



# TA Document 2002007

## Assignment of STYPE for D7 and D12 DV-Based formats 2.0

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**Abstract:**  
This specification defines the STYPE for SMPTE Type D-7 25Mbps, 50Mbps and SMPTE Type D-12 100Mbps DV-Based formats.

**Keywords:**  
STYPE, SMPTE Type D-7, SMPTE Type D-12

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## Change history

The following table shows the change history for this specification.

### Version 1.0 (December 5, 2002)

Original version.

### Version 2.0 (March 20, 2003)

Table 1 – Content change for version 2.0

Category	Description
Technical	Reference document [R9] SMPTE xxxM is replaced with SMPTE 396M.

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## Overview

### 1.1 Purpose

The purpose of this specification is to assign the STYPE for SMPTE Type D-7 and SMPTE Type D-12 DV-Based formats. This is the extension to the assignment in IEC 61883-2[R4].

### 1.2 Scope

This specification defines the STYPE for SMPTE Type D-7 25Mbps, 50Mbps and SMPTE Type D-12 100Mbps DV-Based formats. New assignment of STYPE will be reflected in maintenance of IEC 61883-2[R4].

## 2. References

The following standards contain provisions, which through reference in this document, constitute provisions of this standard. All the standards listed are normative references. Informative references are given in Annex A. 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 editions of the standards indicated below.

- [R1] IEEE Std 1394-1995, Standard for a High Performance Serial Bus.
- [R2] IEEE Std 1394a-2000, Standard for a High Performance Serial Bus – Amendment 1
- [R3] IEC 61883-1, Consumer audio/video equipment – Digital interface – Part 1: General
- [R4] IEC 61883-2, Consumer audio/video equipment – Digital interface – Part 2: SD-DVCR data transmission
- [R5] SMPTE 306M-2002 for Television Digital Recording - 6.35-mm Type D-7 Component Format - Video Compression at 25Mb/s and 50 Mb/s - 525/60 and 625/50
- [R6] SMPTE 314M-1999 for Television - Data Structure for DV-Based Audio, Data and Compressed Video - 25 and 50 Mb/s
- [R7] SMPTE 371M for Television - 6.35-mm Type D-12 Component Format Digital Recording at 100 Mb/s 1080/60i, 1080/50i, 720/60p
- [R8] SMPTE 370M-2002 for Television - Data Structure for DV-Based Audio, Data and Compressed Video at 100 Mb/s - 1080/60i, 1080/50i, 720/60p
- [R9] SMPTE 396M, Packet format and transmission timing of DV-Based data stream over IEEE 1394



## 3. Definitions

### 3.1 Conformance levels

**3.1.1 expected:** A key word used to describe the behavior of the hardware or software in the design models *assumed* by this Specification. Other hardware and software design models may also be implemented.

**3.1.2 may:** A key word that indicates flexibility of choice with *no implied preference*.

**3.1.3 shall:** A key word indicating a mandatory requirement. Designers are *required* to implement all such mandatory requirements.

**3.1.4 should:** A key word indicating flexibility of choice with a strongly preferred alternative. Equivalent to the phrase *is recommended*.

**3.1.5 reserved fields:** A set of bits within a data structure that are defined in this specification as reserved, and are not otherwise used. Implementations of this specification shall zero these fields. Future revisions of this specification, however, may define their usage.

**3.1.6 reserved values:** A set of values for a field that are defined in this specification as reserved, and are not otherwise used. Implementations of this specification shall not generate these values for the field. Future revisions of this specification, however, may define their usage.

NOTE —The IEEE is investigating whether the “may, shall, should” and possibly “expected” terms will be formally defined by IEEE. If and when this occurs, draft editors should obtain their conformance definitions from the latest IEEE style document.

### 3.2 Glossary of terms

**3.2.1 byte:** Eight bits of data, used as a synonym for octet.

**3.2.2 CSR Architecture:** A convenient abbreviation of the following reference (see clause 2): ISO/IEC 13213 : 1994 [ANSI/IEEE Std 1212, 1994 Edition], Information Technology—Microprocessor systems—Control and Status Register (CSR) Architecture for Microcomputer Buses.

**3.2.3 quadlet:** Four bytes of data.

### 3.3 Acronyms and abbreviations

IEEE The Institute of Electrical and Electronics Engineers, Inc.

## 4. Assignment of STYPE

Table 4.1 shows the proposed assignment of STYPE for SMPTE Type D-7 25Mbps, 50Mbps and SMPTE Type D-12 100Mbps DV-Based formats.

Refer to reference [R5] and [R6] for the detail of SMPTE Type D-7 25Mbps and 50Mbps DV-Based formats.

Refer to reference [R7] and [R8] for the detail of SMPTE Type D-12 100Mbps DV-Based format.

Refer to reference [R9] for the detail of packet format and transmission timing of DV-Based data stream.

**Table 4.1 Code allocation of 50/60 and STYPE**

STYPE	50/60	
	0	1
0000	525-60 system	625-50 system
0001	SDL525-60 system	SDL625-50 system
0010	1125-60 system	1250-50 system
0011 ⋮ 11011	Reserved	
11100	SMPTE Type D-12 100Mbps 60Hz system*	SMPTE Type D-12 100Mbps 50Hz system*
11101	SMPTE Type D-7 50Mbps 525-60 system*	SMPTE Type D-7 50Mbps 625-50 system*
11110	SMPTE Type D-7 25Mbps 525-60 system*	SMPTE Type D-7 25Mbps 625-50 system*
11111	Reserved	
*Refer to SMPTE 396M		