

ICS 31.100
CCS L 39



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

GB/T 45618-2025

**Technical requirements for solar blind ultraviolet image
intensifier**

日盲紫外像增强器技术要求

Issued on: April 25, 2025

Implemented on: November 1, 2025

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

Table of Contents

Foreword

1 Scope

2 Normative references

3 Terms and definitions

3.1 The wavelength of light forms a spectral region

3.2 Image intensifier

3.3 High-voltage power supply

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.

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 was proposed by the Ministry of Industry and Information Technology of the People's Republic of China.

This document is under the jurisdiction of the National Technical Committee for Standardization of Vacuum Devices (SAC/TC167).

This document was drafted by: China Electronics Technology Group Corporation 55th Research Institute, China Electronics Technology Standardization Institute, China Science Institute of Microelectronics, State Grid Jiangsu Electric Power Co., Ltd.

The main drafters of this document are: Xu Pengxiao, Zhao Wenjin, Wang Min, Ma Li, Tang Guanghua, Wang Tianzhi, and Xu Xiaoyi.

Technical requirements for solar-blind ultraviolet image intensifiers

1 Scope

This document specifies the technical requirements, marking, packaging, transportation and storage of solar-blind ultraviolet image intensifiers and describes the corresponding inspection methods.

This document applies to the design, manufacture and acceptance of solar-blind ultraviolet image intensifiers (hereinafter referred to as "image intensifiers").

2 Normative references

GB/T 191-2008

GB/T 2421-2020

GB/T 2423.1-2008

GB/T 2423.2-2008

GB/T 2423.3-2016

GB/T 2423.5-2019

GB/T 2423.10-2019

GB/T 2423.17-2024

GB/T 2423.21-2008

GB/T 2423.22-2012

GB/T 4597-2012

GB/T 14184-1993

GB/T 20244-2025

3 Terms and definitions

The terms and definitions defined in GB/T 4597-2012 and the following apply to this document.

3.1 The wavelength of light forms a spectral region

The 200nm~280nm spectrum light in the solar radiation is strongly absorbed by the atmospheric ozone layer, making it almost invisible in the solar background near the Earth.

3.2 Image intensifier

It can convert and enhance the radiation image of solar-blind ultraviolet photons projected onto the photocathode and display it on the fluorescent screen to adapt to the human eye.

Observe the visible light image of the vacuum optoelectronic imaging device.

3.3 High-voltage power supply

The DC low voltage is converted into multiple high voltage outputs through a transformer to provide working voltage power to each pole of the solar-blind ultraviolet image intensifier tube.