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**NATIONAL TELECOMMUNICATIONS AGENCY**

RESOLUTION NO. 726, OF MAY 5, 2020

|  |  |
| --- | --- |
|  | Amends the Regulation on Restricted Radiation Radiocommunication Equipment. |

**THE DIRECTING COUNCIL OF THE NATIONAL TELECOMMUNICATIONS AGENCY** , in the use of the powers conferred on it by art. 22 of Law No. 9,472, of July 16, 1997, and by arts. 17 and 35 of the Regulation of the National Telecommunications Agency, approved by Decree No. 2,338, of October 7, 1997,

CONSIDERING the provisions of art. 160 of Law 9.472, of July 16, 1997, which determines that the Agency will regulate the efficient and adequate use of the spectrum, being able to restrict the use of certain radio frequencies or bands, considering the public interest;

CONSIDERING the provisions of art. 161 of Law No. 9,472, of July 16, 1997, which determines that the allocation of radiofrequencies or bands may be modified at any time, as well as changes in powers or other technical characteristics, as long as the public interest or compliance international conventions or treaties so determine;

CONSIDERING the analysis of the contributions received as a result of Public Consultation No. 47, of August 22, 2019;

CONSIDERING the resolution taken at its Meeting No. 883, of April 30, 2020,

CONSIDERING what is contained in the records of Process No. 53500.012176 / 2019-58,

**RESOLVES:**

1st Repeal art. 9 of the Restricted Radiation Radiocommunication Equipment Regulation, approved by Resolution No. 680, of June 27, 2017.

Art. 2 Replace Table I of the Restricted Radiation Radiocommunication Equipment Regulation, approved by Resolution No. 680, of June 27, 2017, in the following terms:

**Table I**

**Radio frequency bands with usage restrictions**

|  |  |  |  |
| --- | --- | --- | --- |
| MHz | MHz | MHz | GHz |
| 0.09-0.11 | 16.69475-16.69525 | 1,435-1,646.5 | 10.6-11.7 |
| 0.495-0.505 | 16.80425-16.80475 | 1,660-1,710 | 12.2-12.7 |
| 2.1735-2.1905 | 21.87-21.924 | 2,200-2,300 | 13.25-13.4 |
| 4,125-4,128 | 23.2-23.35 | 2,483.5-2,500 | 14.47-14.5 |
| 4,17725-4,17775 | 25.5-25.67 | 2,690-2,900 | 15.35-16.2 |
| 4.20725-4.20775 | 37.5-38.25 | 3,260-3,267 | 20.2-21.26 |
| 6.215-6.218 | 73-74.6 | 4,200-4,400 | 22.01-23.12 |
| 6.26775-6.26825 | 74.8-75.2 | 4,800-5,150 | 23.6-24 |
| 6.31175-6.31225 | 108-138 | 5.350-5.460 | 31.2-31.8 |
| 8.291-8.294 | 149.9-150.05 | 8,025-8,500 | 36.43-36.5 |
| 8.362-8.366 | 156.52475-156.52525 | 9,000-9,200 | 38.6-46.7 |
| 8.37625-8.38675 | 156.7-156.9 | 9,300-9,500 | 46.9-57 |
| 8.41425-8.41475 | 242.95-243 |  | 71-76 |
| 12.29-12.293 | 322-335.4 |  | Above 81 |
| 12.51975-12.52025 | 399.9-410 |  |  |
| 12.57675-12.57725 | 608-614 |  |  |
| 13.36-13.41 | 960-1215 |  |  |
| 16.42-16.423 | 1,300-1,427 |  |  |

Art. 3 Replace the table of radio frequency bands that can be used by restricted radiation equipment with alternative emission limits, defined in technical specifications, contained in Annex I to the Regulation on Restricted Radiation Radiocommunication Equipment, approved by Resolution No. 680, of 27 June 2017, in the following terms:

