ORBIS Compliance

Strategy and Partnership in Compliance

BRAZIL

Implementation of New Telecom Conformity Scheme & Regulatory Updates Affecting 2021 Approvals

March 18th, 2021

ABOUT ORBIS COMPLIANCE

ORBIS is the leading solution for regulatory expertise in Latin America and Asia for Telecom, Safety, Medical, Energy Efficiency, Battery, Take-Back & Recycling.

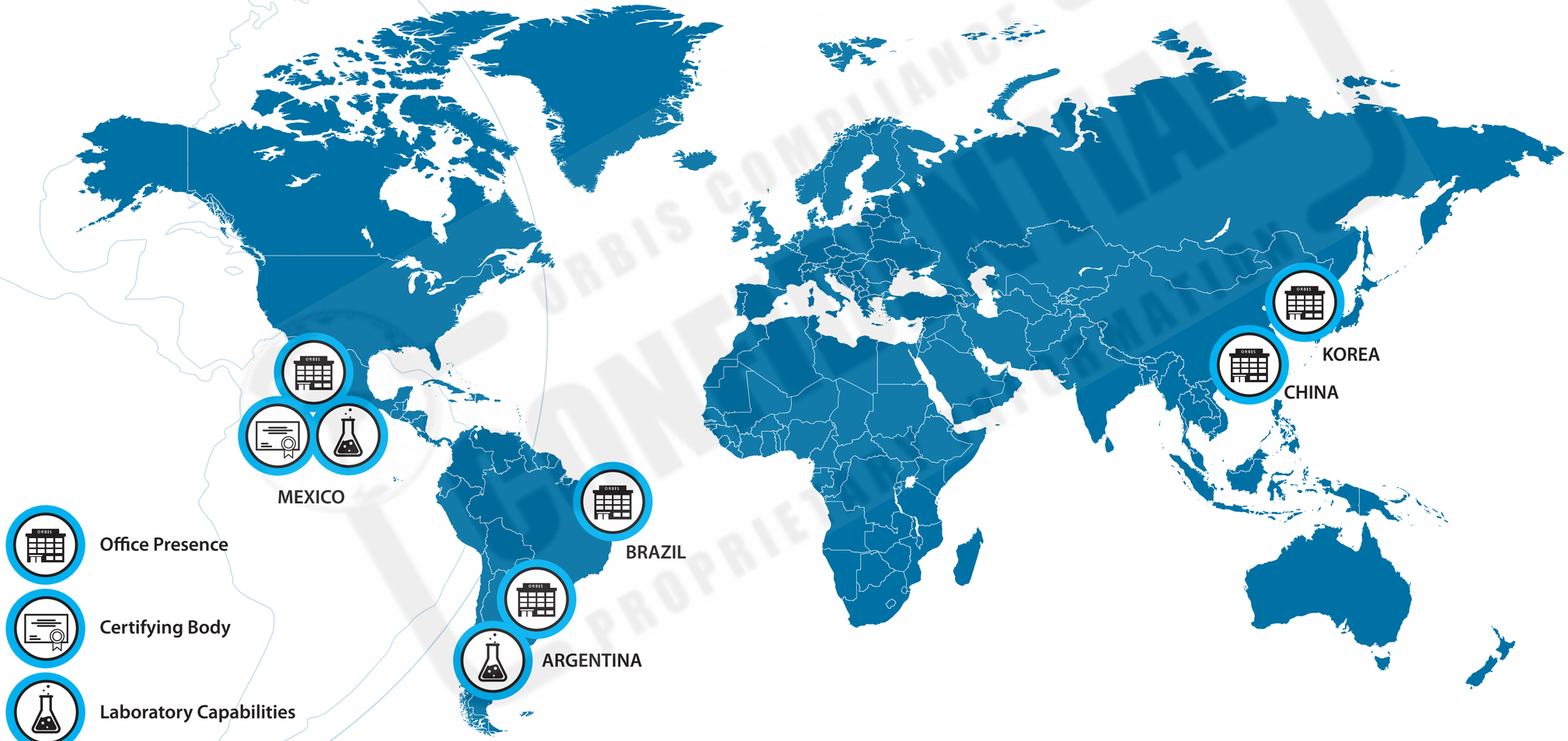
We are headquartered in Silicon Valley, with supporting offices in key countries in Latin America and Asia, with decades of experience in the different industries.

ORBIS is a strategic partner to manufacturers around the world supporting market entry efforts even from early product concept stages, by providing Engineering and Legal expertise that result in timely and accurate executions.

ORBIS works directly with regulatory agencies - without intermediaries - protecting your IP through our closed network and continuously solving and improving regulatory processes for clients.

ORBIS puts YOU in control of your regulatory affairs.

