**República Argentina - Poder Ejecutivo Nacional**

2017 - Año de las Energías Renovables

Annex

CIUDAD DE BUENOS AIRES
July 20, 2017

# Technical Standard ENACOM-Q2-60.14 V17.1
# LOW-POWER DEVICES

## Chapter I: Definitions and Requirements

### 1 Purpose

Specify the minimum necessary conditions the *low power devices (LPD)* should meet, that encourage the effective and efficient use of the radio spectrum. Establish test methods to be used by laboratories in the specifications verification.

### *2* Scope

This standard shall apply to transmitters / transceivers that provide unidirectional or bi-directional communications and that have low capacity to produce interference to other radio equipment.

This definition can be applied to various types of radio equipment, including:

- Alarms and motion detectors
- Closed-Circuit Television (CCTV)
- Industrial Control Devices
- Remote Controls
- Access controls (including open doors systems)
- Wireless audio devices, including microphones

- Radio Frequency IDentification (RFID)
- Transport Telematics Equipment
- Telemetry Systems

It should be noted that the list above is not comprehensive, so that other applications and technologies could be covered by this regulation at the ENACOM's discretion.

# 3 Definition of terms and abbreviations

The following definitions and abbreviations are adopted, for the sole purpose of this document.

## *3.1 Definitions*

**Module** *(transmitter/transceiver):* device composed of a radio frequency transmitter/transceiver, a radiating system and stabilization of power supply circuit, whose performance can be evaluated in an autonomous mode (*stand alone*) under the conditions required by this standard, designed mainly to be incorporated within other equipment.

## *3.2 Abbreviations*

ENACOM: National Communications Entity (Ente Nacional de Comunicaciones)

LPD: Low Power Device

EUT: Equipment Under Test

RAMATEL: Records of Activities and Telecommunications Materials (Registro de

Actividades y Materiales de Telecomunicaciones)

# 4 Preparation of the Equipment Under Test (EUT)

4.1 The applicant will provide the laboratory with at least one representative sample, with regard to its operation, of the production model. The same shall constitute, to the purposes of this document, the *Equipment Under Test (EUT).*

4.2 EUT will be identified with its corresponding brand, model, country of origin and serial number. In the case of prototypes, they should be identified individually by the applicant in order to be easily recognized.

4.3 It will be submitted accompanied by the technical documentation necessary to enable the operation set forth in the testing methods.

4.4 It should be tested in maximum and minimum frequencies within the intended operating range for the model. In the case of equipment whose ratings may not be

adjusted during measurements, two samples must be submitted, one tuned to the maximum frequency and one to the minimum.

The *LPD* designed to operate on a single frequency will only be tested on the appropriate frequency

4.5 If the *LPD* is designed to operate with different powers, the *EUT* will be adjusted to the maximum level for the testing.

4.6 In case of need for the use of adapters, connectors, cables or special measuring kits, these will be provided by the applicant.

4.7 If a specific test requires the use of other equipment, similar to the *EUT*, as counterpart of the same, it should be provided by the applicant.

4.8 If the LPD shows any automatism or other particular feature that prevents the normal registry by the laboratory equipment of the measured values (for example: transmission in burst mode, dynamic allocation of frequencies, etc.), the *EUT* must be accompanied by a suitable test software that allows its test under the conditions laid down in this standard.

4.9 During the measurements, under any circumstances, the *EUT* hardware may not be modified. For report preparation, only the selected sample/s will be used, not being able to change none of them until the completion of verifications.

4.10 In the case of testing several samples, the corresponding results will be included in the report, specifying sample and result.

4.11 In the precedent recitals, the test shall be deemed fulfilled whenever each of the samples comply with the requirements therein.

4.12 The *ENACOM* reserves the right to request technical documentation, samples and/or further tests on the product harmonized at any time during the term of the registration in the *RAMATEL.*

## 5 Technical Requirements

### *5.1 General*

The harmonized equipment model shall comply with the specifications of this technical standard for all operating conditions which are intended for marketing, regardless of the conditions under which it was tested.

