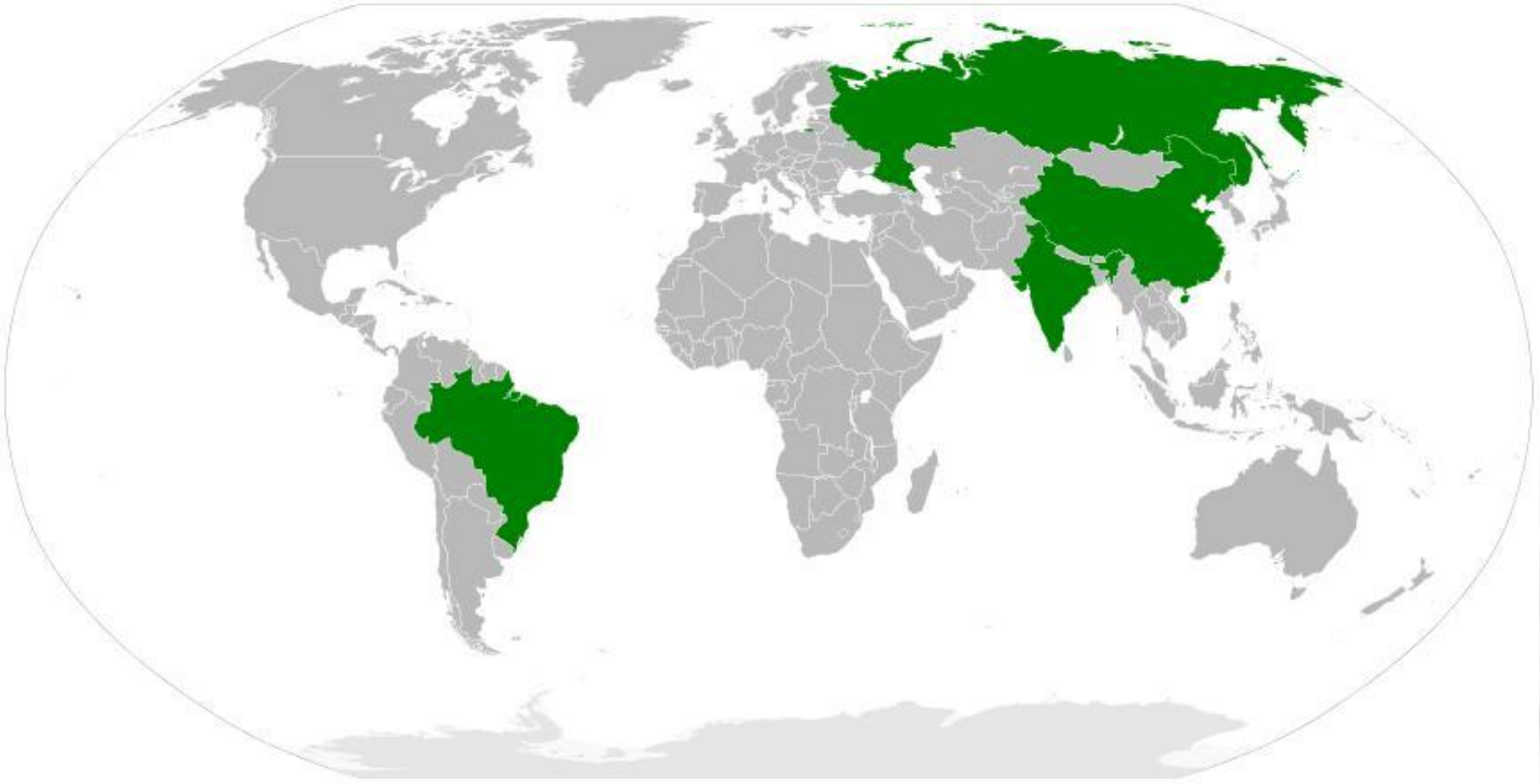
BRIC:
Overview of the Emerging Markets
Brazil, Russia, India, & China

Mark Maynard
SIEMIC Testing and Certification Services

BRIC Overview

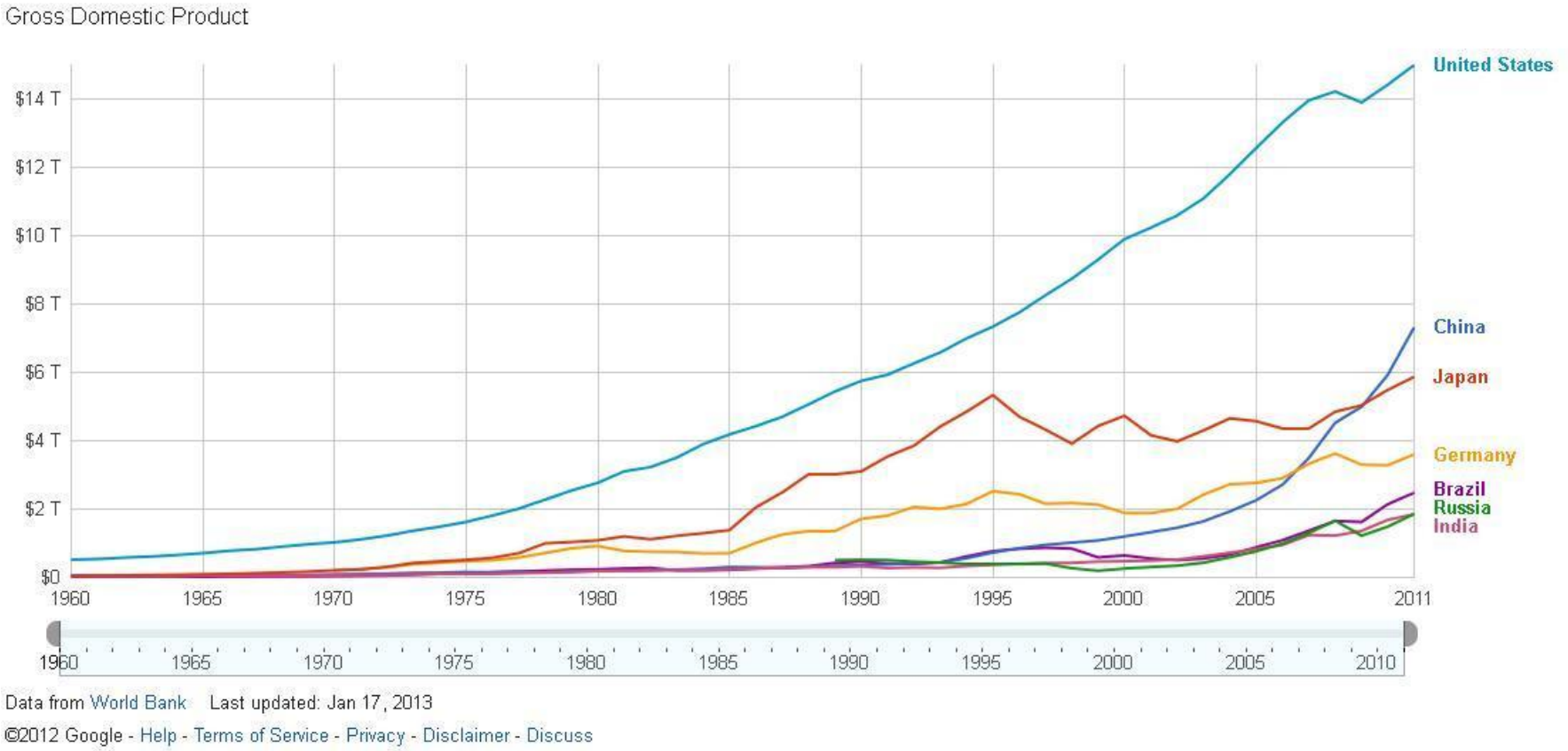
Combined Population of 2.88 Billion



40% of the World's Population!

BRIC Overview

Google 7 Countries with highest GDP (PPP) 1960-2011

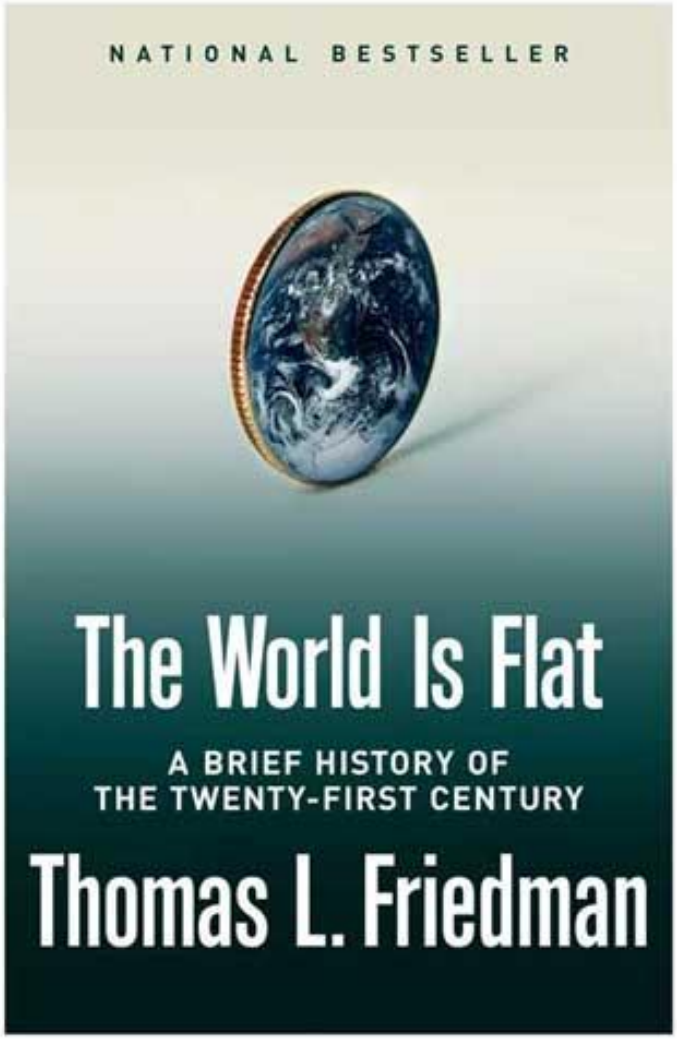


BRIC Overview

Why focus on BRIC Countries?

- The "Big Four" currently rank in the top 7 of world economies (GDP PPP)
- Leaders in the shift in global economic power away from the developed G7 economies and towards the developing world
- It is estimated that BRIC economies will overtake G7 economies by 2027
- Goldman Sachs predicts that by 2050 the combined BRIC economies could eclipse the combined economies of the current richest countries of the world.