GLOBAL PRESENCE



ORBIS MISSION

To dramatically accelerate our clients' time to revenue in Latin America and Asia by expediting the regulatory approvals for new products

AGENDA

01 Regulatory Time Line 2020 to 2021

02 Review of Public Regulatory Proposals

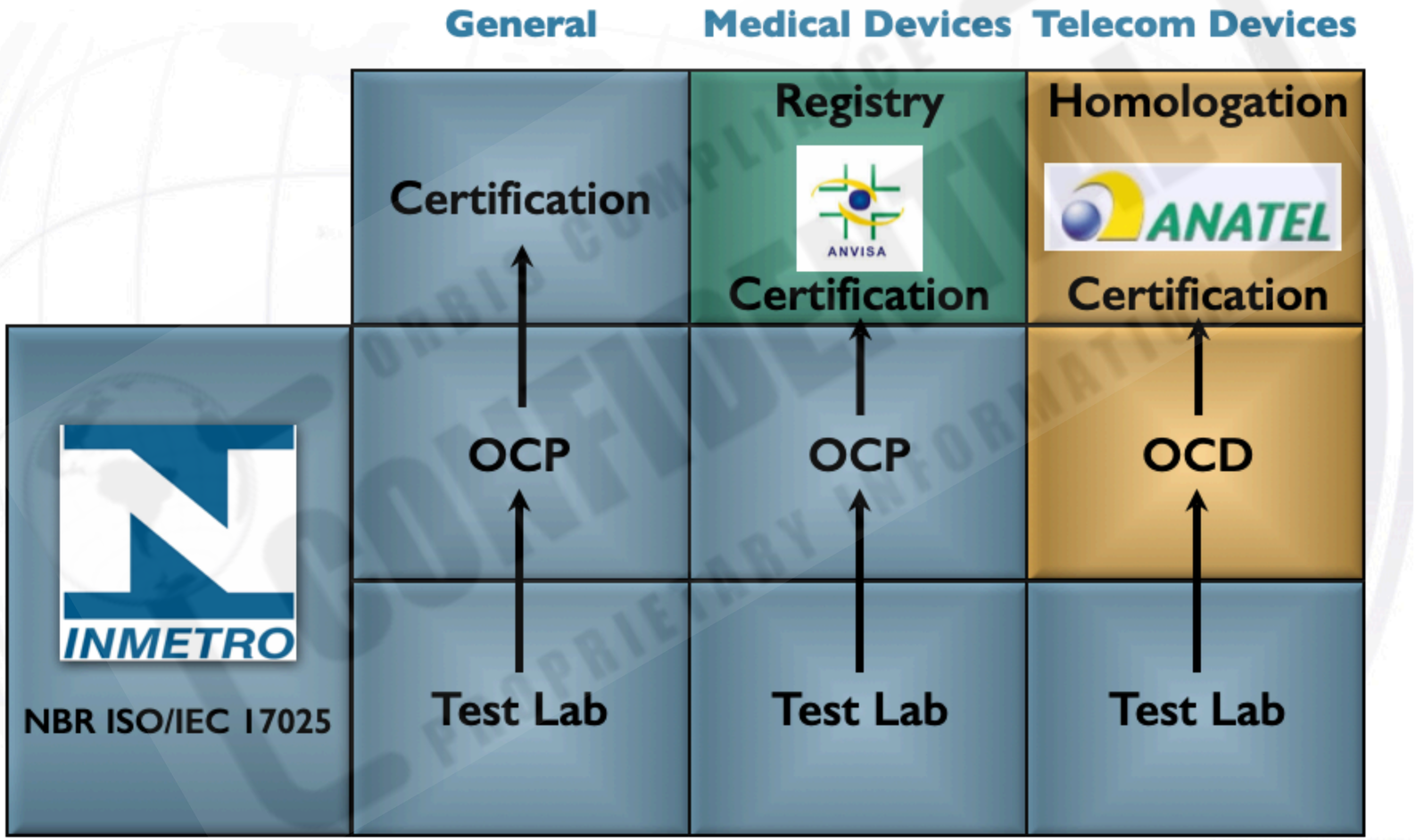
03 Review of the New Regulatory Scheme

04 Regulatory Updates

05 Q & A

ANATEL - TELECOMMUNICATIONS REGULATOR

ANATEL - TELECOMMUNICATIONS REGULATOR



ANATEL - PRODUCT APPROVAL REQUIREMENTS

Certificate Holder	• Legal Representative company
Test Report	• In country testing is mandatory (Lab recognized by INMETRO)
Maintenance	• Periodic safety tests (According to product list)
Certificate Expire Date	• Anatel Certificate No expiry date if maintenance process is valid
Scope	• EMC • Safety • Performance • RF • SAR • IPV6
Anatel Label	

ANATEL - TELECOMMUNICATIONS CERTIFICATES

cpqd

CERTIFICADO DE CONFORMIDADE
Certificate of Conformity

O CPQD certifica que o produto descrito a seguir está em conformidade com os documentos normativos indicados.

