

# SMPTE STANDARD

## Format for Non-PCM Audio in AES3 — Type17 Compressed Audio



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## Foreword

SMPTE (the Society of Motion Picture and Television Engineers) is an internationally-recognized standards developing organization. Headquartered and incorporated in the United States of America, SMPTE has members in over 80 countries on six continents. SMPTE's Engineering Documents, including Standards, Recommended Practices, and Engineering Guidelines, are prepared by SMPTE's Technology Committees. Participation in these Committees is open to all with a bona fide interest in their work. SMPTE cooperates closely with other standards-developing organizations, including ISO, IEC and ITU.

SMPTE Engineering Documents are drafted in accordance with the rules given in its Standards Operations Manual.

SMPTE ST 2106 was prepared by Technology Committee 32NF.

## Intellectual Property

At the time of publication no notice had been received by SMPTE claiming patent rights essential to the implementation of this Engineering Document. However, attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. SMPTE shall not be held responsible for identifying any or all such patent rights.

## 1 Scope

This standard describes how data rate reduced (non PCM) audio streams conforming to ETSI TS 102 114 are packed into an AES3 data stream, following the methods described by SMPTE ST 337. The type of data in the AES3 stream is identified by a data\_type value as defined by SMPTE ST 338 and carried in the burst information word of the data burst preamble. Since the data\_type value associated with ETSI TS 102 114 is 17, the term 'Type 17' in this document will refer to a bitstream conforming to ETSI TS 102 114, comprising a "core substream" defined in Chapter 5, and / or "extension substream" as defined in Chapter 7.

## 2 Conformance Notation

Normative text is text that describes elements of the design that are indispensable or contains the conformance language keywords: "shall", "should", or "may". Informative text is text that is potentially helpful to the user, but not indispensable, and can be removed, changed, or added editorially without affecting interoperability. Informative text does not contain any conformance keywords.

All text in this document is, by default, normative, except: the Introduction, any section explicitly labeled as "Informative" or individual paragraphs that start with "Note:"

The keywords "shall" and "shall not" indicate requirements strictly to be followed in order to conform to the document and from which no deviation is permitted.

The keywords, "should" and "should not" indicate that, among several possibilities, one is recommended as particularly suitable, without mentioning or excluding others; or that a certain course of action is preferred but not necessarily required; or that (in the negative form) a certain possibility or course of action is deprecated but not prohibited.

The keywords "may" and "need not" indicate courses of action permissible within the limits of the document.

The keyword "reserved" indicates a provision that is not defined at this time, shall not be used, and may be defined in the future. The keyword "forbidden" indicates "reserved" and in addition indicates that the provision will never be defined in the future.

A conformant implementation according to this document is one that includes all mandatory provisions ("shall") and, if implemented, all recommended provisions ("should") as described. A conformant implementation need not implement optional provisions ("may") and need not implement them as described.

Unless otherwise specified, the order of precedence of the types of normative information in this document shall be as follows: Normative prose shall be the authoritative definition; Tables shall be next; then formal languages; then figures; and then any other language forms.

## 3 Normative References

The following standards contain provisions which, through reference in this text, constitute provisions of this engineering document. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this engineering document are encouraged to investigate the possibility of applying the most recent edition of the standards indicated below.

SMPTE ST 337:2015, Format for Non-PCM Audio and Data in an AES3 Serial Digital Audio Interface

SMPTE ST 338:2016, Format for Non-PCM Audio and Data in AES3 - Data Types

SMPTE ST 339:2015, Format for Non-PCM Audio and Data in AES3 - Generic Data Types

ETSI TS 102 114 v.1.4.1, 2012, DTS Coherent Acoustics; Core and Extensions with Additional Profiles