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EIA SPECIFICATION

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Rigid Coaxial Transmission Lines and Connectors - 50 Ohms

EIA-225-A
(Revision of EIA-RS-225)

April 2018



Electronic Components Industry Association

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(From Standards Proposal No. 5370, formulated under the cognizance of the CE-2.2 Committee on RF Connectors and Rigid Coax Connectors and previously published in EIA-RS-225)

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Rigid Coaxial Transmission Lines and Connectors

(From EIA Standards Proposal No. 5370, formulated under the cognizance of the EIA CE-2.2 Committee on RF Connectors and Rigid Coax Connectors, and previously published as RS-225)

1. Introduction

1.1 Scope:

This standard pertains exclusively to gas-filled rigid coaxial transmission lines and connectors. This standard does not apply to any semi-flexible transmission lines or connectors.

This standard provides complete mechanical interchangeability for all lines and connectors. The drawings referred to in the standard do not restrict electrical design parameters; the drawings define the necessary mechanical limits necessary for mechanical interchangeability.

1.2 Size:

1.2.1 Definition:

The size of a coaxial line is defined as the nominal outside diameter of the line, expressed in inches. The size of the connector is defined by the nominal outside diameter of the line with which it is used. Metric dimensions are for reference only and are based upon 1.0 inch equals 25.4 mm.

1.2.2 Standard:

The standard line sizes are specified in Table 1. The standard connector sizes are given in Figures 1, 2, 3 and 4.

2. Dimensions

2.1 Definitions:

2.2 Average Wall Thickness:

Is one-half the difference between the corresponding inside and outside diameters.

2.3 Maximum Deviation:

The wall thickness from the average wall thickness is the difference between the average wall thickness and either the maximum or minimum wall thickness measurement, whichever difference is greater.