

ANSI/CEA Standard

Determination of Small Network Equipment Average Energy Consumption

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(Formulated under the cognizance of the CEA **R7 Consumer Electronics Networking Committee.**)

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FOREWORD

This standard was developed by the Consumer Electronics Association under the auspices of the R7 Consumer Electronics Networking Committee.

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CONTENTS

| | |
|--|-----------|
| 1 Scope | 4 |
| 2 Overview | 4 |
| 3 References | 4 |
| 3.1 Normative References | 4 |
| 3.1.1 Normative Reference List | 4 |
| 3.1.2 Normative Reference Acquisition | 5 |
| 3.2 Informative References | 5 |
| 3.2.1 Informative Reference List | 5 |
| 3.2.2 Informative Reference Acquisition | 5 |
| 4 Compliance Notation | 5 |
| 5 Definitions | 6 |
| 6 Symbols and Abbreviations | 6 |
| 7 Test Environment | 8 |
| 8 Test Configuration | 8 |
| 8.1 General | 8 |
| 8.2 Supplied Power Configuration | 9 |
| 8.3 UUT Interface Configuration | 9 |
| 8.3.1 WAN/Uplink Interface Configuration | 10 |
| 8.3.2 Wired LAN Port UUT Configuration | 10 |
| 8.3.3 Wireless UUT Configuration | 11 |
| 8.4 Power Meter Connection: | 14 |
| 8.5 Test Client Setup | 14 |
| 8.6 Example UUT Configurations | 15 |
| 9 Test Procedure for all Products | 16 |
| 10 Reporting | 16 |
| 10.1 Reported UUT Information and Functionality | 16 |
| 10.2 Reported Test Results | 17 |
| 11 Test Configuration References | 17 |

FIGURES

| | |
|--|-----------|
| Figure 1: Modem or ONT Setup | 15 |
| Figure 2: Switch or Router Test Setup | 15 |

TABLES

| | |
|--|-----------|
| Table 1: Input Power Requirements | 8 |
| Table 2: WAN/Uplink Priority | 10 |
| Table 3: Wireless Link Precedence - Single Instantaneous Frequency Band Support | 12 |
| Table 4: Wireless Link Precedence - Simultaneous Instantaneous Frequency Band Support | 13 |

Determination of Small Network Equipment Energy Consumption

1 Scope

This standard defines procedures for measuring Small Network Equipment (SNE) energy consumption while in an idle state. It defines the interfaces that shall be active and connected for this test procedure, and is written with the intent of addressing current and future devices that qualify as a SNE device. This standard does not define how an SNE device is placed into an idle state.

2 Overview

This standard covers the configuration of three aspects in order to conduct the testing; the SNE device, test environment, and the Test Client(s). A SNE device could be any device including, but not limited to, the following WAN and LAN interfaces:

- DOCSIS Cable Modem
- DSL Modem
- Optical Network Termination (ONT) Device
- Ethernet
- MoCA
- 802.11

It is important to define the test environment to ensure that the SNE devices are being tested similarly. The Test Client(s) ensure that the correct interfaces are connected to provide a basis for testing parity among all SNE devices regardless of the size and complexity of these devices.

3 References

3.1 Normative References

The following standards contain provisions that, through reference in this text, constitute normative provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed here.

3.1.1 Normative Reference List

1. IEC 62301, Ed. 2.0, "Household Electrical Appliances – Measurement of Standby Power", Section 4, "General Conditions for Measurements", January 2011
2. IEEE SA-802.3az-2010; IEEE Standard for Information technology – Local and Metropolitan Area Networks – Specific Requirements – Part 3: CSMA/CD Access Method and Physical Layer Specifications Amendment 5: Media Access Control Parameters, Physical Layers, and Management Parameters for Energy-Efficient Ethernet
3. TIA; ANSI/TIA-568-C.2; Balanced Twisted-Pair Telecommunication Cabling and Components Standard, Ed. C, Err. 11-2014
4. TIA; ANSI/TIA-568-C.4; Broadband Coaxial Cabling and Components Standard, Ed. C, 07-2011