
  - (b) information technology equipment; (L.N. 153 of 1993)
  - (c) sound and television broadcast receivers and associated equipment; (L.N. 153 of 1993)
  - (d) fluorescent lamps and luminaires; (L.N. 153 of 1993)
  - (e) (i) household electrical appliances and similar electrical apparatus;
  - (ii) portable tools. (L.N. 153 of 1993)
  - (f)-(g) (Repealed L.N. 153 of 1993)
- (2) (Repealed L.N. 153 of 1993)
- (3) (a) Any apparatus in an aircraft or in a vessel registered outside Hong Kong shall, for the purposes of regulation 4, be deemed not to be within any of the classes specified in paragraph (1), and references in these regulations to the ignition apparatus of an internal combustion engine shall not be construed as referring to the ignition apparatus of an internal combustion engine in an aircraft or in a vessel registered outside Hong Kong. (23 of 1998 s. 2)
- (b) For the purposes of regulation 3 any apparatus (other than the ignition apparatus of an internal combustion engine) designed to be used exclusively in a vessel or aircraft and to obtain its power solely therefrom, and for the purposes of regulation 4 any apparatus (other than the ignition apparatus of an internal combustion

engine) used in a vessel or aircraft and obtaining its power solely therefrom, shall be deemed not to be within any of the classes specified in paragraph (1).

- (c) For the purposes of regulations 3 and 4, an apparatus for radiocommunications or an apparatus of any kind that generates and emits radio waves shall be deemed not to be within any of the classes specified in paragraph (1) if a licence is required for its possession or use under section 8 of the Ordinance or if the possession or use of such apparatus without a licence is permitted pursuant to an order under section 39 of the Ordinance. (L.N. 153 of 1993; 36 of 2000 s. 28)

Regulation:	3	<b>Manufactures, assemblers and importers</b>	E.R. 1 of 2013	25/04/2013
-------------	---	---	----------------	------------

- (1) The requirement referred to in regulation 7 shall be complied with in the case of every apparatus to which these regulations apply (whether manufactured, assembled or imported before or after the day on which these regulations are published in the Gazette) if that apparatus is to be sold otherwise than for export, or offered or advertised for sale otherwise than for export, or let on hire or offered or advertised for letting on hire, or installed, by any person, whether on his own account or as agent of some other person, who in Hong Kong or whose principal in Hong Kong in the course of business manufactured or assembled the apparatus or who on his own account or as agent in the course of business imported the apparatus into Hong Kong or whose principal in the course of business imported the apparatus into Hong Kong. (L.N. 153 of 1993)
- (2) Any person, whether on his own account or as agent of some other person, who-
- (a) sells otherwise than for export or offers or advertises for sale otherwise than for export; or
  - (b) lets on hire or offers or advertises for letting on hire; or
  - (c) installs,

any apparatus to which these regulations apply (whether manufactured, assembled or imported before or after the day on which these regulations are published in the Gazette), being an apparatus which was manufactured or assembled by him or his principal, as the case may be, in Hong Kong in the course of business or imported into Hong Kong by him, whether on his own account or as agent of some other person, or by his principal, in the course of business, shall, if such apparatus does not comply with the requirement referred to in regulation 7 when so sold, offered or advertised for sale, let on hire, offered or advertised for letting on hire, or installed, as the case may be, be guilty of an offence and shall be liable on summary conviction, in the case of the first such offence, to a fine at level 2 and, in the case of any subsequent such offence, to a fine at level 3; and where such person is the agent of some other person, such other person shall be under the same liability as if he had himself sold or offered or advertised for sale, or let on hire or offered or advertised for letting on hire, or installed, that apparatus, as the case may be.

(L.N. 256 of 1994; E.R. 1 of 2013)

Regulation:	4	<b>Users</b>	E.R. 1 of 2013	25/04/2013
-------------	---	--------------	----------------	------------

