



NSAI

ANNUAL REPORT 2023

**NSAI TECHNICAL COMMITTEES
(NSAI/ETC/TC 16 -
ELECTROMAGNETIC
COMPATIBILITY)**

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1 Chairman's Statement

NSAI/ETC/TC 16 continues to be strongly supported by Irish industry and the relevant CENELEC and IEC committees are highly active.

A lot of the current work at IEC level is focused on new compatibility issues. These include conducted emissions in the frequency range 9 kHz to 150 kHz. This is to improve EMC for equipment such as mains communicating systems, electricity meters and clocks supplied by public mains supply systems against disturbances generated by equipment such as switching power converters, switch mode power supplies, photovoltaic inverters, etc. The IEC is also working on developing radiated test methods in this band to apply to wireless power transfer products.

Consideration is also being given to the compatibility of systems to new higher frequency communications such as 5G at frequencies above 6 GHz.

In Europe, the EC presented the evaluation of the EMC Directive during the year. The main conclusion was that the directive does not need to be revised, as it is still relevant, effective, efficient, coherent, and has EU added value.

The EC, via the Harmonised Standards Consultants (HAS), is working hard to approve standards that are required to support the EU Directives. New issues that have arisen regarding standards includes the use of the word “tolerance” in EMC standards. The HAS Consultants and the EC have now accepted that there was a misunderstanding on this issue and the process is moving forward.

An issue has also arisen regarding the impact of Measurement Uncertainties (MU) on the limits. The EC now accepts that MU are unavoidable, and it was agreed that in EMC standards the MU shall be stated but not used in the determination of compliance.

CENELEC TC210 has taken action to remove the manufacturer’s right to set performance criteria and the EC has accepted this as sufficient.

Issues still to be resolved includes equivalence of alternative test methods. The Commission stated that most harmonised standards should only have one test method for each phenomenon. Where equivalent test methods are included in a standard the burden of proof is on the TC to provide evidence showing equivalence of the results generated by the test methods.

The CENELEC joint committee on Cybersecurity Management Systems has produced three draft standards to meet the needs of the delegated act published under the Radio Equipment Directive. The EC has delayed the CE Marking Requirements until August 1, 2025 to allow these standards to pass through the system.

John McAuley

Chair of NSAI/ETC/TC 16.

2 Introduction

NSAI/ETC/TC 16 focus on standardization related to electromagnetic compatibility across the entire frequency spectrum. Consideration extends to all aspects of the ability of equipment or a system to function satisfactorily in its electromagnetic environment without introducing intolerable electromagnetic disturbances to anything in that environment.

3 Scope of TC

NSAI/ETC/TC 16 prepare European standards in the field of electromagnetic compatibility across the entire frequency spectrum.

Standards are available from www.standards.ie.

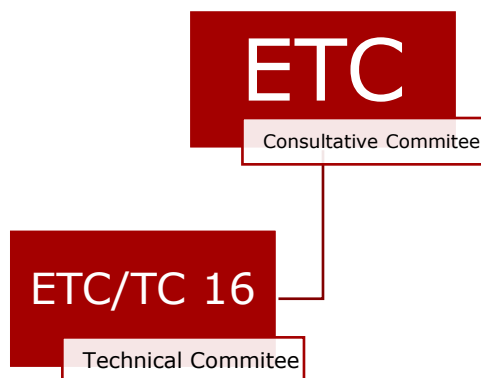
The committee mirrors the following international committees:

CLC/TC 210	Electromagnetic Compatibility (EMC)
CLC/TC 8x	System aspects of electrical energy supply
CLC/TC 47x	Semiconductor devices
CLC/TC 62	Electrical equipment in medical practice
IEC/TC 77	Electromagnetic compatibility
IEC/CISPR	International special committee on radio interference
IEC/TC 8	System aspects of electrical energy supply Related to 50160
IEC/TC 62	Medical equipment, software, and systems Related to 60601-1-2
IEC/TC 65	Industrial-process measurement, control and automation Related to 61326
IEC/TC 47	Semiconductor devices

4 Structure and Membership

4.1 Structure

The Figure below illustrates the structure of the Committee:



4.2 Irish Industry/Sector

NSAI/EC/TC 16 is made up of manufacturers of electrical and electronic equipment, test houses, consultants, utilities, notified body, regulator, academia and equipment users.

4.3 Members

The table below provides the names of the committee members for the year 2023:

Organisation	Role
2RN	National committee member
Analog	National committee member
Apple	National committee member
Becton Dickinson	National committee member
CEI	National chairperson
Dell	National committee member
E.M.T.	National committee member
EirGrid	National committee member
Independent	National committee member
Intel	National committee member
IRTS	National committee member
Medtronic	National committee member
NSAI	National secretary
Qorvo	National committee member
R-P-G	National committee member

5 Summary of 2023 Activities

5.1 National

5.1.1 Meetings

Committee Members attended the following Virtual National meetings:

Meeting No.	Date	Minutes Reference
1	2023-04-21	N0851
2	2023-12-11	N0870

5.1.2 National Work

It was intended to hold at least two national committee meetings and attend TC meetings during 2023. This work was completed.

