# LOG OF MEETING
## DIRECTORATE FOR ENGINEERING SCIENCES

SUBJECT:    IEEE P1725 Working Group – Standard for Rechargeable Batteries for Cellular Telephones

DATE OF MEETING:    November 16-17, 2004

PLACE OF MEETING:    Cellular Telecommunications and Internet Association (CTIA), 1400 16<sup>th</sup> St., NW, Washington D.C.

LOG ENTRY SOURCE:    Doug Lee, ESEE

DATE OF LOG ENTRY:    November 24, 2004

COMMISSION ATTENDEES:    Doug Lee, ESEE

NON-COMMISSION ATTENDEES:
    IEEE P1725 Working Group members and guests – see attached attendance roster

SUMMARY OF MEETING:

Mr. Lee attended the first IEEE P1725 working group meeting to discuss proposed requirements for a new standard for rechargeable batteries for cellular telephones.  The P1725 Working Group intends to use recently published IEEE Std 1625™ - 2004, *IEEE Standard for Rechargeable Batteries for Portable Computing* as a template to draft the *IEEE Standard for Rechargeable Batteries for Cellular Telephones*.  It was noted that the requirements in these standards are for voluntary design and reliable performance and not identified as specifically for safety.

The first part of the meeting involved discussing procedures for setting up the working group and electing officers.  Voting members will need to contribute approximately $12,000 for IEEE administrative costs.  A timetable was developed for future meetings and the publication of the new standard.

The group of participants was then divided into four groups (Cell, Pack, Host, System Integration/User) or subcommittees to address particular chapters of IEEE Std 1625™ to determine if requirements were applicable to cellular telephone batteries or if additional requirements were needed to strengthen the standard or to make applicable to the cellular telephone.

On the second day of the meeting, official election of officers took place.  A member of each subcommittee then presented the subcommittee's findings to the entire group for further discussion.  The subcommittees were then slightly redefined and rearranged (Cell/Quality Systems, Pack/Host, Accessories & Validation, System/User & Security).  The subcommittees reformed to discuss further actions.

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One of the discussions during the meeting involved whether the standard should center around improving requirements that can be made with the present technology or developing requirements for new promising technologies with a lower hazard risk. It was noted that the present technology lithium-ion can fail in a potentially hazardous manner if the fault is ahead of the safety circuits. It was suggested that improvements should be made to requirements for the present technology and the standard can be revised to reflect new technologies as they develop.

The presentations (P1725 working group chair and IEEE Standards Association) and the unofficial minutes of the meeting are appended to the meeting log.

# IEEE P1725 Working Group #1 Meeting Minutes (Unofficial)

**Date: November 16-17, 2004**
**Location: CTIA Office, 1400 16th St, NW, Washington, DC**

## Day 1 Tuesday

### A. Welcome

Mark Sargent of CTIA welcomed the group to CTIA's office in Washington, DC and thanked everyone for participating in the meeting. The participants introduced themselves (see attached attendee roster). Jason Howard of Motorola reviewed the agenda.

### B. Review of scope and purpose of the working group

Jason Howard reviewed the history behind the formation of the P1725 Working Group (WG). During a CTIA meeting in July the need to improve standards for cell phone batteries was discussed and it was agreed to leverage off of the recently created IEEE P1625 standard. An IEEE Project Authorization Request (PAR) was submitted and approved to form the P1725 group. Jason reviewed the scope and purpose as documented on the PAR (see attached presentation).

The plan is to start with the 1625 standard and revise it as appropriate to make relevant to cell phone applications. Jason reviewed the 1625 standard.

### C. Working group administration

**1. Proposed Standards Development Schedule**

Jason Howard reviewed the proposed standards development schedule:
- First WG meeting
  - 11/16/04
- WG technical meetings through June, 2005
  - Approx 4-6 weeks apart. One more before end of 2004.
  - Option for 1-2 teleconference rather than face-to-face.
- Draft for Ballot, Ballot resolution September, 2005
  - One more full WG meeting
- Revcom* approval by December, 2005

*IEEE Review committee - makes recommendations to standards board -- last step before approval

Jason indicated that the experience with 1625 was that teleconferences were very difficult with participants throughout the world. Therefore the emphasis is on face-to-face meetings.

**2. Call for officers**

Formal nominations for Chair, Vice-Chair and Secretary will be made later today. Elections will be held tomorrow. Need to be IEEE member to be an officer.

**3. IEEE support proposal**

Edward Rashba of IEEE provided an overview of the IEEE Standards Association Corporate Program and its application to this WG (see attached presentation). This standard is different than many standards as it is a corporate-focused standard as opposed to the individual-model standard. Advantages of corporate standard are quick start-up, modest development costs and well-defined rules.

Edward reviewed the standards development steps. The PAR was accepted. The sponsor is the Power Engineering Society. Optionally, the ITU, IEC can adopt the standard.

Edward reviewed the corporate membership benefits. A representative does not have to be a corporate member to participate in the development of the standard. A representative does, however, have to be a corporate member to participate in the balloting phase. Voice heard through Corporate Advisory Group (CAG). The cost is $1,000 - $5,000, depending on corporate revenues. The non-member per-ballot fee is a 20% premium (this allows entities to participate on individual ballots without having to join). Rules of participation within the WG will be determined by the WG – the WG establishes its own procedures. Currently IEEE has 50 corporate members. Once the ballot group is formed, it is then closed. Companies participating in the WG will designate primary and alternate representatives.

