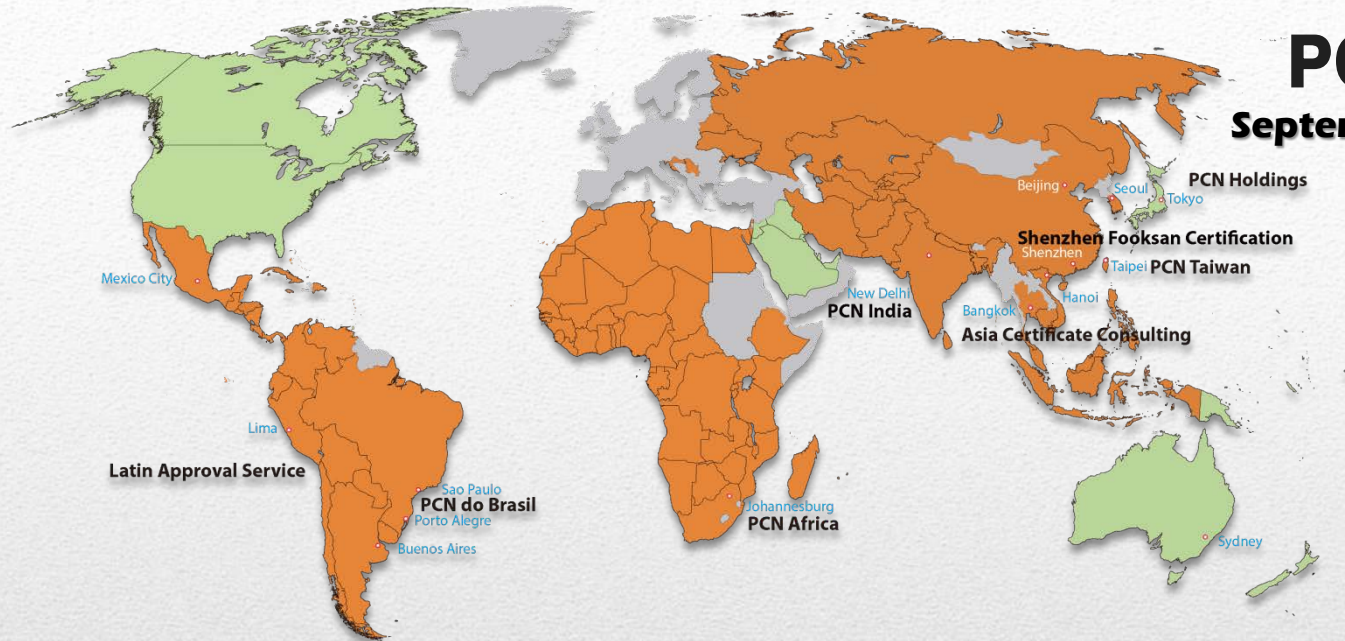


# Product Certificate Network

**PCN News**  
September, 11th, 2017



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## 중국- 식품접촉재질규격 강제화

중국의 식품접촉재질규격인 <GB 4806.1> 이 2017년 10월 19일부터 강제화됩니다.  
단, 현재 GB Standard 만 강제화되고 인증은 지정한 기관이 없습니다.  
즉, 고객사에서 아래와 같은 규격에 만족하는 성적서를 보유하고 있으면 됩니다.

### ◆ 규격 내용

<b>GB4706.1-2016</b>	식품접촉재질일반규정
<b>GB4706.2-2016</b>	식품접촉재질일- 젓꼭지재질규정
<b>GB4706.3-2016</b>	식품접촉재질일- 에나멜재질규정
<b>GB4706.4-2016</b>	식품접촉재질일- 도자기재질규정
<b>GB4706.5-2016</b>	식품접촉재질일- 유리재질규정
<b>GB4706.6-2016</b>	식품접촉재질일- 플라스틱/수지재질규정
<b>GB4706.7-2016</b>	식품접촉재질일- 플라스틱제품재질규정
<b>GB4706.8-2016</b>	식품접촉재질일- 종이재질규정
<b>GB4706.9-2016</b>	식품접촉재질일- 금속재질규정
<b>GB4706.4-2016</b>	식품접촉재질일- 도료 및 코팅재질규정
<b>GB4706.4-2016</b>	식품접촉재질일- 고무재질규정



지난 8월 28일, 기존 브라질 ANATEL 인증의 규격인 Resolution 506이 Resolution 680/2017로 변경되었습니다.

