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2  |                REVISION REQUEST                |
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4  DATE:  14 February 2022
5  NAME:  David D. Brandt
6  COMPANY/AFFILIATION:  Rockwell Automation, Inc.
7  E-MAIL:  ddbrandt@ra.rockwell.com
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9  REQUESTED REVISION:
10     STANDARD:  IEEE Std 802.3-202x
11     CLAUSE NUMBER:  Subclause 147.8
12     CLAUSE TITLE:  Mixing segment characteristics
13
14  PROPOSED REVISION TEXT:
15  Add the following note at the end of subclause 147.8.1:
16
17  "NOTE--In order to account for the differences in source and load impedances
18  the specified loss is based on voltage ratios."
19
20  Add the following note at the end of subclause 147.8.3:
21
22  "NOTE--In order to account for the differences in source and load impedances
23  the specified loss is based on voltage ratios."
24
25  RATIONALE FOR REVISION:
26
27  The standard is not clear on the intended equivalence of the link segment
28  specifications when mapped to the mixing segment. The link segment is point
29  to point and the specifications have the same interpretation when based on
30  either power or voltage ratios. The mixing segment has additional parallel
31  sections with termination, causing the specifications to differ when based on
32  either power or voltage ratios. Interpreting the specifications based on
33  power ratios does not lead to the intended interpretation. Source power
34  injected at an MDI attachment point at line impedance is altered by the two
35  parallel paths. Power received at an MDI attachment point is altered for a
36  load impedance equivalent to the line impedance. Evaluation based on voltage
37  ratios achieves the intended loss equivalence of the mixing segment and the
38  link segment. The NOTES clarify the intent.
39
40  IMPACT ON EXISTING NETWORKS: None.
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43  |Please attach supporting material, if any          |
44  |Submit to:-   David Law, Chair IEEE 802.3        |
45  |and copy:-    Adam Healey, Vice-Chair IEEE 802.3 |
46  |                                                     |
47  |At:-         E-Mail: stds-802-3-maint-req@ieee.org |
48  |                                                     |
49  |           +----- For official use -----+    |
50  |           | REV REQ NUMBER: 1396                |
51  |           | DATE RECEIVED: 22 March, 2022      |
52  |           | EDITORIAL/TECHNICAL                |
53  |           | ACCEPTED/DENIED                    |
54  |           | BALLOT REQ'D      YES/NO           |
55  |           | COMMENTS:                          |
56  +-----+
57  | For information about this Revision Request see - |
58  |http://www.ieee802.org/3/maint/requests/revision_history.html#REQ1396 |
59  +-----+

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