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VESA ENHANCED EXTENDED DISPLAY IDENTIFICATION DATA (E-EDID) PROPOSED Verification Guide

(Defines Compliance for EDID Structure Version 1, Revision 4)

Release A
March 27, 2007

Purpose

The ENHANCED Extended Display Identification Data (E-EDID) Verification Guide is a companion document to VESA ENHANCED Extended Display Identification Data (E-EDID) Standard (Release A, Revision 2). The E-EDID Verification Guide defines a process for testing compliance of an EDID Data Structure, Version 1, Revision 4 (shorthand notation: "EDID 1.4") to the E-EDID Standard (Release A, Revision 2). The proper use of this document will help to ensure the contents of the required and optional data fields (ELEMENTS) within an EDID 1.4 data table are correct.

Summary

The ENHANCED Extended Display Identification Data Verification Guide contains a list of test cases that check the individual required and optional data fields (ELEMENTS) within an EDID 1.4 data table for compliance with the VESA ENHANCED Extended Display Identification Data Standard (Release A, Revision 2).

Notice

This document is intended to be used as a guide to help check EDID 1.4 implementation and content. The purpose is to help debug or verify the EDID content. No certification, compliance, or official sponsorship or validation or endorsement of the results is intended or implied.

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Support for this Guide

Clarifications and application notes to support this guide may be written. To obtain the latest standard and any support documentation, contact VESA.

If you have a product, which incorporates EDID, you should ask the company that manufactured your product for assistance. If you are a manufacturer, VESA can assist you with any clarification you may require. All comments or reported errors should be submitted in writing to VESA using one of the following methods.

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Conformance Glossary – Definition of Terms

Following is a list of definitions for certain keywords used through out this document:
shall: A keyword that indicates a mandatory requirement for compliance with this standard.
should: A keyword that indicates a choice with a strongly preferred preference – equivalent to "is strongly recommended".
may: A keyword that indicates a choice with no expressed or implied preference.
optional: A keyword that denotes items which may or may not be present in a complaint device.
required: A keyword that denotes items which are mandatory and shall be present in a compliant device.

Conformance Glossary – Definition of Notations

The following table defines a list of notations that are used through out this document:

Table 0-1: Definitions of Notations

Notation	Definition	Example
-	Subtraction	7 – 3 = 4
÷	Division	9 ÷ 3 = 3
×	Multiplication	2 x 3 = 6
+	Addition	2 + 3 = 5
≡	Is Equivalent To	A ≡ B
→	Thru	7 → 3 ≡ 7, 6, 5, 4, 3
/	Delineator	Offset Pointer or Address
AND	Logical AND	If A = True and B = True then A AND B is True.
Binary	Binary Number, msb → lsb	(msb) 10010110 (lsb)
Hex	Hexadecimal Numbers, MSB → LSB	(MSB) 14 00 0A FF FEh (LSB)
Boldface Hex	Address or Offset	**3Fh** ≡ is an address located at **3Fh**
Hex Contents	Hex Contents at Address [__**h**]	[3Fh] ≡ the hex data stored at address **3Fh**
Bit Contents	Contents of Bits at Address [__**h**]	[Byte **7Ah**, bit 1, 0] ≡ Binary data stored in bits 1 & 0 at address **7Ah**
Dec String	String of Decimal Numbers	4, 3, 6, 4
Hex String	String of Hexadecimal Numbers	(14 00 0A FF FE)h

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Data Format Conventions

The EDID structures are designed to be compact in their representation of data fitting the most information into a limited space. To accommodate this, many data lengths have been used according to the needs of the particular data. These include fields from a single bit up to several bytes in length. In all cases, except where explicitly stated, the following conventions shall be used:

Table 0-2: Data Format Conventions

Data length	Convention used	Example
1 to 7 bits	stored in stated order	
8 bits (1 byte)	stored at stated location	
9 to 15 bits	location of bits stated in field definition	
16 bits (2 bytes)	Bytes are stored as binary (not BCD) in specified locations. The least significant byte (LSB) is stored in the first location.	1280 decimal = 0500h Stored as 00h in first location and 05h in the next location
Character string (More than 2 bytes)	Bytes are stored as ASCII, in the order they appear in the string.	"ACED" Stored as 41h in first location, 43h in the next location, 45h in the next location and 44h in the last location.

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Revision History

March 27, 2007	Initial release of the verification guide.

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Name	Company	Contribution
Syed Athar Hussain	AMD	
James R. Webb	DisplayLabs	
Bob Myers	HP	
Ian Miller	Samsung	
Robert Blanchard	Sony	
Joe Miseli	Sun Microsystems	
Alain d'Hautecourt	ViewSonic	Task Group Chair, Document Editor

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1. OVERVIEW

1.1 Summary

The ENHANCED Extended Display Identification Data (E-EDID) Verification Guide defines a group of test cases that were created to test compliance of a BASE EDID contents with the VESA ENHANCED Extended Display Identification Data (E-EDID) Standard (Release A, Revision 2). Each test case was designed to test the compliance of individual (both required and optional) data fields (ELEMENTS) to the E-EDID Standard. Each test case may include one or more sub-tests. These sub-tests cover individual bit and byte definitions within the data fields. The ENHANCED Extended Display Identification Data (E-EDID) Verification Guide was created as a companion document to the VESA ENHANCED Extended Display Identification Data (E-EDID) Standard (Release A, Revision 2).

Running the test cases in the E-EDID Verification Guide will help to ensure that the contents of a BASE EDID 1.4 (Block 0) correctly define the capabilities of and features supported by the display (or sink device). A compliant EDID (stored in the display) that contains the correct information is a requirement for “Plug & Play” in the display/graphics sub-system. A source may read and parse the contents of this compliant BASE EDID to configure the graphics sub-system. The source can then output a video signal to the display resulting in an optimized image on the display’s screen.

In the event that there is a conflict between the contents of the E-EDID Verification Guide and the contents of the E-EDID Standard (Release A, Revision 2), then the contents of the E-EDID Standard (Release A, Revision 2) have priority over the contents of the E-EDID Verification Guide.

Note:
This document is intended to be used as a guide to help check EDID 1.4 implementation and content. The purpose is to help debug or verify the EDID content. No certification, compliance, or official sponsorship or validation or endorsement of the results is intended or implied.

1.2 Scope

The E-EDID Verification Guide can only be used to test the BASE EDID. This guide does not include test cases for confirming compliance of data fields within optional EXTENSION Blocks. However, there is a test case for confirming that the Tag Numbers for the optional EXTENSION Blocks are valid. Testing of all required data fields is a requirement for compliance. If the BASE EDID includes optional data fields then testing of the optional data fields is also a requirement for compliance. The testing of optional data fields that are not contained in the BASE EDID are not required.

The E-EDID Verification Guide may be used to test compliance of a BASE EDID stored in a display (or sink device). This guide may also be used to test accuracy of a graphics driver’s parsing of a compliant BASE EDID. In this case, the source is required to read and parse a compliant BASE EDID (Block 0). Compliance testing may be conducted by IT display and source manufacturers. Compliance testing may also be conducted by DTV display and source manufacturers.

1.3 Verification Testing Requirements

Each test case in this guide includes a Pre-Test Requirements Section. The Pre-Test Requirements Section includes a list of tasks that the tester must complete prior to running the test case. The tester has the option to use the “Verification Test Report Form” in Appendix A to record the pre-test requirements data. This form may also be used to record the measured data and keep a record of test cases that pass or fail.

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During the running of a test case, it is possible that a sub-test may result in a failure. If a failure occurs, then the tester must correct the fault and repeat the sub-test until it passes. For a display, the correction requires a modification of the defective data field in the BASE EDID. For a source, the modification requires a rewrite of the parsing software in order to correct the parsing error. Once an EDID error (in the display) has been corrected or a parsing error (in the source) has been corrected, it is recommended that the tester repeat all test cases starting with test case 1.

1.4 Reference Documents

Note: Standards and document versions identified here are current (as of the release of this document), but users of this E-EDID Verification Guide are encouraged to ensure they have the latest versions of referenced standards and documents. These references have been separated into Normative Reference Documents and Informative Reference Documents.

1.4.1 Normative Reference Documents

Understanding the contents of the following normative reference documents is a requirement for understanding the provisions of this Verification Guide:

- ISO/IEC 8859-1: 1998 Information Technology - 8-bit single-byte coded graphic character sets - Part 1: Latin alphabet No. 1 - ASCII Codes
- VESA Coordinated Video Timing (CVT™) Standard, Version 1.1, September 10, 2003
- VESA Display Color Management (DCM™) Standard, Version 1, January 6, 2003
- VESA Display Information Extension (DI-EXT™) Block Standard, Release A, August 21, 2001
- VESA Display Power Management (DPM™) Standard, Release A, March 3, 2003
- VESA ENHANCED Display Data Channel Standard (E-DDC™), Version 1.1, March 24, 2004
- VESA and Industry Standards and Guidelines for Computer Display Monitor Timing (DMT™), Version 1.0, Revision 10, October 29, 2004
- VESA "Plug & Play" (PnP™) Standard for the Display/Graphics Subsystem, Rel. A, June 7, 2004
- CIE 15.2 Colorimetry Revision 86, Date: 1986
- VESA Glossary of Terms -- go to www.vesa.org and click on "Glossary of Terms" for access to an interactive online glossary.

1.4.2 Informative Reference Documents

The following informative reference documents contain information that is useful in understanding this Compliance Guide:

- Digital Visual Interface DVI, Specifications, Revision 1.0, 02 April 1999 - www.ddwg.org
- CEA-861-D Standard, A DTV Profile for Uncompressed High Speed Digital Interfaces; www.global.ihs.com
- HDMI Specifications: Refer to www.hdmi.org for more information on HDMI.
- VESA ENHANCED EDID Localized String Extension (LS-EXT™) Standard, Rel. A, July 10, 2003
- VESA Generalized Timing Formula Standard (GTF™), Version 1.0, December 18, 1996
- VESA Video Timing Block Extension (VTB-EXT™) Data Standard, Rel. A, November 24, 2003

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2. Extended Display Identification Data (EDID) Version 1 Revision 4

2.1 EDID Structures - Comparison Table

Table 2.1 contains a comparison of EDID Data Structures (1.0 through 1.4). The table contains a listing of required, optional and optional (but recommended) ELEMENTS. Refer to the Key in Table 2.2 for the definitions of the symbols used in the Table 2.1.

