Know Your Standards

Revision time

Having completed the reviews of the CISPR and IEC 61000 series EMC standards, it's time to go back to the beginning to see what has changed since late in 2011.

CISPR 16

Because this standard now has so many Parts and Sections,always something is changing. About 10% of all BSI committee documents about EMC Basic standards are actual CISPR comment or voting documents on some piece of CISPR 16, and the total number of CISPR 16-related documents, including collated National Committee comments, voting reports and Information documents, represents about 40% of all such documents relating to EMC Basic standards! Not everyone agrees that this is a good thing.

Transferring methods of measurement to CISPR 16

In the past, CISPR committees other than CISPR/A have developed methods of measurement and put them into their own standards, such as CISPR 22/EN 55022, produced by CISPR/I. CISPR policy is now that almost all such texts should be in CISPR 16, particularly as CISPR 13 and 22 will be superseded by CISPR 32, and CISPR 20 and 24 will be supersede by CISPR 35. This has resulted in a very large number of changes to the standards, with very little actual change as far as testing and conformity are concerned.

Addition of new methods of measurement

New methods of measurement are continually being introduced, some in attempts to increase accuracy and/or improve repeatability, and some intended to reduce test time. There is, however, resistance to changes that appear to offer less benefit than can be reconciled with the cost of new test equipment.

Table 1 is a list of the main new documents on CISPR 16 circulated to National Committees since November 2011. Reports of voting, Documents for Comment and Information Documents are not included.

Table 1 CISPR 16 documents

Title	Status	Final publication (Forecast)
CISPR 16-2-1 Amd2 Ed.2: Transfer of AAN requirements and general conducted emissions requirements from CISPR 22	CDV	2013-03
CISPR 16-2-3 Amd2 f2 Ed.3: Transfer of general radiated emissions requirements from CISPR 22	CDV	2013-02
CISPR 16-1-1 Amd2 Ed.3: Requirements for calibration of measuring equipment	CD	(2014-01)
CISPR/TR 16-3 Amd1 Ed. 3.0 Transfer of content from CISPR 22 to CISPR/TR 16-3 Ed. 3.0	CD	2012-08
CISPR/TR 16-3 Amd1 Ed. 3.0 Transfer of content from CISPR 22	DTR	2012-08
CISPR 16-1-1 Amd2 f2 Ed 3.0 Requirements when using an external preamplifier with a measuring receiver	CD	(2014-01)
CISPR 16-1-5 Amd2 Ed.1; Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-5; Radio disturbance and immunity measuring apparatus - Antenna calibration test sites for 30 MHz to 1 000 MHz	CD	(2014-02)
CISPR 16-2-3 Amd2 f1 Ed.3; Revision of CISPR 16-2-3 on the application of CMADs	CDV	2012-11
CISPR/TR 16-4-5 Amd1 Ed.1 Conversion factor for the CDNE for conducted disturbance measurements from 30 MHz to 300 MHz	CD	(2014-02)
CISPR 16-1-6 Ed1 - Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-6 - Radio disturbance and immunity measuring apparatus - EMC-antenna calibration	CD	(2014-02)
CISPR 16-1-4 Amd1 Ed.3 Introduction of reference site method (RSM)	FDIS	2012-07
CISPR 16-1-5 Amd1 Amendment related to the introduction of Reference Site Method (RSM)	FDIS	2012-06
CISPR 16-1-2 Amd3 f1 Ed.3; Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-2: Radio disturbance and immunity measuring apparatus – Coupling devices for conducted disturbance measurements	CDV	(2013-08)
CISPR 16-1-2 Amd3; Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-2; Radio disturbance and immunity measuring apparatus - Coupling devices for conducted disturbance measurements	CDV	(2013-08)

