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**VC-1 Video Systems and Transport Constraints for Cable
Television**

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VC-1 Video Systems and Transport Constraints for Cable Television

1.0 SCOPE

This document defines the video coding and transport constraints on SMPTE 421M [5] video compression (hereafter called "VC-1") for Cable Television. In particular, this document describes the transmission of VC-1 coded video elementary streams in an MPEG-2 service multiplex (single or multi-program Transport Stream).

Note: The carriage of MPEG-2 video in the MPEG-2 service multiplex is described in ANSI/SCTE 54 [1].

1.1 Background (Informative)

This document assists in creation of a VC-1 coded video elementary stream and its transport and is intended for broadcast purposes. There are other applications: time-shifting (e.g., PVR/DVR service); streams transmitted to dedicated STBs (e.g., Video-on-Demand service, unicast, multicast); splicing (e.g., Ad-insertion) that could employ the specifications in this document. However, constraints specific to those applications are outside of the scope of this document.

2.0 NORMATIVE REFERENCES

The following documents 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 agreement based on this standard are encouraged to investigate the possibility of applying the most recent editions of the documents listed below.

2.1 SCTE References

- [1] ANSI/SCTE 54 (2006), Digital Video Service Multiplex and Transport System Standard for Cable Television
- [2] SCTE 128 [2007 note: if the 2008 revision is available prior to publication of DVS810 this reference version will be updated accordingly], AVC Video Systems and Transport Constraints for Cable Television

2.2 Standards from other Organizations

- [3] ATSC A/65C, Program and System Information Protocol for Terrestrial Broadcast and Cable, Revision C, with Amendment No. 1, May 9, 2006; Section 6.9.2
- [4] ISO/IEC 13818-1, (2007), "Information Technology – Generic coding of moving pictures and associated audio – Part 1: Systems"
- [5] SMPTE 421M:2006/AMD1:2007, "Standard for Television—VC-1 Compressed Video Bitstream Format and Decoding Process, with Amendment 1"
- [6] SMPTE RP227:2007, "Recommended Practice—VC-1 Bitstream Transport Encodings, with Amendment 1"
- [7] SMPTE RP228:2007, "VC-1 Decoder and Bitstream Conformance, with Amendment 1"
- [8] CEA-608-D (2007), "Line 21 Data Services"
- [9] CEA-708-C (2006), "Digital Television (DTV) Closed Captioning"