

Report on FY2006 VCCI Overseas Technical Explanatory Meetings

Technical Subcommittee

Purpose of the meetings

To update VCCI members overseas on the following matters. This year we covered Shanghai for the first time considering rapid increase of VCCI member in the city.

- Key topics in VCCI operations.
- MOU between Japan and the US on mutual acceptance of EMC test report to become effective from April 2007.
- Revision of VCCI rules and requirements
- Direction in CISPR and VCCI's efforts to harmonize with CISPR standards
- Activities of the Technical Subcommittee in FY2006

Presenters (6 persons)

Haruyoshi Nagaswa	VCCI Director
Shozo Satake	Chairman of Technical Subcommittee (Hitachi)
Kunihiro Osabe	Vice-Chairman of Technical Subcommittee (VLAC)
Hiroshi Yamane	Convener of Conducted EMI Measurement Method WG, Technical Subcommittee (NTT) – Only for San Francisco meeting
Chiharu Miyazaki	Convener of Radiated EMI Measurement Method WG, Technical Subcommittee (Mitsubishi Electric)
Jiro Kawano	VCCI Director of Engineering

Trip duration

February 4 – 10, 2007	Taipei, Shanghai and Seoul
March 11 – 14, 2007	US

Date/time and venues of explanatory meeting.

Taipei	13:00 – 16:00Hr, February 5, 2007	at Gloria Prince Taipei
Shanghai	13:00 – 16:00Hr, February 7, 2007	at Okura Garden Hotel Shanghai
Seoul	13:00 – 16:00Hr, February 9, 2007	at Korea Hotel
San Francisco	13:00 – 16:00Hr, March 12, 2007	at Hotel Nikko San Francisco

The number of participants

Taipei: 16, Shanghai: 17, Seoul: 11 and San Francisco: 11

Circulated materials

1. Agenda for VCCI Technical Explanatory Meeting
2. Copies of Presentation Slides
 - VCCI Update
 - Summary of 2007/04 Revision of Rules and Technical Requirement
 - Our Activity in CISPR/SC-I and Implementation of CISPR 22 Edition 5.2 to the VCCI Technical Requirement
 - EMI Measurement above 1GHz
 - Radiated Emission Measurement :Result depend on the position of AC Adapter

Summary of presentations

1. VCCI Update by Mr. Haruyoshi Nagasawa

Mr. Nagasawa said that MOU on mutual acceptance of EMC testing report concomitant with the Japan – US Telecommunication MRA is to be implemented from April 1, 2007 at long last after a painstaking negotiation by VCCI with related government agencies of Japan and US. Mr. Nagasawa walked through the framework and scheme agreed to in the MOU. He concluded his presentation with a remark that it is not sufficient for manufacturers to deliver “safe” product, which is now taken granted in view of social responsibility. They are expected to deliver products that give users a sense of “security.”

2. Summary of 2007/04 Revision of Rules and Technical Requirement by Mr. Shozo Satake

Mr. Satake started out his presentation with an explanation about the new procedure at the time of revision of rules and requirements that allows the use of old rules and requirements in parallel with the new ones for the period of one year (grandfathering). Namely, in one year of FY2007, FY2006 version is regarded valid as well as FY2007 version. He also said that members’ comments collected in review/comment period will be taken into consideration at the time of revision. Technical requirements of FY2007 version will not cover telecommunication ports conducted EMI measurement and EMI measurement beyond 1GHz because transposition of CISPR standards on the subjects into Japanese standards by MIC is delayed. Mr. Satake also talked among others about supplemental conditions for testing prescribed in the technical requirements and the way to handle judgment results of market sampling test.

