**IEEE P802.15**

**Wireless Personal Area Networks**

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| --- | --- | --- |
| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) | |
| Title |  | |
| Date Submitted | [12 May 2010] | |
| Source | [] [] [Chicago, IL] | Voice: [+1.847.960.3715] Fax: [+1.630.524.9054] E-mail: [pat.kinney@ieee.org] |
| Re: | [802.15 Interim Meeting in Palm Springs, CA] | |
| Abstract | [IEEE 802.15 Working Group Minutes] | |
| Purpose | [Official minutes of the Working Group Session] | |
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**IEEE 802.15 Interim Meeting – Session #72**

**Hyatt Grand Champion, Palm Springs, CA, USA**

**May 9-12, 2010**

**Monday, 9 May 2011**

**8:01** 802.11, 802.15, 802.18, 802.19, and 802.22 Chairs called the joint meeting to order (15-11-319-01). IEEE 802.15 attendance is included as Annex A.

General announcements:

* Attendance will be collected via the IMAT

Straw Poll of new attendees: 2

**8:04** IEEE patent policy

802.15 WG chair read the IEEE-SA instructions for the WG chair and displayed the four slides explaining patent policy and informed the attendees that additional information could be found on the PatCom web site.

Chair asked participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) that the participant believes may be essential for the use of that standard in the appropriate WG.

802.15 WG chair read IEEE anti-trust policy.

**8:10** Financial report by Jon Rosdahl, Clint Chaplin (11-11-690-00, 15-11-0369-00)

* March 12, 2011 - $390,172
  + IEEE Account: $340,221.66
  + Face-to-Face: $49,950
  + (Interest rate is 0.38%)
* May 08, 2011 - $390,172
  + IEEE Account: $340,221.66 + $101.13 = $340,322.79
  + Face-to-Face: $49,950.00 + $112,752.15 = $162,702.15
  + (Interest rate is 0.35%)
* Palm Springs
  + Registration Income: $223,350
    - (260:0/68:10/10:2/-11) Total 339
  + Meeting Expense Estimate:$236,367
  + Surplus/Deficit($9127)

**8:11** Wireless announcements: (15-11-035-02)

Wireless Network Updates by Rick Alfvin

* <https://murphy.events.ieee.org/imat/login>

**8:14** Review future sessions

* July 17-22, 2011, Hyatt Regency at Embarcadero Center, San Francisco, CA
* September 18-23, 2011, Okinawa Convention Center, Okinawa, Japan
* November 6-11, 2011, Hyatt Regency Atlanta, Atlanta, GA, USA
* January 15-20, 2012, Hyatt Regency, Jacksonville, Florida, USA
* March 11-16, 2012, Hilton Waikoloa Village, Big Island, HI, USA
* May 13-18, 2012, Hyatt Regency Atlanta, Atlanta, GA, USA
* July 15-20, 2012, Grand Hyatt Manchester, San Diego, CA, USA
* September 9-14, 2012, Hilton Waikoloa Village, Big Island, HI, USA
* November 11-16, 2012, Grand Hyatt San Antonio, San Antonio, TX, USA

**8:25 Task Group Updates**

* Documents 11-11-482, 11-11-483, 11-11-484 help describe 802.11
* 802.11 by B Kramer, Marvin (315 voters, 42 potential voters)

TGmb- Revision

TGs - ESS Mesh Networking

TGu- Internetworking with External Networks

TGv - WIRELESS NETWORK MANAGEMENT

TGaa - VIDEO TRANSPORT STREAMS

TGac - VHT L6

TGad - VHT60

TGae - QOS-MAN

TGaf- TVWS

TGah- S1G

TGai - FILS

TGAE-QoS Mgmt

TGAF-TV whitespace

TGah: S1G

TGaj: FILS

802.15 (213 voters, 33 nearly voters)

WNG: next generation

TG4e: MAC enhancements

TG4f: RFID applications

TG4g: SUN applications

TG4h: corrigenda – on hold

TG4i: revision – sponsor ballot

TG4j: MBAN

TG4k: LECIM

TG6: (BAN)

TG7: (VLC TG): sponsor ballot

SG-Personal Environment Svc

SG-4TV (TVWS)

