
**Committee of Participants on the Expansion of Trade in
Information Technology Products**

OVERVIEW OF SURVEY RESPONSES

Note by the Secretariat¹

Revision

At its meeting of 24 April 2003, the Committee of Participants on the Expansion of Trade in Information Technology Products requested the Secretariat to update a summary of the responses to the survey on EMC/EMI (G/IT/22). The four questions to the survey are reproduced below, along with the summary of the results, followed by a compilation of the 24 survey responses received thus far.

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- 1. a) Does your government have mandatory technical requirements for electromagnetic interference of Information Technology equipment? If so, please identify.**

Of the 24 responses to this question, 18 respondents indicated that their government had mandatory technical requirements for electromagnetic interference of IT equipment. However, in one instance these requirements did not cover most ITA products. In another case, a general statement was made to the effect that with the coming into force of a new law, technical requirements for IT products had become mandatory. With respect to the second part of this question, the 18 respondents identified their national regulations which provided the mandatory technical requirements.

Six respondents indicated that their governments had no mandatory technical requirements for electromagnetic interference of IT equipment. However, one of these noted that operators must use equipment or build their infrastructure in accordance with ITU standards or standards of any other organization recognized by that Member. Another of the six respondents indicated that radiocommunication equipment was subject to type approval testing, but the standard used was not indicated. One other respondent noted that the adoption of CISPR standards was being undertaken by the national standards body.

- b) Are these requirements harmonized with CISPR 22? If not, please explain the current requirements.**

Of the 18 participants that had mandatory requirements, 14 participants indicated that these requirements were harmonized with CISPR 22. For one respondent, the requirements were harmonized for "Line Conducted Emissions", but for "Radiated Emissions" the requirement was to comply with the FCC general radiated emission limits, or as an alternative, it could be shown to comply with CISPR 22. One other respondent stated that CISPR 22 would be considered along with

¹ This document has been prepared under the Secretariat's own responsibility and without prejudice to the positions of Members and to their rights and obligations under the WTO.

IETS standards. Another respondent indicated that the use of the Harmonized European standard, which in principle was identical to CISPR 22, was voluntary and manufacturers were free to seek other technical solutions aligned with international standards. The remaining respondent stated that the requirements were in conformity with Directive 89/336/EEC of the European Communities.

Of the six participants that did not have mandatory requirements, one of them indicated that in the event of discrepancy between the ITU standard and CISPR 22, the ITU standard would prevail. Another stated that the requirements were only voluntary based on CISPR22, FCC Part. 15 and on European EN standards. Two other respondents noted that CISPR 22 had been harmonized in their national standards. The two remaining respondents indicated that this question was not applicable, as there were no requirements.

2. a) Does your government have mandatory technical requirements for electromagnetic immunity of Information Technology equipment? If so, please identify.

Of the 24 responses to this question, 9 respondents indicated that their government had mandatory technical requirements for immunity of IT equipment, and identified the national regulations which provided the mandatory technical requirements.

Fourteen respondents indicated they did not have mandatory technical requirements for electromagnetic immunity of IT equipment. However, one of these respondents indicated that radio communication equipment was subject to type-approval testing.

The remaining participant indicated the application of the ITU standards without mentioning whether they were mandatory or not.

b) Are these requirements harmonized with CISPR 24? If not, please explain the current requirements.

The nine respondents which had responded that their governments had mandatory technical requirements indicated that these requirements were harmonized with CISPR 24. One of these stated that CISPR 24 would be considered along with IETS standards. One of them noted that the use of the harmonized European standard, which would be identical to CISPR 24, was voluntary and manufacturers were free to seek other technical solutions aligned with international standards.

Of the fourteen participants that did not have mandatory technical requirements, seven of them indicated that the question was not applicable, and two indicated there were no current requirements. One indicated that CISPR was not yet harmonized as a national standard. Another one stated that the national standard was harmonized with CISPR 24. Of the remaining three respondents, two stated that CISPR 24 was applied voluntarily and the other one indicated the IEC/EN 61000 standard was applied voluntarily.

The remaining respondent mentioned the application of ITU standards but did not give further information about it.

3. a) What conformity assessment procedure for electromagnetic compatibility (EMC/EMI), which includes both interference and immunity, does your government require for approval of information technology products?

It was difficult to produce a summary of the responses given the fact that they varied depending on national policies and procedures; see the individual responses in the following table.

b) May suppliers perform these procedures (e.g. testing, declaration of conformity), or must third parties perform these procedures?

Eleven respondents answered "Yes". However, one respondent specified that for certain products the test facility must be accredited by a third party, and another if their testing laboratories were accredited based on ISO/IEC guidelines. Four of these respondents indicated that participation of a third party was, however, possible if the manufacturer had not applied harmonized standards or these were not available or the participant's own standards were not applied.

Six respondents answered "No". However, one of the six respondents stated that it was studying the possibility of accepting self-declared certificates by recognized manufacturers in the future.

Three responses noted that the question was not applicable given the response to question 3)a).

In two cases, indications were given that the producer may issue the declaration of conformity assessment, but that the testing should be performed by third parties.

