SLOVENSKI STANDARD
SIST EN 50173-1:2008/A1:2010

01-marec-2010

Informacijska tehnologija - Univerzalni sistemi polaganja kablov - 1. del: Splošne zahteve

Information technology - Generic cabling systems -- Part 1: General requirements

Informationstechnik - Anwendungsneutrale Kommunikationskabelanlagen -- Teil 1: Allgemeine Anforderungen

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Technologies de l'information - Systèmes de câblage générique -- Partie 1: Exigences générales

SIST EN 50173-1:2008/A1:2010
https://standards.iteh.ai/catalog/standards/sist/70155dbb-dfa1-4010-9766-dd60c75fd51c/sist-en-50173-1-2008-a1-2010

Ta slovenski standard je istoveten z: **EN 50173-1:2007/A1:2009**

ICS:

33.040.50	Vodi, zveze in tokokrogi	Lines, connections and circuits
35.110	Omreževanje	Networking

SIST EN 50173-1:2008/A1:2010 **en,fr,de**

2003-01.Slovenski inštitut za standardizacijo. Razmnoževanje celote ali delov tega standarda ni dovoljeno.

SIST EN 50173-1:2008/A1:2010

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 50173-1:2008/A1:2010
https://standards.iteh.ai/catalog/standards/sist/70155dbb-dfa1-4010-9766-dd60c73fd51c/sist-en-50173-1-2008-a1-2010

SIST EN 50173-1:2008/A1:2010

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 50173-1/A1

November 2009

ICS 33.040.50

English version

Information technology - Generic cabling systems - Part 1: General requirements

Technologies de l'information - Systèmes de câblage générique - Partie 1: Exigences générales

Informationstechnik - Anwendungsneutrale Kommunikationskabelanlagen - Teil 1: Allgemeine Anforderungen

iTeh STANDARD PREVIEW
(standards.iteh.ai)

This amendment A1 modifies the European Standard EN 50173-1:2007; it was approved by CENELEC on 2009-09-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

SIST EN 50173-1:2008/A1:2010
https://standards.iteh.ai/catalog/standards/sist/7015d9b-dfa1-4010-9766-dd60c73fd51c/sist-en-50173-1-2008-a1-2010

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This amendment exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: Avenue Marnix 17, B - 1000 Brussels

© 2009 CENELEC - All rights of exploitation in any form and by any means reserved worldwide for CENELEC members.

Ref. No. EN 50173-1:2007/A1:2009 E

SIST EN 50173-1:2008/A1:2010

Foreword

This amendment was prepared by the Technical Committee CENELEC TC 215, Electrotechnical aspects of telecommunication equipment.

The text of the draft was submitted to the formal vote and was approved by CENELEC as amendment A1 to EN 50173-1:2007 on 2009-09-01.

The following dates were fixed:

– latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2010-09-01
– latest date by which the national standards conflicting with the amendment have to be withdrawn	(dow)	2012-09-01

