

ETSI TS 101 948 V1.1.2 (2003-04)

Technical Specification

**Digital Enhanced Cordless Telecommunications (DECT);
DECT derivative for implementation in the 2,45 GHz ISM Band
(DECT-ISM)**



Reference

RTS/DECT-000216

Keywords

DECT, ISM, radio

ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

Important notice

Individual copies of the present document can be downloaded from:

<http://www.etsi.org>

The present document may be made available in more than one electronic version or in print. In any case of existing or perceived difference in contents between such versions, the reference version is the Portable Document Format (PDF). In case of dispute, the reference shall be the printing on ETSI printers of the PDF version kept on a specific network drive within ETSI Secretariat.

Users of the present document should be aware that the document may be subject to revision or change of status. Information on the current status of this and other ETSI documents is available at

<http://portal.etsi.org/tb/status/status.asp>

If you find errors in the present document, send your comment to:

editor@etsi.org

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 2003.
All rights reserved.

DECT™, **PLUGTESTS™** and **UMTS™** are Trade Marks of ETSI registered for the benefit of its Members.
TIPHON™ and the **TIPHON logo** are Trade Marks currently being registered by ETSI for the benefit of its Members.
3GPP™ is a Trade Mark of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners.

Contents

Intellectual Property Rights	5
Foreword.....	5
1 Scope	6
2 References	6
3 Definitions and abbreviations.....	7
3.1 Definitions	7
3.2 Abbreviations	7
4 Overview	8
4.1 Introduction	8
4.2 Application of the DECT base standard	8
5 Modifications of the physical layer	9
5.1 Nominal position of ISM band RF carriers	9
5.2 Accuracy and stability of ISM band RF carriers	9
5.3 Transmitter idle power output	9
5.4 Peak power per transceiver.....	9
5.5 Emissions due to transmitter transients	10
5.6 Spurious emissions when allocated a transmit channel	10
5.7 Spurious emissions when not allocated a transmit channel.....	10
6 Modifications of the MAC layer	10
6.1 Hopset replaces references to RF carrier	10
6.2 Hopset table.....	10
6.3 Frame number counter for the hopset.....	11
6.4 Bearer hop sequence and physical layer hop sequence	12
6.5 RF carrier Q-channel message.....	12
Annex A (informative): Formula used for generating the physical layer hop sequence.....	13
A.1 Definitions.....	13
A.2 Recursive formula generating the bearer hop sequences	13
A.3 Formula generating the physical layer hop sequence.....	13
Annex B (informative): Explanation of FCC requirements	15
B.1 Transmitter RF power level and coverage ranges	15
B.2 Requirements on the pseudorandom hop sequences	15
B.3 Spurious and out-of-band emissions	16
B.4 Procedures for idle lock and channel selection	16
Annex C (normative): RF carrier Q-channel message, $Q_H = 8$ (hex)	17
C.1 General	17
C.2 RF carrier.....	18
C.2.1 RF carrier number	18
C.2.2 Number of hopsets.....	18
Annex D (informative): Means to improve DECT-ISM resistance to local interference from other technologies	19
D.1 Introduction	19
D.2 Procedures for handling interference	20

Annex E (informative): Bibliography.....22
History23