Edward reviewed the Intellectual Property guidelines.   Patented material can be included in the standard but most WGs decide not to do this. A call for patents will be made at each meeting - the Chair asks the WG if they are aware of any IP in the standard. Members are obligated to disclose this. An LOA must be given for any essential patents. Participants must follow certain guidelines including not discussing pricing, profits, markets, licensing, litigation, competition, customers and bidding.

Edward provided on overview of the various funded services offered by IEEE. The WG will decide which services to utilize. The WG will determine how to pay for these services. The overall cost is about $160,000 for basic services. The proposal is to divide that by the number of companies participating. The WG may decide to tie voting rights to sharing of fee. The Project Manager creates the overall project plan, oversees coordination for development of draft standard, and serves as POC between WG and IEEE staff. Technical Editing is strongly recommended. The group may also wish to form a sub-committee to coordinate out-going communications (PR). Some optional serves include developing a trademark and meeting planning. These are currently not in the proposal. Lou LaMedica of Verizon Wireless indicated that his company would find the trademark valuable – they would require companies to label batteries so they know they are compatible. Optional internationalization: liaisons to national and international bodies (IEEE/IEC dual-logo).

Edward presented a proposed P1725 development schedule.


4.   **Review IEEE working group procedures**
Jason Howard reviewed the IEEE operating procedures for corporate standards working groups including legal accountability, openness, due process, consensus and balance. The WG is should aim to complete the project in 12-24 months,

WG membership is by entity. Entity shall pay any funding services fee established. Entity shall have a Designated Representative (DR). The DR carries the entity's vote. Membership is granted automatically to all entities in this first WG meeting. Thereafter, membership is granted after the entity attends two consecutive meetings. Non-members may participate in WG activities but cannot vote in WG actions.

Jason asked for an official motion to approve the procedures. Michael Coletta of Intersil made the motion and it was seconded . All in favor. None opposed. Adopted as WG procedures.

Jason proposed two modifications:
1.   Only requirement to be an officer is to be an IEEE individual member. Officers contingent on becoming individual IEEE members by the next meeting. Elections decided by majority vote.
    Carl Seaberg of Motorola made the motion to approve and it was seconded.  All in favor. None apposed. Motion carries.

2. Communications to the public or media shall be made through the communications/PR subcommittee of the WG. The spokesman for the WG shall be the chair or an individual designated by the chair.
Michael Coletta of Intersil made a motion to approve. Carl Seaberg of Motorola seconded. All in favor. None opposed. Motion carries.

Jason proposed the group definition to include the categories: Battery Manufacturers, Phone Manufacturers, Carriers, Component, Accessories, Others. Need to insure broad participation to insure that the standard is not dominated by one interest group. Action to finalize the proposed categories delayed until entity membership has been established. Distribution amongst the defined categories to be reviewed by IEEE at the Revcom stage.

## 5. Financial support.
Jason provided a rough estimate of costs at $182,500. Assuming 15 entities, this would equate to $12,100 each.

## D. Officer nominations
- Chair: Jason Howard was nominated and seconded by Wanyne Penney. Jason accepted.
- Vice Chair: Lou LaMedica was nominated by George Zysman and seconded by Dave Chapman. Lou was not present to accept, but accepted the nomination on Wednesday morning.
- Secretary: There were no nominations. Jason asked to the group to contact him later if anyone is interested, otherwise he will recruit someone.

## E. Formation of subcommittees
The following sub-groups were formed:
- Cell
- Pack
- Host
- System Integration/User

## F. Technical review of IEEE 1625 standard
The subcommittees each met for two hours to review and began editing the standard.

## Day 2 Wednesday

## G. Officer elections
Rene Sorra of PCTEST Engineering was nominated for Secretary. Lou LaMedica seconded. Rene accepted.

All were in favor of electing Jason Howard as Chairman. Jason accepted. All were in favor of electing Lou LaMedica as Vice-Chairman. Lou accepted. All were in favor of electing Rene Sorra as Secretary. Rene accepted.

## H. Review schedule
Jason reviewed the proposed meeting schedule. The group discussed various options for holding the future meetings and agreed that the larger companies participating in the WG would host the future meetings. Hosting will include providing the meeting space (one large room accommodating approximately 50 people and break-out rooms for the 4 sub-committees) and the catering.

4.      **System Sub-Committee**
        Kendra Green of Samsung reviewed the 1625 document sections reviewed by the system sub-committee. See attached presentation. Jason Howard suggested that the WG may need to create another chapter in the standard for accessories.


## K. 1725 Structure

Jason Howard proposed the following structure to the WG:
- Cell/Quality Systems
- Pack/Host
- Accessories & Validation
- System/User & Security

The overriding considerations for each group include: quality, security, validation, system-level impact. Four sub-committees will be created based on these categories. Sub-committee leaders will be named at the next meeting.