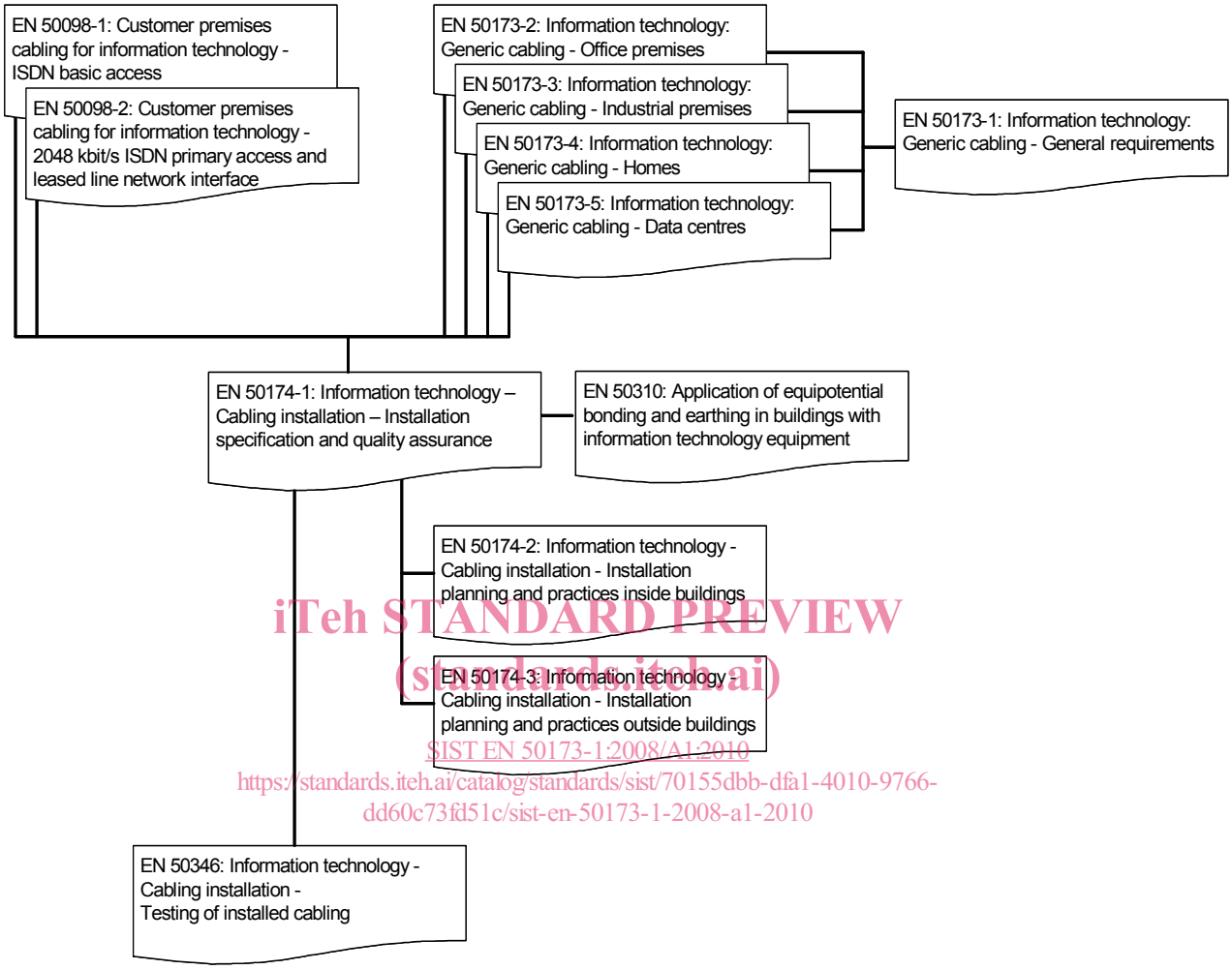
This amendment introduces, among others, new Class E_A and F_A channels, resulting in an amendment of many tables in Clause 5. Furthermore some specifications for BCT applications for residential cabling have been modified.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 50173-1:2008/A1:2010
https://standards.iteh.ai/catalog/standards/sist/70155dbb-dfa1-4010-9766-dd60c73fd51c/sist-en-50173-1-2008-a1-2010

SIST EN 50173-1:2008/A1:2010

Introduction

Replace Figure 1 **by:**



iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 50173-1:2008/A1:2010
https://standards.iteh.ai/catalog/standards/sist/70155dbb-dfa1-4010-9766-dd60c73fd51c/sist-en-50173-1-2008-a1-2010

NOTE CLC/TC 215 has also produced a Technical Report CLC/TR 50173-99-1 “Cabling guidelines in support of 10 GBASE-T”.

