AES standard on interconnections -
Application of RJ45-type connectors
and quad twisted pair cable for
audio interconnections

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Abstract

This standard documents 8P8C (RJ45) pin-outs commonly used in analog and digital professional audio applications to carry four links, including channel/link order, signal polarity and phantom power compatibility. Type numbers are assigned to these variations, allowing manufacturers to easily specify which wiring standard is used in a particular piece of equipment. Users may use these type numbers to assess compatibility of disparate equipment in a given application. This standard also documents practical application details of interest to users of this technology. Conformance with this standard will identify mutually compatible devices, enabling users to avoid problems when employing equipment from multiple manufacturers.

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Foreword

This foreword is not part of the AES72-2019 AES standard on interconnections — Application of RJ45-type connectors and quad twisted pair cable for audio interconnections.

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Note on normative language

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0 Introduction
The RJ45-8P8C connector and quad twisted pair cable has become ubiquitous throughout the datacom (data communications) industry for Ethernet connections. This high-volume usage has greatly reduced costs, making the hardware attractive for other applications. In typical installations, it is necessary to connect multiple signals from one location to another. Consequently, several manufacturers have developed schemes to connect 4 balanced analog audio signals or 4 balanced AES3 connections using this hardware. Unfortunately, equipment from different manufacturers is often incompatible. This standard identifies the commercially available variants and specifies a labeling scheme so users may select compatible equipment or take steps to alleviate the problems.

1 Scope
This standard documents 8P8C (RJ45) pin-outs commonly used in analog and digital professional audio applications, including channel/link order, signal polarity and phantom power compatibility. Conformance with this standard will identify mutually compatible devices, enabling users to avoid problems when employing equipment from multiple manufacturers.

2 Normative references