BRIC Overview



Ongoing Presentation:

- Social Media
  - Linked In
    - International Approvals / Certifications

Product Certifications for Brazil

BRAZIL

- INMETRO – Brazil's National Institute of Metrology, Quality and Technology
- INMETRO was created in December 1973 to support Brazilian enterprises, to increase their productivity and the quality of goods and services
- Tasked with maintaining the national standards
- The main Accreditation Body for Brazil certification bodies and laboratories
- Brazil's national developer of conformity assessment programs
- Responsible for Brazil's Technical Barriers to Trade (TBT) WTO program, (like US NIST – Notify US)

INMETRO

INMETRO MANDATORY LIST

INMETRO Mandatory Certification List (80 products),

including:

- Medical equipment
- Hazardous location equipment
- Electrical cords and cables
- Protective devices (circuit breakers and ballasts)
- Switches, plugs and sockets
- Equipment for gas systems (pressure regulators and hoses)
- Voltage stabilizer

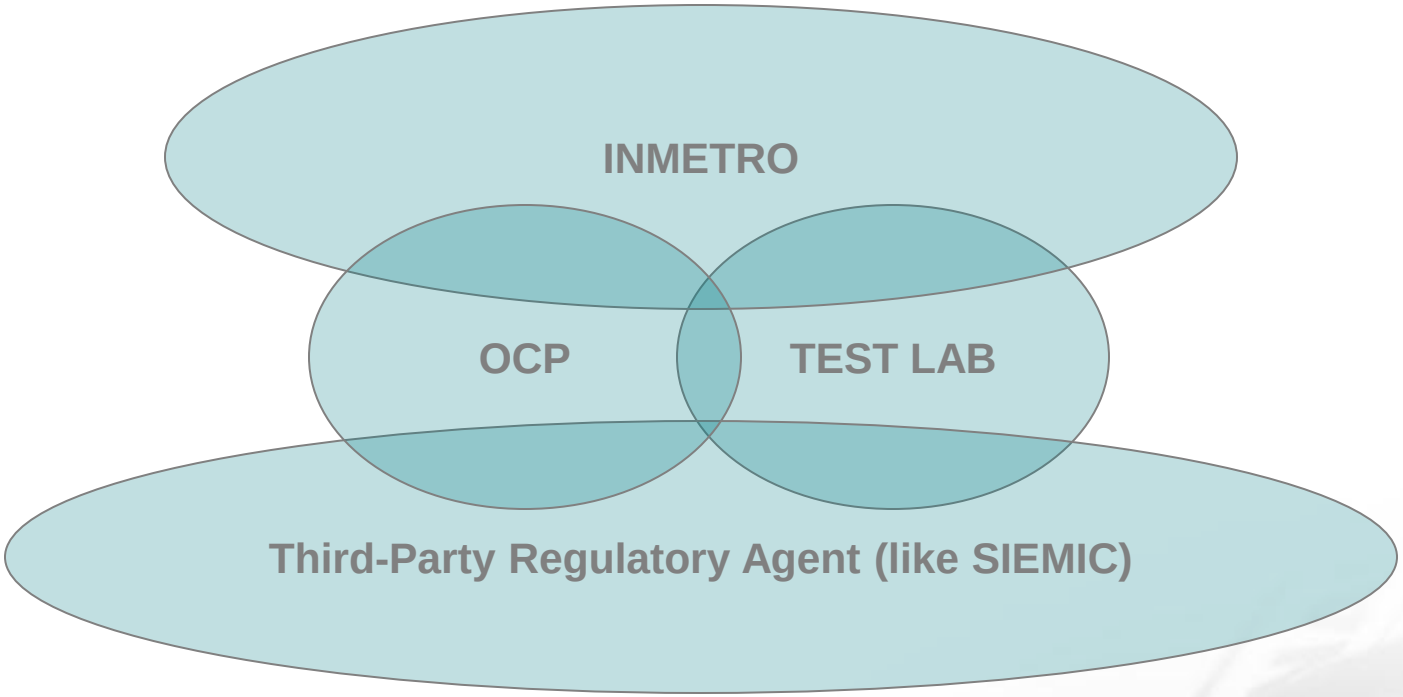
INMETRO VOLUNTARY LIST

INMETRO Voluntary Certification List (87 products),

including

- Consumer electronics
- IT equipment
- Household appliances
- Luminaries and its components
- Electrical appliances
- Photovoltaic equipment and systems

ORGANIZATION STRUCTURE



In order to obtain INMETRO product certification, it is necessary to interface with a Brazilian certification body or OCP (Product Certification Body) accredited by INMETRO

INMETRO has accredited 51 OCP

During certification, product testing must be performed by a laboratory from RBLE (Brazilian network of testing laboratories) which are accredited by INMETRO

RBLE has 372 testing laboratories

INMETRO LABEL/MARKING

Required INMETRO Marking

Identification of type of accreditation

Type of Accreditation Code (i.e. OCP)

OCP Accredited Number

ANATEL

ANATEL – National Telecommunication Agency

- Promotes development of Brazil's telecommunication infrastructure by exercising standardization, homologation and surveillance.

History

- Established in July 1997 according to Law 9.472
- Resolution 242 in November 2000 is the general regulation regarding certification of telecommunication products
- Resolution 323 in November 2002 complements Resolution 242
- Instrumento de Gestão 01 (IG01) defines the priority of selected test labs during the Anatel certification process.

OCD & TEST LABS

OCD:

Organismo de Certificacao Designado (Designated Certification Body)

In order to obtain ANATEL product certification, it is necessary to interface with a Brazilian certification body or OCD accredited by ANATEL

There are 13 accredited OCD's

Test Laboratories

During certification, product testing must be performed by a laboratory accredited by INMETRO per SBAC (Brazilian System of Conformity Assessment)

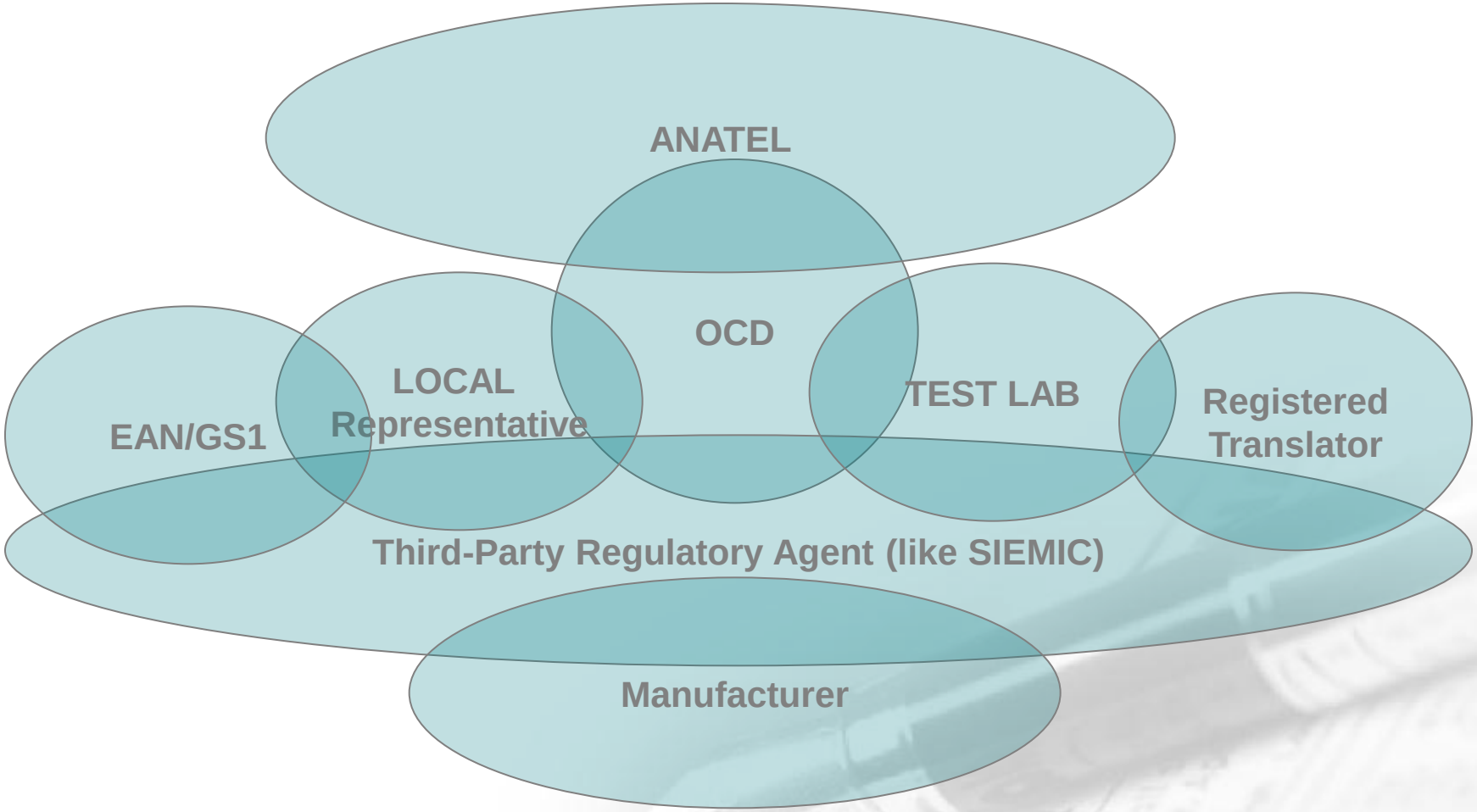
There are 20 accredited laboratories

Priorities of Test Laboratories

According to IG01, local test labs have precedence with priorities below:

1) Local Brazilian test labs accredited by INMETRO
2) Local third Party test labs evaluated by OCD
3) Local non-third party test labs evaluated by OCD
4) Foreign labs recognized by ILAC

PARTICIPANTS PARTIES



CERTIFICATES


REPÚBLICA FEDERATIVA DO BRASIL
AGÊNCIA NACIONAL DE TELECOMUNICAÇÕES.
ANATEL

Certificado de Homologação
(Intransferível)

Fabricante:

Outras Unidades Fabris:

Tipo:

Modelo(s):

Serviço/Aplicação:

Observações:

ANATEL Homologation Certificate

- Issued by ANATEL
- No expiration date
- Issued to the local representative

OCD Technical Certificate

- Issued by OCD
- May have expiration date depending on product
- Typically issued to the manufacturer (owner of design)

ANATEL PRODUCT CATEGORY I

Category I: Terminal equipment intended for use by the general public for purposes of accessing collective interest telecommunications services

- AC/DC adapters used with cellphones
- UMTS devices
- Cordless phones
- Wired phones
- Lithium battery for cell phone
- Cable/Cord (flexible, coaxial, UTP, STP)
- Fax-modem machine
- PABX
- etc

- Annual maintenance. Certificate is valid for 1 year
- Requires product testing and evaluation of factory quality system

ANATEL PRODUCT CATEGORY II

Category II: Equipment not covered by the definition of Category I products and that make use of the frequency spectrum for the transmission of signals (wireless/radio)

- Antennas
- Amplifiers
- Transmitters
- Transceivers
- Radio Frequency Devices (Wi-Fi, BT, RFID, radar, etc.)

- Bi-annual maintenance: Certificate is valid for 2 years
- Requires product testing

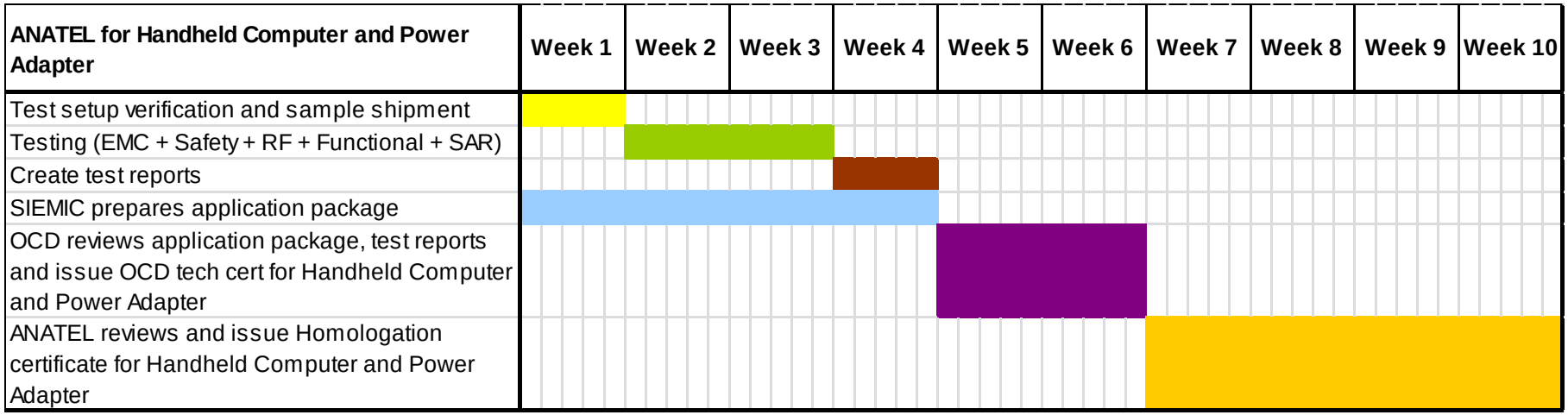
ANATEL PRODUCT CATEGORY III

Category III: Equipment not contained in the definitions of Category I and II and that will have interoperability with telecommunication network

- Cables (coaxial, hybrid, fiber optic)
- Multiplexers
- Data network equipment
- Switches, Hubs, Gateways
- Interconnection Networks Equipment
- Equipments with E1, E3, STM, FXO, FXS
- etc

- Certification is valid until the device is modified or regulation changes
- Requires product testing

PROJECT SCHEDULE



Historically, ANATEL takes about 4 weeks to homologate

Total lead time is 8-10 weeks

ANATEL STANDARDS

Similar to USA/EU Standards:

- EMC: ANATEL No. 442 (~CISPR 22 & 24)
- Product Safety: ANATEL No. 529 (~IEC 60950)
- WiFi/Bluetooth: ANATEL No. 506, Sec. IX (~FCC 15.247)
- SAR: ANATEL No. 533
- GSM: ETSI TS 151 010-1
- UMTS: ETSI TS 134-121-1

ANATEL STANDARDS

Example: Safety Standards Listing

SAFETY Tests				
Brazil: ANATEL STANDARD Nº 529 (reference standard IEC 60950 (2005))				
Regulatory Standard (Item)	**Compliance Test**	**Requirement to**		**Limits**
		Mobile - ETA	WIFI - BT	
Titulo III (Art. 09º)	Protection Against Fire Hazards (when the EUT has telecomunications external port)			When subjected to a voltage of 230 Vef (60 Hz), during fifteen (15) minutes, between a telecommunications terminal corresponding to the outside plant and the grounding terminal, the EUT shall not present fire hazard
Titulo IV (Art. 11º)	Protection Against Electric Shock - EUT under normal conditions	✔	✔	When the EUT is energized under normal conditions (nominal voltage), all its accessible parts shall present a leakage current lower than 0.25 mAef.
Titulo V (Art. 14º)	Protection Against Electric Shock - EUT under overvoltage at the telecomunications external port			When the EUT is energized under vervoltage at the telecomunications external port, all its accessible parts shall present a leakage current lower than 10 mAef.
Titulo VI (Art. 19º)	Protection Against Electric Shock - EUT under overvoltage at the power supply external ports	✔	✔	When the EUT is energized under vervoltage at the power supply external ports, all its accessible parts shall present a leakage current lower than 10 mAef.
Titulo VII (Art. 23º)	Protection Against Overheat	✔	✔	The temperature rise of any part external to the EUT, accessible to man, in relation to the environment shall not exceed the limits below: Parts frequently touched Metal Surface: 30ºC / Non-Metal: 40 ºC Parts Ecentually touched Metal Surface: 45ºC / Non-Metal: 55 ºC

Brazil SAR Resolution 533

Portable terminal stations: transmitting stations characterized by the portability of the equipment utilized and whose radiant structures, when in use, are located less than 20 cm from the body of the user.

Low Power Portable Terminal Stations: portable terminal station where the average power emitted in an average of 6 (six) minutes is equal or less than 20 mW and the peak power emitted is less than 20W.

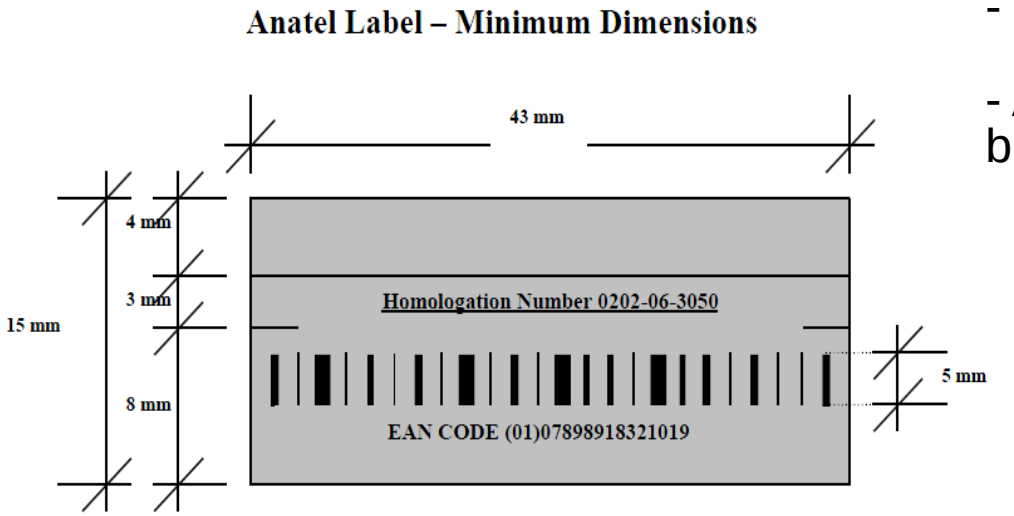
Resolution 533 is applicable when equipment meet all requirements below *simultaneously*:

- portable
- operate close to human body, with distance no greater than 20 cm
- operate with frequency between 300MHz and 6 GHz
- operate with average output power greater than 20mW, measured in a time average of 6min; or peak power emitted is greater than 20W

ANATEL LABEL/MARKING

Product label must contain:

- ANATEL homologation number
- ANATEL logo
- EAN bar code
- Trademark
- Model Number
- Compliance Warning statements

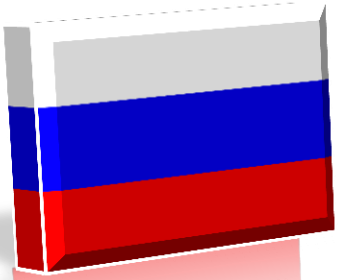


Note:
- EAN bar code must meet GS1-128

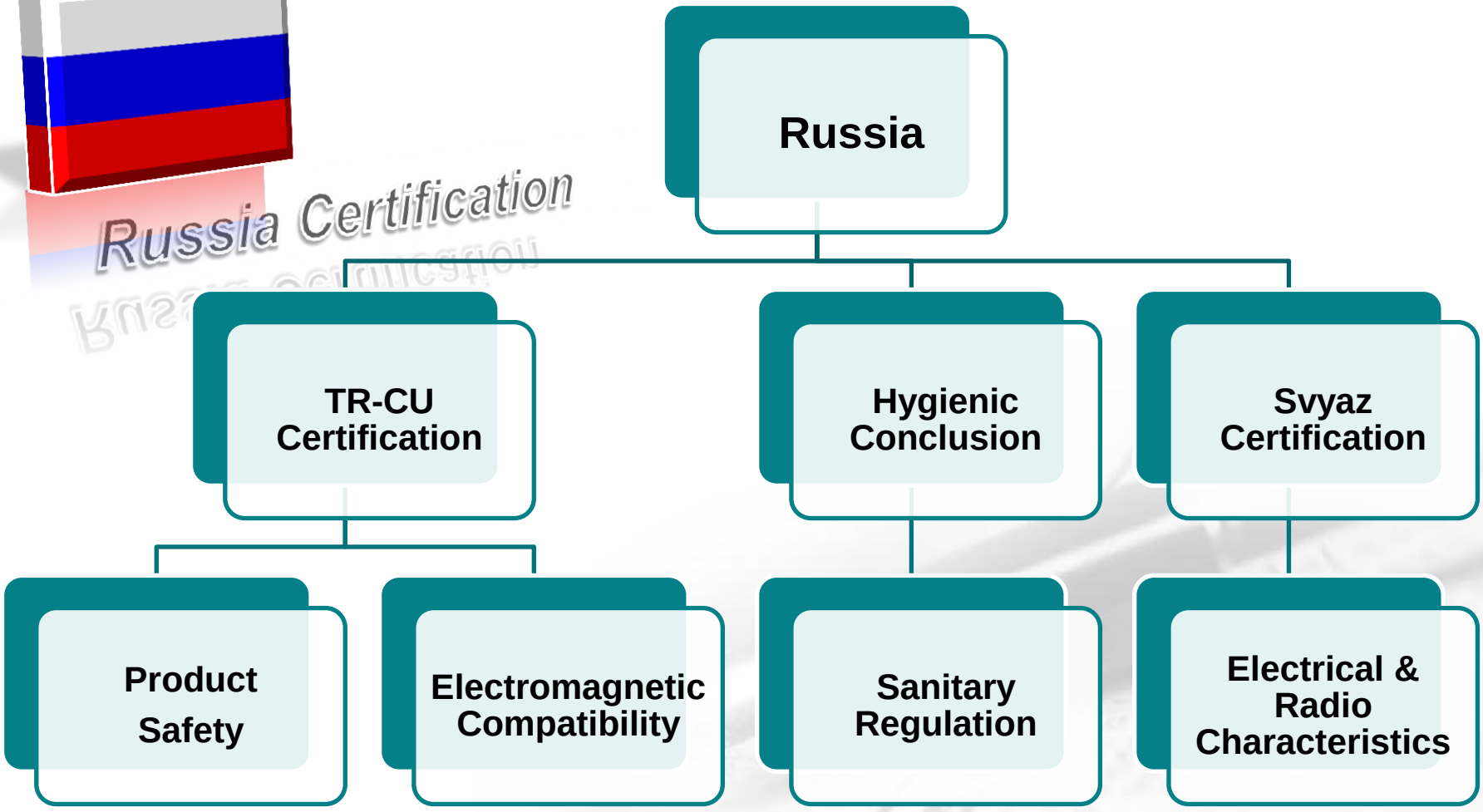
- ANATEL homologation number breakdown
  - HHHH: number of ANATEL approval
  - AA: year
  - FFFF: identification of local representative

CERTIFICATION PROCESS IN RUSSIA

Introduction



Russia Certification



New Program: TR-CU

- In Russia, the former GOST certification system was withdrawn on 15 February 2013, and replaced by the new Customs Union (CU) regime.
- Existing certificates issued prior to 15 February 2013 (including GOST) shall remain valid until March 2015, assuming the products are unchanged from the original certification.
- 3-for-1 Certification: Obtain TR-CU Certification , and you gain market access for your product in Russia, Belarus, and Kazakhstan.
- More countries are expected to join over time (mostly former USSR members, non-EU)

TR-CU Certificate

Introduction	
TR-CU Certification	• General Information for TR-CU • Product Categories • Required Documents and Other Information
Hygienic Certification	• General Information for Hygienic Certification • Required Documents and Product Categories • Organization
Svyaz Certification	• General Information for Svyaz Certification • Customs
Process Flow	• Radio Product Certification Process
Conclusion	

TR-CU Certificate

TR Mark of Conformity

CU Mark of Conformity

- Almost any electronic product to be imported to Russia requires the new TR-CU Certification to assure compliance with existing **safety, technical, and quality standards.**
- **TR-CU logos** are as above, and required on the product
- **The identification code of certification body** should be shown above the logo.
- **The initial grant of TR-CU Certification is valid for terms of 1 to 5 years.**

TR-CU Certificate

Product Categories

- Information Technology Equipment (ITE)
- Audio/Video Equipment
- Household Appliances
- Wireless and Wired Telecommunication Equipment
- Scientific Instrumentation & Measurement Equipment
- Medical Equipment

Hygienic Certificate

- Introduction
- TR-CU Certification
  - General Information for TR-CU Application
  - Required Documents and Other Information
- Hygienic Certification
  - General Information for Hygienic Application
  - Product Categories subject to Hygienic Conclusion
  - Organization
- Svyaz Certification
  - General Information for Svyaz Certification
  - Customs
- Process Flow
  - Radio Product Certification Process
- Conclusion

Hygienic Certificate

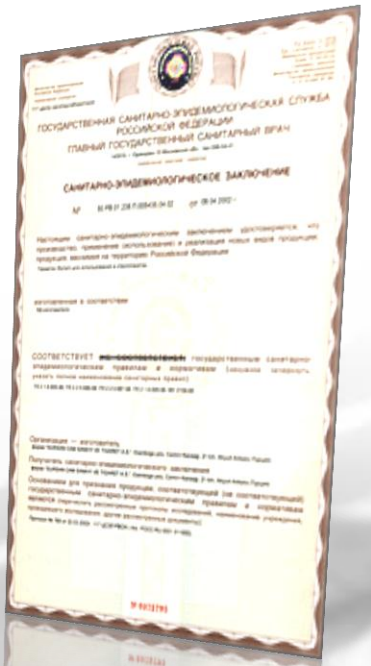
- The Hygienic Certification also called the ***Sanitary-Epidemiological Conclusion Certificate***.

- The hygienic certificate confirms **conformity of products and services to the sanitary norms** and **strict observance of the established rules** in the process of manufacture, storage, transportation and the sale of products and services.

Hygienic Certificate

Product Categories (partial list)

- **Products that produce noise / vibration**
  - Copy Machines
  - Printers
  - Air-conditioners
- **Individual protection means**
- **Tobacco products and raw materials**
- **Products emitting X-radiation**
  - Video Monitors
  - Television Receivers
- **Products emitting microwave radiation**
  - Cellular Phones
  - Wireless Telephones
  - Computer Components
  - Laptop Computers



Hygienic Certificate

- **Issued only by the Russian Federal Service for Supervision in the Area of Consumer Rights and Welfare Protection or Rospotrebnadzor (formerly Gossanepidnadzor).**

- **Two independent organizations, both part of Rospotrebnadzor, are involved in hygienic certification:**

  - **Center of Hygienic and Epidemiology**

  - Test protocol analysis and other documentation

  - **Territorial Office of Rospotrebnador**

  - Issues final certificate based on the expert conclusion drawn by the Center of Hygiene and Epidemiology provided that the product conforms the compliance of the goods to the Russian Hygienic Standard.