Figure 1 – Schematic relationship between the EN 50173 series and other relevant standards

SIST EN 50173-1:2008/A1:2010

Replace Table 1 **by:**

Table 1 – Contextual relationship between EN 50173 series and other relevant standards

<table>
<tr><th>Building design phase</th><th>Generic cabling design phase</th><th>Specification phase</th><th>Installation phase</th><th>Operation phase</th></tr>
<tr>
<td rowspan="2">EN 50310

5.2: Common bonding network (CBN) within a building

6.3: AC distribution system and bonding of the protective conductor (TN-S)</td>
<td>EN 50173 series
except
EN 50173-4

4: Structure

5: Channel performance

7: Cable requirements

8: Connecting hardware requirements

9: Requirements for cords and jumpers

A: Link performance limits</td>
<td>EN 50174-1

4: Requirements for specifying installations of information technology cabling

5: Requirements for installers of information technology cabling</td>
<td rowspan="2"></td>
<td rowspan="2">EN 50174-1

4: Requirements for specifying installations of information technology cabling</td>
</tr>
<tr>
<td>and
EN 50173-4

4 and 5: Structure

6: Channel performance

8: Cable requirements

9: Connecting hardware requirements

10: Requirements for cords and jumpers

A: Link performance limits</td>
<td>Planning phase

EN 50174-2

4: Requirements for planning installations of information technology cabling

6: Segregation of metallic information technology cabling and mains power cabling

7: Electricity distribution systems and lightning protection

and
EN 50174-3

and
(for equipotential bonding)
EN 50310

5.2: Common bonding network (CBN) within a building

6.3: AC distribution system and bonding of the protective conductor (TN-S)</td>
<td>EN 50174-2

5: Requirements for the installation of information technology cabling

6: Segregation of metallic information technology cabling and mains power cabling

and
EN 50174-3

and
(for equipotential bonding)
EN 50310

5.2: Common bonding network (CBN) within a building

6.3: AC distribution system and bonding of the protective conductor (TN-S)

and
EN 50346

4: General requirements

5: Test parameters for balanced cabling

6: Test parameters for optical fibre cabling</td>
</tr>
</table>

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 50173-1:2008/A1:2010
https://standards.iteh.ai/catalog/standards/sist/70155dbb-dfa1-4010-9766-dd60c73fd51c/sist-en-50173-1-2008-a1-2010

SIST EN 50173-1:2008/A1:2010

2 Normative references

Replace EN 61196-3 **by**:

EN 50117-4-1, *Coaxial cables – Part 4-1: Sectional specification for cables for BCT cabling in accordance with EN 50173 – Indoor drop cables for systems operating at 5 MHz - 3 000 MHz*

Amend EN 60793-2-10 to read:

EN 60793-2-10:2007, *Optical fibres – Part 2-10: Product specifications – Sectional specification for category A1 multimode fibres* (IEC 60793-2-10:2007)

Add the following reference:

CLC/TR 50173-99-1, *Cabling guidelines in support of 10 GBASE-T*

3.1 Definitions

Add the following definitions and **renumber** the existing definitions accordingly:

3.1.2
alien (exogenous) crosstalk
signal coupling from a disturbing pair of a channel to a disturbed pair of another channel

iTeh STANDARD PREVIEW
(standards.iteh.ai)

NOTE This also applies to the signal coupling from a disturbing pair within a permanent link or component, used to create a channel, to a disturbed pair within a permanent link or component, used to create another channel.

3.1.3
alien (exogenous) far-end crosstalk loss (AFEXT)
signal isolation between a disturbing pair of a channel and a disturbed pair of another channel, measured at the far-end

SIST EN 50173-1:2008/A1:2010
https://standards.iteh.ai/catalog/standards/sist/...
dd60c73fd51c/sist-en-50173-1-2008-a1-2010

NOTE This also applies to the measurement of the signal isolation between a disturbing pair within a permanent link or component, used to create a channel, and a disturbed pair within a permanent link or component, used to create another channel.

3.1.4
alien (exogenous) near-end crosstalk loss (ANEXT)
signal isolation between a disturbing pair of a channel and a disturbed pair of another channel, measured at the near-end

NOTE This also applies to the measurement of the signal isolation between a disturbing pair within a permanent link or component, used to create a channel, and a disturbed pair within a permanent link or component, used to create another channel.

Renumber existing definition 3.1.2 **into** 3.1.5.