**Annex I**

**Radio frequency bands usable by restricted radiation equipment**

**with alternative emission limits, defined in technical specifications**

|  |  |  |
| --- | --- | --- |
| Initial Frequency | Final Frequency | unity |
| 9 | 490 | kHz |
| 13.11 | 13.36 | MHz |
| 13.41 | 14.01 | MHz |
| 26.97 | 27.28 | MHz |
| 40.66 | 40.7 | MHz |
| 43.7 | 47 | MHz |
| 48.7 | 50 | MHz |
| 50.79 | 50.99 | MHz |
| 53.05 | 53.85 | MHz |
| 54 | 73 | MHz |
| 74.6 | 74.8 | MHz |
| 75.2 | 108 | MHz |
| 138 | 149.9 | MHz |
| 150.05 | 156.52475 | MHz |
| 156.52525 | 156.7 | MHz |
| 156.9 | 242.95 | MHz |
| 243 | 322 | MHz |
| 335.4 | 399.9 | MHz |
| 410 | 608 | MHz |
| 614 | 940 | MHz |
| 944 | 960 | MHz |
| 1,710 | 1,785 | MHz |
| 1,805 | 1,880 | MHz |
| 1,885 | 1,900 | MHz |
| 1,910 | 1,980 | MHz |
| 2,110 | 2,170 | MHz |
| 2,300 | 2,483.5 | MHz |
| 2,500 | 2,690 | MHz |
| 2,900 | 3,260 | MHz |
| 3,267 | 4,200 | MHz |
| 4,400 | 4,800 | MHz |
| 5,150 | 5,350 | MHz |
| 5,460 | 8,025 | MHz |
| 8,500 | 9,000 | MHz |
| 9,200 | 9,300 | MHz |
| 9,500 | 10,600 | MHz |
| 18.82 | 18.87 | GHz |
| 19.16 | 19.26 | GHz |
| 22 | 22.01 | GHz |
| 23.12 | 23.6 | GHz |
| 24 | 29 | GHz |
| 46.7 | 46.9 | GHz |
| 57 | 71 | GHz |
| 76 | 81 | GHz |

Art. 4 This Resolution comes into force on September 1, 2020.

|  |  |
| --- | --- |
|  | Document electronically signed by **Leonardo Euler de Morais** , **Chairman of the Board** , on 05/05/2020, at 18:38, according to official Brasília time, based on art. 23, item II, of [Ordinance No. 912/2017](https://sei.anatel.gov.br/sei/publicacoes/controlador_publicacoes.php?acao=publicacao_visualizar&id_documento=1907066&id_orgao_publicacao=0) of Anatel. |

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|  | The authenticity of this document can be checked at <http://www.anatel.gov.br/autenticidade> , informing the verification code **5511563** and the CRC code **C05FC239** . |

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| **Reference:** Process No. 53500.012176 / 2019-58 | SEI nº 5511563 |

[**http://www.anatel.gov.br/legislacao/en/resolucoes/2017/936-resolucao-680**](http://www.anatel.gov.br/legislacao/en/resolucoes/2017/936-resolucao-680)

# Resolution No. 680, of June 27, 2017

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|  |  |
| --- | --- |
|  | Approves the Restricted Radiation Radiocommunication Equipment Regulation and amends the Telecommunications Services Regulation, the Multimedia Communication Service Quality Management Regulation, the Multimedia Communication Service Regulation and the Private Limited Service Regulation. |

**Note** : This text does not replace the one published in the DOU of[6/29/2017](http://pesquisa.in.gov.br/imprensa/jsp/visualiza/index.jsp?jornal=1&pagina=4&data=29/06/2017) .

**THE DIRECTING COUNCIL OF THE NATIONAL TELECOMMUNICATIONS AGENCY** , in the use of the powers conferred on it by  [art. 22](http://legislacao.anatel.gov.br/leis/2-lei-9472#art22)  of Law No. 9,472, of July 16, 1997, and by arts. [17](http://www.anatel.gov.br/legislacao/leis/2-lei-9472#art17)  and  [35](http://legislacao.anatel.gov.br/decretos/3-decreto-2338#art35)  of the Regulation of the National Telecommunications Agency, approved by Decree nº 2,338, of October 7, 1997,

CONSIDERING the provisions of  [art. 161](http://www.anatel.gov.br/legislacao/leis/2-lei-9472#art161)  of Law No. 9.472, 1997, which determines that the allocation of radiofrequencies or bands may be modified at any time, as well as changes in powers or other technical characteristics, provided that the public interest or compliance with conventions or treaties international organizations so determine;

CONSIDERING the comments received resulting from  [Public Consultation No. 23, of September 2, 2015](http://pesquisa.in.gov.br/imprensa/jsp/visualiza/index.jsp?jornal=1&pagina=29&data=04/09/2015) , published in the Federal Official Gazette of September 4, 2015;

CONSIDERING the resolution taken at its Meeting No. 828, of June 22, 2017;

CONSIDERING what is contained in the case file of [Process No. 53500.020152 / 2012-04](https://sei.anatel.gov.br/sei/modulos/pesquisa/md_pesq_processo_exibir.php?5gYoR1KAsC6DjRCbPhmMOOVg9zRBSU6KM_dMM2dffV6uXABkpM3AC_FvsJjJLZawJGpS7XJ2Cix36pBUfTFiDcoj7_BJaSYo92Zc9LoWZfmcRMcI99xq7KfGOoI60XLN) ;

**RESOLVES:**

Art. 1 Approve the Regulation on Restricted Radiation Radiocommunication Equipment, in the form of the Annex to this Resolution.

Art. 2 Revoke [Resolution No. 506, of July 1, 2008](https://www.anatel.gov.br/legislacao/resolucoes/2008/104-resolucao-506) , published in the Federal Official Gazette of July 7, 2008.

Art. 3 The Telecommunications Services Regulation, approved by Resolution [No. 73, of November 25, 1998](https://www.anatel.gov.br/legislacao/resolucoes/1998/34-resolucao-73) , becomes effective with the following additions:

Art. 53. (...)