Table 2-1: EDID Structures – Comparison Table

	BASE EDID Structure				
	1.0	**1.1**	**1.2**	**1.3**	**1.4**
Block "0" Header	☺	☺	☺	☺	☑
ID Manufacturer	☺	☺	☺	☺	☑
ID Product Code	☺	☺	☺	☺	☑
ID Serial Number	☒	☒	☒	☒	☒
Week of Manufacture	☒	☒	☒	☒	☒
Year of Manufacture or Model Year	☺	☺	☺	☺	☑
EDID version	☑	☑	☑	☑	☑
EDID revision	☑	☑	☑	☑	☑
Basic Display Parameters & Features	☺	☺	☺	☺	☑
Display x, y Chromaticity Coordinates (Phosphor or Filter Chromaticity)	☺	☺	☺	☺	☑
Established Timings	☒	☒	☒	☒	☒
Standard Timing Identifications	☒	☒	☒	☒	☒
Preferred Timing Descriptor Block	☒	☒	☒	☑	☑
Range Limits Descriptor Block	n/a	☒	☒	☑	☯
Monitor Name Descriptor Block	n/a	☒	☒	☑	☯
Other Descriptor Blocks	n/a	☒	☒	☒	☒
Extension flag	☺	☺	☺	☺	☑
Checksum	☺	☺	☺	☺	☑

Table 2-1: EDID Structures – Comparison Table - Key

☑	Explicit requirement --- mandatory (a "shall")
☺	No requirement stated but commonly understood to be a requirement
☯	Optional but recommended
☒	Optional
n/a	Not applicable

2.2 EDID Version 1 Revision 4 Format Overview

Table 2.3 contains an overview of all 128 bytes of the EDID Version 1, Revision 4 Data Structure Definition.

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Table 2-2: EDID Structure Version 1, Revision 4

Address	Bytes	Description	Format
00h	**8**	**Header:** = (00 FF FF FF FF FF FF 00)h	See Section 3.3
08h	**10**	**Vendor & Product Identification:**	See Section 3.4
08h	2	ID Manufacturer Name	ISA 3-character ID Code
0Ah	2	ID Product Code	Vendor assigned code
0Ch	4	ID Serial Number	32-bit serial number
10h	1	Week of Manufacture	Week number or Model Year Flag
11h	1	Year of Manufacture or Model Year	Manufacture Year or Model Year
12h	**2**	**EDID Structure Version & Revision:**	See Section 3.5
12h	1	Version Number: = 01h	Binary
13h	1	Revision Number: = 04h	Binary
14h	**5**	**Basic Display Parameters & Features:**	See Section 3.6
14h	1	Video Input Definition	See Section 3.6.1
15h	1	Horizontal Screen Size or Aspect Ratio	Listed in cm. → Aspect Ratio --- Landscape
16h	1	Vertical Screen Size or Aspect Ratio	Listed in cm. → Aspect Ratio --- Portrait
17h	1	Display Transfer Characteristic (Gamma)	Binary --- Factory Default Value
18h	1	Feature Support	See Section 3.6.4
19h	**10**	**Color Characteristics:**	See Section 3.7
19h	1	Red/Green: Low Order Bits	Rx1 Rx0 Ry1 Ry0 Gx1 Gx0 Gy1Gy0
1Ah	1	Blue/White: Low Order Bits	Bx1 Bx0 By1 By0 Wx1 Wx0 Wy1 Wy0
1Bh	1	Red-x: High Order Bits	Red-x Bits 9 → 2
1Ch	1	Red-y: High Order Bits	Red-y Bits 9 → 2
1Dh	1	Green-x: High Order Bits	Green-x Bits 9 → 2
1Eh	1	Green-y: High Order Bits	Green-y Bits 9 → 2
1Fh	1	Blue-x: High Order Bits	Blue-x Bits 9 → 2
20h	1	Blue-y: High Order Bits	Blue-y Bits 9 → 2
21h	1	White-x: High Order Bits	White-x Bits 9 → 2
22h	1	White-y: High Order Bits	White-y Bits 9 → 2
23h	**3**	**Established Timings**	See Section 3.8
23h	1	Established Timings I	
24h	1	Established Timings II	
25h	1	Manufacturer's Reserved Timings	
26h	**16**	**Standard Timings: Identification 1 → 8**	See Section 3.9
36h	**72**	**18 Byte Data Blocks**	See Section 3.10
36h	18	Preferred Timing Mode	
48h	18	Detailed Timing # 2 or Display Descriptor	
5Ah	18	Detailed Timing # 3 or Display Descriptor	
6Ch	18	Detailed Timing # 4 or Display Descriptor	

7Eh	**1**	**Extension Block Count N**
		If Block Maps are used then
		00h ≤ N ≤ FEh and FFh is invalid.
		If Block Maps are not used then
		00h ≤ N ≤ FFh.
			Number of (optional) 128-byte EDID EXTENSION blocks to follow – if Block Maps are used then 254 is the maximum value of ‘N’. If Block Maps are not used then 255 is the maximum value of ‘N’.

7Fh	**1**	**Checksum C** 00h ≤ C ≤ FFh	The 1-byte sum of all 128 bytes in this EDID block shall equal zero

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3. EDID Version 1 Revision 4 Verification Test Cases

This section contains the verification test case definitions for all required and optional data fields (ELEMENTS) contained in EDID Data Structure (Version 1, Revision 4). Each sub-section includes a bit and/or byte definition for the data field being tested, a pre-test requirements definition and the test case definition.

3.1 Test Case for a Valid EDID Header: 8 Bytes

The EDID Header is a required ELEMENT in EDID data structure version 1, revision 4. The header is an 8-byte pattern designed to define the start of a BASE EDID data table (Block 0). The definition for the EDID Header is shown in Table 3.1. There are no pre-test requirements for the EDID Header test case. The verification test for a valid EDID header is shown in Table 3.2. For more information on the EDID Header refer to section 3.3 in the E-EDID Standard Release A, Revision 2.

Table 3-1:- EDID Header Definition

Address	8 Bytes	Value
00h	1	00h
01h	1	FFh
02h	1	FFh
03h	1	FFh
04h	1	FFh
05h	1	FFh
06h	1	FFh
07h	1	00h

Pre-Test Requirements: None.

Table 3-2: Test Case 1: **EDID Header**

Addresses	Test Case #	Action	Result	Pass/Fail
00h → 07h	1	Read & record the data stored at addresses **00h → 07h.**	Is the data stored at addresses **00h → 07h** equal to (00 FF FF FF FF FF FF 00)h?	If 'Yes', then Pass --- continue to test case 2. If 'No', then Fail --- Stop, Repair & Re-test

3.2 Vendor & Product ID Information – Test Cases: 10 Bytes

The vendor & product ID block is made up of several data fields used to uniquely identify the display product. Section 3.2 defines the test cases for the ID Manufacturer Name, the ID Product Code, the ID Serial Number, the Week of Manufacture and the Year of Manufacture or Model Year.

Table 3-3: Vendor & Product ID Structure

Addresses	10 Bytes	Vendor & Product Identification	Refer To
08h, 09h	2	ID Manufacturer Name	Section 3.2.1
0Ah, 0Bh	2	ID Product Code	Section 3.2.2
0Ch → 0Fh	4	ID Serial Number	Section 3.2.3
10h, 11h	2	Week of Manufacture or Model Year Flag, Year of Manufacture or Model Year	Section 3.2.4

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3.2.1 Test for Valid ID Manufacturer's Name: 2 Bytes

The ID Manufacturer's Name field is a required ELEMENT in EDID structure version 1, revision 4. The manufacturer name is represented by a 3 letter code that is also called the ISA (Industry Standard Architecture) Plug and Play Device Identifier (PNPID). The 3 letter PNPID codes are based on 5 bit compressed ASCII codes; for example: "00001=A"; "00010=B"; ... "11010=Z". The first character (letter) is located at bits 6 → 2 (at address **08h**), the second character (letter) is located at bits 1 & 0 (at address **08h**) and bits 7 → 5 (at address **09h**), and the third character (letter) is located at bits 4 → 0 (at address **09h**). Table 3.4 contains the definition for the ID Manufacturer PNPID Code. The test for a valid manufacturer's PNPID code is shown in Table 3.5. For more information on the ID Manufacturer's Name refer to section 3.4.1 in the E-EDID Standard Release A, Revision 2.

Table 3.1 – ID Manufacturer PNPID Code Definition

Address	Byte #	Bits at Address 08h	Bits at Address 09h	Description
08h	1	**7**		**Bit 7 is reserved**
		0		Set bit 7 to 0
		1		Reserved – Do Not Use
		6 5 4 3 2		**Character #1 Location**
		0 4 3 2 1 0		Compressed ASCII Code - Bit #
08h/09h	1 & 2	**1 0**	**7 6 5**	**Character #2 Location**
		0 4 3	2 1 0	Compressed ASCII Code - Bit #
09h	2		**4 3 2 1 0**	**Character #3 Location**
		0	4 3 2 1 0	Compressed ASCII Code - Bit #

Pre-Test Requirements: The tester shall review the display (or sink device) product specifications and record the 3 letter Manufacturer's PNPID Code in the Verification Test Report Form. The tester will also convert the 3 letter Manufacturer's PNPID Code into the 2 byte code and record the 2 byte code in the Verification Test Report Form.

