TC ANNUAL REPORTING FORM

IMS Technical Committee

TC-4 High Frequency Measurement and Connector

Reporting period

Starting date (dd/mm/yy)	Ending date (dd/mm/yy)	Date of submission (dd/mm/yy)
01/01/25	31/12/25	21/01/26

Website	Not available	**Last update (mm/yy)**

TC Chair or co-Chairs

First Name	Second Name	Family Name	Affiliation /Address	Membership number	Phone	e-mail address	Date of election
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Francesco		Picariello	Universitas Mercatorum	93293621		Francesco.picariello@unimercatorum.it	Vice-chair (10/08/2024)

Secretary (check the right box) Present ☐ Not Present ☒

First Name	Second Name	Family Name	Affiliation /Address	Membership number	Phone	e-mail address	Date of election

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TC mission – field of expertise (max. 1000 char. Including spaces)

TC-4 advances high-frequency measurement by promoting standardization and collaboration within the instrumentation and measurement community and industry, improving accuracy, reliability, safety, and efficiency of measurement methods. Its mission is to develop, promote, and maintain IEEE standards for specifying and characterizing the performance of high-frequency devices and instrumentation, including RF and microwave connectors, power meters, network and spectrum analyzers, phase noise and modulation analyzers, and related measurement systems. TC-4 also supports standards and recommended practices for scattering parameters, power, attenuation, phase noise, analogue and digital modulation, and electromagnetic interference. TC-4 maintains active liaisons with other IEEE bodies, standards organizations, and industry groups to foster cooperation and technological progress in high-frequency measurement.

TC meetings in the reporting period(*)

Date (dd/mm/yy)	Online / Face2Face	Attendance (number)	TC Members	Information sent within 4 months to (Yes/No) Chair of TSAC	IM Magazine	Other (specify)
13/11/25	Online	6	Brian Yeou Song Lee; Francesco Picariello; Rusty Myers; Jon Martens; Ronald Ginley; Patrycja Jarosz			
04/08/25	Online	4	Patrycja Jarosz; Brian Yeou Song Lee; Francesco Picariello; Yuri Catunda			

* Please add as many rows as needed

Minutes of the yearly meeting (separate file)[1]: No

Participation in Society sponsored Events (Conferences, Symposia, Workshops) (*)

Name of the Event	Starting date (event) (dd/mm/yy)	Ending date (event) (dd/mm/yy)	Date Partecipation (dd/mm/yy)	Type of participation (Yes/No)			
				Sponsorship	Session	Tutorial	Other (specify) [2]

Involvement in standard development(*)

Standard	Working Group	Revision	Activity in the reporting period, including dates	Notes, attendance
IEEE P3761	IM/HFM/SM-ED		Approved	IEEE Standard for Recommended Practice for Signal Measurement of Electromagnetic Disturbance with Optical Fiber Technology-Generic Specification. PELSC is the Co-Standards Committee for P3761
IEEE 287.1: 2021	IM/HFM/287_WG	Revision	Revision to P287.1a	IEEE Standard for Precision Coaxial Connectors at RF, Microwave, and Millimeter-Wave Frequencies--Part 1: General Requirements, Definitions, and Detailed Specifications
IEEE 287.2:2021	IM/HFM/287_WG	Maintenance	Maintenance	IEEE Recommended Practice For Precision Coaxial Connectors At RF, Microwave, And Millimeter-Wave Frequencies--Part 2: Test Procedures
IEEE 287.3: 2021	IM/HFM/287_WG	Maintenance	Maintenance	IEEE Recommended Practice for Precision Coaxial Connectors at RF, Microwave, and Millimeter-wave Frequencies-Part 3: Connector Effects, Uncertainty Specifications, and Recommendations for Performance
IEEE 1770:2021		Maintenance	Maintenance	IEEE Recommended Practice for the Usage of Terms Commonly Employed in the Field of Large-Signal Vector Network Analysis
IEEE 1785.1-2012		Maintenance	Maintenance	IEEE Standard for Rectangular Metallic Waveguides and Their Interfaces for Frequencies of 110 GHz and Above--Part 1: Frequency Bands and Waveguide Dimensions

[1] Yes/No, date of the yearly meeting;

[2] For example, Involvement in reviewing papers (and indicate approximate number of paper reviews for the listed event)

