

ICS 33.100
CCS L 06



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 17743-2007

**[GB/T 17743-2007] Limits and methods of measurement of radio
disturbance characteristics of electrical lighting and similar
equipment**

(English Translation)

Issued on: November 12, 2007

Implemented on: November 1, 2009

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine**

Table of Contents

Foreword...	3
1 Scope...	7
2 Normative references...	8
3 Terms and definitions...	9
4 Limits...	9
5 Application of the limits...	12
6 Operating conditions for lighting equipment...	21
7 Method of insertion loss measurement...	22
8 Method of measurement of disturbance voltages...	25
9 Method of measurement of radiated electromagnetic disturbances...	31
10 Interpretation of CISPR radio disturbance limits...	33
Annex A...	47
Annex B...	52
Annex C...	56

Foreword

All technical content of this Standard is mandatory.

This Standard is identical to CISPR 15.2005 "Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment" and the 2006 No.1 Amendment 1.

This Standard covers all content of GB 15734-1995 "Limits and methods of measurement of radio disturbance characteristics of electronic lighting control equipment".

Since the implementation of this Standard, it replaces GB 17743-1999 "Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment".

Compared with GB 17743-1999, the main changes are as follows.

- Deleted "radio disturbance limits of electronic dimming device used for

stage, TV and entertainment, of which the control object is incandescent lamp, shall be in accordance with GB 15734 Limits and methods of measurement of radio disturbance characteristics of electronic lighting control equipment" in Foreword;

- Deleted CISPR Foreword;
- Added "Excluded from the scope of this Standard are. lighting equipment operating in the ISM frequency bands (as defined in Resolution 63 (1979) of the ITU Radio Regulation)" (see Clause I);
- "Reference standards" was modified as "Normative references" (see Clause II);
- Rule of normative references was modified as dated references and undated references (see Clause II);
- Normative reference GB 7000.1-1996 was modified to GB 7000.1-2007 "Luminaires - Part 1.General requirements and tests" (IEC 60598-1.2003, IDT) (see Clause II);
- Normative reference CISPR 16-1.1993 was modified as.
CISPR 16-1-1.2003 Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-1.Radio disturbance and immunity measuring apparatus - Measuring apparatus (see Clause 2);
CISPR 16-1-2.2003 Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-2.Radio disturbance and immunity measuring apparatus - Ancillary equipment - Conducted disturbances (see Clause 2);
CISPR 16-1-4.2003 Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-4.Radio disturbance and immunity measuring apparatus - Ancillary equipment - Radiated disturbances (see Clause 2);
- Added CISPR 16-2-1.2003 Specification for radio disturbance and immunity

measuring apparatus and methods - Part 2-1. Methods of measurement of disturbances and immunity - Conducted disturbance measurements in

"Normative references" (see Clause 2);

- Added CISPR 22.2005 Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement in

"Normative references" (see Clause 2);

- Added IEC 61000-4-6.2003 Electromagnetic compatibility (EMC) - Part 4-

6 Testing and measurement techniques - Immunity to conducted

disturbances, induced by radio-frequency fields;

- "Definitions" was modified as "Terms and definitions" (see Clause 3);

- Modified Table 2a - Disturbance voltage limits at mains terminals; deleted "NOTE In Japan, the limits in the frequency range 9 kHz to 150 kHz do not apply" (see 4.3.1);

- Added Table 2c - Disturbance voltage limits at control terminals (see 4.3.3);

- Modified Table 3a - Radiated disturbance limits in the frequency range 9 kHz to 30 MHz, and deleted "NOTE In Japan, the limits for frequencies 9 kHz to 150 kHz do not apply" (see 4.4.1);

- Added the frequency range 30 kHz to 300 MHz and Table 3b (see 4.4.2);

- Deleted "4.5 Limits at specified frequencies";

- Added limits and measurement method for independent starters and igniters (see 5.3.6, 8.9);

- "NOTE Requirements for lighting equipment used in road vehicles are dealt with by CISPR subcommittee D." in CISPR 15.2005 was modified as "NOTE Requirements for lighting equipment used in road vehicles are dealt with by Subcommittee D of National Technical Committee on Radio Interference of Standardization Administration of China" (see 5.7.1);

- Added limits and measurement method for self-contained emergency lighting luminaires (see 5.9, 8.8, 9.8);

- Added limits and measurement method for replaceable starters for fluorescent lamps (see 5.10);
- Added measurement method for supply voltage and frequency (see 6.3);
- Modified measurement method for disturbance voltage of light regulator (see 8.1.4);
- Added measurement method for floor lamps (see 8.2);
- Modified independent transformers and convertors for incandescent lamps (see 8.4.2);
- Modified "measuring arrangement and procedure" to "measuring arrangement and procedure related to Subclause 4.4.1 and 4.4.2" (see 9.1, 9.2);
- Modified magnetic component loop antenna (see 9.1.1);
- Modified measurement method for the radiated electromagnetic disturbance of light regulator (see 9.1.4);
- Annex B was modified from "Magnetic induction current method" to "Independent method of measurement of radiated disturbances";
- Relative sensitivity and conversion factors of large loop antenna (LLA) in Annex C was modified to "Example test arrangements during CISPR

22.2005 radiated disturbance measurement";

- Light regulation devices in Figure 5 and Figure 6 were modified as remote terminals.

Annex A, Annex B and Annex C of this Standard are normative.

This Standard was proposed by National Technical Committee on Radio Interference of Standardization Administration of China.

This Part shall be under the jurisdiction of Subcommittee F of National Technical Committee on Radio Interference of Standardization Administration of China.

The drafting organizations of this Standard. Shanghai Research Institute for Lighting & Fitting, Guangzhou Electric Apparatus Research Institute, Philips