STRATEGIC BUSINESS PLAN (SBP)

IEC/TC or SC	Secretariat	Date
100	Japan	2009-01-20

Please ensure this form is annexed to the Report to the Standardization Management Board if it has been prepared during a meeting, or sent to the Central Office promptly after its contents have been agreed by the committee.

Title of TC
Audio, video and multimedia systems and equipment

  TA 1 Terminals for audio, video & data services and content
  TA 2 Colour measurement and management
  TA 4 Digital system interfaces and protocols
  TA 5 Cable networks for television signals, sound signals and interactive services
  TA 6 Professional electronics storage media, data structures and equipment
  TA 7 Consumer electronics storage media, data structures and equipment
  TA 8 Multimedia home server systems
  TA 9 Audio, video and multimedia applications for end-user networks
  TA 10 Multimedia e-publishing and e-book
  TA 11 Quality for audio, video and multimedia systems

A Background

TC 100 was established in 1995 comprising of the following IEC Technical Committees:

- TC 12 /SC 12A   Receiving equipment
         /SC 12G   Cabled distribution system
- TC 60 /SC 60A   Audio recording
         /SC 60B   Video recording (including audio relating to video)
- TC 84 Equipment and systems in the field of audio, video and audio-visual engineering

TC 100 has been standardizing specifications for audio, video and multimedia systems and equipment and initially started with four subcommittees:

- SC 100A   Multimedia end-user equipment
- SC 100B   Audio, video and multimedia information storage systems
- SC 100C   Audio, video and multimedia subsystems and equipment
- SC 100D   Cabled distribution systems

Gradually, TC 100 moved to a unique and flexible organisation structure based on Technical Areas replacing Sub Committees, to achieve standardization in an efficient manner to address fast moving multimedia technology.
The technical work in TC 100 is exclusively done in Project Teams. Project Teams, related to each other addressing e.g. technology or application, are clustered in a Technical Area (TA) with a Technical Area Manager (TAM) and a Technical Secretary (TS) for efficient project management.
A TA is active as long as the projects that are being addressed are ongoing and disbanded when all the projects has been finished.

In addition, TC 100 has two advisory groups and a GMT:
AGS (Advisory Group on Strategy)
AGM (Advisory Group on Management)
GMT (General Maintenance Team)

Please see Section F for a link to the TC 100 web page for the most recent version of the scope of TC and TAs.

B Business Environment
B.1 General
The convergence of digital technology from diverse industries demands interoperability in the consumer and the professional marketplace. Within this marketplace, entertainment, communication and information technology equipment and systems are continuing to evolve.
The worldwide market sizes of products relating to TC 100 in 2006 are:
- TV: 170,709 k unit (+7,5 % year-to-year comparison)
- DVD: 110,979 k unit (+2,7 %)
- Video camera: 16,868 k unit (+5,8 %)
- Audio set: 30,311 k unit (-2,7 %)
- PC: 231,500 k unit (+5,9 %)

(Data provided by JEITA and from a Press Release of Gartner Japan).
Recently, it is common practice that audio and video content is also played by a PC (Personal Computer). So, TC100 has to consider the market of PC in standardization. The TV market is also expanding by the analogue-to-digital transition and the DVD player moving to high definition TV signal storage systems such as Blu-ray Disc recorders.
TC 100 standardizes specifications related to these industries and associated multimedia products indicated above.
Major world-wide companies marketing products related to TC 100 are Fujitsu, Fuji-Xerox, Haier, Hitachi, HP, Intel, JVC, Kenwood, Mitsubishi-Electric, Nokia, Panasonic, Philips, Pioneer, Samsung, Sanyo, Sharp, Sony, Thomson, Toshiba to name a few.

B.2 Market demand
General
For equipment and systems, in particular, interoperability and connectivity are essential. The user cannot easily resolve incompatibility problems, and will not tolerate the annoyance caused by them. Specifications that ensure these functions benefit both the manufacturer and the user. Standards are necessary that address both consumer and professional equipment and systems. TC100 addresses these standards as relating to systems, performance of equipment connected to the system, and the protocol of system control and interfaces.
Some of specifications covered in TC 100 are previously standardized in consortia or fora and proposed to TC 100 for international endorsement. Such a process will become a trend in ICT fast moving technology standardization. Therefore TC 100 has liaisons with consortia and fora such as SMPTE, AES, DVD forum, and 1394TA, DLNA to name a few.