* Please add as many rows as needed

IEEE Standard 1765-2022	P1765	Maintenance	Maintenance	Sponsoring Society and Committee: IEEE Microwave Theory and Techniques Society/Standards Committee (MTT-S/SC) Co-Sponsoring Society and Committee: IEEE Instrumentation and Measurement Society/ TC4 – High Frequency Measurement (IM/HFM) Working Group Chair: Paritosh Manurkar, mail: paritosh.manurkar@colorado.edu
IEEE 1785.2-2016		Maintenance	Maintenance	IEEE Standard for Rectangular Metallic Waveguides and Their Interfaces for Frequencies of 110 GHz and Above–Part 2: Waveguide Interfaces
IEEE 1785.3-2016		Maintenance	Maintenance	IEEE Recommended Practice for Rectangular Metallic Waveguides and Their Interfaces for Frequencies of 110 GHz and Above–Part 3: Recommendations for Performance and Uncertainty Specifications

Participation in the development of Society Educational Programs(*)

Program name	Involvement of chapters and sections	Activity in the reporting period, including dates	Notes, attendance

Other Activities (tutorials, teaching, career, cooperation, publications, joint activity with chapters or sections) (*)

Type of activity	Starting date (dd/mm/yy)	Ending date (dd/mm/yy)	Activity in the reporting period	Notes, attendance
Liaison with the MTT TC-3	13/11/25	13/11/25	Online meetings	Discussion regarding P287.1a

Recommended candidates(*)

Type (ADCOM, Fellow, Award –specify-)	First Name	Second Name	Family Name	Affiliation /Address	Motivation

TC operating Plan: near-term plans for the upcoming year, including scheduled meetings, activities, and so on (max. 1000 char. Including spaces)

In the upcoming year, TC-4 will finalize P&P modifications and expand its voting membership, currently three voting members, to enhance participation. All WG chairs will be asked to present their yearly activities and ongoing standards. A kick-off meeting will be organized for the new WG Signal Measurement of Electromagnetic Disturbance with Optical Fiber Technology (IM/HFM/SM-ED). Annual meetings will be increased to at least two to improve engagement. TC-4 will also carry out initiatives for dissemination and strengthen collaborations with TC-10, MTT TC-3 Microwave Measurements Committee, and ARFTG, promoting the participation of young researchers in standardization efforts.

* Please add as many rows as needed

TC operating plan: long term vision from 2-5 years out, based on IMS Strategic Plan, including areas of strength , areas for improvement, how is the subject area going to change, planned actions for lifting achievement succession plans etc. (max. 1000 char. Including spaces)

Over the next 2–5 years, TC-4 will expand its role in high-frequency measurement by strengthening standardization, collaboration, and education. Key objectives include:

- Increasing the number of voting members and enhancing their involvement in TC activities.
- Organizing meetings where WG chairs present their yearly activities and ongoing standards.
- Promoting dissemination and engaging young researchers through structured webinars, workshops, and special conference sessions.
- Enhancing collaboration with TC-10, MTT TC-3, and ARFTG, while fostering industry participation through IMS-sponsored conferences and sessions.

Currently in a rebuilding phase, TC-4 is revising its P&P to increase voting membership and better integrate the numerous WG activities, ensuring all TC members are informed and actively involved.

TC convergence, synergy, cooperation with other TC, from I&M or other societies (max. 1000 char. Including spaces)

TC-4 will strengthen cooperation with other Instrumentation and Measurement TCs and external societies to advance knowledge exchange and standardization. Collaborations with TC-10, MTT TC-3 (Microwave Measurements Committee), and ARFTG will expand through joint workshops, special sessions, and shared initiatives in high-frequency measurement. Future efforts will focus on cross-disciplinary coordination, integrating high-frequency techniques with metrology, signal processing, and emerging RF applications. TC-4 will also engage industry representatives and standards organizations to align with practical needs. By fostering these connections, TC-4 will promote interdisciplinary progress, increase its impact on IEEE standards development, and support the broader I&M and RF measurement communities.

Comments/Suggestions (max. 1000 char. Including spaces)

Attached are the following minutes:

- IEEE TC4 High Frequency Measurement and Connector: Motion to approve the revised PAR modification for P287.1a to be submitted to NesCom.
- IEEE TC4 High Frequency Measurement and Connector: motion to approve changing from an amendment PAR to a revision PAR for P287.1, in order to allow for a unified P287.1 document and include the addition of the 0.5 mm and 0.6 mm connectors.
- IEEE TC4 High Frequency Measurement and Connector: motion to approve the PAR proposal: "Standard for Signal Measurement of Electromagnetic Disturbance by Optical Fiber Technology – Generic Specification".
- IEEE TC4 High Frequency Measurement and Connector: motion to approve PELSC as the Co-Standards Committee for P3761 Recommended Practice for Signal Measurement of Electromagnetic Disturbance with Optical Fiber Technology - Generic Specification.
- Motion to approve the updated TC4 IEEE Instrumentation and Measurement High-Frequency Measurement and Connector scope change and Policies and Procedures to the Instrumentation and Measurement Society for consideration and approval.

* Please add as many rows as needed