Table 3-5: Test Case 2: **ID Manufacturer PNPID Code**

Addresses	Test Case #	Action	Result	Pass/Fail
08h & **09h**	2	Read & record the data stored at addresses **08h** → **09h**.	Is the 3 character ID code stored at addresses **08h** & **09h** equal to the Manufacturer's ISA PNPID Code?	If 'Yes', then Pass --- continue to test case 3.
				If 'No', then Fail --- Stop, Repair & Re-test

3.2.2 Test for a Valid ID Product Code: 2 Bytes

The ID Product Code field is a required ELEMENT in EDID structure version 1, revision 4. The ID product code is 2 bytes in length and is assigned by the display (or sink device) manufacturer. This is used to differentiate between different models from the same manufacturer, for example a model number. The 2 byte number is stored in hex with the least significant byte (LSB) listed first (at address **0Ah**). Table 3.6 contains the definition for the ID Product Code. The test for a valid ID Product Code is shown in Table 3.7. For more information on the ID Product Code refer to section 3.4.2 in the E-EDID Standard Release A, Revision 2.

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Table 3-6: ID Product Code Definition

Address	2 Bytes	Value	Description
0Ah	1	00h → FFh	ID Product Code - LSB
0Bh	1	00h → FFh	ID Product Code - MSB

Pre-Test Requirements: The tester shall review the display (or sink device) product specifications and record the 2 byte ID Product Code in the Verification Test Report Form. No conversion is required.

Table 3-7: Test Case 3: **ID Product Code**

Addresses	Test Case #	Action	Result	Pass/Fail
0Ah & **0Bh**	3	Read & record the data stored at addresses **0Ah** → **0Bh** --- least significant byte is listed first.	Is the 2 byte code stored at addresses **0Ah** → **0Bh** equal to the Manufacturer Assigned Product ID Code?	If 'Yes', then Pass --- continue to test case 4. If 'No', then Fail --- Stop, Repair & Re-test

3.2.3 Test for a Valid ID Serial Number: 4 Bytes

The ID Serial Number field is an optional ELEMENT in EDID structure version 1, revision 4. The ID serial number is a 32-bit serial number used to differentiate between individual instances of the same display model. When used, the bit order for this field shall follow that shown in Table 3.8. The four bytes of the serial number are listed least significant byte (LSB) first. The range of this serial number is 0 to 4,294,967,295. This serial number is a number only --- it shall not represent ASCII codes. If this field is not used, then enter "00h, 00h, 00h, 00h". The test for a valid ID Serial Number is shown in Table 3.9. For more information on the ID Serial Number refer to section 3.4.3 in the E-EDID Standard Release A, Revision 2.

Table 3-2: ID Serial Number Definition

Address	Byte #	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0	Description
0Ch	1	(7	6	5	4	3	2	1	0)	ID Serial Number
0Dh	2	(15	14	13	12	11	10	9	8)	
0Eh	3	(23	22	21	20	19	18	17	16)	
0Fh	4	(31	30	29	28	27	26	25	24)	

Pre-Test Requirements: The tester shall make note of the serial number of the display (or sink device). Typically, the serial number of the display is shown on a label located on the rear of the display product. The tester should convert the decimal serial number into the 4 byte serial number code. Both the decimal serial number and the 4 byte serial number code should be recorded in the Verification Test Report Form.

Table 3-3: Test Case 4: **ID Serial Number**

Addresses	Test Case #	Action	Result	Pass/Fail
0Ch → **0Fh**	4	Read & record the ID Serial Number data stored at addresses **0Ch** → **0Fh** --- least significant byte is listed first.	Is the 4 byte decimal number stored at addresses **0Ch** → **0Fh** equal to zero or the serial number of the display?	If 'Yes', then Pass --- continue to test case 5-1. If 'No', then Fail --- Stop, Repair & Re-test

3.2.4 Test for a Valid Week and Year of Manufacture or Model Year: 2 Bytes

There are two definitions for this data field: Week & Year of Manufacture or Model Year.

The week of manufacture field is optional, but the year of manufacture (or model year) field is required in EDID structure version 1, revision 4. The week of manufacture field (if used) is set to a value in the range of 1-54 weeks. If the week of manufacture field is not used, the value shall be set to '00h'.

The year of manufacture field is used to represent the year of the display's manufacture or the model year. If the year of manufacture field is used to represent the model year, then set the week of manufacture (at address **10h**) to 'FFh'. Then enter the model year (at address **11h**). The value that is stored is an offset from the year 1990 as derived from the following equation:

Stored Value = (Year of Manufacture {or Model Year} - 1990)

Table 3-10 contains the definition for the Week & Year of Manufacture or Model Year. The test for a valid Week & Year of Manufacture or Model Year Code is shown in Table 3.11. For more information on the Week & Year of Manufacture or Model Year refer to section 3.4.4 in the E-EDID Standard Release A, Revision 2.

Table 3-4: Week & Year of Manufacture or Model Year Definition

Address	2 Bytes	Value	Description
10h	1	00h	Week of Manufacture is not specified
		01h → 36h	Week of Manufacture is specified (range is 1 → 54 weeks)
		37h → FEh	Reserved: Do not use
		FFh	Model Year Flag --- Model Year is specified at address **11h**
11h	1	00h → 0Fh	Reserved: Do not use
		10h → FFh	If Byte **10h** = FFh then Byte **11h** contains Model Year
		10h → FFh	If Byte **10h** ≠ FFh then Byte **11h** contains Year of Manufacture

<u>Pre-Test Requirements:</u> The tester shall make note of the week (if used) and the year of manufacture or the model year of the display (or sink device). The week and year of manufacture of the display (or sink device) may be shown on a label located on the rear of the display product or located in a manufacturer's data base. The model year may be shown on a label located on the rear of the display product or located in a manufacturer's data base or listed in the manufacturer's product specifications. The tester should record the Week of Manufacture (or Model Year Flag) and the Year of Manufacture (or Model Year) in the Verification Test Report Form. The tester converts the Week of Manufacture (or Model Year Flag) and the Year of Manufacture (or Model Year) into the 2 byte code. Both the decimal numbers and the 2 byte codes for the Week of Manufacture (or Model Year Flag) and the Year of Manufacture (or Model Year) should be recorded in the Verification Test Report Form.

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Table 3-5: Test Case 5: **Week & Year of Manufacture or Model Year**

Addresses	Test Case #	Action	Result	Pass/Fail
10h	5-1	Read & record the data stored at address **10h**.	Is the data stored at address **10h** equal to zero or the week of manufacture (in the range of 01h → 36h) or FFh?	If 'Yes', then Pass --- continue to test case 5-2.
				If 'No', then Fail --- Stop, Repair & Re-test
11h	5-2	Read & record the data stored at address **11h.**	If the data stored at address **10h** is not equal to FFh, then is the data stored at address **11h** equal to the year of manufacture (in the range of 10h → FFh)?	If 'Yes', then Pass --- continue to test case 5-3.
				If 'No', then Fail --- Stop, Repair & Re-test
	5-3		If the data stored at address **10h** is equal to FFh, then is the data stored at address **11h** equal to the model year (in the range of 10h → FFh)?	If 'Yes', then Pass --- continue to test case 6-1.
				If 'No', then Fail --- Stop, Repair & Re-test

3.3 Test for a Valid EDID Structure Version & Revision Numbers: 2 Bytes

The EDID Structure Version Number and Revision Number fields are required ELEMENTS in EDID structure version 1, revision 4. These values define the EDID data structure being used. Display products compliant with the E-EDID Standard, Release A, Revision 2 shall have the Version Number = 1 and the Revision Number = 4. Table 3-12 contains the definition for the EDID Structure Version and Revision Number. There are no pre-test requirements for the EDID Structure Version and Revision Number test case. The test for a valid EDID Structure Version and Revision Number is shown in Table 3.13. For more information on the EDID Structure Version Number & Revision refer to section 3.5 in the E-EDID Standard Release A, Revision 2.

Table 3-6: EDID Structure Version and Revision Number Definition

Address	2 Bytes	Value	Description
12h	1	01h	EDID Structure Version Number 1
		00h, 02h → FFh	Reserved: Do not use
13h	1	04h	EDID Structure Revision Number 4
		00h → 03h, 05h → FFh	Reserved: Do not use

Pre-Test Requirements: None.

Table 3-7: Test Case 6: **EDID Structure Version and Revision Numbers**

Address	Test Case #	Action	Result	Pass/Fail
12h	6-1	Read & record the version number data stored at address **12h**.	Is the version number stored at address **12h** = one?	If 'Yes', then Pass --- continue to test case 6-2.
				If 'No', then Fail --- Stop, Repair & Re-test
13h	6-2	Read & record the revision number data stored at address **13h**.	Is the revision number stored at address **13h** = four?	If 'Yes', then Pass --- continue to test case 7-1.
				If 'No', then Fail --- Stop, Repair & Re-test

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3.4 Basic Display Parameters and Features- Test Cases: 5 Bytes

The basic display parameters and features fields are required ELEMENTS in EDID data structure version 1, revision 4. Section 3.4 defines the test cases for the Video Input Definition, the Horizontal Screen Size or Aspect Ratio 'Landscape' & the Vertical Screen Size or Aspect Ratio 'Portrait', the Display Transfer Characteristic (Gamma) and the Feature Support Byte. The contents of the Basic Display Parameters and Features data fields are listed in Table 3-14.

Table 3-8: Basic Display Parameters and Features

Address	5 Bytes	Basic Display Parameters & Features	Refer To
14h	1	Video Input Definition	Section 3.4.1
15h, 16h	2	Horizontal Screen Size or Aspect Ratio 'Landscape' Vertical Screen Size or Aspect Ratio 'Portrait'	Section 3.4.2
17h	1	Display Transfer Characteristic (Gamma)	Section 3.4.3
18h	1	Feature Support Byte	Section 3.4.4

3.4.1 Test for a Valid Video Input Definition: 1 Byte

The Video Input Definition field is a required ELEMENT in EDID data structure version 1, revision 4. The host (source) shall use the information contained within the video input definition field to configure the video output of the host (source). The format of this one-byte data field is described below in Table 3-15. The test for a valid Video Input Definition is shown in Table 3-16. For more information on the Video Input Definition refer to section 3.6.1 in the E-EDID Standard Release A, Revision 2.

