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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 17737.105-2018

Coaxial communication cables -- Part 1-105: Electrical test methods -- Test for withstand voltage of cable dielectric

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Foreword

GB/T 17737 "Coaxial Communication Cable" has or plans to issue the following parts.

--- Part 1. General rules, definitions and requirements;

--- Part 1-100. General requirements for electrical test methods;

--- Part 1-101 . Electrical test methods Conductor direct current resistance test ;

--- Part 1-102 . Electrical test methods ; Insulation resistance test of dielectrics for cables ;

--- 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 for withstand voltage test of cable dielectrics;

--- Part 1-101 . Electrical test methods Voltage withstand test of cable sheathing ;

--- Part 1-107 . Electrical test methods Vibrating cable charge level (mechanically induced noise) test;

--- Part 1-108. Electrical test methods Characteristic impedance, phase delay, group delay, electrical length and propagation speed test;

--- Part 1-110 . Electrical test method continuity ;

--- Part 1-111 . Electrical test methods Stability test for phase constants ;

--- Part 1-112. Electrical test methods Return Loss (Impedance Consistency) test;

--- Part 1-113 . Electrical test method attenuation constant test ;

--- Part 1-114 . Electrical test methods Inductors ;

--- Part 1-115. Electrical test method impedance uniformity (pulse/step function return loss) test;

--- Part 1-116 . Electrical test methods TDR method measuring characteristic impedance ;

--- Part 1-119 . Electrical test methods RF power rating ;

--- Part 1-122. Electrical test methods - Cross-talk test between coaxial cables;

This part is part 1-105 of GB/T 17737.

This section was drafted in accordance with the rules given in GB/T 1.1-2009.

This section uses the translation method equivalent to the use of IEC 61196-1-105.2005 "coaxial communication cable Part 1-105. Electrical test method

Method for testing dielectric strength of cable media."

1 Scope

This part of GB/T 17737 applies to coaxial communication cables. It specifies the test method for determining dielectric withstand voltage of coaxial cables.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article

Pieces. For undated references, the latest version (including all amendments) applies to this document.

GB/T 17737.1-2013 Coaxial telecommunication cable Part 1. General specifications General, definitions and requirements (IEC 61196-1.2005,

IDT)

3 Terms and definitions

The terms and definitions defined in GB/T 17737.1-2013 apply to this document.

4.1 Principle

The purpose of this test is to determine the withstand voltage of the dielectric under AC or DC conditions.

4.2 Test Equipment

Test equipment includes.

--- AC or DC power.

---KVolt meter.

The frequency of AC voltage should be 40Hz~60Hz, and the waveform should be sine wave.

4.3 sample preparation

The test shall be performed on finished cables that have passed the continuity test. Both ends of the cable should be stripped of conductors of sufficient length to avoid breakdown or failure

Discharge. The insulation on the stripped conductors at both ends should be cleaned.

4.4 Procedures

The insulation between the inner and outer conductors of the cable or between the conductors shall withstand an ac or dc voltage of 1 min. The voltage value should comply with the relevant sectional specification

Or detailed specifications. The voltage boost rate of the test voltage should not exceed 2 kV/s.