IG-Terahertz (not meeting here)

IG-HIP

IG-SRU (not meeting here)

802.18 Mike Lynch (10 voters)

* summarizing TVWS efforts within 802

802.19 Steve Shellhammer (48 voters)

* election of technical editor
* merging proposals
* assist 802.18 on their submission

802.22 Mody (16 voters)

* working on recommended practice 802.22.2
* discussing PARs for amendments

**8:36** Joint meeting adjourned

**9:34** B Heile (ZigBee Alliance), WG chair called the 802.15 WG plenary to order

Chair reminded attendees that highlights of the IEEE-SA Standards Board Bylaws on Patents in Standards. Chair referred those who wished to review these policies that the IEEE-SA patent policy presentation slides 0-5 and reading the instructions for the WG Chair. (<http://standards.ieee.org/board/pat/pat-slideset.ppt>).

Chair asked participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) that the participant believes may be essential for the use of that standard, there were no responses.

Chair reminded participants of anti-trust rules and obligations.

Approve/modify joint opening agenda (15-11-0319-02-0000)

* Moved by P Beecher, seconded by B Rolfe. Following neither discussion nor dissent the agenda was approved.

Review and approve 802.15 WG minutes from the Singapore session (15-11-0206-00-0000)

* Moved by R Alfvin, seconded by C Powell. Upon neither discussion nor objection the joint minutes were approved.

**9:42** Wireless Network Updates by Rick Alfvin (15-11-035-02)

* 213 voters and 33 nearly voters

**9:35** Architecture by J Gilb

* all comments have been assigned
* another ballot scheduled for after July session

**9:44** Motion to affirm Seong-Soon Joo as chair of TG4e moved by B Rolfe and seconded by R Alfvin. Upon neither discussion nor objection the motion carries with unanimous consent.

**9:46** WG recessed

**Wednesday 11 May 2011**

**802.15 mid-session plenary meeting**

**10:31** Bob Heile called the meeting to order.

**10:32** **Mid-week status updates**

**802.18** by John Notor

* 802 whitespace discussion

**TG4e** by Seong-Soon Joo

* Comment resolution moving along with resolutions captured in 15-11-368-02
* goal of recirculation after this session and Sponsor Ballot request at July session

**TG4f** by M McInnis

* 63 technical comments have been resolved and captured in the 15-11-356
* targeting completion of draft by end of session

**TG4g** by P Beecher

* Working on comment resolutions
* Goal is to seek recirculation after this session and Sponsor Ballot request at July session

**TG4i** by J Gilb

* Finished Sponsor Ballot recirculation
* Goal is to seek RevCom approval in June

**TG4j (MBAN)** by Ray Krasinski

* FCC has made significant progress with MBAN regulation effort
* Heard 4 proposals, identified issues
* Down selection criteria discussion

**TG4k (LECIM)** by Pat Kinney

* Approved TGD and CFP

**TG6 (BAN)** by A Astrin

* Working on comment resolutions of 353 comments of which 16 remain to be resolved
* Goal is to seek WG approval of recirculation after next session

**TG7 (VLC)** by Eun Tae Won

* In Sponsor Ballot with 36 comments, one comment is remaining

**PSC SG** by Myung Lee

* Revising PAR and 5C
* Request WG approval of PAR and 5C at closing plenary

**4TV by Choi**

* Working on PAR and 5c
* Request WG approval of PAR and 5C at closing plenary

**HIP** by Robert Moskowitz

* Will use 4e multipurpose frames
* Seek to become a key management protocol study group at July session

**WNG** by P Kinney

The WNG meeting will have a presentation on 802.1x over 802.15.4.

**AoB** none

**10:50** Recessed until Thursday at 18:30

**Thursday, 12 May 2011**

**18:33** WG chair called the meeting to order (agenda 15-11-0319-02)

**18:38** TG4k closing report by Pat Kinney (15-11-0421-01)

**18:38** WNG closing report by Pat Kinney (15-11-0419-00)

**18:40** TG4e Closing Report by Seong-Soon Joo (15-11-0434-00)

* Comment resolutions (15-11-0368-03) are complete and approved by TG4e and BRC; 53 accept, 16 Accept in Principle, 6 Reject, 1 Withdrawn, 15 out of order

Motion*: Move that 802.15 WG approve the formation of an 802.15.4e Ballot Resolution Committee (BRC) with the following membership: Seong-Soon Joo, Pat Kinney, Ludwig Winkel, Wei Hong, Jeff King, Wun-Cheol Jeong, Chang Sub Shin, Ben Rolfe, Yang Yang, Myung Lee, Jonathan Simon, and Kazuyuki Yasukawa. The 802.15.4e BRC is authorized to approve comment resolutions and to approve the start of recirculation ballots of the 802.15.4e draft on behalf of the 802.15 WG. Comment resolution on recirculation ballots between sessions will be conducted via reflector email and via teleconferences announced to the reflector at least 7 days in advance*

Moved by Seong-Soon Joo and seconded by Ben Rolfe

Upon neither discussion nor objection the motion carries with unanimous consent

**18:47** TG7 Closing Report by Eun Tae Won (15-11-0422-00)

**18:51** TG4f Closing Report by Mike McInnis (15-11-0426-01)

Motion:   *Move that the WG accept the comment resolutions in document 15-11-0356-01-004f as the resolution for comments received in letter ballot #72 and authorize the TG chair to begin the recirculation once those edits have been applied.*Moved by Mike McInnis and seconded by Art Astrin.

Upon neither further discussion nor objection the motion carries with unanimous consent

Motion: *move to authorize, Tim Harrington (TG4f and BRC Vice Chair), Adrian Jennings, Andy Ward, Dalibor Pokrajac, Billy Verso, Michael McLaughlin, and Russ Chandler as the P802.15.4f Comment Resolution Oversight Committee chaired by Mike McInnis; said committee to expire at the beginning of the July 2011 802 Plenary meeting. The Comment Resolution Oversight Committee is authorized to approve the resolutions and approve start of the next recirculation of the P802.15.4f draft on behalf of the Working Group. Comment resolution on Re-circulations 1(TG4f -d04) and 2 (TG4f -d05) will be conducted via reflector email and via teleconferences announced to the reflector at least 7 days in advance.*    Moved by Mike McInnis and seconded by Art Astrin.

Upon neither further discussion nor objection the motion carries with unanimous consent

**18:54** TG4g Closing Report by Phil Beecher (15-11-0433-00)

*Move that the Working Group accept the comment resolutions in document 15-11-0342-09-004g as the resolution for comments received in letter ballot #70 and authorize the Task Group chair to begin the recirculation once those edits have been applied.*  
Moved by Ed Callaway and seconded by James Gilb

Upon neither discussion nor objection the motion carries with unanimous consent.

*Move to authorize Phil Beecher, Monique Brown, and Kuor-Hsin Chang as the 802.15.4g Ballot Resolution Committee and Comment Resolution Oversight Committee, chaired by Phil Beecher; said committees to expire at the beginning of the July 2011 802 Plenary meeting. These Committees are authorized to approve the resolutions and approve start of the next recirculation of the D4P802-15-4g draft on behalf of the Working Group. Comment resolution on Recirculations 1(current) and 2 (next) will be conducted via TG4g reflector email and via teleconferences announced to the TG4g reflector at least 7 days in advance.*

Moved by Ed Callaway and seconded by James Gilb

Upon neither discussion nor objection the motion carries with unanimous consent

**19:00** TG4i Closing Report by James Gilb (15-11-436-00)

**19:10** TG4j Closing Report by Ray Krasinski (15-11-0428-00)

**19:14** TG6 Closing Report by Art Astrin (15-11-0432-02)

*Move that the WG accept the comment resolutions in document 15-11-0363-05-0006-lb71-d03p802-15-6-comment-register and presentation 15-11-0410-01-0006-proposed-change-to-text-for-mics-lp-ldc-support as the resolution for comments received in letter ballot #71 and authorize the TG chair to begin the recirculation once those edits have been applied.*

Moved:  Art Astrin Second: Mike McInnis. Upon neither discussion nor objection the motion carries with unanimous consent

*Move to authorize Daniel Lewis, Anuj Batra, Jin-Ming Ho, Omeni Okundu, Marco Hernandez, Huan-Bang Li, S. Park, Art Astrin as the 802.15.6 Comment Resolution Oversight Committee, chaired by Art Astrin, said committee to expire at the beginning of the July 2011 802 Plenary meeting.*

*The Comment Resolution Oversight Committee is authorized to approve the resolutions and approve start of the next recirculation of the TG6 draft d04 on behalf of the Working Group. Comment resolution on recirculations 1(d04) and 2 (d05) will be conducted via reflector email and via teleconferences announced to the reflector at least 7 days in advance.*

Moved:  Art Astrin Second: Mike McInnis. Upon neither discussion nor objection the motion carries with unanimous consent

**19:19** TG7 Closing Report by Eun Tae Won (15-11-0422-00)

**19:26** SG-PSC by Myung Lee (15-11-0414-00)

**19:28** SG4TV by Sangsung Choi (15-11-0431-00)

Motion: *request that the PAR and 5C contained in documents 15-11-0337-03 and 15-11-0338-03, respectively, be approved by the 802.15 WG and that the 802 EC be requested to forward the PAR to NesCom.*

Moved by Sangsung Choi and seconded by Rick Alfvin. Upon no discussion the vote was taken with the results of 23/0/3, the motion carries.

**19:33** 802.11 Liaison report by Clint Chaplin (15-11-0435-00)

**19:35** 802.19 liaison report by Tuncer Baykas

**19:37** New Business by Robert Heile

Motion: *to withdraw the 802.15.4h PAR*, moved by Ben Rolfe and seconded by James Gilb. It was noted that the changes in TG4h were moved into TG4i. The vote was taken with the results of 24/0/0, the motion carries.

**19:40** Motion *to adjourn* was made by R Alfvin, seconded by E Callaway, upon no objection the motion carried, this session is adjourned.

**Annex A** Attendance = 150

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Last Name** | **First Name** | **Middle Name** | **Affiliation** | **Employer** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Aiello | Roberto |  | Itron Inc. | Itron Inc. |
| Alfvin | Richard |  | VeriLAN | Verilan |
| Allen | Brent |  | <null data field> | <null data field> |
| Asano | Takamasa |  | Fuji Electric | Fuji Electric |
| Assimiti | Robert |  | Nivis | <null data field> |
| Astrin | Arthur |  | Astrin Radio | Astrin Radio |
| Bae | Taehan |  | Samsung Electronics | SAMSUNG electronics |
| Batra | Anuj |  | Texas Instruments Incorporated | Texas Instruments Incorporated |
| Baykas | Tuncer |  | National Institute of Information and Communications Technology (NICT) | National Institute of Information and Communications Technology (NICT) |
| Beecher | Philip |  | PG&E | Beecher Communications Consultants Ltd |
| Boytim | Mathew |  | Sensus | Sensus |
| Brown | Monique |  | Silver Spring Networks Inc. | M. B. Brown Consulting |
| Buffington | John |  | Itron Inc. | Itron Inc. |
| Bynam | Kiran |  | Samsung Electronics | SAMSUNG |
| Callaway | Edgar |  | Sunrise Micro Devices, Inc. | Sunrise Micro Devices, Inc. |
| Calvert | Chris |  | Landis+Gyr Worldwide | Landis+Gyr Group worldwide |
| Canchi | Radhakrishna |  | Kyocera | Kyocera Communications Inc. |
| Cao | Zhen |  | China Mobile Communications Corporation | China Mobile Limited |
| Cardozo | Ruben | Salazar | Landis + Gyr | Landis+Gyr Group worldwide |
| Chang | Kuor-Hsin |  | Elster Electricity, LLC | Elster Electricity, LLC |
| Chang | Soo-Young |  | California State University, Sacramento (CSUS) | California State University |
| Chaplin | Clint |  | Samsung | Samsung Information Systems America, Inc. |
| Chebbo | Hind |  | FUJITSU | <null data field> |
| Choi | Sangsung |  | Electronics and Telecommunications Research Instititute (ETRI) | Electronics and Telecommunications Research Instititute (ETRI) |
| Dahl | Matthew |  | Silver Spring Networks Inc. | Silver Spring Networks Inc. |
| Davenport | David |  | GE Global Research | GE Global Research |
| Dawkins | Mark |  | Toumaz Technology Ltd. | Toumaz UK Ltd. |
| De Ruijter | Hendricus |  | Silicon Laboratories | Integration Associates |
| Dey | Sourav |  | On-Ramp Wireless, Inc. | <null data field> |
| Dhaliwal | Upkar |  | Future Wireless Technologies | Future Wireless Technologies |
| Dotlic | Igor |  | National Institute of Information and Communications Technology (NICT) | National Institute of Information and Communications Technology (NICT) |
| Evans | David |  | Philips Electronics | Philips Electronics |
| Farlow | Charles |  | Medtronic, Inc. | Medtronic, Inc. |
| Farserotu | John |  | CSEM, Inc. | CSEM, Inc. |
| Filin | Stanislav |  | National Institute of Information and Communications Technology (NICT) | National Institute of Information and Communications Technology (NICT) |
| Filippo | Will | San | Silver Spring Networks Inc. | Silver Spring Networks Inc. |
| Flammer | George |  | Silver Spring Networks Inc. | Silver Spring Networks Inc. |
| Gilb | James |  | SiBEAM, Inc. | Tensorcom, Inc. |
| Godfrey | Tim |  | Electric Power Research Institute, Inc. (EPRI) | Electric Power Research Institute, Inc. (EPRI) |
| Gong | Daning |  | China Academy of Telecommunication Research (CATR) | China Academy of Telecommunication Research (CATR) |
| Gottlib | Elad |  | Silver Spring Networks Inc. | Silver Spring Networks Inc. |
| Green | Evan |  | Harmony Engineering | Harmony Engineering Inc. |
| Hall | Robert |  | RF Technologies, Inc. | RF Technologies, Inc. |
| Harada | Hiroshi |  | National Institute of Information and Communications Technology (NICT) | National Institute of Information and Communications Technology (NICT) |
| Harrington | Timothy |  | WhereNet - Zebra ESG | Zebra Technologies |
| Heberling | Allen |  | Independent | Independent |
| Heile | Robert | F | ZigBee Alliance | Robert F Heile LLC |
| Hernandez | Lizardo |  | Landis+Gyr Worldwide | <null data field> |
| Hernandez | Marco |  | National Institute of Information and Communications Technology (NICT) | National Institute of Information and Communications Technology (NICT) |