In another case, depending on the product the supplier could perform the procedures or might have to obtain a certificate of conformity assessment issued by a third-party.

One response was not clear.

c) What international guidelines or standards, if any, are those procedures based on? If not, what guidelines or standards are they based on?

Of the 24 participants, 7 respondents answered that the procedures were based on ISO international standards. However, one of these respondents stated that the application of ISO international standards was only relevant in case of third party intervention. Furthermore, another of these six respondents noted that for voluntary requirements of EMI either CISPR 22 or the VCCI Agreement was used.

Another five respondents had adjusted their procedures to European standards, particularly to Directive 89/336/ECC or CE/99/05. Two of these 4 respondents noted that full harmonization with European standards would take place by the end of 2002 and 2003 respectively.

Another two respondents based their procedures on ITU standards. One of them used ETSI standards as well.

One respondent stated that the testing laboratories were accredited and followed ISO/IEC procedures.

Another two respondents based their procedures on a combination of international standards. One of them used EN, CISPR, IEC and AS/NZS standards. The second one mentioned the application of FCC, CISPR and IEC/EN standards.

Among three other respondents, one participant indicated that it based its procedures on the Substantial Requirements and Assessment of the Conformity for Electromagnetic Compatibility (Regulation of Council of Minister No. 203/01). Another respondent adjusted the procedures to IETS/CISPR standards. Another respondent noted that the procedures were based on international standards and guidelines.

The remaining four respondents indicated that this question was not applicable.

4. Has your regulatory authority received any complaint or had any problems regarding the EMC/EMI aspects of the approved information technology products? If yes, how frequent? And please identify the nature of the complaint/problem.

Of the 24 responses to this question, 16 respondents answered that their regulatory authority had no problems/complaints regarding the EMC aspects of approved IT products. One noted that they did not have a regulatory authority for EMC issues.

One respondent stated that the question was not applicable.

The remaining 7 participants indicated that they had problems/complaints regarding EMC aspects of IT products. However, the respondents did not keep statistics or had no further information about the frequency of the problems/complaints, except one participant that estimated that there were 100 cases every year. Only four participants identified the nature of the complaint/problem. One of them stated that most interference problems were related to dealer assembled PC's and the wide range of permutations of components and peripherals. The second one stated that most of the complaints were related to interference caused by equipment that did not satisfy the relevant international standard. The third one indicated that the problems were caused by products which were not modified to comply with the approval testing. A fourth indicated occasional problems with the performance of telephone equipment.

SURVEY RESPONSES

Question 1 a) Does your government have mandatory technical requirements for electromagnetic interference of Information Technology equipment? If so, please identify	
Participant	Response
Australia	<p>The Australian Communications Authority (ACA) has mandatory technical requirements for electromagnetic interference from Information Technology Equipment.</p> <p>Under the ACA's Electromagnetic Compatibility Regulatory Arrangements, suppliers have to satisfy four basic requirements. They must establish sound technical grounds for product compliance; make and hold a Declaration of Conformity; prepare and keep compliance records and label the product as directed. There are three Levels of Compliance (Compliance Levels 1, 2 and 3) in accordance with the level of risk posed by the products to other equipment. Information technology equipment fall under Level 2 Compliance.</p> <p>Level 2 Compliance requires a completed Declaration of Conformity, product description and a test report or Technical Construction File (TCF). Information Technology Equipment supplied into Australia has to demonstrate compliance with the relevant standard for IT equipment which is the joint Australian and New Zealand EMC standard AS/NZS 3548 or its international equivalent, EN 55022 or CISPR 22.</p>
Bulgaria	Yes, these requirements are contained in the Instruction on the Substantial Requirements and Assessment of the Conformity for Electromagnetic Compatibility adopted by Regulation of the Council of Ministers N° 203 of 29 August 2001.
Canada	Yes. Interference-Causing Equipment Standard ICES-003, Digital Apparatus. A copy and additional information can be obtained at " http://strategis.ic.gc.ca/SSG/sf01347e.html#LRT "
El Salvador	No. The telecommunications legislation provides that operators must use equipment or build their infrastructure in accordance with ITU standards or standards of any other organization recognized by El Salvador.
European Communities	The R&TTE and EMC Directives regulate EMC and EMI aspects in the Community. These Directives lay down general and essential safety and protection requirements with which products must comply. They do not prescribe specific technical requirements but, a general reference is made to harmonised European standards, which when applied give presumption of conformity with the essential requirements. However, the use of harmonised European standards is voluntary and manufacturers are free to seek other technical solutions. These standards are in general aligned with international standards, unless there are pertinent reasons to deviate from them. The Dresden and Vienna agreements ensure coherence between the work of CEN and CENELEC with the work of ISO and IEC, whereas there is also co-operation between the ITU and ETSI.
Hong Kong, China	Yes. Control of interference is regulated under the Subsidiary Regulations of the Telecommunications Ordinance, Chapter 106B (Control of Interference). Chapter 106B specifies the limits of radiated interference from Information Technology equipment.
India	No.