기존 Resolution 506의 필요서류는 다음과 같습니다.

- The first one is the ANATEL RESOLUTION 680/2017 that was published on 27th of June of 2017.
- The second one is the ANATEL Act. 11542/2017 published on the Brazilian Official Journal in 28th of August of 2017.

## 1. 전환 시기

아래 서류들은 8월 28일부터 강제화 되었으며, Homologation process는 8월 27일 이후부터 사용할 수 있습니다.

25.1 The requirements described on this document are applicable for products that the certification process will began after 27th of August of 2017.

25.1.1. It's considered the "begin of the process" the date where the agreement with the OCD that will conduct the process was performed.

## 2. 시험소

ANATEL은 Res 506에 의하여 공인 받은 시험소에서 발행된 시험 성적서를 수락하게 하여, Res 680과 Act 11542 에 따라 이미 시험을 수행하도록 하였습니다.  
이 방법으로 이전에 이미 공인 받은 시험소에서 새로운 Resolution에 대한 시험을 할 수 있으므로 프로젝트 진행 시 새 시험소를 선택하지 않아도 됩니다.

## 3. 변경된 점

- Labeling

RF 모듈 같이 작은 제품들의 경우, 구 Resolution은 Res.506에 대한 매뉴얼을 가지고 있게 하였으며 이것은 설명서에 기재되어야 한다는 필수 Requirements 였습니다.  
그러나, 제조자가 문구가 사용될 위치를 결정할 것이므로 이러한 Requirements 가 필요하지 않으며, 라벨의 위치를 자유롭게 부착할 수 있습니다. (제품 혹은 매뉴얼)

### -원문

*Res. ANATEL 680/2017, Article 5 - Restricted radiation equipment shall contain in the product, in an easily visible place, or in the operating instructions manual supplied by the manufacturer, in a prominent place, information about the implications of its operation, in the following terms: "This equipment is not entitled to protection against harmful interference and may not cause interference in duly authorized systems".*

- 의료용 임플란트 및 주변기기들

**Old Requirement (Res. ANATEL 506)**

**Res. 506, Art. 8** - Sole paragraph. Exceptionally, Medical Implant Communications Systems (MICS) are authorized to operate in the band 402 MHz to 405 MHz, provided they comply with that established in Article 19.

**Res. 506, Art. 19** - Medical Implant Communications Systems (MICS) may operate in the band between 402 MHz and 405 MHz, provided the power (e.i.r.p) is limited to 25 microwatts in a 300 kHz reference bandwidth.

**New requirement  
(ANATEL Res. 680 + Act. 11542/2017)**

**Res. 680, Art. 7, Paragraph 3** - Exceptionally, the following systems or equipment of restricted radiation are authorized to operate in the frequency bands of Table I:

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

- 방사선 장치의 New Harmonic limits

Old Requirement (Res. ANATEL 506)

**Res. 506, Art. 9 § 5.** - The use of the 433-435 MHz band by restricted radiation equipment can only be done with limited irradiated power to the maximum value of 10 mW (e.i.r.p).

New requirement  
(ANATEL Res. 680 + Act. 11542/2017)

**Act. 11542, Item 4.1.5** - The use of the 433-435 MHz band by restricted radiation equipment can only be done with limited irradiated power to the maximum value of 10 mW (e.i.r.p), **the emission outside the bands should be less than 250nW (e.i.r.p) for radio frequencies up to 1000MHz and should be less than 1uW (e.i.r.p) for radio frequencies above 1000MHz.**

