



**Accredited Standards Committee C63®
Electromagnetic Compatibility**

April 18-19, 2012
 Wednesday April 18 – 1:00 pm to 5:00 pm
 Thursday April 19 - 8:30 am to 3:30 pm
IEEE Operations Center - 445 Hoes Lane
Piscataway, New Jersey

Meeting Minutes
Wednesday Afternoon – April 18

1. Call to Order -Chair

1.1. Introductions (roll call)- Secretary

MEMBER	PRIMARY	ALTERNATE
ACIL	Hodes, Harry	John Repella
Alcatel – Lucent	Moongilan, Dheena	Vacant
Apple, Inc.		
ARRL – The Nat’l. Assoc. for Amateur Radio	Hare, Ed	
AT&T - formerly Cingular Wireless		Vacant
Bureau Veritas		Hussain, Mairaj
CISCO Systems	Griffin, Andy	
Dell Inc.		Vacant
Electric Power Research Institute	Keebler, Phil	Vacant
ETS – Lindgren	Chen, Zhong	
Federal Communications Commission		Steve Jones
Food and Drug Administration	Silberberg, Jeffrey L	
Info. Tech. Industry Council – ITIC	Hirvela, John	
Inst. Elect. and Electronics Engrs. - IEEE	Heirman, Don	Vacant
Inst. Elect. and Electronics Engrs. EMCS		
Motorola Mobility	Knipple, Tom	Vacant
Motorola Solutions	Elliott, William [Mac]	
Nt’t Institute Standards & Tech.- NIST	Camell, Dennis	Vacant
Northwest EMC	Ghizzone, Dean	
PCTEST Engineering Laboratory	DennisWard	
Polycom		
Research in Motion (RIM)	Attayi, Masud	
Samsung Telecommunications		
Society of Automotive Engineers	Andersen, Poul	
Sony Ericsson Mobile Communications		

SPAWAR - US Navy	Dilay, Chris	
TIA - Telecomm. Industry Association	Whitesell, Stephen	Vacant
Telecomm. Certif. Body (TCB) Council	Wall, Art	
TUV-America, Inc.		Jim Mills
UL, LLC	DeLisi, Bob	
US Dep't. Defense - Joint Spectrum Ctr.	Shellman, Marcus	Duncanson, Michael
Individual Members:		
INDIVIDUAL Member	Hoolihan, Daniel	None
INDIVIDUAL Member		None
INDIVIDUAL Member	Schaefer, Werner	None
INDIVIDUAL Member	Showers, Ralph	None
INDIVIDUAL MEMBER	Zimmerman, Dave	None
Emeritus Members:		
MEMBER EMERITUS		None
MEMBER EMERITUS		None
MEMBER EMERITUS	Hofmann, H. R. (Bob)	None

1.2. Announcements – Chair – Mr. Hoolihan noted our expanded set of Main Committee meetings this week. (1.5 days)

2. Approval of the Agenda

- 2.1 Approval of agenda- Chair** asked for verbal approval of the agenda.
- 2.2 Presentation of patent slides** (from IEEE [website](#))

3. Special Session on Draft Standards - C63.4 and C63.5

3.1. C63.4 – Camell – Heirman – 1330 – 1430

Mr. Heirman discussed C63.4-201x for the maintenance team. He asked those who have not yet joined the ballot group to do so as the solicitation of the balloting group will close on Friday (April 20). (NOTE Comments must be made only on the comment form. Comments are made on the “clean” copy, but, not the red-lined copy. The whole document can be commented on during the first review; recirculation ballots limit comments to only the changes that were made.)

There have been at least ten versions of the document, all edited with much labor by Tim Harrington. There was an issue about what kinds of images should be placed onto visual displays; scrolling H’s or color bars. After much discussion, a flowchart was implemented showing which images are to be used and under what conditions.

Tablet computers are covered including test setups for these devices.

Hybrid antennas were covered under the revised C63.5, but, C63.4 and C63.5 may not come out at the same time, so Annex N will appear in both Standards. As per the usual practice, undated references are used only for C63 documents, not for externally produced documents.

Additional changes in the DRAFT C63.4 standard include clarifications on site validation above 1 GHz, antenna factors, cable bundling, and text on testing above 1GHz to clarify that aiming the antenna at the source of emissions while performing a full-height scan to find the maxima (-so-called “bore-sighting”) is required.

Clause 13 was removed (since that information is contained in C63.10, Clause A.4) for transmitter testing.

Waveguide horns and double-ridged guide horns are required above 1GHz. Annex B was updated to ensure that both methods of calibrating LISNs yield the same results. A corrected LISN insertion loss procedure and test setup was defined. Use of an extension cord on the LISN is discussed. The LISN impedance now represents the electrical circuit shown in the Standard.

3.2. Afternoon Break – 1430 – 1500

3.3. C63.5 – Brench, Camell, Hodes, Griffin

As per a special request from Colin Brench, he presented “[A Critical Look at Standards and Specifications](#).” He wanted to focus on core topics across Standards and what can be learned for upcoming work?

His presentation covered the following areas: Define all the requirements early; ensure that all users get the same results using a procedure. Define uncertainty, minimize bad interpretations. Avoid double-specifying. Balance advances in technology while ensuring the integrity of the Standard.

He used IEEE 1597 as an example. It was in a fast-moving field that needed focus on the basics. It used new techniques and was well-accepted.

He showed C63 specifications for OATS specification and antennas up to 1GHz. Log-periodic antennas cover 200-1,000MHz but vary from 0.5m deep to over 1.25m in depth. Log-periodic antennas covering down to 80MHz are over 2m deep!

Above 1GHz, horns of all sorts are acceptable but log-periodic arrays are not. We need to specify the antenna properties that are wanted, with reasoning. Multiple antennas may meet the need of the Standard. We usually don’t need to specify antenna designs, however.

Test sites are rarely purely OATS, something is usually in the way. Use of absorber on the ground plane above 1GHz assumes horns, or does it? Define what is needed from the test site independent of the antennas used. Antenna calibration sites may need more specifications in addition to Normalized Site

Attenuation (NSA).

Fully specify what is needed. Avoid double definitions. Avoid definition by example.

Mr. Heirman suggested that we add tolerances to our distances and other variables. Mr. Schaefer agreed, and noted that 5% tolerances were taken from older Military Standards. Mr. Griffin showed a copy of CISPR 32 that indicated a 10% tolerance for many parameters. Mr. Hodes noted that by staying within these tolerances the nominal values in the tables and annexes would remain correct.

Mr. Hodes [presented](#) Annex N of DRAFT C63.5 (201x). Causes of errors for hybrid antennas may be: poor VSWR, different balun designs, size of the test site, or a very large-sized hybrid antenna. In general, the hybrids have greater measurement uncertainty than biconical antenna or log-periodic antennas.

Annex N proposes a technically reasonable qualification procedure for the use of hybrid antennas in making final compliance measurements on products.

Annex N defines what a hybrid is and establishes a reasonable balance between best practices and economic concerns. The physical size of hybrid antennas is restricted to 1.55m long x 1.5m width and 1.5m height. The maximum frequency range proposed was 30MHz – 6GHz. Free-space VSWR must be 10:1 or less. (an attenuator may be used). Required equipment was shown: (OATS, chambers, antenna mast, receiver/analyzer, tripod, coax and sets of “identical” antennas). The test setup and procedure were shown and discussed. The acceptable procedure is test site specific.

Mr. Ghizzone showed [study results](#) that generated the input for Mr. Hodes and Mr. Schaefer’s efforts. A 6dB attenuator was used on all antennas.

Mr. Griffin [showed](#) problem statements, an overview of the process, basic assumptions and test data. He concluded that hybrids provided “good results.”

3.4. Wrap-up and recess the meeting – Mr. Hoolihan thanked the committee for their efforts and recessed the meeting at 4:29PM until the next morning at 8:30AM.

Thursday – April 19 - 2012

4. Roll Call and Membership Report – The Chair (Mr. Hoolihan) called the meeting to order at 8:33AM-EDT. The Chair asked for approval of the consent agenda. Mr. Hare moved to approve, seconded by Mr. Heirman, the Motion was approved. The Secretary (Mr. Ramie) took the roll:

MEMBER	PRIMARY	ALTERNATE
ACIL	Hodes, Harry	

Alcatel – Lucent	Moongilan, Dheena	Vacant
Apple, Inc.		
ARRL – The Nat’l. Assoc. for Amateur Radio	Hare, Ed	
AT&T - formerly Cingular Wireless		Vacant
Bureau Veritas		Hussain, Mairaj
CISCO Systems	Griffin, Andy	
Dell Inc.	Worley, Richard	Vacant
Electric Power Research Institute	Phil Keebler	Vacant
ETS – Lindgren	Chen, Zhong	
Federal Communications Commission		Vacant
Food and Drug Administration	Silberberg, Jeffrey L	
Info. Tech. Industry Council – ITIC	Hirvela, John	
Inst. Elect. and Electronics Engrs. - IEEE	Heirman, Don	Vacant
Inst. Elect. and Electronics Engrs. EMCS		
Motorola Mobility	Knipple, Tom	Vacant
Motorola Solutions	Elliot, William	
Nat’l Institute of Standards & Tech.- NIST	Camell, Dennis	Vacant
Northwest EMC	Ghizzone, Dean	
PCTEST Engineering Laboratory		Dennis Ward
Polycom		
Research in Motion (RIM)		
Samsung Telecommunications		
Society of Automotive Engineers	Andersen, Poul	
Sony Ericsson Mobile Communications		
SPAWAR - US Navy	Dilay, Chris	
TIA - Telecomm. Industry Association	Whitesell, Stephen	Vacant
Telecomm. Certif. Body (TCB) Council	Wall, Art	
TUV-America, Inc.		
UL LLC	DeLisi, Bob	
US Dep’t. Defense - Joint Spectrum Ctr.	Shellman, Marcus	Duncanson, Michael
Individual Members:		
INDIVIDUAL Member	Hoolihan, Daniel	None
INDIVIDUAL Member	Showers, Ralph	None
INDIVIDUAL Member	Schaefer, Werner	None
INDIVIDUAL Member		None
INDIVIDUAL Member		None
Emeritus Members:		
MEMBER EMERITUS	Kesselman, Warren	None

MEMBER EMERITUS		None
MEMBER EMERITUS	Hofmann, H. R. (Bob)	None

Guests were Dan Sigouin, Zhong Chen, Janet O’Neil and Randy Long. 31 organizations + 5 individual members = 36 total. A quorum is 50%; which is 18 or more members in attendance. Quorum was achieved. (23 members attended this meeting)

4.1 Motion – Approve Main Committee Membership – Mr. Heirman moved to approve the member organizations shown in the above table subject to payment of fees no later than **1 June 2012**. Those not paid by then will be removed from the membership list. The motion was seconded by Mr. Hare. The Motion was approved unanimously by voice vote.

Note: The Secretary will mail out Membership Certificates to **paid** members.

5. Subcommittee reports (Brief written reports to include membership approval, actions needed by C63®, and items of particular interest during SC meetings; meeting summary to be sent to C63® Newsletter Editor)

Note: Reports should be provided on the C63® Power Point template to use as an attachment to the minutes and input to the Newsletter editor .

- 5.1. **SC1: Measurement and Instrumentation** - Camell
http://www.c63.org/documents/misc/minutes/April2012/SC1/SC1_20120420_report.pdf . Mr. Camell moved to accept SC1 membership. Since the Motion came from the subcommittee, it needed no second. The SC1 membership was approved unanimously by voice vote. **AI-45:** Mr. Heirman to review C63.7 & C63.12 to ascertain if they should be administratively withdrawn.
- 5.2. **SC2: Definitions** - Shellman
http://www.c63.org/documents/misc/minutes/April2012/SC2/SC2_20120420_report.pdf . Mr. Shellman moved to accept SC2 membership. Since the Motion came from the subcommittee, it needed no second. The membership was unanimously approved by voice vote.
- 5.3. **SC3: International Standardization** - Andersen
http://www.c63.org/documents/misc/minutes/April2012/SC3/SC3_20120420_report.pdf . Mr. Andersen moved to approve the SC3 membership. Since the Motion came from the subcommittee, it needed no second. The membership was unanimously approved by voice vote.
- 5.4. **SC5: Immunity Testing** - Whitesell
http://www.c63.org/documents/misc/minutes/April2012/SC5/SC5_20120420_report.pdf . Mr. Whitesell moved to approve the SC5 membership for 2012. Since the Motion came from the subcommittee, it needed no second. The SC5 membership was unanimously approved by voice vote.
- 5.5. **SC6: Laboratory Accreditation** - Kuczynski
http://www.c63.org/documents/misc/minutes/April2012/SC6/SC6_20120420_report.pdf . Mr. Kuczynski moved to approve the SC6 membership for 2012. Since the Motion came from the subcommittee, it needed no second. The SC6 membership was unanimously approved by voice vote. An amended PINS for

C63.11 (EMC Proficiency Testing) was shown. On a Motion by Mr. Kuczynski coming from the Subcommittee, the Amended PINS was unanimously approved by voice vote.

***** Break *****

5.6. SC7: Unlicensed Personal Comm. Services – Berger
http://www.c63.org/documents/misc/minutes/April2012/SC7/SC7_20120420_report.pdf . Mr. Berger moved to approve the SC7 membership for 2012. Since the Motion came from the subcommittee, it needed no second. Upon his request, Mr. Silberberg was added to the SC7 membership. The amended SC7 membership was unanimously approved by voice vote.