- (1) The requirement referred to in regulation 7 shall be complied with in the case of every apparatus to which these regulations apply, whether manufactured, assembled, installed, imported, purchased, hired or otherwise obtained before or after the day on which these regulations are published in the Gazette, if such apparatus is to be used in Hong Kong: (L.N. 256 of 1994)
- Provided that in the case of the ignition apparatus of an internal combustion engine the use of the apparatus shall be deemed to comply with the said requirement if the person using the apparatus establishes-
- (a) that suppressors were fitted to the apparatus by the manufacturer, assembler or importer of the vehicle, vessel or engine of which the apparatus forms part; and
  - (b) that the suppressors so fitted remained fitted to the apparatus at the time of use, or that suppressors having the same electrical characteristics had been correctly fitted to the apparatus at that time in substitution for those fitted as aforesaid, and in either case that the suppressors were then in good electrical and mechanical repair and condition; and
  - (c) that the apparatus at the time of the use consisted of the same components as those which were fitted at the time when the vehicle, vessel or engine of which the apparatus forms part was manufactured or assembled, or that any components which had been substituted for those components had the same electrical characteristics and had been correctly fitted.
- (2) Save as provided in paragraph (3) and in regulation 9, it shall not be unlawful for any person to use any apparatus to which these regulations apply by reason only that it does not comply with the requirement referred



to in regulation 7, but the non-compliance therewith shall be a ground for the giving of a notice under regulation 5.

- (3) Any person who uses any internal combustion engine the ignition apparatus of which does not comply with the requirement referred to in regulation 7 shall be guilty of an offence and shall be liable on summary conviction, in the case of the first such offence, to a fine at level 1 and, in the case of any subsequent such offence, to a fine at level 2. (L.N. 153 of 1993; L.N. 256 of 1994; E.R. 1 of 2013)

Regulation:	5	<b>Enforcement of regulations as to use</b>	E.R. 1 of 2013	25/04/2013
-------------	---	---	----------------	------------

- (1) If the Authority is of the opinion-
- (a) that any apparatus to which regulation 4 applies does not comply with the requirement referred to in regulation 7; and either
  - (b) that the use of the apparatus is likely to cause undue interference with the working of any apparatus for telecommunications used for the purpose of any safety of life service or for any purpose on which the safety of any person or of any vessel, aircraft or vehicle may depend; or (36 of 2000 s. 28)
  - (c) that the use of the apparatus is likely to cause undue interference with the working of any other apparatus for telecommunications and in fact has caused or is causing such interference in a case where it considers that all reasonable steps to minimize interference have been taken in relation to the station or apparatus receiving the telecommunications, it may serve on the person in whose possession the apparatus is a notice in writing requiring that, after a date fixed by the notice, not being less than fourteen days from the date of service thereof, the apparatus shall not be used, whether by the person to whom the notice is given or otherwise, or, if the Authority thinks fit so to frame the notice, shall only be used in such manner, at such time and in such circumstances as may be specified in the notice: (36 of 2000 s. 28)

Provided that if the Authority is satisfied that the use of the apparatus concerned is likely to cause undue interference such as is referred to in sub-paragraph (b), the date fixed by the notice may, in the discretion of the Authority, be the date of service of the notice or any other date earlier than fourteen days from the date of service.

- (2) If the Authority is satisfied that the use of any apparatus to which regulation 4 applies is likely to cause undue interference such as is referred to in paragraph (1)(b) and that the circumstances of the case warrant the service of a notice under that paragraph requiring that the apparatus shall not be used from the date of service of the notice, it may, in addition to the service of such a notice and either before or after the service of the notice, seal the apparatus in such manner, or remove such part thereof, as ensures that the apparatus is not used, but in such a case, where the apparatus is sealed or a part thereof is removed before the service of the notice, the notice aforesaid shall be served within three days after the apparatus is sealed or the part removed therefrom.
- (3) A notice under paragraph (1) may be revoked or varied by a subsequent notice in writing by the Authority served on the person in whose possession the apparatus then is:  
Provided that-
- (a) where a notice under this paragraph has the effect of imposing any additional restrictions on the use of the apparatus, the provisions of paragraph (1) relating to the coming into force of notices shall apply in relation to the notice as if it had been a notice served under that paragraph; and
  - (b) where the Authority is satisfied that the apparatus has been altered or otherwise made to comply with the requirement referred to in regulation 7, it shall revoke the notice and forthwith break the seal (if any) on, or replace the part (if any) removed from, the apparatus.
- (4) No person, being a person who knows that a notice of the Authority under this regulation is in force with respect to any apparatus, shall use that apparatus, or cause or permit it to be used, in contravention of the notice.
- (5) Any person who contravenes the provisions of paragraph (4) shall be guilty of an offence and shall be liable on summary conviction-
- (a) where the apparatus with respect to which the notice was given was sealed or a part of it was removed under and in accordance with paragraph (2), for the first such offence under this sub-paragraph, to a fine at level 3 and to imprisonment for 3 months, and, for any subsequent such offence under this sub-paragraph to a fine at level 4 and to imprisonment for 6 months; and
  - (b) in any other case, for the first such offence under this sub-paragraph, to a fine at level 2, and, for any subsequent such offence under this sub-paragraph, to a fine at level 3:

Provided that no person shall be convicted of an offence under this paragraph if it is made to appear to the court that at the time of the use of the apparatus in contravention of the notice an application had been made in writing

to the Authority for revocation of the notice and that the Authority had, without reasonable cause (the burden of proof whereof shall be upon the Authority), failed or neglected to revoke the notice within a reasonable time after receipt of the application for revocation. (L.N. 256 of 1994)

(17 of 2011 s. 28; E.R. 1 of 2013)

Regulation:	6	<b>Entry and search of premises, etc.</b>	E.R. 1 of 2013	25/04/2013
-------------	---	---	----------------	------------

Where a magistrate is satisfied by information on oath-

- (a) that there is reasonable ground for believing that, on any specified premises or in any specified vessel, aircraft or vehicle, apparatus to which these regulations apply is to be found which does not comply with the requirement applicable to it under these regulations; and
- (b) that it is necessary to enter those premises, or that vessel, aircraft or vehicle, and to examine or test any apparatus to which these regulations apply which may be found therein or thereon for the purpose of determining whether any such apparatus does or does not comply with the requirement applicable to it under these regulations; and
- (c) that, within fourteen days before the date of the application to such magistrate, access to the premises, vessel, aircraft or vehicle for the purpose aforesaid has been demanded by, or permission to examine any such apparatus as aforesaid which has been found therein or thereon has been requested by, the Authority or any public officer authorized in writing in that behalf by the Authority and producing sufficient documentary evidence of identity and, in the case of a public officer authorized as aforesaid, of the officer's authority, but in either case has been unreasonably refused,

the magistrate may issue his warrant empowering the Authority or any public officer or officers authorized in writing in that behalf by the Authority and named in such authorization to enter the premises or, as the case may be, the vessel, aircraft or vehicle and any premises on which it may be and to search the premises, vessel, aircraft or vehicle with a view to discovering whether any apparatus to which these regulations apply is situate thereon or therein, and, if the Authority, public officer or officers find any such apparatus thereon or therein, to examine and test it with a view to determine whether it does or does not comply with the requirement applicable to it under these regulations.

(17 of 2011 s. 28)

Regulation:	7	<b>Requirement</b>	E.R. 1 of 2013	25/04/2013
-------------	---	--------------------	----------------	------------

- (1) The requirement referred to in regulations 3 and 4 is that the apparatus shall be so designed, constructed, assembled and installed, and that such precautions shall be taken in relation to it (by means of the fitting of suppressors or otherwise), as to ensure that when that apparatus is used, at any frequency within the defined frequency range-
  - (a) the interference voltage at the electric supply line or aerial terminals of the apparatus does not exceed the limit of interference voltage specified in Schedule 1 for that frequency range;
  - (b) the interference field strength or interference power (where applicable) of the electromagnetic energy radiated in any direction from the apparatus or its associated cables does not exceed the limit of interference field strength or interference power specified in Schedule 1, for that frequency range and at any distance not less than the given distance for the same frequency range; or
  - (c) the insertion loss (where applicable) of any interference suppression device fitted into the apparatus does not fall below the minimum value specified in Schedule 1 for that frequency range,
 in respect of the class or subdivision of the class of apparatus (as the case may be) to which the apparatus concerned belongs.
- (2) In paragraph (1)-
  - (a) **defined frequency range** (已界定的頻率範圍) means, in relation to any apparatus belonging to a class or subdivision of a class of apparatus referred to in Schedule 1, the frequency range or, where there is more than one, any of the frequency ranges specified in respect of such class or subdivision in the column headed "Frequency Range";
  - (b) **given distance** (給定距離) means, in relation to any apparatus belonging to a class or subdivision of a class of apparatus referred to in Schedule 1, the distance specified in that Schedule for the limit of interference field strength in respect of such class or subdivision and for the relevant frequency range.
- (3) The requirement in paragraph (1) shall be deemed to be complied with for the purposes of regulations 3 and 4, in

the case of a sale, offer or advertisement for sale, letting on hire, offer or advertisement for letting on hire or use of a fluorescent lamp or luminaire, if the person selling, offering or advertising for sale, letting on hire, offering or advertising for letting on hire or using, as the case may be, the apparatus, establishes-

