# SLOVENSKI STANDARD
# SIST EN 61319-1:1999/A11:2003

**01-december-2003**

---

**Amendment to EN to extend the Interface Protocols between the satellite receiver and the outdoor parts using the IF cable derived from the DiSEqC Bus specifications**

Interconnections of satellite receiving equipment -- Part 1: Europe

Zusammenschaltungen von Satelliten-Empfangsgeräten -- Teil 1: Europa

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Interconnexions des équipements de réception satellite -- Partie 1: Europe

SIST EN 61319-1:1999/A11:2003
https://standards.iteh.ai/catalog/standards/sist/e175a481-1b3b-4875-9e78-597fe506f714/sist-en-61319-1-1999-a11-2003

**Ta slovenski standard je istoveten z: EN 61319-1:1996/A11:1999**

---

**ICS:**

| | | |
|---|---|---|
| 33.060.30 | Radiorelejni in fiksni satelitski komunikacijski sistemi | Radio relay and fixed satellite communications systems |

**SIST EN 61319-1:1999/A11:2003** **en**

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

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 61319-1:1999/A11:2003
https://standards.iteh.ai/catalog/standards/sist/ef75a48f-ff3b-4675-9e78-597fe506f714/sist-en-61319-1-1999-a11-2003

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

# EN 61319-1/A11

April 1999

ICS 31.220.10; 33.060.30; 33.160.20

English version

# Interconnections of satellite receiving equipment Part 1: Europe

Interconnexions des équipements de réception satellite
Partie 1: Europe

Zusammenschaltungen von Satelliten-Empfangsgeräten
Teil 1: Europa

iTeh STANDARD PREVIEW
(standards.iteh.ai)
https://standards.iteh.ai/catalog/standards/sist/ef75a48f-f3b-4675-9e78-597fe66f714/sist-en-61319-1-1999-a11-2003
SIST EN 61319-1:1999/A11:2003

This amendment A11 modifies the European Standard EN 61319-1:1996; it was approved by CENELEC on 1998-10-01. 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.

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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

© 1999 CENELEC - All rights of exploitation in any form and by any means reserved worldwide for CENELEC members.

Ref. No. EN 61319-1:1996/A11:1999 E

## Foreword

This amendment to the European Standard EN 61319-1:1995 was prepared by the Technical Committee CENELEC TC 206, Broadcast receiving equipment.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as amendment A11 to EN 61319-1:1995 on 1998-10-01.

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) 1999-10-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 1999-10-01

In this standard, annex ZB, which is added by CENELEC, is normative.

The DiSEqC specification referred to in this standard is an open standard; therefore no license is requested or royalty is to be paid to the rightholder EUTELSAT for its use.

DiSEqC™ is a trademark of EUTELSAT.

Conditions for use of the trademark and the DiSEqC logo can be obtained from EUTELSAT.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
https://standards.iteh.ai/catalog/standards/sist/ef75a48f-ff1a-4675-9e78-597fe506f714/sist-en-61319-1-1999-a11-2003
SIST EN 61319-1:1999/A11:2003

**Contents**

Add:



**1 Scope**

Add:

A method of communication between the satellite receiver and the peripheral equipment is given in annex ZB.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 61319-1:1999/A11:2003
https://standards.iteh.ai/catalog/standards/sist/ef75a48f-f3b-4675-9e78-59de506f714/sist-en-61319-1-1999-a11-2003

**ANNEX ZB**
(normative)

**Communication between the satellite receiver and the peripheral equipment using the Digital Satellite Equipment Control bus (DiSEqC)**

# Contents



iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 61319-1:1999/A11:2003
https://standards.iteh.ai/catalog/standards/sist/ef75a68f-ff5b-4671-9e78-597fe706f71f/sist-en-61319-1-1999-a11-2003

**Introduction**

In EN 61319-1:1995, the interfaces for the control and command of the devices associated with the satellite receivers are described in the following clauses :

cl 4: Interface requirements for polarizers and polar switchers
cl 5: Interface requirements for low noise block converters (LNB)
cl 6: Interface requirements for switching between different antenna sources or antenna positions.