3.1.6
attenuation to alien (exogenous) crosstalk ratio at the far-end (AACR-F)
difference, in dB, between the alien far-end crosstalk loss from a disturbing pair of a channel and the insertion loss of a disturbed pair in another channel

NOTE This also applies to the calculation using the alien far-end crosstalk loss from a disturbing pair within a permanent link or component, used to create a channel, and the insertion loss of a disturbed pair within a permanent link or component, used to create another channel.

3.1.7
attenuation to alien (exogenous) crosstalk ratio at the near-end (AACR-N)
difference, in dB, between the alien near-end crosstalk loss from a disturbing pair of a channel and the insertion loss of a disturbed pair in another channel

NOTE This also applies to the calculation using the alien near-end crosstalk loss from a disturbing pair within a permanent link or component, used to create a channel, and the insertion loss of a disturbed pair within a permanent link or component, used to create another channel.

SIST EN 50173-1:2008/A1:2010

3.1.8
attenuation to crosstalk ratio at the far-end (ACR-F)
difference, in dB, between the far-end crosstalk loss from a disturbing pair of a channel and the insertion loss of a disturbed pair of the same channel

NOTE This also applies to the calculation using the far-end crosstalk loss from a disturbing pair within a permanent link or component, used to create a channel, and the insertion loss of a disturbed pair within the permanent link or component, of the same channel.

3.1.9
attenuation to crosstalk ratio at the near-end (ACR-N)
difference, in dB, between the near-end crosstalk loss from a disturbing pair of a channel and the insertion loss of a disturbed pair of the same channel

NOTE This also applies to the calculation using the near-end crosstalk loss from a disturbing pair within a permanent link or component, used to create a channel, and the insertion loss of a disturbed pair within the permanent link or component, of the same channel.

3.1.10
average alien (exogenous) near-end crosstalk loss
calculated average of the alien near-end crosstalk loss of the pairs of a disturbed channel

NOTE This also applies to the calculation using the pairs within a permanent link, used to create a channel.

3.1.11
average power sum alien (exogenous) near-end crosstalk loss
calculated average of the power sum alien near-end crosstalk loss of the pairs of a disturbed channel

iTeh STANDARD PREVIEW

NOTE This also applies to the calculation using the pairs within a permanent link used to create a channel.

(standards.iteh.ai)

3.1.12
average power sum attenuation to alien (exogenous) crosstalk ratio far-end
calculated average of the power sum attenuation to alien crosstalk ratio at the far-end of the pairs of a disturbed channel

SIST EN 50173-1:2008/A1:2010
https://standards.iteh.ai/catalog/standards/sist/70155dbb-dfa1-4010-9766-dd60c73fd51c/sist-en-50173-1-2008-a1-2010

NOTE This also applies to the calculation using the pairs within a permanent link used to create a channel.

Renumber existing definitions 3.1.3 to 3.1.46 **into** 3.1.13 to 3.1.56.

Replace definition 3.1.7 (renumbered 3.1.17) **by**:

3.1.17
building entrance facility
space that provides all necessary mechanical and electrical services for the entry of cables into a building

Replace definition 3.1.26 (renumbered 3.1.36) **by**:

3.1.36
external network interface
termination point providing external network demarcation

Add the following definitions and **renumber** the existing definitions 3.1.47 to 3.1.56 **into** 3.1.63 to 3.1.72 :

3.1.57
power sum alien (exogenous) far-end crosstalk loss (PSAFEXT)
power sum of the signal isolation between multiple disturbing pairs of one or more channels and a disturbed pair of another channel, measured at the far-end

NOTE This also applies to the calculation using the multiple disturbing pairs within one or more permanent links or components and a disturbed pair within a permanent link or component, used to create another channel.

SIST EN 50173-1:2008/A1:2010

3.1.58
power sum alien (exogenous) near-end crosstalk loss (PSANEXT)
power sum of the signal isolation between multiple disturbing pairs of one or more channels and a disturbed pair of another channel, measured at the near-end

NOTE This also applies to the calculation using the multiple disturbing pairs within one or more permanent links or components and a disturbed pair within a permanent link or component, used to create another channel.

