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Paging Systems (PS); Enhanced Radio MEssage System (ERMES); Part 5: Receiver conformance specification

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Foreword

This European Telecommunication Standard (ETS) has been produced by the Paging Systems (PS) Technical Committee of the European Telecommunications Standards Institute (ETSI).

This ETS comprises seven parts with the generic title "Paging systems; European Radio Message System (ERMES)". The title of each part is listed below:

- ETS 300 133-1: "Part 1 - General aspects"
- ETS 300 133-2: "Part 2 - Service aspects"
- ETS 300 133-3: "Part 3 - Network aspects"
- ETS 300 133-4: "Part 4 - Air interface specification"
- ETS 300 133-5: "Part 5 - Receiver conformance specification"
- ETS 300 133-6: "Part 6 - Base station specification"
- ETS 300 133-7: "Part 7 - Operation and maintenance aspects"

This part, ETS 300 133-5, specifies the receiver performance requirements and the conformance test and measurement methods.

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1 Scope

This part of the seven part European Telecommunication Standard (ETS) 300 133 defines the receiver conformance specification which the different categories of paging receiver must comply with before they can be operated on the European Radio Message System (ERMES). Essential features are covered which make up the basic version receiver of each paging receiver category and also the optional receiver features which, if implemented, must conform to this specification.

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 the 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 300 133-4: (1992) "Paging Systems (PS); European Radio Message System (ERMES) Part 4: Air interface specification".

[2] ISO Standard 1073 parts 1 & 2: "Alphanumeric character sets for optical recognition".

3 Definitions

For the purposes of this part of ETS 300 133 the following definitions shall apply.

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Basic RIC: the prime identity of a paging receiver allocated by the network operator when service is initiated. It shall not be changed without safeguards against unauthorised changes.

Batch number: the 4 bit number corresponding to a particular batch type. Batch type A shall correspond to batch number 0000. Batch type P shall correspond to batch number 1111.

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Codeword: the standard information unit of 30 bits length.

Codeblock: the unit of nine codewords used in the message partition.

Country code: binary representation of the country number defined in ETS 300 133-4 [1], Annex A. The country code consists of 7 bits.

External Message: a paging message sent to a receiver which is not in its home network.

External Receiver: a receiver operating in a network which is not its home network.

Home Network: the operator network with which a mobile subscriber has signed a subscription.

Home Operator: the network operator to which a specific user has subscribed.

Initial Address: the 18 most significant bits of the local address.

Local Address: the number used by a network to identify the receivers subscribed to it. It consists of 22 bits. The four least significant bits of the local address denote the batch number of the receiver.

Operator code: the number used by the system on the radio path to identify an operator within a country. It consists of 3 bits.

Operator Identity: the number used by the system on the radio path to identify the home operator of a receiver. It has a total length of 13 bits and consists of three parts, the zone code the country code and the operator code.

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Paging Area: the area controlled by a paging area controller. It is the minimum area to which a mobile subscriber is permitted to subscribe in order to receive his paging messages.

Paging Message: the tone-only, numeric, alphanumeric or transparent data information sent to a paging receiver.

Paging Signal: the signal sent on the radio path to a paging receiver.

Radio Identity Code (RIC): the number used by the system on the radio path to identify the receiver(s) for which the paging message is intended. The RIC has a total length of 35 bits and consists of five parts: the zone code (3 bits), the country code (7 bits), the operator code (3 bits), the initial address (18 bits) and the batch number (4 bits).

	Operator Identity			Local Address	
	Zone code	Country code	Operator Code	Initial address	Batch number
No. of bits	3	7	3	18	4

Reserved for future definition: the bits indicated are not specified in this edition of the standard but may be in future editions. The bits should be set to a default value and not used to convey information. The function of any equipment shall be independent of these bits. No fixed pattern of reserved bits should be assumed and no combination of reserved bits shall cause equipment to malfunction.

Zone code: binary representation of the zone number defined in ETS 300 133-4 [1], Annex A. The zone code consists of 3 bits.

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4 Abbreviations

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AII	Additional Information Indicator
AIF	Additional Information Field
AIT	Additional Information Type
AIN	Additional Information Number
APT	Address Partition Terminator
BAI	Border Area Indicator
CTA	Common Temporary Address
CTAP	Common Temporary Address Pointer
EB	External Bit
EOM	End of Message
ETI	External Traffic Indicator
FSI	Frequency Subset Indicator
IA	Initial Address
MD	Message Delimiter
PA	Paging Area
PR	Preamble
RF	Radio Frequency
RIC	Radio Identity Code
RSVD	Reserved
SI	System Information
SSI	Supplementary System Information
SSN	Subsequence Number
SYN	synchronisation
TEM	Transverse Electro Magnetic
UMI	Urgent Message Indicator