Japan	Yes. Electrical Appliance and Material Safety Law provides for mandatory technical requirements related to electromagnetic interference for some electrical products based on the document, WT/MIN(96)/16. However, the Law doesn't cover most IT products including the products/components under HS headings 8471, 8517, 8544 and 9027.
Jordan	The relevant Jordanian authority (Telecommunications Regulatory Commission/TRC) does not have a mandatory technical requirement for electromagnetic interference of IT equipment.
Korea	Yes, Information Technology equipment should meet the technical requirements for EMI. They are regulated under the two Acts of the "Korea Radio Waves Act" and the "Electrical Appliances Safety Control Act". Items that are regulated under the "Korea Radio Waves Act" include computers, computer peripherals, and internal components of computers. Nine items including monitors, printers, and duplicators are regulated under the "Electrical Appliances Safety Control Act".
Lithuania	Lithuanian Technical Regulation on Electromagnetic Compatibility transposing the provisions of European Communities Council Directive 89/336/EEC (including electromagnetic interference requirements) came in force in Lithuania 1 st January 2002. The requirements of the Regulation are mandatory in Lithuania for all the equipment manufactured or placed on Lithuanian market. These requirements apply also for IT equipment.
Macao, China	At present, we have no mandatory technical requirements for electromagnetic interference of Information Technology equipment; however, radiocommunication equipments are subject to type approval testing.
Mauritius	With the coming into force of the new ICT Act on 1 June 2002, technical requirements for IT products have become mandatory. So far technical requirements have been approved by the Authority against IETS Standards.
New Zealand	Yes – pursuant to regulation 32 of the Radiocommunications Regulations 2001 all electrical and electronic equipment, including information technology equipment (ITE), must comply with electromagnetic interference (EMI) standards. For a full description of the regulatory framework see http://www.med.govt.nz/rsm/standards/index.html
Norway	Yes, covered by Regulation on Electrical equipment and Regulations on EEA-requirements for radio and telecommunications terminal equipment. The regulations are based on the EMC-directive (89/336/EEC) and the R&TTE-directive (1999/5/EC) respectively.
Philippines	There are no current mandatory requirements. The adoption of CISPR standards is being undertaken by the Bureau of Product Standards (BPS) Technical Committee (TC). (BPS is the national standards body).
Romania	The R&TTE and EMC Directives transposed as Government Decisions regulate EMC and EMI aspects in Romania in the same way as in European Union. These Directives lay down general and essential safety and protection requirements with which products must comply. The list of harmonized standards published in the Official Journal was transposed through order submitted by the Minister of Communications and Information Technology. The use of standards is voluntary and manufacturers are free to seek other technical solutions.
Singapore	Yes, Singapore has mandatory technical requirements for electromagnetic interference of telecommunication equipment. These requirements are specified in the document "IDA TS EMC (March 2000) – EMC Requirements for Telecommunication Equipment".

Slovak Republic	Mandatory conformity assessment procedure for electromagnetic compatibility is based on the directive No. 89/336/EEC on electromagnetic compatibility (EMC). Till 31.12.2002 Test Reports will be issued by third, independent party (authorized person) as a consequence of transition period of the Slovak Republic in the process of harmonization of technical regulations with regulations of the EU.
Switzerland	Yes. The mandatory requirements are based on recommendation SN EN55022 (emission), and where applicable SN EN 61000-3-2 and SN EN 61000-3-3.
Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu	The Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu has mandatory technical requirements for electromagnetic interference of Information Technology equipment. They are required to meet the requirements of the Chinese National Standard (CNS) 13438.
Thailand	Thai Industrial Standards Institute (TISI) is planning to enforce the TIS 1956-1999 regulation, Information Technology Equipment: Radio Disturbance Limits, as a mandatory standard (for personal computers) in 2003.
Turkey	Yes, the Turkish Telecommunications Authority requires the manufacturers to comply with the electromagnetic interference requirements set forth in the R&TTE Directive of the European Community, whose transposition work into Turkish legal order is about to be finalized. The draft Regulation on radio and telecommunications terminal equipment, transposing EU's R&TTE Directive is expected to be published in the Official Journal soon. The Ministry of Industry and Trade has published the Regulation on electromagnetic compatibility, transposing EU's EMC Directive in the Official Journal on 2.6.2002 to enter into force on 2.6.2003.
United States	<p>The Federal Communications Commission (FCC) has mandatory technical requirements for electromagnetic interference from Information Technology equipment. The requirements are found in 47 CFR Part 15.</p> <p>Information Technology equipment is classified as "unintentional radiators" and is required to comply with conducted emission limits (§15.107) and radiated emission limits (§15.109).</p>
Question 1 b) Are these requirements harmonized with CISPR 22? If not, please explain the current requirements.	
Australia	The EMC requirements for Information Technology Equipment are fully harmonised with CISPR 22. A supplier will be able to use a test report that demonstrates compliance with CISPR 22 for the Declaration of Conformity. No further EMC testing is required for the supply of products to Australia.
Bulgaria	Yes, Bulgarian State Standard EN 55022/2001 introduces the requirements of CISPR 22.
Canada	Yes. They are currently harmonized with CISPR 22, ed.#2.
El Salvador	No. There is explicit harmonization, since in the event of discrepancy between the ITU standard and CISPR 22, the ITU standard prevails.
European Communities	Harmonised standards are based on international standards. EN 55022 is the European harmonised standard and is identical to CISPR 22.