3. Activities in CISPR committees and efforts to harmonize VCCI Technical Requirements with CISPR standards by Mr. Kunihiro Osabe

Next discussed by Mr. Osabe were activities to harmonize VCCI Technical Requirements with new version of CISPR standards in such areas as the placement method for AC adapter accompanying EUT and telecommunication ports conducted EMI measurement (pending implementation). He said that most of CISPR rules for EUT placement arrangement were those developed based on proposals by VCCI. Also he said two people from VCCI are serving CISPR as an expert and Secretary. Mr. Osabe further discussed VCCI efforts to

include method of measurement of radiated EMI beyond 1GHz in the technical requirements. Towards the conclusion the presenter talked about four contributions of VCCI to CISPR committees.

4. Radiated EMI Measurement beyond 1GHz by Mr. Chiharu Miyazaki

Mr. Miyazaki discussed results of experiments of radiated EMI measurement beyond 1GHz conducted by Radiated EMI Measurement Method WG of VCCI Technical Subcommittee. Topics included were, S/N ratio problem, tips for measurement, parameters setting for spectrum analyzer and relationship between the speed of scanning by spectrum analyzer and speed of turntable rotation.

5. Effects of mode of AC adapter placement to EMI measurement results by Mr. Jiro Kawano (Asia) and Mt. Hiroshi Yamane (US)

The presenters reported on activities of Conducted EMI Measurement Method WG of VCCI Technical Subcommittee with focus on experiments conducted to study effects of mode of AC adapter placement to radiated EMI measurement as opposed to previous experiments on conducted EMI measurement based on placement method specified in CISPR22 5th edition. Key finding shown in graphs was, field intensity of radiated EMI in the case of AC adapter placed on the table is a bit stronger than that in the case of placement on the ground plane.

6. Qs & As

As far as revision content of VCCI technical requirements is concerned only few questions were raised seemingly because CISPR22 5th edition based on which VCCI revision is well understood by the audience. However, the audience showed much interest in implementation schedule for the revised requirements. Since it was the first time to hold a technical explanatory meeting in Shanghai a lot of basic questions about such matters as VCCI itself and EMI measurement were raised, which we believed was good for establishing communication with the audience. What follows is major Qs & As.

Taipei

Q1: I understand that once the MOU becomes effective I can use a simple facility registration procedure for products certified at an NVLA/A2LA accredited laboratory. Is this understanding correct?

A1: Please follow the rule for registration. All you have to do is to file a form filled in.

Q2: This is about the valid period of old requirements extended for one year. Suppose I register a product in 2007 as conforming to FY2006 requirements what shall I do about it in 2008?

A2: If there is no change in product specifications you do not have to re-register a product once registered. Namely your registration will remain valid after 2008.

Q3: In arrangement for EMI measurement beyond 1GHz why is measurement conducted at 1m which is not included in the rules?

A3: If you measure at 3m it is likely you miss noise signal because it is weak. So idea is to first measure at 1m to determine the frequency and then go with 3m. This way you can carry out efficient measurement.

Q4: Do you include measurement convention indicated in the A3 in the technical requirements?

A4: No, but we plan to post it in the VCCI website as part of a technical report.

Q5: What about MOU with Taiwan?

A5: So far there is no plan. The MOU this time was made possible because the US government recognized VCCI as a proxy of Japanese government. If a similar agreement is built up with Taiwan MOU with Taiwan is possible. In fact we plan to expand the scheme to other countries.

Shanghai

Q1: Do you use 40cm table for the measurement of conducted EMI?

A1: Yes, if the reference metal plane is horizontal. 80cm table is used if the reference metal plane is vertical. In this case 40cm space shall be secured between the table and the plane.

Q2: If AC cord of an AC adapter is shorter than 80cm, is the adapter hung in the air?

A2: Yes. Either that or the adapter can be put on a stage made of styrofoam.

Q3: In EMI measurement beyond 1GHz can you measure a large equipment in a small measurement site?

A3: VCCI Technical Requirements do not cover measurement of large equipment although it is prescribed in CISPR standards. We plan to revise the requirements to enable the measurement of large ITE. Please refer to it when released. (Idea is, a site is allowed to measure equipment within a given scope which is determined in site evaluation in terms of the maximum dimension of EUT measurable in the site.)