In all cases, and especially harmonized modules, after the installation, the compliance of the radiated emissions with the regulatory limits set forth herein shall be guaranteed.

### *5.2 Antenna*

Low-power transmitters must be equipped with integrated antennas (permanently attached to the equipment) or specific detachable antennas provided with a special connector. This connector is the one that is not of the standard type that is commercially available or which is not normally used for RF connection. Thus, it is possible to substitute the external antenna in the event of malfunction only with another of the same

specifications.

The equipment whose transmitters are identical, but using antennas with different radio characteristics, will be regarded as different materials and must be tested in an independent way.

### *5.3 Level of Electric Field Strength*

The level of electric field strength measured at the distance indicated in an OATS (EPZA) shall be limited in each band by the values specified in the following table:

| Band [MHz] | Measurement Distance [m] | Electric field strength [µV/m] |
|---|---|---|
| 0,009 - 0,490 | 300 | 2400/f(kHz) |
| 3,155 - 3,400 (1) | 30 | 100 |
| 7,400 - 8,800 (1) | 30 | 100 |
| 10,440 - 10,760 | 30 | 30 |
| 13,553 - 13,567 | 30 | 15.848 |
| 30,000 - 37,500 | 3 | 100 |
| 88,000 - 108,000 | 3 | 250 |
| 138,200 - 138,450 | 3 | 150 |
| 216,000 - 217,000 | 3 | 200 |
| 310,000 - 314,000 | 3 | 200 |
| 401,000 - 402,000 | 3 | 18.260(2) |
| 402,000 - 405,000 | 3 | 18.260(3) |
| 405,000 - 406,000 | 3 | 18.260(4) |
| 433,075 - 434,775 | 3 | 366.000 |
| 902,000 - 928,000 | 3 | 50.000 |
| 2.400,0 - 2.483,5 | 3 | 50.000 |
| 3.100 - 10.600 | 3 | 1.000(5) |
| 22.000 - 26.650 | 3 | 1.000(5) |

**Table 1 - Frequency Bands and Electric Field permitted levels.**

Notes:

(1)Except that the bandwidth at 6 dB *(AB)* of the emission is less than 10% of the centre frequency *(fc),* in which case the limit is:

$$AB\ [\text{kHz}] / fc\ [\text{MHz}]\ \mu\text{V/m}\ \text{ó}\ 15\ \mu\text{V/m};\ \text{the greater of both.}$$

(2)Bandwidth at -20 dB, used by the *LPD* operating between 401-402 MHz, shall not exceed 100 kHz.
(3)Bandwidth at -20 dB, used by the *LPD* operating between 402 - 405 MHz, shall not exceed 300 kHz.
(4)Bandwidth at -20 dB, used by the *LPD* operating between 405 - 406 MHz, shall not exceed 100 kHz.
(5)The value of 1000 µV/m corresponds to the average field value, measured with a resolution bandwidth of 1 MHz; at a distance of 3 m. Emission shall not exceed a field peak value of 6.926 µV/m, measured with a resolution bandwidth of 3 MHz, at a distance of 3 m.

### *5.4 Unwanted emissions*

The levels of unwanted emissions, for all the bands that have been authorized shall not exceed the fundamental issue level.

Furthermore the following conditions shall be observed for the cases listed below:

5.4.1. The *LPD* which operate in the band between 13,553 - 13,567 MHz shall comply with the following transmission mask:

- Within bands 13,410-13,553 MHz and 13,567-13,710, the field strength of any emission shall not exceed the 334μV/m measured at 30 m.
- Within bands 13,110-13,410 MHz and 13,710-14,010 MHz the field strength of any emission shall not exceed the 106 μV/m measured at 30 m.
- The field strength of emissions that appear outside the band of 13,110-14,010 MHz shall not exceed the 30 μV/m measured at 30 m.

5.4.2. For the *LPD* operating in the band between 433,075-434,775 MHz, emissions measured outside this band, shall not exceed the level of 200 μV/mat 3 m, measured in a Test Site Open Zone using a quasi-peak detector.

