ATIS-0600010.2020

Temperature, Humidity, and Altitude Requirements for Information and Communications Technology (ICT) Equipment Utilized in Controlled Environmental Spaces

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ATIS-0600010.2020, *Temperature, Humidity, and Altitude Requirements for Information and Communications Technology (ICT) Equipment Utilized in Controlled Environmental Spaces*

Is an American National Standard developed by the ATIS **Network Physical Protection (NPP)** Subcommittee under the **ATIS Sustainability in Telecom: Energy and Protection Committee (STEP)**.

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American National Standard for Telecommunications

Temperature, Humidity, and Altitude Requirements for Information and Communications Technology (ICT) Equipment Utilized in Controlled Environmental Spaces

Alliance for Telecommunications Industry Solutions

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American National Standards Institute, Inc.

Abstract

This standard covers the minimum temperature, humidity, and altitude criteria for telecommunications network equipment to be installed and utilized by service providers in controlled environmental spaces (e.g., Carrier Communication Spaces, COs, MTSOs, Huts, CEVs, and customer premises). It describes test methodologies and test report criteria necessary for proper evaluation by interested parties, and those intending to deploy equipment in such environments.

The expectation is that equipment will continue to function properly and without any unexpected degradation of performance when placed in the temperature and humidity controlled environmental spaces defined in the standard. Equipment is also expected to function properly after exposure to other environmental stresses, such as experienced in high altitude applications and during storage and transportation.

Foreword

The information contained in this Foreword is not part of this American National Standard (ANS) and has not been processed in accordance with ANSI's requirements for an ANS. As such, this Foreword may contain material that has not been subjected to public review or a consensus process. In addition, it does not contain requirements necessary for conformance to the Standard.

The Alliance for Telecommunication Industry Solutions (ATIS) serves the public through improved understanding between carriers, customers, and manufacturers. The Sustainability in Telecom: Energy and Protection Committee (STEP) – formerly NIPP – develops and recommends standards and technical reports. The standards and technical reports are related to power systems, electrical and physical protection for the exchange and interexchange carrier networks, and interfaces associated with user access to ICT equipment.

ANSI guidelines specify two categories of requirements: mandatory and recommendation. The mandatory requirements are designated by the word *shall* and recommendations by the word *should*. Where both a mandatory requirement and a recommendation are specified for the same criterion, the recommendation represents a goal currently identifiable as having distinct compatibility or performance advantages.

Suggestions for improvement of this standard are welcome. They should be sent to the Alliance for Telecommunications Industry Solutions, STEP, 1200 G Street NW, Suite 500, Washington, DC 20005.

At the time of initiation or issuance of the letter ballot for this standard, STEP, which was responsible for its development, had the following leadership:

E. Gallo, STEP Chair (Ericsson)
J. Fuller, STEP Vice Chair (AT&T)
C. Von Hagel, STEP-NPP Chair (Intertek)
C. Forbes, STEP-NPP Vice Chair (NTS)

The Network Physical Protection (NPP) Subcommittee was responsible for the development of this standard.

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1 Scope & Application

1.1 Scope

This standard covers the minimum temperature, humidity, and altitude criteria for wireline and wireless ICT equipment to be installed and utilized by service providers in controlled environmental spaces (e.g., Carrier Communication Spaces, Central Offices, MTSOs, Huts, CEVs, and customer premises). It describes test methodologies and test report criteria necessary for proper evaluation by interested parties, and those intending to deploy equipment in such environments (also called Class 1 environments).

This standard defines temperature and humidity ranges in which the equipment must operate, and provides test methodologies to evaluate equipment operation in those environments. The expectation is that equipment will continue to function properly and without degradation of performance when placed in these environments.

1.2 Application

This standard applies to wireline and wireless network equipment intended to be installed and utilized by service providers in controlled environmental spaces (e.g., Central Offices, Huts, MTSOs, CEVs, and customer premises).

2 Normative References

This standard contains material from other publications. These references may be cited at the appropriate places in the text and are listed below. The document and standard contain provisions, which, through reference in this text, constitute provisions of this American National Standard. At the time of publication, the editions indicated were valid. All documents and standards are subject to revision; however, only the editions cited are applicable for this standard.

2.1 Normative

[Ref 1] GR-63-CORE, *NEBS Requirements: Physical Protection*.[1]

[Ref 2] ATIS 0600010.03, *Heat Dissipation Requirements for Network Telecommunications Equipment.*[2]

[1] Telcordia documents are available from Telcordia at < http://telecom-info.telcordia.com >.

[2] This document is available from the Alliance for Telecommunications Industry Solutions (ATIS) at < http://www.atis.org >.