Q4: The requirement says that the height of absorber shall be lower than 30cm for the measurement of EMI from a floor-standing equipment. If I only have absorber of 50cm high what shall I do?

A4: You will have to raise the equipment by 20cm.

Q5: The requirement says that the thickness of insulator on which a floor-standing EUT is placed shall be less than 15cm in EMI measurement below 1GHz. Is this requirement applicable to EMI measurement beyond 1GHz?

A5: In measurement beyond 1GHz, free space is assumed. Therefore, you can use insulator of any thickness.

Q6: I have an AC adapter whose AC cable is shorter than 80cm. How shall I treat the AC cable in the measurement?

A6: Please arrange the placement of the AC adapter in such a way that the AC cable is vertically oriented. Please refer to the technical requirements for details.

Q7: When I have to place an AC Adapter on the floor, shall I use insulator?

A7: The revised technical requirements say that AC adapter is no longer placed on the floor.

Q8: Which side, top side or back side, of an AC adapter should be faced up?

A8: As prescribed in the technical requirements the side to generate more noise shall be faced up.

Q9: In EMI measurement beyond 1GHz where shall I place absorber for EUT smaller than the turntable?

A9: Please refer to the technical requirements as to how to place absorber inside the turntable.

Q10: Why AC adapter with short AC cable shall be hung in the air?

A10: VCCI Technical requirements reflect CISPR deliberation on this matter.

Q11: Why dipole antenna is referenced?

A11: As is explained in a report of Information and Communication Committee of MIC this is because logical analysis has been completed only for dipole antenna.

Q12: Is radio equipment out of VCCI scope?

A12: Radio equipment are regulated by the Electric Wave Law in Japan. Therefore, they are out of VCCI scope in Japan as described in Chapter 3 of Rules for Voluntary Control Measure.

San Francisco

Q1: Is the MOU effective from April?

A1: We accept certificates of product conformity in the same way for new and renewal registration of measuring facilities from April.

Q2: NVLAP/A2LA accredit testing laboratories to FCC requirements. Is this status okay for MOU?

A2: It is necessary to confirm a testing laboratory is accredited by NVLAP/A2LA to VCCI technical requirements.

Q3: What is implied in concrete dB range by “correlate well” between dipole antenna and broadband antenna?

A3: It is up to member companies to decide in the consideration of measurement uncertainty.

Q4: Is Kit Module measurement standardized in IEC?

A4: At parts level IEC-61967 prescribes Integrated Circuits, Measurement of Electromagnetic Emission, 150KHz to 1GHz..

Q5: I have an old ISN in use. Is it possible to keep using the same for three years from now?

A5: It is a plan of VCCI to abolish the rule for relaxation of upper limits 10dB for 6MHz and above in three years down the road. We will study if use of old ISN is acceptable after that.

Q6: VCCI Technical Requirements says that the cable that generate maximum emission shall be used if there are multiple cables selectable for an EUT. What shall I use in such a case?

A6: The members should select one based on measurement results.

Q7: You did a study on average measurement for EMI beyond 1GHz. In that study you considered setting for VBW. Why did you do so when CISPR16-1-1 prescribes the setting for average measurement?

A7: Our study this time is on measurement by spectrum analyzer. That is why.

(Pictures: meeting scenes)



Taipei



Shanghai



Seoul



San Francisco

Summary

Technical explanatory meetings this time focused on grandfathering rules in transition from one version to the next of technical requirements, content of new version of VCCI technical requirements based on CISPR22 5th Edition and Edition 5.2 and MOU between Japan and US on mutual acceptance of EMC testing results which goes with Japan – US Telecommunication MRA. The MOU scheme drew a lot of attention of audience because US members' measuring facilities registration is simplified as VCCI accepts test reports issued by testing laboratories in the US accredited to VCCI technical requirements by NVLAP/A2LA.

We think various revisions and changes becoming effective from April 2007 are accepted by members as explained in the explanation circuit this time.

We were impressed by cooperation, enthusiasm and serious interest in VCCI affairs shown by the audience.