## L. Wrap Up

Jason will distribute to the WG:
- Communications package
- Meeting presentations
- Preliminary financial proposal from IEEE
- Contribution Form
- Attendee/Subcommittee List


Jason thanked everyone for their participation at the meeting and called the meeting to a close.

## Attendee Roster

| Name | Title | Company | Email | Phone |
|---|---|---|---|---|
| David Chapman | Senior Member of Technical Staff | Cingular Wireless | david.chapman@cingular.com | 512-372-5851 |
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| Mark Sargent | Director | CTIA | msargent@ctia.org | |
| Will S Lightfoot | Sr. Manager | CTIA | wlightfoot@ctia.org | 202-736-3208 |
| Jan C Swart | Senior Managing Engineer | Exponent | jswart@exponent.com | 623 587 4113 |
| Edward J Rashba | Manager, New Technical Programs | IEEE Standards | e.rashba@ieee.org | 732 465 6449 |
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| Wayne A Penney | Engineering Manager | Motorola | WWP002@email.mot.com | 847-523-6298 |
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| JT Guerin | Energy Systems Engineer | Nokia | jt.guerin@nokia.com | 858-831-4868 |
| Markku Rajamaki | Specialist | Nokia | markku.rajamaki@nokia.com | |
| Stan Scheufler | Dir Bus Dev | Nokia | stanley.scheufler@nokia.com | 858 243-7127 |

| Name | Title | Company | Email | Phone |
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| Rene Sorra | Mechanical/Environmental Test Engineer Project Manager | PCTEST Wireless | rene@pctestlab.com | 443-277-5631 |
| Charles P Monahan | Regulatory Compliance | Panasonic | monahanc@us.panasonic.com | 201-392-6464 |
| Paul M. Beach | General Counsel | Quallion LLC | paulb@quallion.com | 818-833-2013 |
| Hisashi Tsukamoto | CEO and CTO | Qullion LLC | hisashi@quallion.com | 818-833-2002 |
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| Doug Lee | Engineer | U.S. Consumer Product Safety Commission | dlee@cpsc.gov | 301-504-7569 |
| Ken Pierrehumbert | Development | Valence Technology | ken.pierrehumbert@valence.com | 918-303-5822 |
| Louis LaMedica | Director-CPE | Verizon Wireless | lou.lamedica@verizonwireless.com | 908-306-7885 |

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# IEEE Standards Association Corporate Program

Development Timeline and Funded Services

Presentation for the IEEE P1725
Cellphone Battery Working Group
16 November 2004
CTIA Headquarters, Washington D.C.

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## Agenda

- About the IEEE
- Why develop corporate standards at IEEE?
- IEEE-SA Corporate Program
- IEEE Corporate Membership
- Standards process at IEEE
- Funded services description
- Timeline for development of P1725

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## About the IEEE
### Extraordinary depth of resources

- 41 Technical Societies and Councils
- > 360,000 members
- 30% of world's literature in electro-and info-technology
- Over 325 technical conferences per year

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## About the IEEE
### Premier Standards Developer

Recognized developer of international standards

- > 800 standards, used across industry
- > 400 standards projects in progress
- > 15,000 standards participants worldwide

## Why develop Corporate Standards at the IEEE?

- Quick start-up
  - No agreements among participants
  - No infrastructure to form
- Modest development costs
- Well-defined rules and framework
  - Transparent process
  - Legal structure in place
  - Clear intellectual property policy (RAND)

## A Case Study: Why one company joined

- Need for cross-industry development
- Recognized global standards platform
- Links to international standards community
- Responsive— initiation, development, distribution
- Dedicated staff resources
- SIGS- logical transition point
- Recognized by diverse range of users
- Resource effective- one company representative
- ANSI recognized- accreditation and indemnification
- Managed by corporate constituency
- Recognized professional organization
- Realize synergies with 41 technical societies

## Why develop Corporate Standards at the IEEE?

- Platform & protections create productive corporate standards environment
  - 501(c)(3) nonprofit corporation
  - Proven polices and procedures

## Why develop Corporate Standards at the IEEE?

- Route to global standards
  - Liaison to international SDOs (ISO, IEC, ITU)
    - Streamlined adoption of IEEE standards
    - Joint copyright agreements
  - ANSI accredited
- Worldwide distribution
- Dedicated IEEE-SA professional support staff

# IEEE-SA Corporate Program
## A Case in Point

- IEEE 1625: Mobile Battery Standard
- For global lithium-ion battery production
- 19 battery & laptop computer makers
- A unique systems standard for cells, packs and computers
- Created in 17 months
- Relied on IEEE-SA support services

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# IEEE-SA Corporate Program
## Standards Development

**Everything you need to know...**

http://www.standards.ieee.org/resources/development/index.html



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# IEEE-SA Corporate Program
## Standards Development

Five principles that guide standards development
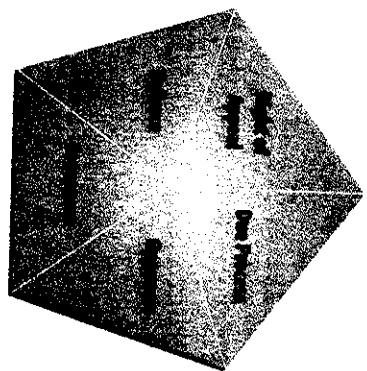