5.2 International/Regional

5.2.1 Meetings

Committee Members attended international CENELEC (CLC) and IEC meetings as follows:

Committee Name	Location	Date	No. of Attendees
CLC TC 210 Plenary	Brussels	2023/04/24-25	1 (F2F) 2 (virtual)
CLC TC 210 Interim Plenary	Virtual	2023/09/29	2
CLC TC 210 Plenary	Virtual	2023/12/13-14	3
IEC/CISPR/CIS/I	Virtual	2023/11/07	1
IEC/TC 47 Plenary	Germany	2023/11/17	1

IEC/TC 47/SC 47A Plenary	Germany	2023/11/16	1
IEC/TC 47/SC 47A/WG 2	Germany	2023/11/13-17	1
IEC/TC 47/SC 47A/WG 7	Germany	2023/11/13-17	1
IEC/TC 47/SC 47A/WG 9	Germany	2023/11/13-17	1
CLC BTWG 154-1	Virtual	2023/01/27	1
CLC BTWG 154-1	Virtual	2023/12/07	1

5.2.2 International/Regional Work

The Chair travelled to the CENELEC TC 210 Plenary meeting in Brussels in April 2023 with two Irish members joining this meeting virtually. Several members attended both IEC and CLC plenary meetings and working group meetings as listed in 5.2.1.

5.2.3 International/Regional Voting Results

NSAI/ETC/TC 16 propose a vote where required for IEC or CENELEC documents, which NSAI submits to the relevant bodies.

The committee have actively voted on 27 documents in 2023 and have submitted 10 sets of comments.

Active votes were broken down as 18 for IEC documents and 9 for CENELEC documents.

CLC/TC 210	Electromagnetic Compatibility (EMC)	Voted 9 times
CLC/TC 8x	System aspects of electrical energy supply	Voted 0 time
IEC/TC 77A	EMC - Low frequency phenomena	Voted 3 times
IEC/TC 77B	High frequency phenomena	Voted 2 times
IEC/CISPR	International special committee on radio interference	Voted 3 times
IEC/CIS/A	Radio-interference measurements and statistical methods	Voted 1 time
IEC/CIS/B	Interference relating to industrial, scientific and medical radio-frequency apparatus, to other (heavy) industrial equipment, to overhead power lines, to high voltage equipment and to electric traction	Voted 5 times
IEC/CIS/F	Interference relating to household appliances tools, lighting equipment and similar apparatus	Voted 1 time
IEC/CIS/H	Limits for the protection of radio services	Voted 2 times
IEC/CIS/I	Electromagnetic compatibility of information technology equipment, multimedia equipment and receiver	Voted 1 time
IEC/TC 8	TC 8 Related to 50160	Voted 0 time
IEC/TC 62	TC 62 Related to 60601-1-2	Voted 0 time
IEC/TC 65	TC 65 Related to 61326	Voted 0 time
IEC/TC 47	Semiconductor devices	Voted 0 time

Body	Vote Reference	Comments Submitted	Decision	WIID
CLC	EN IEC 61000-6-3:2021/prA1:2022 (Frag 2)	No	Approve	74852
CLC	prEN 55035:2022	No	Approve	69037
CLC	EN IEC 61000-3-2:2019/prA2:2023	No	Approve	76451
CLC	prEN IEC 55011:2023	No	Approve	71535

CLC	EN IEC 55015:2019/prA1:2023	No	Approve	73696
CLC	FprEN IEC 61000-4-6:2023	Yes	Approve	70268
CLC	prEN IEC 61000-2-4:2023	No	Approve	72202
CLC	FprEN IEC 55011:2023	No	Approve	71535
CLC	EN 55016-2-3:2017/FprA2:2023	No	Approve	66860
IEC	CIS/H/459/CDV	No	Approve	
IEC	CIS/I/659/CDV	No	Approve	
IEC	CIS/B/816/Q	Yes	Approve	
IEC	77A/1161/CDV	No	Approve	
IEC	CISPR/1499A/Q	Yes	Approve	
IEC	CISPR/1500/Q	Yes	Approve	
IEC	CIS/A/1391/FDIS	No	Approve	
IEC	CIS/B/817/Q	Yes	Approve	
IEC	CIS/B/821/Q	Yes	Approve	
IEC	CIS/B/820/CDV	No	Approve	
IEC	CIS/F/837/CDV	No	Approve	
IEC	77B/861/CD	Yes	Approve	
IEC	77B/863/FDIS	Yes	Approve	
IEC	CISPR/1506/Q	No	Approve	
IEC	77A/1196/Q	Yes	Approve	
IEC	77A/1180/CDV	No	Approve	
IEC	CIS/B/831/FDIS	No	Approve	
IEC	CIS/H/483/DC	Yes	Approve	

6 Irish publications/Reviews

6.1 Publications

No new publications were issued in 2023.

6.2 Reviews

The committee continue to review documents issued by IEC and CENELEC. No Irish publications were reviewed this year.

7 Work programme for 2024 onwards

NSAI will host the CENELEC TC 210 plenary meeting in Dublin on the 14th and 15th of May 2024.

It is intended to hold at least two committee meetings and to attend the plenary and working group meetings during 2024.

The committee continue to monitor both IEC and CLC work and will vote and comment on documents as they arise.

8 Additional Information

No additional information.