

INTERNATIONAL STANDARD

IEC 60950-21

First edition
2002-12

Information technology equipment – Safety –

Part 21: Remote power feeding

*This **English-language** version is derived from the original **bilingual** publication by leaving out all French-language pages. Missing page numbers correspond to the French-language pages.*



Reference number
IEC 60950-21:2002(E)

INTERNATIONAL STANDARD

IEC 60950-21

First edition
2002-12

Information technology equipment – Safety –

Part 21: Remote power feeding

© IEC 2002 Copyright - all rights reserved

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Electrotechnical Commission, 3, rue de Varembe, PO Box 131, CH-1211 Geneva 20, Switzerland
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

CONTENTS

FOREWORD	5
INTRODUCTION	9
1 Scope	11
2 Normative references.....	11
3 Definitions	11
4 General requirements	13
4.1 Power from a telecommunication network (see also 1.4.11 of IEC 60950-1).....	13
4.2 Access to energized parts (see also 2.1.1.1 of IEC 60950-1)	13
4.3 Protection in service access areas (see also 2.1.2 of IEC 60950-1)	13
4.4 Protection in restricted access locations (see also 2.1.3 of IEC 60950-1).....	13
4.5 Interconnection of equipment.....	15
4.5.1 General requirements (see also 3.5.1 of IEC 60950-1).....	15
4.5.2 Interconnection between RFT circuits (see also 3.5.2 of IEC 60950-1).....	15
5 Connection to telecommunication networks.....	15
6 Remote power feeding	15
6.1 RFT-C circuit limits	15
6.1.1 Limits under normal operating conditions	17
6.1.2 Limits under single fault conditions	17
6.1.3 Limits with one conductor earthed.....	19
6.2 RFT-V circuit limits	19
6.2.1 Limits under normal operating conditions	19
6.2.2 Limits under single fault conditions	21
6.2.3 Limits with one conductor earthed.....	21
6.3 Separation from other circuits and parts	21
6.4 Installation instructions	23
Annex A (informative) Remote power feeding.....	27
Bibliography.....	37
Figure 1 – Maximum current after a single fault.....	19
Figure 2 – Limits for capacitance values of RFT CIRCUITS or the total system	25
Figure A.1 – Example of a remote power feeding RFT-C system	31
Figure A.2 – Example of a remote power feeding RFT-V system	33

INTERNATIONAL ELECTROTECHNICAL COMMISSION

INFORMATION TECHNOLOGY EQUIPMENT – SAFETY –

Part 21: Remote power feeding

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60950-21 has been prepared by IEC technical committee 108: Safety of electronic equipment within the field of audio/video, information technology and communication technology

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

FDIS	Report on voting
108/22/FDIS	108/42/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.

In this standard, the following print types are used:

- requirements proper and normative annexes: in roman type;
- *compliance statements and test specifications: in italic type;*
- notes and other informative matter: in smaller roman type;
- normative conditions within tables: in smaller roman type;
- Terms that are defined in Clause 2 and in IEC 60950-1: SMALL CAPITALS.

The committee has decided that the contents of this publication will remain unchanged until 2005-11. At this date, the publication will be

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

INTRODUCTION

This Part 21 of IEC 60950 is intended to be used with IEC 60950-1, hereafter referred to as “Part 1”. The subclauses of IEC 60950-1 apply as far as reasonable. Where safety aspects are similar to those of Part 1, the relevant clause or subclause of IEC 60950-1 is shown for reference in parentheses after the clause or subclause title in this Part 21. Where a requirement in this Part 21 refers to a requirement or criterion of Part 1, a specific reference to IEC 60950-1 is made.

INFORMATION TECHNOLOGY EQUIPMENT – SAFETY –

Part 21: Remote power feeding

1 Scope

This part of IEC 60950 applies to information technology equipment intended to supply and receive operating power via a TELECOMMUNICATION NETWORK, where the voltage exceeds the limits for TNV CIRCUITS.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60950-1:2001, *Information technology equipment – Safety – Part 1: General requirements*