In these clauses, analogue techniques are described and in particular the so called "13/18 d.c. voltage and 22 kHz tone" which are extensively used today.

The purpose of this annex is to introduce a single method of communication, between the satellite receiver and the peripheral equipment, using only the existing coaxial cable. The method is based on the specifications of the "Digital Satellite Equipment Control Bus" called DiSEqC. It can replace all conventional analogue switching and all other control wiring.

It is backwards compatible with 13/18 volt and 22 kHz tone switching.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
https://standards.iteh.ai/catalog/standards/sist/ef75a48f-f3b-4675-9e78-597fc96d7/sist-en-61319-1-1999-a11-2003
SIST EN 61319-1:1999/A11:2003

## ZB.1 Scope

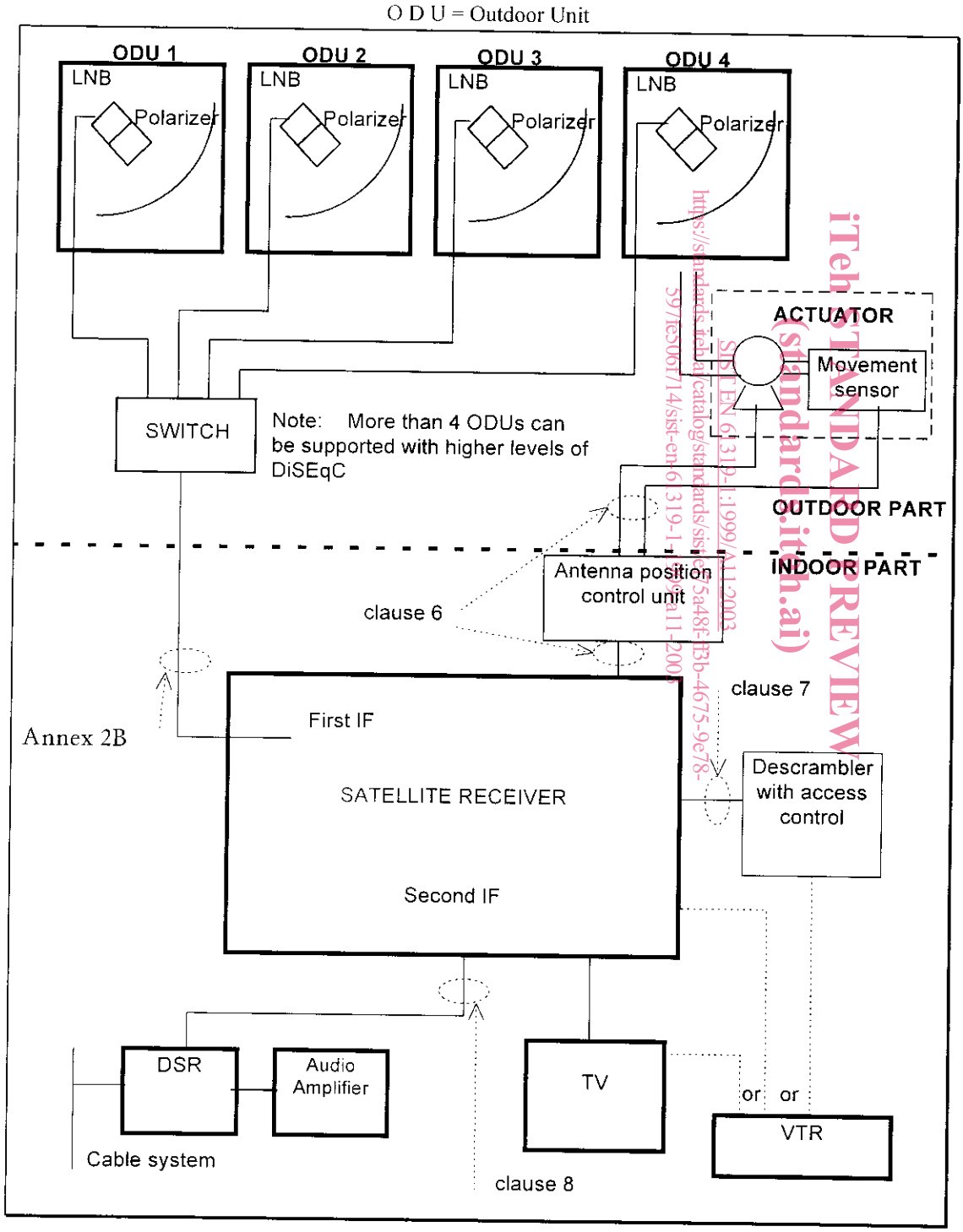
This annex deals with a subset of the DiSEqC Bus used for communications of control and command messages from the satellite receiver/IRD to the peripheral equipment. It describes the principle of the communication method and gives the major requirements for:

- the system structure,
- the message structure and the table of commands,
- the signal characteristics,
- the signal transport conditions.

In figure 1 of EN 61319-1 the "Conventional configuration" is shown.

The diagram in figure ZB.1 illustrates an informative example of a system configuration using DiSEqC.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 61319-1:1999/A11:2003
https://standards.iteh.ai/catalog/standards/sist/ef75a48f-f3b-4675-9e78-597fe506f1f4/sist-en-61319-1-1999-a11-2003




iTeh STANDARD PREVIEW
(standards.iteh.ai)
https://standards.iteh.ai/catalog/standards/sist/e5a48f-f3b-4675-9e78-597fe506f714/sist-en-61319-1-1999-a11-2003
SIST EN 61319-1:1999/A11:2003

**Figure ZB.1: Diagram of a typical system using DiSEqC**

## ZB.2 Normative references

"DiSEqC™ Bus Functional Specifications Version 4.1", April 18th, 1997.

## ZB.3 Basic principle of the extended signalling method

A complete description of the DiSEqC Bus is found in the DiSEqC Bus Functional Specifications.

This annex deals with a subset of the DiSEqC Bus. Only ONE WAY SIGNALS from the satellite receiver/[1]IRD to the peripheral equipment are considered. Only the so called "DiSEqC level 1.0 are used (which includes the "Tone Burst signalling").

A significant difference between the content of this annex and the full DiSEqC specification is that automatic identification of the configuration (at the initialisation stage) by a dialogue between master/slave is impossible.

Appropriate procedures are therefore required at the installation of the systems.

The system is backwards compatible with the existing protocols, and to encourage the migration to full two-way DiSEqC, it is recommended that the peripheral equipment always implement the reply capability (slave to master message).

