Dear Contributor,

Thank you for participating in the public consultation of the ICNIRP draft guidelines.

Please note that it is important that ICNIRP understands exactly the points that you are making. To facilitate our task and avoid misunderstandings, please:

* be concise
* be precise
* provide supporting evidence (reference to publication, etc.) if available and helpful.

**How to complete the comments table:**

Please use 1 row per comment. If required, please add extra rows to the table.

This response document asks you to provide your ‘comment’, your ‘proposed change’, and the ‘context’ to this comment and proposed change. What is meant by these is the following:

**Comment :** A brief statement describing the issue that you have identified (and that you would like ICNIRP to take into account in the final version of the guidelines).

**Proposed Change:** A brief statement describing how you would like the document changed to account for this issue.

**Context:** A brief statement identifying relevant documents in support of your comment and proposed change.

**Please, provide your details below as per the online form and the provision of the privacy policy**

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| --- | --- | --- |
| Last name, first name: Derousseau, Laurent | Email address: Your email address. | Affiliation (if relevant): Your affiliation |
| If you are providing these comments officially **on behalf** of an organization/company, please name this here: Wavecontrol | | |
| I hereby agree that, for the purpose of transparency, **my identity (last and first names, affiliation and organization where relevant) will be displayed** on the ICNIRP website after the consultation phase along with my comments.  I want my comments to be displayed anonymously. | | |

|  | **Document**  **(Guidelines, App A,**  **App B)** | **Line Number**  **#** | **Type of comment (General/ Technical/ Editorial)** | **Comment. Proposed change. Context.** |
| --- | --- | --- | --- | --- |
| **1** | Guidelines | 685 | General | Although the 30 minutes averaging (6 min in the ICNIRP 1998) can be understood for the basic restrictions, when it is kept for the reference levels it makes this guideline very difficult to use in real life. For example, if measurements for exposure assessment have to be done around telecom base stations (something quite common in some countries nowadays), to do it at several points with a 30 minute average makes it is very time consuming. When 3, 6 or 9 measurements for spatial average have to be made for every points, it makes it really difficult, it makes it a whole working day to test a single site.  In the past last years many people have been wishing for a shorter than 6-min time period for practical reasons, now this is in the opposite direction.  There are a lot of safety margins between 6 W/kg-1 hour to 4 W/kg-30 min to 0.4 W/kg-30 min to 0.08 W/kg-30 min. We do not see the reason to make measurements much more time consuming and to make the people believe you are relaxing the conditions.  We propose the averaging to stay at 6 min, at least for the reference levels. When exposure is compliant for any 6 min, it will be compliant for any 30 min.  Explain the context of your comment. |
| **2** | Guidelines | Table 4 | Technical | Reference levels below 10 MHz are higher than those of ICNIRP 2010. As stated in line 430, in order to be compliant, ICNIRP 2010 reference levels must not be exceeded so the reference table should be consistent with ICNIRP 2010.  Modify Table 4 to comply with ICNIRP 2010. One example: occupational levels should be 170 V/m from 100 kHz to 7,06 MHz  We need to be consistent with ICNIRP 2010 and do not offer reference levels based on phenomena but based on frequency range. |
| **3** | Guidelines | Table 5 | Editorial | Notes make the table very hard to understand and confusing.  Note 3 should be replaced with a value (calculated from the table 6 where t= 360).  Note 2 should be replaced also by some values taken out the table 4 (this would oblige to create more lines and columns with the limit in V/m and A/m). A note should explain what is the spatial peak value, to avoid misunderstandings. We understand it is the maximum value out of the different points considered for a spatial average, not the peak value of the signal.  Explain the context of your comment. |
| **4** | Guidelines | Table 5 | Technical | Reference levels present some discontinuities at 400 MHz. Occupational: 10 to 50 W/m2 and public 2 to 10 W/m2.  Limits should be continuous  Discontinuity cannot be admitted as it does not represent any physical phenomena |
| **5** | Guidelines | 709 | Technical | We cannot see any practical way to measure these limits with these surface restrictions.  Maybe it could be define a maximum antenna length or maximum isotropic antenna volume.  EMF measurements are typically made with isotropic probes. To be isotropic, probes must have a volume, not just a surface. |
| **6** | Guidelines | Table 6 | Editorial | There is no comment on the case where t is below 1 second.  Table should have a note explaining that if it is below 1 second, 1 should be use anyway  Explain the context of your comment. |
| Continue numbering | Document ? | Line number | Type of comment | Insert your comment.  Insert your proposed change.  Explain the context of your comment. |

Add further rows if needed. For this copy the above row.

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| **7** | Guidelines | 836 | Technical | We are concerned with the formula because it means that you can have 2 signals, one below 30 MHz and another above 2 GHz, each of them equal to the reference limit, and still complying because the whole frequency range from 100 kHz to 300 GHz is not taken into account.  We propose to write only the first 2 formulas but from 100 kHz to 300 kHz and state that compliance with both have to be demonstrated in the near field, while compliance with one of them is enough in the far field.  ICNIRP 1998 did englobe the whole frequency range for these formulas. |