

for Television — Format for Non-PCM Audio and Data in AES3 — Data Types



Page 1 of 2 pages

1 Scope

This standard describes the `data_type` field defined in SMPTE 337M. This field describes data types that may be carried in an AES3 digital audio interface according to SMPTE 337M. This standard defines supported data types, but does not cover formatting that may be required for each data type. References are included for additional standards that describe data type specific formatting requirements.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute 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 edition of the standards indicated below.

SMPTE 337M-2000, Television — Format for Non-PCM Audio and Data in an AES3 Serial Digital Audio Interface

SMPTE 339M-2000, Television — Format for Non-PCM Audio and Data in AES3 — Generic Data Types

SMPTE 340M-2000, Television — Format for Non-PCM Audio and Data in AES3 — ATSC A/52 (AC-3) Data Type

SMPTE 341M-2000, Television — Format for Non-PCM Audio and Data in AES3 — Captioning Data Type

3 Introduction

SMPTE 337M describes general formatting requirements when carrying non-PCM data in an AES3 digital audio bit stream. Data are formatted into data bursts each consisting of a `burst_preamble` and a `burst_payload`. The `data_type` field in the `burst_preamble` of each data burst defines the type of non-PCM data carried within the `burst_payload` of the data burst. Each data type includes additional formatting requirements not defined in SMPTE 337M.

This standard maps the value of the `data_type` field to specific data types and references additional standards that contain data type specific formatting requirements and information. No specific formatting information is contained in this standard.

Some data types are mapped directly to `data_type` values. Specific references are included for these data types.

4 Data types

Table 1 defines the `data_type` field described in SMPTE 337M.

5 Data type references

This clause provides references to additional standards that describe specific data types and formatting requirements for these data types.

5.1 Data type 0 – Null data

Reference: SMPTE 339M, Generic data types.

5.2 Data type 1 – ATSC A/52 (AC-3) (audio)

Reference: SMPTE 340M, ATSC A/52 (AC-3) data type.

Table 1 – Data type field

data_type value	Data type
0	Null data
1	ATSC A/52 (AC-3) data (audio)
2	Time stamp data
3	Reserved
4	Reserved MPEG-1 layer 1 data (audio)
5	Reserved MPEG-1 layer 2 or 3 data or MPEG-2 data without extension (audio)
6	Reserved MPEG-2 data with extension (audio)
7	Reserved
8	Reserved MPEG-2 layer 1 data low-sampling frequency (audio)
9	Reserved MPEG-2 layer 2 or 3 data low-sampling frequency (audio)
10–26	Reserved
27	Reserved SMPTE KLV data
28	Reserved Dolby E data (audio)
29	Captioning data
30	User defined data
31	Reserved

5.3 Data type 2 – Time stamp

Reference: SMPTE 339M, Generic data types.

5.5 Data type 30 – User data

Reference: SMPTE 339M, Generic data types.

5.4 Data type 29 – Captioning data

Reference: SMPTE 341M, Captioning data type.