Standards Update

Standards in Focus

By David Hodges, Chairman, SCTE Standards and Technical Committee

David Hodges gives a status overview of international and European standards and projects, including various CENELEC Working Groups.

David Hodges, Chairman, SCTE Standards and Technical Committee

David Hodges was chairman of the CAI (Confederation of Aerial Industries) for 24 years after joining the Board in 1980.

He was educated in Sevenoaks and at South East London Technical College, where he gained a full tech., and completed his apprenticeship as a development engineer with GEC Elliott Automation, working on power station control and monitoring systems.

After a short period at the SIRA Institute as a research technologist, he joined Chubb as a project engineer working on electronic security systems, including its large security projects, and became surveillance divisional manager running the CCTV operation.

In 1976, he joined the Society and, two years later, joined a CAI member, Kindue, as technical director. He became involved with the CAI and joined the CAI Board in 1980. At that time, he had the opportunity to develop some special entry communications systems and, as result of this work, Blakeglow Ltd. was formed. Over the years, he has moved Blakeglow into the installation field and so sees the industry both from manufacturing and installation viewpoints. Blakeglow Systems Ltd. is the latest form of the company which concentrates on systems.

During the past few years, he has been awarded an Honorary Fellowship of the Society and presented with its Tom Hall award. He has also been awarded an Honorary Fellowship of the CAI and was presented with the John Summerfield award.

Dave currently represents the SCTE on BSI, CENELEC and IEC Standards Committees and is Chairman of the BSI Cable Standards Committee EPL100/04. He is also Chairman of the SCTE's Standards and Technical committee.

This is a status update of various international and European standards and projects, as well as of various CENELEC working groups.

At present, and in view of the COVID-19 lockdowns, meetings are currently taking place as online meetings.

WG1 (Safety)

This working group made good progress on the replies from the last CDV and the standard EN 60728-11 Ed5 has now been submitted to IEC as an FDIS, which is the final stage in the IEC process.

Following this, the commission will be asked to accept the standard for UJ listing.

WG2 (EMC)

This working group has not met for some time and a new convenor is being sought.

WG3 (Equipment)

The Standard EN 50083-2-4 has been issued and covers filters for the 700MHz to 860MHz Band. There is a proposal to create a new standard IEC 60728-113 Ed2, which will combine the frequency range of Ed1 and IEC 60728-13-1 Ed2 and only cover digital signals. The new range would be from 47MHz to 3.3GHz

WG5 (Optical Equipment and Systems)

EN 60728-115: In-building optical systems for broadcast signal transmissions has just ended the first comment period.

Present status of International and European Standards and projects of EN 50083 and IEC/EN 60728 series and other standards and projects under TC209 and 100/TA5 responsibility

(Status: 2019-11-06)

"European Standard EN 50083 series"	International Standard IEC 60728 series (Stability Date)	European Standard EN 60728 series	Title of European Standard "Cable networks for television signals, sound signals and interactive services;"
---	IEC 60728-1:2014 (2020-12)	EN 60728-1:2014	Part 1: System performance of forward paths
---	IEC 60728-1-1:2014 (2020-12)	EN 60728-1-1:2014	Part 1-1: RF cabling for two-way home networks
---	IEC 60728-1-2:2014 (2020-12)	EN 60728-1-2:2014	Part 1-2: Performance requirements for signals delivered at the system outlet in operation
---	IEC 60728-101:2016 (2018-12)	EN 60728-101:2017	Part 101: System performance of forward paths with all-digital channels load
---	IEC 60728-106		Part 106: Optical equipment for systems loaded with digital channels only *Project withdrawn*
---	IEC 60728-113:2018 (2021-12)	EN 60728-113:2018	Part 113: Optical systems for broadcast signal transmissions loaded with digital channels only
EN 50083-2:2012	IEC 60728-2:2018 (2020-12)	---	Part 2: Electromagnetic compatibility for equipment Note: IEC aligned with EN of 2012
EN 50083- 2:2012/ A1:2015	---	---	Part 2: Electromagnetic compatibility for equipment; Amendment A1
EN 50083-2:2012 /prA2: 2019-06			Part 2: Electromagnetic compatibility for equipment; Amendment A2 *Deadline approved, but negative Assessment*
CLC/TR 50083-2- 1:2014	---	---	Electromagnetic compatibility measurements
CLC/TR 50083-2-2:2014	---		Interference situation for DVB-T reception in the presence of LTE base station signals