AI-46: Mr. Berger to fill his officer positions on SC7. Mr. Berger moved to approve the PINS for C63.17 based on the subcommittee recommendation. Discussion ensued. The PINS was approved unanimously by voice vote. Mr. Berger moved to approve the PINS for Coexistence Test Methods (C63.27) based on the subcommittee recommendation, discussion ensued. The amended PINS was unanimously approved by voice vote. Mr. Berger moved to approve the PINS-C for Radio Receiver RF Coexistence Design based on the subcommittee recommendation; discussion ensued. The scope was amended and the Motion was then unanimously approved by voice vote.

5.7. SC8: Medical Equipment Testing – DeLisi
http://www.c63.org/documents/misc/minutes/April2012/SC8/SC8_20120420_report.pdf . Mr. DeLisi moved to approve the SC8 membership for 2012. Since the Motion came from the subcommittee, it needed no second. The membership was unanimously approved by voice vote. The scope of Subcommittee 8 was amended by adding an additional comma; the amended scope was approved by voice vote (with one negative vote). Mr. Berger noted that Gert Ravn is now the Vice-Chair.

6. FCC Matters focusing on relations to C63® activity – Hurst/Jones – no report.

7. New Business

7.1. Interpretations

Date	Requestor	e-mail address	Project name
1/15/2010	Don Heirman	d.heirman@ieee.org	C63.4 >1GHz site validation interval
1/15/2010	Don Heirman	d.heirman@ieee.org	C63.4 GSCF equations
1/19/2010	Mike Heckrotte	michael.heckrotte@ccsemc.com	C63.4 LISN diagram
4/21/2010	Art Wall	awall@atlanticbb.net	C63.10 peak excursions
3/31/2010	Werner Schaefer	wernerschaefer@comcast.net	C63.5 bicon frequency interpretation
3/31/2010	Werner Schaefer	wernerschaefer@comcast.net	C63.5 semi-anechoic chamber
5/3/2010	Werner Schaefer	wernerschaefer@comcast.net	C63.4 Use of hybrids above 1GHz
8/24/2010	Bob DeLisi	Bob.Delisi@us.ul.com	C63.4 Calib. Interval reporting
9/1/2010	Dan Hoolihan	Danhoolihanemc@aol.com	C63.5 Standard Antenna Method
10/7/2010	Mike Heckrotte	michael.heckrotte@ccsemc.com	LISN extension cord
10/19/2010	Mike Heckrotte	michael.heckrotte@ccsemc.com	LISN tolerance
5/26/2010	David Cheadle	NPL ??	C63.5 annex A eqn error
	Takashi		
7/27/2010	Maruyama	takashi@anc-tv.ne.jp	C63.5 semi-anechoic chamber

2/16/2011	Benoit Nadeau	cemtech@videotron.ca	C63.4 (2009) cone of radiation
4/18/2011	Jeong-Hwan Kim	kimjh@kriss.re.kr	C63.5 hybrid antenna calibration
5/10/2011	Harry Hodes	hodes@acmetesting.com	C63.4 Passive loop reference Table 1
5/11/2011	Michael Foegelle	Michael.Foegelle@ets-lindgren.com	C63.5 Equation A.1 in Appendix A
6/6/2011	Werner Schaefer	wernerschaefer@comcast.net	C63.4 antenna factor
6/6/2011	Werner Schaefer	wernerschaefer@comcast.net	C63.4 site validation
6/6/2011	Werner Schaefer	wernerschaefer@comcast.net	C63.4 test method
7/21/2011	Jeong-Hwan Kim	kimjh@kriss.re.kr	C63.5 hybrid ant. calibration>1GHz
	Takeshi		
9/9/2011	Yamamoto	yamamoto.takeshi002@jp.panasonic.com	C63.4 ceiling-mounted equipment
	Takashi		
9/26/2011	Maruyama	takashi@anc-tv.ne.jp	C63.5 RAM antenna description
	Mohd Fahmi		
1/6/2012	Abdul Rahim	mohd-fahmi_abdul-rahim@agilent.com	C63.4 Spectrum Analyzer Requirements
1/11/2012	Victor Kuczynski	vican@on.aibn.com	C63.5 Hybrid Antennas 30-1000MHz
2/28/2012	Mike Buzard	mbuzard@a2la.org	C63.5 sections 5.1 and 3.12