- **Valid for One year**

Svyaz Certificate

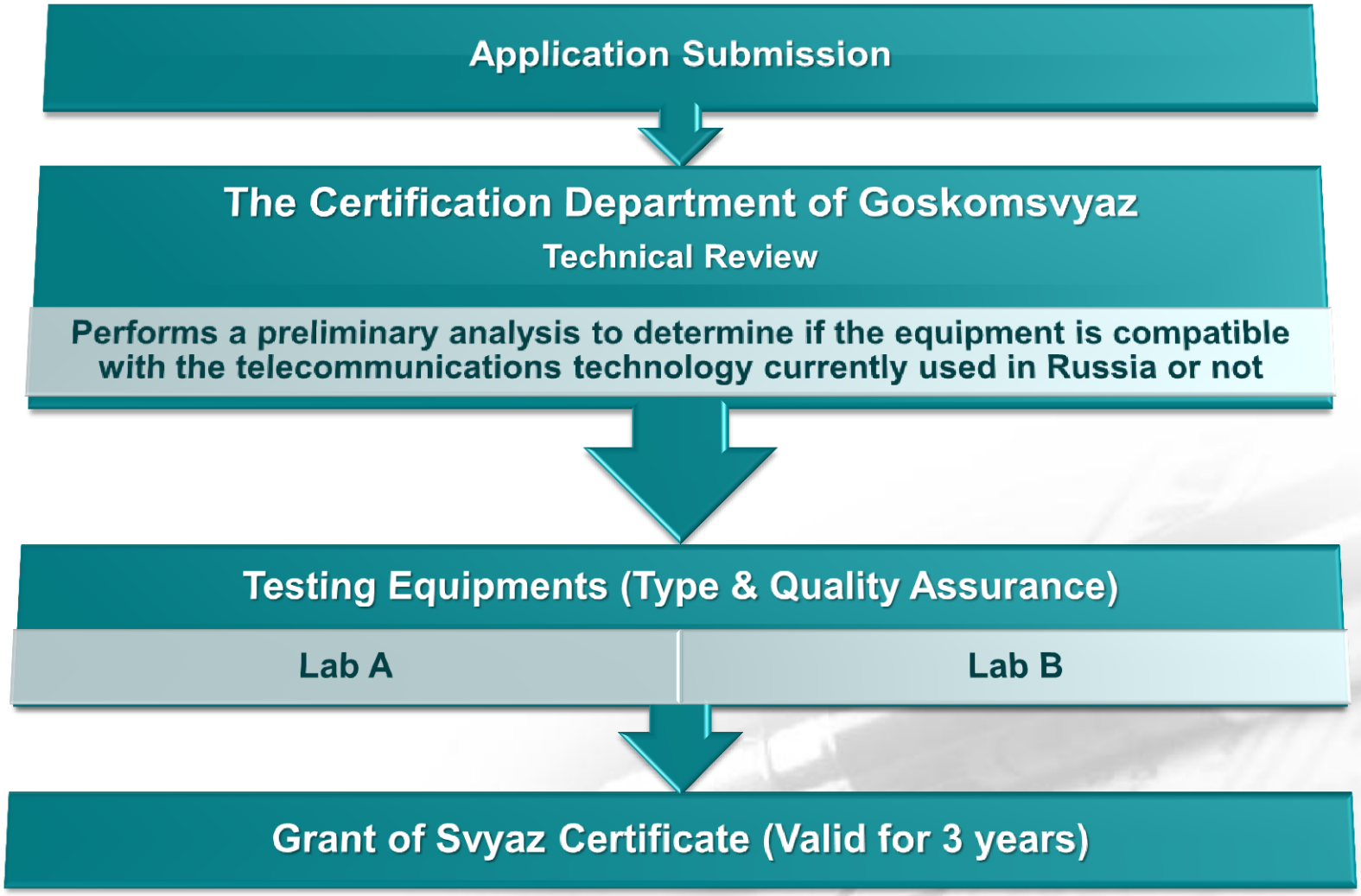
- Introduction
- TR-CU Certification
  - General Information for TR-CU Application
  - Required Documents and Other Information
- Hygienic Certification
  - General Information for Hygienic Application
  - Required Documents
  - Organization
- Svyaz Certification
  - General Information for Svyaz Certification
  - Customs
- Process Flow
  - Radio Product Certification Process
- Conclusion

Svyaz Certificate

- *Applies to Telecommunications Equipment*
- *All technical means of the integrated communications networks (both shared and corporate) are subject to mandatory certification.*

- Article 16 of the Russian Federation Law "On Communications"

Svyaz Certificate



Svyaz Certificate

Process of Customs

Start the process of customs clearance before the products arrive in Russia

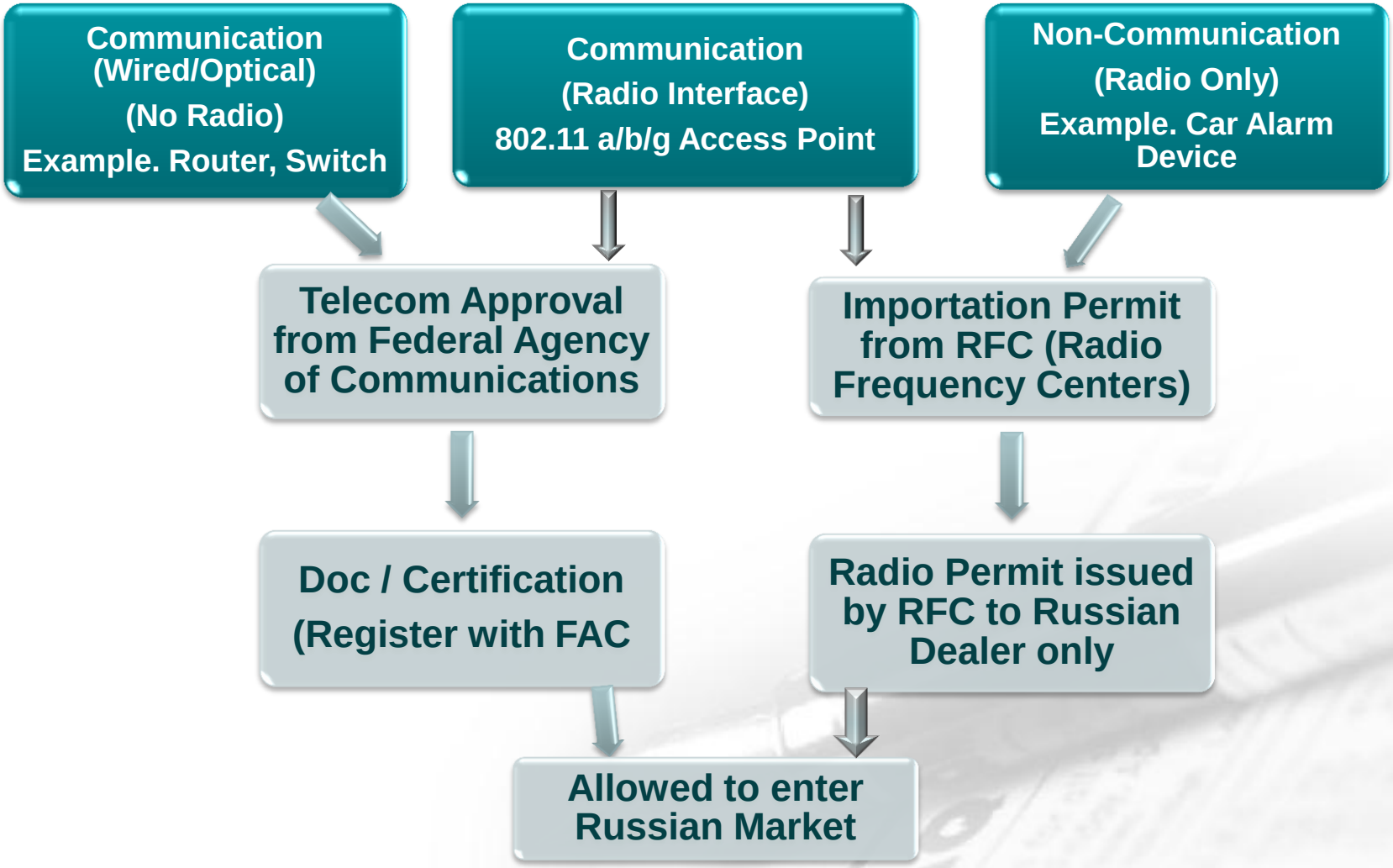
- **Regardless of secured product certifications, Customs clearance of any product imported to Russia is a very challenging process.**

- **Customs duty**
  - **For telecommunications equipment, customs duty varies from 5% to 20% depending on its purpose.**
  - **Calculated as a Percentage of the customs value of goods**

- **Value Added Tax**
  - **20% of a percentage of the customs value + the customs duty**

Process Flow

Certification Flow

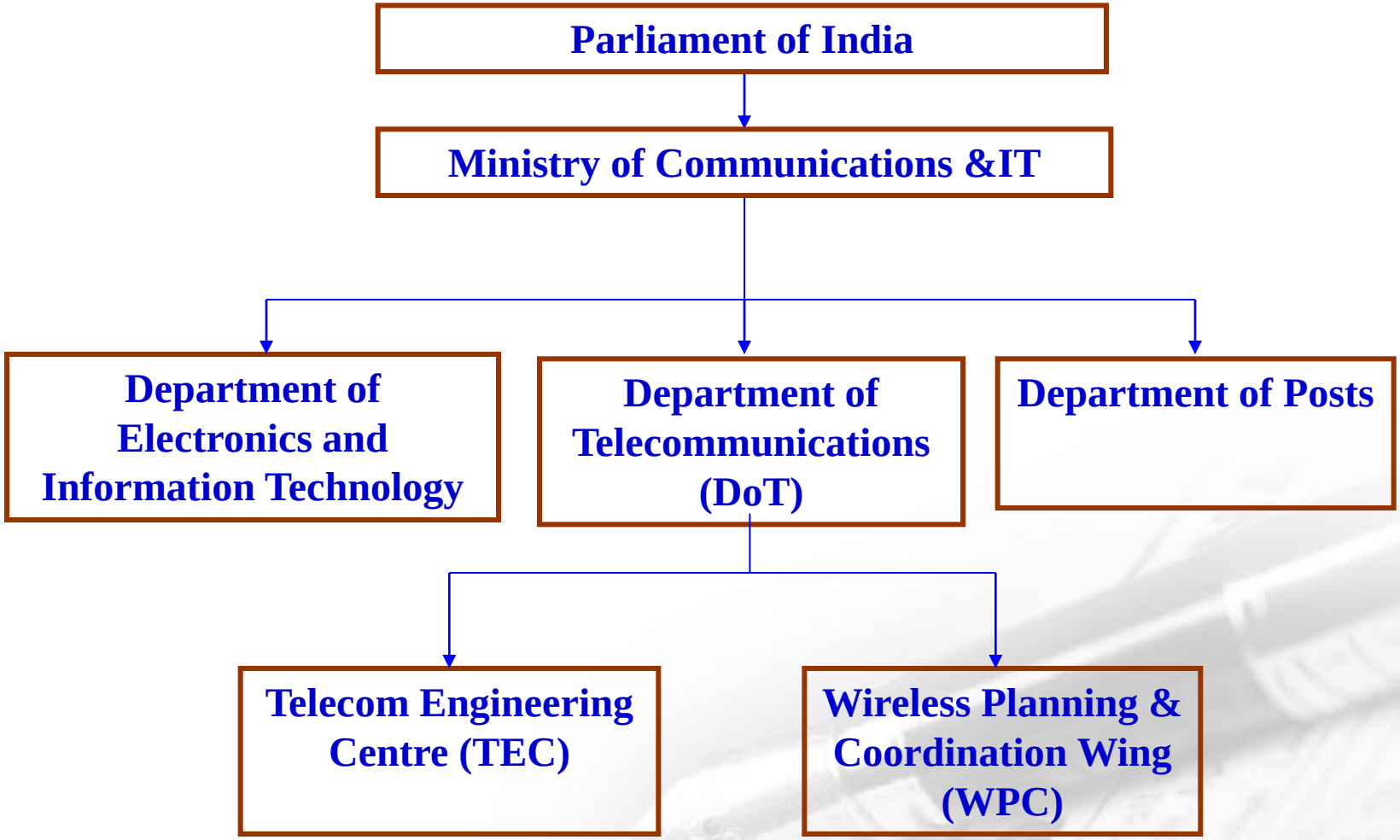


Product Certifications for India

AGENDA

- INTRODUCTION
- WPC
- TEC
- STQC
- BIS
- Questions and Answers

INDIA AUTHORITIES



WIRELESS PLANNING & COORDINATION WING

WIRELESS PLANNING & COORDINATION (WPC)

- National Radio Regulatory Authority
- Created in 1952
- Responsible for Frequency Spectrum Management
- Exercises the statutory functions of the Central Government and issues licenses to establish, maintain and operate wireless stations

WPC is divided into three major sections:

1) Licensing and Regulation (LR)
2) New Technology Group (NTG)
3) Standing Advisory Committee on Radio Frequency Allocation (SACFA)

WPC Certification Schemes

In India, radio frequencies for wireless communications were arbitrarily defined between 3 kHz and 3000 GHz.

