# The Qi Product Certification System

#### June 2017



WIRELESS POWER

### **Product Certification**

- Why should I certify my product?
- How can I recognize a Qi Certified product?
- Can everyone certify a product?
- What is the procedure?
- Special cases

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### Why should I certify my product?

- Qi Certified products have been tested for compatibility and safety
- The Qi logo is the sign of compatibility & safety
- This presentation explains product certification:
  - How, who, and special cases

### How to recognize a Qi Certified product

- 1. By the Qi logo on the product
  - Easy to recognize
  - But also easy to fake
- 2. By the Qi Certificate of Registration
  - Certificate is valid when the URL shows a picture of the same product
- 3. By searching in the Qi Certified Product Database

https://www.wirelesspowerconsortium.com/products/

– Not found? Not Certified!



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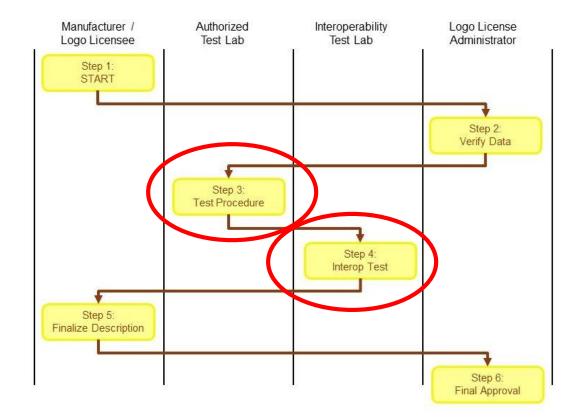
### Can everyone certify a product?

- Only companies that are a member of the WPC
  - Product is removed from the Qi
     Certified Product Database when
     the owner withdraws from the WPC
- Only companies that signed the <u>Qi Logo License Agreement</u>
  - The Qi logo is a registered trademark.



### **The Product Certification Procedure**

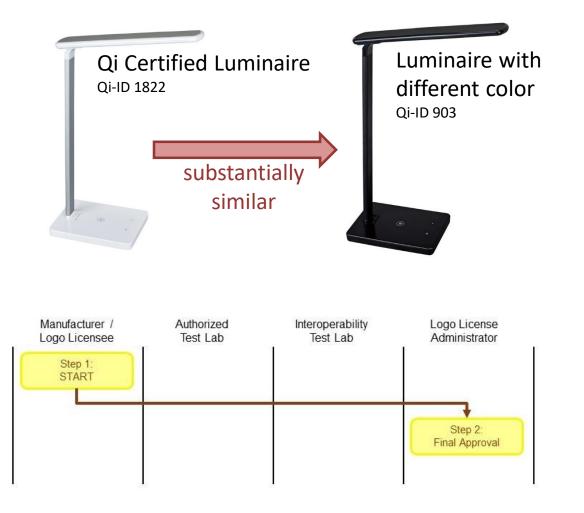
- Step 1 & 2: administration
- Step 3: Test by an Authorized Test Lab
  - Using the test procedures described in Part
    3 of the Qi Specification.
  - See presentation on "Compliance Testing of Qi products" by Lam Chi Ho
- Step 4: Test by an Interoperability Test Lab
  - Verifies that the new product is compatible with all previously certified products.
  - By Eurofins in Belgium or by TTA in Korea
- Step 5 & 6: administration



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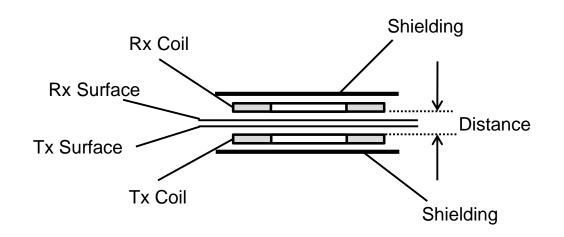
### **Special Case: Similar Products**

- Testing is not necessary when the new product is identical with a previously certified product, for example
  - Other color
  - Other brand
- Simplified registration procedure
  - Administration only



## When are products <u>not</u> similar?

- Any change of magnetic properties:
  - Different coil
  - Different shielding
  - Change in coil-surface distance
  - Change in 'friendly metals'
- Change in firmware that influences control protocol and communication between Rx and Tx