§ 1 (...)

§ 2 (...)

§ 3 The cases that will not depend on authorization will be established in specific regulations. (NR) "

(...)

"Art. 62-A. The telecommunications stations of the support networks for the provision of services of collective interest that exclusively use radio equipment of restricted radiation and / or confined means are exempt from licensing. (NR)"

(...)

"Art. 66. (...)

Single paragraph. The cases that will not depend on authorization will be established in specific regulations. (NR) ”

(...)

"Art. 75-A. The telecommunications stations of the support networks for the provision of services of restricted interest that exclusively use radio equipment with restricted radiation and / or confined means are exempt from licensing. (NR) ”

Art. 4 The  [§ 4 of art. 1](https://www.anatel.gov.br/legislacao/resolucoes/2011/57-resolucao-574#art1)  of the Multimedia Communication Service Quality Management Regulation, approved by Resolution No. 574, of October 28, 2011, becomes effective with the following wording:

“§ 4 The information contained in Annex I to these Regulations must be provided to the Agency by all providers of the SCM, including Small Providers and those exempted from authorization under the terms of the regulation, as well as by the Specialized Limited Service Providers, submodalities of Specialized Network and Specialized Circuit. (NR) ”

Art. 5 The Regulation of the Multimedia Communication Service, approved by [Resolution No. 614, of May 28, 2013](https://www.anatel.gov.br/legislacao/resolucoes/2013/465-resolucao-614#art10A) , becomes effective plus the following article:

"Art. 10-A. The provision of SCM is independent of authorization in cases where the telecommunications networks supporting the operation of the service use exclusively confined means and / or restricted radiation radio communication equipment.

§ 1 The exemption provided for in the  **caput**  applies only to providers with up to 5,000 (five thousand) accesses in service.

§ 2 The provider that makes use of the exemption provided for in the  **caput**  must previously inform the Agency of the beginning of its activities in Anatel's own electronic system.

§ 3 The provider that makes use of the exemption provided for in the  **caput**  must update its registration data annually, until January 31, in Anatel's own electronic system.

§ 4 The exemption provided for in the  **caput**  does not exempt the provider from the obligation to meet the conditions, requirements and duties established in the legislation and regulations.

Paragraph 5. Once the service access limit provided for in Paragraph 1 is reached, the provider will have 60 (sixty) days to provide the competent grant for the operation of the service. (NR) ”

Art. 6 The Private Limited Service Regulation, approved by  [Resolution No. 617, of June 19, 2013](https://www.anatel.gov.br/legislacao/resolucoes/2013/480-resolucao-617#art5A) , becomes effective with the addition of the following article:

"Art. 5-A. Regardless of the authorization to operate the SLP in cases where the telecommunications networks supporting the operation of the service use exclusively confined means and / or restricted radiation radio communication equipment.

§ 1 The provider that makes use of the exemption provided for in the  **caput**  must previously inform the Agency of the beginning of its activities in Anatel's own electronic system.

§ 2 The provider that makes use of the exemption provided for in the  **caput**  must update its registration data annually, until January 31, in Anatel's own electronic system.

§ 3 The exemption provided for in the  **caput**  does not exempt the provider from the obligation to meet the conditions, requirements and duties established in the legislation and regulations. (NR) ”

Art. 7 This Resolution enters into force within 60 (sixty) days from the date of its publication.

 JUAREZ MARTINHO TABLES OF BIRTH  
Chairman of the Board

Attachment

RULES ON RADIOCOMMUNICATION RESTRICTED EQUIPMENT

CHAPTER I

OBJECTIVES AND DEFINITIONS

Art. 1 This Regulation establishes technical characteristics and operating conditions for radio communication equipment so that they are considered to be restricted radiation, as provided for in [art. 163, § 2, item I, of Law 9.472, of July 16, 1997](http://www.anatel.gov.br/legislacao/leis/2-lei-9472#art163) .

Art. 2 For the purposes of this Regulation, the following definitions are adopted, in addition to others established by legislation and regulation:

I - Periodic Operation Devices: systems that operate discontinuously with the characteristics of transmission duration and regular silence periods.

II - Restricted Radiation Radiocommunication Equipment: any equipment, apparatus or devices that use radio frequency for various applications and whose emissions produce an electromagnetic field with intensity within the limits established in this Regulation and meet the technical requirements for certification.

III - Ultra-wide radiofrequency band: intentional emissions with a fractional bandwidth greater than or equal to 20%, or with a bandwidth, measured between the 10 dB points of the carrier peak, greater than or equal to 500 MHz, regardless of fractional bandwidth.

IV - Fractional Bandwidth: it is the relation between the channel bandwidth and the central frequency of the channel expressed by 2 (fH - fL) / (fH + fL), where fH and fL indicate, respectively, the upper limit and bottom of the channel.