- (a) that suppressors were fitted to the apparatus by the manufacturer, assembler or importer;
- (b) that the suppressors so fitted remained fitted to the apparatus at the time of the sale, letting on hire, offer or advertisement for letting on hire or use, as the case may be, or that suppressors having the same electrical characteristics had been correctly fitted to the apparatus at that time in substitution for those fitted as aforesaid, and in either case that the suppressors were then in good electrical and mechanical repair and condition; and
- (c) that the apparatus at the time of the sale, offer or advertisement for sale, letting on hire, offer or advertisement for letting on hire or use, as the case may be, consisted of the same components as those which were fitted at the time when the apparatus was manufactured or assembled, or that any components which had been substituted for those components had the same electrical characteristics and had been correctly fitted.

(L.N. 153 of 1993)

Regulation:	7A	<b>Transitional</b>	E.R. 1 of 2013	25/04/2013
-------------	----	---------------------	----------------	------------

- (1) During the period of 12 months beginning on the date of commencement of the Telecommunication (Control of Interference) (Amendment) Regulation 1993 (L.N. 153 of 1993), the requirement referred to in regulation 7 shall be deemed to be complied with in respect of any apparatus, if the apparatus concerned is so designed, constructed, assembled and installed, and that such precautions are taken in relation to it (by means of the fitting of suppressors or otherwise), as to ensure that when the apparatus is used, at any frequency within the defined frequency range-
  - (a) the interference voltage (where applicable) at the electric supply line terminals of the apparatus does not exceed the limit of interference voltage specified in Schedule 2 for that frequency range; or
  - (b) the interference field strength (where applicable) of the electromagnetic energy radiated in any direction from the apparatus does not exceed the limit of interference field strength specified in Schedule 2 for that frequency range at any distance not less than the given distance for the same frequency range,
 in respect of the class or subdivision of the class of apparatus to which the apparatus concerned belongs.
- (2) In paragraph (1)-
  - (a) **defined frequency range** (已界定的頻率範圍) means, in relation to any apparatus belonging to a class or subdivision of a class of apparatus referred to in Schedule 2, the frequency range or, where there is more than one, any of the frequency ranges specified in respect of such class or subdivision in the column headed "Frequency Range" in that Schedule;
  - (b) **given distance** (給定距離) means, in relation to any apparatus belonging to a class or subdivision of a class of apparatus referred to in Schedule 2, the distance specified in that Schedule for the limit of interference field strength in respect of such class or subdivision and for the relevant frequency range.

(L.N. 153 of 1993)

Regulation:	8	<b>Measurement and computation of noise voltage and field-strength</b>	E.R. 1 of 2013	25/04/2013
-------------	---	--	----------------	------------

For the purposes of these regulations and the measurement and computation of interference voltage, interference field strength, interference power and insertion loss-

- (a) the Authority shall be the sole authority by which measurements are made;
- (b) the Authority shall determine the measuring apparatus to be used, the method by which and conditions under which tests are to be made and the manner to be used in computing interference voltage, interference field strength, interference power and insertion loss from readings afforded by the measuring apparatus; and shall supply to any person applying therefor, information as to any of the matters referred to in this paragraph; and
- (c) the Authority may use methods of statistical sampling recommended by the International Special Committee on Radio Interference, in connection with testing or examining mass produced apparatus for the purpose of determining whether the apparatus being investigated complies with the requirements of

regulation 7. (L.N. 153 of 1993)

(L.N. 153 of 1993; E.R. 1 of 2013)

Regulation:	9	<b>Deliberate interference</b>	E.R. 1 of 2013	25/04/2013
-------------	---	--------------------------------	----------------	------------

- (1) Any person who uses any apparatus for the purpose of interfering with the working of any apparatus for telecommunications shall be guilty of an offence and shall be liable on summary conviction to a fine at level 4 and to imprisonment for 12 months. (L.N. 256 of 1994; 36 of 2000 s. 28)
- (2) This regulation shall apply whether or not the apparatus is an apparatus within any class specified in regulation 2, and, if within any such class, whether or not it complies with the requirement referred to in regulation 7, and whether or not any notice under regulation 5 has been given with respect to it or, if given, has been varied or revoked.