Hong Kong, China	The limits of radiated emissions of Information Technology equipment in Chapter 106B are the same as the requirements in CISPR 22.
India	Voluntary based on CISPR22, FCC Part 15 and EN standards.
Japan	The technical requirements are harmonized to CISPR22.
Jordan	There are no current requirements.
Korea	Yes, EMI standards are currently harmonized with CISPR 22.
Lithuania	The technical requirements for EMC disturbances of Information Technology equipment are harmonized with CISPR 22 and are defined in Lithuanian Standard LST EN 55022:2000 which supports implementation of the Technical Regulation.
Macao, China	Not applicable, refer to 1(a).
Mauritius	We are informed that CISPR 22 and CISPR 24 will be considered along with the IETS Standards.
New Zealand	Yes, for ITE.
Norway	The requirements in Europe are harmonised as EN 55022, and are in force in Norway as NEK-EN 55022. EN 55022 is based on CISPR 22.
Philippines	CISPR 22 has been harmonized by the Philippines as PNS IEC CISPR 22:2000.
Romania	Romanian standard SR EN 55022:2001 is harmonized with CISPR 22.
Singapore	Yes, these requirements harmonized with CISPR 22.
Slovak Republic	The technical requirements framework of the Slovak Republic is in conformity with the framework of the EU. The directive 89/336/EEC has been transposed to the Governmental Order No. 393/1999 and final technical solution is based on the Slovak technical norm STNen 55022.
Switzerland	Yes. The Norm SN EN 55022 is harmonized with CISPR 22.
Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu	These technical requirements are harmonized with CISPR22.
Thailand	The TIS 1956-1999 has been harmonized with CISPR 22 (based on ISO/IEC) Guide 21(1999).

Turkey	Yes, the European harmonized standard EN 55022, for which a general reference exists in the R&TTE Directive and application of which is voluntary according to the said Directive, is identical to CISPR 22.
United States	<p><i>Line Conducted Emissions</i> The EMC line conducted emission requirements for Information Technology Equipment are harmonised with CISPR 22.</p> <ul style="list-style-type: none"> Since the power supply of Information Technology equipment may be designed to operate at different power line frequencies or voltages, testing is to be performed separately for conducted emissions with each different power supply that will be installed in the equipment when marketed in the United States or, when a power supply that can operate in different mode, i.e., can accommodate various power line voltages and frequencies, with the Information Technology equipment operating in each mode suitable for connection to the AC power service in the United States. <p><i>Radiated Emissions</i> Information Technology Equipment is allowed to comply with the FCC general radiated emission limits or as alternative may be shown to comply with the limits for radiated emission in CISPR 22 (1997).</p> <ul style="list-style-type: none"> The test procedure referenced in the FCC Rules (§15.31) continues to apply to the testing of ITE when using the CISPR 22 limits. Depending on the frequency of operation of the Information Technology equipment, measurements may be required to be performed above 1000 MHz (§15.33) to demonstrate that Information Technology equipment complies with the FCC limits. (§15.109)
Question 2 a) Does your government have mandatory technical requirements for electromagnetic immunity of Information Technology equipment? If so, please identify.	
Australia	Australia has no mandatory technical requirements for electromagnetic immunity of Information Technology Equipment.
Bulgaria	Yes, these requirements are contained in the Instruction on the Substantial Requirements and Assessment of the Conformity for Electromagnetic Compatibility adopted by Regulation of the Council of Ministers N° 203 of 29 August 2001.
Canada	No, there are no mandatory immunity requirements.
El Salvador	Those provided for in the ITU standards.
European Communities	The Directives mentioned above also regulates immunity.
Hong Kong, China	No. We do not specify interference immunity requirement in Chapter 106B as it will depend on design of the equipment to work in the intended environment.
India	No.
Japan	Electrical Appliance and Material Safety Law doesn't provide any technical requirement related to electromagnetic immunity.

Jordan	The TRC does not have a mandatory requirement for electromagnetic immunity for IT equipment.
Korea	Yes, Information Technology equipment should meet the technical requirements for electromagnetic immunity (or susceptibility), based on either the "Korea Radio Waves Act" or the "Electrical Appliances Safety Act".
Lithuania	Lithuanian Technical Regulation on Electromagnetic Compatibility transposing the provisions of European Communities Council Directive 89/336/EEC (including electromagnetic immunity requirements) came in force in Lithuania on 1st January 2002. The requirements of the Regulation are mandatory in Lithuania for all equipment manufactured or placed on Lithuanian market. These requirements apply also for IT equipment.
Macao, China	At present, we have no mandatory technical requirements for electromagnetic immunity of Information Technology equipment; however, radiocommunication equipments are subject to type approval testing.
Mauritius	With the coming into force of the new ICT Act on 1 June 2002, technical requirements for IT products have become mandatory. So far technical requirements have been approved by the Authority against IETS Standards.
New Zealand	No – immunity standards are voluntary.
Norway	Yes, covered by Regulation on Electrical equipment and Regulations on EEA-requirements for radio and telecommunications terminal equipment. The regulations are based on the EMC-directive (89/336/EEC) and the R&TTE-directive (1999/5/EC) respectively.
Philippines	There are no current mandatory requirements. The adoption of CISPR standards is being undertaken by the Bureau of Product Standards (BPS) Technical Committee (TC). (BPS is the national standards body).
Romania	The Governmental Decision that transposes EMC and EMI directives also regulates immunity.
Singapore	Technical requirements for electromagnetic immunity of Telecommunication equipment are not mandatory.
Slovak Republic	The mandatory technical requirements for electromagnetic immunity are based on the same regulation as stated in 1.a) above and the conformity assessment procedure is also the same.
Switzerland	Yes. The mandatory requirements are based on recommendation SN EN 55024 (immunity).
Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu	At present, there is no mandatory technical requirement for electromagnetic immunity of Information Technology equipment.
Thailand	There are no current mandatory standards for electromagnetic immunity of information technology equipment.

