

# P1904.1-Conformance03

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**Type of Project:** New IEEE Standard

**PAR Request Date:** 22-Jul-2011

**PAR Approval Date:** 10-Sep-2011

**PAR Expiration Date:** 31-Dec-2015

**Status:** PAR for a New IEEE Standard

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**1.1 Project Number:** P1904.1-Conformance03

**1.2 Type of Document:** Standard

**1.3 Life Cycle:** Full Use

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**2.1 Title:** Standard for Conformance Test Procedures for Service Interoperability in Ethernet Passive Optical Networks, IEEE Std 1904.1, Package C

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**3.1 Working Group:** Service Interoperability in Ethernet Passive Optical Networks (COM/SC/SIEPON)

**Contact Information for Working Group Chair**

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**Contact Information for Working Group Vice-Chair**

None

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**3.2 Sponsoring Society and Committee:** IEEE Communications Society/Standards Committee (COM/SC)

**Contact Information for Sponsor Chair**

**Name:** Curtis Siller

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None

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**4.1 Type of Ballot:** Entity

**4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot:** 09/2012

**4.3 Projected Completion Date for Submittal to RevCom:** 02/2013

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**5.1 Approximate number of entities expected to be actively involved in the development of this project:** 25

**5.2 Scope:** This standard specifies a suite of conformance tests for system-level requirements of Ethernet Passive Optical Network (EPON) equipment, defined in IEEE Std 1904.1, Package C.

**5.3 Is the completion of this standard dependent upon the completion of another standard:** Yes

**If yes please explain:** The completion of this project is contingent upon the completion of P1904.1, Draft Standard For Service Interoperability in Ethernet Passive Optical Networks. This specification will be a companion standard for P1904.1 and will provide a suite of conformance tests necessary for an expected certification program. It is desirable to have the conformance tests available at the same time or shortly following the approval of P1904.1 as a standard.

**5.4 Purpose:** The purpose of this standard is to build upon the IEEE Std 1904.1, Package C EPON system-level interoperability standard and create a suite of conformance tests. Defining the exact test procedures will allow vendors, network operators, and independent testing facilities to achieve consistent results when testing EPON equipment for conformance with IEEE Std 1904.1, Package C.

**5.5 Need for the Project:** More than 50 million subscribers are being served by EPON now, and it is expected that deployment volumes soon will reach more than 10 million new subscribers annually. There are no open, international, system-level specifications describing how to conduct conformance testing. The proposed standard will create a comprehensive suite of tests that can be used by equipment manufacturers, network operators, and independent test facilities to determine P1904.1, Package C compliance in a uniform and consistent way. This will serve a number of important purposes:

- The availability of this test suite will facilitate the creation of independent conformance certification programs, thus freeing network operators from the burden of developing and maintaining in-house conformance programs;
- EPON manufacturers will be able to verify conformance at various stages of product development;
- The existence of a published, comprehensive test suite will minimize variations in test results across multiple, independent test facilities.

**5.6 Stakeholders for the Standard:** The stakeholders include communication system and component vendors, test

laboratories, telecommunications carriers, and multiple system operators (MSOs)

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### **Intellectual Property**

**6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?:** No

**6.1.b. Is the Sponsor aware of possible registration activity related to this project?:** No

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**7.1 Are there other standards or projects with a similar scope?:** No

### **7.2 Joint Development**

**Is it the intent to develop this document jointly with another organization?:** No

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**8.1 Additional Explanatory Notes (Item Number and Explanation):** IEEE EPON is used by a diverse community of telecommunications and cable network operators. The goal of the IEEE 1904.1 SIEPON project is to address in a consistent and unified way the diverse requirements associated with multiple service models, multiple provisioning and management concepts, and multiple deployment scenarios. To fulfill this goal, the IEEE P1904.1 defines three packages: A, B, and C, which together cover all the required deployment and service models. All of these packages are distinct and contain large number of unique features.

It is expected that manufacturers will design equipment that conforms to a specific package. Similarly, test labs may specialize in testing a specific package. Thus, it is desirable to create conformance testing standards specific to each package. Maintaining three separate PARs will allow the individual specifications to progress on separate timelines, which is important given the unequal number of test cases and varying degrees of complexity of the three packages.

This PAR is for a suite of conformance test procedures for IEEE 1904.1, Package C.