Chinastandards.org

ICS 49.025.01
CCS V25

NATIONAL STANDARD OF THE

PEOPLE'S REPUBLIC OF CHINA

GB/Z 41270.5-2026

Process management for avionics - Atmospheric radiation effects - Part 5: Assessment of thermal neutron fluxes and single event effects in avionics systems

航空电子过程管理 大气辐射影响 第5部分：航空电子系统中热中子注量率及其单粒子效应影响评估

(English Translation)

Issued on: September 24, 2026 **Implemented on: September 24, 2026**

Issued by: State Administration for Market Regulation;
Standardization Administration of China

Preview: page 1 of 2 shown, 21 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-z-41270-5-2026

Chinastandards.org

Table of Contents

Foreword

1 Scope

2 Normative references

3 Terms and definitions

Foreword

GB/Z 41270.5-2026 is a national guiding technical document (GB/Z) of the People's Republic of China, issued on 24 September 2026 by the State Administration for Market Regulation and the Standardization Administration of China.

The document adopts an international standard (ISO or IEC).

It is under the responsibility of the Standardization Administration of China.

Classification: ICS 49.025.01; CCS V25.

1 Scope

This guiding technical document concerns the assessment of thermal neutron fluxes and the single event effects they can cause in avionics systems. It is Part 5 of the series on atmospheric radiation effects under process management for avionics. It is meant for avionics system designers, equipment manufacturers, reliability and safety engineers, and certification specialists who evaluate how neutrons in the atmosphere may affect electronic hardware on aircraft.

It adopts an international standard and was issued on 24 September 2026. As a GB/Z, it gives guidance rather than requirements that must be satisfied. Thermal neutrons are low-energy particles that can interact with certain materials used in electronic components, so they need to be assessed separately from the high-energy particles that are often considered first. The document can be read together with the other parts of the series, which deal with different particle types and design topics, and it gives programs a Chinese reference for the assessment of this particular hazard.

Preview: page 2 of 2 shown, 21 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-z-41270-5-2026