5.4.3. For the *LPD* operating in the band between 902 - 928 MHz, emissions measured outside this band, shall not exceed the level of 200 μV/m at 3 m, measured in a Test Site Open Zone using a quasi-peak detector.

For these three cases, undesired emissions above 960 MHz will be limited to 500 μV/m at 3 m measured in a OATS using an average detector. If a peak detector is used, a 20 dB higher limit shall be considered.

## Chapter II: Test Methods

# 6 Test conditions

### *6.1 Environmental conditions*

All measurements included in the present regulation will be performed, unless otherwise provided, under *normal environmental conditions*.

It is considered a normal environmental condition, any combination of temperature, relative humidity and atmospheric pressure within the following limits:

| Parameter | Minimum | Maximum |
|---|---|---|
| Temperature: | 15 °C | 35 °C |
| Relative humidity: | 20% | 75% |
| Atmospheric pressure: | 73,3 kPa (733 mbar) | 106 kPa (1060 mbar) |

**Table 2 - Environmental Conditions**

### *6.2 Frequency selection*

In the case of tunable equipment (when the *EUT* frequency of operation can be adjusted during tests) tests should be repeated in each of the following conditions:

a) *EUT* tuned in the lower frequency carrier from the equipment operating frequency (lower channel).

b) *EUT* tuned in the higher frequency carrier from the equipment operating frequency (higher channel).

In the case of equipment that operate in different frequencies but are not tunable, two samples will be tested in the frequencies defined as followed:

a) The first sample will be tuned in the lower frequency carrier from the equipment operating band (lower channel.

b) The second sample will be tuned in the higher frequency carrier from the equipment operating frequency (higher channel).

Equipment designed to operate in a single frequency will be only tested in the corresponding frequency.

In all cases, the measured frequency will be recorded in the report.

### *6.3 RF power transmission selection*

It should be considered that the *LPD* should comply with every specification settled in this Regulation in the power range stipulated by the manufacturer.

Test will be performed with the EUT operating in the higher power transmission defined by the manufacturer.

### *6.4 Power supply normal conditions*

*Power supply normal conditions* are considered as follows:

#### 6.4.1 Electric power supply

Voltage: 220 VCA
Frequency: 50 ±1 Hz

#### 6.4.2 Batteries used in vehicles

Voltage: 110% of the battery nominal voltage (6 V, 12 V, etc.)

#### 6.4.3 Other sources of power supply

Normal conditions defined by the manufacturer should be recreated.

### *6.5 Tests power supply*

Tests should be done with the appropriate power supply. In the case of equipments that

are connected to an external power supply, specifications in point 6.5.1. should be considered. If the equipment has internal batteries, specifications in point 6.5.2 should be considered. When EUT supports both, opt for the first option. In any case, conditions set in point 6.4. should be recreated.

The type of power supply used will be recorded in the tests report.

### 6.5.1 External power supply

During tests, the EUT will be connected to an external power supply, able to generate the power supply levels required in each test.

The output voltage will be measured in the EUT input terminals. The power supply cables shall be arranged in such a way that they do not affect the results of the measurements.

It shall be ensured that the voltage variation during the tests does not exceed the limits of ±1% of the measured value at the commencement of the test.

### 6.5.2 Internal power supply

The EUT shall be powered by the battery/ies provided or recommended by the manufacturer, fully charged.

It shall be ensured that the voltage variation during the test, measured at the terminals of the battery/ies, does not exceed the limits of ±5% of the value measured at the commencement of the test. When this is not the case, batteries should be replaced.

## *6.6 Test setup for radiated measurements*

### 6.6.1 Measurements sites

The three measurements sites that can be used for measurements of radiated emissions required by this Regulation are described below:

- Anechoic chamber
- Anechoic chamber with ground plane
- Open area test site (OATS)

In these sites, measurements can be made in both, in absolute and relative terms.

