
**Methods of measurement for radio equipment used in the mobile services - Part 8:
Methods of measurement for antennas**

Methods of measurement for radio equipment used in the mobile services -- Part 8:
Methods of measurement for antennas

Meßverfahren für Funkgerät im Beweglichen Funkdienst -- Teil 8: Meßverfahren für
Antennen

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Méthodes de mesure applicables au matériel de radiocommunication utilisé dans les
services mobiles -- Partie 8: Méthodes de mesure applicables aux antennes

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METHODS OF MEASUREMENT FOR RADIO EQUIPMENT USED IN
THE MOBILE SERVICES
PART 8 : METHODS OF MEASUREMENT FOR ANTENNAS

Méthodes de mesure applicables
au matériel de radiocommunication
utilisé dans les services
mobiles

Huitième partie: Méthodes de
mesure applicables aux antennes

Messverfahren für Funkgerät im
beweglichen Funkdienst
Teil 8: Messverfahren für
Antennen

BODY OF THE HD

The Harmonization Document consists of:

- IEC 489-8 (1984) ed 1 ; IEC/SC 120, not appended

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This Harmonization Document was approved by CENELEC on 1986-02-27.

The English and French versions of the HD are provided by the text of the IEC publication and the German version is the official translation of the IEC text.

According to the CENELEC Internal Regulations the CENELEC member National Committees are bound :

to announce the existence of this Harmonization Document at national level by or before 1986-07-01

to publish their new harmonized national standard by or before 1987-07-01

to withdraw all conflicting national standards by or before 1987-07-01

Harmonized national standards are listed on the HD information sheet, which is available from the CENELEC National Committees or from the CENELEC General Secretariat.

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Part 8: Methods of measurement for antennas



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

METHODS OF MEASUREMENT FOR RADIO EQUIPMENT
USED IN THE MOBILE SERVICES

Part 8: Methods of measurement for antennas

FOREWORD

- 1) The formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.
- 3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.

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PREFACE

This standard has been prepared by Sub-Committee 12D: Aerials (Antennas), of IEC Technical Committee No. 12: Radiocommunications.

A draft of Section One, Document 12D(Central Office)8, was submitted to the National Committees for approval under the Six Months' Rule in December 1976. As a result of the observations received, a Document, 12D(Central Office)16, was submitted to the National Committees for approval under the Two Months' Procedure in April 1978.

A draft of Section Two, Document 12D(Central Office)14, was submitted to the National Committees for approval under the Six Months' Rule in July 1977.

The National Committees of the following countries voted explicitly in favour of publication:

Document 12D(Central Office)8: Section One

Australia	Poland
Belgium	Romania
Canada	South Africa (Republic of)
Denmark	Spain
Egypt	Sweden
Germany	Switzerland
Hungary	Turkey
Italy	United Kingdom
Netherlands	United States of America

Document 12D(Central Office)16: Amendments to Section One

Australia	Poland
Belgium	South Africa (Republic of)
Denmark	Spain
Egypt	Sweden
France	Switzerland
Germany	Turkey
Italy	United Kingdom
Japan	United States of America
Netherlands	

Document 12D(Central Office)14: Section Two

Australia
Belgium
Denmark
Egypt
France
Germany
Hungary
Italy
Netherlands

Romania
South Africa (Republic of)
Spain
Sweden
Switzerland
Turkey
United Kingdom
United States of America

Other IEC publications quoted in this standard:

Publications Nos. 50: International Electrotechnical Vocabulary (IEV)

489-1: Methods of Measurement for Radio Equipment Used in the Mobile Services, Part 1: General Definitions and Standard Conditions of Measurement.

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METHODS OF MEASUREMENT FOR RADIO EQUIPMENT USED IN THE MOBILE SERVICES

Part 8: Methods of measurement for antennas

1. Scope

This standard applies specifically to antennas used for transmitting and receiving in the mobile services.

This standard is intended to be used in conjunction with IEC Publication 489-1: Part 1: General Definitions and Standard Conditions of Measurement. The supplementary terms and definitions and the conditions of measurement set forth in this standard are intended for type tests and may be used also for acceptance tests.

2. Object

The object of this standard is to define terms and conditions of measurement used to ascertain the performance of antennas within the scope of this standard and to make possible a comparison of the results of measurements made by different observers on different equipment.

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SECTION ONE — DEFINITIONS AND GENERAL CONDITIONS OF MEASUREMENT

3. Definitions

Definitions used in this standard generally conform to those given in the International Electrotechnical Vocabulary (IEV) and in other IEC publications on antennas. Where a term is not defined in this standard, the definition is that given in the IEV; in case of conflict, the definition given herein takes precedence.

Additional terms will be found in the measurement sections.

3.1 *Antenna*

For the purpose of this standard, an antenna is defined as a device for coupling a transmission line to space for the purpose of radiating or receiving electromagnetic waves. It includes any matching, balancing, phasing or other coupling devices up to the point of connection of the transmission line.

3.2 *Base station or fixed station antenna*

An antenna intended to be used at a base station or fixed station.

3.3 *Half-wave dipole antenna*

A dipole whose electrical length is half a wavelength.