#### L.N. 72 of 2014

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

## **Contents**

Section		Page	
1.	Commencement		
2.	Telecommunications (Control of Interference) Regulations amended		
3.	Regulation 1A amended (interpretation)	B1977	
4.	Regulation 2 amended (application of regulations and classification of apparatus)	B1981	
5.	Regulation 3A added	B1985	
	3A. Manufacturers, assemblers and importers of certain boats and vehicles	B1985	
6.	Regulation 4 amended (users)	B1987	
7.	Regulation 5 amended (enforcement of regulations as to use)		
8.	Regulation 7 amended (requirement)	B1991	
9.	Regulation 7A repealed (transitional)	B1993	
10.	Regulation 7B added	B1993	
	7B. Transitional	B1993	
11.	Regulation 8 amended (measurement and computation of noise voltage and field-strength)	B1999	

L.N. 72 of 2014 B1975

Section			Page
12.	Regulation 8	3A added	<b>B</b> 1999
		ccess to standards and regulations specified in chedule 1	B1999
13.	Regulation 1	0 amended (amendment of Schedule)	B1999
14.	Schedule 1 s	ubstituted	B2003
	Schedule 1	Standards and Regulations for Purposes of Regulation 7	B2003
15.	radiated into	repealed (limits of interference voltage or erference field for the purposes of regulation	B2011
16.	Schedule 3 a	ıdded	B2011
	Schedule 3	Limits of Interference Voltage, Interference Field Strength, Interference Power or Insertion Loss for Purposes of Regulation 7B	B2011

# 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;

Section 4

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**

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- (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.".

L.N. 72 of 2014

Section 11 B1999

## 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.".

L.N. 72 of 2014 B2003

Section 14

(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

47 CFR Part 15, 1 October 2006 Edition

Section 14

9

I N 72 of 2014

B2007

10. 47 CFR Part 15, 1 October 2007 Edition 47 CFR Part 15, 1 October 2008 Edition 11. 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 47 CFR Part 15, 1 October 2012 Edition 15. 47 CFR Part 15, 1 October 2013 Edition 16. Part 4 Sound and Television Broadcast Receivers and **Associated Equipment** 13:2001 1. CISPR with Amendment 1:2003 and Amendment 2:2006 2. CISPR 13:2009 3. 55013:2001 Amendment EN with 1:2003 and Amendment 2:2006 4. GB 13837-2003 5. 47 CFR Part 15, 1 October 2005 Edition 47 CFR Part 15, 1 October 2006 Edition 6. 47 CFR Part 15, 1 October 2007 Edition 7. 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 47 CFR Part 15, 1 October 2011 Edition 11. 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".

L.N. 72 of 2014

Section 15 B2011

## 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) (dBµV/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**

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

Frequency Range	Interference Voltage Limit (dBµV) <sup>[1]</sup>		
(MHz)	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.

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

Frequency Range	Interference Voltage Limit (dBµV) <sup>[2]</sup>		
(MHz)	Quasi-peak	Average	
0.15-0.5	66–56[3]	56–46[3]	
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.

3. 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) (dBµV/m) <sup>[4]</sup>
30–230	30
230–1 000	37

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

4. 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) (dBµV/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.

	Frequency	Interference Lim (dBµV	it
Equipment Type	Equipment Range		Average <sup>[3]</sup>
Sound and television receivers and associated equipment <sup>[5]</sup>	0.15–0.5 0.5–5 5–30	66–56 <sup>[4]</sup> 56 60	56–46 <sup>[4]</sup> 46 50

- [1] The higher value measured with and without the aerial input outer conductor screen connected to earth is considered.
- [2] The lower limit applies at the transition frequency.
- [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] The limit decreases 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 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) (dBµV/m) <sup>[6]</sup>
Television receivers and video recorders	Local oscillator Other	300–1 000 121.5 243	Fundamental 56 <sup>[7]</sup> Harmonics 56  40 47
Frequency modulation sound receivers <sup>[8]</sup>	Local oscillator	30–300 300–1 000	Fundamental 60 Harmonics 52 Harmonics 56

- [6] The lower limit applies at the transition frequency.
- 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  $70~dB\mu V/m$ .
- [8] 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 Other	30–950 950–1 750 30–1 750	Fundamental 46 Harmonics 46 Harmonics 54
Television receivers for broadcast satellite transmission: tuner units at 1st IF <sup>[11]</sup>	Local oscillator Other	30–950 950–1 750 30–1 750	Fundamental 46 Fundamental 54 46
Frequency modulation sound receivers	Local oscillator Other	30–300 300–1 000 30–1 000	Fundamental 54 Harmonics 50 Harmonics 52
Frequency modulation car radios	Local oscillator	30–300 300–1 000	Fundamental 66 Harmonics 59 Harmonics 52

The interference voltage limits for receivers with nominal impedance other than 75  $\Omega$  are calculated according to the following formula—

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

where  $Z = nominal impedance in <math>\Omega$ 

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

L<sub>z</sub> = interference voltage limit for Z nominal impedance

- [10] The lower limit applies at the transition frequency.
- [11] "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—
  - (a) linear fluorescent lamps with a nominal diameter of 15 mm, 25 mm or 38 mm;
  - (b) circular fluorescent lamps with a nominal diameter of 28 mm or 32 mm;
  - (c) U-type fluorescent lamps with a nominal diameter of 15 mm, 25 mm or 38 mm;
  - (d) 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

L.N. 72 of 2014 B2025

Section 16

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.

	Interference Voltage Limit (dBµV) <sup>[1]</sup>		
Frequency Range	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	

- [1] The lower limit applies at the transition frequency.
- [2] If it is certain that only broadband interference sources are present, then the average measurements need not be made.
- [3] 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	Interference Voltage Limit (dBµV) <sup>[1]</sup>	
(MHz)	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

- [1] The lower limit applies at the transition frequency.
- [2] The limit decreases linearly with the logarithm of the frequency.
- (b) Electrical apparatus with regulating controls incorporating semi-conductor equipment:

	Interference Voltage Limit (dBµV) <sup>[3]</sup>			
Frequency	At mains terminals		and at a	terminals dditional inals
Range (MHz)	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

- [3] The lower limit applies at the transition frequency.
- [4] The limit decreases linearly with the logarithm of the frequency.

### (c) Portable tools

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

Frequency Range	Interference Voltage Limit (dBµV) <sup>[5]</sup>	
(MHz)	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 1 000 W:

		ce Voltage Limit dBµV) <sup>[5]</sup>	
(MHz)	Quasi-peak	Average#	
0.15-0.35	70–63[6]	63–53 <sup>[6]</sup>	
0.35–5	63	53	
5–30	68	58	

(iii) with rated power of motor## above 1 000 W:

	Interference Voltage Limit	
Frequency Range	$(dB\mu V)^{[5]}$	
(MHz)	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

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

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	Interference Power Limit (dBpW)	
(MHz)	Quasi-peak	Average#
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## not exceeding 700 W:

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

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

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

## (iii) with rated mains power## above 1 000 W:

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

- [8] The 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 is deemed to meet both limits, and measurement with the average detector receiver need not be carried out.
- \*\*\* 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  $0.2 \le N \le 30$ );
- (c) 0 dB (for N > 30).
- 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.
- [10] 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.

[11] 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.".

Kinnie WONG
Clerk to the Executive Council

#### COUNCIL CHAMBER

13 May 2014

L.N. 72 of 2014 B2037

## **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.