So, if it is outside of these frequencies, WPC does not regulate.

There are two certification schemes:

1) License
- **1a) Network License (35 types)**
- **1b) Non-Network License (9 types)**

2) Equipment Type Approval (ETA)

WPC Network License

Network License to operate (35 types):

1) Beacon
2) CORDECT/CDMA
3) Captive Radio paging
4) Wide Area Radio Paging
5) Captive Radio Trunking
6) Public Mobile Radio Trunking Service (PMRTS)
7) Captive VSAT
8) Commercial VSAT
9) GSM
10) Earth station for foreign mission
11) Experimental
12) FM Community Broadcast
13) FM Broadcast
14) SW Broadcast
15) Terrestrial Broadcast
16) Fixed/Mobile-HF/VHF/UHF-Land Based
17) Fixed/Mobile-HF/VHF/UHF-Land Based (additional category)
18) HF/VHF for Foreign Mission
19) MW Broadcast
20) MW link for Foreign Mission
21) MW link for Cellular(GSM)
22) MW link for WLL(CDMA)
23) MW link for Point to Point Communication
24) MW link for Point to Multipoint (for ISP, ILD, NLD)
25) MW link for wide area Radio Paging
26) Radar
27) Remote Controller
28) SCADA
29) Satellite Broadcast
30) Satellite Network-Gateway for ISP, ILD, NLD
31) Satellite Network-Receive only Earth Station
32) Satellite News Gathering
33) Shot Range UHF Hand Held Radio (USR)
34) Spread Spectrum
35) TV Receive Only Dish Antenna (TVRO) for Foreign Mission

WPC Non-network License

Non-Network License to operate (9 types):

1) Aero mobile Station
2) Dealer Possession License (DPL)
3) Non-Dealer Possession License (NDPL)
4) Demonstration
5) Import
6) Maritime Mobile Station
7) Operator's License For GMDSS
8) Operator's License For COP
9) Operator's License For Amateurs

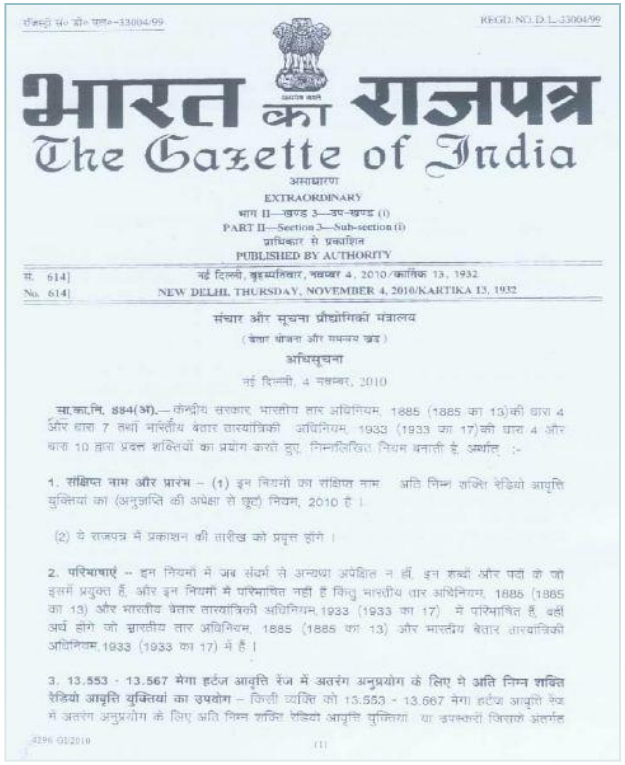
▸ Import License – license to import. It is a clearance letter issued by WPC to clear customs importation of wireless equipment.

▸ Dealer Possession License (DPL) – license to sell. All distributors/dealers of wireless equipment are required to have this license.

▸ Non-Dealer Possession License (NDPL) or End User License - license to use/operate wireless devices for each and every end-user. An End-User License may be seen as an exclusive ownership of a particular frequency band for a specified period (usually 2 years) bestowed on the licensee. WPC charges a license fee depending on band and application.

WPC ETA

In order to meet the market's need and to match the international market trends, WPC amended its regulations such that certain frequency bands have been de-regulated. WPC calls them "de-licensed" bands.



भारत का राजपत्र
The Gazette of India

असाधारण
EXTRAORDINARY
भाग II—खण्ड 3—उप-खण्ड (i)
PART II—Section 3—Sub-section (i)
प्राधिकार से प्रकाशित
PUBLISHED BY AUTHORITY

नई दिल्ली, बृहस्पतिवार, नवम्बर 4, 2010/कार्तिक 13, 1932
NEW DELHI, THURSDAY, NOVEMBER 4, 2010/KARTIKA 13, 1932

संचार और सूचना प्रौद्योगिकी मंत्रालय
(दूरसंचार विभाग एवं समन्वय खंड)
अधिसूचना
नई दिल्ली, 4 नवम्बर, 2010

सा.का.नि. 884(अ).—केन्द्रीय सरकार, भारतीय तार अधिनियम, 1885 (1885 का 13) की धारा 4 और धारा 7 तथा भारतीय वेतार तारयांत्रिकी अधिनियम, 1933 (1933 का 17) की धारा 4 और धारा 10 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, निम्नलिखित नियम बनाती है, अर्थात् :-

1. संक्षिप्त नाम और प्रारंभ – (1) इन नियमों का संक्षिप्त नाम अति निम्न शक्ति रेडियो आवृत्ति युक्तियां का (अनुज्ञप्ति की अपेक्षा से छूट) नियम, 2010 है ।

(2) ये राजपत्र में प्रकाशन की तारीख को प्रवृत्त होंगे ।

2. परिभाषाएं – इन नियमों में जब संदर्भ से अन्यथा अपेक्षित न हो, इन शब्दों और पदों के जो इसमें प्रयुक्त हैं, और इन नियमों में परिभाषित नहीं हैं किंतु भारतीय तार अधिनियम, 1885 (1885 का 13) और भारतीय वेतार तारयांत्रिकी अधिनियम,1933 (1933 का 17) में परिभाषित हैं, वही अर्थ होंगे जो भारतीय तार अधिनियम, 1885 (1885 का 13) और भारतीय वेतार तारयांत्रिकी अधिनियम,1933 (1933 का 17) में हैं ।

3. 13.553 - 13.567 मेगा हर्टज आवृत्ति रेंज में अतरंग अनुप्रयोग के लिए मे अति निम्न शक्ति रेडियो आवृत्ति युक्तियां का उपयोग – किसी व्यक्ति को 13.553 - 13.567 मेगा हर्टज आवृत्ति रेंज में अतरंग अनुप्रयोग के लिए अति निम्न शक्ति रेडियो आवृत्ति युक्तियां या उपस्करों जिसके अंतर्गत

4296 GI/2010 (1)

WPC no longer controls products that fall in the "de-licensed" category.

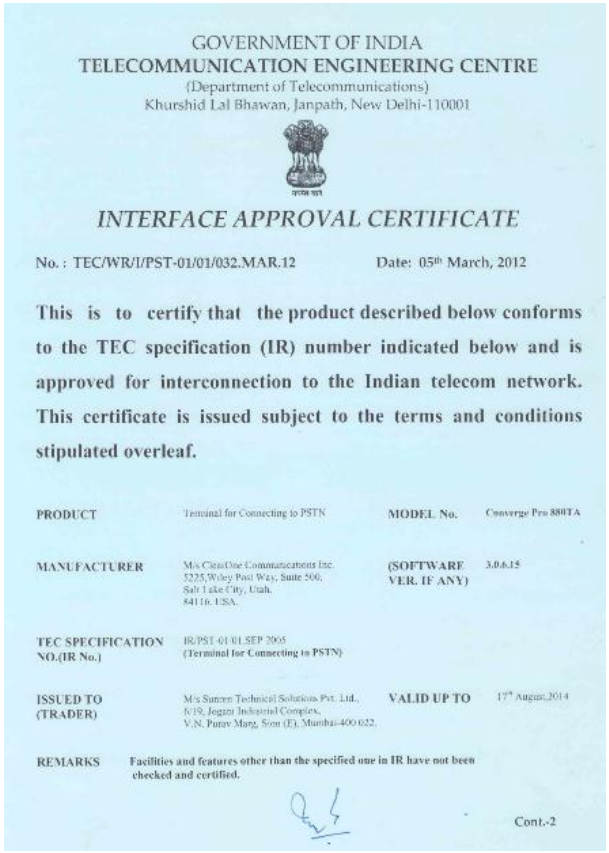
In other words, wireless devices are exempt from licenses if they fall under "de-licensed" frequency band and meets the specified RF power limit, but they must obtain ETA approvals.

TELECOMMUNICATION ENGINEERING CENTRE

TEC Functions:

- **Technical body representing the interests of DoT and Indian Government**
- **Specification of common standards for telecom network equipment, services, and interoperability**
- **Generic Requirements (GR) & Interface Requirements (IR)**
- **Issues Interface Approvals, Certificate of Approvals, Service Approvals & Type Approvals**
- **Formulation of Standards and Fundamental Technical Plans**
- **Interact with multilateral agencies for standardization (e.g. ETSI, ITU) for standardization**
- **Develops expertise to incorporate the latest technologies and R & D**
- **Provide technical support to DoT, and technical advice to TRAI & TDSAT**
- **Coordinates with C-DOT on the technological developments in the Telecom Sector for policy planning by DOT**

TEC approval types and requirements



GOVERNMENT OF INDIA
TELECOMMUNICATION ENGINEERING CENTRE
(Department of Telecommunications)
Khurshid Lal Bhawan, Janpath, New Delhi-110001

INTERFACE APPROVAL CERTIFICATE

No. : TEC/WR/I/PST-01/01/032.MAR.12 Date: 05th March, 2012

This is to certify that the product described below conforms to the TEC specification (IR) number indicated below and is approved for interconnection to the Indian telecom network. This certificate is issued subject to the terms and conditions stipulated overleaf.

PRODUCT	Terminal for Connecting to PSTN	MODEL No.	Converge Pro 880TA
MANUFACTURER	M/s ClearOne Communications Inc. 5225,Wiley Post Way, Suite 500, Salt Lake City, Utah. 84116. USA.	(SOFTWARE VER. IF ANY)	3.0.6.15
TEC SPECIFICATION NO.(IR No.)	IR/PST-01/01,SEP 2005 (Terminal for Connecting to PSTN)		
ISSUED TO (TRADER)	M/s Suncen Technical Solutions Pvt. Ltd., 6/19, Jegani Industrial Complex, V.N. Purav Marg, Sion (E), Mumbai-400 022.	VALID UP TO	17th August,2014
REMARKS	Facilities and features other than the specified one in IR have not been checked and certified.		