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Table 3-9: Video Input Definition

Address	Bit Definitions								Description
14h	**7**	_	_	_	_	_	_	_	**Video Signal Interface:** Bit 7
	0	_	_	_	_	_	_	_	Input is an Analog Video Signal Interface:
	7	**6**	**5**	_	_	_	_	_	**Signal Level Standard:** Video : Sync : Total Bits 6 & 5
	0	0	0	_	_	_	_	_	0.700 : 0.300 : 1.000 V p-p
	0	0	1	_	_	_	_	_	0.714 : 0.286 : 1.000 V p-p
	0	1	0	_	_	_	_	_	1.000 : 0.400 : 1.400 V p-p
	0	1	1	_	_	_	_	_	0.700 : 0.000 : 0.700 V p-p
	7	_	_	**4**	_	_	_	_	**Video Setup:** Bit 4
	0	_	_	0	_	_	_	_	Video Setup: Blank Level = Black Level
	0	_	_	1	_	_	_	_	Video Setup: Blank-to-Black setup or pedestal (see Note 1)
	7	_	_	_	**3**	**2**	**1**	_	**Synchronization Types:** Bits 3 → 1
	0	_	_	_	0	_	_	_	Separate Sync H & V Signals are not supported
	0	_	_	_	1	_	_	_	Separate Sync H & V Signals are supported
	0	_	_	_	_	0	_	_	Composite Sync Signal on Horizontal is not supported
	0	_	_	_	_	1	_	_	Composite Sync Signal on Horizontal is supported
	0	_	_	_	_	_	0	_	Composite Sync Signal on Green Video is not supported
	0	_	_	_	_	_	1	_	Composite Sync Signal on Green Video is supported
	7	_	_	_	_	_	_	**0**	**Serrations:** Bit 0
	0	_	_	_	_	_	_	0	Serration on the Vertical Sync is not supported
	0	_	_	_	_	_	_	1	Serration on the Vertical Sync is supported (see Note 2)
14h	**7**	_	_	_	_	_	_	_	**Video Signal Interface:** Bit 7
	1	_	_	_	_	_	_	_	Input is a Digital Video Signal Interface: (see Note 3)
	7	**6**	**5**	**4**	_	_	_	_	**Color Bit Depth:** Bits 6 → 4
	1	0	0	0	_	_	_	_	Color Bit Depth is undefined
	1	0	0	1	_	_	_	_	6 Bits per Primary Color
	1	0	1	0	_	_	_	_	8 Bits per Primary Color
	1	0	1	1	_	_	_	_	10 Bits per Primary Color
	1	1	0	0	_	_	_	_	12 Bits per Primary Color
	1	1	0	1	_	_	_	_	14 Bits per Primary Color
	1	1	1	0	_	_	_	_	16 Bits per Primary Color
	1	1	1	1	_	_	_	_	Reserved (Do Not Use)
	7	_	_	_	**3**	**2**	**1**	**0**	**Digital Video Interface Standard Supported:** Bits 3 → 0
	1	_	_	_	0	0	0	0	Digital Interface is not defined (see Note 4)
	1	_	_	_	0	0	0	1	DVI is supported
	1	_	_	_	0	0	1	0	HDMI-a is supported
	1	_	_	_	0	0	1	1	HDMI-b is supported
	1	_	_	_	0	1	0	0	MDDI is supported
	1	_	_	_	0	1	0	1	DisplayPort is supported
	1	_	_	_	→	→	→	→	All remaining values for Bits 3 → 0 are Reserved: Do Not Use

Pre-Test Requirements: The tester shall review the display (or sink device) product specifications and make note of the Video Signal Interface Type (analog or digital). If the Video Signal Interface Type is analog, then the tester shall make note of the Signal Level Standard, the Video Setup, the Synchronization Types and Serrations support. If the Video Signal Interface Type is digital, then the tester shall make note of the Color Bit Depth and the Digital Video Interface Standard supported. The tester should record this information in the Verification Test Report Form. The tester should also convert this information into the bit data definitions for the byte at address **14h**. If Analog Video Input is supported, then the tester should run test cases 7-1 to 7-6. If Digital Video Input is supported, then the tester should run test cases 7-7 to 7-9.

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Table 3-10: Test Case 7- **Video Input Definition**

Address	Test Case #	Action	Result	Pass/Fail
14h	7-1	Read & record the data stored at address **14h**.	If bit 7 at address **14h** is equal to zero, then is the analog video input port active?	If 'Yes', then Pass --- continue to test case 7-2.
				If 'No', then Fail --- Stop, Repair & Re-test
	7-2		If bit 7 at address **14h** is equal to zero then does the data stored at bits 6 & 5 (at address **14h**) define the correct signal level standard?	If 'Yes', then Pass --- continue to test case 7-3.
				If 'No', then Fail --- Stop, Repair & Re-test
	7-3		If bit 7 at address **14h** is equal to zero then does the data stored at bit 4 (at address **14h**) define the correct video setup?	If 'Yes', then Pass --- continue to test case 7-4.
				If 'No', then Fail --- Stop, Repair & Re-test
	7-4		If bit 7 at address **14h** is equal to zero then does the data stored at bits 3 → 1 (at address **14h)** define the correct synchronization type?	If 'Yes', then Pass --- continue to test case 7-5.
				If 'No', then Fail --- Stop, Repair & Re-test
	7-5		If bits 7 & 0 at address **14h** are equal to zero, then does the display not support serrations on the vertical sync?	If 'Yes', then Pass --- continue to test case 7-6.
				If 'No', then Fail --- Stop, Repair & Re-test
	7-6		If bit 7 at address **14h** is equal to zero, AND if bit 0 at address **14h** is equal to one then does the display support serrations on the vertical sync?	If 'Yes', then Pass --- continue to test case 7-7.
				If 'No', then Fail --- Stop, Repair & Re-test
	7-7		If bit 7 at address **14h** is equal to one then is the digital video input port active?	If 'Yes', then Pass --- continue to test case 7-8.
				If 'No', then Fail --- Stop, Repair & Re-test
	7-8		If bit 7 at address **14h** is equal to one then does the data stored at bits 6 → 4 (at address **14h**) define the correct color bit depth or is the color bit depth undefined?	If 'Yes', then Pass --- continue to test case 7-9.
				If 'No', then Fail --- Stop, Repair & Re-test
	7-9		If bit 7 at address **14h** is equal to one, then does the data stored at bits 3 → 0 (at address **14h**) define the correct digital interface standard supported or is the digital interface not defined?	If 'Yes', then Pass --- continue to test case 8-1.
				If 'No', then Fail --- Stop, Repair & Re-test

3.4.2 Test for a Valid Horizontal and Vertical Screen Size or Aspect Ratio: 2 Bytes

The Horizontal and Vertical Screen Size or Aspect Ratio parameter fields are required ELEMENTS in EDID structure version 1, revision 4 for all display products except for certain types of projectors. The horizontal and vertical screen size parameters provide information on the screen dimensions of the display device, rounded to the nearest centimeter (cm). These 2 bytes may also be defined as aspect ratio in the 'Landscape' or 'Portrait' screen orientation mode. Aspect ratios are rounded to the hundredth decimal place.

The host (source) is expected to use this data to get a rough idea of the image size to generate properly scaled text and icons.

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Use the following equations when determining the stored value (in Table 3.17) for the aspect ratio:

Landscape Orientation:
Given the Stored Value, the Aspect Ratio may be calculated by using the following equation:

$$\text{Aspect Ratio} = (\text{Stored Value} + 99) \div 100$$

Given the Aspect Ratio, the Stored Value may be calculated by using the following equation:

$$\text{Stored Value} = (\text{Aspect Ratio} \times 100) - 99$$

Portrait Orientation:
Given the Stored Value, the Aspect Ratio may be calculated by using the following equation:

$$\text{Aspect Ratio} = 100 \div (\text{Stored Value} + 99)$$

Given the Aspect Ratio, the Stored Value may be calculated by using the following equation:

$$\text{Stored Value} = (100 \div \text{Aspect Ratio}) - 99$$

Table 3-17 contains the definition for the Horizontal and Vertical Screen Size or Aspect Ratio. The test for a valid Horizontal and Vertical Screen Size or Aspect Ratio is shown in Table 3-18. For more information on the Horizontal and Vertical Screen Size or Aspect Ratio refer to section 3.6.2 in the E-EDID Standard Release A, Revision 2.

Table 3-11: Horizontal and Vertical Screen Size or Aspect Ratio Definition

Address	2 Bytes	Value	Description
15h	1	01h → FFh	If byte **16h** ≠ 00h then byte **15h** = Horizontal Screen Size in cm. (Range is 1 cm → 255 cm)
		01h → FFh	If byte **16h** = 00h then byte **15h** = Aspect Ratio (Landscape) (Range is 1 : 1 AR → 3.54 : 1 AR)
		00h	If byte **15h** = 00h then byte **16h** = Aspect Ratio (Portrait)
16h	1	01h → FFh	If byte **15h** ≠ 00h then byte **16h** = Vertical Screen Size in cm. (Range is 1 cm → 255 cm)
		01h → FFh	If byte **15h** = 00h then byte **16h** = Aspect Ratio (Portrait) (Range is 0.28 : 1 AR → 0.99 : 1 AR)
		00h	If byte **16h** = 00h then byte **15h** = Aspect Ratio (Landscape)
15h, 16h	2	00h, 00h	If both bytes **15h** and **16h** = 00h then the screen size or aspect ratio are unknown or undefined.

Pre-Test Requirements: The tester shall review the display (or sink device) product specifications and make note of the Horizontal and Vertical Screen Sizes or the Aspect Ratio of the display device. If the data stored at addresses **15h** & **16h** represent an aspect ratio (in landscape or portrait orientation), then use the above listed equations to determine the stored data values. The tester should record the Horizontal and Vertical Screen Sizes or the Aspect Ratio data in the Verification Test Report Form. The tester must also convert the Horizontal and Vertical Screen Sizes or the Aspect Ratio data into the 2 byte codes. Both sets of data should be recorded in the Verification Test Report Form.