## ZB.4 Typical applications

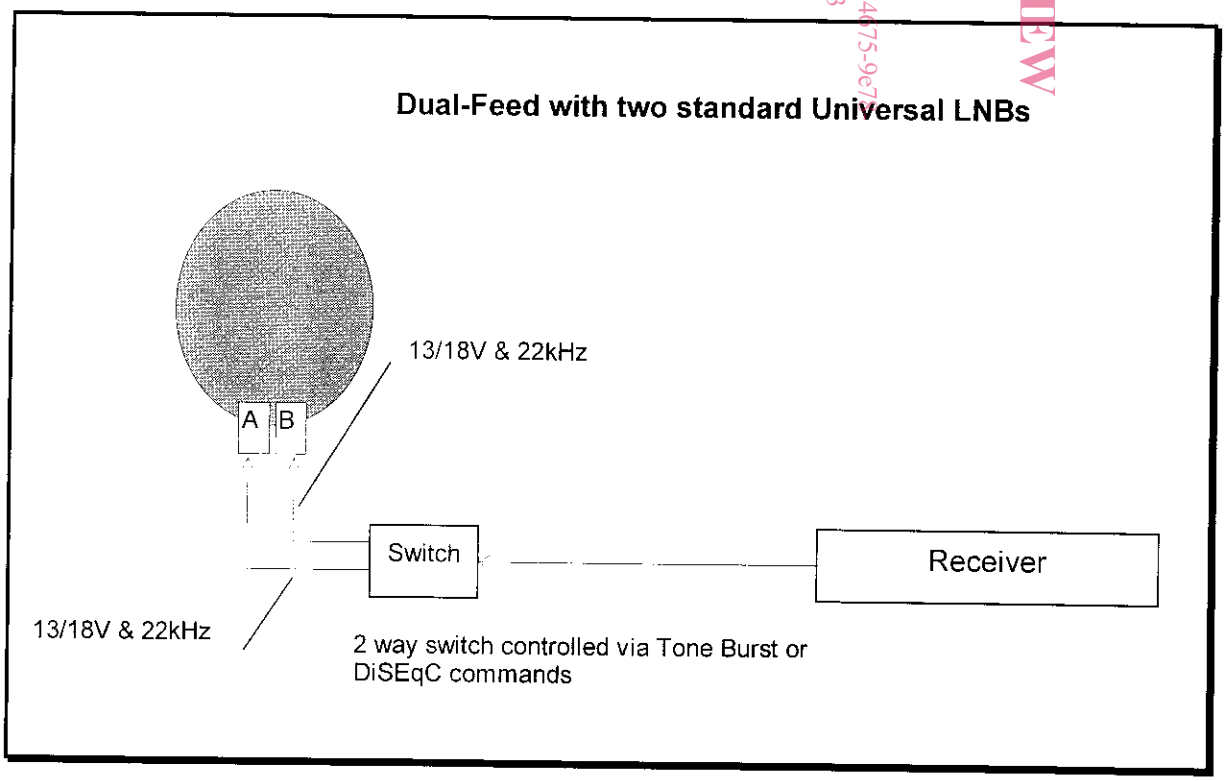



**Figure ZB.2 : Two state switch controlled via DiSEqC level 1.0**

[1] Integrated Receiver Decoders (IRD)

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 61319-1:1999/A11:2003
https://standards.iteh.ai/catalog/standards/sist/675a48f-f3b-4675-9e7
90f6e506f7/sist-en-61319-1-1999-a11-2003