Worldwide and regional usage
TC 100 standards are respected and used worldwide. However, some standards are dedicated to regional use, for example, digital broadcasting receiver specifications are based on regional broadcasting specifications.

IEC schemes
Currently there is no TC 100 standards used in IEC schemes. Almost all of the standards developed in TC 100 are not used for regulatory purposes. However, recent energy-efficiency-related standards would be referred to by regulatory agencies.

Competing standards
TC 100 is continuing efforts not to compete with existing standards developed by other organizations through effective liaison-ships. However, standards in home networking technology developed by ISO/IEC JTC 1/SC 25 have potential overlap.

Customers of publications
The table below indicates customers of TC 100 publication by each Technical Area.

	Examples of IS	Customers
TA 1	**IEC 62087 (Measuring method of power consumption)**	**CE Manufacturers, Regulators, Consumers**
	Digital broadcasting receiver specifications	**TV, Set Top Box (STB) Manufacturers**

TA 2	IEC 61966 series (Colour management)	Various kinds of Manufacturer (TV, Printer, Digital Camera, Scanner, Projector, etc.)
TA 4	Digital audio interface Digital video interface	CE, PC manufacturers
TA 5	IEC 60728 Series (Cable system)	TV, STB Manufacturers, Cable operators, Cable- and cable system component manufacturers and cable system installers
TA 6	Digital VCR specifications for professional use, TV metadata dictionary	Broadcasting stations, Professional equipment manufacturers
TA 7	VCR specifications	Manufacturers
	Measuring methods for various recorders/players	Manufacturers, Consumers
TA 8	Multimedia Home server file format	Manufacturers
TA 9	DLNA Guidelines	CE, IT Manufacturers
	ECHONET specifications	CE, White-goods manufactures
TA 10	e-Book specifications	CE, IT Manufacturers, Authoring tool manufacturers, Publishers
TA 11	AV lip-sync specifications	Manufacturers Consumers
TC 100	Measuring method of digital audio signal	Manufacturers, Consumers
	Acoustic transducers specifications	Manufacturers, Test houses
	Privacy protections	Manufacturers

B.3 Trends in technology

As currently recognized in general electronics technology is still moving from analogue to digital. Broadcasting systems are now in an analogue-to-digital transition period everywhere in the world. Digital TV sets and Set Top Boxes (STBs) have penetrated the marketplace very rapidly with large amount of products sold worldwide. In digital broadcasting, HDTV is the standard format and related technologies are also being developed. Compression technology progresses with MPEG 4 AVC, and high-density storage devices, such as Blu-ray disc recorders also launched in the market. Digital broadcast receiver specifications have been standardized in TC 100 and new specifications or revisions of the specifications are expected. As well as digitalization, in display technology, with the decline of the cathode ray tube, flat panel displays such as LCD and plasma are expanding worldwide. Organic Light Emitting Diode (OLED) displays are rapidly being developed and will be significant in the foreseeable future.

Digital technology with the inclusion of storage devices has commoditized to store various types of information as simple digital data. In this environment, the standardization of storage media on previous recording formats is out-dated and the standardization of file format or encoding guidelines will become increasingly important.

In addition to the transition from analogue to digital, specifications are changing in scope from hardware to software with logic and software related specification on the increase.

Networking technology now allows connectivity in current stand-alone home electronics equipment and systems that provide compatibility and usability in the home. AV and multimedia application protocols for these end-user networks are key technologies in the field of standardization within TC 100.

Recently energy efficiency has been a key theme in the global society and IEC is encouraging every TC/SC to contribute in the effort. TC 100 has standardized methods of measurement for

power consumption for audio, video and multimedia equipment as specified in IEC 62087 and will continue to meet the needs of the global society by work in the future.