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Table 3-12: Test Case 8: **Horizontal and Vertical Screen Size or Aspect Ratio**

Addresses	Test Case #	Action	Result	Pass/Fail
15h	8-1	Read & record the data stored at address **15h**.	If the data stored at addresses **15h** & **16h** is greater than 00h then is the data stored at address **15h** equal to the horizontal screen size (range is 1 cm → 255 cm) of the display device?	If 'Yes', then Pass --- continue to test case 8-2.
				If 'No', then Fail --- Stop, Repair & Re-test
	8-2		If the data stored at address **16h** is equal to 00h AND if the data stored at address **15h** is greater than 00h then is the data stored at address **15h** equal to the aspect ratio (in landscape orientation) of the display device?	If 'Yes', then Pass --- continue to test case 8-3.
				If 'No', then Fail --- Stop, Repair & Re-test
16h	8-3	Read & record the data stored at address **16h**.	If the data stored at addresses **15h** & **16h** is greater than 00h then is the data stored at address **16h** equal to the vertical screen size (range is 1 cm → 255 cm) of the display device?	If 'Yes', then Pass --- continue to test case 8-4.
				If 'No', then Fail --- Stop, Repair & Re-test
	8-4		If the data stored at address **15h** is equal to 00h AND the data stored at address **16h** is greater than 00h then is the data stored at address **16h** equal to the aspect ratio (in portrait orientation) of the display device?	If 'Yes', then Pass --- continue to test case 8-5.
				If 'No', then Fail --- Stop, Repair & Re-test
15h & **16h**	8-5	Read & record the data stored at addresses **15h** & **16h**.	If the data stored at addresses **15h** & **16h** is equal to 00h then is the image size or aspect ratio of the display device unknown or undefined?	If 'Yes', then Pass --- continue to test case 9-1.
				If 'No', then Fail --- Stop, Repair & Re-test

3.4.3 Test for a Valid Display Transfer Characteristics (GAMMA): 1 Byte

The Display Transfer Characteristic, referred to as GAMMA, is a required ELEMENT in EDID data structure version 1, revision 4. It shall be stored in a 1-byte field capable of representing GAMMA values in the range of 1.00 to 3.54 or it may be stored (using a transfer characteristic curve) in an optional EXTENSION block. The integer value stored at address **17h** shall be determined by the formula:

Stored Value = (GAMMA x 100) – 100

Table 3.19 contains the definition for the Display Transfer Characteristic (GAMMA). The test for a valid Display Transfer Characteristic (GAMMA) is shown in Table 3-20. For more information on the Display Transfer Characteristic (GAMMA) refer to section 3.6.3 in the E-EDID Standard Release A, Revision 2.

Table 3-13: Display Transfer Characteristics (GAMMA) DEFINITION

Address	1 Byte	Value	Description
17h	1	00h → FEh	Display Transfer Characteristic (GAMMA) (Range is from 1.00 → 3.54)
		FFh	If byte **17h** = FFh, then the GAMMA value is not defined here and the GAMMA data shall be stored in an extension block (e.g., DI-EXT).

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<u>Pre-Test Requirements</u>: The tester shall review the display (or sink device) product specifications and make note of the Display Transfer Characteristics (GAMMA) of the display. Use the above listed equation to determine the stored data value of the GAMMA. The tester should convert the GAMMA to a decimal number using the above equation and record the data in the Verification Test Report Form. The tester must also convert the GAMMA decimal number data into the 1 byte code. Both sets of data should be recorded in the Verification Test Report Form.

Table 3-14: Test Case 9: **Display Transfer Characteristic (GAMMA)**

<table>
<tr><th>Address</th><th>Test Case #</th><th>Action</th><th>Result</th><th>Pass/Fail</th></tr>
<tr><td rowspan="4">17h</td><td rowspan="2">9-1</td><td rowspan="4">Read & record the data stored at address 17h.</td><td rowspan="2">Is the data stored at address 17h equal to the Display Transfer Characteristic (GAMMA) of the display (in the range of 00h → FEh) or equal to FFh?</td><td>If ‘Yes’, then Pass --- continue to test case 9-2.</td></tr>
<tr><td>If ‘No’, then Fail --- Stop, Repair & Re-test</td></tr>
<tr><td rowspan="2">9-2</td><td rowspan="2">If the data stored at address 17h = FFh then is the Display Transfer Characteristic (GAMMA) of the display (in the range of 00h → FEh) defined in an optional EXTENSION block?</td><td>If ‘Yes’, then Pass --- continue to test case 10-1.</td></tr>
<tr><td>If ‘No’, then Fail --- Stop, Repair & Re-test</td></tr>
</table>

3.4.4 Test for a Valid Feature Support Byte: 1 Byte

The Feature Support Byte is a required ELEMENT in EDID structure version 1, revision 4. The feature support field shall be used to indicate support for various display features. The definition of this 1-byte field is shown in Table 3.21. The test for a valid Feature Support Byte is shown in Table 3-22. For more information on the Feature Support Byte refer to section 3.6.4 in the E-EDID Standard Release A, Revision 2.

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Table 3-15: Feature Support Byte Definition

Address	Bits Definitions		Description	
18h	7 6 5	_ _ _ _ _	**Display Power Management:** (See Note 1)	Bits 7 → 5
	1 _ _	_ _ _ _ _	Standby Mode is supported.	Bit 7
	0 _ _	_ _ _ _ _	Standby Mode is not supported.	Bit 7
	_ 1 _	_ _ _ _ _	Suspend Mode is supported.	Bit 6
	_ 0 _	_ _ _ _ _	Suspend Mode is not supported.	Bit 6
	_ _ 1	_ _ _ _ _	Active Off = Very Low Power is supported.	Bit 5
	_ _ 0	_ _ _ _ _	Active Off = Very Low Power is not supported.	Bit 5
		4 3 _ _ _	If bit 7 at address **14h** = '0' then bits 4 & 3 at address **18h** defines the **Display Color Type:** (See Note 2)	Bits 4 & 3
		0 0 _ _ _	Monochrome or Grayscale display	
		0 1 _ _ _	RGB color display	
		1 0 _ _ _	Non-RGB color display	
		1 1 _ _ _	Display Color Type is Undefined	
		4 3 _ _ _	If bit 7 at address **14h** = '1' then bits 4 & 3 at address **18h** defines the **Supported Color Encoding Format/s:** (See Note 2)	Bits 4 & 3
		0 0 _ _ _	RGB 4:4:4	
		0 1 _ _ _	RGB 4:4:4 & YCrCb 4:4:4	
		1 0 _ _ _	RGB 4:4:4 & YCrCb 4:2:2	
		1 1 _ _ _	RGB 4:4:4 & YCrCb 4:4:4 & YCrCb 4:2:2	
		2 1 0	**Other Feature Support Flags:**	Bits 2 → 0
		1 _ _	sRGB Standard is the default color space. (See Note 3)	Bit 2
		0 _ _	sRGB Standard is not the default color space.	Bit 2
		_ 1 _	Preferred Timing Mode includes the native pixel format and preferred refresh rate of the display device. (See Note 4)	Bit 1
		_ 0 _	Preferred Timing Mode does not include the native pixel format and preferred refresh rate of the display device.	Bit 1
		_ _ 1	Display is continuous frequency. (See Note 5)	Bit 0
		_ _ 0	Display is non-continuous frequency (multi-mode).	Bit 0

<u>Pre-Test Requirements:</u> The tester shall review the display (or sink device) product specifications and make note of the supported Display Power Management Modes, sRGB Standard is or is not supported, the Preferred Timing Mode includes or does not include the Native Pixel Format and the Preferred Vertical Refresh Rate of the display device (panel) and the display is continuous or non-continuous frequency. If the Video Signal Interface Type is analog (bit 7 at address **14h** is equal to zero), then the tester shall make note of the Display Color Type. If the Video Signal Interface Type is digital (bit 7 at address **14h** is equal to one), then the tester shall make note of the supported Color Encoding Format/s. The tester should record this information in the Verification Test Report Form. The tester should also convert this information into the bit data definitions for the byte at address **18h**. The tester should run all tests in Table 3-22 - **exception**: if Analog Video Input is supported, then the tester should run test case 10-2. If Digital Video Input is supported, then the tester should run test case 10-3.

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Table 3-16: Test Case 10**: Feature Support Byte**

Address	Test Case #	Action	Result	Pass/Fail
18h	10-1	Read & record the data stored at address **18h**.	Does the data stored at bits 7 → 5 (at address **18h**) define the correct display power down modes?	If 'Yes', then Pass --- continue to test case 10-2. If 'No', then Fail --- Stop, Repair & Re-test
	10-2		If bit 7 at address **14h** (Video Input Byte) is equal to zero (Analog Video Input) then does the data stored at bits 4 & 3 (at address **18h**) define the correct Display Color Type?	If 'Yes', then Pass --- continue to test case 10-3. If 'No', then Fail --- Stop, Repair & Re-test
	10-3		If bit 7 at address **14h** (Video Input Byte) is equal to one (Digital Video Input) then does the data stored at bits 4 & 3 (at address **18h**) define the correct Color Encoding Format/s supported by the display?	If 'Yes', then Pass --- continue to test case 10-4. If 'No', then Fail --- Stop, Repair & Re-test
	10-4		If the data stored at bit 2 (at address **18h**) is equal to one then does the display support the sRGB Standard AND is the data stored at addresses **19h → 22h** compliant with the sRGB Standard?	If 'Yes', then Pass --- continue to test case 10-5. If 'No', then Fail --- Stop, Repair & Re-test
	10-5		If the data stored at bit 2 (at address **18h**) is equal to zero then does the display not support the sRGB Standard?	If 'Yes', then Pass --- continue to test case 10-6. If 'No', then Fail --- Stop, Repair & Re-test
	10-6		If the data stored at bit 1 (at address **18h**) is equal to one then does the display support a Preferred Timing Mode that includes the native pixel format and preferred refresh rate of the display device (panel)?	If 'Yes', then Pass --- continue to test case 10-7. If 'No', then Fail --- Stop, Repair & Re-test
	10-7		If the data stored at bit 1 (at address **18h**) is equal to zero then does the display support a Preferred Timing Mode that does not include the native pixel format and preferred refresh rate of the display device (panel)?	If 'Yes', then Pass --- continue to test case 10-8. If 'No', then Fail --- Stop, Repair & Re-test
	10-8		If the data stored at bit 0 (at address **18h**) is equal to one then is the display continuous frequency?	If 'Yes', then Pass --- continue to test case 10-9. If 'No', then Fail --- Stop, Repair & Re-test
	10-9		If the data stored at bit 0 (at address **18h**) is equal to zero then is the display non-continuous frequency?	If 'Yes', then Pass --- continue to test case 11.1. If 'No', then Fail --- Stop, Repair & Re-test