Turkey	Yes, the Turkish Telecommunications Authority requires the manufacturers to comply with the electromagnetic immunity requirements as explained in point 1a.
United States	The United States has no mandatory technical requirements for electromagnetic immunity of Information Technology equipment.
Question 2 b) Are these requirements harmonized with CISPR 24? If not, please explain the current requirements.	
Australia	No, as immunity requirements are not mandatory, compliance with CISPR 24 is voluntary.
Bulgaria	Yes, Bulgarian State Standard EN 55024/2001 introduces the requirements of CISPR 24.
Canada	Not applicable.
El Salvador	No further information is available on this standard.
European Communities	Harmonised standards are based on international standards. EN 55024 is the European harmonised standard and is identical to CISPR 24.
Hong Kong, China	Not applicable.
India	Voluntary based on IEC/EN 61000 series standards.
Japan	Not applicable.
Jordan	There are no current requirements.
Korea	Yes, EMS standards are currently harmonized with CISPR24.
Lithuania	The technical requirements for EMC immunity of Information Technology equipment are harmonized with CISPR 24 and are defined in Lithuanian Standard LST EN 55024:2000 which supports implementation of the Technical Regulation.
Macao, China	Not applicable, refer to 2(a).
Mauritius	We are informed that CISPR 22 and CISPR 24 will be considered along with the IETS Standards.
New Zealand	Not applicable.
Norway	The requirements in Europe are harmonised as EN 55024, and are in force in Norway as NEK-EN 55024. EN 55024 is based on CISPR 24.
Philippines	CISPR 24 is not yet harmonized as PNS.

Romania	Romanian standard SR EN 55024:2001 is harmonised with CISPR 24.
Singapore	Not applicable.
Slovak Republic	These requirements are in conformity with CISPR 24, which has been completely transposed in original wording.
Switzerland	Yes. The Norm SN EN 55024 is harmonized with CISPR 24.
Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu	Not applicable.
Thailand	There are no current mandatory standards for electromagnetic immunity of information technology equipment.
Turkey	Yes, the European harmonized standard EN 55024, for which a general reference exists in the R&TTE Directive and application of which is voluntary according to the said Directive, is identical to CISPR 24.
United States	No, as immunity requirements are not mandatory, compliance with CISPR 24 is voluntary.
Question 3 a) What conformity assessment procedure for electromagnetic compatibility (EMC/EMI), which includes both interference and immunity, does your government require for approval of information technology products?	
Australia	<p>The conformity assessment procedure consists of product testing to the standard's limits of conducted and radiated emissions. Amongst the various different forms of EMC/EMI, only conducted and radiated limits of emissions are mandatory.</p> <p>The regulatory arrangements is a self-declaration model using the Supplier's Declaration of Conformity (SDoC). Manufacturers and importers are responsible for testing their products against the applicable technical standard, the compliance records and the labelling of products with the Compliance Mark before products are placed on the market. The ACA does not require products to be submitted for governmental approval.</p> <p>The Technical Construction File (TCF) can be used in circumstances where it is not feasible to have the product tested.</p>
Bulgaria	The conformity of the information technology products with respect to their electromagnetic compatibility is ascertained by signing a declaration by the person that launches the products on the market.
Canada	<p>Industry Canada (the Government of Canada department responsible for EMC/EMI) employs self-declaration of conformity for electromagnetic interference compliance.</p> <p>Proof of compliance is required (to be made available upon request), but no registration/submission to Industry Canada is required.</p> <p>Label requirements are mandatory.</p>