3.1.59
power sum attenuation to alien (exogenous) crosstalk ratio at the far-end (PSAACR-F)
difference, in dB, between the power sum alien far-end crosstalk loss from multiple disturbing pairs of one or more channels and the insertion loss of a disturbed pair in another channel

NOTE This also applies to the calculation using the multiple disturbing pairs within one or more permanent links or components and the insertion loss of a disturbed pair within a permanent link or component, used to create another channel.

3.1.60
power sum attenuation to alien (exogenous) crosstalk ratio at the near-end (PSAACR-N)
difference, in dB, between the power sum alien near-end crosstalk loss from multiple disturbing pairs of one or more channels and the insertion loss of a disturbed pair in another channel

NOTE This also applies to the calculation using the multiple disturbing pairs within one or more permanent links or components and the insertion loss of a disturbed pair within a permanent link or component, used to create another channel.

3.1.61
power sum attenuation to crosstalk ratio at the far-end (PSACR-F)
difference, in dB, between the power sum far-end crosstalk loss from multiple disturbing pairs of a channel and the insertion loss of a disturbed pair in the same channel

iTeh STANDARD PREVIEW
(standards.iteh.ai)

NOTE This also applies to the calculation using the multiple disturbing pairs within one or more permanent links or components, used to create a channel, and the insertion loss of a disturbed pair within a permanent link or component, of the same channel.

SIST EN 50173-1:2008/A1:2010
https://standards.iteh.ai/catalog/standards/sist/70155dbb-dfa1-4010-9766-dd60a73fd51c/sist-en-50173-1-2008-a1-2010

3.1.62
power sum attenuation to crosstalk ratio at the near-end (PSACR-N)
difference, in dB, between the power sum near-end crosstalk loss from multiple disturbing pairs of a channel and the insertion loss of a disturbed pair in the same channel

NOTE This also applies to the calculation using the multiple disturbing pairs within one or more permanent links or components, used to create a channel, and the insertion loss of a disturbed pair within a permanent link or component, of the same channel.

3.2 Abbreviations

Replace ACR and PSACR **by**:

ACR-N	Attenuation to crosstalk ratio at the near-end
PSACR-N	Power sum attenuation to crosstalk ratio at the near-end

Delete ELFEXT and PSELFEXT.

Add the following abbreviations:

AACR-F	Attenuation to alien (exogenous) crosstalk ratio at the far-end
ACR-F	Attenuation to crosstalk ratio at the far-end
AFEXT	Alien (exogenous) far-end crosstalk loss
ANEXT	Alien (exogenous) near-end crosstalk loss
FEXT	Far-end crosstalk loss

SIST EN 50173-1:2008/A1:2010

α	Insertion loss
α_{avg}	Average insertion loss
PSAACR-F	Power sum attenuation to alien (exogenous) crosstalk ratio at the far-end
PSAACR-F_{avg}	Average power sum attenuation to alien (exogenous) crosstalk ratio at the far-end
PSACR-F	Power sum attenuation to crosstalk ratio at the far-end
PSAFEXT	Power sum alien (exogenous) far-end crosstalk loss
PSAFEXT$_{norm}$	Normalised power sum alien (exogenous) far-end crosstalk loss
PSANEXT	Power sum alien (exogenous) near-end crosstalk loss
PSANEXT$_{avg}$	Average power sum alien (exogenous) near-end crosstalk loss

5.2.2.1 General

Replace the 1st and 2nd paragraphs **by**:

This standard specifies the following classes for balanced cabling:

a) Class A: specified up to 0,1 MHz;
b) Class B: specified up to 1 MHz;
c) Class C: specified up to 16 MHz;
d) Class D: specified up to 100 MHz;
e) Class E: specified up to 250 MHz;
f) Class E_A: specified up to 500 MHz;
g) Class F: specified up to 600 MHz;
h) Class F_A: specified up to 1 000 MHz.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 50173-1:2008/A1:2010
https://standards.iteh.ai/catalog/standards/sist/70155dbb-dfa1-4010-9766-adfe67fd51c/sist-en-50173-1-2008-a1-2010

A Class A channel is specified so that it will provide the minimum transmission performance to support Class A applications. Similarly, Class B, C, D, E, E_A, F and F_A channels provide the transmission performance to support Class B, C, D, E, E_A, F and F_A applications respectively. Channels of a given class will support all applications of a lower class. Class A is regarded as the lowest class.

