

## P280 Working Group Minutes of 21 August 2019 Web Teleconference Meeting

### 1. Call to order

Meeting was called to order by Randy Curey (Chair) at 3:01 PM (EST).

#### Roll Call of Voting Members

Last, First Name	Affiliation	Present
Curey, Randy (Chair)	Northrop Grumman	Yes
Balma, Peter	Retired	Yes
Edwards, Doug (Secretary)	Siemens	Yes
Gentry, Elizabeth	NIST	Yes
<b>Guest</b>		
Paul Sullivan	DuPont	No

### 2. Determination of Quorum

100% attendance – Quorum met.

- Reminder: With small WG membership, plan would be to execute a “straw poll” of SCC14 for input prior to IEEE-SA Ballot.

### 3. Approval of Agenda

Added as new business – new item 8. Schedule for hand-over to SCC14 for review. No objections. Approved by consent.

### 4. Approval of July 11, 2019 Meeting Minutes

No objections. Approved by consent.

### 5. Call for Patents

No Patent issues reported.  
No Copyright issues at this time.

### 6. Chair’s remarks

Review, do still find issue.

### 7. Continue working on P280 – Review of Draft 11 pending comments

#### a. Continue dispositioning the remaining comments in the draft (with emphasis on those that people may have researched)

- i. T12.3 (electric constant): Was  $\epsilon_0 = 1/\mu_0 c_0^2$   
 $K = p/\theta$

Where  $p$  is defined  
in T6.10 and  $\theta$  is  
defined in TBD.

- ii. T6.21 (bulk modulus): Was
- iii. Table 1: Title was [Table 1—SI base units and quantities](#)
- iv. [B22]: Was 2008
- v. Footnote 4: Moved into body of document.
- vi. Line 382 & 383: Formatting – Indented lines.
- vii. Section 5: Added text developed during call to clarify use of parenthesis with quantities in the tables.

T10.22	modulation factor (AM)
T10.23	modulation factor (FM)

- viii. T10.22 & T10.23: Was  
Also corrected some capitalization issues.
- ix. Table 14 Title: Was [Table 14— Symbols Listed in Alphabetical Order](#)
- x. Section 5: Removed sentence, “The index of this standard includes names that are no longer recommended for quantities, referring the reader to the current

## P280 Working Group Minutes of 21 August 2019 Web Teleconference Meeting

names.”

Table 12 lists physical constants, and Table 13 gives some mathematical symbols that are particularly relevant to electrical engineering and science. The quantity symbols in Table 14 are then presented in alphabetical order, so that cross-referencing is easy. The index of this standard includes names that are no longer recommended for quantities, referring the reader to the current names.

- Was:
- xi. T5.22 (complex (angular) frequency oscillation constant): Resolution of TBD is pending.
  - xii. T6.18 (Poisson’s ratio): Delete “Lateral contraction divided by elongation”
  - xiii. Similar to deletion of text for T6.18  
Where  $\alpha$  is defined in T8.9 and  $P$  is defined in T8.2.
  - xiv. T8.14: Was T8.2.
  - xv. T9.45 (coupling coefficient): Added, coupling factor.
  - xvi. T9.46 (leakage coefficient): Added, leakage factor.
- Action Item: Check if square should be on  $\sigma$
- xvii. T9.45: TBD’s – Pending  
Square root of the ratio of secondary to primary self-inductance. Where the coefficient of coupling is high,  $\alpha \approx \mu^*$ .
  - xviii. T9.50: Was [B1] 945: Deleted from Bibliography.
  - xix. Randy: Number of symbols that do not match units used in research. Following on this discussion, moved to New Business discussion of requesting help from SCC14 membership.

### 8. New business

Discussed hand-over to SCC14 for review.

Developed draft for request to SCC14 for review and assistance of P280 drafts.

The Working Group for the revision of IEEE Std P280 has diligently been revising and updating the document. During this process the working group has found inconsistencies in the quantities and symbols used to represent them. Therefore we would like to request the assistance of all member of SCC14 to further review and comment on the draft. Of particular concern are the following areas:

- a. Relevance of alternative quantity names. Some quantities have multiple names listed; are they all still relevant.
- b. Relevance of quantity symbols. Are the ones shown as being on equal standing (separated by commas) still equal? Are the reserved symbols (the ones after three dots)?
- c. Missing quantities. There are many missing quantities. Which ones should be added?
- d. Missing quantity symbols for existing quantities
- e. New quantities that have arisen since this standard was last revised, which was almost 35 years ago.
- f. Consistency of comment in the remarks columns of the tables.

**P280 Working Group  
Minutes of 21 August 2019 Web Teleconference Meeting**

**9. Next Meeting (New Doodle poll)**

Next meeting – Sept 24, 2019, 3 – 5 PM EDT.

Will use meeting, work on document as best possible based on any received comments.

**10. Adjournment**

Meeting adjourned at 5:00 EDT.

Reported by,

Doug Edwards

Secretary, P280 WG

T: +1 (919) 270-1148

E: [doug.edwards@ieee.org](mailto:doug.edwards@ieee.org)