B.4 Market trends
Standardization of audio, video and multimedia application will be continuously achieved. However, demands for social standardization regarding environment, energy efficiency, and accessibility will increase and some standards may be referred to by regulatory agencies. Technical experts involved in standards development will become more diverse, not only as engineers from manufacturers and user communities but also from the regulatory agencies. As the audio, video and multimedia market continues to expand, the customers for these standards will also become more diverse as market trends evolve.

- Digital Television receivers and Flat panel TVs
  According to the continuation of the analogue-to-digital transition, digital television receivers and set top boxes (STBs) will increase in the market in conjunction with flat panel display devices. Digital broadcasting receiver specifications and methods of measurement for flat panel display will be standardized.
- HD recorders
  By diffusion of digital broadcasting and broadband network, High Definition (HD) television content will become more readily available. Accordingly an HD recorder capable of HD content is expected.
  Blu-ray disc and large capacity HDD recorders will increase. The standardization of recording file format systems or encoding rules for compression system will be expected.
- Solid-state audio players
  Solid-state memory continues to evolve in capacity and audio content is now easily downloaded through the Internet and stored in the memory device. Along with changing life styles such audio players will continue to expand in the marketplace. Standardization of evaluation methods for such players is expected. However it may be difficult to measure the quality of digital codec.
- AV playable PCs
  AV and multimedia presentation capability in PC will be more common in the market. Demand for evaluation of multimedia quality may increase and methods of measurement might require standardization in the future.
- Networked AV products
  Products, which have capability to connect to the home network through Ethernet, will increase in the market, which will enable users to playback content in various situations. Home network protocols and content protection related standards are expected.
- Ecological products
  Energy efficient products will continue to gather attention in the market. Some report that users will tend to buy low power consumption products even in AV and multimedia marketplace. Therefore the measurement method standard of power consumption for AV products will become increasing important.

B.5 Ecological environment
Ecological environment considerations are common interests. The focus within the electronics industry as TC 100 continues to develop standards with the intention to comply with ongoing IEC standardization strategy. The ecological aspects relating to audio, video and multimedia equipment will evolve with increasing awareness on the disposal of product and efficient energy consumption usage.

As the analogue-to-digital transition increases, the analogue CRT receiver disposal will also increase. With a relatively short life cycle of PC and IT products, recycle and reuse of materials is an important factor. However, within TC100 it is currently unknown which standards considering the main focus on protocol, interface, and performance standardization would relate.

However, in 2005, TC 100 started to develop a standard for methods of measurement for average TV power consumption aiming to highlight energy savings and completed the standardization as IEC 62087 in 2008-10. Subsequently a method of measurement for power consumption for Set-Top Boxes (STB) is currently under development. Similar methods of measurement will be

developed for equipment. Also expected is the standardization of methods of measurement for standby power consumption.

C System approach aspects

TC 100 is a product committee and, at the same time, a system committee. TC 100 takes a customer role as a user of components and TC 100 takes a supplier role as a developer of common platform, for example, colour gamut standards. TC 100 also takes a supplier role of sub-system to another system.

Component committee (TC 100 role of a customer)	**IEC SC 3C**	**Graphical symbols for use on equipment**
	IEC TC 46	**Cables, wires, waveguides, R.F. connectors, R.F. and microwave passive components and accessories**
	IEC SC 48B	**Connectors**
	IEC TC 86	**Fibre Optics**
	IEC TC 110	**Flat panel display devices**
	ISO/IEC JTC 1/SC 23	**Removable Digital Storage Media Utilizing Optical and/or Magnetic Recording**
	ISO/IEC JTC 1/SC 25	**Interconnection of IT equipment**
	ISO/IEC JTC 1/SC 29	**Coded Audio, Picture and Multimedia/Hypermedia information**
System committee (TC 100 role of supplier)	**ISO TC 42/WG 18**	**Photography/Digital imaging**
	ISO TC 130	**Graphic technology**
Others (System to System)	**ISO/IEC JTC 1/SC 25**	**Interconnection of IT equipment**
	TC 9	**Railway systems**

D Objectives and strategies

Two major objectives of TC 100 standardization are:
- to enrich human life with entertainment provided by audio, video and multimedia in home and networked environment; and
- to contribute to society by pursuing energy efficiency and by addressing the options for accessibility in the use of audio, video and multimedia equipment.