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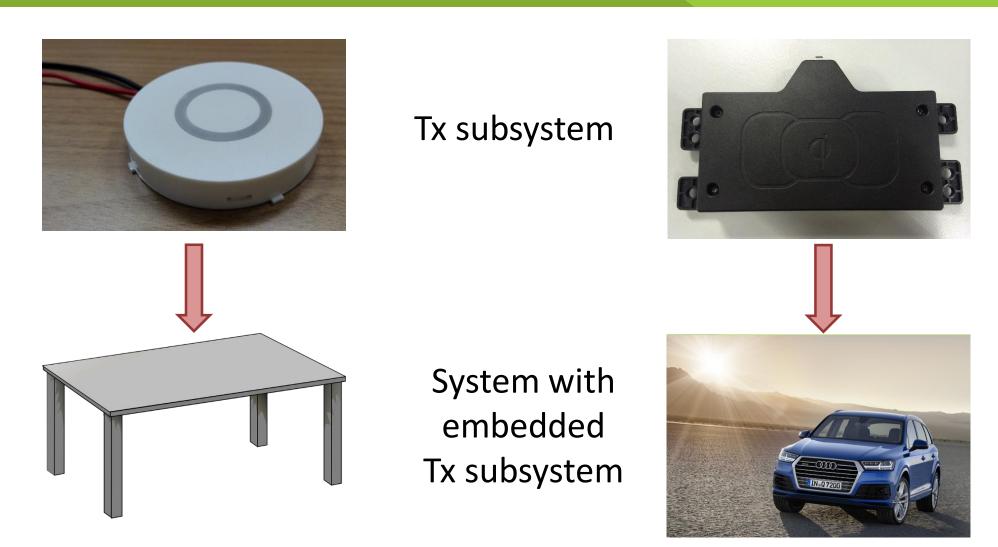
### **Special Case: phone covers**

- A phone cover must be tested in combination with a mobile phone
  - For example the iPhone 6
- Another phone has a different distribution of metals
  - Foreign Object Detection will not work correctly when an iPhone 6 cover is used with an iPhone 7
- Partial re-testing is needed
  - Simplified certification procedure



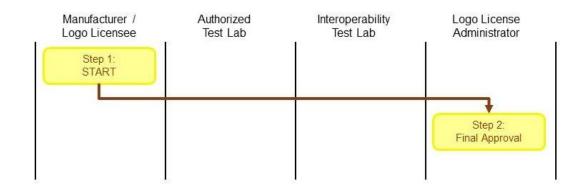


### **Special case: Tx subsystems**



## **Testing furniture and cars?**

- It is not necessary to test a system with an embedded Tx subsystem
  - Simplified procedure applies
- Only when the embedded Tx is a Qi Certified Tx Subsystem

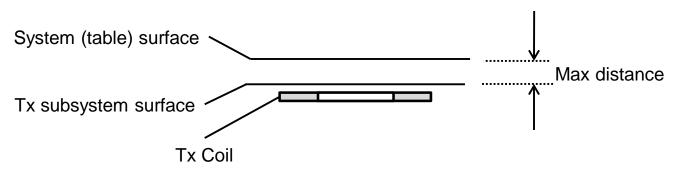


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### Tx subsystem

- Rules for Tx subsystem
  - Includes the means to attach the Tx into the complete system.
  - The minimum and maximum distance between the top of the sub-system and the surface of the complete system must be specified.

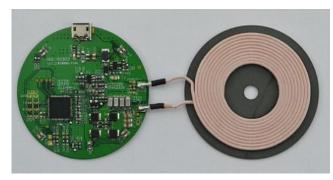


#### Tx subsystem:



Attachment point

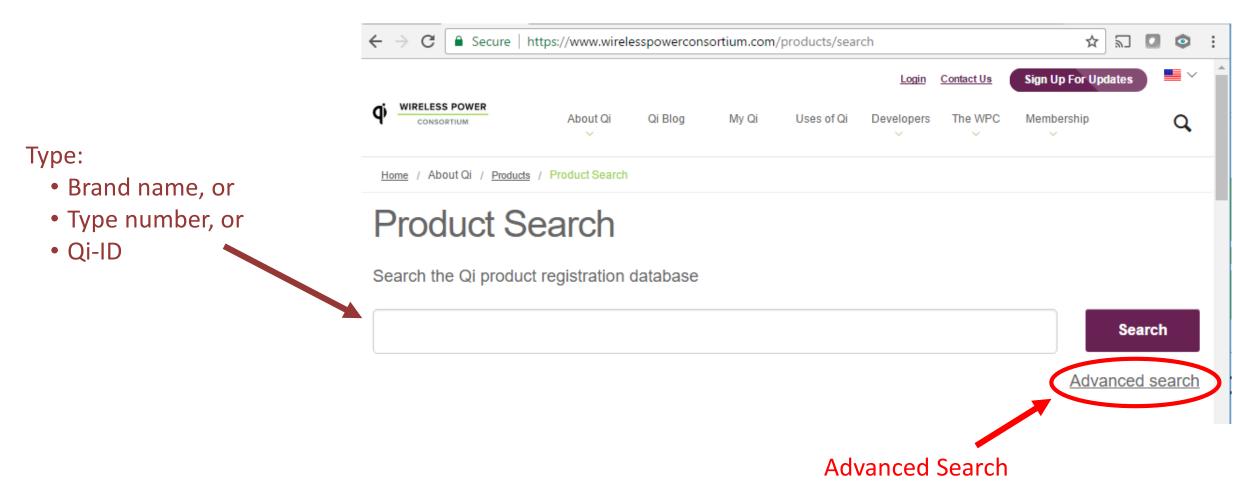
#### Not a Tx subsystem:



## **Searching for certified products**

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#### https://www.wirelesspowerconsortium.com/products/search



### **Advanced Search**

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