Ensuring integrity and wide acceptance for IEEE standards

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# IEEE-SA Corporate Program
## Standards Development

1. Prepare a Project Authorization Request
2. Find a sponsor
3. Form the working group & begin development
   - Establish Working Group P&Ps
   - Elect Officers
4. Reach Consensus in Working Group
5. Ballot draft standard
6. Approval and Publication
7. Internationalization (optional)

## IEEE-SA Corporate Membership

### Corporate Membership Benefits:

- Unlimited balloting rights
- Complimentary individual memberships
- Direct voice in the Corporate Advisory Group
- Voting privileges for IEEE-SA governance
- Advance access to news and information on IEEE-SA standards activities

## IEEE-SA Corporate Membership
### Corporate Member Fee Structure

- Member
  - Corporate
    - Less than $1M Revenue    $1000
    - Less than $1B Revenue    $3000
    - Greater than $1B Revenue    $5000
  - Government Agency    $5000
  - Other (Trade Assoc, SDO, Academic) $1000

- Non-Member per ballot fee
  - 20% premium to membership fee

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## IEEE-SA Corporate Program
### Corporate Membership

## Funded Services
## Top 10 Value Drivers

1. Costs to companies of 2-5 year standards development effort
2. Costs of engineering man-hours
3. Costs of consortia formation and maintenance
4. Costs of recalls
5. Costs to companies of delays in product introduction

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## IEEE Standards & Intellectual Property

**Mandatory:**
"Call for Patents" at each meeting

**Discretionary:**
Inclusion by Working Group of patents in Standard

**Mandatory:**
LOA for any "essential" patents
RAND terms

**Discretionary:**
Licensing Terms
(can't discuss in IEEE WG meeting)

http://standards.ieee.org/db/patents/index.html

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## Funded Services
## Top 10 Value Drivers

6. Benefits of finishing standard in 18 months or less
7. Benefits of professional project management
8. Benefits of IEEE managed technical editing
9. Benefits of consensus standards platform
10. Benefits of signaling positive change

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## IEEE Standards & Intellectual Property
### Don'ts & Dont's

**Don't Discuss:**
- Pricing
- Prices
- Markets
- Licensing
- Litigation
- Competitive
- Questions
- Bidding

IEEE

*What You Need to Know*
*About IEEE Standards and the Law*

The IEEE is a 501(c)3 tax-exempt organization as defined by the United States Tax Code. As such, the IEEE is obligated to serve the public good through its educational and scientific endeavors. These endeavors are not directed to benefit any group, industry, or profession, but to benefit the general public. Standards fulfill this need in part by advancing technology through appropriate standards-setting practices. Therefore, IEEE standards participants need to follow certain guidelines in order to maintain the 501(c)3 status of the IEEE. This pamphlet will give you some general information about those items.

http://standards.ieee.org/resources/StdsLaw_Brochure.p

## Funded Services
### Overview

Services include:
- Project management services
  - Planning and scheduling
  - Financial management
  - Record keeping
- Technical writing & editing
- Legal services
- Meeting planning & management
- Publication & distribution
- Marketing & communications
- Conformance & interoperability testing

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## Funded Services
### Detail of Key Services

#### Project Management

1. Creates overall project plan
2. Oversees all aspects of coordination for the development of the draft standard
3. Serves as single point of contact between the working group and all IEEE staff and resources covered under this project

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## Funded Services
### Detail of Key Services

#### Technical Editing

The contractor shall recruit (in conjunction with WG chair) and manage a technical writer on behalf of the project

The technical editor:

- Manages document development
- Coordinates among subgroups of WG
- May lead ballot resolution (not included in 1725 proposal)

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## Funded Services
### Detail of Key Services

#### Pre-approval document development support

Provides guidance and training to WG on:
- Structure of standards document- IEEE Standards style guide
- Mandatory and optional components of standard
- IEEE standards template for FrameMaker or Word

At key project milestones reviews:
- Overall document (4 included)
- Legal issues

- International adoption support
- Trademark & certification program
- Meeting planning
- Website development and maintenance and support

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## Funded Services
### Optional

**Global IT Standards Making Architecture**
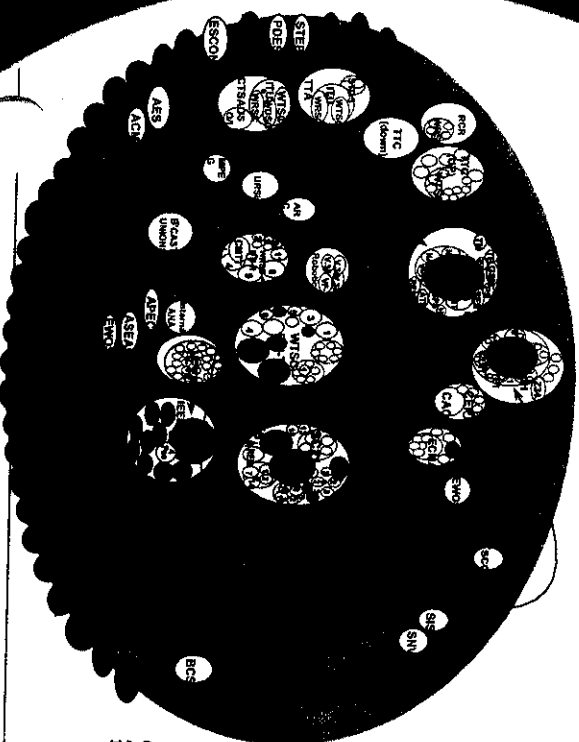


Courtesy of AMP Incorporated

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## Funded Services
### Optional