(E.R. 1 of 2013)

Regulation:	10	<b>Amendment of Schedule</b>	E.R. 1 of 2013	25/04/2013
-------------	----	------------------------------	----------------	------------

- (1) Subject to the provisions of paragraph (2), the Authority may from time to time, by order published in the Gazette, amend the particulars specified in Schedule 1, or insert new particulars therein, in respect of any class of apparatus specified in regulation 2(1). (L.N. 153 of 1993)
- (2) No order shall be made under paragraph (1) without the prior approval of the Governor in Council if the effect of such order would be to impose, for or in respect of any class of apparatus, a limit of interference in respect of which no recommendation has been made by, or a limit of interference which would tolerate less interference than the tolerable limits indicated by the recommendation of, the International Special Committee on Radio Interference (Comite international special des perturbations radio-electriques) for or in respect of such class.
- (3) For the purpose of regulation 3 (but not for the purpose of any other provision of these regulations unless so provided in the order), an order made under this regulation shall not come into operation before the expiry of a period of 6 months, or such longer period as may be specified therein, from the date of publication of the order in the Gazette.

(E.R. 1 of 2013)

Schedule:	1	<b>Limits of Interference Voltage, Interference Field Strength, Interference Power, or Insertion Loss for the purposes of Regulation 7</b>	E.R. 1 of 2013	25/04/2013
-----------	---	--	----------------	------------

[regulations 2, 7 & 10]

## Part 1

### Ignition Apparatus of Internal Combustion Engines

Limits of radiated interference based on quasi-peak measurements in the frequency range 30 MHz to 1000 MHz, measured at a distance of 10 m.

Frequency Range (MHz)	Field Strength Limit (Quasi-peak) (dB $\mu$ V/m)
30-75	34
75-400	34-45 <sup>[1]</sup>
400-1000	45

Note: [1] The limit increases linearly with the logarithm of the frequency.

## Part 2

### Information Technology Equipment

1. Limits of mains terminal interference voltage in the frequency range 0.15 MHz to 30 MHz for class A equipment\*.

Frequency Range (MHz)	Interference Voltage Limit (dB $\mu$ V) <sup>[1]</sup>	
	Quasi-peak	Average
0.15 to 0.5	79	66
0.5 to 30	73	60

Note: [1] The lower limit shall apply at the transition frequency.

2. Limits of mains terminal interference voltage in the frequency range 0.15 MHz to 30 MHz for class B equipment\*\*.

Frequency Range (MHz)	Interference Voltage Limit (dB $\mu$ V) <sup>[2]</sup>	
	Quasi-peak	Average
0.15 to 0.5	66 to 56 (3)	56 to 46 <sup>[3]</sup>
0.5 to 5	56	46
5 to 30	60	50

Note: [2] The lower limit shall apply at the transition frequency.

[3] The limit decreases linearly with the logarithm of the frequency.

3. Limits of radiated interference field strength in the frequency range 30 MHz to 1000 MHz at a test distance of 30 m for class A equipment\*.

Frequency Range (MHz)	Field Strength Limit (Quasi-peak) (dB $\mu$ V/m) <sup>[4]</sup>
30 to 230	30
230 to 1000	37

Note: [4] The lower limit shall apply at the transition frequency.

4. Limits of radiated interference field strength in the frequency range 30 MHz to 1000 MHz at a test distance of 10 m for class B equipment\*\*.

Frequency Range (MHz)	Field Strength Limit (Quasi-peak) (dB $\mu$ V/m) <sup>[5]</sup>
30 to 230	30
230 to 1000	37

Note: [5] The lower limit shall apply at the transition frequency.

\* Equipment used or located in commercial/non-residential premises.

\*\* Equipment used or located in domestic/residential premises.

### Part 3

#### Sound and Television Broadcast Receivers and Associated Equipment

Limits of conducted interference and radiated interference.