V - Femtocell: restricted radiation radio equipment, accessory to the networks of telecommunications services of restricted and collective interest, self-configurable and managed by the Provider, and which operates as a fixed station for radio communication with the Users' stations. [(Included by Resolution No. 718, of February 7, 2020)](https://www.anatel.gov.br/legislacao/resolucoes/2020/1380-resolucao-718#art1)

VI - Femtocell Cell Open Operation Mode: it is one in which any mobile and fixed User stations linked to the Provider can be served by the Femtocell. [(Included by Resolution No. 718, of February 7, 2020)](https://www.anatel.gov.br/legislacao/resolucoes/2020/1380-resolucao-718#art1)

VII - Closed Femtocell Cell Operation Mode: it is one in which only User Stations linked to the Provider, previously registered and enabled in the Femtocell, can be served by it. [(Included by Resolution No. 718, of February 7, 2020)](https://www.anatel.gov.br/legislacao/resolucoes/2020/1380-resolucao-718#art1)

CHAPTER II

GENERAL CONDITIONS

Art. 3 Radio communication stations corresponding to restricted radiation equipment are not entitled to protection against harmful interference from any other radio communication station, nor can they cause interference in any system operating on a primary or secondary basis.

Single paragraph. Restricted radiation equipment that may cause harmful interference in any system operating on a primary or secondary basis must cease its operation immediately, until the cause of the interference is removed.

Art. 4 The restricted radiation equipment operating as established in this Regulation must have certification issued or accepted by Anatel, in accordance with the Agency's regulations.

Art. 5 The restricted radiation equipment must contain in the product, in an easily visible place, or in the instruction manual provided by the manufacturer, in a prominent place, information on the implications of its operation, in the following terms: "This equipment is not entitled protection against harmful interference and may not cause interference in duly authorized systems ".

Art. 6 All restricted radiation equipment must be designed to ensure that only the antenna sold with the equipment is used, except under specific conditions provided for in the technical requirements for product certification.

Art. 7 The operation of restricted radiation equipment in the radio frequency bands indicated in [Table I is not allowed](https://www.anatel.gov.br/legislacao/en/resolucoes/2017/936-resolucao-680#tabelaI) .

§ 1 In the bands indicated in Table I, only spurious emissions from the mentioned equipment that are operating in another band are allowed.

~~Table I~~  
~~Radio frequency bands with usage restrictions~~

|  |  |  |  |
| --- | --- | --- | --- |
| ~~MHz~~ | ~~MHz~~ | ~~MHz~~ | ~~GHz~~ |
| ~~0.09-0.11~~ | ~~16.69475-16.69525~~ | ~~1,435-1,646.5~~ | ~~10.6-11.7~~ |
| ~~0.495-0.505~~ | ~~16.80425-16.80475~~ | ~~1,660-1,710~~ | ~~12.2-12.7~~ |
| ~~2.1735-2.1905~~ | ~~21.87-21.924~~ | ~~1,718.8-1,722.2~~ | ~~13.25-13.4~~ |
| ~~4,125-4,128~~ | ~~23.2-23.35~~ | ~~2,200-2,300~~ | ~~14.47-14.5~~ |
| ~~4,17725-4,17775~~ | ~~25.5-25.67~~ | ~~2,483.5-2,500~~ | ~~15.35-16.2~~ |
| ~~4.20725-4.20775~~ | ~~37.5-38.25~~ | ~~2,655-2,900~~ | ~~20.2-21.26~~ |
| ~~6.215-6.218~~ | ~~73-74.6~~ | ~~3,260-3,267~~ | ~~22.01-23.12~~ |
| ~~6.26775-6.26825~~ | ~~74.8-75.2~~ | ~~3,332-3,339~~ | ~~23.6-24~~ |
| ~~6.31175-6.31225~~ | ~~108-138~~ | ~~3,345.8-3,352.5~~ | ~~31.2-31.8~~ |
| ~~8.291-8.294~~ | ~~149.9-150.05~~ | ~~4,200-4,400~~ | ~~36.43-36.5~~ |
| ~~8.362-8.366~~ | ~~156.52475-156.52525~~ | ~~4,800-5,150~~ | ~~38.6-46.7~~ |
| ~~8.37625-8.38675~~ | ~~156.7-156.9~~ | ~~5.350-5.460~~ | ~~46.9-57~~ |
| ~~8.41425-8.41475~~ | ~~242.95-243~~ | ~~6,650-6,675.2~~ | ~~64-76~~ |
| ~~12.29-12.293~~ | ~~322-335.4~~ | ~~8,025-8,500~~ | ~~77-77.5~~ |
| ~~12.51975-12.52025~~ | ~~399.9-410~~ | ~~9,000-9,200~~ | ~~Above 78~~ |
| ~~12.57675-12.57725~~ | ~~608-614~~ | ~~9,300-9,500~~ |  |
| ~~13.36-13.41~~ | ~~952-1215~~ |  |  |
| ~~16.42-16.423~~ | ~~1,300-1,427~~ |  |  |