Cont.-2

TEC issues the following certificates:

- **Interface Approval**
- **Type Approval**
- **Certificate Approval**
- **Technology Approval**

There are four types of technical requirements:

Generic Requirements (GR)	**526**
Interface Requirements (IR)	**52**
Service Requirements (SR)	**24**
Standards Documents (SD)	**11**
	Total 613

TEC approval types

Interface Approval
Interface Approval is issued against Interface Requirements (IR) standards. Interface Approval is intended for products to be sold in general market for public use and connected to the public network services. Product examples are modems, Fax, ISDN terminals, etc.

Type Approval
Type approval is issued against Generic Requirement (GR). Type Approval is intended for products that will be procured by the DOT or India's former government carriers. Product examples are cellular towers, cables, exchange switch, etc. Type Approval not only requires in-country telecom testing, but may also require environmental and field testing. Infrastructure Assessment of the applicant's test and repair facilities in India are also a requirement.

Technology Approval
Technology Approval is issued against Generic Requirement (GR). Technology Approval is granted to R&D organization for development of equipment for transfer of technology to other manufacturers. The testing of the equipment is done by the specialized Core Group at TEC (HQ) in association with RTEC.

Certificate of Approval
Certificate of Approval is issued for the product for which the IR/GR/SD standards do not exist. Certificate of Approval is issued against applicant’s own specification.

INDIA SAR FOR MOBILE HANDSETS

Mobile Handsets

■ India has adopted the most stringent FCC norms for mobile handsets.

■ All the new design of mobile handsets shall comply with the SAR values of 1.6 W/kg averaged over 1 gram of human tissue with effective date of Sept 1st 2012.

■ The mobile handsets with existing designs which are compliant with 2.0 W/kg averaged over 10 gram of human tissue, continue to co-exist up to August 31st, 2013.

■ From Sept 1st 2013, only the mobile handsets with revised SAR value of 1.6 W/kg would be permitted to be manufactured or imported in India.

■ SAR value information shall be displayed on the mobile handsets as done with IMEI (International Mobile Equipment Identity). The information on SAR values to be made available to the consumer at the point of sale. The SAR information shall be available on the manufacturer's web site & in the handset's manual.

STQC

STQC

Government of India

Department of Electronics & Information Technology

Standardisation Testing and Quality Certification Directorate

Standardization Testing and Quality Certification (STQC) Directorate is an office from the Department of Electronics and Information Technology (DEIT), Government of India, which provides quality assurance services in the area of Electronics and IT through countrywide network of laboratories and centers. STQC have their own S-mark (for safety approval).

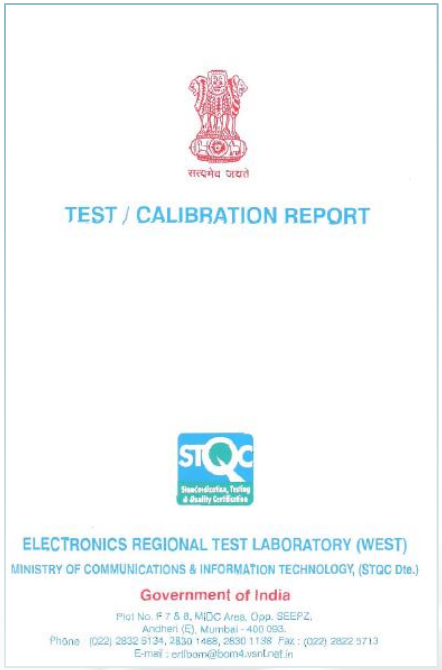
This product certification scheme is intended to provide adequate level of confidence regarding safety of product by means of factory inspection, product testing (as per appropriate IEC safety standard) and subsequent surveillance of the manufacturer.

STQC S-Mark

Use of Safety Mark

As far as possible, Safety Mark shall be applied on the product itself. If a product is very small for the marking than it may be applied on packaging only.

The Safety Mark shall be accompanied by the IEC standard reference below it.



BIS

Bureau of Indian Standards (BIS)

The Product Certification Scheme of BIS aims at providing Third Party Guarantee of quality, safety and reliability of products to the ultimate customer.

Presence of The Indian Standards Institution (ISI) certification mark known as Standard Mark on a product is an assurance of conformity to the specifications. The conformity is ensured by regular surveillance of the licensee's performance by surprise inspections and testing of samples, drawn both from the market and factory.

BIS ISI Mark

LIST OF STANDARDS UNDER MANDATORY CERTIFICATION

Sl No.	Parent Act	Rules/ QC Order	Notification	Implementing Authority
I	Food Safety & Standards Act, 2006	Food Safety & Standards (Prohibition & Restriction on sales) Regulations 2011	*Ministry of Health and Family Welfare, Dept of Health, Notification dated : 1 Aug 2011* Date of Implementation: *5 Aug 2011*	*Food (Health) Authority of the State*
1.	IS 1165	Milk powder		
2.	IS 1166	Condensed milk, partly skimmed and skimmed condensed milk		
3.	IS 1656	Milk-cereal based weaning foods		
4.	IS 11536	Processed cereal based complementary foods for infants		
5.	IS 12176	Sweetened ultra high temperature treated condensed milk		
6.	IS 13334(Part 1)	Skimmed milk powder, standard grade		
7.	IS 13334(Part 2)	Skimmed milk powder, extra grade		
8.	IS 14542	Partly skimmed milk powder		
9.	IS 14433	Infant milk substitute, Milk protein based		
10.	IS 13428	Packaged Natural Mineral Water		
11.	IS 14543	Packaged Drinking Water (Other than Packaged Natural Mineral Water)		
12.	IS 15757	Follow –up – formula- Complimentary Food-Specification		
II	Bureau of Indian Standards Act, 1986 (63 of 1986) Sec 14	*Cement (Quality Control) Order,2003*	*Ministry of Commerce & Industry, Dept. of Industrial Policy and Promotion* *S.O. No. 191(E) Dt. 17 Feb 2003* Date of Implementation : *17 Feb 2003*	*Officers appointed by State Govt.(not below the rank of General Manager, District Industries Centre)/ Central Govt.(not below the rank of Under Secretary)*
13.	IS 269	33 Grade Ordinary Portland cement		
14.	IS 455	Portland Slag cement		
15.	IS 1489(Pt 1)	Portland pozzolana cement - Part 1 Fly Ash based.		
16.	IS 1489(Pt 2)	Portland pozzolana cement- Part 2 Calcined Clay based		
17.	IS 3466	Masonry cement		
18.	IS 6452	High alumina cement for structural use		
19.	IS 6909	Super sulphated cement		
20.	IS 8041	Rapid hardening Portland cement		
21.	IS 8042	White Portland Cement		
22.	IS 8043	Hydrophobic Portland Cement		
23.	IS 8112	43 Grade Ordinary Portland cement		
24.	IS 8229	Oil well cement		
25.	IS 12269	53 Grade Ordinary Portland cement		
26.	IS 12330	Sulphate resisting Portland cement		
27.	IS 12600	Low heat Portland Cement		
III	Bureau of Indian Standards Act,	*Electrical Wires, Cables, Appliances*	*Ministry of Commerce & Industry, Dept. of Industrial*	*Officers appointed by State Govt.(not below*

Although, the scheme itself was voluntary in nature, the Government of India, on considerations of public health and safety, security, infrastructure requirements and mass consumption has enforced mandatory certification on various products through Orders issued from time to time under various Acts.

BIS published a list of items brought under mandatory certification, together with the corresponding Indian Standard Number, and the authorities responsible for enforcing the orders.

Latest Updates: India Registration System

New Registration System for India (Product Safety)

India has announced the implementation of the new mandatory registration system for 15 specific types of electrical equipment, with a new labeling requirement.

Originally scheduled to be implemented in 3 April 2013, but now delayed until 3 July 2013, with implementation delayed for an additional 3 months for specific categories, until 3 October 2013.

Discussions are still ongoing between the Department of Electronics and Information Technology, the Ministry of Communication and Information Technology and the Government of India, so further adjustments to this new program are possible.

Latest Updates: India Registration System

New India Registration System

The Ministry of Communications and Information Technology (MCIT) has decreed that **products imported to India, stored in India, distributed in India, or sold in India must (shall) conform to the Indian (safety) standards specified in the schedule, and products must be registered as compliant**.

New Labeling Requirement:
Products covered under the scope of this new registration scheme must have **t**he following text on the product label or smallest packaging utilized:

"Self Declaration – Conforming to IS XXXX"

where "XXXX" is the specific Indian Standard reference number

-Products cannot be cleared at customs without the self-declaration mark

Latest Updates: India Registration System

New India Registration System (cont.)

India Product Safety Standards/IEC Equivalents:

ITE: IS 13252:2010 / IEC 60950-1:2005
Covers: Laptop/Notebook/Tablet, Printer/Plotter, Scanner, Wireless Keyboard, Telephone Answering Machine, Cable Set Top Box, Automatic Data Processing Machine (PC), Visual Display Units/Video Monitors.

Audio/Video Equipment: IS 616:2010 / IEC 60065:2005
Covers: Plasma/LCD/LED TV, Optical Disc Player with built-in amplifier (200 watts or greater), Amplifier with input power (2000 watts or greater), Electronic Music System (200 watts or greater), Electronic Video Games.

Appliances: IS 302-1:2008, IS 302-2-25/26:1994 / IEC 60335-2-25/26
Covers: Microwave ovens, Electronic Clocks powered by main.

Product Certifications for China

CERTIFICATIONS IN CHINA

SRRC

CCC

MPE

CQC

NAL

Golden
Sun Mark

CERTIFICATIONS IN CHINA

❑ Three Major China Approvals:

China Compulsory Certification (CCC)

MII Network Access License (NAL)

SRRC Radio Type Approval (RTA)

CERTIFICATIONS IN CHINA

- In additional to CCC certification, other certifications may also apply, SRRC, MII, MPE, Golden Sun Mark, etc.

EXAMPLE:

Multiple functional Fax / Printer Machine with Bluetooth connection with other device

- SRRC for bluetooth
- MII for Fax functionality
- CCC

CCC MARK ORGANIZATIONS

CNCA:

China Certification and Accreditation Administration

CNAB:

China Accreditation Board for Certifiers

9 Accredited Bodies

CNAL:

China Accreditation Board for Laboratories

882 Labs Accredited

CNAT:

China Auditor and Training Accreditation Board

CCC MARK CERTIFICATION

- HS Code of Products Required for CCC mark
  - The first issue of CNCA CCC Implementation Rules covers 19 categories, 132 types of products

- With the update of HS code, total of 22 categories, 159 types of products are now required under CCC certification system,
  - Wireless LAN is now mandatory for CCC Mark Certification

- Almost everything else not in the CCC list falls into CQC Certification

CCC MARK CERTIFICATION

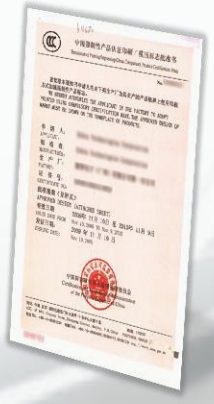
- Updated HS code of products required for CCC Mark

Category	Name of the product category	No of products
1	*Electric Wires and Cables*	5
2	*Connecters such as Plugs and Sockets for Household and Industry Appliance*	6
3	*Low-voltage Circuit Switches and Protective Devices*	9
4	*Small-Power Motor*	1
5	*Electric Tools*	16
6	*Electric welding machines*	15
7	*Household and Similar Electrical Appliances*	18
8	*Audio & Video products*	16
9	*Information Technology Equipments*	12
10	*Lighting Electrical Appliances*	2
11	*Motor Vehicle Products*	4
12	*Tire Products*	2
13	*Safety Windows for Car and Buildings*	4
14	*Rubber Products*	1
15	*Equipments for Crop Protection Purpose*	3
16	*Telecommunication Terminal Equipments*	9
17	*Medical Equipment*	12
18	*Fire fighting Products*	3
19	*Intruder Alarm Systems for Security Purpose*	1
20	Wireless Local Area Networks	40
21	Decoration materials for Construction Industry e.g. Wallpaper	2
22	Chemistries Product for Carpentry	1

