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Cable assemblies, cables, connectors and passive microwave components - Screening attenuation measurement by the reverberation chamber method

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English Version

Cable assemblies, cables, connectors and passive microwave components - Screening attenuation measurement by the reverberation chamber method  
(IEC 61726:2015)

Câbles, cordons, connecteurs et composants hyperfréquence passifs - Mesure de l'affaiblissement d'écran par la méthode de la chambre réverbérante  
(IEC 61726:2015)

Konfektionierte Kabel, Kabel, Steckverbinder und passive Mikrowellenbauteile - Messung der Schirmdämpfung mit dem Strahlungskammerverfahren  
(IEC 61726:2015)

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Comité Européen de Normalisation Electrotechnique  
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## European foreword

The text of document 46/551/FDIS, future edition 3 of IEC 61726, prepared by IEC/TC 46 "Cables, wires, waveguides, R.F. connectors, R.F. and microwave passive components and accessories" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61726:2015.

The following dates are fixed:

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# CABLE ASSEMBLIES, CABLES, CONNECTORS AND PASSIVE MICROWAVE COMPONENTS – SCREENING ATTENUATION MEASUREMENT BY THE REVERBERATION CHAMBER METHOD

## 1 Scope

The requirements of modern electronic equipment have indicated a demand for a method for testing screening attenuation of microwave components over their whole frequency range. Convenient test methods exist for low frequencies and components of regular shape. These test methods are described in the relevant IEC product specifications (e.g. IEC 62153-4-3). For higher frequencies and for components of irregular shape, a new test method has become necessary and such a test method is described in this International Standard.

This International Standard describes the measurement of screening attenuation by the reverberation chamber test method, sometimes named mode stirred chamber, suitable for virtually any type of microwave component and having no theoretical upper frequency limit. It is only limited toward low frequencies due to the size of the test equipment, which is frequency-dependent and is only one of several methods of measuring screening attenuation.

For the purpose of this standard, examples of microwave components are waveguides, phase shifters, duplexers/multiplexers, power dividers/combiners etc.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61196-1, *Coaxial communication cables – Part 1: Generic specification – General, definitions and requirements*

IEC TS 62153-4-1, *Metallic communication cable test methods – Part 4-1: Electromagnetic compatibility (EMC) – Introduction to electromagnetic screening measurements*

IEC 61000-4-21, *Electromagnetic compatibility (EMC) – Part 4-21: Testing and measurement techniques – Reverberation chamber test methods*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 61196-1 and IEC 61000-4-21 apply.

## 4 Basic description of the reverberation chamber method

The reverberation chamber method for measurement of the screening attenuation of microwave components consists of exposing the device under test (DUT) to an almost homogeneous and isotropic electromagnetic field and then measuring the signal level induced into the device.