In the field of home network application for these years, IP networking technology will be adopted broadly and the standardization utilizing IP technology will increase relating to areas such as DLNA and IPTV. The meaning of "home" will be extended to include the automobile environment with IP networking and wireless technologies. By connection to access networks through the home or by discarding the storage devices; the leakage of private information will increase. TC 100 should address the issues related to multimedia security standardization to prevent such risks. High quality content such as HDTV, home theatre and digital cinema will become increasingly popular as will be needed to develop multimedia quality evaluation standards.
To respond to the expectation for the enrichment of human life, each TA is setting the following strategies:

- TA 1: Digital TV receiver specifications will be revised according to the progress of technology. DVB and ATSC specifications are going into respective second phases and IEC standards should be revised accordingly within a two or three -year period. Countries with newly introduced digital broadcasting will reference these standards and existing standardization may affect the selection of respective broadcasting systems. This standardization will be beneficial for the manufacturers and finally for end-users.

- TA 2: The increasing popularity of large gamut and high dynamic range content and displays will continue to increase the importance of multimedia colour management standards. While TA 2 believes it is well positioned to meet market needs, it should be recognized that TA 2 is addressing a market with rapid technology change. The strategy of TA 2 is to develop and maintain standards related to large gamut and high dynamic range contents and displays to meet the objectives to enrich human life with entertainment provided by video and multimedia in home and networked environments.

- TA 4: TA4 recognizes continued requirements in the market for interface and protocol standards for the interconnection of Audio / Video (A/V) and multimedia equipment and therefore will
    - continue to evolve the 60958 and 61937 standards to accommodate new developments in the market for the transport of new A/V streams that are developed by industry. These standards can expect to add additional parts over the next three to five years and will require ongoing maintenance during that time.
    - recognize and understand the transition to networked solutions that change the physical layer to technologies such as wireless and adapt the work of TA4 to these new technologies. While many of these new technologies are developed outside of the IEC structure TA4 will advocate for adopting them as appropriate in the TC100 body of work. The Project Experts have considerable visibility into new work within the relevant industries and can be expected to bring this new work into TC100 over the next five years.
    - understand the evolution and impact of IP based networking over the next several years and accommodate TA4 related interface and protocol standards to this technology and establish new liaisons as appropriate to facilitate this work.

- TA 5: TA 5 is continuously following the technical development in the area of cable distribution systems and keeping the TA 5 standards up-to-date.

- TA 6: In order to study applicable technology and development of standards for storage media, data structures and equipment for professional electronics, close collaboration with related organizations is a key factor to be considered for useful international standards. In the near future data structures could include metadata and wrapper types, file formats, and data formats.

- TA 7: TA7 will study the applicable technology and develop the standards for consumer electronics storage media, equipment, systems, and related applications taking into account the needs of consumers and manufacturers in the field of consumer electronics. These areas include file format, file exchange, metadata, applications and any relevant technologies.

- TA 8: Multimedia home server market is expected to expand with digital content worldwide. There are needs for standardization of new functions and services for home server systems. TA8 will develop strategies with international publications relating to multimedia home server systems and software specifications addressing the total system connected in the network.

- TA 9: Although a relatively new technical area, TA 9 has recognized the continued requirements in the market for AV and multimedia applications for end-users more commonly thought of as the multimedia devices connected in a home networks. While home networking is ubiquitous it not well understood and must deal with a large number of potential applications. TA9 strategically focuses on the multimedia aspects of the network and has strong support from the consumer electronics industry in promoting standardization to allow consumers to find value in their equipment. Multimedia applications have specific usage constraints for the delivery and rendering of content that requires specific knowledge and expertise. Concentration in this area gives TA9 the opportunity to attract high-profile project leaders and experts from industry.
Additionally, TA9 will continue to attract new work items and several proposals have already been identified. The industry recognizes this new area of technology will require cooperation and TA9 has been active in meeting with contemporaries in JTC 1 including SC25 and in ITU-T. Liaisons with industry organizations such as DLNA and CESI are important to the work of TA9 and new liaisons are actively maintained while additionally

pursuing other related liaisons. TA9 continues to encourage active discussions relating to the interoperability of devices within its domain.
The first standards in TA9, 62481 parts 1 and 2 will be reviewed in 2009 and a part 3 is likely to be introduced.

