Development and Challenges of BDS product Testing and Certification Service

14th Meeting of the International Committee on Global Navigation Satellite Systems

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BDS Product Testing and Certification Service

01 Current Status
02 Challenges
03 Next Step Plan
Current Status
Certification Organization —— CBICA

**CBICA**—China BeiDou Satellite Products Testing and Certification Navigation Alliance

Composed of more than 70 enterprises and institutions engaged in BDS industry chain

Responsible for organizing and guiding BDS products testing and certification
What is BDS Product Certification?

- **Voluntary Certification**
  - Evaluate whether the manufacturer has the ability to continuously and steadily produce BDS products that meet the standard requirements.

- **Certification bodies responsible for certification/Testing Center responsible for testing**
  - Improve the overall quality of BDS products and promote industrial development.
## Scope & Implementing rules of Certification

<table>
<thead>
<tr>
<th>No.</th>
<th>Product type</th>
<th>Name of implementation rules</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chip</td>
<td>Implementation rules for BeiDou navigation satellite products (chips) certification</td>
</tr>
<tr>
<td>2</td>
<td>Module</td>
<td>BeiDou Satellite Navigation Product (module) Certification Implementation Rules</td>
</tr>
<tr>
<td>3</td>
<td>Board</td>
<td>BeiDou Satellite Navigation Product (Board) Certification Implementation Rules</td>
</tr>
<tr>
<td>4</td>
<td>Antenna</td>
<td>BeiDou Satellite Navigation Product (Antenna) Certification Implementation Rules</td>
</tr>
<tr>
<td>5</td>
<td>Terminal</td>
<td>BeiDou Satellite Navigation Product (Terminal) Certification Implementation Rules</td>
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**Scope of Certification Pilot**

- Module
- Board
- Terminal (Beidou receiver)
- Antenna
- Chip
Certification Mode and Identification

- **Certification Mode**
  - Mode A: Type test → Factory inspection → Supervision after certification
  - Mode B: Capability baseline confirmation → Type test → Factory inspection → Supervision after certification

- **Authorization of Certification Mark**
  Authorized and distributed by CBICA.
Certification Procedure

- Enterprises submit Applications
- Documents Review
- Type Test
- Inspection for Manufacturers
- Publication of certification
- On-site Supervision & Review

Procedure of BeiDou Navigation products certification
August 2018, the launch ceremony of certification pilot work was held.

Signed cooperation agreement with the first batch of pilot enterprises.
# 1st Batch of Licensed Enterprises in Certification Pilot

<table>
<thead>
<tr>
<th>Enterprise Name</th>
<th>Product type</th>
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<tbody>
<tr>
<td>Taidou Microelectronics Technology Co., Ltd</td>
<td>Module</td>
</tr>
<tr>
<td>Guangzhou Runxin Technology Co., Ltd</td>
<td>Chip</td>
</tr>
<tr>
<td>Guangzhou southern surveying and mapping navigation Co., Ltd</td>
<td>Terminal</td>
</tr>
<tr>
<td>Shanghai Huace Navigation Technology Co., Ltd</td>
<td>Board</td>
</tr>
<tr>
<td>Beidou Tianhui (Beijing) Technology Co., Ltd</td>
<td>Terminal</td>
</tr>
</tbody>
</table>
2019, the certification body of CBICA launched the BeiDou logo certification business for smartphones and wearable devices.

Relevant test standards have been established.

"Technical requirements and test methods for positioning performance of wearable equipment Part 1: wrist wear equipment" TAF/WG6

"BeiDou Navigation Satellite Product Testing qualification Report"

"BeiDou Navigation Satellite Product Certification List"

Products in the List will be promoted domestically and internationally.
Challenges
Technical Challenges

- Testing and Certification of Multi-technology Fusion Positioning Products

- Testing and Certification of BeiDou Chip Products

Application scope keeps extending.
Challenges of Globalization

- Continuously improve the testing and certification service capability of BDS products.
- Realize the international mutual recognition of beidou navigation testing and certification results.
Next Step Plan
Establish a system for cultivating BDS certification institutions.

Foster more high-quality BDS products testing & certification bodies.

Cultivate a group of BDS products testing & certification personnel with strong technical capabilities.
Standards and Communication

Unify and improve the scientific, accurate and consistent characteristics of BeiDou related testing and certification standards, test methods and statistical methods.

Strengthen publicity, implementation, training and international exchanges on BeiDou satellite navigation standards.
Conclusion

Through the BDS products voluntary testing and certification, committed to promote quality management of enterprises, improve products quality.