"European Standard EN 50083 series"	International Standard IEC 60728 series (Stability Date)	European Standard EN 60728 series	Title of European Standard "Cable networks for television signals, sound signals and interactive services;"
CLC/TS 50083-2- 3:2018	---		LTE (4G) Interference Mitigation Filters in the 800 MHz band
FprEN 50083-2-4: 2019	---		LTE (4G) Interference Mitigation Filters in the 700MHz and 800MHz bands *FprEN approved*
	IEC 60728-3:2017 (2020-20)	EN IEC 60728-3:2018	Part 3: Active wideband equipment for cable networks NOTE: also replaces EN 60728-3-1:2012 and CLC/TC 50083-3-3:2014
---	IEC/TR 60728-3-2:2016-10		Part 3-2 : Method of measurement of 5th order non-linearity for active electronic equipment using five carriers
---	IEC 60728-4:2007 (2020-12)	EN 60728-4:2008	Part 4: Passive wideband equipment for coaxial cable networks
---	IEC 60728-5:2015 (2018-12)	EN 60728-5:2016	Part 5: Headend equipment
CLC/ TR 50083-5-1: 2009	After approval in CENELEC	---	Technical Report: IP gateways and interfaces for headends
---	IEC 60728-6:2011 (2020-12)	EN 60728-6:2011	Part 6: Optical equipment
CLC/ TR 50460:2005	IEC/TR 60728-6-1: 2006 (2018-12)	---	System guidelines for analogue optical transmission systems
---	IEC 60728-7-1:2003	EN 60728-7-1:2005	Part 7-1: Hybrid Fibre Coax Outside Plant Status Monitoring - Physical (PHY) Layer Specification
	IEC 60728-7- 1:2003/ A1:2015	EN 60728-7- 1:2003/ A1:2015	
---	IEC 60728-7-2:2003 Stabilised until 2026	EN 60728-7-2:2005	Part 7-2: Hybrid Fibre Coax Outside Plant Status Monitoring - Media Access Control (MAC) Layer Specification
---	IEC 60728-7-3:2009 Edition 2 Stabilised until 2026	EN 60728-7-3:2009 Edition 2	Part 7-3: Hybrid Fibre Coax Outside Plant Status Monitoring - Power supply to Transponder Interface Bus (PSTIB) Specification
EN 50083-8:2013	IEC 60728-12:2017 (2020-12)	---	Part 8: Electromagnetic compatibility for networks
EN 50083-8			*Maintenance decided*
EN 50083-9:2002	IEC 60728-9:2000 (2012-12) IEC 60728-9-am1 (2012-12) Stabilised until 2026	---	Part 9: Interfaces for CATV/SMATV headends and similar professional equipment for DVB/ MPEG-2 transport streams
	IEC 60728-10:2014 (2020-12)	EN 60728-10:2014	Part 10: System performance for return paths

"European Standard EN 50083 series"	International Standard IEC 60728 series (Stability Date)	European Standard EN 60728 series	Title of European Standard "Cable networks for television signals, sound signals and interactive services;"
CLC/ TR 50083-10-1: 2014	---	---	Guidelines for the implementation of return paths in cable networks
EN 60728-11:2017/ A11:2018	IEC 60728-11:2016 (2018-12)	EN 60728-11:2017	Part 11: Safety requirements *Common Modifications for LVD*
	IEC 60728-11 Ed 5	EN 60728-11:2017 **NEW**	Part 11: Safety requirements *CDV approved, FDIS awaited*
---	IEC 60728-13:2010 (2020-12)	EN 60728-13:2010	Part 13: Optical systems for broadcast signal transmissions
---	IEC 60728-13-1:2017 (2020-12)	EN 60728-13-1:2017	Part 13-1: Bandwidth expansion for broadcast signal over FTTH system
---	IEC 60728-14:2014 (2019-12)	EN 60728-14:2014	Part 14: Optical transmission systems using RFoG technology

Other standards and projects under the responsibility of CLC/TC209 and/or IEC 100/TA5

	International Standard (Stability date)	European Standard/ Publication	Title of European Standard
---	---	EN 50494:2007	Satellite signal distribution over a single coaxial cable in single dwelling installations
---	---	EN 50585:2014	Transport of satellite delivered signals over IP networks
		EN 50607:2015	Satellite signal distribution over a single coaxial cable - second generation
		CLC/TR 50607-10:2015	Satellite signal distribution over a single coaxial cable - Part 10: Implementation guideline
---	IEC 61114-1:1999 (Stabilised until 2026)	EN 61114-1:1999	Receiving antennas for satellite broadcast transmissions in the 11/12GHz band - Part 1: Electrical measurements
---	IEC 61114-2:1996 (Stabilised until 2026)	EN 61114-2:1996	Methods of measurement on receiving antennas for satellite broadcast transmission in the 11/12GHz band - Part 2: Mechanical and environmental tests on individual and collective receiving antennas

Actual projects (new or revision)

Actual European version, published

Changes since Rev. 33 of this document, published in August 2017

Delayed projects

"Standards' work is often painstaking and time-consuming, but always worthwhile."

> **The maintenance teams/working groups in IEC and CENELEC are always looking for technical experts.**

Our grateful thanks go to Thomas Wegmann for the table in this article.

Contributions and comments on standards

Standards' work is often painstaking and time-consuming, but always worthwhile. It is always better to take part at the formulating stage rather than discover horrific implications for your business when the standard is published! The maintenance teams/working groups in IEC and CENELEC are always looking for technical experts. If you really cannot devote time for the actual meetings, then at least consider commenting on the interim drafts that they issue.

For UK-based organisations, the SCTE is happy to circulate drafts of standards issued for comment and voting and to cross-correlate input into BSi. Please contact me at **dave@hodges.co.uk** if you would like to be on the circulation list. Other readers should contact their own national committees.

I also hold a growing list of engineers who have volunteered to provide comment on draft standards as they go through the creation stage. If you would be willing to make a commitment, please email **dave@hodges.co.uk**

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