

CTIA Battery Certification Service

DEKRA Certification-Guangzhou Lab



25-06-2013

Outline

Including But Not Limit To

- What is CTIA and relevance
- What are the essential requirements
- How to process
- What is ONE-STOP services for batteries we provide
- Q&A

What is CTIA and Relevance

Former Cellular Telecommunications Industry Association

- CTIA-The Wireless Association® is an international nonprofit membership organization that has represented the wireless communications industry since 1984
- Membership in the association includes wireless carriers and their suppliers, as well as providers and manufacturers of wireless data services and products
- CTIA provides battery certification services through CATLs (CTIA authorized test labs)
- The network operators are normally required the CTIA certification, Currently, almost all of the operators have carried out mandatory requirements in North America (USA, Canada, etc.), such as Verizon, AT&T



What is CTIA and Relevance

Overview of CTIA Certification Program Working Groups (Partial section)

- **CPWG Main Group**

- The Certification Program Working Group sets the direction for CTIA's Certification Program and provides oversight of the various program sub-working groups
- The group is composed of CTIA member company representatives who have expertise in testing and evaluating products for the wireless industry

- **Battery Ad-Hoc Group**

- The Battery Ad-Hoc Group defines the requirements for the CTIA Battery Certification Program, a program to validate compliance to the IEEE 1725/1625
- The group is now also working on developing a standard, accurate method of estimating battery life for smartphones

- **Bluetooth Sub-Working Group**

- **LTE Sub-Working Group**

What is CTIA and Relevance

Definitions

- Subsystem: A Cell, Battery Pack, Adapter or Hybrid
- System: A combination of cell(s), battery pack(s), host, and adapter(s). The System may also include Hybrid devices
- CRD: Certification requirements Document. There is a CRD for IEEE 1725 and a CRD for IEEE 1625
- CRSL: Certification Requirements Status List. There is a CRSL for IEEE 1725 and a CRSL for IEEE 1625
- IEEE: The Institute of Electrical and Electronics Engineers
- IEEE 1725/1625: IEEE Standard for Rechargeable Batteries for Cellular Telephones/Multi-Cell Mobile Computing Devices

What is CTIA and Relevance:

Roles and Responsibilities

- Owner of the Program
 - Defines the requirements for CTIA recognition and certification
 - Reviews recognition and certification applications
 - Authorizes CATLs
 - Awards CTIA recognition and certification to the vendor
 - Maintains product compliance folders for Recognized Subsystems and Certified Systems

What is CTIA and Relevance

Roles and Responsibilities

- Vendor: A supplier of a Subsystem/System, a Host supplier may be a System Vendor
 - Vendors shall ensure that their Subsystems are evaluated for compliance to IEEE 1725 or IEEE 1625 by a CATL
 - Vendors shall ensure that their Cell manufacturing sites are evaluated for compliance to IEEE 1725 and/or IEEE 1625 by a CATL
- CATL: CTIA Authorized Test Lab
 - CATLs shall evaluate Systems, Subsystems and manufacturing sites using criteria set forth in the CRD in accordance with the applicable version of the CRSL
 - A current CATLs listing at http://www.ctia.org/business_resources/certification/test_labs