TIPO DE PRODUTO / Type of Product:
Transceptor de Radiação Restrita

MODELO / Model:

FABRICANTE / Manufacturer:

SOLICITANTE / Applicant:

CERTIFICAÇÃO INICIAL
Certification Date:
06 de janeiro de 2021

ACOMPANHAMENTO ATÉ
Expiry Date:
06 de janeiro de 2023

Péricles de Paiva Teles
Gerente de Certificação / Certification Manager
Emissão 06 de janeiro de 2021

FUNDAÇÃO CPQD – CENTRO DE PESQUISA E DESENVOLVIMENTO EM TELECOMUNICAÇÕES
Rua Dr. Ricardo Benetton Martins, 1000 – Parque II do Polo de Alta Tecnologia – CEP 13086-902 – Campinas – SP
1/ 3

O CPQD foi designado pela Anatel para exercer as funções de Organismo Certificador por meio do Ato nº 17.394 (6/7/01). Para fins de uso e comercialização do produto no Brasil, esse certificado deverá ser homologado pela Anatel.

CoC Maintenance according to Product List Period

Federative Republic of Brazil
Telecommunications National Agency
ANATEL

Certificate of Equipment Authorization
(Not Transferable)

Nº: **17017-20-03229**
Expire: **Indeterminada**
Date of Certificate: **13/01/2021**

Applicant:

Manufacturer:

1015

SUICA

This document approves, in accordance with the Telecommunication Rules and Regulations, the Certificate of Conformity number 7988, issued by **FUNDACAO CENTRO DE PESQUISA E DESENVOLVIMENTO DE TELECOMUNICACOES- CPQD.** This approval is issued on behalf of the applicant here identified and is valid only for the product described below for use under the Anatels Rules and Regulations.

Type - Category:
Transceptor de Radiação Restrita - II

Model - Comercial Name (s):
B00039 - (VISTA 2)

Basic technical characteristics:

Faixa de Frequências Tx (MHz)	Potência Máxima de Saída (W)	Designação de Emissões	Tecnologias	Tipo de Modulação
2.400,0 a 2.483,5	0,00011	682KF7W	SEQÜÊNCIA DIRETA	GFSK

Ensaio de SAR não aplicável.

Comments:

Na instalação do produto devem ser observadas as condições de uso conforme estabelecido no Regulamento sobre Equipamentos de Radiocomunicação de Radiação Restrita.

Constitutes an obligation of the manufacturer or supplier of the product in Brazil to identify all approved products with Anatel's mark before its distribution to the market, as well as observe and maintain the technical characteristics which motivated the original certification.

The information in this Approval Certificate can be confirmed in the Certification and Approval Management System - SCH, available on Anatel's website. (www.anatel.gov.br).

