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

Gross Domestic Product

Data from World Bank  Last updated: Jan 17, 2013
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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.
Ongoing Presentation:

- Social Media
  - Linked In
- International Approvals / Certifications
Product Certifications for 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 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
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.
Required INMETRO Marking

Identification of type of accreditation

Type of Accreditation Code (i.e. OCP)  OCP Accredited Number
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:
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.

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

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.
PARTICIPANTS PARTIES

- ANATEL
- OCD
- TEST LAB
- Registered Translator
- Manufacturer
- EAN/GS1
- LOCAL Representative
- Third-Party Regulatory Agent (like SIEMIC)
CERTIFICATES

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)
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
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
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

<table>
<thead>
<tr>
<th>ANATEL for Handheld Computer and Power Adapter</th>
<th>Week 1</th>
<th>Week 2</th>
<th>Week 3</th>
<th>Week 4</th>
<th>Week 5</th>
<th>Week 6</th>
<th>Week 7</th>
<th>Week 8</th>
<th>Week 9</th>
<th>Week 10</th>
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<tbody>
<tr>
<td>Test setup verification and sample shipment</td>
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<td>💚</td>
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<td></td>
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</tr>
<tr>
<td>Testing (EMC + Safety + RF + Functional + SAR)</td>
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<tr>
<td>Create test reports</td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>SIEMIC prepares application package</td>
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<td>💚</td>
<td></td>
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<td></td>
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<tr>
<td>OCD reviews application package, test reports and issue OCD tech cert for Handheld Computer and Power Adapter</td>
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<tr>
<td>ANATEL reviews and issue Homologation certificate for Handheld Computer and Power Adapter</td>
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</tbody>
</table>

Historically, ANATEL takes about 4 weeks to homologate

Total lead time is 8-10 weeks
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
### SAFETY Tests

**Brazil: ANATEL STANDARD Nº 529 (reference standard IEC 60950 (2005))**

<table>
<thead>
<tr>
<th>Regulatory Standard (Item)</th>
<th>Compliance Test</th>
<th>Requirement to Limits</th>
<th>Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titulo III (Art. 09°)</td>
<td>Protection Against Fire Hazards (when the EUT has</td>
<td>Mobile - ETA</td>
<td>WIFI - BT</td>
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<tr>
<td></td>
<td>telecommunications external port)</td>
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<td>✓</td>
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<tr>
<td>Titulo IV (Art. 11°)</td>
<td>Protection Against Electric Shock - EUT under normal</td>
<td>✓</td>
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<tr>
<td></td>
<td>conditions</td>
<td></td>
<td></td>
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<tr>
<td>Titulo V (Art. 14°)</td>
<td>Protection Against Electric Shock - EUT under</td>
<td>✓</td>
<td>✗</td>
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<tr>
<td></td>
<td>overvoltage at the telecommunications external port</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Titulo VI (Art. 19°)</td>
<td>Protection Against Electric Shock - EUT under</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>overvoltage at the power supply external ports</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Titulo VII (Art. 23°)</td>
<td>Protection Against Overheat</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

**ANATEL STANDARDS**

**Example: Safety Standards Listing**
**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
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
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
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.
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
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.
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
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
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
- 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

Application Submission

The Certification Department of Goskomsvyaz
Technical Review

Performs a preliminary analysis to determine if the equipment is compatible with the telecommunications technology currently used in Russia or not

Testing Equipments (Type & Quality Assurance)

Lab A

Lab B

Grant of Svyaz Certificate (Valid for 3 years)
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.
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
Certification Flow

Communication (Wired/Optical) (No Radio) Example. Router, Switch

Telecom Approval from Federal Agency of Communications

Doc / Certification (Register with FAC)

Allowed to enter Russian Market

Communication (Radio Interface) 802.11 a/b/g Access Point

Importation Permit from RFC (Radio Frequency Centers)

Radio Permit issued by RFC to Russian Dealer only

Non-Communication (Radio Only) Example. Car Alarm Device

Allowed to enter Russian Market
Product Certifications for India
INTRODUCTION

WPC

TEC

STQC

BIS

Questions and Answers
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)
There are two certification schemes:

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

2) Equipment Type Approval (ETA)
### 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
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.
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.

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.
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 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
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.
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.
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.
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.
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.
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.
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.
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 the 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
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.

Covers: Microwave ovens, Electronic Clocks powered by main.
Product Certifications for China
CERTIFICATIONS IN CHINA

- **Three Major China Approvals:**
  - **China Compulsory Certification (CCC)**
  - **MII Network Access License (NAL)**
  - **SRRC Radio Type Approval (RTA)**
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
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
Updated HS code of products required for CCC Mark

<table>
<thead>
<tr>
<th>Category</th>
<th>Name of the product category</th>
<th>No of products</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Electric Wires and Cables</td>
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</tr>
<tr>
<td>2</td>
<td>Connecters such as Plugs and Sockets for Household and Industry Appliance</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>Low-voltage Circuit Switches and Protective Devices</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>Small-Power Motor</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Electric Tools</td>
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<tr>
<td>6</td>
<td>Electric welding machines</td>
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<td>7</td>
<td>Household and Similar Electrical Appliances</td>
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<td>8</td>
<td>Audio &amp; Video products</td>
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<td>9</td>
<td>Information Technology Equipments</td>
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<td>10</td>
<td>Lighting Electrical Appliances</td>
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<td>11</td>
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<td>Safety Windows for Car and Buildings</td>
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<td>14</td>
<td>Rubber Products</td>
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<td>15</td>
<td>Equipments for Crop Protection Purpose</td>
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<td>16</td>
<td>Telecommunication Terminal Equipments</td>
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</tr>
<tr>
<td>18</td>
<td>Fire fighting Products</td>
<td>3</td>
</tr>
<tr>
<td>19</td>
<td>Intruder Alarm Systems for Security Purpose</td>
<td>1</td>
</tr>
<tr>
<td>20</td>
<td>Wireless Local Area Networks</td>
<td>40</td>
</tr>
<tr>
<td>21</td>
<td>Decoration materials for Construction Industry e.g. Wallpaper</td>
<td>2</td>
</tr>
<tr>
<td>22</td>
<td>Chemistries Product for Carpentry</td>
<td>1</td>
</tr>
</tbody>
</table>
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**
- **Serial No.**
  - 序列号：
  - 序号：
- **Product Specification / Rating**
  - 自动电压范围 Auto Voltage
  - 自動電壓範圍 Range
  - 允许的输入电压 Input Voltage
  - 允許的輸入電壓: 100-240 VAC
  - 最大工作电流 Current
  - 最大工作電流: 5A
  - 頻率 Frequency
  - 頻率: 47-63 Hz
- **Country of Origin In Chinese**
  - 中國製造
  - 中國製造
CCC MARK FACTORY INSPECTION

• Factory
  – Both applications can be filed simultaneously.
  – If there are more than 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
• 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

• The following **Class A warning statement** needs to be placed in the user manual
CHINA: NAL AND RADIO-TYPE APPROVAL

MII Regulatory Department

TAB
Telecom Administrative Bureau

Network Access License

SRRC
State Radio Regulations Committee

Radio Type Approval
CHINA: NAL/MII

MII Network Access License - NAL

- Documents Review
- Product Testing
- Quality Assurance
Category I: Wireless Base Station

Category II: Microwave Com Eq

Category III: Short Range Devices

Subtotal of 10 types
Subtotal of 5 types
Subtotal of 12 types

Total of 27 types
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

经办人：焦晓涛

2002年11月28日
Questions?
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www.siemic.com
408-526-1188
mark.maynard@siemic.com

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