- TA 10: As the transition to multimedia e-publishing and e-book from a paper-based culture has begun on a worldwide basis, it is strongly expected to standardize specifications for interoperable multimedia e-publishing and e-book equipments for users and manufactures. In order to meet those requirements, TA 10 will develop International Standards for multimedia e-books, multimedia e-publishing, and the related technologies, including;

  - formats of multimedia e-book contents;
  - minimum requirements for multimedia e-book viewers;
  - user interfaces for multimedia e-book viewers;
  - e-publishing services; and
  - guidelines for e-book distribution by interchangeable storage media.

- TA 11: It is expected that the quality of the human life with entertainment provided by audio, video and multimedia will be higher with new standards and technologies provided by each respective TA. Of utmost importance is that standards and technologies of each TA work well together to form an integrated system, therefore needed is a horizontal viewpoint to ensure a high-quality experience for users. TA11 will study quality issues from that viewpoint and develop standards related to quality accordingly.

Contributing to society awareness TC 100 is developing methods of measurement for TV power consumption especially focusing on emerging flat panel displays. TC 100 is developing standardization not only for TV but also for STB, recorders and audio equipment. As home networking connects various pieces of equipment, energy consumption should be considered from the system point of view. Measuring methods in the home network environment will be investigated. The demand for accessibility is increasing in IT and communication equipment and TC 100 will need to consider the options and opportunities for accessibility for audio, video and multimedia equipment.

To respond to the expectation for this contribution to society, each TA is setting the following strategies:

- TC 100: AGS will discuss and establish a strategy on energy efficiency and multimedia security within 2009 and expect NPs by 2010. TC 100 established a stage 0 project for the activities related to accessibility for AV and multimedia equipment and plans to prepare a Technical Report within the 2009-2010 timeframe.

- TA 1: Power measurement standard under TA1 scope in accordance with the global demand of energy efficiency

- TA 2: Issues related to energy efficiency and multimedia security are out of scope of TA 2 at this moment.

- TA 6: The method of measurement of power consumption for storage system and equipment for professional electronics is expected.

- TA 7: The method of measurement of power consumption for storage system and equipment for consumer electronics is expected.

- TA 8: Improving the usability of digital content in homes is very important. TA8 will develop well-balanced solutions for content usage rights management in 2009. At the same time TA8 will provide the education needed for better understanding and the motivations needed for online content distribution business. Also TA 8 will develop easy end user digital content applications and business in 2010.

- TA 9: TA 9 will research the applications to save energy by home-networks.

- TA 10: The method of measurement of power consumption for e-book players is expected.

- TA 11: Energy efficiency and accessibility are important aspects of quality. TA11 will develop quality standards for systems and equipment taking into account the need for energy efficiency and the potential for accessibility in equipment and system designs.

E Action plan

To achieve the objectives above, TC 100 and individual TA's will proceed with the following actions:

- Establish stage 0 project to prepare a Technical Report in which accessibility activities for audio, video and multimedia equipment are described. The Technical Report will be published in the 2009 -2010 timeframe.

- Strengthen liaison with ITU-T and JTC 1 for IP home networking application and IPTV. A high level meeting among ITU-T, JTC 1 and TC 100 was held in 2008-11. TC 100 will continue the established working relationship in the future.