CISPR 16-2-1 Amd3; Specification for radio disturbance and immunity measuring apparatus and methods - Part 2-1; Methods of measurement of disturbances and immunity - Conducted disturbance measurements	CDV	(2013-08)
CISPR 16-4-2- Amd1; Specification for radio disturbance and immunity measuring apparatus and methods - Part 4-2 Uncertainties, statistics and limit modelling - Measurement instrumentation uncertainty	CDV	(2013-09)
CISPR 16-2-1 Amd2; Specification for radio disturbance and immunity measuring apparatus and methods-Part 2-1 Methods of measurement of disturbances and immunity - Conducted disturbance measurements	FDIS	2013-03
CISPR 16-2-3 Amd2 f1; Revision of CISPR 16-2-3 on the application of CMADs	CDV	2012-11
CISPR/TR 16-4-5 Amd1; Conversion factor for the CDNE for conducted disturbance measurements from 30 MHz to 300 MHz	CD	(2014-02)
CISPR 16-1-6 Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-6 radio disturbance and immunity measuring apparatus - EMC-antenna calibration	CDV	(2014-02)
CISPR 16-1-5 Amd2 ; Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-5 Radio disturbance and immunity measuring apparatus - Specifications and validation procedures	CDV	(2014-06)
CISPR 16-1-1 Amd2 f2; Requirements when using an external preamplifier with a measuring receiver	CDV	(2014-07)

Some abbreviations in the Table need explanation:

Amd – amendment

f1, f2 – 'fragments'. These are individual proposals for change which are progressed to the CDV stage and then, if accepted, consolidated into one amendment at the FDIS stage.

CD – Committee Draft for comments by National Committees

CDV – Committee Draft for Vote; the first stage voting document.

It isn't practicable to discuss each of these documents in detail, and it would be pushing the envelope of what is allowed by BSI to appear in a publication anyway. Documents can be obtained through trade associations that are represented on the BSI committee, which in this case is GEL/210/12 (but it doesn't cover all EMC matters).

Drafts for Public Comment

BSI's Charter and CENELEC rules require that the public is given an opportunity to comment on standards before the final vote.

Drafts for Public Comment (DPCs) on British Standards of national origin (i.e. not BS EN, BS IEC and BS ISO) can be reviewed free-of-charge on-line by registering at http://drafts.bsigroup.com/ Other DPCs can be discovered in BSI's on-line monthly magazine *Update Standards*, which is available at http://shop.bsigroup.com/en/Navigate-by/Membership/Update-Standards-PDF/ and you can buy the drafts as hard copy.

How the voting documents and comments on them are processed

These procedures are less well-known and understood than is desirable.

Comments can be submitted with either a positive or a negative vote. The rules are in Part 1 of the ISO/IEC Directives, which are downloadable free from the IEC web site www.iec.ch:

A positive vote may be accompanied by editorial or technical comments, on the understanding that the secretary, in consultation with the chairman of the technical committee or subcommittee and project leader, will decide how to deal with them.

If a national body finds an enquiry draft unacceptable, it shall vote negatively and state the technical reasons. It may indicate that the acceptance of specified technical modifications will change its negative vote to one of approval, but it shall not cast an affirmative vote which is conditional on the acceptance of modifications.

FDIS – Final Draft International Standard; the final voting document for National Committees to register their approval or otherwise. The rules about comments are:

Technical reasons for negative votes are submitted to the technical committee or subcommittee secretariat for consideration at the time of the next review of the International Standard.

However, this is modified by a later text, indicating that the comments are considered immediately if the vote is not passed;

If the final draft International Standard is not approved, the document shall be referred back to the technical committee or subcommittee concerned for reconsideration in the light of the technical reasons submitted in support of the negative votes.

Errors identified in the FDIS text are dealt with in this way:

The secretariat of the technical committee or subcommittee has the responsibility of bringing any errors that may have been introduced in the preparation of the draft to the attention of the office of the CEO by the end of the voting period; further editorial or technical amendments are not acceptable at this stage.

Next time

We will start to look at the changes in the huge IEC 61000-4 series since the original reviews began in March 2012.

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