



**E**UROPEAN  
**T**ELECOMMUNICATION  
**S**TANDARD

**DRAFT**  
pr **ETS 300 825**

January 1997

---

Source: ETSI TC-RES

Reference: DE/RES-03100

ICS: 33.020

**Key words:** Card, DECT, DAM, GSM

**Radio Equipment and Systems (RES);  
Digital Enhanced Cordless Telecommunications (DECT);  
3 Volt DECT Authentication Module (DAM)**

**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 4 92 94 42 00 - Fax: +33 4 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 1997. All rights reserved.



## Contents

Foreword .....	5
1 Scope .....	7
2 Normative references .....	7
3 Definitions, abbreviations and symbols .....	7
3.1 Definitions .....	7
3.2 Abbreviations .....	7
3.3 Symbols .....	8
4 3V technology .....	8
4.1 3V technology DAM .....	8
4.2 3V technology impact .....	8
4.3 3V technology DAM identification .....	8
4.4 3V technology PE .....	8
4.5 3V Only PE .....	8
4.6 Activation and deactivation .....	9
4.7 Supply voltage switching .....	9
4.8 Cross compatibility .....	9
4.9 Outlook .....	9
5 Electrical specifications of the DAM-PE interface .....	9
Annex A (informative): Cross compatibility aspects .....	10
History .....	11

Blank page

## Foreword

This draft European Telecommunication Standard (ETS) has been produced by the Radio Equipment and Systems (RES) Technical Committee of the European Telecommunications Standards Institute (ETSI), and is now submitted for the Public Enquiry phase of the ETSI standards approval procedure.

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

<b>Proposed transposition dates</b>	
Date of latest announcement of this ETS (doa):	3 months after ETSI publication
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	6 months after doa
Date of withdrawal of any conflicting National Standard (dow):	6 months after doa

Blank page

## 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 3V technology to be used in the Portable Part (PP). It specifies the electrical and logical requirements necessary for the operation of the 3V 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: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); DECT Authentication Module (DAM)".
- [2] ETS 300 641 (08/96, version 4.1.1): "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:

**3V technology DAM:** A DAM operating at  $3V \pm 10\%$  and  $5V \pm 10\%$ .

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

**3V only PE:** A PE only operating the DAM-PE interface at  $3V \pm 10\%$  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
IC	Integrated Circuit
I/O	Input/Output
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 3V technology

### 4.1 3V technology DAM

The DAM shall operate on both  $5V \pm 10\%$  according to ETS 300 331 [1], and on  $3V \pm 10\%$  according to this ETS. If the PE supplies 5V to the DAM, both the PE and the DAM shall operate according to ETS 300 331 [1]. The logical operation of the 3V 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 3V technology impact

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

### 4.3 3V technology DAM identification

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

"0" : 5V only DAM;

"1" : 3V technology DAM.

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

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 3V 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 3V 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**

<b>Document history</b>	
January 1997	Public Enquiry PE 9720: 1997-01-17 to 1997-05-16