Davison Gonzaga da Silva
Gerente de Certificação e Numeração

No expiry date

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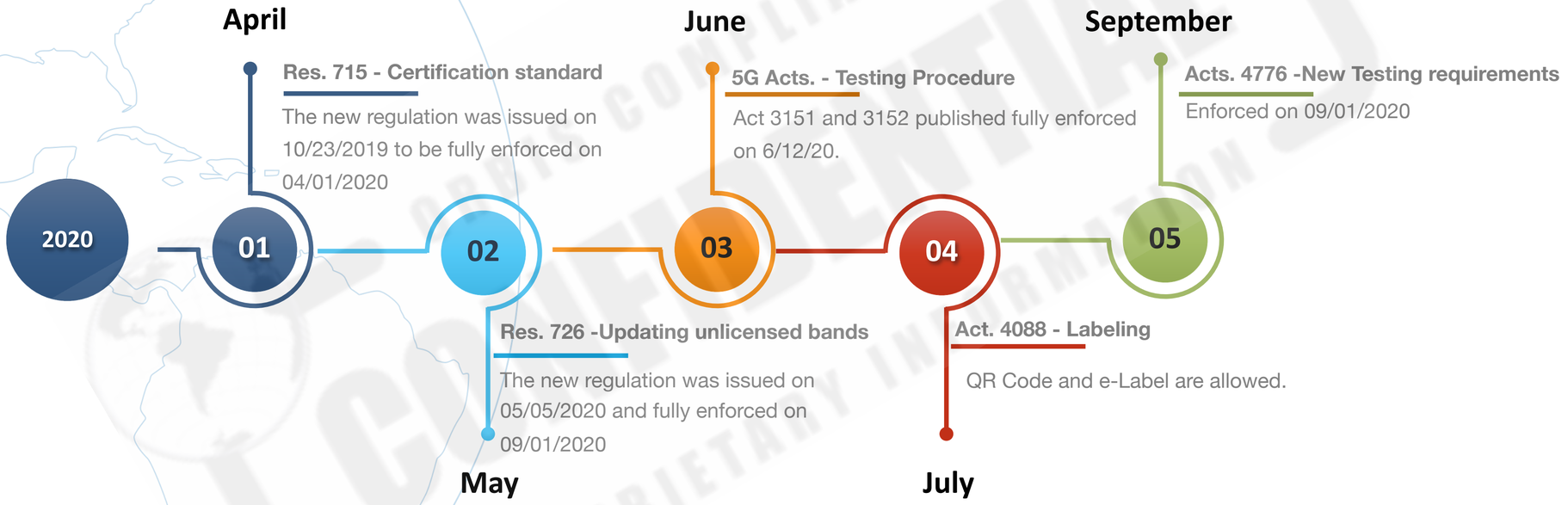
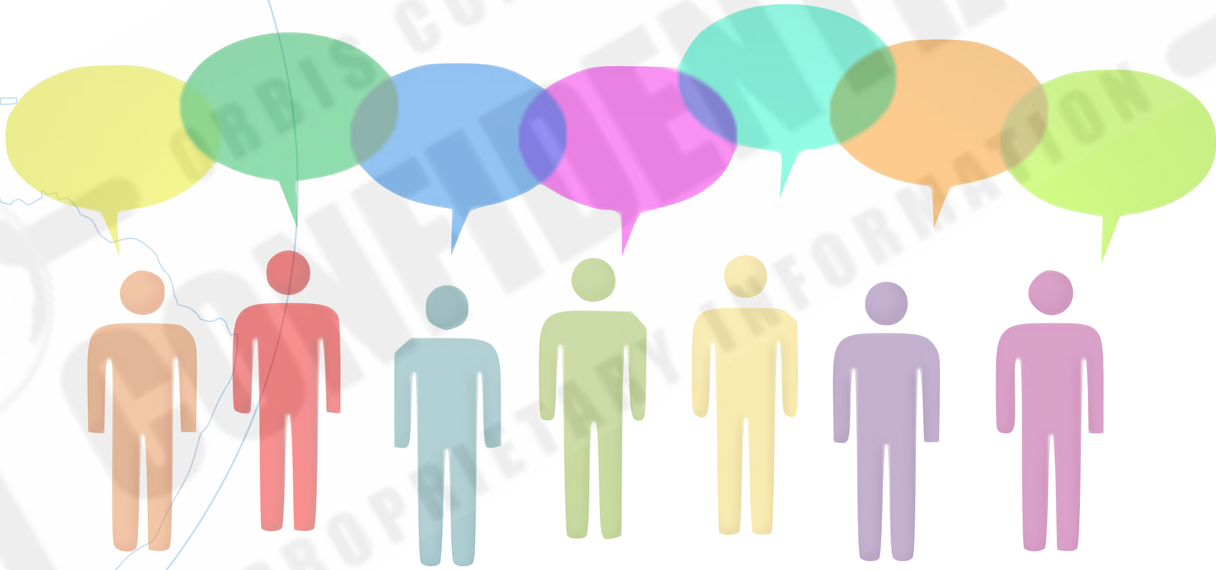
REGULATORY TIMELINE - 2020



REGULATORY TIMELINE - 2021

ANATEL PUBLIC CONSULTATION

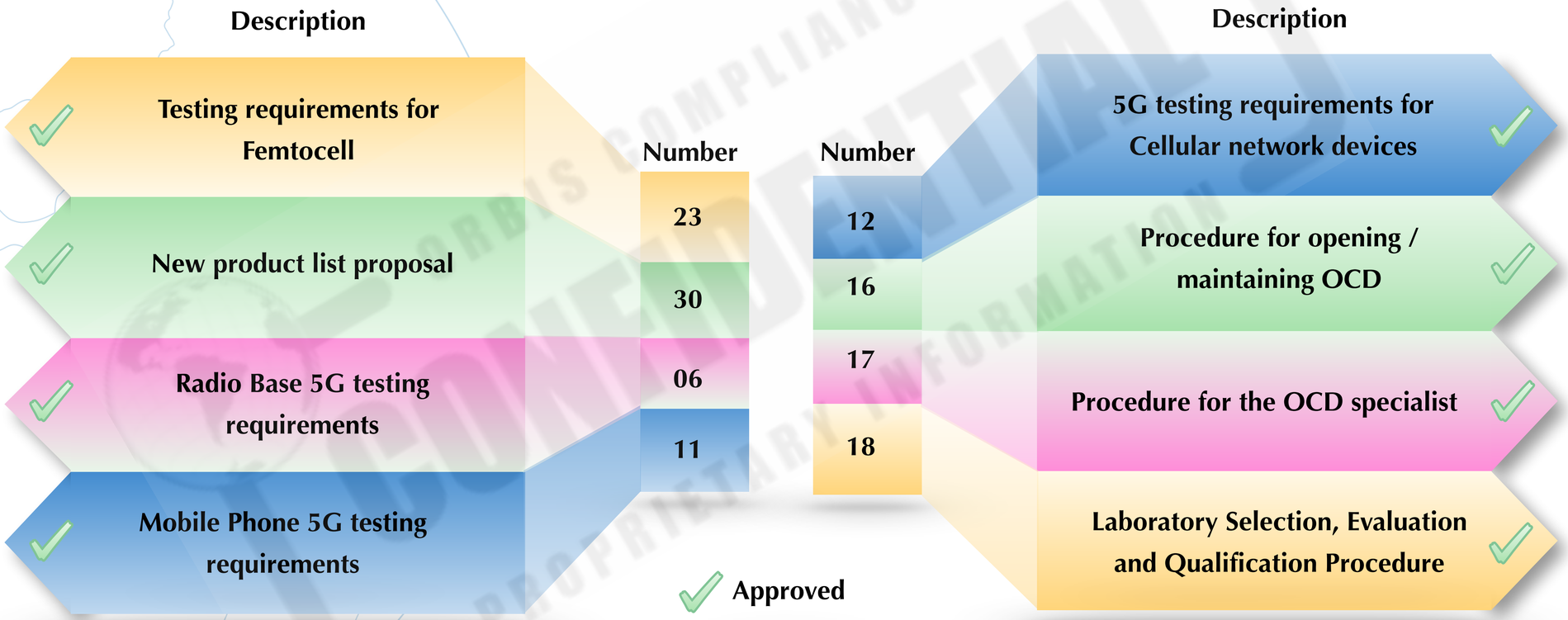
2020-2021



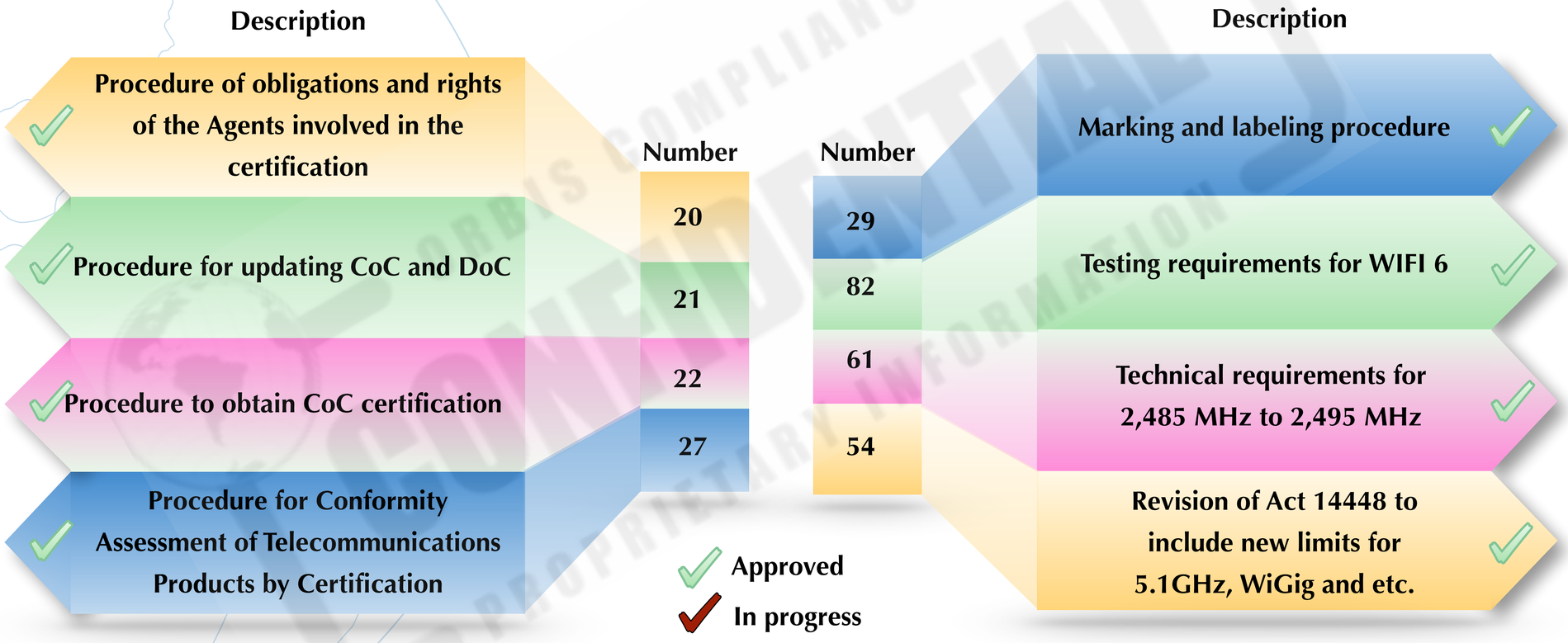
PUBLIC CONSULTATIONS

- ANATEL consultations are published in Anatel website with a pre-determined period that ranges between thirty to sixty days.
- ANATEL receives comments through the SEI system.
- ANATEL technicians review and publish the accepted / rejected contributions. Any declined comments receive a justification of the denial.
- All approved comments are integrated with the initial public consultation
- It then receives Board of Directors approval which allows the publication of a new Act.

