

PAR FORM

10/29/02

PAR Status: Revision PAR

PAR Approval Date: 10/31/2002

PAR Signature Page on File: Yes

Review of Standards Development Process: No

1. Assigned Project Number: 1451.2

2. Sponsor Date of Request: 07/29/2002

3. Type of Document: Standard for

4. Title of Document:

Draft: Standard for a Smart Transducer Interface for Sensors and Actuators - Transducer to
Microprocessor Communication Protocols and Transducer Electronic Data Sheet (TEDS) Formats

5. Life Cycle: Full Use

6. Type of Project:

6a. Is this an update to an existing PAR? No

6b. The project is a: Revision of Std. 1451.2-1997

7. Contact Information of Working Group:

Name of Working Group (WG): Transducer to Microprocessor Communication Working Group

Name of Working Group Chair: James Joseph Wiczner

Telephone: 847-353-8200

FAX: 847-353-8232

Email: jwiczer@sensorsynergy.com

8. Contact Information of Official Reporter (If different than Working Group Chair)

Name of Official Reporter: (if different than WG Contact)

Telephone:

FAX:

Email:

9. Contact Information of Sponsoring Society or Standards Coordinating Committee

Name of Sponsoring Society and Committee: Instrumentation & Measurement Society/TC9-Sensor Technology

Name of Sponsoring Committee Chair: Kang Lee

Telephone: 301-975-6604

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Name of Liaison Rep.(If different than Sponsor Chair):

Telephone:

FAX:

Email:

10. The type of ballot is: Individual Sponsor Ballot

Expected Date of Submission for Initial Sponsor Ballot: 02/01/2004

11. Fill in Projected Completion Date for Submittal to RevCom: 5/1/2005

Explanation for Revised PAR that completion date is being extended past the original four-year life of the PAR:

12. Scope of Proposed Project:

The scope of the revision is to include alternate physical layers to utilize existing, widely available, low-cost data transfer methods in order to reduce complexity and cost. The TEDS will be assessed for inclusion of new features, including additional control functions to improve communications between STIM (Smart Transducer Interface Module) and NCAP (Network Capable Application Processor) and the creation of a stand-alone mode in which supported NCAP network protocols would be specified. This project will not specify signal conditioning, signal conversion, or how the TEDS data are used in application.

13. Purpose of Proposed Project:

There is currently a great need for open standards to provide economically viable digital communication interfaces between transducers and microprocessors. The purpose of this revision is to make IEEE-1451.2-1997 more widely usable to a larger set of cost sensitive applications. Without a cost effective, easy-to-implement, independent, openly defined transducer interface standard, the development of remote sensing applications for safety, security, industrial automation, and other remote monitoring/ remote control applications will continue to be hindered.

14. Intellectual Property

Sponsor has reviewed the IEEE patent policy with the working group? Yes

Sponsor is aware of copyrights relevant to this project? Yes

Sponsor is aware of trademarks relevant to this project? Yes

Sponsor is aware of possible registration of objects or numbers due to this project? Yes

15. Are you aware of other standards or projects with a similar scope? No

Similar Scope Project Information:

16. Is there potential for this standard (in part or in whole) to be submitted to an international organization for review/ adoption?

Do Not Know

If yes, please answer the following question:

Which International Organization/Committee?

International Contact Information:

17. Will this project focus on Health, Safety or Environmental Issues? No

18. Additional Explanatory Notes:(Item Number and Explanation)

Item #6 - The revised specification will result in improvements and enhancement to the existing 1451.2-1997 standard so that future implementation of the standard will be easier and less expensive to accomplish and provide additional capabilities not included in the original standard. Changes will include the addition of alternate physical layers to utilize existing, widely available, low cost data transfer methods in order to reduce the cost and complexity. Additional enhancement suggestions to this standard will be evaluated in the working group and included as appropriate. Furthermore, various corrections, identified by users since the original publication of this standard, will be included in the revised standard as appropriate.