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3.5 Test for Valid Display x, y Chromaticity Coordinates: 10 Bytes

The Display x, y Chromaticity Coordinates are required ELEMENTS in EDID data structure version 1, revision 4. These bytes provide chromaticity and white point information. The white point value shall be the default white point (the white point set at initial power on or after resetting the display to its default settings). The default white point is defined by the display manufacturer. The data shall be stored (as 10 bit numbers) in the order shown in Table 3-23. The test for a valid Display x, y Chromaticity Coordinates is shown in Table 3-24. For more information on the Display x, y Chromaticity Coordinates refer to section 3.7 in the E-EDID Standard Release A, Revision 2.

Table 3-17: x, y Chromaticity Coordinates and Default White Point Definition

Address	10 Bytes	Color Characteristic	Byte Definitions	
19h	1	Red / Green – bits 1 & 0	Rx1 Rx0 Ry1 Ry0 Gx1 Gx0 Gy1 Gy0	
1Ah	1	Blue / White – bits 1 & 0	Bx1 Bx0 By1 By0 Wx1 Wx0 Wy1 Wy0	
1Bh	1	Red_x	Red_x	bits 9 → 2
1Ch	1	Red_y	Red_y	bits 9 → 2
1Dh	1	Green_x	Green_x	bits 9 → 2
1Eh	1	Green_y	Green_y	bits 9 → 2
1Fh	1	Blue_x	Blue_x	bits 9 → 2
20h	1	Blue_y	Blue_y	bits 9 → 2
21h	1	White_x	White_x	bits 9 → 2
22h	1	White_y	White_y	bits 9 → 2

Note for Table 3-23: The chromaticity and white point values shall be expressed as fractional numbers, accurate to the thousandth place. Each number shall be represented by a binary fraction, which is 10 bits in length. In this fraction a value of 1 for the bit immediately right of the decimal point (bit 9) represents 2 raised to the -1 power. A value of 1 in the right most bit (bit 0) represents a value of 2 raised to the -10 power. The high order bits (9 → 2) shall be stored as a single byte. The low order bits (1 → 0) are paired with other low order bits to form a byte. With this representation, all values should be accurate to +/- 0.0005 of the specified value.

Pre-Test Requirements: The tester shall review the display (or sink device) product specifications and make note of the x, y Chromaticity Coordinates of the red, green and blue primaries. The tester shall also note the x, y Chromaticity Coordinates of the white field setup. The tester should record this information in the Verification Test Report Form. The tester should also convert (using the definition in the Note for Table 3.23) this information into the data definitions for the bytes at addresses **19h → 22h**. The tester should run all tests in Table 3-22 - **exception**: if Analog Video Input is supported, then the tester should run test case 10-2. If Digital Video Input is supported, then the tester should run test case 10-3.

Table 3-18: Test Case 11: **Display x, y Chromaticity Coordinates**

Addresses	Test Case #	Action	Result	Pass/Fail
19h → 22h	11	Read & record the data stored at addresses **19h → 22h.**	Is the data stored at addresses **19h → 22h** equal to the display's x, y Chromaticity Coordinates?	If 'Yes', then Pass --- continue to test case 12-1.
				If 'No', then Fail --- Stop, Repair & Re-test

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3.6 Test for Valid Established Timings I & II: 3 bytes

The indication of support for Established Timings is optional in EDID data structure version 1, revision 4, except for displays that are VESA 'Plug & Play' compliant. Plug & Play compliant displays shall show support for the BASE VIDEO MODE (640 × 480 @ 60Hz) and shall indicate support in the Established Timing I data field. The established timing data field is a list of one-bit flags, which may be used to indicate support for established VESA and other common timings in a very compact form. Established Timings I & II and Manufacturer's Timings may be used to indicate support but may not be used to define the order of priority.

Bits 6 → 0 (inclusive) of the byte at address **25h** may be used to define Manufacturer's Proprietary Timings. These bits may be used if a manufacturer wants to identify such timings through the use of one-bit flags. VESA takes no responsibility for coordinating or documenting the use of these bits by any manufacturer(s). The compliance testing of Manufacturer's Proprietary Timings (Bits 6 → 0 at address **25h**) is optional. If the Manufacturer's Proprietary Timings are tested, then the testing must be conducted using a source that is programmed to support these timing modes.

Table 3-25 contains the definition for the Established Timings I & II. The test for a valid Established Timings I & II is shown in Table 3-26. For more information on the Established Timings I & II refer to section 3.8 in the E-EDID Standard Release A, Revision 2.

Table 3-19: Established Timings I & II Definitions

Address	3 Bytes	Bit #	Description	Source
23h	**1**		**Established Timing I**	
		7	720 x 400 @ 70Hz	IBM, VGA
		6	720 x 400 @ 88Hz	IBM, XGA2
		5	640 x 480 @ 60Hz	IBM, VGA
		4	640 x 480 @ 67Hz	Apple, Mac II
		3	640 x 480 @ 72Hz	VESA
		2	640 x 480 @ 75Hz	VESA
		1	800 x 600 @ 56Hz	VESA
		0	800 x 600 @ 60Hz	VESA
24h	**1**		**Established Timing II**	
		7	800 x 600 @ 72Hz	VESA
		6	800 x 600 @ 75Hz	VESA
		5	832 x 624 @ 75Hz	Apple, Mac II
		4	1024 x 768 @ 87Hz(I)	IBM - Interlaced
		3	1024 x 768 @ 60Hz	VESA
		2	1024 x 768 @ 70Hz	VESA
		1	1024 x 768 @ 75Hz	VESA
		0	1280 x 1024 @ 75Hz	VESA
25h	**1**		**Manufacturer's Timings**	
		7	1152 x 870 @ 75Hz	Apple, Mac II
		6-0	Reserved for Manufacturer Specified Timings	

Pre-Test Requirements: The tester shall review the display (sink device) product specifications and make note of all Display Monitor Timings (DMT) supported by the display (sink device). Some of these DMTs may be listed in Established Timings I & II and Manufacturer's Timings. The tester should record this information in the Verification Test Report Form. The tester should also convert (using the definition in Table 3.25) this bit set information into the byte data that is stored at addresses **23h → 25h**.

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Table 3-20: Test Case 12: **Established Timings I & II**

Addresses	Case Test #	Action	Result	Pass/Fail
23h → 25h	12-1	Read & record the data stored at address **23h**.	Are the Established Timings I (any bits set to one) at address **23h** supported by the display?	If 'Yes', then Pass --- continue to test case 12-2.
				If 'No', then Fail --- Stop, Repair & Re-test
	12-2	Read & record the data stored at address **24h**.	Are the Established Timings II (any bits set to one) at address **24h** supported by the display?	If 'Yes', then Pass --- continue to test case 12-3.
				If 'No', then Fail --- Stop, Repair & Re-test
	12-3	Read & record the data stored at address **25h**.	Are the Manufacturer's Timings (any bits set to one) at address **25h** supported by the display?	If 'Yes', then Pass --- continue to test case 13-1.
				If 'No', then Fail --- Stop, Repair & Re-test

3.7 Test for Valid Standard Timings: 16 Bytes

The use of the Standard Timings data field is optional in EDID data structure version 1, revision 4. These 16 bytes provide identification for up to eight additional timings, each identified by a unique 2-byte code derived from the horizontal active pixel count, the image aspect ratio and field refresh rate as described in Table 3.27. The standard timing 2 byte codes for most VESA Display Monitor Timing (DMT) definitions are listed in the latest revision of the "VESA and Industry Standards and Guidelines for Computer Display Monitor Timing (DMT)" document. This scheme may also be used in display products intended to be used exclusively with proprietary systems where the host already has the complete timing information. Unused Standard Timing data fields shall be set to 01h, 01h. All Standard Timing identifiers are defined to be "Square Pixel" (1 : 1 pixel aspect ratio).

Table 3-27 contains the definition for the Standard Timings. The test for a valid Standard Timings data field is shown in Table 3-28. For more information on the Standard Timings refer to section 3.9 in the E-EDID Standard Release A, Revision 2.

