

## PRE-RELEASE VERSION (FDIS)

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Specification for WB series glass beads with 50  $\Omega$  impedance for RF connectors

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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ICS 33.120.30

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## FINAL DRAFT INTERNATIONAL STANDARD (FDIS)

PROJECT NUMBER:

**IEC 63295 ED1**

DATE OF CIRCULATION:

**2021-12-17**

CLOSING DATE FOR VOTING:

**2022-01-28**

SUPERSEDES DOCUMENTS:

**46F/560/CDV, 46F/587/RVC**

IEC SC 46F : RF AND MICROWAVE PASSIVE COMPONENTS

SECRETARIAT:

United States of America

SECRETARY:

Mr John Morelli

OF INTEREST TO THE FOLLOWING COMMITTEES:

HORIZONTAL STANDARD:

FUNCTIONS CONCERNED:

EMC

ENVIRONMENT

QUALITY ASSURANCE

SAFETY

SUBMITTED FOR CENELEC PARALLEL VOTING

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Recipients of this document are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

TITLE:

**Specification for WB series glass beads with 50Ω impedance for RF connectors**

PROPOSED STABILITY DATE: 2024

NOTE FROM TC/SC OFFICERS:

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

### SPECIFICATION FOR WB SERIES GLASS BEADS WITH 50 $\Omega$ IMPEDANCE FOR RF CONNECTORS

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IEC 63295 has been prepared by subcommittee 46F: RF and microwave passive components, of IEC technical committee 46: Cables, wires, waveguides, RF connectors, RF and microwave passive components and accessories. It is an International Standard.

The text of this International Standard is based on the following documents:

Draft	Report on voting
46F/XX/FDIS	46F/XX/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/standardsdev/publications](http://www.iec.ch/standardsdev/publications).

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under [webstore.iec.ch](http://webstore.iec.ch) in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

## **SPECIFICATION FOR WB SERIES GLASS BEADS WITH 50 $\Omega$ IMPEDANCE FOR RF CONNECTORS**

### **1 Scope**

This document provides the requirements for WB series glass beads with 50  $\Omega$  impedance for RF connectors, including, among other, the structure dimensions, IEC type designation, rating and characteristics, and quality assessment.

These glass beads are used for the adaption of coaxial systems to microstrip circuits used extensively in microwave communication systems such as TR modules, power modules, integrated circuits where hermetic seal is required. They can serve as a part of an RF coaxial connector, multi-channel RF connector or hybrid connector, or can be applied directly in various communication module systems as an independent product. They provide a 50  $\Omega$  normative impedance with an operating frequency limit up to 65 GHz.

### **2 Normative references**

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61169-1:2013, *Radio frequency connectors – Part 1: Generic specification – General requirements and measuring methods*

IEC 62153-4-7, *Metallic communication cable test methods – Part 4-7: Electromagnetic compatibility (EMC) – Test method for measuring of transfer impedance  $Z_T$  and screening attenuation  $a_S$  or coupling attenuation  $a_C$  of connectors and assemblies up to and above 3 GHz – Triaxial tube in tube method*