In each TA, the following action plans are drawn up:

TA 1	Digital TV receiver specifications will be created and revised according to the progress of technology. Power measurement method for TV, for the "on mode," was revised and published as IEC 62087 Ed2 in October 2008. Power measurement method for STB is now under review.
TA 2	The following action plans are drawn up: • In the light of wider applications of IEC 61966 series on colour measurement and management, to develop a part on metadata specification including colour gamut identification as IEC 61966-12; • To develop digital test chart files for evaluation of colour gamut of displays and colour encodings; and • To meet demand and requirement of industry, to maintain IEC 61966 series standards as appropriate; to meet the objectives to enrich the human life with entertainment provided by video and multimedia in home and networked environment.
TA 4	TA4 will continue its success and will implement its strategy by the continued use of electronic tools including IEC collaboration tools, timely project reporting with noted milestones, continually recruiting motivated project leaders and experts and identifying new work areas. TA4 will also continue the successful model of holding yearly project meetings jointly with liaison organizations such as the AES (Audio Engineering Society) when appropriate for specific projects. Specifically • all projects to use the IEC collaboration tools within the next year. • all projects to provide bi-annually updates for the AGM, TA4 meeting and TC100 plenary. • maintain contacts within industry to identify and encourage new project work into TC100 • will review the scope and title yearly to insure continued relevance
TA 5	TA 5 publishes the IEC 60728 series of standards covering the requirements for technical performance, safety and EMC of cable networks for audio, video and multimedia services. The main task of TA 5 is to keep this series up-to-date by reviewing the multi-part document continuously and publishing amendments and revisions when necessary. Also new parts are developed and published when

	necessary.
	To support the standards users TA 5 also publishes Technical Reports.
TA 6	Transition to Digital Television Broadcasting has begun on a worldwide basis. The standards for high performance digital multimedia data storage equipments are expected; • Web site publication for Metadata dictionary registry: This dictionary for television content metadata is a database and is used with the supplemental metadata structure and operational document standards. Close collaboration with SMPTE for the synchronization of database entries is the key factor for success. • Revision of 60461, Time code This is the revision of the worldwide used time code standard including HDTV system. The development of the transmission standard through SDI (serial data interface)/ancillary data packet is also included. The target for standardization is 2010-12. • Study for future time code of digital environment: The intention is to develop potential IEC standards now under study within the SMPTE and EBU joint task force and to be reported within three years. • Study for tapeless camera recorder: This study is for a possible standard addressing a tapeless camera recorder and a technical report to be created in two years.
TA 7	Needs for high performance digital multimedia data storage apparatus are expected to grow in coming years, for example, HDTV application, semiconductor recorder, HDD recorder etc. • Maintenance project MT 61834-4: This is the revision project of part 4: Pack header table and content among the multi-parts of an established DVC standard. The target date for this development is within two years. • Encoding guidelines for portable multimedia CE(Consumer Electronics) products using MP4 file format with AVC video codec and AAC audio codec (PT 62592): The intention is to develop a Technical Specification for increased interoperability of portable multimedia CE products. The target date of this development is 2009-12. • iVDR, a Portable HDD drive system: Application layer standards are expected after the completion of the physical layer standard which is being developed by JTC 1/SC 23. The possible target is in a 5-6 year period. • Audio Archive for life The intention is to develop an audio archive system used as a DVD storage format, and an appropriate guideline for storage and reliability of archived contents. The intended development target is 2012-12. • The other possible standards may also include the following topics; - Evaluation method for memory audio players - Semiconductor video camera recorders.
TA 8	• TA8 will begin developing a technical report for constant length profile of Digital Rights Permission Code in 2009. • TA8 will begin developing the CD on conceptual model for domain management in 2009.
TA 9	TA 9 will continue to develop and implement its strategy by frequent use of electronic tools including the IEC collaboration tools, timely project reporting with included milestones, continually recruiting motivated project leaders and experts and identifying new work. Specifically • all projects to use the IEC collaboration tools within the next year.