El Salvador	In this case, only compliance with the ITU standard is required; if type-approval is required, it is enough for the applicant to submit certification from a recognized international laboratory.
European Communities	The Directives are based on manufacturers declaration of conformity without the need to seek approval from a public authority or a recognised private body. In some cases, the opinion of a 3 rd party needs to be sought, but only where a manufacturer has not applied harmonised standards or these are not available.
Hong Kong, China	We do not establish EMC/EMI conformity test procedures. In addition, neither certification nor labelling is required for demonstrating the equipment's compliance with EMC requirements. However, manufacturers or equipment suppliers should ensure that their products are in compliance with the EMC requirements, which are based on CISPR 22.
India	Through test reports based on Testing by third party.
Japan	<p>Under the term of EMC, there are Electromagnetic Interference(EMI) and Immunity.</p> <p>i) EMI</p> <ul style="list-style-type: none"> - <u>Mandatory Requirements</u> As for the products covered by Electrical Appliance and Material Safety Law, of which supplier performs self-declaration and/or obtains certificate of conformity assessment issued by third-party conformity assessment body and puts the mark on the product. - <u>Voluntary Requirements</u> Voluntary Control Council for Interference by Information Technology Equipment(VCCI) which is a non-governmental organization provides conformity assessment procedure for all other information technology products besides some items which are subject to the law. <p>ii) Immunity There is no conformity assessment procedure for immunity under Electrical Appliance and Material Safety Law and the VCCI.</p>
Jordan	The TRC does not have any related conformity assessment procedures.
Korea	<p>To acquire EMC registration for Information Technology products that are regulated under the "Korea Radio Waves Act", suppliers must receive a test report from a designated test laboratory, and apply for certification to the Radio Research Laboratory (RRL), which is a government organization.</p> <p>For items that are regulated under the "Electrical Appliances Safety Control Act", a safety certification from a certification body designated for mandatory safety testing should be obtained. Such certification bodies are: 1) Korea Testing Laboratory, 2) Korea Electric Testing Institute, and 3) Electromagnetic Research Institute.</p>
Lithuania	According to Technical Regulation on Electromagnetic Compatibility the manufacturer or importer of the IT equipment after testing it according to the harmonized standards for EMC disturbances and immunity shall prepare EU Declaration of Conformity. The "CE" mark shall be affixed on the product. The documents shall be kept at least 10 years after the last date of placing of the product on the market and can be checked by Lithuanian Market Surveillance Institution. If necessary, the Lithuanian Market Surveillance Institution can take off products from market for testing of EMC characteristics in Lithuanian accredited institutions or laboratories.

Macao, China	Under current practice, rigorous testing is not imposed on the data communications terminal equipment, but the technical characteristics have to comply with the international standards. With regard to the type approval of radiocommunication equipment, the standards performed for the testing are referred to the International standards as ITU or ETSI.
Mauritius	The Authority has no EMC/EMI test facility.
New Zealand	Supplier self-declaration and product labeling. Full mutual recognition with Australia applies to labelled products.
Norway	Norway follows the conformity assessment procedures according to Directive 89/336/EEC, Directive 73/23/EEC and Directive 1999/5/EC.
Philippines	There is no such assessment procedure being implemented at the moment for EMC/EMI.
Romania	The Governmental Decision 88/2003 and the Governmental Decision 497/May 9, 2003 that transpose the directives are based on manufacturers declaration of conformity without the need to seek approval from public authority or a recognised private body. When a manufacturer has not applied harmonized standards or these are not available, 3 rd party opinion is needed.
Singapore	Tests reports from accredited testing laboratories for conformity assessment of EM Interference for approval of telecommunication equipment.
Slovak Republic	Information technology products are being tested for electromagnetic conformity as follows: A third party (authorized person) performs the tests, issues Test Report and the producer or importer issues Declaration of Conformity Assessment. It is a combination of Modul a) and Modul b) of Modul Concept of conformity assessment.
Switzerland	<p>According to the Swiss Ordinance on electromagnetic compatibility, the following conformity assessment procedures are applicable to all information technology products:</p> <ul style="list-style-type: none"> a) Declaration of conformity drawn up by the manufacturer (self-certification); b) Technical file drawn up by the manufacturer which includes a technical report or certificate issued by a competent assessment body if the manufacturer has not or partially used harmonized standards as a base for the conformity assessment procedure. <p>In relation to radio transmitters and to telecommunications terminal equipment, the following complementary conformity assessment procedures from the Swiss Ordinance on telecommunication equipment apply:</p> <ul style="list-style-type: none"> a) Internal production control; b) Internal production control plus specific apparatus tests; c) Technical construction file (internal production control, specific apparatus tests and examination of the file by a competent conformity assessment body); d) Full quality assurance. <p>The choice of the correct procedure is the responsibility of the manufacturer. It depends on the following criteria: type of equipment; existence of harmonized technical standards officially designated by the Swiss Federal Office of Communication (OFCOM) and their application for the conformity assessment procedure by the manufacturer.</p>

Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu	For IT products, the importers and local manufactures must first obtain test reports from the designated testing laboratories recognized by the Bureau of Standards, Metrology and Inspection (BSMI). The BSMI will issue EMC certificate after reviewing the test reports. The products can then follow the normal procedure for customs clearance and be placed on the market for sale.
Thailand	There are no current mandatory technical requirements which includes both interference and immunity.
Turkey	The conformity assessment procedure is described in the R&TTE Directive. The Telecommunications Authority makes documentary checks to determine whether the required conformity assessment procedures have been applied correctly by the manufacturer.
United States	<p>Information Technology Equipment is required to be authorized prior to the initiation of marketing using either the Declaration of Conformity or Certification procedure defined in the FCC Rules. The supplier of the equipment may select either procedure to demonstrate compliance with the FCC Rules.</p> <p>The Declaration of Conformity procedure allows the supplier to declare compliance to the FCC Rules based on testing performed by a recognized accredited testing laboratory.</p> <p>The Certification procedure allows Information Technology equipment to be certified to the FCC Rules by a recognized Telecommunication Certification Body (TCB).</p>
Question 3 b) May suppliers perform these procedures (e.g. testing, declaration of conformity), or must third parties perform these procedures?	
Australia	Yes, an in-house test report is acceptable and suppliers can undertake the testing and Declaration of Conformity (SDoC). It is not necessary for third parties to perform these procedures.
Bulgaria	Participation of a third party is possible if the conformity with the substantial requirements is ascertained by reviewing the technical documentation, in case Bulgarian standards are not applied.
Canada	Manufacturers may choose testing at their own facility or by a third party. Test laboratory accreditation is not required.
El Salvador	No. The procedure described in 2 must be followed for this purpose.
European Communities	See response under a).
Hong Kong, China	Not applicable.
India	Third party performs test and issues test report to the supplier for conformity assessment in India and abroad.

Japan	<p>i) EMI</p> <ul style="list-style-type: none"> - <u>Mandatory Requirements</u> Supplier's self-declaration and/or third-party conformity assessment. It depends on the product, which is specified according to Electrical Appliance and Material Safety Law. - <u>Voluntary Requirements</u> In case of VCCI, it is self-declaration of suppliers. Testing must be performed by VCCI registered laboratory. <p>ii) Immunity There is no requirement or standards regarding procedures for testing and declaration of conformity. It is up to supplier's judgment</p>
Jordan	Not applicable.
Korea	Test procedures need to be performed by a designated test laboratory or certification body (those listed above) that are engaged in testing the compliance of technical criteria needed for EMC registration.
Lithuania	No third parties involvement in equipment testing or preparation of Conformity Declaration is required in Lithuania for the IT equipment.
Macao, China	Those testing for type approvals should be performed by the Office for the Development of Telecommunications and Information Technology, however, we might accept certificate of type approval from some countries, and now we are also studying the possibility of accepting self-declared certificates by recognized manufacturers in the future.
Mauritius	However, suppliers of IT products are and will be required to produce from a third party, a declaration of conformity to the IETS/CISPR Standards.
New Zealand	Suppliers may perform these procedures, however for Group 2 ISM and telecommunications terminal equipment (TTE), the test facility must be accredited by IANZ (refer http://www.ianz.govt.nz/) or by an accreditation body having a mutual recognition arrangement with IANZ.
Norway	Suppliers may perform these procedures.
Philippines	Not applicable at the moment.
Romania	When a manufacturer has not applied harmonized standards or these are not available, 3 rd party opinion is needed.
Singapore	Suppliers can perform these procedures if their testing laboratories are accredited based on ISO/IEC Guide 17025.
Slovak Republic	Producer or importer issues Declaration of Conformity Assessment, which is based on the Test Report issued by a third independent party (authorized person) on the basis of performed tests.

Switzerland	<p>In the following answer, we assume that the supplier is the manufacturer of the equipment.</p> <p>The above-mentioned procedures a) through f) are carried out by the manufacturer. This also includes any testing as required. In relation to the procedures b), e) and f), the manufacturer needs to consult notified bodies in relation to assuring proper compliance. The establishment of a declaration of conformity by the manufacturer under his own responsibility applies to all of the above-mentioned procedures a) through f).</p>
Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu	There are 19 items of IT products announced to be applicable to the declaration of conformity procedure from January 2002. However, product testing should be carried out by a designated testing laboratory recognized by the BSMI.
Thailand	There are no current mandatory technical requirements which includes both interference and immunity.
Turkey	Under the R&TTE Directive, testing and declaration of conformity by the supplier is possible, however, if the supplier chooses not to apply harmonized standards or there are no harmonized standards, third party opinion is sought.
United States	Yes, testing by an in-house recognized accredited laboratory is acceptable and suppliers can undertake the testing and Declaration of Conformity (DoC). It is not necessary for third parties to perform these procedures.
Question 3 c) What international guidelines or standards, if any, are those procedures based on? If not, what guidelines or standards are they based on?	
Australia	The procedures are based on European (EN), International (CISPR and IEC) and Australian/New Zealand (AS/NZS) standards.
Bulgaria	The procedures are contained in the Instruction on the Substantial Requirements and Assessment of the Conformity for Electromagnetic Compatibility.
Canada	Procedures are based on ISO/IEC Guide 22, General criteria for supplier's declaration of conformity.
El Salvador	Primarily the ITU standards.
European Communities	This question is in principle not relevant for the EC legislation mentioned above since the conformity assessment procedure is the manufacturers' declaration of conformity. However, in the cases a third party can or does intervene, European standards and procedures are aligned with international guidelines and standards, e.g. ISO 17025, ISO/IEC Guides 61 and 65 (the corresponding European standards are identical to these).
Hong Kong, China	Not applicable.
India	Guidelines or standards followed are FCC, CISPR, IEC/EN standards.