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Table 3-21: Standard Timings Definition

Address	16 Bytes	Value		Description
	2			**Standard Timing 1:**
26h	**1**	01h → FFh		Value Stored (in hex) = (Horizontal addressable pixels ÷ 8) – 31 Range: 256 pixels → 2288 pixels, in increments of 8 pixels
		00h		Reserved: Do not use.
27h	**1**	**Bit Definitions**		**Description**
		7 6	_ _ _ _ _ _ _	**Image Aspect Ratio**: bits 7 & 6
		0 0	_ _ _ _ _ _ _	16 : 10 AR
		0 1	_ _ _ _ _ _ _	4 : 3 AR
		1 0	_ _ _ _ _ _ _	5 : 4 AR
		1 1	_ _ _ _ _ _ _	16 : 9 AR
			5 4 3 2 1 0	**Field Refresh Rate:** bits 5 → 0
			n n n n n n	Value Stored (in binary) = Field Refresh Rate (in Hz) – 60 Range: 60 Hz → 123Hz
28h, 29h	**2**	**Standard Timing 2:** Stored values use the Standard Timing 1 byte and bit definitions.		
2Ah, 2Bh	**2**	**Standard Timing 3:** Stored values use the Standard Timing 1 byte and bit definitions.		
2Ch, 2Dh	**2**	**Standard Timing 4:** Stored values use the Standard Timing 1 byte and bit definitions.		
2Eh, 2Fh	**2**	**Standard Timing 5:** Stored values use the Standard Timing 1 byte and bit definitions.		
30h, 31h	**2**	**Standard Timing 6:** Stored values use the Standard Timing 1 byte and bit definitions.		
32h, 33h	**2**	**Standard Timing 7:** Stored values use the Standard Timing 1 byte and bit definitions.		
34h, 35h	**2**	**Standard Timing 8:** Stored values use the Standard Timing 1 byte and bit definitions.		

Pre-Test Requirements: The tester shall review the display (sink device) product specifications and make note of all Display Monitor Timings (DMT) supported by the display (sink device). Some of these DMTs may be listed in the Standard Timings section. The tester should convert the supported DMT into the 2 Byte Standard Timing Codes (defined in Table 3-27). The tester should record the supported DMTs and the 2 Byte Standard Timing Codes in the Verification Test Report Form.

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Table 3-22: Test Case 13: **Standard Timings**

Addresses	Test Case #	Action	Result	Pass/Fail
26h → 35h	13-1	Read & record the 2 Byte Standard Timing Code stored at addresses **26h** & **27h**.	Is the Standard Timing (defined by the 2 byte code stored at addresses **26h** & **27h**) supported by the display or is the data equal to (01 01)h?	If 'Yes', then Pass --- continue to test case 13-2.
				If 'No', then Fail --- Stop, Repair & Re-test
	13-2	Read & record the 2 Byte Standard Timing Code stored at addresses **28h** & **29h**.	Is the Standard Timing (defined by the 2 byte code stored at addresses **28h** & **29h**) supported by the display or is the data equal to (01 01)h?	If 'Yes', then Pass --- continue to test case 13-3.
				If 'No', then Fail --- Stop, Repair & Re-test
	13-3	Read & record the 2 Byte Standard Timing Code stored at addresses **2Ah** & **2Bh**.	Is the Standard Timing (defined by the 2 byte code stored at addresses **2Ah** & **2Bh**) supported by the display or is the data equal to (01 01)h?	If 'Yes', then Pass --- continue to test case 13-4.
				If 'No', then Fail --- Stop, Repair & Re-test
	13-4	Read & record the 2 Byte Standard Timing Code stored at addresses **2Ch** & **2Dh**.	Is the Standard Timing (defined by the 2 byte code stored at addresses **2Ch** & **2Dh**) supported by the display or is the data equal to (01 01)h?	If 'Yes', then Pass --- continue to test case 13-5.
				If 'No', then Fail --- Stop, Repair & Re-test
	13-5	Read & record the 2 Byte Standard Timing Code stored at addresses **2Eh** & **2Fh**.	Is the Standard Timing (defined by the 2 byte code stored at addresses **2Eh** & **2Fh**) supported by the display or is the data equal to (01 01)h?	If 'Yes', then Pass --- continue to test case 13-6.
				If 'No', then Fail --- Stop, Repair & Re-test
	13-6	Read & record the 2 Byte Standard Timing Code stored at addresses **30h** & **31h**.	Is the Standard Timing (defined by the 2 byte code stored at addresses **30h** & **31h**) supported by the display or is the data equal to (01 01)h?	If 'Yes', then Pass --- continue to test case 13-7.
				If 'No', then Fail --- Stop, Repair & Re-test
	13-7	Read & record the 2 Byte Standard Timing Code stored at addresses **32h** & **33h**.	Is the Standard Timing (defined by the 2 byte code stored at addresses **32h** & **33h**) supported by the display or is the data equal to (01 01)h?	If 'Yes', then Pass --- continue to test case 13-8.
				If 'No', then Fail --- Stop, Repair & Re-test
	13-8	Read & record the 2 Byte Standard Timing Code stored at addresses **34h** & **35h**.	Is the Standard Timing (defined by the 2 byte code stored at addresses **34h** & **35h**) supported by the display or is the data equal to (01 01)h?	If 'Yes', then Pass --- continue to test case 14-1.
				If 'No', then Fail --- Stop, Repair & Re-test

3.8 18 Byte Descriptor Test Cases - 72 Bytes

Note: Previous versions of the E-EDID Standard refer to the "18 Byte Descriptors" as the "Detailed Timing Blocks".

The 72 bytes in this section are divided into four data fields. Each of the four data fields are 18 bytes in length. These 18 byte data fields shall contain either detailed timing data as described in section 3.9 or other types of data as described in section 3.10. The addresses and the contents of the four 18 byte descriptors are shown in Table 3-29.

Table 3-23: 18 Byte Descriptors

Addresses	Field Name	Description
36h → 47h	First 18 Byte Descriptor	Preferred Timing Mode is a requirement.
48h → 59h	Second 18 Byte Descriptor	2nd Detailed Timing Descriptor or the 1st Display Descriptor
5Ah → 6Bh	Third 18 Byte Descriptor	3rd Detailed Timing Descriptor or the 2nd Display Descriptor
6Ch → 7Dh	Fourth 18 Byte Descriptor	4th Detailed Timing Descriptor or the 3rd Display Descriptor

Notes for Table 3-29:
Use of these 18 Byte Data Descriptors shall meet the following requirements:

Each of the four data blocks shall contain a detailed timing descriptor (required in the 1st 18 Byte Descriptor – optional in the 2nd, 3rd & 4th Descriptor), a display descriptor or a dummy descriptor (Tag 10h) using the definitions described in sections 3.9 and 3.10. Use of a data fill pattern is not permitted - the Dummy Descriptor (Tag 10h) is the only exception.

The 18 byte descriptors shall be ordered such that all detailed video timing descriptors precede other types of display descriptor fields.

3.8.1 Test for Valid First 18 Byte Descriptor – Addresses 36h → 47h

Defining the Preferred Timing Mode in the First 18 Byte Descriptor is a requirement in EDID data structure version 1, revision 4. Therefore, the first 18 Byte Descriptor Block shall contain the preferred timing mode. The display manufacturer defines the “Preferred Timing Mode (PTM)” as the video timing mode that will produce the best quality image on the display’s viewing screen. The display manufacturer defines the meaning of the words “best quality image”. For most flat panel displays (FPD), the preferred timing mode will be the panel’s "native timing" based on its “native pixel format”.

Pre-Test Requirements: The tester shall review the display (sink device) product specifications and make note of the Preferred Timing Mode (PTM) supported by the display (sink device). The tester should convert (use the Detailed Timing Definition in Tables 3-34 & 3-35) the Preferred Timing Mode into the 18 Byte descriptor data. The tester should record the Preferred Timing Mode and the 18 Byte descriptor data in the Verification Test Report Form. Run Test Case 14 in Table 3-30. For more information on the First 18 Byte Descriptor refer to section 3.10.1 in the E-EDID Standard Release A, Revision 2.

Table 3-24: Test Case 14: **First 18 Byte Descriptor**

Addresses	Test Case #	Action	Result	Pass/Fail
36h → 47h	14-1	Read & record the 18 bytes stored at addresses **36h → 47h.**	If the data at bit 1 (Preferred Timing Mode Bit) at address **18h** (Feature Support Byte) = one then does the 18 byte descriptor define the Preferred Timing Mode for the display AND does the Preferred Timing Mode include the native pixel format and the preferred refresh rate of the display device (panel) AND does the display support the Preferred Timing Mode?	If ‘Yes’, then Pass --- continue to test case 15-1.
				If ‘No’, then Fail --- Stop, Repair & Re-test
	14-2		If the data at bit 1 (Preferred Timing Mode Bit) at address **18h** (Feature Support Byte) = zero then does the 18 byte descriptor define the Preferred Timing Mode for the display AND does the Preferred Timing Mode not include the native pixel format and the preferred refresh rate of the display device (panel) AND does the display support the Preferred Timing Mode?	If ‘Yes’, then Pass --- continue to test case 15-1.
				If ‘No’, then Fail --- Stop, Repair & Re-test

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3.8.2 Test for Valid Second 18 Byte Descriptor – Addresses 48h → 59h

The Second 18 Byte Descriptor may contain a Detailed Timing or a Display Descriptor. Refer to Tables 3-34 & 3-35 for a definition of a Detailed Timing Descriptor, or refer to Table 3-37 for a list of Display Descriptor Tag Numbers.

Pre-Test Requirements: The tester shall review the display (sink device) product specifications and make note of all Display Monitor Timings (DMT) supported by the display (sink device). One of these DMTs may be listed in the Second 18 Byte Descriptor section. Also, make note of the data stored at addresses **48h → 59h**. If the stored data is a Detailed Timing, then the tester should convert (use the Detailed Timing Definition in Tables 3-34 & 3-3 the Detailed Timing into the 2nd 18 Byte Descriptor data. The tester should record the Detailed Timing Mode and the 2nd 18 Byte Descriptor data in the Verification Test Report Form. If the data stored is a Display Descriptor, then verify the Display Descriptor Tag Number by using the information stored in Table 3-38. Run Test Case 15 in Table 3-31.