Table I  
Radio frequency bands with usage restrictions

[(Wording given by Resolution No. 718, of February 7, 2020)](https://www.anatel.gov.br/legislacao/resolucoes/2020/1380-resolucao-718#art2)

|  |  |  |  |
| --- | --- | --- | --- |
| **MHz** | **MHz** | **MHz** | **GHz** |
| 0.09-0.11 | 16.69475-16.69525 | 1,435-1,646.5 | 10.6-11.7 |
| 0.495-0.505 | 16.80425-16.80475 | 1,660-1,710 | 12.2-12.7 |
| 2.1735-2.1905 | 21.87-21.924 | 1,718.8-1,722.2 | 13.25-13.4 |
| 4,125-4,128 | 23.2-23.35 | 2,200-2,300 | 14.47-14.5 |
| 4,17725-4,17775 | 25.5-25.67 | 2,483.5-2,500 | 15.35-16.2 |
| 4.20725-4.20775 | 37.5-38.25 | 2,690-2,900 | 20.2-21.26 |
| 6.215-6.218 | 73-74.6 | 3,260-3,267 | 22.01-23.12 |
| 6.26775-6.26825 | 74.8-75.2 | 4,200-4,400 | 23.6-24 |
| 6.31175-6.31225 | 108-138 | 4,800-5,150 | 31.2-31.8 |
| 8.291-8.294 | 149.9-150.05 | 5.350-5.460 | 36.43-36.5 |
| 8.362-8.366 | 156.52475-156.52525 | 6,650-6,675.2 | 38.6-46.7 |
| 8.37625-8.38675 | 156.7-156.9 | 8,025-8,500 | 46.9-57 |
| 8.41425-8.41475 | 242.95-243 | 9,000-9,200 | 64-76 |
| 12.29-12.293 | 322-335.4 | 9,300-9,500 | 77-77.5 |
| 12.51975-12.52025 | 399.9-410 |  | Above 78 |
| 12.57675-12.57725 | 608-614 |  |  |
| 13.36-13.41 | 960-1215 |  |  |
| 16.42-16.423 | 1,300-1,427 |  |  |

§ 2º The field intensity of spurious emissions indicated in § 1 must not exceed the general emission limits established in [art. 8th](https://www.anatel.gov.br/legislacao/art8Anexo) .

§ 3 Exceptionally, the following restricted radiation systems or equipment are authorized to operate in the frequency ranges of [Table I](https://www.anatel.gov.br/legislacao/en/resolucoes/2017/936-resolucao-680#tabelaI) :

I - Medical Application Systems operating in the 401 MHz to 405.9 MHz band, provided that the equivalent isotropically radiated power is limited to 25 microwatts in a 300 kHz reference bandwidth.

II - Sensors used in Field Variation Detection and Measurement Applications with scanned radio frequency operating between 1,705 kHz to 37 MHz, provided that:

The. emissions only cross the bands listed in Table I;

B. the scan is never stopped in the ranges listed in Table I; and,

ç. the fundamental emission remains outside the ranges listed in Table I for more than 98% of the time that the device remains with the transmission active, without compensation for the fraction of time that the system remains active ( duty cycle ).

III - Any equipment operating in radio frequency bands above 78 GHz, provided that there is a technical requirement for its certification.

IV - Transmitters that operate in an ultra wide radio frequency range.

V - Cable Location Equipment in the radio frequency range between 90 kHz and 110 kHz, as long as there is a technical requirement for its certification. [(Included by Resolution No. 705, of December 21, 2018)](http://www.anatel.gov.br/legislacao/resolucoes/2018/1220-resolucao-705)

Art. 8 The emissions of a restricted radiation equipment must not be higher than the levels of field intensity specified in [Table II](https://www.anatel.gov.br/legislacao/en/resolucoes/2017/936-resolucao-680#tabelaII) .

Table II

General Emission Limits

|  |  |  |
| --- | --- | --- |
| Radio frequency range  (MHz, where not specified) | Field strength  (microvolt per meter) | Measure Distance  (subway) |
| 9-490 kHz | 2,400 / f (kHz) | 300 |
| 490-1705 kHz | 24,000 / f (kHz) | 30 |
| 1.705-30 | 30 | 30 |
| 30-88 | 100 | 3 |
| 88-216 | 150 | 3 |
| 216-960 | 200 | 3 |
| Above 960 | 500 | 3 |

§ 1 The field intensity of any spurious and harmonic emission must not exceed the emission value of the fundamental frequency.

§ 2 In the transitional radio frequencies of the radio frequency bands indicated in Table II, the most restrictive field strength limit applies.

CHAPTER III

SPECIFIC CONDITIONS

Art. 9th Broadband Wireless Access System for Local Area Networks operating in the 5.150-5.350 MHz band must meet the following conditions:

I - emissions must be confined to the internal environments of buildings;

II - the average value of the equivalent isotropically radiated power is limited to a maximum of 200 mW;

III - the average value of the spectral density of equivalent isotropically radiated power is limited to a maximum of 10 mW / MHz.