#### 6.6.1.1 Anechoic chamber

An anechoic chamber is a generally shielded enclosure; its interior walls, ceiling and floor are covered with a radio-absorbent material, usually of the pyramidal polyurethane foam type.

The shielding of the chamber together with the radio absorption material works to provide a controlled environment for performing the tests. This type of test chamber tries to simulate free space conditions.

The shielding provides a test space with reduced levels of interference from ambient signals and other external effects, while radio absorption material minimizes undesirable wall and ceiling reflections that may influence measurements.

In practice, the shielding can easily provide high levels of rejection to ambient interference (from 80 dB to 140 dB).

The chamber will have a space large enough to locate a **turntable** where the EUT will be placed, together with the **test antenna** with its **mast support**.

The **mast support** of the antenna facilitates the variable regulation in height, so that the position of the test antenna can be modified to obtain the maximum signal received. Figure 1.

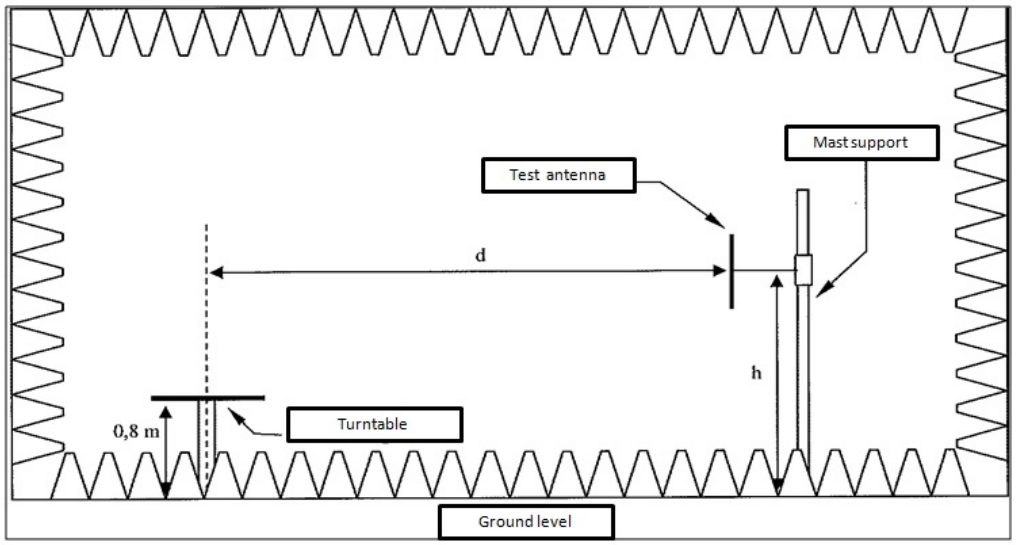


Figure 1

The **turntable** shall be capable of rotating 360 ° in the horizontal plane and shall be used to support the test sample (EUT) at a height of at least 0.8 m above ground level.

The **test antenna** shall be calibrated and parameters shall be known, for the frequency band under study and shall be located at a distance *d* (e.g. 3 m) from the vertical axis of the turntable and at a height *h* from ground level. The distance actually used in the measurements will be recorded with the results.

### 6.6.1.2 Anechoic chamber with conductive ground plane

An anechoic chamber with conductive ground plane is an enclosure of characteristics similar to that described in the previous point, with the difference that the floor is not covered with the radio absorbent material. It is metallic and it forms the **ground plane**.

This type of test chamber attempts to simulate an ideal Open Area Test Site, its main feature is an infinite ground plane with perfect conduction.

In this installation, the ground plane creates the desired reflection path, so that the signal received by the **test antenna** is the sum of the signals from both the direct and reflected transmission paths.

The site will have enough space to locate a **turntable** where the EUT and **test antenna** will be placed with its **mast support**.

The **mast support** of the antenna facilitates the adjustment variable in height between 1 and 4 meters, so that the position of the test antenna can be modified to obtain the maximum signal received. Figure 2.