Trademark and Logo Creation

- Influence in the creation of the mark/logo which would appear on the standard
- Use of the mark/logo in association with a specified number of related products for a specified period of time, on a royalty free basis
- Licensing use of the mark for additional products and period of time at a discounted royalty rate relative to non-working group members
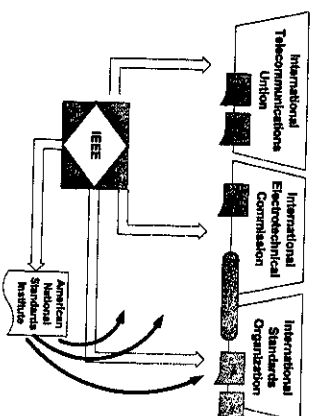
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## Funded Services
### Optional

Direct liaisons to national and int'l bodies lead to:

- Adoption of IEEE standards (i.e. IEEE 1481 now IEC 61523-1)
- Dual Logo agreements (4 EDA Standards)
- Choices for IEEE standards developers



International Telecommunications Union

International Electrotechnical Commission

American National Standards Institute

International Standards Organization

## P1725 Schedule

| P1725 Schedule | Dead-line |
|---|---|
| PAR Approval | 9/2004 |
| WG Meeting #1 (face to face) | 11/2004 |
| IEEE Editorial Review #1 | 11/2004 |
| WG Meeting #2 (face to face) | 12/2004 |
| Standard Requirements, not text | 1/2005 |
| WG Meeting #3 (teleconference) | 1/2005 |
| Formation of Balloting Pool | 1/2005 |
| WG Meeting #4 (face to face) | 2/2005 |
| WG Meeting #5 (teleconference) | 3/2005 |
| Initial Draft Std. | 3/2005 |
| IEEE Editorial Review #2 | 3/2005 |
| Formation of Ballot Resolution Comm | 3/2005 |
| 2nd Draft Complete | 4/2005 |
| Invitation to Ballot | 4/2005 |
| WG Meeting #6 (face to face) | 4/2005 |
| Complete Ballotable Draft | 4/2005 |
| IEEE Editorial Review #3 | 4/2005 |
| Start Sponsor Ballot | 5/2005 |
| Resolve Ballot Cmts, mod std. | 5/2005 |
| Recirculation (as required) | 6/2005 |
| Resolve Ballot Cmts, mod std | 6/2005 |
| Recirculation (as required) | 7/2005 |
| IEEE Editorial Review #4 (as required) | 7/2005 |
| Resolve Ballot Cmts, mod std, RevCom | 7/2005 |
| IEEE Standards Board Approval | 9/2005 |
| Standard Publication | 10/2005 |

Sample Development Timeline

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## About the IEEE
## Developer of International Standards

INTERNATIONAL STANDARD
IEC 601800
IEEE 1800

### IEC/IEEE Dual Logo Agreement –
### EDA Standards Submittede

- IEEE Std 1076™-2002, IEEE Standard VHDL Language Reference Manual
- IEEE Std 1076.4™-2000, IEEE Standard VITAL ASIC (Application Specific Integrated Circuit) Modelling Specification
- IEEE Std 1364™-2001, IEEE Standard Verilog Hardware Description Language
- IEEE Std 1497™-2001, IEEE Standard for Standard Delay Format (SDF) for the Electronic Design Process

IEC ◆IEEE

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## IEEE Corporate Standards Program

Choice  Control  Speed  Influence...

Questions or Comments?
Thank you

Edward Rashba
Tel. +1 732 465 6449

# IEEE P1725 Working Group

## "Standard for Rechargeable Batteries for Cellular Telephones"

CTIA Building
Washington, D.C.
November 16, 2004

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## IEEE P1725 Working Group

### Agenda Day 1 Tuesday

| | | |
|---|---|---|
| Coffee | 30 min | 8.30 |
| Welcome | 15 min | 9:00 |
| Review scope and purpose of the working group | 30 min | 9:15 |
| Working group administration | | |
| Call for officers | 15 min | 9:45 |
| Proposed Standard Development Schedule | 15 min | 10:00 |
| Break | 15 min | 10:15 |
| IEEE support proposal | 15 min | 10:15 |
| Review IEEE working group procedures | 45 min | 10:30 |
| Media/PR policy | 30 min | 11:15 |
| | 15 min | 11:45 |
| Lunch | 90 min | 12:00 |
| Officer nominations | 15 min | 1:30 |
| Formation of subcommittees | 45 min | 1:15 |
| Technical review of IEEE 1625 standard | 2 hours | 2:00 |
| Day 1 Wrap up | 15 min | 4:00 |