Art. 10. Alternatively to the emission limits contained in art. 8, the Agency will establish minimum specifications for radio communication equipment operating in specific frequency bands, as indicated in Annex I, to be classified as being of restricted radiation.

§ 1 The minimum specifications and, when necessary, the laboratory test procedures, will be established by means of the [Technical Requirements and the Procedures for the Certification of Products for Telecommunications](https://www.anatel.gov.br/legislacao/atos-de-certificacao-de-produtos/2017/1139-ato-14448#anexoI) .

§ 2 The technical requirements may also establish alternative limits for out-of-band, spurious and frequency stability emissions.

§ 3 Periodically operated devices operating above 900 MHz must meet the minimum specifications defined by Anatel.

Art. 10-A. Femtocells are subject to the following general conditions, in addition to the specific operational conditions that may be established in accordance with  [art. 10 of](https://www.anatel.gov.br/legislacao/resolucoes/2017/936-resolucao-680#art10Anexo)  this Regulation:  [(Included by Resolution No. 718, of February 7, 2020)](https://www.anatel.gov.br/legislacao/resolucoes/2020/1380-resolucao-718#art1)

I - The Femtocell cell operation is the responsibility of the Provider of the associated telecommunications service and will take place in the radio frequency bands for which it has authorization to use on a primary basis or sharing contract, except in cases of exemption from authorization; [(Included by Resolution No. 718, of February 7, 2020)](https://www.anatel.gov.br/legislacao/resolucoes/2020/1380-resolucao-718#art1)

II - The installation of the Femtocell can be done by the User, at the discretion of the Provider to which this Femtocell is linked, without prejudice to its other responsibilities provided for in the regulation, not exempting it from fulfilling its duties before Anatel; [(Included by Resolution No. 718, of February 7, 2020)](https://www.anatel.gov.br/legislacao/resolucoes/2020/1380-resolucao-718#art1)

III - The Femtocell can operate in Open Mode or in Closed Mode. [(Included by Resolution No. 718, of February 7, 2020)](https://www.anatel.gov.br/legislacao/resolucoes/2020/1380-resolucao-718#art1)

§ 1 The supply of the Femtocell by contracting the User occurs in accordance with the Provider's convenience and viability and may be costly for the User, provided that it expressly agrees. [(Included by Resolution No. 718, of February 7, 2020)](https://www.anatel.gov.br/legislacao/resolucoes/2020/1380-resolucao-718#art1)

§ 2 The conditions for supplying the Femtocell cell upon contracting are freely negotiated between the parties, including the choice of the Operation Mode and the responsibility for providing the data connection used to interconnect it to the Provider's network. [(Included by Resolution No. 718, of February 7, 2020)](https://www.anatel.gov.br/legislacao/resolucoes/2020/1380-resolucao-718#art1)

Art. 10-B. The rights of the User to contract the supply of Femtocélula are as follows:  [(Included by Resolution nº 718, of February 7, 2020)](https://www.anatel.gov.br/legislacao/resolucoes/2020/1380-resolucao-718#art1)

I - Receive guidance on its operation, any limitations and conditions of service. [(Included by Resolution No. 718, of February 7, 2020)](https://www.anatel.gov.br/legislacao/resolucoes/2020/1380-resolucao-718#art1)

II - Receive the necessary support for the installation, configuration, maintenance and replacement of the equipment made available to him. [(Included by Resolution No. 718, of February 7, 2020)](https://www.anatel.gov.br/legislacao/resolucoes/2020/1380-resolucao-718#art1)

III - Terminate the contract signed with the provider, at any time and free of charge, without prejudice to the conditions applicable to contracts with a term of permanence. [(Included by Resolution No. 718, of February 7, 2020)](https://www.anatel.gov.br/legislacao/resolucoes/2020/1380-resolucao-718#art1)

Single paragraph. The User cannot be held responsible for any deficiencies in coverage, quality or capacity that may occur due to the termination of the contract with the provider, nor for technical deficiencies in the telecommunications network of the provider contracted to supply the connection used by Femtocélula. [(Included by Resolution No. 718, of February 7, 2020)](https://www.anatel.gov.br/legislacao/resolucoes/2020/1380-resolucao-718#art1)

Art. 10-C. It is the duty of the User to contract the supply of the Femtocélula to keep it in perfect operating conditions and within the technical specifications according to which it was certified. [(Included by Resolution No. 718, of February 7, 2020)](https://www.anatel.gov.br/legislacao/resolucoes/2020/1380-resolucao-718#art1)

CHAPTER IV

OF THE FINAL AND TRANSITIONAL PROVISIONS

Art. 11 Restricted radiation equipment existing on the date of publication of this Regulation, may continue to operate until the end of its useful life.