Mr. Griffin proposed to amend our operating procedures on Interpretations and Explanations. http://www.c63.org/documents/misc/admin/c63_operating_procedures_2007.htm He felt our procedure was flawed as only a few members of the working group are involved in generating Interpretations and Explanations. He introduced a proposed amendment to our procedures. Mr. Schaefer thought that we should formalize a process whereby all working group members will be notified of any changes. Mr. Hodes thought that we need a way to issue errata, a process for issuing amendments to Standards, and an expeditious process. The Chair noted that we use the phrase “in a timely manner.” Mr. Heirman noted that “60 days” doesn’t have a lot of meaning. He thought that any changes in the Standard should be covered in a new PINS. Mr. Camell had concerns about a timely response from the membership. Mr. Schaefer noted our problems with timeliness and website updates. Maybe a response time constraint might be useful. Mr. Hirvela wanted to know if there was an informal way to propose a change to a Standard and note if any objections were noted. The Chair said there was no “informal” way to make such a change.

Mr. Chen was concerned about the formation of a quorum. Mr. Schaefer also asked if we have to hold up the vote with only one negative vote. Mr. Hodes proposed we use “survey monkey” to handle the balloting and determine quorum. Mr. Camell moved to form a working group to evaluate explanations and interpretations and forward them to the main committee for a vote on a viable change to Clause 11, seconded by Mr. Heirman. The motion was carried unanimously by voice vote. The Chair appointed Mr. Griffin and Mr. Schaefer as co-chairs of the “task force” to recommend changes in our procedures within 30 days.

7.2. WG Membership Fees - Mr. Hare showed newly proposed [meeting participation fees](#). Some WG chairs want to invite experts to help with sections of the document. Observers at working group meetings would be charged \$100. Mr. Knipple suggested three “concurrent” experts rather than three in total. Mr. Berger suggested a less formal approach that would have to pass a “smell test” at the Steering Committee. The Chair suggested a change to the language to indicate “at any one time.” Mr. Elliott suggested a fair share not exceeding \$175 for attending a “special” meeting. Mr. Hare moved that “Individual working

group members would be charged \$550 per each revision of the Standard.” It was seconded by Mr. Hodes. Mr. Heirman suggested that the effective date be June 1, 2012. Mr. Whitesell suggested “each edition” of a Standard as amended wording. The Amended motion passed unanimously by voice vote.

- 7.3. Canada/C63.4 – Dan Sigouin, Industry Canada** – Mr. Sigouin showed [ICES-003 Draft 5, issue 3, May 2012](#) (section 3). One can use either CAN/CSA-CISPR22-10 or C63.4 (2003) with no intermixing to demonstrate compliance under 1GHz. This is the first time Industry Canada has called out C63.4. Section 6.2 gives the upper frequency of radiated measurement.

Mr. Hodes asked why the limits in Section 6 are applicable for CISPR22. Why is Canada using the 2003 version of C63.4? They have been trying to use the newer version, it was reported. Mr. Schaefer asked if there were two different limits. Mr. Sigouin replied, yes, they are different. Mr. Hofmann was glad to know after all these years that we’re finally making an effort to harmonize. Mr. Griffin asked about informative labeling requirements. Mr. Sigouin noted that more labeling was likely, not less.

***** LUNCH *****

8. Administrative Matters

- 8.1. Approval of previous meeting minutes** – The [dnh4](#) version of the [October 2011 Main Meeting Minutes](#) was slightly amended and unanimously approved by voice vote.
- 8.2. Awards – Chair** (none)
- 8.3. Status of active PINS** – Secretariat – Ms. Spiewak showed a [presentation](#): Changes were made by the group in the PINS status table to remove old entries. C63.27 was added. NOTE: All PINS are shown on the [Standards Status Table](#) of the website.
- 8.4. Status of active PINS-C** – Mr. Hare reported that the [status table](#) needs to be cleaned up and it will be taken up at the next meeting in Orange County.
- 8.5. Status of C63® published standards** – Secretariat – Ms. Spiewak showed a [slide on Standard Status](#).
- 8.5.1 Fourth Anniversary standards
- 8.5.2 Ten-years or older standards
- 8.6. Any other administrative matters**
- 8.7. Web Page – Hare** – Mr. Hare reported that he is behind on posting older Minutes. He showed that the [“last meeting” link](#) has posted attachments from this meeting. Mr. Heirman suggested that the [“Upcoming meeting”](#) page be updated to just show dates for the next meeting until it can be populated.