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## IEEE P1725 Working Group

### Day 2 Wednesday

| | | |
|---|---|---|
| Coffee | 30 min | 8:30 |
| Officer elections | 30 min | 9:00 |
| Review schedule | 15 min | 9:30 |
| Dates for next meeting | 15 min | 9:45 |
| Other business | 30 min | 10:00 |
| Break | 15 min | 10:15 |
| Subcommittee working sessions | 90 min | 10:30 |
| Lunch | 90 min | 12:00 |
| Subcommittee working sessions | 90 min | 1:30 |
| Wrap up | 30 min | 3:00 |

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## Scope and Purpose

**From approved IEEE PAR:**

**SCOPE:** This standard establishes criteria for design analysis for qualification, quality, and reliability of rechargeable lithium ion and lithium ion polymer batteries for cellular telephone applications. Also included in the standard are: battery pack electrical and mechanical construction, packaging technologies, and pack and cell level charge and discharge controls and overall system considerations.

**PURPOSE:** The purpose of this standard is to ensure reliable user experience and operation of cell phone batteries. The battery and cellular telephone industries need standardized criteria for design and qualification of rechargeable battery systems and for verifying the quality and reliability of those batteries.

**Reason:** The working group seeks to develop a standard that establishes criteria for design analysis for qualification, quality, and reliability of batteries for cellular telephone applications. Currently no industry-wide standard exists, and this lack of standardization results in difficulties in evaluating the lithium-ion battery for cell phone applications. The users of this standard will be battery cell manufacturers, battery pack manufacturers, cell phone manufacturers, carriers, and users.

## The System



Environment
User
Battery

IEEE

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## Administration

IEEE

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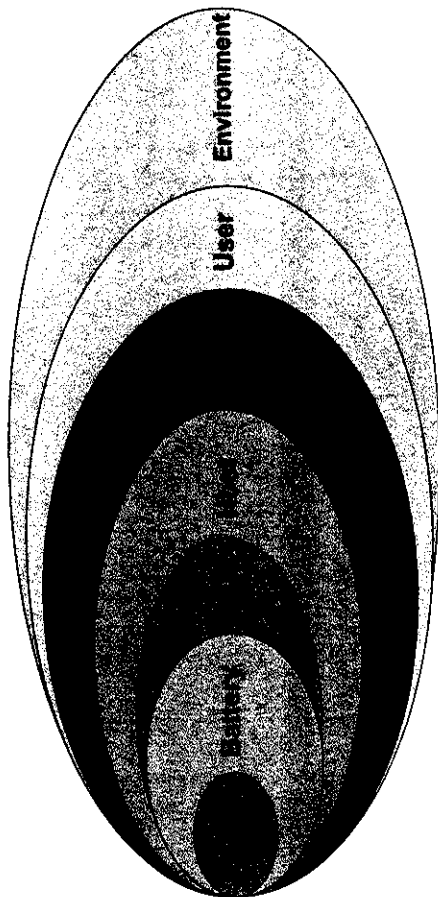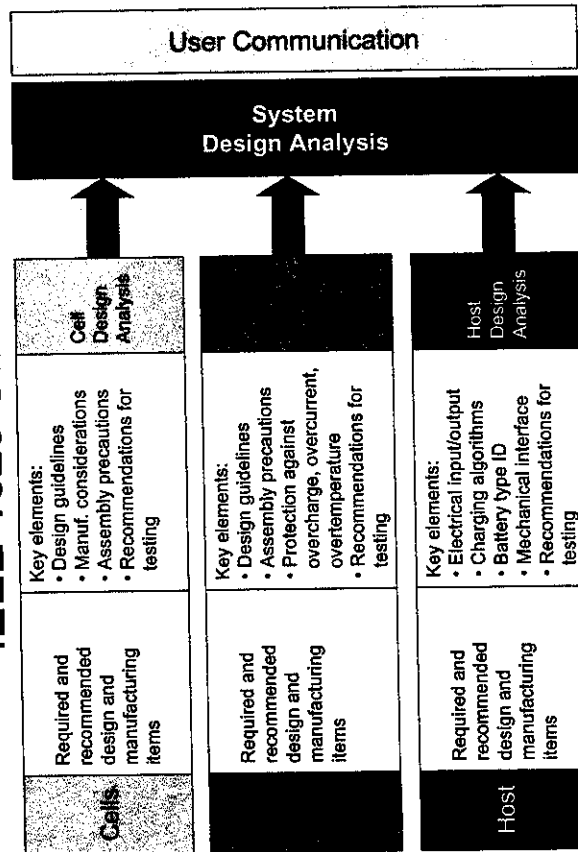
## The plan...