Single paragraph. The units remaining in the trade, distributed by the homologation applicant before the expiration, suspension or cancellation of the respective certificates, may be traded regularly, provided that Anatel does not determine the collection of the product, under the terms of the current regulations.

Annex I

Radio frequency bands usable by restricted radiation equipment with alternative emission limits, defined in technical specifications

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ~~Initial Frequency~~ | ~~Final Frequency~~ | ~~unity~~ | ~~Initial Frequency~~ | ~~Final Frequency~~ | ~~unity~~ |
| ~~9~~ | ~~90~~ | ~~kHz~~ | ~~1910~~ | ~~1920~~ | ~~MHz~~ |
| ~~110~~ | ~~490~~ | ~~kHz~~ | ~~2400~~ | ~~2,483.5~~ | ~~MHz~~ |
| ~~13.11~~ | ~~13.36~~ | ~~MHz~~ | ~~2900~~ | ~~3,260~~ | ~~MHz~~ |
| ~~13.41~~ | ~~14.01~~ | ~~MHz~~ | ~~3,267~~ | ~~3,332~~ | ~~MHz~~ |
| ~~26.97~~ | ~~27.28~~ | ~~MHz~~ | ~~3,339~~ | ~~3,345.8~~ | ~~MHz~~ |
| ~~40.66~~ | ~~40.7~~ | ~~MHz~~ | ~~3,352.5~~ | ~~4,200~~ | ~~MHz~~ |
| ~~43.7~~ | ~~47~~ | ~~MHz~~ | ~~4,400~~ | ~~4,800~~ | ~~MHz~~ |
| ~~48.7~~ | ~~50~~ | ~~MHz~~ | ~~5,150~~ | ~~5,350~~ | ~~MHz~~ |
| ~~50.79~~ | ~~50.99~~ | ~~MHz~~ | ~~5,460~~ | ~~6,650~~ | ~~MHz~~ |
| ~~53.05~~ | ~~53.85~~ | ~~MHz~~ | ~~6,675.2~~ | ~~8,025~~ | ~~MHz~~ |
| ~~54~~ | ~~73~~ | ~~MHz~~ | ~~8,500~~ | ~~9,000~~ | ~~MHz~~ |
| ~~74.6~~ | ~~74.8~~ | ~~MHz~~ | ~~9,200~~ | ~~9,300~~ | ~~MHz~~ |
| ~~75.2~~ | ~~108~~ | ~~MHz~~ | ~~9,500~~ | ~~10,600~~ | ~~MHz~~ |
| ~~138~~ | ~~149.9~~ | ~~MHz~~ | ~~18.82~~ | ~~18.87~~ | ~~GHz~~ |
| ~~150.05~~ | ~~156.52475~~ | ~~MHz~~ | ~~19.16~~ | ~~19.26~~ | ~~GHz~~ |
| ~~156.52525~~ | ~~156.7~~ | ~~MHz~~ | ~~22~~ | ~~22.01~~ | ~~GHz~~ |
| ~~156.9~~ | ~~242.95~~ | ~~MHz~~ | ~~23.12~~ | ~~23.6~~ | ~~GHz~~ |
| ~~243~~ | ~~322~~ | ~~MHz~~ | ~~24~~ | ~~29~~ | ~~GHz~~ |
| ~~335.4~~ | ~~399.9~~ | ~~MHz~~ | ~~46.7~~ | ~~46.9~~ | ~~GHz~~ |
| ~~410~~ | ~~608~~ | ~~MHz~~ | ~~57~~ | ~~64~~ | ~~GHz~~ |
| ~~614~~ | ~~907.5~~ | ~~MHz~~ | ~~76~~ | ~~77~~ | ~~GHz~~ |
| ~~915~~ | ~~940~~ | ~~MHz~~ | ~~77.5~~ | ~~78~~ | ~~GHz~~ |
| ~~944~~ | ~~948~~ | ~~MHz~~ |  |  | ~~GHz~~ |

[(Wording given by Resolution No. 705, of December 21, 2018)](http://www.anatel.gov.br/legislacao/resolucoes/2018/1220-resolucao-705)