1. Limits of interference voltage injected into the mains:

Equipment Type	Frequency Range (MHz)	Interference Voltage Limit (dB $\mu$ V) <sup>[1][2]</sup>	
		Quasi-peak <sup>[3]</sup>	Average <sup>[3]</sup>
Sound and television receivers and	0.15-0.5	66-56 <sup>[4]</sup>	56-46 <sup>[4]</sup>
	0.5-5	56	46

associated equipment <sup>[5]</sup>	5-30	60	50
-------------------------------------	------	----	----

- Note: [1] The higher value measured with and without the aerial input outer conductor screen connected to earth is considered.  
 [2] At the transition frequency, the lower limit applies.  
 [3] If the limits for the average detector are met when using the quasi-peak detector, then the limits for the measurements with the average detector are considered to be met.  
 [4] Limits decreasing linearly with the logarithm of the frequency.  
 [5] Television receivers with teletext facilities should be tested in teletext mode with teletext picture.

2. Limits of radiated interference due to the local oscillator at its fundamental and harmonic frequencies and due to all other sources at a distance of 3 m:

Equipment Type	Source	Frequency (MHz)	Field Strength Limit (dB $\mu$ V/m) <sup>[6]</sup>	
			Quasi-peak	
Television receivers and video recorders	Local oscillator	300-1000	Fundamental	56 <sup>[7]</sup>
	Other	121.5	Harmonics	56
		243		40
Frequency modulation sound receivers <sup>[8]</sup>	Local oscillator	30-300	Harmonics	47
		300-1000	Fundamental	60
			Harmonics	52
			Harmonics	56

- Note: [6] At the transition frequency, the lower limit applies.  
 [7] If a standard intermediate frequency is used, the limit at the local oscillator fundamental frequency of television receivers and video recorders can be relaxed to 70.  
 [8] For car radio receivers no radiation limits apply.

3. Limits of interference voltage at the aerial terminals:

Equipment Type	Source	Frequency (MHz)	Interference Voltage Limit <sup>[9][10]</sup> (dB $\mu$ V) 75 $\Omega$	
			Quasi-peak	
Television receivers and video recorders working in channels between 30MHz and 1 GHz	Local oscillator	30-950	Fundamental	46
		950-1750	Harmonics	46
	Other	30-1750	Harmonics	54 <sup>[11]</sup>
Television receivers for broadcast satellite transmission: tuner units at 1st IF <sup>[12]</sup>	Local oscillator	30-950	Fundamental	46
		950-1750	Fundamental	54 <sup>[11]</sup>
	Other	30-1750		46
Frequency modulation sound receivers	Local oscillator	30-300	Harmonics	50
		300-1000	Harmonics	52
		30-1000		46
Frequency modulation car radios	Local oscillator	30-300	Fundamental	66
		300-1000	Harmonics	59
				Harmonics

- Note: [9] The interference voltage limits for receivers with nominal impedance other than 75  $\Omega$  are calculated according to the following formula:

$$L_z = L_{75} + 10 \log (Z/75) \text{ dB } \mu \text{ V}$$

where  $Z$  = nominal impedance in  $\Omega$

$L_{75}$  = interference voltage limit for 75  $\Omega$  nominal impedance

$L_z$  = interference voltage limit for  $Z$  nominal impedance

[10] At the transition frequency, the lower limit applies.

[11] The value of 54 dB  $\mu$  V is intended to be reduced to 46 dB  $\mu$  V.

[12] "1st IF" stands for "first intermediate frequency". For tuner units, "aerial terminals" (天線接線端子) means "1st IF input terminals".

## Part 4

### Fluorescent Lamps and Luminaires

1. Minimum value of insertion loss of luminaires with or without starters designed for the following types of fluorescent lamps:

- linear fluorescent lamps with a nominal diameter of 15 mm, 25 mm or 38 mm;
- circular fluorescent lamps with a nominal diameter of 28 mm or 32 mm;
- U-type fluorescent lamps with a nominal diameter of 15 mm, 25 mm or 38 mm;
- single-capped fluorescent lamps, without integrated starter and with a nominal diameter of 15 mm.

Frequency (kHz)	160	240	550	1000	1400
Minimum values of insertion loss (dB)	28	26	24	22	20

2. Mains terminal interference voltages for all types of luminaires for which the insertion loss limits do not apply shall comply with the mains terminal voltage limits as shown in the table below. These limits shall also apply to self-ballasted fluorescent lamps.