	• all projects to provide bi-annually updates for the AGM, TA 9 meeting and TC100 plenary. • maintain contacts within industry to identify and encourage bringing new work into TC100 • will review the scope and title yearly to insure continued relevance • maintain continued communications with JTC 1 and ITU-T and plan a meeting in 2009 in Tel Aviv based on groundwork set up in Sao Paulo in 2008. TA9 will begin a timely review of 62481 parts 1 and 2 in 2009 and will address a new part 3 with development of a plan to reach IS status within two years.
TA 10	Transition to multimedia e-publishing and e-book from paper based culture has begun on a worldwide basis. Needs for interoperable multimedia e-publishing and e-book formats and equipments are expected. • PT62605 E-dictionary format This is the development of a standard for an interchange format for e-dictionaries among publishers, content creators and manufacturers, and targeted to be completed by 2010-12. Multimedia e-publishing and e-books - Proofreading in e-publishing environment • PT62448 revision Generic format This is a revision project of the Generic format for e publishing, and targeted to be developed by 2008-12. • PT 62524 Reader's format • PT62571 Audio Format
TA 11	TA11 will develop standards of quality for systems and equipment. This requires a study of both consumer and professional electronics products and systems. TA11 will maintain liaisons with related organizations and expects the following works to be standardized; • Loudness • AV synchronization and lip-sync • Video quality of compressed video and IP transmission Sound field quality of multi-channel environment

F Useful links to IEC web site

- IEC/TC 100 dashboard (enter 100) - includes the TC/SC Officers, Scope, Liaison committees, WG/PT structure, Membership (IEC Member Countries) , Publications issued, the Programme of Work, Maintenance cycles and a link to the TC 100 web site.

- Maintenance programme
  See Annex C.
  Publications listed in Annex C are recognized as "Stabilized standards" in TC 100 and maintenance cycle of 15 years is set for those standards.

Name or signature of the secretary
Shuji Hirakawa

INTERNATIONAL ELECTROTECHNICAL COMMISSION

TECHNICAL COMMITTEE N° 100: AUDIO, VIDEO AND MULTIMEDIA SYSTEMS AND EQUIPMENT

List of TC 100 Stabilized standards

Publication	Ed.	Title	Date of publication
60094-1	4.1	Magnetic tape sound recording and reproducing systems. Part 1: General conditions and requirements	1994-01-01
60094-2	2	Magnetic tape sound recording and reproducing systems - Part 2: Calibration tapes	1994-08-01
60094-3	1.3	Magnetic tape sound recording and reproducing systems. Part 3: Methods of measuring the characteristics of recording and reproducing equipment for sound on magnetic tape	1996-02-01
60094-4	1.1	Magnetic tape sound recording and reproducing systems. Part 4: Mechanical magnetic tape properties	1994-06-01
60094-5	1.1	Magnetic tape sound recording and reproducing systems. Part 5: Electrical magnetic tape properties	1996-02-01
60094-6	1	Magnetic tape sound recording and reproducing systems. Part 6: Reel to reel systems	1997-11-01
60094-7	1.1	Magnetic tape sound recording and reproducing systems. Part 7: Cassette for commercial tape records and domestic use	1996-02-01
60094-10	1	Magnetic tape sound recording and reproducing systems. Part 10: Time and address codes	1997-11-01
60094-11	1	Magnetic tape sound recording and reproducing systems. Part 11: Address code for compact cassettes	1997-11-01
60098	3	Analogue audio disk records and reproducing equipment	1987-11-01
60107-1	3	Methods of measurement on receivers for television broadcast transmissions - Part 1: General considerations - Measurements at radio and video frequencies	1997-04-01
60107-2	2	Methods of measurement on receivers for television broadcast transmissions - Part 2: Audio channels - General methods and methods for monophonic channels	1997-02-01
60107-3	1.1	Recommended methods of measurement on receivers for television broadcast transmissions. Part 3: Electrical measurements on multichannel sound television receivers using subcarrier systems	1999-05-01
60107-6	1	Recommended methods of measurement on receivers for television broadcast transmissions. Part 6: Measurements under conditions different from broadcast signal standards	1989-01-01
60268-1	2.2	Sound system equipment. Part 1: General	1985-01-01
60268-2	2.1	Sound system equipment. Part 2: Explanation of general terms and calculation methods	1991-01-01
60268-6	1	Sound system equipment. Part 6: Auxiliary passive element	1971-01-01
60268-8	1	Sound system equipment Part 8: Automatic gain control devices	1973-01-01
60268-9	1	Sound system equipment. Part 9: Artificial reverberation, time delay and frequency shift equipment	1977-01-01
60268-10	2	Sound system equipment - Part 10: Peak programme level meters	1991-03-01
60268-11	2.2	Sound system equipment. Part 11: Application of connectors for the interconnection of sound system components	1991-01-01
60268-12	2.2	Sound system equipment. Part 12: Application of connectors for broadcast and similar use	1994-10-01
60268-17	1	Sound system equipment - Part 17: Standard volume indicators	1990-10-01
60315-1		Methods of measurement on radio receivers for various classes of emission. Part 1: General considerations and methods of measurement, including audio-frequency measurements	1988-12-01
60315-3	2.1	Methods of measurement on radio receivers for various classes of emission. Part 3: Receivers for amplitude-modulated sound-broadcasting emissions	1999-02-01
60315-4	2	Methods of measurement on radio receivers for various classes of emission - Part 4: Receivers for frequency-modulated sound broadcasting emissions	1997-11-01
60315-6	1	Methods of measurement on radio receivers for various classes of emission - Part 6: General purpose communication receivers	1991-04-01
60315-9	1	Methods of measurement on radio receivers for various classes of emission - Part 9: Measurement of the characteristics relevant to radio data system (RDS) reception	1996-05-01
60347	2	Transverse track recorders	1996-08-01
60386	1.1	Method of measurement of speed fluctuations in sound recording and reproducing equipment	1997-11-01
60503	2	Spools for broadcast videotape recorders (VTRS)	1998-01-01
60558	1.2	Type C helical video tape recorders	1997-06-01
60602	1.1	Type B helical video recorders	1980-01-01
60735	2	Measuring methods for video tape properties	1996-08-01
60756	2	Non-broadcast video tape recorders - Time base stability	1997-11-01
60767	1	Helical-scan video-tape cassette system using 12.65 mm (0.5 in) magnetic tape on type beta-	1997-11-01