|  |  |  |
| --- | --- | --- |
| ~~Initial Frequency~~ | ~~Final Frequency~~ | ~~unity~~ |
| ~~9~~ | ~~490~~ | ~~kHz~~ |
| ~~13.11~~ | ~~13.36~~ | ~~MHz~~ |
| ~~13.41~~ | ~~14.01~~ | ~~MHz~~ |
| ~~26.97~~ | ~~27.28~~ | ~~MHz~~ |
| ~~40.66~~ | ~~40.7~~ | ~~MHz~~ |
| ~~43.7~~ | ~~47~~ | ~~MHz~~ |
| ~~48.7~~ | ~~50~~ | ~~MHz~~ |
| ~~50.79~~ | ~~50.99~~ | ~~MHz~~ |
| ~~53.05~~ | ~~53.85~~ | ~~MHz~~ |
| ~~54~~ | ~~73~~ | ~~MHz~~ |
| ~~74.6~~ | ~~74.8~~ | ~~MHz~~ |
| ~~75.2~~ | ~~108~~ | ~~MHz~~ |
| ~~138~~ | ~~149.9~~ | ~~MHz~~ |
| ~~150.05~~ | ~~156.52475~~ | ~~MHz~~ |
| ~~156.52525~~ | ~~156.7~~ | ~~MHz~~ |
| ~~156.9~~ | ~~242.95~~ | ~~MHz~~ |
| ~~243~~ | ~~322~~ | ~~MHz~~ |
| ~~335.4~~ | ~~399.9~~ | ~~MHz~~ |
| ~~410~~ | ~~608~~ | ~~MHz~~ |
| ~~614~~ | ~~907.5~~ | ~~MHz~~ |
| ~~915~~ | ~~940~~ | ~~MHz~~ |
| ~~944~~ | ~~948~~ | ~~MHz~~ |
| ~~1910~~ | ~~1920~~ | ~~MHz~~ |
| ~~2400~~ | ~~2,483.5~~ | ~~MHz~~ |
| ~~2900~~ | ~~3,260~~ | ~~MHz~~ |
| ~~3,267~~ | ~~3,332~~ | ~~MHz~~ |
| ~~3,339~~ | ~~3,345.8~~ | ~~MHz~~ |
| ~~3,352.5~~ | ~~4,200~~ | ~~MHz~~ |
| ~~4,400~~ | ~~4,800~~ | ~~MHz~~ |
| ~~5,150~~ | ~~5,350~~ | ~~MHz~~ |
| ~~5,460~~ | ~~6,650~~ | ~~MHz~~ |
| ~~6,675.2~~ | ~~8,025~~ | ~~MHz~~ |
| ~~8,500~~ | ~~9,000~~ | ~~MHz~~ |
| ~~9,200~~ | ~~9,300~~ | ~~MHz~~ |
| ~~9,500~~ | ~~10,600~~ | ~~MHz~~ |
| ~~18.82~~ | ~~18.87~~ | ~~GHz~~ |
| ~~19.16~~ | ~~19.26~~ | ~~GHz~~ |
| ~~22~~ | ~~22.01~~ | ~~GHz~~ |
| ~~23.12~~ | ~~23.6~~ | ~~GHz~~ |
| ~~24~~ | ~~29~~ | ~~GHz~~ |
| ~~46.7~~ | ~~46.9~~ | ~~GHz~~ |
| ~~57~~ | ~~64~~ | ~~GHz~~ |
| ~~76~~ | ~~77~~ | ~~GHz~~ |
| ~~77.5~~ | ~~78~~ | ~~GHz~~ |

[(Wording given by Resolution No. 718, of February 7, 2020)](https://www.anatel.gov.br/legislacao/resolucoes/2020/1380-resolucao-718#art3)

|  |  |  |
| --- | --- | --- |
| **Initial Frequency** | **Final Frequency** | **unity** |
| 9 | 490 | kHz |
| 13.11 | 13.36 | MHz |
| 13.41 | 14.01 | MHz |
| 26.97 | 27.28 | MHz |
| 40.66 | 40.7 | MHz |
| 43.7 | 47 | MHz |
| 48.7 | 50 | MHz |
| 50.79 | 50.99 | MHz |
| 53.05 | 53.85 | MHz |
| 54 | 73 | MHz |
| 74.6 | 74.8 | MHz |
| 75.2 | 108 | MHz |
| 138 | 149.9 | MHz |
| 150.05 | 156.52475 | MHz |
| 156.52525 | 156.7 | MHz |
| 156.9 | 242.95 | MHz |
| 243 | 322 | MHz |
| 335.4 | 399.9 | MHz |
| 410 | 608 | MHz |
| 614 | 940 | MHz |
| 944 | 960 | MHz |
| 1,710 | 1,785 | MHz |
| 1,805 | 1,880 | MHz |
| 1,885 | 1,900 | MHz |
| 1,910 | 1,980 | MHz |
| 2,110 | 2,170 | MHz |
| 2,300 | 2,483.5 | MHz |
| 2,500 | 2,690 | MHz |
| 2900 | 3,260 | MHz |
| 3,267 | 4,200 | MHz |
| 4,400 | 4,800 | MHz |
| 5,150 | 5,350 | MHz |
| 5,460 | 6,650 | MHz |
| 6,675.2 | 8,025 | MHz |
| 8,500 | 9,000 | MHz |
| 9,200 | 9,300 | MHz |
| 9,500 | 10,600 | MHz |
| 18.82 | 18.87 | GHz |
| 19.16 | 19.26 | GHz |
| 22 | 22.01 | GHz |
| 23.12 | 23.6 | GHz |
| 24 | 29 | GHz |
| 46.7 | 46.9 | GHz |
| 57 | 64 | GHz |
| 76 | 77 | GHz |
| 77.5 | 78 | GHz |