自动字符分割，除非背景、前景和边缘的个别控制不被支持。

（s）服务同步。服务输入缓冲区必须至少为128字节大小。字幕提供商必须在遵循延迟命令和其他命令及窗口文本后，在延迟命令的延迟时间间隔到期之前保持这个下限。换句话说，每128字节的DTVCC命令和文本应被传输（编码）。

（t）设置。解码器必须包括一个选项，允许观众选择一个将显示字幕的设置，符合字幕提供商的意愿（默认）。解码器还必须包括一个选项，允许观众选择的设置在查看者改变这些设置时保留，包括在电视关闭时。


§ 79.103 字幕解码器要求适用于所有装置。

（a）从2014年1月1日起，所有数字装置设计用于接收或播放同时传输的视频和声音的装置，如果该装置在美国制造或用于在美国进口的装置，则应配备带有内置字符编码器的字符解码器电路或能力，用于显示字符编码的视频程序，按照本节的条款，如果技术上可行，除非字符装置使用显示屏幕小于13英寸的大小应符合本节的条款，以及定义在本节。

注1 本节（a）注：字符装置”，包括物理设备和视频播放器，制造商在出售前安装在设备内，无论是硬件、软件，或者其组合，以及任何视频播放器，制造商直接销售的消费者。

（b）豁免装置——（1）只显示的显示器。装置或装置类的装置，可以申请豁免，或对投诉有足够证据，以证明在合理的努力或费用内，不能实现的要求。委员会将考虑以下因素来确定这些要求是不“可实现”：“

（A）需要的步骤的性质和成本，以及与特定设备或服务的要求；
（B）装置的技术和经济影响，以及特定设备或服务的开发和部署新技术的影响；
（C）制造商或提供商的类型；
（D）服务提供商或制造商在提出豁免时提供的服务或设备，以及各种程度的功能和特征，以及提供的价格。

（4）豁免。制造商可以申请委员会豁免或部分豁免。
captioning requirements of this section, which the Commission may grant, upon a finding that the apparatus meets one of the following provisions:

(i) The apparatus is primarily designed for activities other than receiving or playing back video programming transmitted simultaneously with sound; or

(ii) The apparatus is designed for multiple purposes, capable of receiving or playing back video programming transmitted simultaneously with sound but whose essential utility is derived from other purposes.

(c) Specific technical capabilities. All apparatus subject to this section shall implement the following captioning functionality:

(1) Presentation. All apparatus shall implement captioning such that the caption text may be displayed within one or separate caption windows and supporting the following modes: text that appears all at once (pop-on), text that scrolls up as new text appears (roll-up), and text where each new letter or word is displayed as it arrives (paint-on).

(2) Character color. All apparatus shall implement captioning such that characters may be displayed in the 64 colors defined in CEA–708 and such that users are provided with the ability to override the authored color for characters and select from a palette of at least 8 colors including: white, black, red, green, blue, yellow, magenta, and cyan. All apparatus shall implement captioning such that users are provided with the ability to vary the opacity of the caption background and select from opaque, semi-transparent, and transparent background opacities.

(3) Character opacity. All apparatus shall implement captioning such that users are provided with the ability to vary the opacity of captioned text and select between opaque and semi-transparent opacities.

(4) Character size. All apparatus shall implement captioning such that users are provided with the ability to vary the size of captioned text and provide a range of such sizes from 50% of the default character size to 200% of the default character size.

(5) Fonts. All apparatus shall implement captioning such that fonts are available to implement the eight fonts required by CEA–708 and §79.102(k). Users must be provided with the ability to assign the fonts included on their apparatus as the default font for each of the eight styles contained in §79.102(k).

(6) Character edge attributes. All apparatus shall implement captioning such that character edge attributes may be displayed and users are provided with the ability to select character edge attributes including: no edge attribute, raised edges, depressed edges, uniform edges, and drop shadowed edges.

(7) Caption background color and opacity. All apparatus shall implement captioning such that the caption background may be displayed in the 64 colors defined in CEA–708 and such that users are provided with the ability to override the authored color for the caption background and select from a palette of at least 8 colors including: white, black, red, green, blue, yellow, magenta, and cyan. All apparatus shall implement captioning such that users are provided with the ability to vary the opacity of the caption background and select between opaque, semi-transparent, and transparent background opacities.

(8) Caption window color. All apparatus shall implement captioning such that the caption window color may be displayed in the 64 colors defined in CEA–708 and such that users are provided with the ability to override the authored color for the caption window and select from a palette of at least 8 colors including: white, black, red, green, blue, yellow, magenta, and cyan. All apparatus shall implement captioning such that users are provided with the ability to vary the opacity of the caption window and select between opaque, semi-transparent, and transparent background opacities.

(9) Language. All apparatus must implement the ability to select between caption tracks in additional languages when such tracks are present and provide the ability for the user to select simplified or reduced captions when such captions are available and identify such a caption track as “easy reader.”

(10) Preview and setting retention. All apparatus must provide the ability for the user to preview default and user selection of the caption features required by this section, and must retain such settings as the default caption configuration until changed by the user.
§ 79.104 Closed caption decoder requirements for recording devices.

(a) Effective January 1, 2014, all apparatus designed to record video programming transmitted simultaneously with sound, if such apparatus is manufactured in the United States or imported for use in the United States, must comply with the provisions of this section except that apparatus must only do so if it is achievable as defined in §79.103(b)(3).

(b) All apparatus subject to this section must enable the rendering or the pass through of closed captions such that viewers are able to activate and de-activate the closed captions as the video programming is played back as described in §79.103(c).

(c) All apparatus subject to this section must comply with the interconnection mechanism requirements in §79.103(d).

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