- Review 1625 Standard for Notebook Computing Batteries

- Revise (Add, Delete, Modify) as appropriate to make relevant to cell phone applications

- Publish 1725 Standard for Cell Phone Batteries

IEEE

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## IEEE 1625 Standard

User Communication

System Design Analysis

| | Required and recommended design and manufacturing items | Key elements: | Cell Design Analysis |
|---|---|---|---|
| Cells | Required and recommended design and manufacturing items | Design guidelines · Manuf. considerations · Assembly precautions · Recommendations for testing | Cell Design Analysis |
| | Required and recommended design and manufacturing items | Design guidelines · Assembly precautions · Protection against overcharge, overcurrent, overtemperature · Recommendations for testing | |
| Host | Required and recommended design and manufacturing items | Electrical input/output · Charging algorithms · Battery type ID · Mechanical interface · Recommendations for testing | Host Design Analysis |

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## Proposed Standards Development Schedule

- First WG meeting
  - 11/16/04
- WG technical meetings through June, 2005
  - Approx 4-6 weeks apart. One more before end of 2004.
  - Option for 1-2 teleconference rather than face-to-face.
- Draft for Ballot, Ballot resolution  September, 2005
  - One more full WG meeting
- Revcom approval by December, 2005

- Revisit schedule on Wednesday. Plan for upcoming meetings.

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## Call for Officers

- Chair

- Vice-Chair

- Secretary

Officer elections Wednesday morning.
Candidates will have time to make BRIEF statement.

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## Break

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## IEEE Support Proposal

## WG Procedures:

IEEE Operating Procedures for Corporate Standards Working Groups

- Legal accountability
  - Anti-trust
  - IEEE patent policy
  - IEEE legal review of health, safety, environmental issues in standards document

- Openness, Due process, Consensus, Balance

- WG responsible to complete project in 12-24 months

- "The entity (members) within a working group must ensure that their representatives have a material knowledge of the project scope."

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## WG procedures (cont.)

- Membership in the WG:
  - Working group membership is **by entity**. An entity shall pay any funding services fee if established and shall fulfill the requirements of membership determined by its Sponsor to gain and maintain membership in the working group.
  - An entity shall have one **Designated Representative** (DR) and may have more than one alternate (DRA) participating in the working group.
  - The DR carries the Entity's vote.
  - Membership shall be granted automatically to those entities attending the **first** working group meeting. Thereafter, membership shall be granted after the entity attends **two consecutive** meetings of the working group.
  - If a working group member misses two consecutive meetings, its membership status shall be revoked. The Chair shall notify, in writing, a member who fails to attend two consecutive meetings and that has therefore lost its membership.
  - A member who has lost its voting privileges shall have its voting privileges reinstated by attendance at two consecutive meetings of the working group.
  - If, for reasons of personal hardship, an entity cannot attend two consecutive meetings (but that entity continues to vote in ballots taken between meetings), the working group will be consulted on the status of the entity.
  - **Non-members** may also participate in working group activities, following the principle of openness at the discretion of the Chair. Non-members cannot vote in working group actions.

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## WG procedures (cont.)

- Proposed modification #1:
- All officers shall be IEEE members of any grade, individual IEEE-SA members, and must also be Designated Representatives (DRs) of entities that are corporate IEEE-SA members."
  - Strike IEEE-SA portion. Officers contingent on becoming individual IEEE members by next meeting.
  - Officer nominations and elections shall be held during first WG meeting
  - Elections shall be decided by majority vote, with each "entity" entitled one vote per office.

- Proposed modification #2:
  - Add a statement concerning Media/PR policy (Chair responsibilities):
  - "Any communication to the public or media concerning the working group activities shall be made through the communications/PR subcommittee of the working group. The spokesman for the WG shall be the Chair or an individual designated by the Chair."

- (Motion and approval)

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## Group Definition

- Batteries, Phones, Carriers, Component, Accessories, Other

- Producers, Users, Other

- Financial support

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## Finances

- Rough estimate: $165,860 x 110% = $182500
- Assume 15 entities
- $12,100 each

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## Lunch

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## Officer Nominations

- Chair Jason Howard
- Vice-Chair Lou LaMedica
- Secretary TBD
- *Will allow nominations 1st thing tomorrow as well*

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# ◆IEEE

## Formation of Subcommittees

- **Cell (Chap 5)**
- **Pack (Chap 6)**
- **Host (Chap 7)**
- System Integration/User (Chap 4 & 8)
- Review abstract/intro
- Review assigned chapter
- Proposed revisions to make relevant to cell phones
- What's missing?

# Subcommittee Next Steps (Wednesday)

- Subcommittees report on initial thoughts
- Discussion around WG organization and plan
- Formation of "official" subcommittees
- Selection of subcommittee leads

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# Subcommittees Meet

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# Day 1 Wrap Up

- Subcommittees
- Homework
- Tomorrow's agenda

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| Day 2 Wednesday | | |
| --- | --- | --- |
| Coffee | 30 min | 8:00 |
| Officer elections | 15 min | 8:30 |
| Review schedule | 15 min | 8:45 |
| Dates for next meeting | 15 min | 9:00 |
| Other business | | |
| financial | 45 min | 9:15 |
| PR/communications | | |
| Break | 15 min | 10:00 |
| Tuesday subcommittee reports | 90 min | 10:15 |
| Break | 30 min | 12:00 |
| Working Lunch | | 12:30 |
| Subcommittee Organization/Leaders/Working Sessions | 120 min | 12:30 |
| Wrap up | 30 min | 2:30 |
| Adjourn | 3:00 pm latest | |