| Hillman | Garth |  | OakTree Wireless | Advanced Micro Devices (AMD) |
| Ho | Jin-Meng |  | Texas Instruments Incorporated | Texas Instruments Incorporated |
| Hong | Wei |  | Cisco Systems, Inc. | Cisco Systems, Inc. |
| Howard | David |  | On-Ramp Wireless, Inc. | On-Ramp Wireless, Inc. |
| Hughes | Sterling |  | Silver Spring Networks Inc. | Silver Spring Networks Inc. |
| Hwang | Jung-Hwan |  | Electronics and Telecommunications Research Instititute (ETRI) | ERTI |
| Inoue | Yasuhiko |  | Nippon Telegraph and Telephone Corporation (NTT) | Nippon Telegraph and Telephone Corporation (NTT) |
| Jennings | Adrian |  | Ubisense | Time Domain Corporation |
| Jeong | SangKwon |  | SeeRoo Information Co., Ltd. | SeeRoo Information Co., Ltd. |
| Jeong | Wuncheol |  | Electronics and Telecommunications Research Instititute (ETRI) | Electronics and Telecommunications Research Instititute (ETRI) |
| Jillings | Steven |  | Semtech Corporation | Semtech Ltd |
| Jin | Sunggeun |  | Electronics and Telecommunications Research Instititute (ETRI) | Electronics and Telecommunications Research Instititute (ETRI) |
| jo | junho |  | LG ELECTRONICS | <null data field> |
| Joo | Seong-Soon |  | Electronics and Telecommunications Research Instititute (ETRI) | Electronics and Telecommunications Research Instititute (ETRI) |
| Kain | Carl |  | Noblis | Noblis, Inc. |
| Kang | Hyunduk |  | Electronics and Telecommunications Research Instititute (ETRI) | ETRI |
| Kent | Jeritt |  | Analog Devices Inc. | Analog Devices Inc. |
| Khakuria | Prithpal |  | Silver Spring Networks Inc. | Silver Spring Networks Inc. |
| Kim | Bonghoe |  | LG ELECTRONICS | LG ELECTRONICS |
| Kim | Jaeyoung |  | WG802.15 | Electronics and Telecommunications Research Instititute (ETRI) |
| Kim | Myoung | Jin | 802.15.psc | Hankuk University of Foreign Studies |
| Kim | Suhwook |  | LG ELECTRONICS | LG ELECTRONICS |
| King | Jeffrey |  | Elster Electricity, LLC | Elster Solutions, LLC |
| Kinney | Patrick |  | Kinney Consulting LLC | Kinney Consulting LLC |
| Kitazawa | Shoichi |  | ATR Wave Engineering Laboratories | ATR Wave Engineering Laboratories |
| Kohno | Ryuji |  | National Institute of Information and Communications Technology (NICT) | National Institute of Information and Communications Technology (NICT) |
| Kojima | Fumihide |  | National Institute of Information and Communications Technology (NICT) | National Institute of Information and Communications Technology (NICT) |
| Krasinski | Raymond |  | Philips Electronics | Philips Electronics |
| Lan | Zhou |  | National Institute of Information and Communications Technology (NICT) | National Institute of Information and Communications Technology (NICT) |
| Le | Khanh | Tuan | Texas Instruments Incorporated | Texas Instruments Incorporated |
| Lee | Myung |  | CUNY - City University of NY | CUNY - City University of NY |
| Lewis | Daniel |  | NICTA | National ICT Australia Limited (NICTA) |
| Li | Huan-Bang |  | National Institute of Information and Communications Technology (NICT) | National Institute of Information and Communications Technology (NICT) |
| Li | Liang |  | Vinno Technologies Inc. | Vinno Technologies Inc. |
| Lim | Sang-Kyu |  | Electronics and Telecommunications Research Instititute (ETRI) | Electronics and Telecommunications Research Instititute (ETRI) |
| Liru | Lu |  | National Institute of Information and Communications Technology (NICT) | National Institute of Information and Communications Technology (NICT) |
| Lynch | Michael |  | Nortel Networks | MJ Lynch & Associates, LLC. |
| Mason | Robert |  | Elster Solutions | Elster Solutions, LLC |
| McInnis | Michael |  | The Boeing Company | The Boeing Company |
| McPartland | David |  | Toumaz Technology Ltd. | <null data field> |
| Millet | Charles |  | Analog Devices Inc. | Analog Devices Inc. |
| Mirnezami | Siamak |  | SFM Systems | SFM Systems |
| Mori | Kenichi |  | Panasonic | Panasonic Corporation |
| Moskowitz | Robert |  | ICSA Labs/Verizon Business | Verizon |
| Moy | Hamilton |  | Silver Spring Networks Inc. | SSN |
| Myers | Theodore |  | On-Ramp Wireless, Inc. | On-Ramp Wireless, Inc. |
| Naganuma | Ken |  | Toko America Inc. | Toko America Inc. |
| Ngo | Chiu |  | Samsung | SAMSUNG |
| Notor | John |  |  | Notor Research |
