

INTERNATIONAL STANDARD

**Coaxial communication cables –
Part 1-209: Environmental test methods – Thermal cycling**





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COAXIAL COMMUNICATION CABLES –

Part 1-209: Environmental test methods – Thermal cycling

FOREWORD

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International Standard IEC 61196-1-209 has been prepared by subcommittee 46A: Coaxial cables, of IEC technical committee 46: Cables, wires, waveguides, R.F. connectors, R.F. and microwave passive components and accessories.

The text of this standard is based on the following documents:

FDIS	Report on voting
46A/1298/FDIS	46A/1301/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all the parts in the IEC 61196 series published under the general title *Coaxial communication cables* can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

COAXIAL COMMUNICATION CABLES –

Part 1-209: Environmental test methods – Thermal cycling

1 Scope

This part of IEC 61196 specifies a test method to determine the ability of a coaxial cable to withstand the effects of temperature cycling on its transmission performance.

The purpose of this procedure is to accelerate the effects of temperature cycling on a cable.

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 60068-2-14, *Environmental testing – Part 2-14: Tests – Test N: Change of temperature*

IEC 62506, *Methods for product accelerated testing*

3 Terms and definitions

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

4 Symbols

ΔT	difference between the upper and lower exposure temperature limits, in °C
ΔT_1	difference between the upper and lower operational temperature limits, in °C
ΔT_i	temperature change difference other than ΔT_1 , in °C
ζ_{Test}	transition rate of temperature of the test, in °C/minute
A	adjustment factor for the number of cycles for different transition temperature rates and exposure temperatures limits than standard conditions
A_{tr}	adjustment factor for the number of cycles with regards to the transition rate
$A_{\Delta T}$	adjustment factor for the number of cycles with regards to the upper and lower exposure temperatures