CCC MARK CERTIFICATION

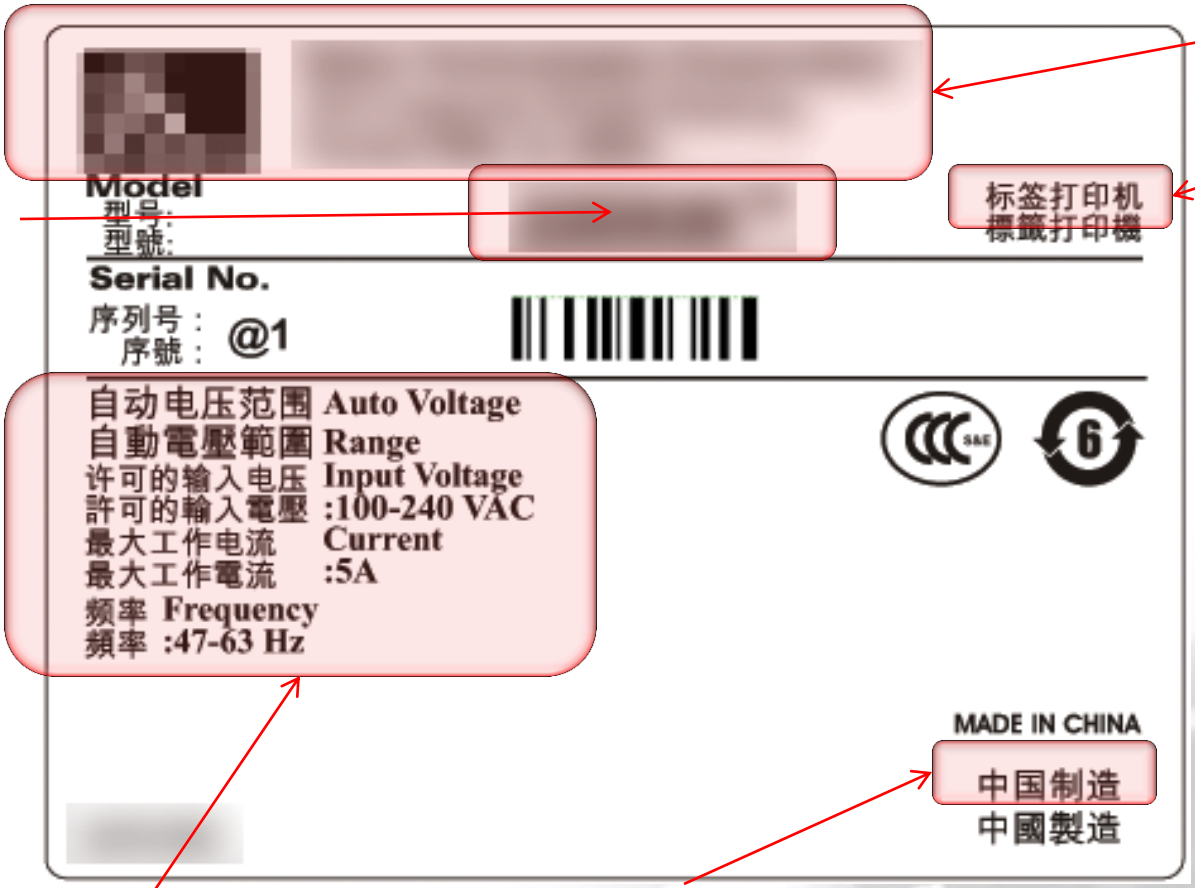
- Manufacturers are not allowed to print CCC Mark logo without permission from CNCA
  - Purchase Standard CCC Mark Logo
  - Apply for CNCA approval on printing CCC mark logo

Purchase Limited Number of CCC Mark



Unlimited Number of Label Printing

CHINA PRODUCT LABELS



Company Name

Product Name In Chinese

Model Number

Product Specification / Rating

Country of Origin In Chinese

CCC MARK FACTORY INSPECTION

- Factory
  - Both applications can be filed simultaneously.
  - If there are more that one factories to be certified, the first factory must be certified to get the additional factory certified.
- Initial Factory Inspection (Ten aspects to be inspected)
  - Responsibilities and Resources
  - Documents and Records
  - Purchasing and Receiving Inspection
  - Routine Tests and Verification Tests
  - Inspection and Test Equipment
  - Control of Non-conforming Products
  - Internal Audit
  - Changes to Certified Product
  - Packing, Handling, and Storage
- Annual Follow-up Inspection

CCC MARK: CB SCHEME

- China (as a member of the CB Scheme) accepts a CB Test Report with China deviations.
  - If the CB report does not cover China deviations (and a China deviation is applicable), additional safety testing will be performed in accordance with Chinese standards.

- There are four different CB scheme
  - TMP (Tested at Manufacturer Premises)
  - WMT (Witness Manufacturer Testing)
  - SMT (S Manufacturer Testing)
  - RMT (Recognized Manufacturer Testing)
  - **CQC only accept the two CB scheme (TMP and WMT).**
  - **The other two schemes (SMT and RMT) are not accepted.**

CCC MARK: GB9254-2008

- Highest frequency of a product > 108 MHz
  - Then conducted on the Telecom Port
  - Radiated up to 6 GHz is required
- Is a sample required to update CCC based on new GB standard (GB9254-2008)
  - Two conditions need to be checked
    - Does the product have RJ45 Port ?
    - Is the highest clock frequency higher than 108 MHz ?
  - If both conditions are satisfied, then a sample is required for EMC testing based on the new GB9254 standard

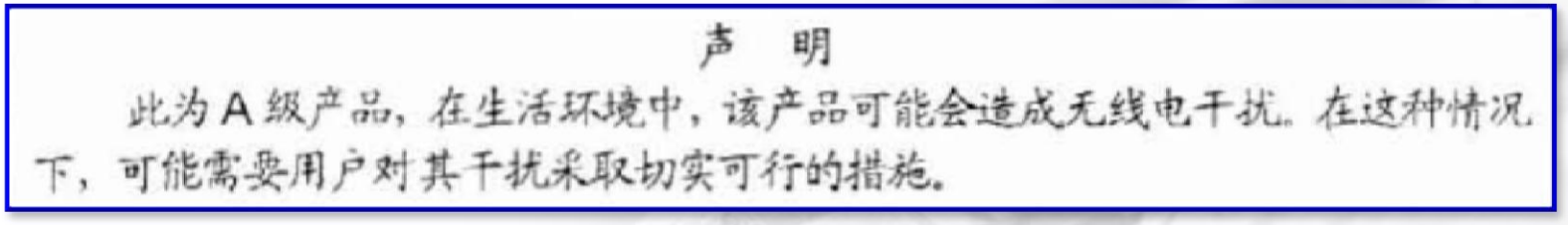
CCC: CLASS A vs. CLASS B

- Class Definition
  - Class A : Product for business use
  - Class B : Product for Home use
- The class A product will have the information shown on the CCC certificate


产品标准和技术要求

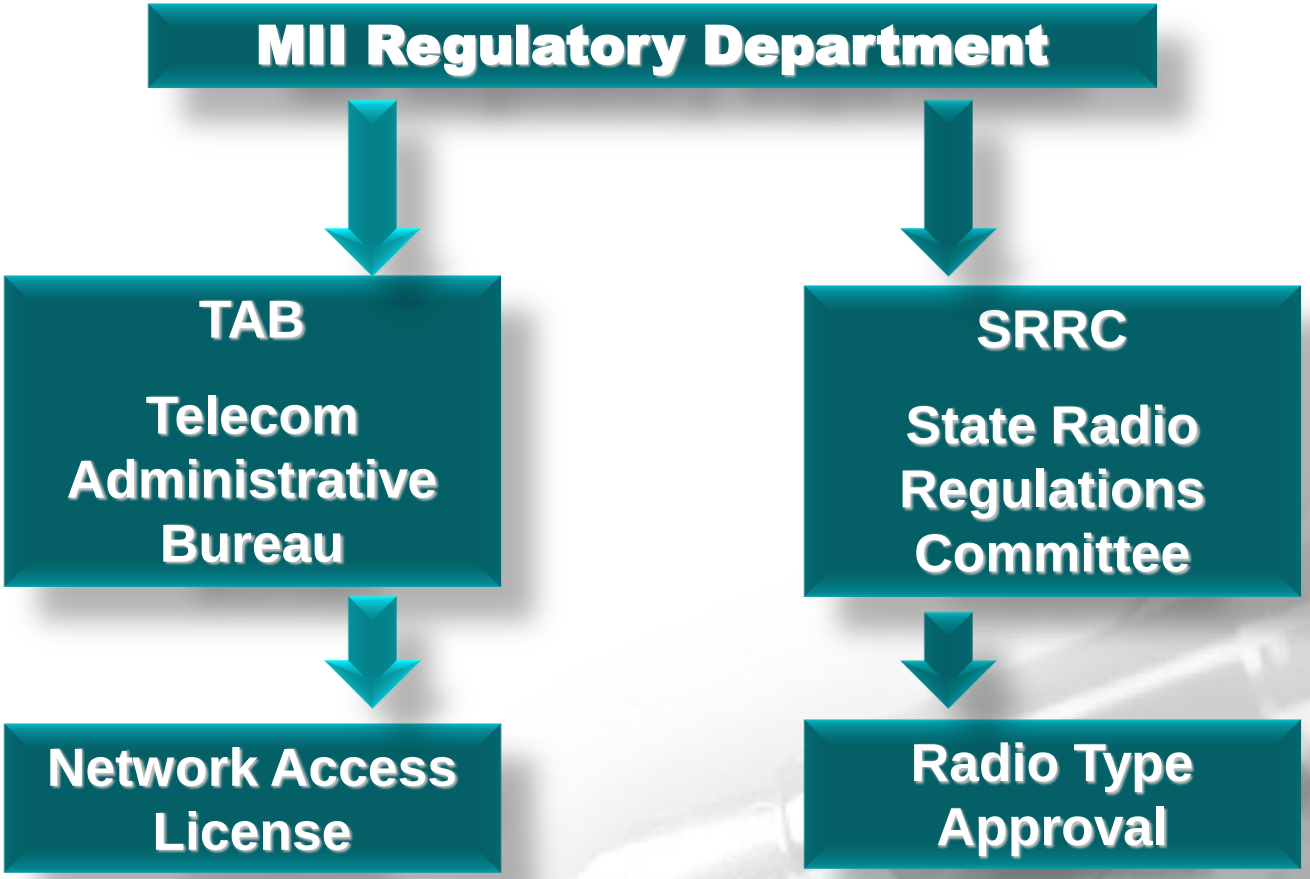
GB4943-2001 GB9254-1998（CLASS A） GB17625.1-2003

