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

GB/T 17737.9-2024

**Coaxial communication cables - Part 9: Sectional specification
for flexible RF coaxial cables
(English Translation)**

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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 9 of GB/T 17737 "Coaxial communication cables": GB/T 17737 has published the following parts:

- Part 1: General specifications General principles, definitions and requirements:
- Part 1-100: General requirements for electrical test methods;
- Part 1-101: Electrical test methods Conductor DC resistance test;
- Part 1-102: Electrical test methods Cable dielectric insulation resistance test;
- Part 1-103: Electrical test methods Capacitance test of cables;
- Part 1-104: Electrical test methods Capacitance stability test of cables;
- Part 1-105: Electrical test methods - Withstand voltage test for cable dielectrics;
- Part 1-106: Electrical test methods - Withstand voltage test for cable sheath;
- Part 1-107: Electrical test methods Cable microphonic charge level (mechanically induced noise) test;
- Part 1-108: Electrical test methods Characteristic impedance, phase delay, group delay,

electrical length and propagation velocity tests;

- Part 1-112: Electrical test methods Return loss (impedance consistency) test;
- Part 1-113: Electrical test methods attenuation constant test;
- Part 1-115: Electrical test methods Impedance uniformity (pulse/step function return loss) test;
- Part 1-119: Electrical test methods for radio frequency power of coaxial cables and cable assemblies;
- Part 1-122: Electrical test methods Crosstalk test between coaxial cables;
- Part 1-200: General requirements for environmental test methods;
- Part 1-201: Environmental test methods - Cold bending performance test of cables;
- Part 1-203: Environmental test methods Water penetration test for cables;
- Part 1-205: Environmental test methods Solvent and contamination liquid resistance test;
- Part 1-301: Mechanical test methods Ovality test;
- Part 1-302: Mechanical test methods eccentricity test;
- Part 1-308: Mechanical test methods - Tensile strength and elongation test of copper-clad metals;
- Part 1-310: Mechanical test methods - Tests on torsional properties of copper-clad metals;
- Part 1-313: Mechanical test methods Adhesion of dielectric and sheath;
- Part 1-314: Mechanical test methods - Bending test for cables;
- Part 1-316: Mechanical test methods Maximum tensile test for cables;
- Part 1-317: Mechanical test methods Cable compression test;
- Part 1-318: Mechanical test methods Thermal properties test;
- Part 1-324: Mechanical test methods Cable abrasion resistance test;
- Part 1-325: Mechanical test methods Wind-induced vibration test:
- Part 3: Sectional specification for coaxial cables for local area networks:
- Part 4: Sectional specification for leaky cables:
- Part 5: Sectional specification for trunk and distribution cables for CATV:
- Part 8: Sectional specification for polytetrafluoroethylene insulated semi-flexible cables:
- Part 8-1: Blank detail specification for polytetrafluoroethylene insulated semi-flexible cables:

--- Part 9: Sectional specification for flexible radio frequency coaxial cables:

--- Part 10: Sectional specification for semi-rigid cables with fluoropolymer insulation:

--- Part 11: Sectional specification for polyethylene insulated semi-rigid cables:

This document modifies the use of IEC 61196-9:2023 "Coaxial communication cables Part 9: Sectional specification for flexible radio-frequency coaxial cables":

The technical differences between this document and IEC 61196-9:2023 and their reasons are as follows:

--- Deleted "7:3:3 Climate sequence", the climate sequence referenced in IEC 61196-1-206:2017 does not involve "TA, TB and t1", and the test requirements related to the climate sequence have been clearly specified in 7:3:1, 7:3:3, 7:3:5 and 7:3:6:

The following editorial changes were made to this document:

--- Correct "Specifications (see 6.1)" in 6:2 to "Specifications (see 6.1:2)";

--- Correct "Table 3 Electrical performance measurement" to "Table 3 Finished cable electrical performance requirements";

--- Correct "RMS" in 7:2:5 to "rms";

--- Correct "delivery" in Chapter 9 to "delivery and storage":

Introduction

Coaxial communication cables have the advantages of low transmission loss and good anti-electromagnetic interference performance, and are widely used in various communications, electronic equipment and External information transmission lines are used in fields such as communications, radio and television, radar, electronic countermeasures, and data buses:

GB/T 17737 "Coaxial Communication Cable" includes the terminology, design, materials, test methods, and various coaxial cables:

The cable structure and material requirements, technical requirements, quality assurance regulations, packaging, transportation, storage and engineering use data: GB/T 17737 Various mechanical test method standards, GB/T 17737.3~GB/T 17737:x are various product specifications: When compiling product specifications, refer to the general General requirements of the specification, and related test method standards:

GB/T 17737 is intended to consist of the following parts:

--- Part 1: General specifications General principles, definitions and requirements: The purpose is to specify the general principles, definitions and test methods for coaxial cables and requirements: