



IEC/TC OR SC: 103	SECRETARIAT: JAPAN	DATE: 2018/11/29
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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.

A. STATE TITLE AND SCOPE OF TC

Title: Transmitting equipment for radiocommunication

Scope: Standardization of transmitting equipment for radiocommunications purposes and electronic and optical devices employing similar techniques. The standardization work deals with methods of measurement, safety requirements and transmitter control and interconnection.

Remarks:

- There are emerging trends in radiocommunication systems which utilizes multidisciplinary technologies such as radio-over-fibre will impact the scope and work activities of TC103.
- Due to introduction of radio-over-fibre technologies, TC103 has to work on analogue subcarrier transmission using optical devices. This work needs a liaison with SC86C WG4 to exchange technical information to be developed by TC103 and SC86F.
- A new work item which was circulated in 2017 and rejected due to lack of participation of expert members from P-member countries. One of which provides technical information on Train Communication Network (TCN) using radio-over-fibre technologies. TC103 will establish a liaison with TC9 WG43 regarding TCN.

B. MANAGEMENT STRUCTURE OF THE TC

The current structure of TC103 which were reviewed in 2018 meeting is shown below:

TC103 Chairman: TBD

TC103 Secretary: Mr Satoru Kurokawa (JP)

TC103 Technical Officer: Mr Timothy Rotti

- WG3 (Methods of measurement and TV transmitters): Mr Yasuo Takahashi (JP)
- WG6 (Radio over fibre transmitter): Mr Hiroyo Ogawa (JP)
- MT 60215 (Safety requirements for radio transmitting equipment): Mr André Spichiger (CH)

Due to the retirement of WG3 Convener and the complete of the task of WG3, this group will be terminated at the next meeting if no objection from P-members.

C. BUSINESS ENVIRONMENT

Market in radiocommunication, video and data broadcasting are changing rapidly due to the use of digital techniques, while the activity carried out was dealing with analogue techniques.

The introduction in many countries, all over the world, of the digital television system DVBT (Digital Video Broadcasting - Terrestrial) and HDTV (High Definition Television), of the digital sound radio system DAB (Digital Audio Broadcasting), and future standardisation for digital AM radio DRM (Digital Radio Mondiale) will generate a replacement or improvement of the existing transmitting equipment.

Market is still growing due to mobile TV systems including IMT-Advanced (4G) and IMT-2020 (5G), with new customers from mobile operators and new digital standards.

D. MARKET DEMAND

The customers of the standards are the network operators, the mobile operators, the broadcasters, the manufacturers of transmitters and radio access infrastructures and the manufacturers of related measuring instruments and equipment (coder/decoder, multiplexer, etc.)

The market of transmitters and radio access infrastructures is a world-wide market and the IEC standards are widely used in the R.F.P. (Request for Proposal) by all the network/mobile operators and broadcasters.

Due to the introduction of the new digital broadcasting and IMT-2020 systems, it could be necessary to maintain or revise the existing publications and to prepare new one dealing with UHDTV and 5G techniques.

E. TRENDS IN TECHNOLOGY AND IN THE MARKET

The transmitters have to be adapted in order to be compliant with emerging digital standards.

The digital television system is changing from HDTV to UHDTV (Ultra High Definition Television) such as 4K and 8K whose uncompressed maximum data transfer rate is about 144 Gb/s and 36 Gb/s. IMT-2020 system which is well known as 5G specifies downlink peak data rate of 20 Gb/s and uplink peak data rate of 10 Gb/s.

Infrastructure of those systems such as backhaul and fronthaul links for 5G and electric news gathering links for UHDTV requires high-transmission capability around 100 Gb/s.

Documents shall evolve in order to be compliant with new technologies with regard to the efficiency improvement of products. Future products must be more powerful and less consumption. Thanks to advanced technologies.

F. SYSTEMS APPROACH ASPECTS (REFERENCE - AC/33/2013)

Radio-over-fibre technologies are in the interdisciplinary areas between radio and fibre technologies and relevant with the technical areas being developed by SC86C WG6. Additionally, TC103 is developing the standards for system applications of radio-over-fibre technologies and some are related to Train Communication Networks which are the scope of TC9 WG43.

- IEC SC86C (Fibre optic system and active devices)
- IEC TC9 (Electrical equipment and systems for railways)

Radiocommunication and broadcasting system standards are also developed by other international standard organizations such as EBU and ITU-R.

- EBU (Broadcasting system)
- ITU-R (Broadcasting and radiocommunication systems)

G. CONFORMITY ASSESSMENT

All publications of IEC TC103 are in line with the requirements related to conformity assessment (see Clause 33 of Part 2 of the ISO/IEC directives). They will not be used for IEC Conformity Assessment Systems.

There are no special conformity assessment requirements generated by any of the standards in scope of IEC TC103.

H. HORIZONTAL ISSUES

Related environmental and ecological problems such as EMC, EMI or effects on human body or on medical electronics devices, such as pacemakers, could occur.

In various countries, some organisations are willing to modify the existing legal requirements and/or standardisation concerning effects on human body and EMC.

I. 3-5 YEAR PROJECTED STRATEGIC OBJECTIVES, ACTIONS, TARGET DATES

STRATEGIC OBJECTIVES 3-5 YEARS	ACTIONS TO SUPPORT THE STRATEGIC OBJECTIVES	TARGET DATE(S) TO COMPLETE THE ACTIONS
Publication of the finalized task	Approval of publication of IEC 62801 Ed.1	2018
Establish of the new work items	Proposal of NP as IEC 63098-2 Ed.1	2018-2021
	Proposal of NP as IEC 63098-3 Ed.1	2018-2021
	Circulation of NP as IEC 62803-2 Ed.1	2018-2021
	Proposal of PNW as IEC 62803-3 Ed.1	2018-2022
Initiation of Technical Report	Proposal of DTR as IEC TR 63099-2 Ed.1	2018-2020
	Proposal of DTR as IEC TR 6XXXX-1 Ed.1	2018-2020
Foster cooperation with TCs and other standardization bodies	Liaison activities	2018-2023

Note: The progress on the actions should be reported in the RSMB.