- The following Class A warning statement needs to be placed in the user manual


声　明

此为A级产品，在生活环境中，该产品可能会造成无线电干扰。在这种情况下，可能需要用户对其干扰采取切实可行的措施。

CHINA: NAL AND RADIO-TYPE APPROVAL



CHINA: NAL/MII

MII Network Access License - NAL

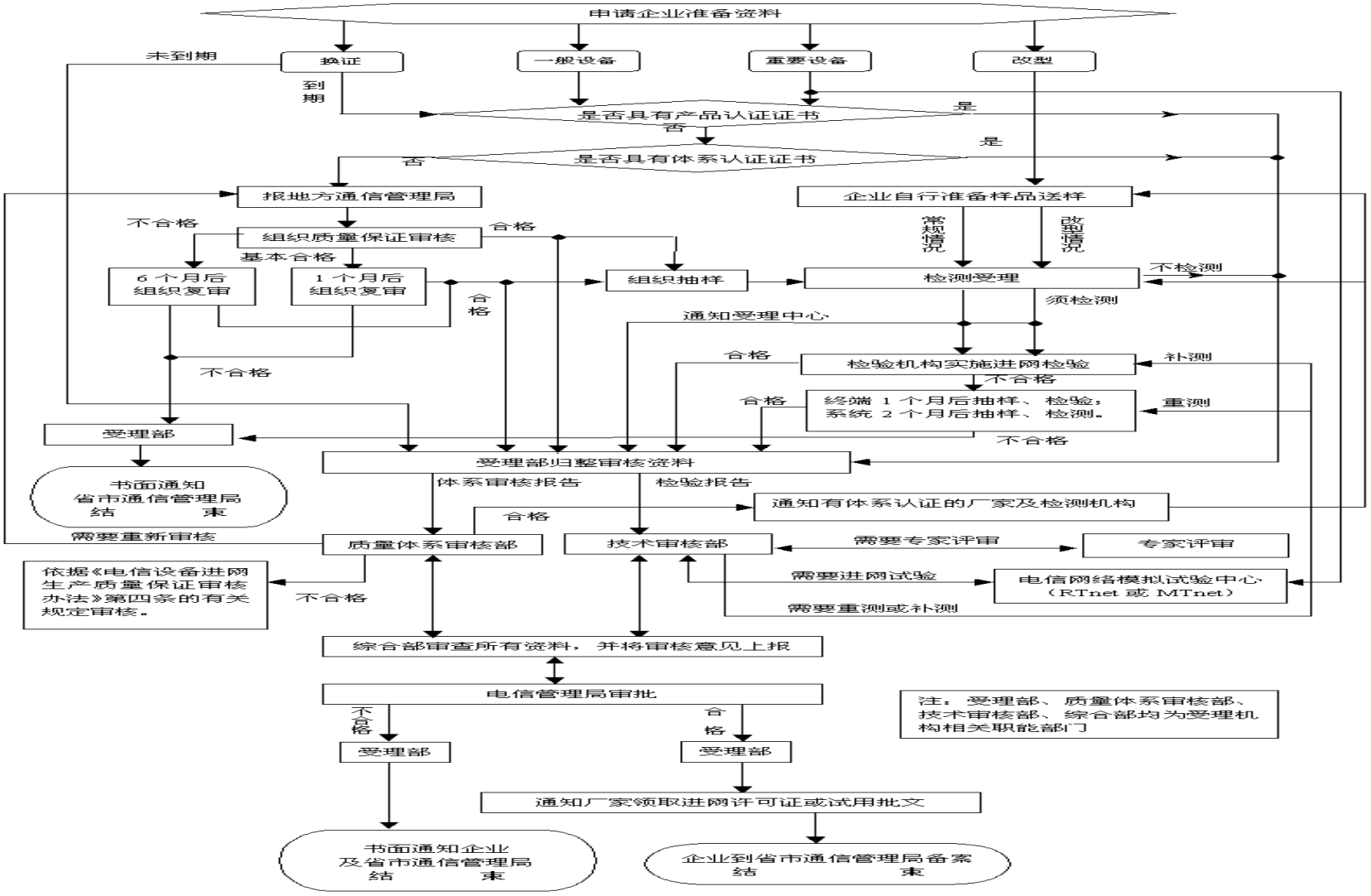
- Documents Review
- Product Testing
- Quality Assurance

NAL LABELS


进 网 许 可
[redacted]
InterJak 200/ADSL
P81952Y52N723YT


进 网 许 可
12-5716-021929
InterJak 200/v.35
47P9N2C444PA4A1

NAL PROCESS


申请企业准备资料
换证
一般设备
重要设备
改型
未到期
到期
是否具有产品认证证书
是
否
是否具有体系认证证书
是
否
报地方通信管理局
企业自行准备样品送样
常规情况
改型情况
不合格
组织质量保证审核
合格
基本合格
6个月后组织复审
1个月后组织复审
合格
组织抽样
检测受理
不检测
须检测
通知受理中心
不合格
合格
检验机构实施进网检验
补测
不合格
合格
终端 1 个月后抽样、检验；
系统 2 个月后抽样、检测。
重测
不合格
受理部
受理部归整审核资料
书面通知
省市通信管理局
结束
体系审核报告
检验报告
通知有体系认证的厂家及检测机构
合格
需要重新审核
质量体系审核部
技术审核部
需要专家评审
专家评审
依据《电信设备进网生产质量保证审核办法》第四条的有关规定审核。
不合格
需要进网试验
电信网络模拟试验中心
（RTnet 或 MTnet）
需要重测或补测
综合部审查所有资料，并将审核意见上报
电信管理局审批
不合格
合格
受理部
受理部
通知厂家领取进网许可证或试用批文
书面通知企业
及省市通信管理局
结束
企业到省市通信管理局备案
结束
注：受理部、质量体系审核部、技术审核部、综合部均为受理机构相关职能部门

RADIO TYPE APPROVALS: PRODUCTS

Category I:
Wireless Base Station

Subtotal of 10 types

Category II:
Microwave Com Eq

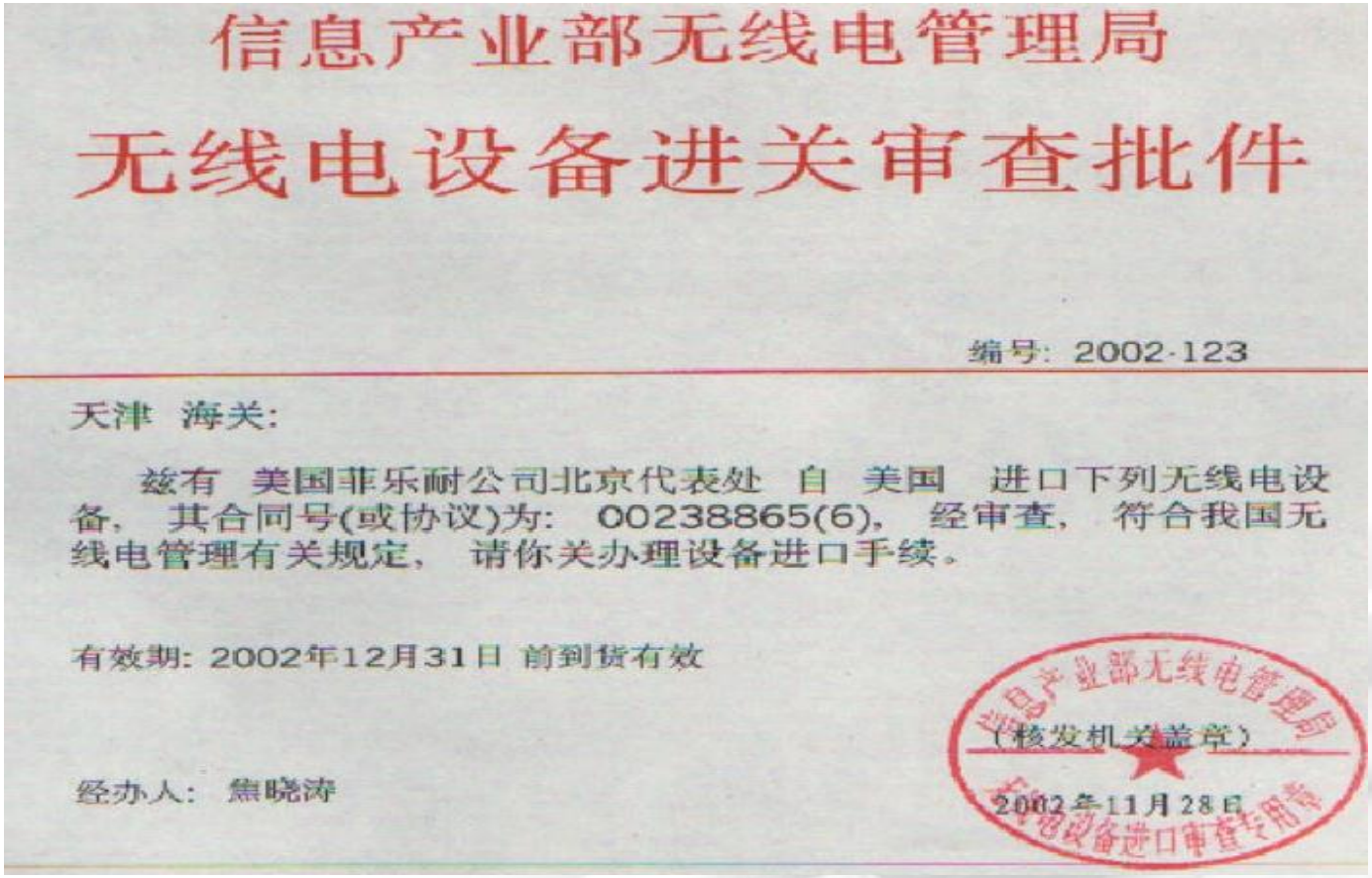
Subtotal of 5 types

Category III:
Short Range Devices

Subtotal of 12 types

Total of 27 types

SRRC: RADIO IMPORT PERMIT



信息产业部无线电管理局

无线电设备进关审查批件

编号: 2002-123

天津 海关:

兹有 美国菲乐耐公司北京代表处 自 美国 进口下列无线电设备, 其合同号(或协议)为: 00238865(6), 经审查, 符合我国无线电管理有关规定, 请你关办理设备进口手续。

有效期: 2002年12月31日 前到货有效

(核发机关盖章)

2002年11月28日

经办人: 焦晓涛

Any Questions?

Questions?

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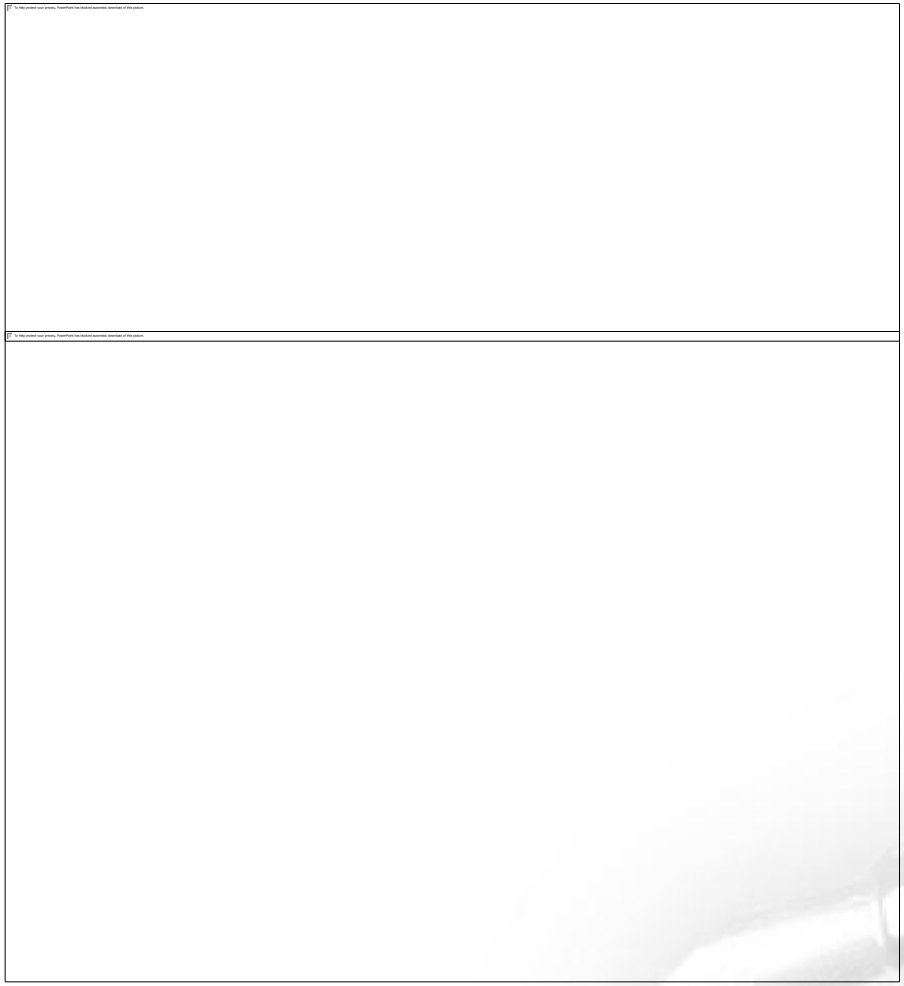

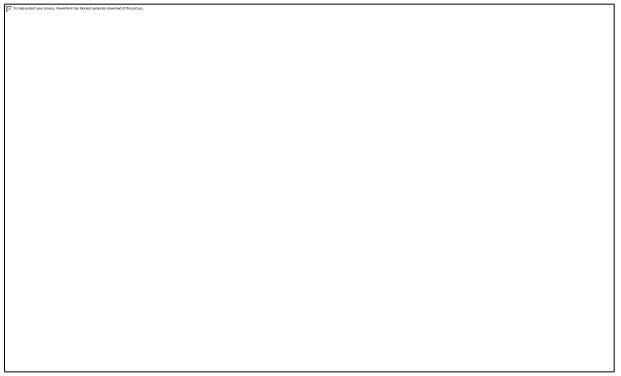

http://siemic.com/US/event/2013/webinars/

SIEMIC is Hiring!

- Director of Engineering
- Compliance Manager
- Product Safety Engineer
- RF Test Engineer
- EMC Test Technician
- Technical Reviewer
- Project Coordinator
- Computer Systems Analyst
- Account Executive
- Sales Representative

http://www.siemic.com/US/about/career.html