ICS 33.120.30
CCS L 23

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 11313.58-2023

Radio-frequency connectors - Part 58: Sectional specification for SBMA series blind-mate RF coaxial connectors

Issued on: September 7, 2023 **Implemented on: April 1, 2024**

Issued by: State Administration for Market Regulation, China National Standardization Administration

Table of Contents

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1.Structure and Drafting Rules of Standardization Documents"

Drafting.

This document is Part 58 of GB/T 11313 "Radio Frequency Connectors". GB/T 11313 has published the following parts.

---Part 1.General requirements and test methods of the general specification;

---Part 2.Specifications for type 9.52 radio frequency coaxial connectors;

---Part 4.RF coaxial connector with outer conductor inner diameter 16mm (0.63in), characteristic impedance 50ohm, and threaded connection

(Type 7-16);

---Part 8.Radio frequency coaxial connection with outer conductor inner diameter 6.5mm (0.256in), characteristic impedance 50ohm (75ohm), bayonet connection

Connectors (BNC type) are divided into specifications;

---Part 9.Specifications for SMC series radio frequency coaxial connectors;

---Part 10.Specifications for SMB series radio frequency coaxial connectors;

---Part 11.RF coaxial connector with outer conductor inner diameter 9.5mm (0.374in), characteristic impedance 50ohm, threaded connection

(Type 4.1/9.5) sub-standard;

---Part 13.Specifications for type 1.6/5.6 and 1.8/5.6 radio frequency coaxial connectors;

---Part 15.Radio frequency coaxial connectors with outer conductor inner diameter 4.13mm (0.163in), characteristic impedance 50ohm, and threaded connection

(SMA type);

---Part 16.Radio frequency coaxial connection with outer conductor inner diameter 7mm (0.276in), characteristic impedance 50ohm (75ohm), threaded connection

Connectors (N type) are divided into specifications;

---Part 18.Specifications for SSMA series radio frequency coaxial connectors;

---Part 19.Specifications for SSMB series radio frequency coaxial connectors;

---Part 24.Specification for threaded RF coaxial connectors (Type F) for 75ohm cable distribution systems;

---Part 29.50ohm and 75ohm, with a characteristic impedance of 50ohm, with threaded, push-pull, quick-lock or slide rail racks or panels.

Type RF coaxial connector (type 1.0/2.3) sub-standard;

---Part 33.Specifications for BMA series radio frequency coaxial connectors;

---Part 35.Specifications for 2.92 series radio frequency connectors;

---Part 36.Snap-on connection miniature RF coaxial connector (MCX type) with a characteristic impedance of 50ohm;

---Part 37.STWX8 series radio frequency coaxial connector sub-specification;

---Part 38.Specification for 50ohm module slide-in radio frequency connector (TMA type) for backplanes and panels;

---Part 39.Specifications for CQM series quick-locking radio frequency connectors;

---Part 40.Specifications for 2.4 series radio frequency connectors;

---Part 41.Specifications for CQA series quick-locking radio frequency connectors;

---Part 43.Specifications for RBMA series blind mating RF coaxial connectors;

---Part 58.Specifications for SBMA series blind mating RF coaxial connectors;

---Part 101.MMCX series radio frequency coaxial connector sub-specification;

---Part.201.Electrical test methods reflection coefficient and voltage standing wave ratio;

---Part 202.Electrical test methods Insertion loss.

This document is modified to adopt IEC 61169-58.2016 "Radio frequency connectors Part 58.Specification characteristics of blind mating radio frequency coaxial connectors"

Impedance 50ohm (SBMA type)?.

A "Terms and Definitions" chapter has been added to this document.

The technical differences between this document and IEC 61169-58.2016 and their reasons are as follows.

---Changed the "connection mechanism strength" and "intermodulation level" in Table 7 to "na". This product has a blind plug structure, so there is no need to perform these two items.

test;

---Changed the value of "frequency range" in Table 7 from "0.05GHz~28GHz" to "<=28GHz" to comply with the expression of operating frequency

Require.

The following editorial changes have been made to this document.

---In order to coordinate with the existing standards, the name of the standard is changed to "Radio Frequency Connectors Part 58.SBMA Series Blind Plug Radio Frequency Coaxial Connectors"

"Connector Specifications";

---Incorporated the errata content of IEC 61169-58.2016/COR1.2017, the outer margins of the involved clauses are marked with vertical

Straight double lines (||) are marked;

---Correct "Standard Regulation B" in 4.2.2b) and 4.2.4b) to "Standard Regulation C", and change "Standard Regulation A" in 4.2.2c) and 4.2.4c)

It is "standard gauge B".

Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents.

Introduction

RF coaxial connector is an interface component for transmitting RF signals. It is used between devices and devices, components and components, systems and subsystems.

It forms an electrical connection and transmits radio frequency signals. It plays a role in connecting or breaking coaxial cables, microstrip circuits, and transmitting radio frequency

signals in the circuit.

effect. Because coaxial transmission is a closed transmission mode, it can achieve high-quality signal transmission, and has the characteristics of low cost, compact structure, and ease of use.

With advantages such as wiring, it is widely used in instrumentation, microwave communication equipment, radar and weapons and equipment systems.

GB/T 11313 "Radio Frequency Connector" is planned to consist of 55 parts.

---Part 1.General requirements and test methods of the general specification;

---Part 2.Specifications for type 9.52 radio frequency coaxial connectors;

---Part 4.RF coaxial connector with outer conductor inner diameter 16mm (0.63in), characteristic impedance 50ohm, and threaded connection

(Type 7-16);

---Part 7.Radio frequency coaxial connector with outer conductor inner diameter 9.5mm (0.375in), characteristic impedance 50ohm, bayonet connection

(Type C) sub-standard;

---Part 8.Radio frequency coaxial connection with outer conductor inner diameter 6.5mm (0.256in), characteristic impedance 50ohm (75ohm), bayonet connection

Connectors (BNC type) are divided into specifications;

---Part 9.Specifications for SMC series radio frequency coaxial connectors;

---Part 10.Specifications for SMB series radio frequency coaxial connectors;

---Part 11.RF coaxial connector with outer conductor inner diameter 9.5mm (0.374in), characteristic impedance 50ohm, threaded connection

(Type 4.1/9.5) sub-standard;

---Part 12.Specification for non-matching threaded radio frequency coaxial connectors (UHF type);

---Part 13.Specifications for type 1.6/5.6 and 1.8/5.6 radio frequency coaxial connectors;

---Part 14.RF coaxial connector with outer conductor inner diameter 12mm (0.472in), characteristic impedance 75ohm, threaded connection

(Type 3.5/12) divided into specifications;

---Part 15.Radio frequency coaxial connectors with outer conductor inner diameter 4.13mm (0.163in), characteristic impedance 50ohm, and threaded connection

(SMA type);