SLOVENSKI STANDARD

PSIST ETS 300 719-2:1998

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Radijska oprema in sistemi (RES) - Zasebna storitev prostranega osebnega klica na širšem področju - 2. del: Funkcijske značilnosti in dostopovni protokol za zasebne sisteme prostranega osebnega klica na kanalih s souporabo

Radio Equipment and Systems (RES); Private wide area paging service; Part 2: Functional characteristics and access protocol for private wide-area paging systems on shared channels

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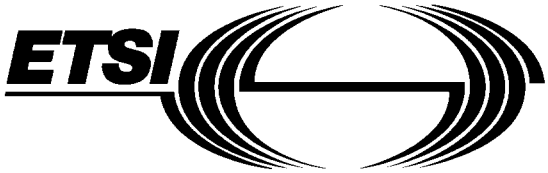

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Foreword

This European Telecommunication Standard (ETS) has been produced by the Radio Equipment and Systems (RES) Technical Committee of the European Telecommunications Standards Institute (ETSI).

This ETS consists of two parts as follows:

Part 1: "Technical characteristics for private wide-area paging systems";

Part 2: "Functional characteristics and access protocol for private wide-area paging systems on shared channels".

Provisions for ElectroMagnetic Compatibility (EMC) are defined in ETS 300 719-1 [1] and ETS 300 741.

Transposition dates	
Date of adoption:	20 June 1997
Date of latest announcement of this ETS (doa):	31 October 1997
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	30 April 1998
Date of withdrawal of any conflicting National Standard (dow):	30 April 1998

Introduction

Private Wide-Area Paging (PWAP) systems are basically On-Site Paging (OSP) systems with an extended range achieved by using a higher transmitter power (for guidance 25W could be a suitable value) and antenna location, as well as a specified receiver sensitivity. Private Wide-Area Paging systems can operate as a set of two or more paging systems working independently from each other and having overlapping coverage areas and sharing the same channel. Potential applications include emergency services, hospitals and manufacturing industry that may be located at various sites within the covered area.

These systems may use time sharing in order to increase the number of virtual available channels. The time sharing specified in this ETS is based on a free-running system with dynamic channel access, that requires minimum overhead and provides for maximum available net-air time.

This access protocol applies to single frequency simplex operation where the carrier sense mechanism is available for use according to this protocol. It features dynamic channel access by applying CSMA/CA techniques. This access protocol is applicable for:

- multiple users who do not share a common central control facility but do share a common single radio channel, for the independent transmission of paging-messages;

- multiple users who do not share a common central control facility but do share a common single radio channel, for the independent transmission of analogue speech and / or paging messages, and where speech-transmissions do not have any priority over the transmission of (non-speech) paging-messages.

This ETS does not include performance characteristics that may be required by the user or requirements for interfacing equipment.

The conditions for licensing as well as conditions for interfacing to Public Switched Telephone Network (PSTN) are determined by the appropriate authorities.

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1 Scope

This European Telecommunication Standard (ETS) specifies the access protocol and functional characteristics for Private Wide-Area Paging (PWAP) systems. Such systems are characterized by one-way data and speech transmissions on radio channels shared by different users. This ETS gives freedom for the use of any bit rate, any type of modulation or any type of protocol which fulfils the requirements of this ETS in order to access a shared radio channel.

In this ETS the operational aspects of the private wide-area paging service have been included.

2 Normative references

This ETS incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this ETS only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

[1] ETS 300 719-1 (1996): "Radio Equipment and Systems (RES); Private wide-area paging system; Part 1: Air interface specification".

[2] ITU-R Recommendation 584: "Standard codes and formats for international radio paging".

3 Definitions, abbreviations and symbols

3.1 Definitions

For the purpose of this ETS, the following definitions apply:

3.1.1 General definitions

base station receiver: A receiver fitted with an antenna socket and intended for use in a fixed location. This can be a stand-alone device or part of a transceiver.

bit: Binary digit.

block: The smallest quantity of information that is sent over the radio channel. A constant number of useful bits are always sent together with the corresponding redundancy bits.

packet: One block or a contiguous stream of blocks sent by one transmitter to one particular receiver or one particular group of receivers.

3.1.2 Functional definitions

access: To gain occupancy of the Radio Frequency (RF) channel.

cycle time (t_c): The length of time between subsequent transmissions of the same system at full load.

transmission time slot interval (t_t): The duration of channel occupancy of a paging system (subclause 5.3.4).

ordinal number: An integer assigned to each system to establish a sequence.

system: A service provider of private wide area paging.