AES standard for interconnections - Connector for surround microphones

Published by
Audio Engineering Society, Inc.

Abstract

An increasing number of surround sound microphones are becoming available, however, there has been no common standard for the connectors between microphone and recording device. It is expected that a standard connection will create a basis for smaller and lighter recording devices.

This standard specifies a connector type and contact assignment for microphones having up to six balanced analog output channels, as used in surround sound applications. It includes specifications for marking and identification for the audio channels. It includes recommendations for cable type and detailed wiring. It is expected that other applications will also use this connection.

2013-02-11 printing

Contents

Foreword

This foreword is not part of the AES65-2012 *AES standard for interconnections - Connector for surround microphones*.

This project was proposed by Eddy Bogh Brixen and David Josephson and initiated as project AES-X189 on 2010-05-20 and initially assigned to working group SC-04-04 on Microphone Measurement and Characterization. After the functional requirements had been clarified, this connector standard was subsequently developed by working group SC-05-02 on Audio Connectors.

The members of the writing group that developed this document in draft included: E.B. Brixen, D. Josephson, M. Natter, R. Rayburn, H. Wittek, J.M. Woodgate, and C.Woolf.

Ray Rayburn
Chair, SC-05-02 Working Group on Audio Connectors
2012-12-18

Note on normative language

In AES standards documents, sentences containing the word “shall” are requirements for compliance with the document. Sentences containing the verb “should” are strong suggestions (recommendations). Sentences giving permission use the verb “may”. Sentences expressing a possibility use the verb “can”.

AES standard for interconnections - Connector for surround microphones

Introduction

A still increasing number of surround sound microphones are introduced on the market. However, so far no attempts have been made to establish a common standard for the connectors between microphone and recording device. One reason for this is of course the various recording formats, i.e. 5.1, Double MS, Soundfield, ORTF Surround (IRT cross), Holophone, 360 surround, etc. From history we have learned, that standards in this field might be a good idea. Like other standard cables a standard "surround cable" would be a "nice to have" and could even be very practical.

The purpose of this document is to provide a standard for connectivity for multi-channel microphone signals such as are used in surround sound microphones. Individual connectors for each channel have been used successfully, but one single connector might make things easier for the user, and eventually create the basis for smaller and lighter recording devices. The connector and cable described may also be useful for other multichannel audio interfaces.

1 Scope

This standard specifies a connector type and contact assignment for microphones having up to six balanced analog output channels, as used in surround sound applications. It includes specifications for marking and identification for the audio channels. It includes recommendations for cable type and detailed wiring.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61076-2-106 (2011) *Connectors for electronic equipment – Product requirements – Part 2-106: Circular connectors – Detail specification for connectors M 16 × 0,75 with screw-locking and degree of protection IP40 or IP65/67* International Electrotechnical Commission, Geneva, Switzerland.

AES48: AES standard on interconnections - Grounding and EMC practices - Shields of connectors in audio equipment containing active circuitry

AES54-1: AES standard on interconnections - Grounding and EMC practices - Connection of cable shields within connectors attached to portable balanced audio cables