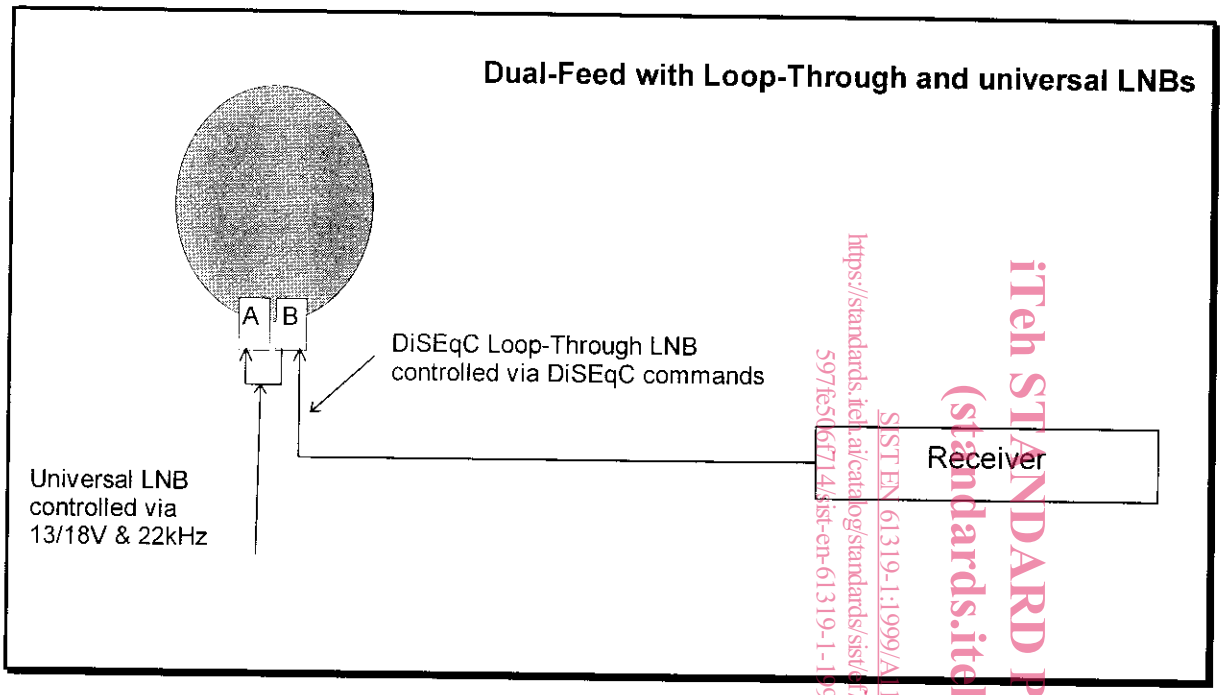



**Figure ZB.3:** **Dual Feed with Loop Through and an universal LNB using DiSEqC level 1.0**

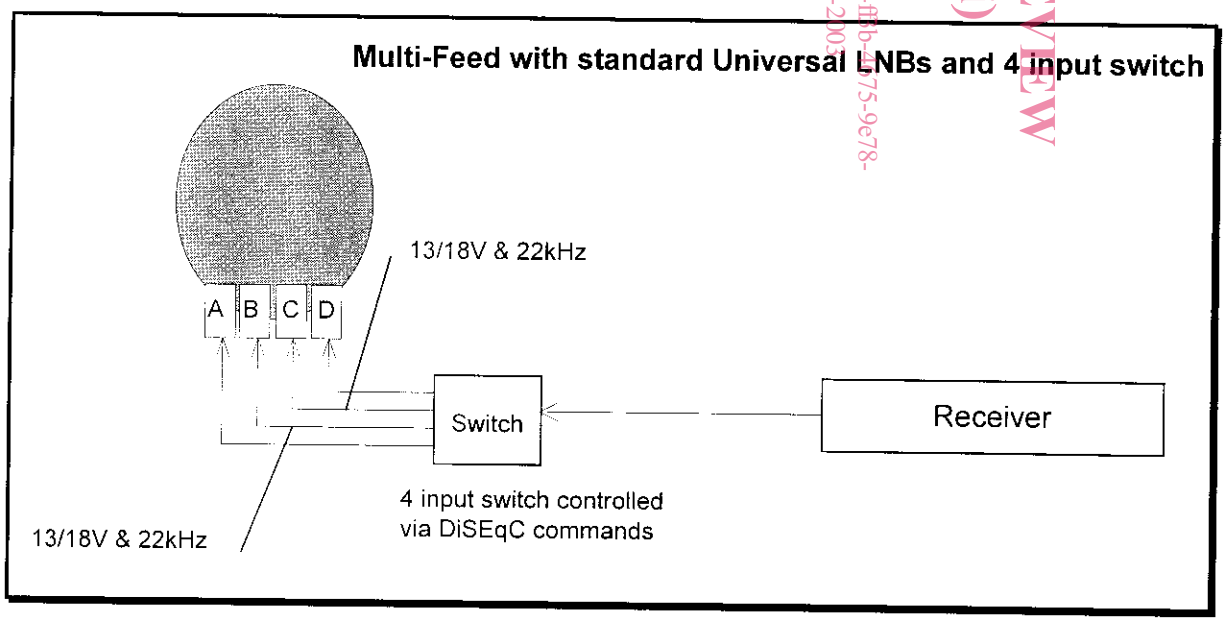



**Figure ZB.4:** **Multi-Feed with several universal LNBs and external switch using DiSEqC level 1.0**

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 61319-1:1999/A11:2003
https://standards.iteh.ai/catalog/standards/sist/6772448f-f8b-4775-9e78-597fe506f714/sist-en-61319-1-1999-a11-2003