| Oh | Mi-Kyung |  | Electronics and Telecommunications Research Instititute (ETRI) | Electronics and Telecommunications Research Instititute (ETRI) |
| Olson | David |  | Landis & Gyr | Landis+Gyr Group worldwide |
| Omeni | Okundu |  | Toumaz Technology Ltd. | Toumaz UK Ltd. |
| Oyama | Satoshi |  | Hitachi Technologies | Hitachi, Ltd. |
| Panchangam | Prasad |  | Applied Micro (AMCC) | Applied Micro (AMCC) |
| Patro | Ranjeet |  | Samsung Electronics | SAMSUNG |
| Poegel | Frank |  | Atmel Corporation | Atmel Corporation |
| Pokrajac | Dalibor |  | Guard RFID Solutions | Guard RFID Solutions |
| Popa | Daniel |  | Itron, Inc. | Itron Inc. |
| Powell | Clinton |  | Southern California Edison Company | Powell Wireless Commsulting, LLC |
| Powell | Richard |  | Zarlink Semiconductor, Inc. | Zarlink Semiconductor, Inc. |
| Pyo | Chang-Woo |  | National Institute of Information and Communications Technology (NICT) | National Institute of Information and Communications Technology (NICT) |
| Ramasastry | Jayaram |  | Silver Spring Networks Inc. | Silver Spring Networks Inc. |
| Reshef | Tamir |  | Microsemi Corporation | Microsemi Corporation |
| Riou | Emmanuel |  | ACCENT Sarl | Accent North America, Inc. |
| Roberts | Richard |  | Intel Corporation | Intel Corporation |
| Rolfe | Benjamin |  | Blind Creek Associates | Independent |
| Sakamoto | Kentaro |  | Tokyo Gas | Tokyo Gas |
| Schwoerer | Jean |  | France Telecom | France Telecom |
| Semichi | Ryad |  | <null data field> | <null data field> |
| Shah | Kunal |  | Silver Spring Networks Inc. | Silver Spring Networks Inc. |
| Shearer | Steve |  | Silver Spring Networks Inc. | Independent |
| Shellhammer | Stephen |  | Qualcomm, Inc. | Qualcomm Incorporated |
| SHIBAGAKI | Nobuhiko |  | Hitachi Ltd. | Hitachi, Ltd. |
| Shimada | Shusaku |  | Yokogawa Co. | Yokogawa Electric Corporation |
| Shin | Chang Sub |  | Electronics and Telecommunications Research Instititute (ETRI) | Electronics and Telecommunications Research Instititute (ETRI) |
| Shin | CheolHo |  | Electronics and Telecommunications Research Instititute (ETRI) | Electronics and Telecommunications Research Instititute (ETRI) |
| Son | Jaeseung |  | Samsung | SAMSUNG |
| Song | Chunyi |  | National Institute of Information and Communications Technology (NICT) | National Institute of Information and Communications Technology (NICT) |
| Stadnik | Paul |  | Micro Systems Engineering, Inc. | MicroSystems Engineering, Inc. |
| Sum | Chin-Sean |  | National Institute of Information and Communications Technology (NICT) | National Institute of Information and Communications Technology (NICT) |
| Sun | Chen |  | National Institute of Information and Communications Technology (NICT) | National Institute of Information and Communications Technology (NICT) |
| Tabroff | Ronald |  | Mueller Systems | Mueller Systems |
| Taylor | Larry |  | DTC & SSN | DTC (UK) |
| Tomcik | James |  | Qualcomm Incorporated | RETIRED |
| Tracey | David |  | WiSAR Lab - Letterkenny Institute of Technology | WiSAR Lab - Letterkenny Institute of Technology |
| Tran | Ha | Nguyen | National Institute of Information and Communications Technology (NICT) | National Institute of Information and Communications Technology (NICT) |
| Van Wyk | Hartman |  | IWG802.15 | Itron Inc. |
| Victor | Dalton |  | Silver Spring Networks Inc. | Silver Spring Networks Inc. |
| Villardi | Gabriel |  | National Institute of Information and Communications Technology (NICT) | National Institute of Information and Communications Technology (NICT) |
| Virk | Bhupender |  | Procubed Inc. | Procubed Inc. |
| Waheed | Khurram |  | Freescale Semiconductor, Inc. | Freescale Semiconductor, Inc. |
| Wang | Junyi |  | National Institute of Information and Communications Technology (NICT) | National Institute of Information and Communications Technology (NICT) |
| Watanabe | Walt |  | Mitsumi Electric Co., Ltd. | <null data field> |
| Weikel | Scott |  | Elster Solutions | Elster Solutions |
| West | Nicholas |  | Landis+Gyr Worldwide | Landis+Gyr Group worldwide |
| Wilbur | Mark |  | Aclara | CWS |
| Won | Eun | Tae | Samsung Electronics | SAMSUNG |
| Yao | Guoliang |  | Southeastern University | <null data field> |