- 902-907.5 MHz 및 915-928 MHz 에서 동작하는 Hopping System 의 무선 주파수

Old Requirement (Res. ANATEL 506)	New requirement (ANATEL Res. 680 + Act. 11542/2017)
<p><b>Res. 506, Art. 40 Item V b)</b> - If the bandwidth of the hopping channel at 20 dB is less than 250 kHz, the system must use, at least, 35 hopping radiofrequencies and the average time of occupation of any radiofrequency must not be greater than 0.4 seconds in an interval of <b>20</b> seconds;</p>	<p><b>Act. 11542, Item 14.2.6.2</b> - If the bandwidth of the hopping channel at 20 dB is less than 250 kHz, the system must use, at least, 35 hopping radiofrequencies and the average time of occupation of any radiofrequency must not be greater than 0.4 seconds in an interval of <b>14</b> seconds;</p>
<p><b>Res. 506, Art. 40 Item V c)</b> - If the bandwidth of the hopping channel at 20 dB is equal or greater than 250 kHz, the system must use, at least, 17 hopping radiofrequencies and the average time of occupation of any frequency must not be greater than 0.4 seconds in an interval of <b>10</b> seconds;</p>	<p><b>Act. 11542, Item 14.2.6.3</b> - If the bandwidth of the hopping channel at 20 dB is equal or greater than 250 kHz, the system must use, at least, 17 hopping radiofrequencies and the average time of occupation of any frequency must not be greater than 0.4 seconds in an interval of <b>7</b> seconds;</p>

- CSS or LoRa Requirements**

ANATEL은 CSS 혹은 LoRa 를 Final document에서 삭제시켰으며, Chirp Spread Spectru (CSS) 의 Requirements 로 act 11542/2017을 출판하였습니다.

이러한 방법으로, 모든 장치는 구 ANATEL Res: 506 Section의 동일한 requirements인 act 11542/2017 와 만족해야 합니다.

• 초광대역(UWB) 장치에 대한 Requirements

Frequency Band	Use Restriction	Power limits or Field Intensity over the operation frequency range	Power limits or Field Intensity outside the operation frequency range and spurious emission
3100 – 10,600 MHz.	Medical Imaging System	1) 0 dBm [1]; e 2) -41.3 dBm [2]	1) Art. 8° Of ANATEL Resolution 680 (Below de 960 MHz); 2) -53,3 dBm [2] (between 960 and 1164 MHz); 3) -75,3 dBm [2] (between 1164 and 1240 MHz); 4) -53,3 dBm [2] (between 1240 and 1559 MHz); 5) -75,3 dBm [2] (between 1559 and 1610 MHz); 6) -51,3 dBm [2] (Over 1610MHz)
3100 - 10,600 MHz.	Restricted use indoors of buildings	1) 0 dBm [1]; e 2) -41.3 dBm [2]	1) Art. 8° Of ANATEL Resolution 680 (Below de 960 MHz); 2) -75,3 dBm [2] (between 960 and 1164 MHz); 3) -85,3 dBm [2] (between 1164 and 1240 MHz); 4) -75,3 dBm [2] (between 1240 and 1559 MHz); 5) -85,3 dBm [2] (between 1559 and 1610 MHz); 6) -53,3 dBm [2] (1610-1990 MHz); and 7) -51,3 dBm [2] (Over de 1990 MHz)



초광대역(UWB) 장치에 대한 Requirements

Frequency Band	Use Restriction	Power limits or Field Intensity over the operation frequency range	Power limits or Field Intensity outside the operation frequency range and spurious emission
3100 – 10,600 MHz.	Portable Devices [3]	1) 0 dBm [1]; e 2) -41.3 dBm [2]	1) Art. 8° Of ANATEL Resolution 680 (Below de 9 60 MHz); 2) -75,3 dBm [2] (between 960 and 1164 MHz); 3) -85,3 dBm [2] (between 1164 and 1240 MHz); 4) -75,3 dBm [2] (between 1240 and 1559 MHz); 5) -85,3 dBm [2] (between 1559 and 1610 MHz); 6) -63,3 dBm [2] (1610-1990); and 7) -61,3 dBm [2] (Over de 1990)
22 - 29 GHz	Vehicle Radar Systems;	1) 0 dBm [1]; 2) -41.3 dBm [2]; e 3)  All the emissions shall be 35 dB for any emissions within the 23.6-24.0 GHz band that appear 30 degrees or greater above the horizontal plane	1) Art. 8° Of ANATEL Resolution 680 (Below de 9 60 MHz); 2) -75,3 dBm [2] (between 960 and 1164 MHz); 3) -85,3 dBm [2] (between 1164 and 1240 MHz); 4) -75,3 dBm [2] (between 1240 and 1559 MHz); 5) -85,3 dBm [2] (between 1559 and 1610 MHz); and 6) -51,3 dBm (Over 1610MHz)