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Electromagnetic compatibility - Risk assessment - Part 5: 150 kHz~30 MHz conducted disturbance

电磁兼容 风险评估 第5部分：150kHz~30MHz传导骚扰

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document is part 5 of GB/T 38659 "Electromagnetic Compatibility Risk Assessment". GB/T 38659 has published the following parts.

- Part 1: Electrical and electronic equipment;

- Part 2: Electrical and electronic systems;

- Part 3: Equipment risk analysis method;

- Part 4: System risk analysis methods;

- Part 5: Conducted disturbances from 150kHz to 30MHz.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document is proposed and coordinated by the National Technical Committee for Radio Interference Standardization (SAC/TC79).

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Introduction

Electromagnetic compatibility (EMC) risk assessment technology is based on EMC design methods and uses common risk assessment methods to The risk assessment procedure is to classify risk levels, establish an ideal model for equipment design, and determine risk factors to identify EMC risks.

GB/T 38659 "Electromagnetic Compatibility Risk Assessment" aims to provide physical model-based analysis and suggestions for effective EMC risk response. It consists of five parts.

- Part 1: Electrical and electronic equipment. The purpose is to give the electromagnetic compatibility risk assessment of electrical and electronic equipment.

- Part 2: Electrical and electronic systems. The purpose is to assess the electromagnetic compatibility risk of a given electrical and electronic system.

- Part 3: Equipment risk analysis method. The purpose is to analyze the risk of electrical and electronic equipment.

- Part 4: System risk analysis method. The purpose is to analyze the risk of electronic and electrical systems.

- Part 5: Conducted disturbances from 150kHz to 30MHz. The purpose is to provide a frequency range of 150kHz to 30MHz Risk assessment method for conducted disturbance electromagnetic compatibility (EMC).

Electromagnetic compatibility risk assessment Part 5: Conducted disturbances from 150kHz to 30MHz

1 Scope

This document specifies the general requirements, procedures, ports, unit divisions, risk indicator levels, ideal models, requirements, and factors, risk analysis and risk assessment and reporting requirements.

This document is applicable to the risk assessment of conducted disturbances (frequency range 150kHz~30MHz) of various products, including those used in industry, Equipment in the fields of science, medicine, rail transportation equipment, household appliances and similar appliances, multimedia equipment, vehicles, ships and internal combustion engine parts Pieces, etc.

2 Normative references

GB 4343.1-2024

GB/T 4365-2024

GB 4824

GB/T 9254.1-2021

GB/T 17743-2021

GB 17799.3-2023

GB 17799.4-2022

GB/T 18655

GB/T 38659

GB/T 38659.1-2020

3 Terms and definitions

The terms and definitions defined in GB/T 4365-2024 and GB/T 38659 (all parts) and the following apply to this document.

3.1 Conducted disturbance

Electromagnetic disturbance that transfers energy through one or more conductors.

[Source. GB/T 4365-2024, 3.3.27]

3.2 Risk Index Level riskindexlevel

Determined based on the electromagnetic compatibility requirements of the product application environment.

Note. There is a one-to-one correspondence between risk indicators and test levels.