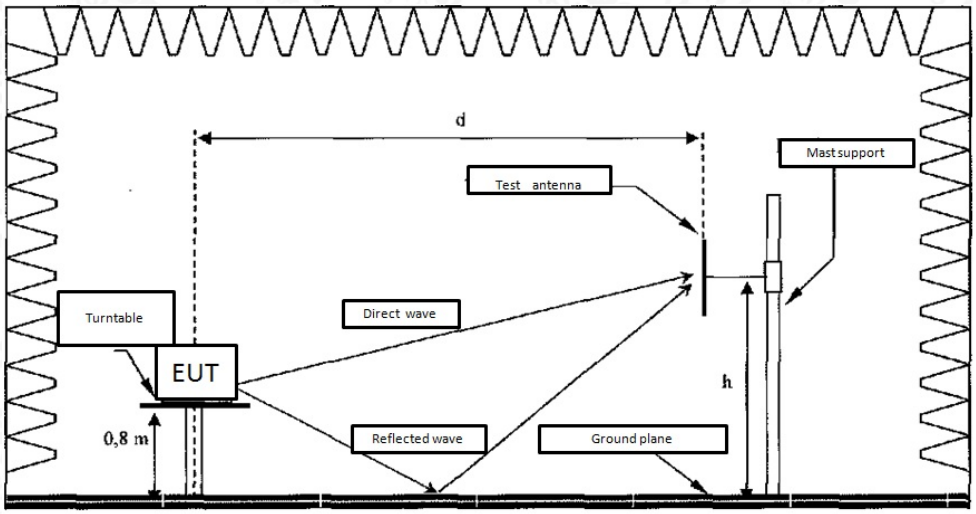


**Figure 2**

The **turntable** will be able to rotate 360° in the horizontal plane and it will be used to support the test sample (EUT) at a height of at least 0.8 m above ground level.

The **test antenna** shall be calibrated and parameters shall be known, for the frequency band under study and shall be located at a distance *d* (e.g. 3 m) from the vertical axis of the turntable and at a height *h* from ground level. The distance actually used in the measurements will be recorded with the results.

The height *h* shall be adjusted as indicated in each of the test procedures (defined below), extreme care should be taken to avoid reflections from nearby foreign objects and from the soil itself, which may degrade the result of the measurement.

### 6.6.1.3 Open Area Test Site (OATS)

An Open Area Test Site consists of a turntable at one end and a **test antenna** with its mast support variable height at the other end, above a ground plane, which in the ideal case, is perfectly conductive and of infinite extension.
In this case, the ground plane creates the reflection path required, so that the signal received by the **test antenna** is the sum of the signals from both direct and reflected transmission paths.

A **turntable** will be placed on the site where the EUT and the test antenna will be placed with its mast support.

The **mast support** of the antenna facilitates the adjustment, variable in height between 1 and 4 meters, so that the position of the test antenna can be modified to obtain the maximum signal received. Figure 3.

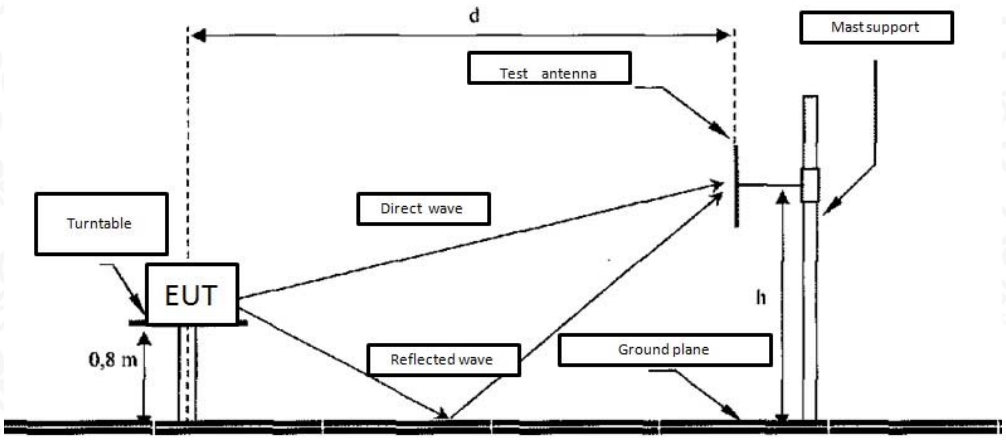


Figure 3

The **turntable** shall be capable of rotating 360 ° in the horizontal plane and shall be used to support the test sample (EUT) at a height of at least 0,8 m above ground level.