9. Other Business

- 9.1. Future Seminars and Workshops** – Mr. Heirman will lead workshops on Inter-laboratory Comparison and data reduction plus emission measurements to C63.4 and Antenna Calibration to C63.5 during the week before the EMC

Symposium in Pittsburgh. **AI-47:** Each member to pass on the [workshop bulletin](#) from our website to others in their organizations.

9.2 Newsletter report – Mr. Kesselman reported that the latest issue was distributed 12/10/11. The next issue is June 1, with inputs due by May 19. **AI-48:** Mr. Camell to write up a report for the newsletter on our special session this meeting.

9.3. Meeting in October 2012 – Chair

9.3.1 California – Orange County – 23-25 October. Ms. O’Neil reported that the Hilton in Costa Mesa has been chosen as the host hotel for our next meeting. (Note – the meeting date was changed by the Chair after the close of the meeting to October 1-4.)

10. Old Business

10.1 Action item review (on items not covered elsewhere on Agenda) – **Secretary AI-49:** Mr. Heirman to review 5 year cycle on trademark by the next meeting. Consolidated Action Items from the last meeting were shown:

Consolidated Action Items from Main Committee Meeting 10/6/11¹

Action Item #	Subject	Responsible Person	Status	Delivery Date	Comments
AI-1:	The <u>subcommittee chairs</u> are to review the <u>status table</u> for accuracy.	<u>subcommittee chairs</u>	Closed	12/31/11	Forever. Table reviewed by SC8 in May
AI-5:	<u>Mr. Kuczynski</u> to provide web content update to Mr. Hare for posting.	<u>Mr. Kuczynski</u>	Closed	12/31/11	
AI-9:	Bill Stumpf will seek ACIL EMC Lab members to participate in site validation tests	<u>Harry Hodes</u> <u>Bill Stumpf</u>	Closed	Next meeting of C63®	
AI-10:	Ed Hare to modify PINS form currently on the site to become a PINS-C form. Mr. Hare should also install a separate website button to access the list of PINS-C forms on file in the public area.	<u>Ed Hare</u>	Open	Next meeting of C63®	
AI-11:	Secretary to post trademark booklet to our web site.	<u>Ed Hare</u>	Open	Next meeting of C63®	
AI-13:	Secretary and Chair to review PINS-C and remove inactive listings from http://www.c63.org/pw/c63/pinasc/	<u>Ramie Heirman</u> , <u>Hare</u>	Open	Next meeting of C63®	There is no information posted on the public website on PINS-C
AI-16:	Secretary to send reminder to all members of ASC-C63® as to whether they want to reaffirm or change C63.12.	<u>Secretary</u>	Closed	12/8/11	e-mail sent 12/8/11
AI-17:	Mr. Berger to write a letter about C63.19 for distribution to	<u>Mr. Berger</u>	Open	11/30/11	

¹ Consolidated (re-numbered) action items are included here for reference, but are not a part of the minutes.

	accrediting bodies and forward the text to Mr. Heirman.				
AI-18:	All SC Chairs to submit their definitions to Mr. Shellman in SC2 for review.	<u>All SC Chairs</u>	Open	11/30/11	Done at SC8 May meeting
AI-20:	Mr Hare to remove SC6-WG2 from the site and implement updates to bring the content current.	<u>Mr Hare</u>	Closed	11/30/11	
AI-22:	The SC6 Chair will send a note to Mr. Hurst to indicate which "measurement guidance" items have come to conclusion.	<u>Victor Kuczynski</u>	Closed	11/30/11	
AI-25	Secretary to provide PowerPoint template to Mr. Hare for posting. Send announcement to VMC.	<u>Mr. Hare Secretary</u>	Closed	11/30/11	Sent 12/5/11
NEW ACTION ITEMS:					
AI-26:	SC Chairs to look at the WG membership requirements to see if they are applicable to their work.	<u>All SC Chairs</u>	Open	Next meeting of C63®	
AI-27:	Secretary to ask secretariat to ballot reaffirmation of C63.22 by the end of the year.	<u>Secretary Secretariat</u>	Closed	11/30/11	Sent 12/7/11; Initial Ballot is complete (will need recirc)
AI-28:	Chair to send the C63.26 "pre-cal" procedure (when provided) to the FCC Labs for consideration by the end of the year.	<u>Mr. Camell</u> <u>Mr. Heirman</u>	Closed	12/31/11	Mac Elliott and Art Wall are reading the FCC response. This should be part of the FCC report on the C63 agenda next month.
AI-29:	SC2 secretary to work with Mr. Shellman to compose a ballot and to send it out to the SC2 members for approval, then on to the main committee for approval by the end of the year.	<u>Mr. Shellman</u> <u>SC2 Secretary</u>	Closed	12/31/11	
AI-30:	Andy Griffin to speak with VCCI representative as ask if the opinion expressed was a mistake or is the actual opinion.	<u>Mr. Griffin</u>	Closed	Next meeting of C63®	Outgoing Chair was informed. I did speak to the VCCI, in Seoul, they agreed that it should be removed and it has been... http://www.vcci.jp/vcci_e/faq/d/09/1.html#c_tibab
AI-31:	Mr. Griffin will report to the Chair the results of the conversation.	<u>Mr. Griffin</u>	Closed	Next meeting of C63®	Reported to Mr. Hoolihan 3/27/12
AI-32:	Mr. Berger to submit a written report on SC7 activities	<u>Mr. Berger</u>	Closed	11/30/11	See SC7 report
AI-33:	SC Chairs to review content of the Standards Status page this year.	<u>SC Chairs</u>	Closed	12/31/11	
AI-34:	Mr. Hare & Ms. Spiewak to address required changes to our operating procedures stemming from the ANSI audit and will then provide these modified operating procedures as our corrective actions to the secretariat by the end of November for	<u>Mr. Hare</u> <u>Ms. Spiewak</u>	Closed	11/30/11	ANSI approved changes