# Elections

- "entity" vote...need designated DR

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# Other business

- Financials
  - Appoint "negotiating team"
  - Review IEEE proposal, finalize budget
  - Tentative entity count
  - Estimated contribution
  - WG approval for budget at next meeting

- PR/Communication
  - Develop key messages
  - WG approval at next meeting

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# Schedule

- 1st meeting...organization, inititial structure
- 2nd meeting...finalize structure, subcommittees develop draft text (December)
- 3rd meeting...review draft 1.0 (late January)
- 4th meeting...review draft 2.0 (mid March)
- 5th meeting...review final draft for WG ballot (late April)
- May...begin WG balloting process
- June-July...comment resolution, 2nd ballot
- August...comment resolution, 2nd ballot
- September...IEEE RevCom submission

- Dates Location for next meeting

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# 1725 Structure

- Cell/Quality Systems
- Pack/Host
- Accessories & Validation
- System/User & Security

- Over-riding considerations for each group: quality, security, validation, interface parameters

Minimum of 2 experts in each group

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# Wrap up

- Subcommittee membership lists
- Email subcommittee presentations to me
- Info to group
  - Communications package
  - Meeting presentations
  - Preliminary financial proposal from IEEE
  - Contribution form
  - Attendee/subcommittee list

November 16-17, 2004

P1725 Working Group

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# ◆IEEE  P1725 preliminary budget estimate

| Item | Cost ($US) |
|---|---|
| Project Management | $43,600 |
| Technical Editor* | $55,000 |
| Draft Document Support | $21,960 |
| Process Support | $10,800 |
| E-Ballot Support | $9,200 |
| Publication Support | $8,000 |
| Marketing | $10,800 |
| Travel (based on 5 trips of 3 days each) | $6,500 |
| **Grand Total** | **$165,860** |

*Actual costs for technical editing available after bid process is completed

*This is a preliminary budget only.*

The WG officers will review with IEEE to ensure that the appropriate services are contracted before submitting the final budget for WG approval. Final cost per company will depend on the number of entity companies that join the WG. This is estimated to be 15-25 companies. The estimated cost for each company is therefore less than $12,000.

**Major Line Items:**

Project management:
- Creates overall project plan
- Oversees all aspects of coordination for the development of the draft standard
- Serves as single point of contact between the working group and all IEEE staff and resources covered under this project

Technical Writer:
- Manages document development
- Coordinates among subgroups of WG
- May lead ballot resolution (not included in P1725 proposal)

Other services are associated with balloting/approving/publishing final standard.

November 16-17, 2004

P1725 Working Group

The group agreed that the second WG meeting will tentatively be held December 13-14 in San Diego hosted by Sanyo. Sanyo will confirm.

Samsung will verify whether than can host the following meeting January 25-27 in Dallas.

## I. Other business
### 1. Financials
Jason Howard suggested appointing a negotiating team to review the IEEE proposal and finalize the budget. Each company is requested to obtain tentative approval that their organization will participate in the sharing of the costs. Jason will circulate the proposed high-level budget. The Chair and Vice Chair will agree with IEEE on the services needed and will circulate a detailed cost breakdown. At the next meeting, the budget will be finalized and approved.

### 2. PR/Communication
The group agreed that PR communications will be coordinated though IEEE, the WG Chair and CTIA. The WG will be informed of releases before they are distributed to the press. Edward Rashba stated that while IEEE typically manages press releases on behalf of its working groups that it will make best efforts to insure that all parties are satisfied with press releases prior to distribution.

### 3. Working Group Membership
Mark Sargent asked if additional entities are needed to participate in the WG. Joe Carcone volunteered to contact the PRBA (Portable Rechargeable Battery Association) to recruit additional participation from battery pack and cell manufacturers. Lou LaMedica volunteered to contact additional test labs. Doug Lee suggested user groups and college professors. IEEE can contact international bodies such as IEC – this would be an optional service that would have to be covered in the budget. Jason will develop an informational package and distribute this to the WG so each representative can send this to individuals/organizations they feel will be interested.

## J. Subcommittee presentations

### 1. Cell Sub-Committee
Eddie Forouzan of Kyocera reviewed the desired goals of the cell sub-committee, which includes achieving 0 catastrophic cell failure. See attached presentation. It was agreed that "achieving 0 catastrophic cell failure" was unrealistic and should be changed to "achieving 0 failure under intended use by manufacturer and minimizing cell failure under abusive operating conditions". See attached summary presentation. The group agreed that manufacturing process issues need to be addressed, including an on-going sampling process.

### 2. Pack Sub-Committee
Ted Mahan of U.S. Cellular reviewed the pack sub-committee team members, tasks (reviewing 1625 pack-related areas) and initial assessment. See attached presentation. The sub-committee determined that most of 1625 is applicable, but some clarification of requirements is needed. Some questions include: how to treat system-level requirements, mechanism for synchronization of cell and pack specs. The sub-committee recommends the addition of security and authentication.

### 3. Host Sub-Committee
Michael Coletta of Intersil reviewed the initial work done by the host sub-committee, which included reviewing and modifying Section 7 of 1625 (Host Device Configuration) and Annex B3. See attached presentation. Jason Howard clarified that the annexes are non-normative, meaning they do not have to be complied with.