
P3136

Type of Project: New IEEE Standard
Project Request Type: Initiation / New
PAR Request Date: 05 Oct 2021
PAR Approval Date: 08 Dec 2021
PAR Expiration Date: 31 Dec 2025
PAR Status: Active

1.1 Project Number: P3136
1.2 Type of Document: Standard
1.3 Life Cycle: Full Use

2.1 Project Title: Standard for a Universal Waveguide Interface for Frequencies of 60 GHz and Above

3.1 Working Group: Defining an Universal Waveguide Interface for Frequencies of 60 GHz and Above(MTT/SCC/UWIG)

3.1.1 Contact Information for Working Group Chair:

Name: Wilhelm Keusgen

Email Address: wilhelm.keusgen@tu-berlin.de

3.1.2 Contact Information for Working Group Vice Chair:

None

3.2 Society and Committee: IEEE Microwave Theory and Techniques Society/Standards Coordinating Committee(MTT/SCC)

3.2.1 Contact Information for Standards Committee Chair:

Name: Ronald Ginley

Email Address: rginley@ieee.org

3.2.2 Contact Information for Standards Committee Vice Chair:

None

3.2.3 Contact Information for Standards Representative:

None

4.1 Type of Ballot: Individual

4.2 Expected Date of submission of draft to the IEEE SA for Initial Standards Committee Ballot: Jul 2023

4.3 Projected Completion Date for Submittal to RevCom: Jul 2024

5.1 Approximate number of people expected to be actively involved in the development of this project: 30

5.2 Scope of proposed standard: This standard specifies a universal interface for waveguides with one or more metallic conductors or one or more dielectric elements, including hollow metallic waveguides and dielectric waveguides

5.3 Is the completion of this standard contingent upon the completion of another standard? No

5.4 Purpose: The purpose of this standard is to provide a reference for all organizations using interfaces for hollow metallic waveguides and dielectric waveguides at frequencies of 60 GHz and above. This standard not only ensures compatibility of the various waveguide components, but also facilitates efficient trade between customers and suppliers and provides common design criteria and procedures for component, system and design engineers.

5.5 Need for the Project: The interfaces specified so far have various disadvantages, in particular

they require too much space,

they do not enable blind to blind connections,

they do not allow interface arrays with multiple apertures having only a single clamping mechanism.

The disadvantages are overcome by the interface specified in this standard.

5.6 Stakeholders for the Standard: Communications, defense, homeland security, automotive, space, radioastronomy, material science, production testing, instrumentation manufacturers, metrological organizations.

6.1 Intellectual Property

6.1.1 Is the Standards Committee aware of any copyright permissions needed for this project?

No

6.1.2 Is the Standards Committee aware of possible registration activity related to this project?

No

7.1 Are there other standards or projects with a similar scope? Yes

Explanation: IEEE Std 1785.2 also defines waveguide interfaces, but it is limited to hollow rectangular metallic waveguides, having certain shortcomings as mentioned in Section 5.5

7.1.1 Standards Committee Organization: MTT-S

Project/Standard Number: IEEE Std 1785.2

Project/Standard Date: 09 Sep 2016

Project/Standard Title: IEEE Standard for Rectangular Metallic Waveguides and Their Interfaces for Frequencies of 110 GHz and Above – Part 2: Waveguide Interfaces

7.2 Is it the intent to develop this document jointly with another organization? No

8.1 Additional Explanatory Notes: Document "NEW Interface Initiative", TD-00189, Issue R, 2021-06-22.