	forwarding to the ANSI assessor.				
AI-35:	Secretary and secretariat to update the 2011 contract and submit it to the IEEE-SA by the end of the year. This will require that the secretary send out a notice to each subcommittee chair that has particular standards activity to estimate what action will be needed in 2012 on each standard, e.g. amount of editing, need to ballot, etc. This is Table 1 in the contract and the one for the 2011 contract can be used as a template by the Subcommittee Chairs to make changes.	<u>Mr. Ramie</u> <u>Ms. Spiewak</u>	Closed	11/30/11	Sent Table 1 to Secretariat 12/5/11, contract complete
AI-36:	Subcommittee chairs for SC1, SC2, SC5, SC6, SC7, and SC8 to provide updates to Table 1 of the 2011 contract to the secretary and secretariat by the end of the year.	<u>SC Chairs</u>	Closed	12/31/11	SC8 submitted table 3/27, C63.19 has no edits.
AI-37:	Secretariat to provide Secretary and Mr. Hare with our corrective action list.	<u>Ms. Spiewak</u>	Closed	11/30/11	Corrective action list was provided.
AI-38:	Mr. Hare to remove the News and Workshops sections to blank pages while awaiting new material. Mr. Chen suggested that new interpretations / explanations be linked on the "Breaking News" page.	<u>Mr Hare</u>	Open	11/30/11	
AI-39:	Erin to provide presentation on status of active PINS.	<u>Ms. Spiewak</u>	Closed	11/30/11	PINS status was provided. Will provide another report at the April meeting.
AI-40:	Secretary to send an email to C63 [®] members asking if the four maturing standards should be retained or allowed to expire when the 10 year period passes by the end of the year.	<u>Mr. Ramie</u>	Closed	12/31/11	Sent 12/8/11, objection by Werner Schaefer re/ C63.22
AI-41:	Secretary to send the link to "A Professional Life" to vmc63@ieee.org .	<u>Mr. Ramie</u>	Closed	11/30/11	Sent 10/25/11
AI-42:	Mr. Hodes to formally ask the Chair to submit a request to the IEEE for LISN and current probe calibration procedures.	<u>Mr. Hodes</u>	Open	6/1/11	
AI-43:	Members to circulate latest edition of Newsletter in their internal news websites, if allowed, by the first quarter of 2012.	<u>All Members</u>	Closed		
AI-44:	The Secretariat (IEEE) must review the membership status of the unpaid members (Annex A) and submit her findings to the consensus body at the next regular meeting.	Ms. Spiewak	Closed	Next meeting of C63 [®]	Will have to obtain the paid membership status from Michael Windler.

11. Adjournment – The Chair asked for discussion of any open issues. Mr. Hofmann asked for inputs from the membership for additional Awards. The [Awards Criteria](#) is shown on the website, along with a [nominating form](#). Mr. Hoolihan then thanked the Main Committee for their efforts and for attending and adjourned the meeting at 1:34PM-EDT.

