

The new IEEE 1785 series of standards for rectangular metallic waveguides above 110 GHz

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Abstract

This lecture describes a new series of standards that has recently been published by IEEE describing waveguide for use at millimetre-wave and terahertz frequencies. The series comprises three standards covering different aspects of this technology: (i) frequency bands and waveguide dimensions; (ii) waveguide interfaces; and (iii) recommendations for performance and uncertainty specifications. This lecture describes the contents of each of these standards:

- IEEE Std 1785.1-2012: IEEE Standard for Rectangular Metallic Waveguides and Their Interfaces for Frequencies of 110 GHz and Above—Part 1: Frequency Bands and Waveguide Dimensions
- IEEE Std 1785.2-2016: IEEE Standard for Rectangular Metallic Waveguides and Their Interfaces for Frequencies of 110 GHz and Above—Part 2: Waveguide Interfaces
- IEEE Std 1785.3-2016: 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

This lecture is based on a lecture that was given at the 2017 IET Colloquium on Millimetre-wave and Terahertz Engineering and Technology which took place at the University of Glasgow in March 2017.