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

GB/T 18039.8-2012

**Electromagnetic compatibility -- Environment -- Description of
HEMP environment -- Conducted disturbance**

电磁兼容 环境 高空核电磁脉冲（HEMP）环境描述 传导骚扰

(English Translation)

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Foreword

GB/T 18039 "Electromagnetic Compatibility Environment" is divided into the following sections.

GB/Z18039.1-2000 EMC environment Classified electromagnetic environment

GB/Z18039.2-2000 EMC environment power supply of industrial frequency conducted to

assess the emission levels GB/T 18039.3-2003 electromagnetic compatibility environment

public low-voltage power supply system is compatible with conduction disturbances and

signaling Level GB/T 18039.4-2003 electromagnetic compatibility environment facility

frequency conducted disturbances compatibility level GB/Z18039.5-2003 electromagnetic compatibility environment in public power supply system frequency conducted electromagnetic environment harassment and signal transmission GB/Z18039.6-2005 electromagnetic compatibility environment of low frequency magnetic fields in various environments GB/Z18039.7-2011 electromagnetic compatibility environment public power supply system voltage dips, short interruptions and measurement statistics result GB/T 18039.8-2012 electromagnetic compatibility environment altitude nuclear electromagnetic pulse (HEMP) environment described Conducted disturbance this is Part 8 GB/T 18039 in.

Rules in this section in accordance with GB/T 1.1-2009 given draft.

This section is equivalent international standard IEC 61000-2-10:1998 "Electromagnetic compatibility (EMC) - Part 2-10. Environment altitude nuclear power Magnetic pulse (HEMP) environment is conducted disturbances. " Electromagnetic Compatibility This part of the National Standardization Technical Committee (SAC/TC246) and focal points.

This section is drafted. Engineering Corps, PLA University of Technology.

1 Scope and purpose

This section GB/T 18039 requirements of high-altitude nuclear electromagnetic pulse (HEMP) conducted environment, HEMP series of high-altitude nuclear explosion effect it should be one of the research topics such two cases to consider.

--- High-altitude nuclear explosion;

--- Low-altitude nuclear explosions.

The civil system, the two cases are among the most important high-altitude nuclear explosions. High-altitude nuclear explosion is characterized by a shock wave, the earth shook, Thermal radiation and nuclear radiation and other effects of nuclear explosions on the ground does not exist, but the electromagnetic pulse generated by a nuclear explosion would cause communication, electricity Son and electrical systems work interruptions and damage, disrupting the stability of modern society.

The purpose of this section is to establish a common standard on HEMP environment, in order to determine the true from electromagnetic disturbance environment for Evaluate the performance of the device by the impact.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated edition applies to this article Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 4365-2003 electrician term electromagnetic compatibility (IEC 60050 (161).1990,

IDT) IEC 61000-2-9:1996 Electromagnetic compatibility (EMC) - Part 2-9. Environmental altitude nuclear electromagnetic pulse (HEMP) environment description Said radiation harassment (Electromagnetic compatibility (EMC) -Part 2-9.

Description of HEMP environment-Radiated disturbance) IEC 61000-4-24:1997

Electromagnetic compatibility (EMC) - Part 4-24. Testing and measurement techniques - HEMP conducted disturbance protection Test Method (Electromagnetic compatibility (EMC) -Part 4-24 means.

Testing and measurement techniques-Test methods for protective devices for HEMP conducted disturbance)

3 Subjects

30km above the ground from the electromagnetic pulse generated by high-altitude nuclear explosion, there is observed on the surface of the Earth in three types.

--- Early HEMP (fast);

--- Mid-HEMP (middle);

--- Late HEMP (slow).

In the past, people focus on early HEMP, referred to simply as "HEMP". As used in this section, but "high-altitude EMP" the term or "HEMP", including the above three types of nuclear electromagnetic pulse (NEMP) The term covers a variety of nuclear electromagnetic pulse, including Ground source region explosion electromagnetic pulse (SREMP-SourceRegionEMP) and system electromagnetic pulse (SGEMP- space generated SystemGeneratedEMP).

GB/T 18039.8-2012/IEC 61000-2-10:1998