Frequency Range	Interference Voltage Limit <sup>[4]</sup> (dB $\mu$ V)	
	Quasi-peak	Average <sup>[2]</sup>
9 kHz-50 kHz <sup>[3]</sup>	110	56-46 <sup>[3]</sup>
50 kHz-150 kHz <sup>[3]</sup>	90-80 <sup>[1]</sup>	46
150 kHz-0.5 MHz	66-56 <sup>[3]</sup>	50
0.5 MHz-5 MHz	56	
5 MHz-30 MHz	60	

Note: [1] The limit decreases linearly with the logarithm of the frequency in the ranges 50 kHz to 150 kHz and 150 kHz to 0.5 MHz.

[2] If it is certain that only broadband interference sources are present, then the average measurements need not be made.

[3] The limit values in the frequency range may be modified at a later date.

[4] At the transition frequencies, the lower limit applies.

## Part 5

### Household Electrical Appliances, Similar Electrical Apparatus and Portable Tools

Limits of radio interference in the range 0.15 MHz to 300 MHz.

#### 1. Continuous conducted interference

Limits of continuous conducted interference voltage for the frequency range 0.15 MHz to 30 MHz.

(a) Household electrical appliances and electrical apparatus causing similar interference:

Frequency Range (MHz)	Interference Voltage Limit (dB $\mu$ V) <sup>[1]</sup>	
	Quasi-peak	Average*

0.15-0.5	66-56 <sup>[2]</sup>	59-46 <sup>[2]</sup>
0.5-5	56	46
5-30	60	50

Note: [1] At the transition frequency, the lower limit applies.

[2] The voltage limit decreases linearly with the logarithm of the frequency.

(b) Electrical apparatus with regulating controls incorporating semi-conductor devices:

Frequency Range (MHz)	Interference Voltage Limit (dB $\mu$ V) <sup>[3]</sup>			
	At mains terminals		At load terminals and at additional terminals	
	Quasi-peak	Average*	Quasi-peak	Average*
0.15-0.5	66-56 <sup>[4]</sup>	56-46 <sup>[4]</sup>	80	70
0.5-5	56	46	74	64
5-30	60	50	74	64

Note: [3] At the transition frequency, the lower limit applies.

[4] The voltage limit decreases linearly with the logarithm of the frequency.

(c) Portable tools

(i) with rated power of motor\*\* not exceeding 700 W:

Frequency Range (MHz)	Interference Voltage Limit (dB $\mu$ V) <sup>[5]</sup>	
	Quasi-peak	Average*
0.15-0.35	66-59 <sup>[6]</sup>	59-49 <sup>[6]</sup>
0.35-5	59	49
5-30	64	54

(ii) with rated power of motor\*\* above 700 W and not exceeding 1000 W:

Frequency Range (MHz)	Interference Voltage Limit (dB $\mu$ V) <sup>[5]</sup>	
	Quasi-peak	Average*
0.15-0.35	70-63 <sup>[6]</sup>	63-53 <sup>[6]</sup>
0.35-5	63	53
5-30	68	58

(iii) with rated power of motor\*\* above 1000 W:

Frequency Range (MHz)	Interference Voltage Limit (dB $\mu$ V) <sup>[5]</sup>	
	Quasi-peak	Average*
0.15-0.35	76-69 <sup>[6]</sup>	69-59 <sup>[6]</sup>
0.35-5	69	59
5-30	74	64

Note: [5] At the transition frequency, the lower limit applies.

[6] The voltage limit decreases linearly with the logarithm of the frequency.

## 2. Continuous radiated interference

Interference power limits for the frequency range 30 MHz to 300 MHz:

(a) Household appliances and similar apparatus:

Frequency Range (MHz)	Interference Voltage Limit (dB $\mu$ V)	
	Quasi-peak	Average*
30-300	45-55 <sup>[7]</sup>	35-45 <sup>[7]</sup>



Note: [7] The power limit increases linearly with the logarithm of the frequency.

(b) Portable tools

(i) with rated mains power\*\* up to and including 700 W:

Frequency Range (MHz)	Interference Voltage Limit (dB $\mu$ V)	
	Quasi-peak	Average*
30-300	45-55 <sup>[8]</sup>	35-45 <sup>[8]</sup>

(ii) with rated mains power\*\* above 700 W up to and including 1000 W:

Frequency Range (MHz)	Interference Voltage Limit (dB $\mu$ V)	
	Quasi-peak	Average*
30-300	49-59 <sup>[8]</sup>	39-49 <sup>[8]</sup>

(iii) with rated mains power\*\* above 1000 W:

Frequency Range (MHz)	Interference Voltage Limit (dB $\mu$ V)	
	Quasi-peak	Average*
30-300	55-65 <sup>[8]</sup>	45-55 <sup>[8]</sup>

Note: [8] The power limit increases linearly with the logarithm of the frequency.