Consolidated Action Items from Main Committee Meeting 4/19/12²

Action Item #	Subject	Responsible Person	Status	Delivery Date	Comments
AI-10:	Ed Hare to modify PINS form currently on the site to become a PINS-C form. Mr. Hare should also install a separate website button to access the list of PINS-C forms on file in the public area.	<u>Ed Hare</u>	Open	Next meeting of C63®	
AI-11:	Secretary to post trademark booklet to our web site.	<u>Ed Hare</u>	Open	Next meeting of C63®	
AI-13:	Secretary and Chair to review PINS-C and remove inactive listings from http://www.c63.org/pw/c63/pinasc/	<u>Ramie Heirman Hare</u>	Open	Next meeting of C63®	There is no information posted on the public website on PINS-C
AI-17:	Mr. Berger to write a letter about C63.19 for distribution to accrediting bodies and forward the text to Mr. Heirman.	<u>Mr. Berger</u>	Open	Next meeting of C63®	
AI-18:	All SC Chairs to submit their definitions to Mr. Shellman in SC2 for review.	<u>All SC Chairs</u>	Open	Next meeting of C63®	Done at SC8 May meeting
AI-26:	SC Chairs to look at the WG membership requirements to see if they are applicable to their work.	<u>All SC Chairs</u>	Open	Next meeting of C63®	
AI-38:	Mr. Hare to remove the News and Workshops sections to blank pages while awaiting new material. Mr. Chen suggested that new interpretations / explanations be linked on the "Breaking News" page.	<u>Mr Hare</u>	Open	Next meeting of C63®	
AI-42:	Mr. Hodes to formally ask the Chair to submit a request to the IEEE for LISN and current probe calibration procedures.	<u>Mr. Hodes</u>	Open	6/1/11	
NEW ACTION ITEMS:					
AI-45:	Mr. Heirman to report on C63.7 & C63.12 to ascertain if they should be administratively withdrawn.	<u>Mr. Heirman</u>	Open	Next meeting of C63®	
AI-46:	Mr Berger to fill his officer positions on SC7.	<u>Mr. Berger</u>	Open	Next meeting of C63®	
AI-47:	Each member to pass on the workshop bulletin from our website to others in their organizations.	<u>All members</u>	Open	Next meeting of C63®	
AI-48:	Mr. Camell to write up a report on our special session this meeting.	<u>Mr. Camell</u>	Open	5/19/12	
AI-49:	Mr. Heirman to review 5 year cycle on trademark by the next meeting.	<u>Mr. Heirman</u>	Open	Next meeting of	

² Consolidated (re-numbered) action items are included here for reference, but are not a part of the minutes.

Attachments from Main Committee Meeting 4/18-19/2012³

Agenda Item #	Description	Filename
5.1	SC1 Report	http://www.c63.org/documents/misc/minutes/April2012/SC1/SC1_20120420_report.pdf
5.2	SC2 Report	http://www.c63.org/documents/misc/minutes/April2012/SC2/SC2_20120420_report.pdf
5.3	SC3 Report	http://www.c63.org/documents/misc/minutes/April2012/SC3/SC3_20120420_report.pdf
5.4	SC5 Report	http://www.c63.org/documents/misc/minutes/April2012/SC5/SC5_20120420_report.pdf
5.5	SC6 Report	http://www.c63.org/documents/misc/minutes/April2012/SC6/SC6_20120420_report.pdf
5.6	SC7 Report	http://www.c63.org/documents/misc/minutes/April2012/SC7/SC7_20120420_report.pdf
5.7	SC8 Report	http://www.c63.org/documents/misc/minutes/April2012/SC8/SC8_20120420_report.pdf
7.1	Proposed amendments to operating procedures	http://www.c63.org/documents/misc/admin/c63_operating_procedures_2007.htm
7.2	Working Group membership fees	http://www.c63.org/documents/misc/admin/fee_schedule.html
7.3	Industry Canada presentation	http://c63.org/documents/misc/minutes/April2012/Main/ICES_003_DRAFT_Issue_5_May%202012_FINAL.pdf
8.1	Approved Minutes of previous meeting	http://c63.org/documents/misc/minutes/April2012/Main/Approved_C63_Main_Minutes_2011_10_06.doc
8.3	Status of active PINS	http://c63.org/documents/misc/minutes/April2012/Secretariat/PINS_Stds%20Report%20April%202012%20Mtg.pdf
8.5	Status of Published Standards	http://c63.org/documents/misc/minutes/April2012/Secretariat/PINS_Stds%20Report%20April%202012%20Mtg.pdf
9.1	Workshop bulletin	http://c63.org/documents/misc/minutes/April2012/Main/C63workshop31.pdf

³ Attachments are not a part of the meeting minutes. They may be downloaded from the [Minutes section of the C63.org web page](#).