EUROPEAN TELECOMMUNICATION STANDARD

ETS 300 825

October 1997

Source: DECT

Reference: DE/DECT-060100

ICS: 33.020

Key words: Card, DAM, DECT, GSM

Digital Enhanced Cordless Telecommunications (DECT); 3 Volt DECT Authentication Module (DAM)

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Foreword

This European Telecommunication Standard (ETS) has been produced by the Digital Enhanced Cordless Telecommunications (DECT) Project of the European Telecommunications Standards Institute (ETSI).

This ETS defines the aspects of the DECT Authentication Module - Portable Equipment (DAM-PE) interface which is based on 3 Volt (3 V) technology to be used in the Portable Part (PP) within the DECT system.

Transposition dates	
Date of adoption:	3 October 1997
Date of latest announcement of this ETS (doa):	31 January 1998
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	31 July 1998
Date of withdrawal of any conflicting National Standard (dow):	31 July 1998

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1 Scope

This European Telecommunication Standard (ETS) defines the aspects of the Digital Enhanced Cordless Telecommunications (DECT) Authentication Module - Portable Equipment (DAM-PE) interface which is based on 3 Volt (3 V) technology to be used in the Portable Part (PP). It specifies the electrical and logical requirements necessary for the operation of the 3 V DAM-PE interface where it differs from ETS 300 331 [1]. For all aspects of the DAM-PE interface which are not covered by this ETS, ETS 300 331 [1] applies. This ETS is based upon ETS 300 641 [2] which specifies the same requirements for the 3 Volt Subscriber Identity Module (SIM).

2 Normative references

This ETS incorporates by dated and non-dated 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 non-dated references the latest edition of the publication referred to applies.

[1] ETS 300 331: "Digital European Cordless Telecommunications (DECT); DECT Authentication Module (DAM)".

[2] ETS 300 641: "Digital cellular telecommunications system (Phase 2); Specification of the 3 Volt Subscriber Identity Module - Mobile Equipment (SIM - ME) interface (GSM 11.12)".

3 Definitions, abbreviations and symbols

3.1 Definitions

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

3 V technology DAM: A DAM operating at 3 V ± 10% and 5 V ± 10%.

3 V technology PE: A PE operating the DAM-PE interface at 3 V ± 10% according to this ETS and 5 V ± 10% according to ETS 300 331 [1].

3 V only PE: A PE only operating the DAM-PE interface at 3 V ± 10% according to this ETS.

3.2 Abbreviations

For the purposes of this ETS, the following abbreviations apply:

ATR	Answer To Reset
CLK	Clock
DAM	DECT Authentication Module
DECT	Digital Enhanced Cordless Telecommunications
GSM	Global System for Mobile communications
IC	Integrated Circuit
I/O	Input/Output
ME	Mobile Equipment
PE	Portable Equipment
PP	Portable Part
RST	Reset
SIM	Subscriber Identity Module

3.3 Symbols

For the purposes of this ETS, the following symbols apply:

t_F	Fall time
t_R	Rise time
V_{IH}	Input Voltage (High)
V_{IL}	Input Voltage (Low)
V_{OH}	Output Voltage (High)
V_{OL}	Output Voltage (Low)

4 3 V technology

4.1 3 V technology DAM

The DAM shall operate on both 5 V ± 10% according to ETS 300 331 [1], and on 3 V ± 10% according to this ETS. If the PE supplies 5 V to the DAM, both the PE and the DAM shall operate according to ETS 300 331 [1]. The logical operation of the 3 V technology DAM shall be as defined in ETS 300 331 [1].

Clock stop mode shall be supported by the DAM. The DAM shall indicate "Clock Stop Allowed" in the file characteristics of the status information as specified in ETS 300 331 [1].

4.2 3 V technology impact

The text of ETS 300 641 [2], subclause 4.2 applies, where "SIM" is replaced by "DAM".

4.3 3 V technology DAM identification

The 3 V technology DAM shall contain an identification. The identification is coded on bit 5 in byte 14 of the status information as follows:

"0" = 5 V only DAM;

"1" = 3 V technology DAM.

In the case that the PE offers full compatibility by being able to operate the DAM interface at both 3 V and 5 V, then bit 5 in byte 14 of the status information, when set to "1", indicates that the DAM may be operated at 3 V.

The procedure for deriving the identification bit shall be performed by the PE immediately after the Answer To Reset (ATR) and before issuing any other command. The procedure consists of one command, either STATUS or GET RESPONSE.

4.4 3 V technology PE

The text of ETS 300 641 [2], subclause 4.4 applies, where "GSM 11.11 (ETS 300 608)" is replaced by "ETS 300 331", "SIM" is replaced by "DAM" and "ME" is replaced by "PE".

4.5 3 V Only PE

The text of ETS 300 641 [2], subclause 4.5 applies, where "GSM 11.11 (ETS 300 608)" is replaced by "ETS 300 331", "SIM" is replaced by "DAM", "GSM" by "DECT" and "ME" is replaced by "PE".

4.6 Activation and deactivation

The text of ETS 300 641 [2], subclause 4.6 applies, where "GSM 11.11 (ETS 300 608)" is replaced by "ETS 300 331", "SIM" is replaced by "DAM" and "ME" is replaced by "PE".

4.7 Supply voltage switching

The text of ETS 300 641 [2], subclause 4.7 applies, where "GSM 11.11 (ETS 300 608)" is replaced by "ETS 300 331", "SIM" is replaced by "DAM" and "ME" is replaced by "PE".

4.8 Cross compatibility

The text of ETS 300 641 [2], subclause 4.8 applies, where "SIM" is replaced by "DAM" and "ME" by "PE".

4.9 Outlook

The text of ETS 300 641 [2], subclause 4.9 applies, where "SIM" is replaced by "DAM" and "ME" is replaced by "PE".

5 Electrical specifications of the DAM-PE interface

The text of ETS 300 641 [2], clause 5 applies, where "GSM 11.11 (ETS 300 608)" is replaced by "ETS 300 331", "SIM" is replaced by "DAM" and "ME" is replaced by "PE".

Annex A (informative): Cross compatibility aspects

The text of ETS 300 641 [2], annex A applies, where "SIM" is replaced by "DAM" and "ME" is replaced by "PE".

History

Document history			
January 1997	Public Enquiry	PE 9720:	1997-01-17 to 1997-05-16
July 1997	Vote	V 9739:	1997-07-29 to 1997-09-26
October 1997	First Edition		

ISBN 2-7437-1759-9
Dépôt légal : Octobre 1997