

# IEEE Recommended Practice for Preferred Metric Units for Use in Electrical and Electronics Science and Technology

IEEE Standards Coordinating Committee 14

Sponsored by the  
IEEE Standards Coordinating Committee 14 on  
Quantities, Units, and Letter Symbols

# **IEEE Recommended Practice for Preferred Metric Units for Use in Electrical and Electronics Science and Technology**

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**IEEE Standards Coordinating Committee 14 on  
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Approved 8 February 2019

**IEEE-SA Standards Board**

**Abstract:** The preferred metric units for use in Electrical and Electronics Science and Technology is provided by this recommended practice. The application of IEEE/ASTM SI 10 is supported.

**Keywords:** conversion factors, IEEE 945™, International System, International System of Units, metric practice, metric system, preferred units, SI, SI 10, Système International d'Unités

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**Doug Edwards, *Chair***  
**Keith Flowers, *Secretary***

James R. Frysinger

Elizabeth Gentry

The following members of the individual balloting committee voted on this recommended practice. Balloters may have voted for approval, disapproval, or abstention.

Ali Al Awazi  
Curtis Ashton  
Peter Balma  
Israel Barrientos  
Bill Brown  
Demetrio Bucaneg Jr.  
William Byrd  
Randall Curey  
Douglas J. Edwards  
Andrew Fieldsend

Keith Flowers  
John Geldman  
H. Glickenstein  
Randall Groves  
Werner Hoelzl  
Gary Hoffman  
Piotr Karocki  
Yuri Khersonsky  
Jim Kulchisky  
John Lemon  
Adam Ley

William McBride  
Ion Neag  
Ryandi Ryandi  
M. Sachdev  
Gary Smullin  
Walter Struppler  
John Webb  
Terry Woodyard  
Forrest Wright  
Jian Yu

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Christel Hunter  
Thomas Koshy  
Joseph L. Koepfinger\*

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John D. Kulick  
David J. Law  
Joseph Levy  
Howard Li  
Xiaohui Liu  
Kevin Lu  
Daleep Mohla  
Andrew Myles

Annette D. Reilly  
Dorothy Stanley  
Sha Wei  
Phil Wennblom  
Philip Winston  
Howard Wolfman  
Feng Wu  
Jingyi Zhou

\*Member Emeritus

## Introduction

This introduction is not part of IEEE Std 945-2019, IEEE Recommended Practice for Preferred Metric Units for Use in Electrical and Electronics Science and Technology.

This revision of IEEE Recommended Practice for Preferred Metric Units for Use in Electrical and Electronics Science and Technology incorporates changes since the 1984 edition. The most significant changes include:

- Addition of definitions for various terms.
- Replacement of SI prefixes, symbols, and multiplication factors table with reference to IEEE/ASTM SI 10.
- Item numbering in the tables setup in format “TA-B”, T (for table), A = Table Number, and B = item number in table.
- Sorting of the order of units throughout to be from largest to smallest.

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# IEEE Recommended Practice for Preferred Metric Units for Use in Electrical and Electronics Science and Technology

## 1. Overview

### 1.1 Scope

This recommended practice provides the preferred metric units for use in Electrical and Electronics Science and Technology and supports the application of IEEE/ASTM SI 10.

### 1.2 Purpose

The purpose of this recommended practice is to aid in the selection of appropriate metric units for quantities that are of interest to electrical and electronic engineers.

## 2. Normative references

The following referenced documents are indispensable for the application of this document (i.e., they must be understood and used, so each referenced document is cited in text and its relationship to this document is explained). For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments or corrigenda) applies.

IEEE/ASTM SI 10™, American National Standard for Metric Practice.<sup>1, 2</sup>

## 3. Definitions

For the purposes of this document, the following terms and definitions apply. The *IEEE Standards Dictionary Online* should be consulted for terms not defined in this clause.<sup>3</sup>

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