The **test antenna** shall be calibrated and parameters shall be known, for the frequency band under study and shall be located at a distance *d* (e.g. 3 m) from the turntable vertical axis and at a height *h* from the ground level. The distance actually used in the measurements will be recorded with the results.

The height *h* shall be adjusted as indicated in each of the test procedures (defined below), with extreme care being taken to avoid reflections from nearby foreign objects and from the ground itself, which may degrade the result of the measurement.

### 6.6.2 Calibrated receptor

To carry out the measurements required in the present Regulation, the laboratory shall have a calibrated receptor composed of the following elements:

- *Test antenna*
- *Mast support*

- *Measurement receiver*

#### *6.6.2.1 Test Antenna*

A test antenna calibrated according to the EUT transmission frequency shall be selected for the measurements.

For operating frequencies below 30 MHz, the use of a loop antenna with electric shielding is recommended.

For frequencies of operation equal to or above 30 MHz and up to 1000 MHz, it is recommended to use dipole antennas, of adequate dimensions to ensure resonance in the test frequency of the EUT.

For operating frequencies equal to or above 1000 MHz, both waveguide-type horn antennas and log periodic dipole array antennas, known as periodic logarithmic antennas.

#### *6.6.2.2 Mast support*

The test antenna shall be mounted on an adjustable height mast constructed of non-metallic material of low reflection.

#### *6.6.2.3 Measurement Receptor*

The measurement receptor, which shall be connected to the test antenna, may be either an Electric Field Strength Meter ( EFSM) or an appropriate Spectrum Analyzer (SA).

The type of detector and measurement bandwidth are specified in the following table:

| Band [MHz] | Detector | Band Width |
|---|---|---|
| 0,009 - 0,150 (1) | Average | 200 to 300 Hz |
| 0,150 - 0,490 | Average | 9 to 10 kHz |
| 3,155 - 3,400 | Average | 9 to 10 kHz |
| 7,400 - 8,800 | Average | 9 to 10 kHz |
| 10,440 - 10,760 | Quasi- peak | 9 to 10 kHz |
| 13,553 - 13,567 | Quasi -peak | 200 to 300 Hz |
| 30,000 - 37,500 | Quasi-peak | 100 to 120 kHz |
| 88,000 - 108,000 | Average | 100 to 120 kHz |
| 138,200 - 138,450 | Quasi-peak | 100 to 120 kHz |
| 216,000 - 217,000 | Quasi-peak | 100 to 120 kHz |
| 310,000 - 314,000 | Quasi-peak | 100 to 120 kHz |
| 401,000 - 402,000 | Peak | 100 to 120 kHz |
| 402,000 - 405,000 | Peak | 100 to 120 kHz |
| 405,000 - 406,000 | Peak | 100 to 120 kHz |
| 433,075 - 434,775 | Peak | 100 to 120 kHz |
| 902,000 - 928,000 | Average | 100 to 120 kHz |
| 2.400,0 - 2.483,5 | Average | 1 MHz |
| 3.100 - 10.600 | RMS/Peak | 1 MHz/3 MHz |
| 22.000 – 26.650 | RMS/Peak | 1 MHz/3 MHz |

**Table 3**

(1) For the frequency range of 90 kHz = <f = <110 kHz a quasi-peak detector shall be used.