ANATEL PUBLIC CONSULTATION



ANATEL PUBLIC CONSULTATION



ANATEL PUBLIC CONSULTATION

Description	Number	Number	Description
Testing requirements for 26 GHz	05	81	Operational procedure for importing test products

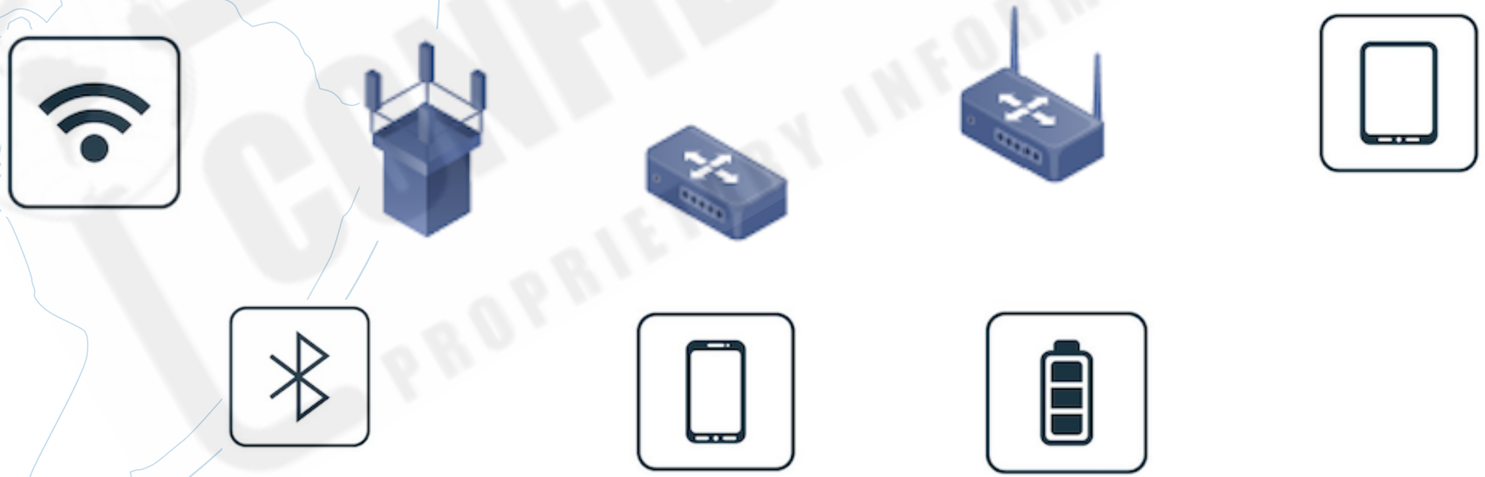
CLOSED

In progress

ANATEL

RESOLUTION 715

New Conformity Scheme
Operational Implementation
January 26th, 2021
New Product List by June, 2021



RESOLUTION 715

New Conformity Scheme
Operational Implementation

ANATEL

SAMPLE SHIPPING REQUIREMENTS

Before sending the samples to the laboratory the applicant must provide:

- The factory in which the sample was produced;
- The traceability of the sample shipped for testing
- Traceability includes SW Version, Part Number, control Number.

The sample sent to the laboratory must be previously identified by the manufacturer by physical or electronic marking, permanent or temporary, or on the sample packaging, with the following minimum information:

Manufacturer name:
Model Name:
Country of origin:

- The lab cannot help affix a draft label to the sample anymore, it arrives without it.
- The unit may be either return to US, or shipped to a local distributor for a label correction

- ORBIS Compliance has permission to do it on behalf of its clients.

ANATEL

OCD & LAB - PROCEDURE

Operational Procedure to have ability to start OCD - Act 4081	The OCD must have the minimum requirements: Legal Regularity, Quality System (17065: 2013) and Technical Capacity. In addition, the OCD must participate in all meetings with ANATEL and share the content to applicants.
Operational Procedure for Selection, Evaluation and Qualification of Laboratories - Act 4091	**Selection:** **1)** The tests must be performed in a third party laboratory authorized by Anatel and in some cases ILAC member. **2)** We can exempt item 1, if the LAB has a schedule over 7 (seven) working days, if the full tests are not performed by the LAB or costs of the tests or logistics are unreasonable. **Evaluation and Qualification:** Scope of Accreditation issued by INMETRO, Summary of Scope of Accreditation, Audit report issued by OCD and Scope of tests evaluated.

LABELING - Act 4088

- **e-LABEL**: The electronic approval identification applies to devices with an integrated electronic screen or to devices that operate in conjunction with equipment that has an integrated electronic display.