Japan	<p>i) EMI</p> <ul style="list-style-type: none"> - <u>Mandatory Requirements</u> ISO based - <u>Voluntary Requirements</u> Technical and testing requirements are harmonized to CISPR 22. Declaration of conformity is harmonized to VCCI Agreement. VCCI Agreement requires its member companies to have their products testing performed by VCCI registered site then to submit the conformity verification report. Products where conformity is verified can be indicated with a "VCCI label/mark". <p>ii) Immunity There is no conformity assessment procedure for immunity under Electrical Appliance and Material Safety Law and the VCCI.</p>
Jordan	Not applicable.
Korea	The procedures are based on the international standards of the ISO 17025.
Lithuania	The procedures are based on EC Council Directive 89/336/EEB.
Macao, China	The standards performed for the testing are referred to the International standards such as ITU or ETSI.
Mauritius	However, suppliers of IT products are and will be required to produce from a third party, a declaration of conformity to the IETS/CISPR Standards.
New Zealand	ISO based. (refer http://www.ianz.govt.nz/)
Norway	<p>The procedures are based on:</p> <ul style="list-style-type: none"> - Relevant directives from EU - Guide to the implementation of directives based on New Approach and the Global approach issued by EU - Guide to the application of directive 89/336/EEC
Philippines	Not applicable at the moment.
Romania	Romanian standards are aligned with European guidelines and standards (e.g. SR ISO 17025).
Singapore	The testing laboratories are accredited and follow procedures in accordance with ISO/IEC Guide 17025.
Slovak Republic	Conformity assessment procedure as mentioned in 3) b) will be in force temporarily till 31.12.2002 as an integral part of transition period within harmonization of Slovak technical regulations with technical regulations of the EU.
Switzerland	The guideline for the procedure is based on the Decree on Telecommunications Equipment (OIT; RS 784.101.2), which transposes the European Community Directive CE/99/05.

Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu	Laboratory accreditation is based on ISO/IEC 17025.
Thailand	There are no current mandatory technical requirements which includes both interference and immunity.
Turkey	The guidelines and standards those procedures are based on are identical to relevant international guidelines and standards.
United States	For products using the declaration of conformity procedure, testing is to be performed by a testing laboratory accredited to ISO/IEC 17025. For products using the certification procedure, the third-party certification body is accredited to ISO/IEC Guide 65.
Question 4 Has your regulatory authority received any complaint or had any problems regarding the EMC/EMI aspects of the approved information technology products? If yes, how frequent? And please identify the nature of the complaint/problem.	
Australia	No. The ACA has not received any complaints regarding the EMC/EMI aspects of the approved IT products.
Bulgaria	The Bulgarian regulatory authority has not received any complaints regarding the EMC/EMI aspects of the approved information technology products.
Canada	Occasionally. Industry Canada does not keep specific records or statistics of complaints/problems.
El Salvador	No complaint of this kind has been received since the Telecommunications Law 1997 came into force.
European Communities	European market surveillance authorities regularly take non-complying products from the market or prescribe other measures in view of preventing recurrence of non-compliance. The measures taken must be in proportion to the risks/non-compliance identified.
Hong Kong, China	No, we have not received any complaints of interference caused by Information Technology equipment.
India	No EMC regulatory authority applicable in India.
Japan	We have not received any complaint and problems regarding the EMC/EMI aspects of the ITA products/components.
Jordan	The TRC has not received any complaint or had any problem regarding the EMC/EMI aspects.
Korea	Occasionally. Specific statistical records on complaints/problems are not kept on an industry-wide basis.
Lithuania	There are no complaints as for EMC aspects of the approved Information Technology products.
Macao, China	No.

Mauritius	We are also informed that no complaint has been received regarding the EMC/EMI aspects of approved IT products.
New Zealand	Most interference problems encountered with ITE relate to dealer assembled PC's from components and peripherals. The wide range of permutations in this regard lead to interference situations that are generally addressed on a case-by-case basis.
Norway	The relevant Norwegian authorities handle some hundred EMC/EMI related complaints each year. No statistics on the nature of the complaints exists. However, most of the complaints are related to interference caused by equipment that is not in accordance with conformity statements and labelling of the equipment, i.e. that the equipment does not satisfy a relevant harmonised standard for EMC/EMI.
Philippines	Not yet applicable due to the situation described in all the above.
Romania	No, there are no complaints received.
Singapore	Received occasional reports of poor immunity performance of telephone equipment.
Slovak Republic	Respective regulatory authority of the Slovak Republic has not yet recorded any relevant objections or difficulties with conformity assessment for electromagnetic compatibility of information technology products. Since 1.1.2003 the procedure of conformity assessment will be the same as the procedure in the EU.
Switzerland	We have been involved in various instances of that nature. However, no specific causes of statistical relevance have been observed so far.
Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu	So far, we have not yet received any complaints or any problems regarding the EMC aspects of the approved information technology products.
Thailand	No.
Turkey	Currently the statistical studies regarding complaints about telecommunications are under way, statistics on complaints about EMC/EMI aspects of information technology products do not exist. However, after the entry into force of the draft Regulation mentioned above, statistical data will be formed for all information technology product groups, including EMC/EMI aspects, to be used in market surveillance activities.
United States	No, we are not aware of any complaints.