

CTA Standard

Cable Television Channel Identification Plan

CTA-542-D

(Formerly CEA-542-D)

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**Consumer
Technology
Association**

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(Formulated under the cognizance of the CTA **R4 Video Systems Committee**.)

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FOREWORD

This standard was developed under the auspices of the Consumer Electronics Association (CEA) Technology & Standards R4 Video Systems Committee.

CEA-542-D supersedes CEA-542-C.

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Cable Television Channel Identification Plan

1 Scope

This standard designates identification numbers for 6 MHz channel frequency allocations for 158 channels up to 1002 MHz, with a method of specifying higher channel numbers.

This channel identification plan shall be used to establish the identity of 6 MHz wide RF channels carrying either analog or digital services for display on consumer TV sets. This standard is not intended to preclude channel mapping in cable systems. This standard does not specify a numbering plan for tuning of digitally multiplexed services within one or more RF channel(s) carrying digital services. For digital television, most systems identify programs and services to viewers via other methods. Receiver tuning capacity is explicitly outside the scope of this standard.

2 References

The following regulation contains provisions that, through reference in this text, constitute normative provisions of this standard. At the time of publication, the editions indicated were valid. All regulations 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 document listed in Sec. 2.1. If the referenced document is dated, the reader is advised to use the version specified.

2.1 Regulatory Reference

FCC Regulations, 47 CFR Part 76.612, Cable Television Frequency Separation Standards

2.2 Reference Acquisition

47 CFR 76

- U.S. Code of Federal Regulations (CFR), U.S. Government Printing Office, Washington, D.C. 20401; <http://www.fcc.gov/wtb/rules.html>

3 Definitions

3.1 Standard Frequencies (STD)

This is a cable channel identification plan that uses standard off-air frequencies for the channels 2-6 and 7-13. Supplemental channels are 6 MHz increments down from channel 7 to 91.25 MHz and up from channel 13. Channels in the UHF band (470 MHz and above) are offset 2 MHz from the off-air allocations, and utilize different numeric designations.

3.2 Harmonic Related Carriers (HRC)

This is a cable channel identification plan that uses picture carrier frequencies that are multiples of 6.0003 MHz and starts at 54.0027 MHz. It involves the frequency displacements of approximately -1.25 MHz on all standard and supplemental channels except channels 5 and 6, where the displacement is approximately + 0.75 MHz.

3.3 Incremental Related Carriers (IRC)

This is a cable channel identification plan that uses picture carrier frequencies starting at 55.2625 MHz and increments each channel by 6 MHz, except as noted.

4 Channel Identification Plan

See Table 1 for the cable channel identification plan.

4.1 FM Band Usage

Compliance with the channel identification plan does not require inclusion of channels 95-97. Utilization of these channels by a cable system is on a voluntary basis.

4.2 Channel Definition

Regardless of the plan being used, or the type of signal (analog or digital), the channel edges are defined