- **QR Code**: Products using QR Codes must show, at least, the following information: ANATEL ID, model name, lot number, serial number, software version, identification and address of the factory; identification and address of the Local Representative.

- **Important Note**: After ANATEL's approval, the product to be exported to Brazil must be labeled in the country of origin.

RESOLUTION 715

New Conformity Scheme
New Approval Scheme by Product List
June 2021

RESOLUTION 715: New Conformity Model

	Renewal	Scheme	ISO cert.	Lab.
CELLULAR DEVICES	2 years	Via OCD	Yes	Brazilian
MOBILE PHONE	2 years	Via OCD	Yes	Brazilian
USER ENVIRONMENT DATA NETWORK EQUIPMENT	2 years	Via OCD	Yes	Brazilian
BUSINESS ENVIRONMENT DATA NETWORK EQUIPMENT	3 years	Via OCD	Yes	ILAC
OLT - Optical Line Termination	3 years	Via OCD	Yes	ILAC
ONT - Optical Network Termination	2 years	Via OCD	Yes	Brazilian

- It will take effect on June 1st, 2021.

RESOLUTION 715: New Conformity Model

	Renewal	Scheme	ISO cert.	Lab.
POINT TO POINT ANTENNA	2 years	Via OCD	Yes	Brazilian
COAXIAL CABLES END USER	2 years	Via OCD	Yes	Brazilian
COAXIAL CABLES CORPORATE USE	3 years	Via OCD	Yes	Brazilian
OPTICAL CABLES CORPORATE USE AND OPTICAL FIBERS	3 years	Via OCD	Yes	Brazilian
CHARGERS FOR MOBILE PHONE, LITHIUM BATTERIES AND POWERBANK	2 years	Via OCD	Yes	Brazilian
CONNECTORS	Indeterminate	ANATEL	No	ILAC

- It will take effect on June 1st, 2021.

REGULATORY UPDATES

5G TECHNOLOGY

5G TECHNOLOGY

Acts 3151 & 3152 (June 12, 2020) allow for the approval of products with 5G technology in Brazil **(Frequency Range 1).**

APPLICABLE TESTS FOR 5G NR TECHNOLOGY **STANDALONE**:
3GPP TS 38.521-1 V16.3.0 (2020-03).

APPLICABLE TESTS FOR 5G NR TECHNOLOGY **NON-STANDALONE INTRA-BAND NON-CONTIGUOUS**:
3GPP TS 38.521-3 V16.3.0 (2020-03).

APPLICABLE TESTS FOR 5G NR TECHNOLOGY **NON-STANDALONE INTER-BAND:** 3GPP TS 38.521-3 V16.3.0 (2020-03).

APPLICABLE TESTS FOR 5G NR TECHNOLOGY **NON-STANDALONE(E -UTRA/NR Dual Connective - ENDC) -** 3GPP TS 38.101-3

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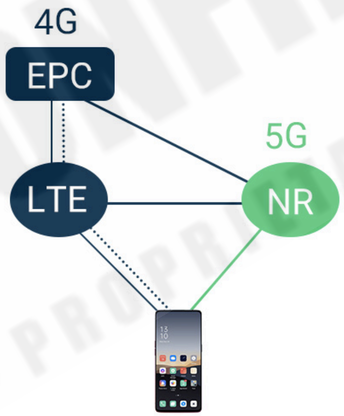
5G TECHNOLOGY

NON-STANDALONE (NSA)

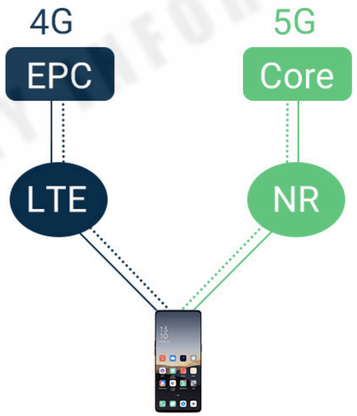
- NSA relies on the 4G network facilities to provide more speed and higher data bandwidth.
- A 5G-enabled smartphone will connect to 5G or 4G network depending on conditions.

STANDALONE (SA)

- On the other hand, SA is the true 5G network, where the 5G network has its dedicated 5G facilities to provide enormous speed improvements and minimal network latency (delay).
- The 5G SA network is independent of the 4G network.



Non Standalone



Standalone

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5G TECHNOLOGY

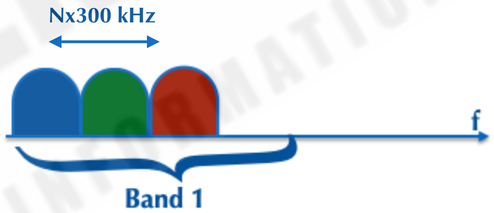
INTRA-BAND

- The component carriers belong to different operating frequency bands

INTER-BAND

- Contiguous component carriers within the same operating frequency band (as defined for LTE)

Intra-band, contiguous



Intra-band, non-contiguous

Inter-band, non-contiguous

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5G TECHNOLOGY - IMPACTS

- 5G devices now can be approved and commercialized with 5G technology in Brazil.
- Currently Brazil has three laboratories qualified for 5G tests, so the local testing is mandatory.