In cases where the reference bandwidth $RBW_{ref}$ referred in Table 3 cannot be used as the measurement bandwidth $RBW_{med}$ , the field strength value obtained shall be referenced, either:

A) Making the correction with the following formula:

$$B = A + 10 \log (RBW_{ref}/RBW_{med})$$

Where,

A: Measured field strength level
B: Corrected field strength level for RBW reference
$RBW_{ref}$: Reference Bandwidth Resolution
$RBW_{med}$: Resolution of bandwidth used in the measurement

Or,

c) Directly using the measured value A, if the measured emission (discrete spectral line) has a peak value of at least 6 dB above the average level within the measurement bandwidth.

# 7 Technical Requirements Testing

## *7.1 Antenna*

It shall be verified that for the transmission of their emissions the *EUT* use of a type of antenna of the ones detailed in point 5.2

If *EUT* uses a detachable antenna with a standard connector, it shall be deemed as not to comply with this Standard point.

The description of the radiating system shall be expressed in the Laboratory Tests Report as follows:

| Antenna | | Complies (yes/no) |
|---|---|---|
| Integrated | | |
| Specific | | |
| Other | | |

Table 4

### *7.2 Level of Electric Field Strength*

It shall be verified that the level of electrical field strength radiated by the *EUT* meets that specified in 5.3.

#### 7.2.1 Frequencies below 30 MHz

For the type of devices covered by this standard, measurements at frequencies below 30 MHz may be conducted at lesser distance than the specified, capturing with a loop antenna the magnetic component of the signal emitted by the *EUT.*

As the reading of measurement instruments will be shown on voltage values (field E), the antenna factor (AF) specified by the manufacturer of the test antenna, should be considered for the given measurement frequency.

In all cases, the difference between the distance at which the measurement is made with respect to that specified in 5.3. should be considered. Thus, measurement corrections are to be made using an extrapolation factor of 40dB/decade, which is defined as:

$$\textit{Extrapolation factor of distance [dB]} = 40 \log (d/D)$$

Where,

- *d:* Actual distance of measurement
- *D:* Distance of measurement specified in 5.3.

The resulting value of electric field strength to be recorded in the test report shall be obtained from applying the following equation:

$$E_{res}[dBuV/m] = M_{lev}\,[dBuV] + AF[dB/m] + At[dB] + 40 \log (d/D)[dB]$$

Where,

- $E_{res}$: Resulting Electric field strength
- $Ml_{ev}$: Measured level
- *FA:* Antenna Factor
- *At:* Loss of cables and connectors
- *d:* Actual distance of measurement
- *D:* Distance of measurement specified in 5.3.

**Verification Method:**

In the measurement site selected (mentioned in 6.6.1) the *EUT* is placed on the turntable to a height of, at least, 0.80 m, and in a position similar to its normal use, as stated by the manufacturer.

A calibrated loop antenna, with electric shielding, should be selected which will be positioned with its plane oriented vertically at a distance *d* from the *EUT* and Azimuth of 0º. The loop antenna will be mounted on a tripod of non-conductive material with the lower edge of the loop at a height of 1 m from the ground level.

Test antenna output will be connected to the input of the Measuring receiver.

Switch on the EUT. If it operates with different power levels, set the same as specified in 6.3.

Tune the Measuring receiver at the transmission frequency of the *EUT*.

Measurement shall be made using the *Measuring receiver* with the Bandwidth and the Detector specified in Table 3

Condition of modulation employed by the *EUT* shall be added in the Test report.

Rotate the turntable (with the *EUT*) to obtain the maximum field strength value. The searching of azimuth in which the highest value is detected shall be continuous, for a rotation of 360°.

In the event that the continuous search of azimuth could not be materialized, take the reading at least 16 radial, separated 22.5 °.

The value obtained and the azimuth where the *EUT* is positioned shall be recorded in the test report (Table 5).

The procedure previously described shall be repeated by switching the azimuth of test antenna (loop) at 90°.

**Report:** The following table with the results obtained shall be prepared:

| | Azimuth loop 0º | | Azimuth loop 90° | | E authorized [µV/m] | Complies (yes/no) |
|---|---|---|---|---|---|---|
| | E measured [µV/m] | Azimuth EUT [°] | E measured [µV/m] | Azimuth EUT [°] | | |
| Sample 1 | | | | | | |
| Sample 2 | | | | | | |

**Table 5**

Complementary graphics of the results shown in the table will be included.

