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

GB/T 30104.221-2026

**Digital addressable lighting interface - Part 221: Particular
requirements for control gear - Demand response(device type
20)**

数字可寻址照明接口 第221部分：控制装置的特殊要求 需求响应（设备类型20）
(English Translation)

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is Part 221 of GB/T 30104 "Digital Addressable Lighting Interfaces". GB/T 30104 has the following parts published.

- Part 101: General Requirements for System Components;
- Part 102: General Requirements for Control Devices;
- Part 103: General Requirements for Control Equipment;
- Part 104: General Requirements for Wireless and Other Wired System Components;
- Part 150: Special Requirements for Auxiliary Power Supply;
- Part.201.Special Requirements for Control Devices for Fluorescent Lamps (Equipment Type 0);
- Part 202: Special Requirements for Control Devices - Self-Contained Emergency Lighting (Equipment Type 1);

- Part 203: Special Requirements for Control Devices Discharge lamps (excluding fluorescent lamps) (Equipment Type 2);
- Part 204: Special Requirements for Control Devices - Low-Pressure Halogen Tungsten Lamp (Equipment Type 3);
- Part 205: Special Requirements for Control Devices. Incandescent Lamp Power Supply Voltage Controller (Equipment Type 4);
- Part 206: Special Requirements for Control Devices. Digital Signal Conversion to DC Voltage (Equipment Type 5);
- Part 207: Special Requirements for Control Devices - LED Modules (Equipment Type 6);
- Part 208: Special Requirements for Control Devices (Switching Function) (Equipment Type 7);
- Part 209: Special Requirements for Control Devices - Color Control (Equipment Type 8);
- Part 220: Special Requirements for Control Devices - Central Power Supply and Emergency Operation (Equipment Type 19);
- Part 221: Specific Requirements and Responses for Control Devices (Equipment Type 20);
- Part 222: Special Requirements for Control Devices - Thermal Lamp Protection (Equipment Type 21);
- Part 224: Special Requirements for Control Devices - Non-replaceable Light Sources (Equipment Type 23);
- Part 250: Special Requirements for Integrated Power Supply (Equipment Type 49);
- Part 301: Special Requirements for Input Device Buttons;
- Part 302: Special Requirements for Input Devices - Absolute Input Devices;
- Part 303: Special Requirements for Input Device Occupancy Sensors;
- Part 304: Special Requirements for Input Devices - Optical Sensors this document is modified to adopt IEC 62386-221:2018 "Digital addressable lighting interfaces - Part 221: Particular requirements for control devices".

Demand Response (Equipment Type 20) the technical differences between this document and IEC 62386-221:2018, and the reasons therefor, are as follows.

---IEC 62386-101:2014/AMD1.2018 has been replaced with the normatively referenced GB/T 30104.101-2025 (see GB/T 30104.101-2025).

(11.3.4, 11.3.5, 11.3.6), to adapt to my country's technical conditions and increase operability;

---IEC 62386-102:2014/AMD1.2018 (see 4.1) has been replaced by the normatively referenced GB/T 30104.102-2025.

4.2, Chapters 5, 6, 7, 8, 9.1, 9.5.2, 9.5.3, Chapter 10, 11.1), to adapt to my country's technological conditions.

Increase operability;

---IEC 62386-101 (see Chapter 3) has been replaced with the normatively referenced GB/T 30104.101 to adapt to my country's technical requirements.

Add components and increase operability;

---IEC 62386-102 (see Chapter 3, 9.2, 9.5.2) has been replaced with the normatively referenced GB/T 30104.102 to adapt to my country's national standards.

Technical conditions and increased operability.

The following editorial changes have been made to this document.

--- Formula numbers have been added (see 9.4.2).

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China National Light Industry Council.

This document is under the jurisdiction of the National Technical Committee on Standardization of Lighting Appliances (SAC/TC224).

Introduction

GB/T 30104 "Digital Addressable Lighting Interface" (all parts) describes a method for controlling electronic lighting equipment via digital signals.

The proposed bus system will consist of the following components.

Part 103 provides general requirements for control devices; Part 104 provides general requirements for control equipment.

General requirements for wireless and other wired system components; Part 150 specifies the requirements for auxiliary power supply, which may be independent.

It can be built-in or integrated into a control device or control equipment.

Special requirements for control devices for specific types of light sources.

Special requirements for each type of input device.

Use all the parts together.

GB/T 30104 is published as a series of standards, divided into several parts, providing

specific regulations for various types of equipment, with the aim of facilitating the standardization process.

Use and maintenance.

The structure and relationships of the series of standards are shown in Figure 1 below.

Figure 1 Overview of GB/T 30104

The other sections clearly define the scope of application of this clause. Additional requirements may also be included in the other sections where necessary.

This includes requirements for control devices that are not applicable to specific types of lamps covered in Part 221.

Unless otherwise stated, all numbers used in this document are decimal numbers. Hexadecimal numbers are given in 0xVV format.

The "x" in the number represents "any value".

Use the following typographical methods.

Variable. "variable name" or "variable name [3.0]", only the 3rd to 0th characters of the variable name are given.

Range of values. [minimum, maximum].

Command. "Command name".

Digital addressable lighting interface Part 221: Special Requirements for Control Devices Demand Response (Equipment Type 20)

1 Scope

This document describes the demand response of control devices that reduce electricity load during peak hours to avoid additional generation capacity demand.

method.

This document applies to control devices that support demand response functionality.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.