Standards project report -
AES67 Interoperability PlugFest -
London 2017

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Abstract

This report summarizes the AES67 interoperability test event ("plugfest") held at the headquarters of British Broadcasting Corporation (BBC), London on 13 to 16 February 2017. Twenty four companies tested 36 products against each other to confirm interoperability. The results are presented, together with the results of a range of tests of optional operational modes described in the standard.

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This foreword is not part of the report.

The interoperability tests described here were discussed and formulated by AES standards task group SC-02-12-M under the leadership of Kevin Gross.

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We would like to express our appreciation to Peter Stevens, Jamie Laundon, Jonny Gledhill, and Chris Roberts of the BBC for valuable help with organizing this event, and to the BBC for its generous hosting of the event. Nicolas Sturmel of Merging Technologies organized the testing and provided much leadership.

Morten Lave
Chair, SC-02-12 Working Group on Audio Applications of Networks
0 Introduction

0.1 Purpose

The purpose of the plugfest was to demonstrate functional compatibility and interoperability between a number of different implementations of the standard AES67-2015, "AES standard for audio applications of networks - High-performance streaming audio-over-IP interoperability".

One goal was to achieve interoperability success between nodes from different vendors based on the current AES67 standard definitions. Another major goal was to identify ambiguities and shortcomings of the current standard definitions to be addressed in a revision of the AES67-2015 standard. The plugfest was not intended to verify full compliance to all requirements of the standard for each device under test.

This report follows the same pattern as the AES-R12 report of the 2014 AES67 plugfest, held in Munich and the AES-R15 report of the 2015 AES67 plugfest, held in Washington D.C.

0.2 Approach

An interoperability test is not the same as a product shoot-out. The purpose is to allow engineers from different companies to meet in a commercially-neutral context to connect their equipment with equipment from other developers and to confirm, through testing, that signals are transmitted and received correctly according to the standard. The spirit is of technical enquiry, not point-scoring, and this is in the practical interests of all participants.

For this reason, this report has been prepared under the Chatham House Rule, which states: "When a meeting, or part thereof, is held under the Chatham House Rule, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed."

0.3 Participation

The following manufacturers participated in this plugfest and have agreed to be identified as such:

- A.R.G ElectroDesign Ltd
- Imagine Communications
- ALC NetworX
- Merging Technologies
- Archwave
- Neumann
- Audinate
- Riedel Communications
- Audio-Technica U.S., Inc.
- Shure Inc.
- Bosch Security Systems
- Sonifex
- Calrec
- Sound4
- Coveloz
- Tektronix
- Digigram
- Telos Systems Inc
- DirectOut GmbH
- Thum+ Mahr+ Gmbh
- Genelec
- Yamaha

A total of 35 separate and independent products implementing AES67 were tested. Implementations varied from software implementations on a PC to hardware-based FPGA solutions. Products were based on prefabricated hardware, prefabricated firmware sub-systems, and bespoke implementations of AES67. Participants also included representatives of broadcast organizations and AES Standards management.