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

GB/Z 30556.3-2017

**Electromagnetic compatibility -- Installation and mitigation
guidelines -- HEMP protection concepts**

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Foreword

The Electromagnetic Compatibility Installation and Mitigation Guidelines are divided into the following sections.

--- GB/T 30556.7-2014 Electromagnetic compatibility installation and mitigation guidelines Enclosure electromagnetic disturbance protection class (EM code).

This section GB /Z 30556 Part 3.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This section uses the translation method identical with IEC /T R61000-5-3.1999 "Electromagnetic Compatibility Installation and Mitigation Guidelines Part 5-3.

High-altitude nuclear electromagnetic pulse (HEMP) protection concept. "

The documents of our country that are consistent with the corresponding international documents that are normative references in this section are as follows.

High pressure test techniques - Part 2. Measuring system (IEC 60060-2.1994, IDT);

--- GB/T 17626.24-2012 electromagnetic compatibility test and measurement techniques HEMP conduction disturbance protection test methods

(IEC 61000-4-24.1997);

--- GB/T 18039.8-2012 Electromagnetic compatibility environment High altitude nuclear electromagnetic pulse (HEMP) Environmental Description Conducted Harassment

(IEC 61000-2-10.1998, IDT);

--- YD/T 2191.4-2012 Telecommunication equipment installation and mitigation measures EMC - Part 4. High altitude electromagnetic pulse

(HEMP) Immunity Technical Requirements for Overhead Electromagnetic Pulse Radiated Interference Protection Devices (IEC /T R61000-5-4.1996,

MOD).

This part of the National Electromagnetic Compatibility Standardization Technical

Committee (SAC/TC246) and focal point.

This part of the drafting unit. Ministry of Industry and Information Technology Institute of Electronics Industry Standardization.

1 Scope

This part of GB /Z 30556 defines the concept of protection of electromagnetic pulses generated by high-altitude nuclear explosion (hereinafter referred to as HEMP) and gives

Related information.

The purpose of this section is to provide some groundwork for the following areas.

- Civil Facilities HEMP adequate protection design;
- The existing protection against the HEMP strength assessment;
- Comparison of HEMP protection and lightning protection requirements, the purpose is to show whether they can low-cost combination;
- Emphasized the difference between HEMP protection and lightning protection requirements, the purpose is to assess when there is no additional lightning protection

Protective measures HEMP results.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 4365-2003 Electrotechnical terminology Electromagnetic compatibility [IEC 60050 (161) .1990, IDT]

Electromagnetic compatibility (EMC) test and measurement techniques Surge (immunity) immunity test (IEC 61000-4-5).

2005, IDT)

GB/T 19271.1-2003 lightning electromagnetic pulse protection Part 1. General (IEC 61312-1.1995, IDT)

High voltage test techniques - Part 2. Measurement systems (High - voltage test techniques - Part 2.

Measuring systems

Surge arresters - Part 1. Surge arresters for AC systems -

Part 1. Non-linear resistors type gap surge arresters for a.c. systems)

IEC 61000-2-9.1996 Electromagnetic compatibility (EMC) part 2-9. Environment HEMP environment Description Radiation Harassment (Elec-

tromagnetic compatibility (EMC) -Part 2.Environment-Section 9.Description of HEMP environment-Radiated disturbance

IEC 61000-2-10.1998 Electromagnetic compatibility (EMC) part 2-10. Environment HEMP environment Description Conducted disturbance

(Electromagnetic compatibility (EMC) -Part 2-10.Environment-Description of HEMP environment-Conducted disturbance

IEC 61000-2-11, Electromagnetic compatibility (EMC), part 2-11 Environmental HEMP Environmental Description HEMP Environmental Classification

(Electromagnetic compatibility (EMC) -Part 2-11.Environment-Description of HEMP environment-Classification of HEMP environments)

IEC 61000-4-23, Electromagnetic compatibility testing and measurement techniques - Test methods for devices protecting HEMP and other radiated disturbances

(Electromagnetic compatibility (EMC) -Part 4-23.Testing and measuring techniques-Test meth-

ods for protective devices for HEMP and other radiated disturbances)

IEC 61000-4-24.1997 Electromagnetic compatibility test and measurement techniques - Protection against HEMP and other devices that conduct disturbances