**Note:** For certain applications, it may also be necessary to position the plane of the loop antenna horizontally.

**Dictum:** If the E electric field measured, is less than the limit defined in 5.3 then complies, if not, it does not comply.

### 7.2.2 Frequency greater than or equal to 30 MHz

For operation frequencies, greater than or equal to 30 MHz measure directly the maximum electric field strength radiated.

The measurements shall be performed in accordance with the distance of measurement specified in 5.3.

This distance may be modified when measurements in these conditions could demonstrate to be suitable for the operation characteristics of the device.

**Verification Method:**

In the measurement site selected (mentioned in 6.6.1) the *EUT* is placed on the turntable to a height of, at least, 0.80 m, and in a position similar to its normal use, as stated by the manufacturer.

A test antenna should be selected according to the transmission frequency of the *EUT*, which will initially be positioned in vertical polarization.

Test antenna output will be connected to the input of the Measuring receiver.

Switch on the *EUT*. If it operates with different power levels, set the same as specified in 6.3.

Tune the Measuring receiver at the transmission frequency of the *EUT*.

Measurement shall be made using the *Measuring receiver* with the Bandwidth and the Detector specified in Table 3, taking into account the following special cases:

- In the case of the 402-405 MHz band the resolution bandwidth shall be greater than or equal to the emission bandwidth.

- In case of band 3,100-10,600 GHz measurements should be performed with both RMS detector and Peak detector, as indicated in 5.3.

- In case of band 22.000 to 26.650 GHz measurements should be performed with both RMS detector and Peak detector, as indicated in 5.3.

In all cases, condition of modulation employed by the *EUT* shall be added in the Test report.

Vary the height h of the test antenna to obtain the highest level of signal detected on the measuring receiver.

Rotate the turntable to obtain the maximum field strength value. The searching of azimuth in which the highest value is detected shall be continuous, for a rotation of 360°.

In the event that the continuous search of azimuth could not be materialized, take the

reading at least 16 radial, separated 22.5 °.

The height h of the test antenna shall vary again in order to determine the maximum field strength level received by the measuring device. The value obtained and the azimuth where the *EUT* is positioned shall be recorded in the test report (Table 6).

The procedure previously described, shall be repeated with the test antenna in horizontal polarization.

**Report:** The following table with the results obtained shall be prepared:

| | Vertical Pol. | | Horizontal Pol. | | E authorized [µV/m] | Complies (yes/no) |
|---|---|---|---|---|---|---|
| | E measured [µV/m] | Azimuth EUT [°] | E measured [µV/m] | Azimuth EUT [°] | | |
| Sample 1 | | | | | | |
| Sample 2 | | | | | | |

**Table 6**

Complementary graphics of the results shown in the table will be included.

**Dictum:** If the E electric field measured, is less than the limit defined in 5.3 then complies, if not, it does not comply.

### *7.3 Unwanted Emissions*

It shall be verified that the detected level of unwanted emissions radiated by the EUT does not exceed the limits specified in 5.4.

A spectrum analysis will be performed and for each sample the frequency and the fundamental emission level and the frequency and highest unwanted emission level shall be documented.

**Report:** The following table with the results obtained shall be prepared:

| | Fundamental Emission | | Unwanted Emission | | E authorized (µV/m) | Complies (yes/no) |
|---|---|---|---|---|---|---|
| | Frequency (MHz) | E measured (µV/m) | Frequency (MHz) | E measured (µV/m) | | |
| Sample 1 | | | | | | |
| Sample 2 | | | | | | |

**Table 7**

Complementary graphics of the results shown in the table will be included.

**Opinion:** It shall be verified that the unwanted emission level is less than or equal to

the fundamental emission level or absolute levels defined in 5.4, as appropriate.

### *7.4 Photographs of the EUT*

The test report should contain photographs of the tested sample/s, in which the equipment components, radiant system, connections, identification, etc. are clearly visible.