Publication	Ed.	Title	Date of publication
		format	
60774-1	1	Helical-scan video tape cassette system using 12,65 mm (0,5 in) magnetic tape on type VHS - Part 1: VHS and compact VHS video cassette system	1994-01-01
60774-3	2	Helical-scan video tape cassette system using 12,65 mm (0,5 in) magnetic tape on type VHS - Part 3: S-VHS	1993-10-01
60774-5	1	Helical-scan video tape cassette system using 12,65 mm (0,5 in) magnetic tape on type VHS - Part 5: D-VHS	2004-04-01
60843-1	2	Helical-scan video tape cassette system using 8 mm magnetic tape - 8 mm video - Part 1: General specifications	1994-01-01
60843-3	1	Helical-scan video tape cassette system using 8 mm magnetic tape - 8 mm Video - Part 3: High-band specifications for Hi 8	1993-06-01
60856	1.2	Pre-recorded optical reflective videodisk system 'Laser vision' 50 Hz/625 lines - PAL	1997-05-01
60857	1.2	Pre-recorded optical reflective videodisk system 'Laser vision' 60 Hz/525 lines - M/NTSC	1997-04-01
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61305-1	1	Household high-fidelity audio equipment and systems - Methods of measuring and specifying the performance - Part 1: General	1995-05-01
61305-2	1	Household high-fidelity audio equipment and systems - Methods of measuring and specifying the performance - Part 2: FM radio tuners	1997-11-01
61305-3	1	Household high-fidelity audio equipment and systems - Methods of measuring and specifying the performance - Part 3: Amplifiers	1995-05-01
61305-6	TR 1.0	Household high-fidelity audio equipment and systems - Methods of measuring and specifying the performance - Part 6: Listening tests on loudspeakers - Single stimulus ratings and paired comparisons	2005-05-03
61319-1	1	Interconnections of satellite receiving equipment - Part 1: Europe	1995-11-01
61319-2	1	Interconnections of satellite receiving equipment - Part 2: Japan	1997-04-01
61329	1	Sound system equipment - Methods of measuring and specifying the performance of sounders (electroacoustic transducers for tone production)	1995-11-01
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61603-6	1	Transmission of audio and/or video and related signals using infra-red radiation - Part 6: Video and audio-visual signals	2001-10-01
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