\* If the average limit is met when using a quasi-peak detector receiver, the test unit shall be deemed to meet both limits and measurement with the average detector receiver need not be carried out.

\*\* The power of any heating device is to be excluded.

### 3. Discontinuous interference

The limits for continuous conducted interference specified in paragraph 1, as increased by the following amount, apply-

- (a) 44 dB (for  $N$  (Note 1)  $< 0.2$ );
- (b)  $20 \log_{10} 30/N$  dB (for  $0.2 \leq N \leq 30$ );
- (c) 0 dB (for  $N > 30$ ).

- Note-
1.  $N$  is the click rate determined from the formula  $N = n/T$ ,  $T$  being 120 minutes or the observation time in minutes, whichever is less to produce 40 clicks (Note 2), and  $n$  being the number of clicks registered during the observation time.
  2. A click is defined as a disturbance which-
    - (a) exceeds the maximum limit specified in paragraph 1;
    - (b) lasts not more than 200 ms; and
    - (c) is separated from a subsequent disturbance by at least 200 ms.
  3. The apparatus under test shall be deemed to comply with the maximum limit if not more than a quarter of the number of clicks registered during the observation time exceed such limit.

(L.N. 153 of 1993)

Schedule:	2	<b>Limits of Interference Voltage or Radiated Interference Field for the purposes of Regulation 7A*</b>	E.R. 1 of 2013	25/04/2013
-----------	---	---	----------------	------------

[regulation 7A]

\* Applicable only during the period of 1 year beginning on the commencement of the Telecommunication (Control of Interference) (Amendment) Regulation 1993 (L.N. 153 of 1993).

### Part 1

## Ignition Apparatus of Internal Combustion Engines

Limits of radiated interference based on quasi-peak measurement measured at a distance of 10 m.

Frequency Range (MHz)	Field Strength Limit ( $\mu$ V/m)
0.2-30	100
30-220	100

### Part 2

#### Sound and Television Broadcast Receivers

Limits of conducted interference and radiated interference.

#### 1. Conducted interference

- (a) AM sound broadcast receivers interference voltage injected into the mains

Frequency Range (MHz)	Interference Voltage Limit ( $\mu$ V)
0.2-1.605	1500

- (b) FM sound broadcast receivers and television broadcast receivers (local oscillator voltage at main terminals)

Frequency Range (MHz)	Interference Voltage Limit ( $\mu$ V)
30-220	500

- (c) Television broadcast receivers interference voltage injected into the mains (time-base terminal voltage)

Frequency Range (MHz)	Interference Voltage Limit ( $\mu$ V)
0.2-0.55	200
over 0.55-1.605	100

#### 2. Radiated interference

- (a) FM sound broadcast receivers and television broadcast receivers (local oscillator field)

Frequency Range (MHz)	Field Strength Limit at a distance of 3 m ( $\mu$ V/m)
30-100	300
over 100-220	500

- (b) Television broadcast receivers (time-base field)

Frequency Range (MHz)	Field Strength Limit at a distance of 3 m ( $\mu$ V/m)
0.2-1.605	100

### Part 3

#### Equipment Belonging to any Class of Apparatus specified in Regulation 2(1)(b), (d) or (e)

Limits of conducted interference and radiated interference.

#### 1. Conducted interference

Frequency Range (MHz)	Interference Voltage Limit ( $\mu$ V)
0.2-1.605	1500
over 30-220	750

## 2. Radiated interference

Frequency Range (MHz)	Field Strength Limit at a distance of 3 m ( $\mu$ V/m)
0.2-30	100
over 30-220	50

### Part 4

**Equipment, other than Equipment Belonging to any Class referred to in Part 1, 2 or 3, that is not connected to a Distribution System (配電系統)\***

\* *Distribution System* means any system for conveying electrical energy from one place to another.

Limits of radiated interference.

Frequency Range (MHz)	Field Strength Limit at a distance of 3 m ( $\mu$ V/m)
0.2-30	100
over 30-220	50

(L.N. 153 of 1993; E.R. 1 of 2013)