5.2.2.2 Return loss

Replace the 1st paragraph **by**:

The variation of the input impedance of a channel is characterised by the return loss. The return loss parameter is applicable to Classes C, D, E, E_A, F, F_A and BCT-B only. The return loss for each pair of a channel shall meet the limits computed, to one decimal place, using the formulae of Table 4. The limits shown in Table 5 are derived from the formulae at key frequencies only.

SIST EN 50173-1:2008/A1:2010

Replace Table 4 and Table 5 **by**:

Table 4 – Formulae for return loss limits for a channel

Class	Frequency MHz	Minimum return loss dB
C	$1 \le f \le 16$	15,0
D	$1 \le f < 20$	17,0
	$20 \le f \le 100$	$30 - 10 \times \lg f$
E	$1 \le f < 10$	19,0
	$10 \le f < 40$	$24 - 5 \times \lg f$
	$40 \le f \le 250$	$32 - 10 \times \lg f$
E_A	$1 \le f < 10$	19,0
	$10 \le f < 40$	$24 - 5 \times \lg f$
	$40 \le f < 398,1$	$32 - 10 \times \lg f$
	$398,1 \le f \le 500$	6,0
F	$1 \le f < 10$	19,0
	$10 \le f < 40$	$24 - 5 \times \lg f$
	$40 \le f < 251,2$	$32 - 10 \times \lg f$
	$251,2 \le f \le 600$	8,0
F_A	$1 \le f < 10$	19,0
	$10 \le f < 40$	$24 - 5 \times \lg f$
	$40 \le f < 251,2$	$32 - 10 \times \lg f$
	$251,2 \le f < 631$	8,0
	$631 \le f \le 1\,000$	$36 - 10 \times \lg f$
BCT-B	$4 \le f < 10$	19,0
	$10 \le f < 100$	$24 - 5 \times \lg f$
	$100 \le f < 251,2$	$29 - 7,5 \times \lg f$
	$251,2 \le f < 600$	$17,2 - 2,6 \times \lg f$
	$600 \le f \le 1\,000$	$35 - 9 \times \lg f$

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 50173-1:2008/A1:2010
https://standards.iteh.ai/catalog/standards/sist/70155db8-dfaf-4e40-9766-dd60c73fd51c/sist-en-50173-1-2008-a1-2010

SIST EN 50173-1:2008/A1:2010

Table 5 – Return loss limits for a channel at key frequencies

Frequency MHz	Minimum return loss dB							
	0,1	**1,0**	**16,0**	**100,0**	**250,0**	**500,0**	**600,0**	**1 000,0**
Class C	N/A	15,0	15,0	N/A	N/A	N/A	N/A	N/A
Class D	N/A	17,0	17,0	10,0	N/A	N/A	N/A	N/A
Class E	N/A	19,0	18,0	12,0	8,0	N/A	N/A	N/A
Class E_A	N/A	19,0	18,0	12,0	8,0	6,0	N/A	N/A
Class F	N/A	19,0	18,0	12,0	8,0	8,0	8,0	N/A
Class F_A	N/A	19,0	18,0	12,0	8,0	8,0	8,0	6,0
Class BCT-B	N/A	19,0	18,0	14,0	11,0	10,2	10,0	8,0

5.2.2.3 Insertion loss

Replace Table 6 and Table 7 **by**:

Table 6 – Formulae for insertion loss limits for a channel

Class	Frequency MHz	Maximum insertion loss dB
A	$f = 0,1$	16,0
B	$f = 0,1$	5,5
	$f = 1$	5,8
C	$1 \le f \le 16$	$1,05 \times \left(3,23 \times \sqrt{f}\right) + 4 \times 0,2$
D	$1 \le f \le 100$	$1,05 \times \left(1,910\ 8 \times \sqrt{f} + 0,022\ 2 \times f + 0,2/\sqrt{f}\right) + 4 \times 0,04 \times \sqrt{f}$, 4,0 min.
E	$1 \le f \le 250$	$1,05 \times \left(1,82 \times \sqrt{f} + 0,016\ 9 \times f + 0,25/\sqrt{f}\right) + 4 \times 0,02 \times \sqrt{f}$, 4,0 min.
E_A	$1 \le f \le 500$	$1,05 \times \left(1,82 \times \sqrt{f} + 0,009\ 1 \times f + 0,25/\sqrt{f}\right) + 4 \times 0,02 \times \sqrt{f}$, 4,0 min.
F	$1 \le f \le 600$	$1,05 \times \left(1,8 \times \sqrt{f} + 0,01 \times f + 0,2/\sqrt{f}\right) + 4 \times 0,02 \times \sqrt{f}$, 4,0 min.
F_A	$1 \le f \le 1\ 000$	$1,05 \times \left(1,8 \times \sqrt{f} + 0,005 \times f + 0,25/\sqrt{f}\right) + 4 \times 0,02 \times \sqrt{f}$, 4,0 min.
CCCB	$f = 0,1$	4,0
BCT-B-L	$1 \le f \le 1\ 000$	$0,132 \times \left(1,645 \times \sqrt{f} + 0,01 \times f + 0,25/\sqrt{f}\right) + 2 \times 0,02 \times \sqrt{f}$, 2,0 min.
BCT-B-M	$1 \le f \le 1\ 000$	$0,264 \times \left(1,645 \times \sqrt{f} + 0,01 \times f + 0,25/\sqrt{f}\right) + 2 \times 0,02 \times \sqrt{f}$, 2,0 min.
BCT-B-H	$1 \le f \le 1\ 000$	$0,514 \times \left(1,645 \times \sqrt{f} + 0,01 \times f + 0,25/\sqrt{f}\right) + 2 \times 0,02 \times \sqrt{f}$, 2,0 min.
NOTE The slope (difference in attenuation) between 47 MHz and 862 MHz is critical for BCT- B applications. See F.1 for additional information regarding supported applications.		

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 50173-1:2008/A1:2010
https://standards.iteh.ai/catalog/standards/sist/70155dbb-dfa3-4010-9766-dd60c73fd51c/sist-en-50173-1-2008-a1-2010

SIST EN 50173-1:2008/A1:2010

Table 7 – Insertion loss limits for a channel at key frequencies

Frequency MHz	Maximum insertion loss dB							
	0,1	**1,0**	**16,0**	**100,0**	**250,0**	**500,0**	**600,0**	**1 000,0**
Class A	16,0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Class B	5,5	5,8	N/A	N/A	N/A	N/A	N/A	N/A
Class C	N/A	4,2	14,4	N/A	N/A	N/A	N/A	N/A
Class D	N/A	4,0	9,1	24,0	N/A	N/A	N/A	N/A
Class E	N/A	4,0	8,3	21,7	35,9	N/A	N/A	N/A
Class E_A	N/A	4,0	8,2	20,9	33,9	49,3	N/A	N/A
Class F	N/A	4,0	8,1	20,8	33,8	49,3	54,6	N/A
Class F_A	N/A	4,0	8,0	20,3	32,5	46,7	51,4	67,6
Class CCCB	4,0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Class BCT-B-L	N/A	2,0	2,0	2,7	4,4	6,4	7,1	9,5
Class BCT-B-M	N/A	2,0	2,0	5,0	8,2	11,9	13,2	17,6
Class BCT-B-H	N/A	2,0	3,7	9,4	15,3	22,4	24,8	33,2

iTeh STANDARD PREVIEW
(standards.iteh.ai)

5.2.2.4.1 Pair-to-pair NEXT

Replace the 1st paragraph **by:**

SIST EN 50173-1:2008/A1:2010

The pair-to-pair NEXT parameter is applicable to Classes A to F_A. The pair-to-pair NEXT α_{NEXT} for each pair combination of a channel shall meet the limits computed, to one decimal place, using the formulae of Table 8. The limits shown in Table 9 are derived from the formulae at key frequencies only.