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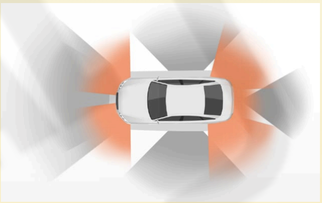
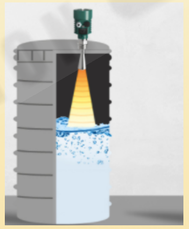
RESOLUTION 726 & ACT 4776

New Open Bands

Variation of electromagnetic field Emitter-sensor(Vehicle radar system)
Frequency range: 76-81 GHz
- EIRP (average): 50 dBm (RBW 1 MHz)
- EIRP (peak): 55 dBm (RBW 1 MHz)



Level Detection Emitter-Sensor
Frequency range: 76-81 GHz
Minimum BW: 50 MHz
Outdoor - EIRP (peak): 34 dBm (BW 50 MHz)
Indoor - EIRP (peak): 43 dBm (RBW 50 MHz)



Vehicle communication systems - Intelligent Transport Systems (ITS)
Frequency range: 5.850-5.925 MHz

Vehicle-to-vehicle (V2V):
EIRP (peak): 23 dBm (200 mW)

Vehicle-to-everything(V2X):
EIRP (peak): 26 dBm (400 mW)

Standard: ETSI EN 302 571 V2.1.1

ANATEL

RESOLUTION 726 & ACT 4776

OLD (Act 14448)	New (Act 4776)
WIFI frequency range: 5.150-5.350 MHz **EIRP (average):** 200 mW **EIRP spectral density (average):** 10 mW/MHz	**WIFI frequency range:** 5.150-5.250 MHz **Conducted power (average):** 1 W (*) **WIFI frequency range:** 5.250-5.350 MHz **Conducted power (average):** 250 mW (*) **EIRP spectral density (average):** 50 mW/MHz (*) If the maximum gain of the antenna does not exceed 6 dBi.
WiGig frequency range: 57-64 GHz **Power density (average):** 9 µW/cm2 **Power density (peak):** 18 µW/cm2 **Total power (peak):** 500 mW	**WiGig frequency range:** 57-71GHz **Point-area systems (indoor and outdoor)** **- EIRP (average):** 40 dBm. **- Peak power:** 43 dBm. - EIRP spectral density (average): 13 dBm / MHz. **Point-to-point system (Outdoor)** - **EIRP (average):** 82 dBm - **Peak power:** 85 dBm

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RESOLUTION 726 & ACT 4776
IMPACTS

- **WIFI 5.1GHz:** The manufacturer or the local representative, during the renewal, will be able to perform the functional tests again considering the new power limit (optional).

- **WiGig:** The manufacturer or the homologation applicant, during the renewal, will be able to perform the functional tests again considering the new allowed range (optional).

BREAKING NEWS

WIFI 6E - IEEE 802.11ax

Wi Fi 6E CERTIFIED

- The 802.11ax version, or Wi-Fi 6, provides for operation in the 2.4GHz, 5GHz and 6GHz bands. In this last band, between **5,925 MHz and 7,125 MHz**, totaling a 1,200 MHz band, there is the operation of the so-called Wi-Fi 6E
- On February 26, 2021, ANATEL published Act 1306, in which it informs the testing requirements for WIFI 6E.
- Brazil is the second-largest nation after the USA to release 6 GHz to Wi-Fi and one of only a handful to thus far release the full 1.2 GHz of spectrum.
- In summary, a manufacturer that has devices with WIFI 6E will be able to sell in Brazil, as long as it is duly approved by ANATEL.

ANATEL

ACT 77 - CYBERSECURITY REQUIREMENTS

- **ENFORCED BY**: This Act into force 180 days after publication, that is, on July 3rd, 2021.
- **SCOPE:** All products on the ANATEL List that have the function of terminal equipment with an Internet connection or telecommunications network infrastructure equipment.
- **REQUIRED DOCUMENT:** In the initial certification of the equipment, it will must contain a letter stating to which requirements product must meet as well as the supplier
- **CYBER SECURITY REQUIREMENTS:** software / firmware update, remote management, installation and operation, access to equipment configuration, data communication services, sensitive personal data and the ability to mitigate attacks.

ANATEL

Q & A

Regulatory and Engineering Expertise

Solving the Difficult Problems that other can't

The Brazilian largest test and certification facility, focused on ICT equipments.

Contact: info@orbiscompliance.com