



SLOVENSKI STANDARD

SIST ETS 300 157:2000

01-maj-2000

GUHY]hg_YnYa Y'g_Y'dcghUY]b'g]ghYa]'fG9 GL!' GdfY^Ya b]'gUHY]hg_]h'fa]bU]'n
a Ub^yc`UbhYbc`fU G5 HgLnUZY_j Yb bUdUgcj U%#/#&; <n

Satellite Earth Stations and Systems (SES); Receive-only Very Small Aperture Terminals (VSATs) operating in the 11/12 GHz frequency bands

iteh STANDARD PREVIEW
(standards.iteh.ai)

Ta slovenski standard je istoveten z: ^{SIST ETS 300 157:2000} **ETS 300 157 Edition 2**
<https://standards.iteh.ai/catalog/standards/sist/dc1239ce-c912-4626-8322-2fa38ee4480c/sist-ets-300-157-2000>

ICS:

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

SIST ETS 300 157:2000

en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST ETS 300 157:2000

<https://standards.iteh.ai/catalog/standards/sist/df239ce-e9f2-4b26-8322-2fa38ee4480c/sist-ets-300-157-2000>



EUROPEAN
TELECOMMUNICATION
STANDARD

ETS 300 157

September 1996

Second Edition

Source: ETSI TC-SES

Reference: RE/SES-00009

ICS: 33.060.30

Key words: satellite, earth station, RO, VSAT, FSS, radio

**Satellite Earth Stations and Systems (SES);
Receive-only Very Small Aperture Terminals (VSATs)
operating in the
11/12 GHz frequency bands**

ETSI

European Telecommunications Standards Institute

ETSI Secretariat

Postal address: F-06921 Sophia Antipolis CEDEX - FRANCE

Office address: 650 Route des Lucioles - Sophia Antipolis - Valbonne - FRANCE

X.400: c=fr, a=atlas, p=etsi, s=secretariat - **Internet:** secretariat@etsi.fr

Tel.: +33 92 94 42 00 - Fax: +33 93 65 47 16

Copyright Notification: No part may be reproduced except as authorized by written permission. The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 1996. All rights reserved.

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST ETS 300 157:2000

<https://standards.iteh.ai/catalog/standards/sist/df239ce-e9f2-4b26-8322-2fa38ee4480c/sist-ets-300-157-2000>

Contents

Foreword	5
1 Scope	7
2 Normative references	8
3 Definitions and abbreviations	8
3.1 Definitions	8
3.2 Abbreviations	9
4 Test report	9
5 Safety	9
5.1 Mechanical construction	9
5.2 Lightning	9
6 Radio Frequency (RF)	10
6.1 Spurious radiation	10
6.2 Antenna receive gain pattern (co-polar and cross-polar)	10
6.3 Receive polarization discrimination	11
7 Mechanical	12
7.1 Pointing stability	12
7.2 Antenna pointing accuracy capability	12
7.3 Polarization angle alignment capability	12
8 Control and monitoring	13
History	14

iTech STANDARD PREVIEW

(standard.iTech.ai)

[SIST ETS 300 157:2000](https://standards.itech.ai/catalog/standards/sist/dc1239ce-e9f2-4b26-8322-2fa38ee4480c/sist-ets-300-157-2000)[https://standards.itech.ai/catalog/standards/sist/dc1239ce-e9f2-4b26-8322-](https://standards.itech.ai/catalog/standards/sist/dc1239ce-e9f2-4b26-8322-2fa38ee4480c/sist-ets-300-157-2000)[2fa38ee4480c/sist-ets-300-157-2000](https://standards.itech.ai/catalog/standards/sist/dc1239ce-e9f2-4b26-8322-2fa38ee4480c/sist-ets-300-157-2000)

Blank page

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST ETS 300 157:2000

<https://standards.iteh.ai/catalog/standards/sist/df239ce-e9f2-4b26-8322-2fa38ee4480c/sist-ets-300-157-2000>

Foreword

This second edition European Telecommunication Standard (ETS) has been produced by the Satellite Earth Stations and Systems (SES) Technical Committee of the European Telecommunications Standards Institute (ETSI).

Transposition dates	
Date of adoption of this ETS:	6 September 1996
Date of latest announcement of this ETS (doa):	31 December 1996
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	30 June 1997
Date of withdrawal of any conflicting National Standard (dow):	30 June 1997

Every ETS prepared by ETSI is a voluntary standard. This ETS may contain text concerning type approval of the equipment to which it relates. This text should be considered as guidance only and does not make this ETS mandatory.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST ETS 300 157:2000](https://standards.iteh.ai/catalog/standards/sist/dc239ce-e9f2-4b26-8322-2fa38ee4480c/sist-ets-300-157-2000)

<https://standards.iteh.ai/catalog/standards/sist/dc239ce-e9f2-4b26-8322-2fa38ee4480c/sist-ets-300-157-2000>

Blank page

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST ETS 300 157:2000](https://standards.iteh.ai/catalog/standards/sist/2fa38ee4480c/sist-ets-300-157-2000)

<https://standards.iteh.ai/catalog/standards/sist/2fa38ee4480c/sist-ets-300-157-2000>

1 Scope

This European Telecommunication Standard (ETS) provides specifications for the standardisation of the characteristics of Receive-Only (RO) Very Small Aperture Terminals (VSATs) operating as part of a satellite network (e.g. star, meshed or point-to-point) used for the distribution of information.

These VSATs have the following characteristics:

- operating in the exclusive part of the Ku-band allocated to the Fixed Satellite Services (FSS), 12,50 to 12,75 GHz (Space-Earth), and/or in the shared parts of the Ku-band, allocated to the FSS and Fixed Services (FS), 10,70 to 11,70 GHz (Space-Earth);
- in these frequency bands linear polarization is normally used and the system operates through satellites at 3° spacing;
- designed usually for unattended operation;
- antenna diameter not exceeding 3,8 m, or equivalent corresponding aperture.

The equipment considered in this ETS comprises both the "outdoor unit", usually composed of the antenna sub-system and associated Low Noise Block (LNB), and the "indoor unit" composed of the remaining part of the communication chain, including the cable between these two units.

This ETS applies to the VSAT with its ancillary equipment and its various terrestrial ports, and operated under the conditions which are within the ranges of humidity, temperature and supply voltage declared by the manufacturer.

EMC specifications are contained in ETS 300 673 [2].

This ETS does not contain any specifications or information on the installation of the VSATs.

The specifications have been selected to ensure an adequate level of compatibility for VSATs. The levels, however, do not cover extreme cases which may occur in any location but with a low probability of occurrence. In such a case it may be necessary to use special protection applied to either the source of interference, or the interfered part or both.

This ETS deals with two types of specification:

- specifications defined in order to protect other users of the frequency spectrum, both satellite and terrestrial, from unacceptable interference. In addition, these specifications are specified for the purposes of structural safety and lightning protection as well as protection from harmful interference;
- specifications related to characteristics which contribute to the quality of reception by providing the VSAT with minimum interference protection from other radio systems. These specifications apply if required by the manufacturer.