CTIA Authorized Test Lab

What is CTIA and Relevance

Hosts

- Mobile Computing Devices
- Cellular Telephones

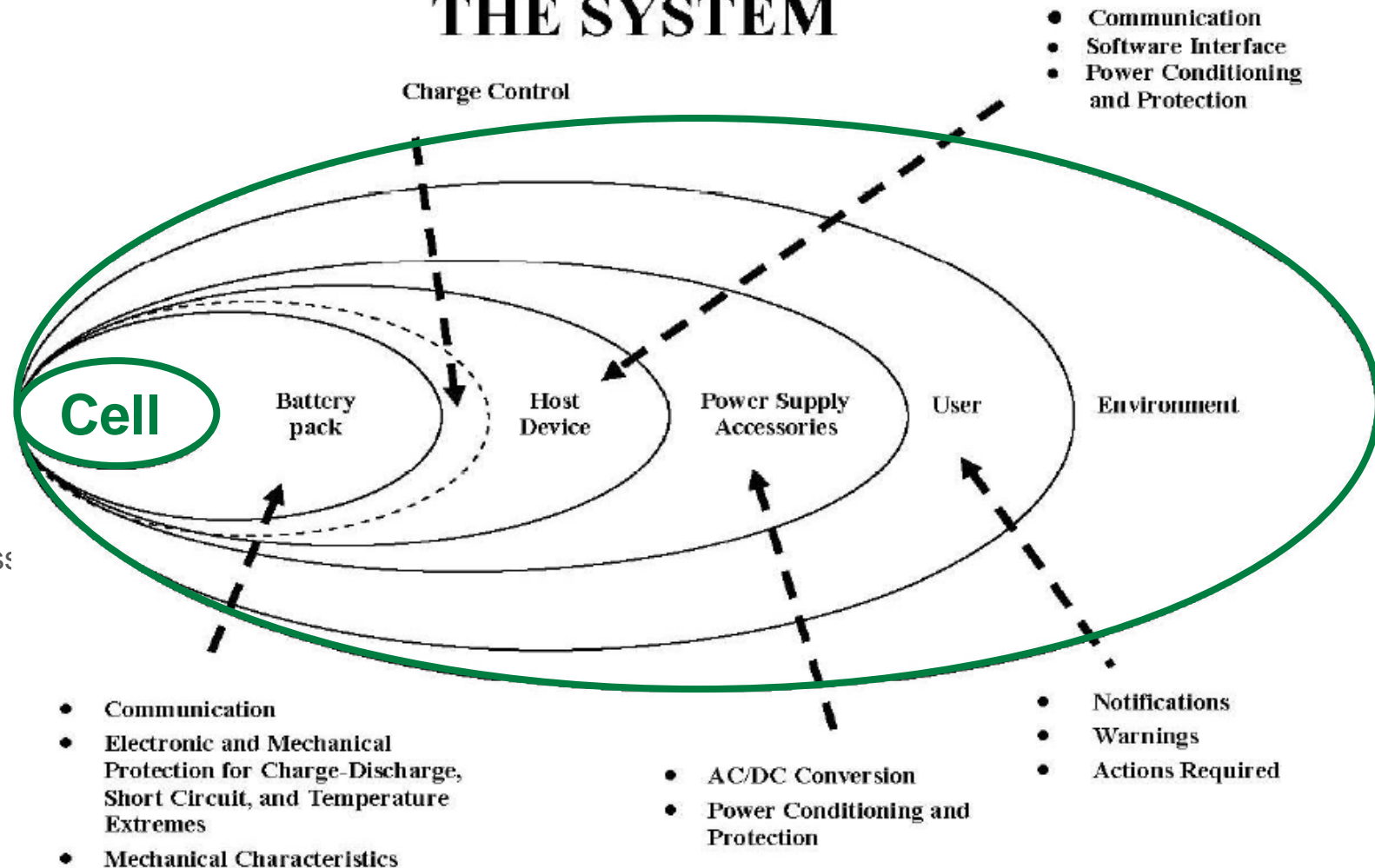


What is CTIA and Relevance

The Total System

- Cell
- Pack
- Charge control
- Host device
- Power supply access:
- User
- Environment

THE SYSTEM



What are the Essential Requirements

The Latest Version

- CTIA Battery Certification Requirements 1725 Rev 2.5
- CRSL_1725_1230402
- IEEE 1725_2011
- Cell_Audit_Report- 1725_120524



**Rechargeable Batteries
for Cellular Telephones**

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- CTIA Battery Certification Requirements 1625 Rev 1.8
 - CRSL_1625_130402
 - IEEE 1625_2008
 - Cell_Audit_Report- 1625_120524



**Rechargeable Batteries
for Multi-Cell Mobile Computing Devices**

What are the Essential Requirements

Subsystem Requirements

Subsystem component	AC/DC adapter or charger	DC/DC adapter or charger	Battery pack	Cell
Specification	IEC/TRF 60950-1 or Appropriate safety standard of destination country (UL 60950-1, UL 1310)	Appropriate safety standard of destination country (UL 2089)	UN 38.3, UL 2054 (for IEEE 1625), Additional IEC 62133, IEC 61960	UN 38.3, Appropriate safety standard of destination country, UL 1642, Additional IEC 62133, IEC 61960

How to Process

CTIA Subsystem Recognition and System/Adapter Certification

Vendor	CTIA	DEKRA (CATL)
<ul style="list-style-type: none"> - Request CTIA account at the https://cpo.ctia.org - Submit project, select DEKRA as a CATL, upload declaration - Pay fee (to CTIA and CATL) - Submit paperwork and samples to CATL - Sign and upload license agreement 	<ul style="list-style-type: none"> - Establish account - General invoice for recognition/certification fee - Countersign and upload license agreement - Issue CTIA certificate 	<ul style="list-style-type: none"> - Accept project - Review the submitted paperwork and test the samples - Conduct the manufacturing site (cell) audit - Upload and issue CTIA reports

DEKRA coordinators are at your disposal for any CTIA technical/procedure support

DEKRA Battery services

Worldwide Service

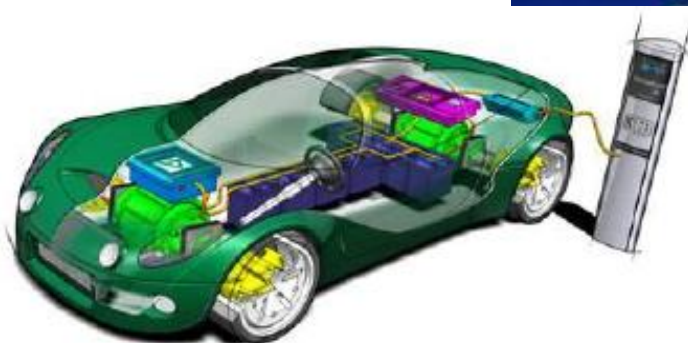
- CTIA Certification
- CB Certification
- DEKRA Seal Certification, Germany GS Certification, KEMA-KEUR Certification
- NRTL MET Approval
- CE Verification
- Type Test
- Transportation Test Certification for Transport of Goods (against UN 38.3)
- Electrical Safety Test
- Electromagnetic Compatibility
- Performance/Endurance Test
- Environmental Test
- Battery Directive, RoHS, REACH & Other Chemical Test
- Manufacturer On-site Test (TMP, CTF)
- Guidance/Training
- Battery Capacity Labelling
- Export Support Services (Global approval, such as Japan, Korea, USA, etc.)



DEKRA Battery services

Various Batteries Test

- Secondary (rechargeable) Li-Ion, Li-Polymer, Ni-Cd, Ni-MH Cell and Batteries
- LEV (Light EV) cell/batteries
- EV (Electric Vehicle) Secondary Lithium-ion Cell/battery/-pack/system
- Primary (non-rechargeable) Batteries
- Lead-acid Batteries
- Energy store, PV



Thank you!