Table 3-25: Test Case 15: **Second 18 Byte Descriptor**

Addresses	Test Case #	Action	Result	Pass/Fail
48h → 59h	15-1	Read & record the 18 bytes stored at addresses **48h → 59h.**	If the Second 18 Byte Descriptor (at addresses **48h → 59h**) decodes to a Detailed Timing then is the Detailed Timing supported by the display?	If 'Yes', then Pass --- continue to test case 16-1.
				If 'No', then Fail --- Stop, Repair & Re-test
	15-2		If the Second 18 Byte Descriptor (at addresses **48h → 59h**) decodes to a Display Descriptor then is the Display Descriptor Tag Number (located at byte 3 of the Second 18 Byte Descriptor) valid (valid Tag Numbers include: FFh; FEh; FDh; FCh; FBh; FAh; F9h; F8h; F7h; 10h; or 00h → 0Fh) and does the stored data comply with one of the Display Descriptor Definitions in section 3.10?	If 'Yes', then Pass --- continue to test case 16-1.
				If 'No', then Fail --- Stop, Repair & Re-test

3.8.3 Test for Valid Third 18 Byte Descriptor – Addresses 5Ah → 6Bh

The Third 18 Byte Descriptor may contain a Detailed Timing or a Display Descriptor. Refer to Tables 3-34 & 3-35 for a definition of a Detailed Timing Descriptor, or refer to Table 3-37 for a list of Display Descriptor Tag Numbers.

Pre-Test Requirements: The tester shall review the display (sink device) product specifications and make note of all Display Monitor Timings (DMT) supported by the display (sink device). One of these DMTs may be listed in the Third 18 Byte Descriptor section. Also, make note of the data stored at addresses **5Ah → 6Bh**. If the stored data is a Detailed Timing, then the tester should convert (use the Detailed Timing Definition in Tables 3-34 & 3-35) the Detailed Timing into the 3rd 18 Byte Descriptor data. The tester should record the Detailed Timing Mode and the 3rd 18 Byte Descriptor data in the Verification Test Report Form. If the data stored is a Display Descriptor, then verify the Display Descriptor Tag Number by using the information stored in Table 3-37. Run Test Case 16 in Table 3-32.

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Table 3-26: Test Case 16: **Third 18 Byte Descriptor**

Addresses	Test Case #	Action	Result	Pass/Fail
5Ah → 6Bh	16-1	Read & record the 18 bytes stored at addresses **5Ah → 6Bh.**	If the Third 18 Byte Descriptor (at addresses **5Ah → 6Bh**) decodes to a Detailed Timing then is the Detailed Timing supported by the display?	If 'Yes', then Pass --- continue to test case 17-1.
				If 'No', then Fail --- Stop, Repair & Re-test
	16-2		If the Third 18 Byte Descriptor (at addresses **5Ah → 6Bh**) decodes to a Display Descriptor then is the Display Descriptor Tag Number (located at byte 3 of the Third 18 Byte Descriptor)) valid (valid Tag Numbers include: FFh; FEh; FDh; FCh; FBh; FAh; F9h; F8h; F7h; 10h; or 00h → 0Fh) and does the stored data comply with the Display Descriptor Definition in section 3.10?	If 'Yes', then Pass --- continue to test case 17-1.
				If 'No', then Fail --- Stop, Repair & Re-test

3.8.4 Test for Valid Fourth 18 Byte Descriptor – Addresses 6Ch → 7Dh

The Fourth 18 Byte Descriptor may contain a Detailed Timing or a Display Descriptor. Refer to Tables 3-34 & 3-35 for a definition of a Detailed Timing Descriptor or refer to Table 3-37 for a list of Display Descriptor Tag Numbers.

Pre-Test Requirements: The tester shall review the display (sink device) product specifications and make note of all Display Monitor Timings (DMT) supported by the display (sink device). One of these DMTs may be listed in the Fourth 18 Byte Descriptor section. Also, make note of the data stored at addresses **6Ch → 7Dh**. If the stored data is a Detailed Timing, then the tester should convert (use the Detailed Timing Definition in Tables 3-34 & 3-35) the Detailed Timing into the 4th 18 Byte Descriptor data. The tester should record the Detailed Timing Mode and the 4th 18 Byte Descriptor data in the Verification Test Report Form. If the data stored is a Display Descriptor, then verify the Display Descriptor Tag Number by using the information stored in Table 3-37. Run Test Case 17 in Table 3-33.

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Table 3-27: Test Case 17: **Fourth 18 Byte Descriptor**

Addresses	Test Case #	Action	Result	Pass/Fail
6Ch → 7Dh	17-1	Read & record the 18 bytes stored at addresses **6Ch → 7Dh.**	If the Third 18 Byte Descriptor (at addresses **6Ch → 7Dh**) decodes to a Detailed Timing then is the Detailed Timing supported by the display?	If 'Yes', then Pass --- continue to test case 18-1.
				If 'No', then Fail --- Stop, Repair & Re-test
	17-2		If the Third 18 Byte Descriptor (at addresses **6Ch → 7Dh**) decodes to a Display Descriptor, then is the Display Descriptor Tag Number (located at byte 3 of the Third 18 Byte Descriptor)) valid (valid Tag Numbers include: FFh; FEh; FDh; FCh; FBh; FAh; F9h; F8h; F7h; 10h; or 00h → 0Fh) and does the stored data comply with the Display Descriptor Definition in section 3.10?	If 'Yes', then Pass --- continue to test case 18-1.
				If 'No', then Fail --- Stop, Repair & Re-test

3.9 Test for Valid Detailed Timing Descriptor: 18 bytes

The test for a valid detailed timing descriptor shall be used for testing the Preferred Timing Mode (PTM) stored in the First 18 Byte Descriptor (at addresses **36h → 47h**) and for any detailed timing that may be stored in the Second (at addresses **48h → 59h**), the Third (at addresses **5Ah → 6Bh**) or the Fourth (at addresses **6Ch → 7Dh**) 18 Byte Descriptor.

Tables 3-34 & 3-35 contain the definition for the Detailed Timing Descriptor. The test for a valid Detailed Timing Descriptor is shown in Tables 3-26 & 3-27. For more information on the Detailed Timing Descriptor refer to section 3.10.2 in the E-EDID Standard Release A, Revision 2.

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Table 3-28: Detailed Timing Definition - Part 1

Byte #	# of Bytes	Value	Detailed Timing Definitions
0, 1	2	(00 01)h → (FF FF)h	Stored Value = Pixel clock ÷ 10,000 LSB stored in byte 0 and MSB stored in byte 1 Range: 10 kHz to 655.35 MHz in 10 kHz steps
		(00 00)h	Reserved: Do not use for Detailed Timing Descriptor
2	1	00h → FFh	Horizontal Addressable Video in pixels --- contains lower 8 bits
3	1	00h → FFh	Horizontal Blanking in pixels --- contains lower 8 bits
4	1	({HA}h, {HB}h) where 0h ≤ HA ≤ Fh and 0h ≤ HB ≤ Fh	Horizontal Addressable Video in pixels – -- stored in Upper Nibble : contains upper 4 bits
			Horizontal Blanking in pixels --- stored in Lower Nibble : contains upper 4 bits
5	1	00h → FFh	Vertical Addressable Video in lines --- contains lower 8 bits
6	1	00h → FFh	Vertical Blanking in lines --- contains lower 8 bits
7	1	({VA}h, {VB}h) where 0h ≤ VA ≤ Fh and 0h ≤ VB ≤ Fh	Vertical Addressable Video in lines -- stored in Upper Nibble : contains upper 4 bits
			Vertical Blanking in lines --- stored in Lower Nibble : contains upper 4 bits
8	1	00h → FFh	Horizontal Front Porch in pixels --- contains lower 8 bits
9	1	00h → FFh	Horizontal Sync Pulse Width in pixels --- contains lower 8 bits
10	1	({VF}h, {VS}h) where 0h ≤ VF ≤ Fh and 0h ≤ VS ≤ Fh	Vertical Front Porch in Lines --- stored in Upper Nibble : contains lower 4 bits
			Vertical Sync Pulse Width in Lines --- stored in Lower Nibble : contains lower 4 bits
		7 6 5 4 3 2 1 0	**Bit Definitions**
11	1	n n _ _ _ _ _ _	Horizontal Front Porch in pixels --- contains upper 2 bits
		_ _ n n _ _ _ _	Horizontal Sync Pulse Width in Pixels --- contains upper 2 bits
		_ _ _ _ n n _ _	Vertical Front Porch in lines --- contains upper 2 bits
		_ _ _ _ _ _ n n	Vertical Sync Pulse Width in lines --- contains upper 2 bits

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Table 3-29: Detailed Timing Definition - Part 2

Byte #	# of Bytes	Value or Bit Definitions	Detailed Timing Definitions
		Value	**Video Image Size & Border Definitions**
12	1	00h → FFh	Horizontal Addressable Video Image Size in mm --- contains lower 8 bits
13	1	00h → FFh	Vertical Addressable Video Image Size in mm --- contains lower 8 bits
14	1	({HI}h, {VI}h) where	Horizontal Addressable Video Image Size in mm --- stored in Upper Nibble : contains upper 4 bits
		0h ≤ HI ≤ Fh and 0h ≤ VI ≤ Fh	Vertical Addressable Video Image Size in mm --- stored in Lower Nibble : contains upper 4 bits
15	1	00h → FFh	Right Horizontal Border or Left Horizontal Border in pixels --- refer to Section 3.12 – Right Border is equal to Left Border
16	1	00h → FFh	Top Vertical Border or Bottom Vertical Border in Lines --- refer to Section 3.12 – Top Border is equal to Bottom Border
17	1	**7 6 5 4 3 2 1 0**	**Signal Interface Type:**
		0 _ _ _ _ _ _ _	Non-Interlaced (1 frame = 1 field)
		1 _ _ _ _ _ _ _	Interlaced (1 frame = 2 fields)
		_ **6 5** _ _ _ _ **0**	**Stereo Viewing Support:**
		_ 0 0 _ _ _ _ x	Normal Display – No Stereo. The value of bit 0 is "don't care"
		_ 0 1 _ _ _ _ 0	Field sequential stereo, right image when stereo sync signal = 1
		_ 1 0 _ _ _ _ 0	Field sequential stereo, left image when stereo sync signal = 1
		_ 0 1 _ _ _ _ 1	2-way interleaved stereo, right image on even lines
		_ 1 0 _ _ _ _ 1	2-way interleaved stereo, left image on even lines
		_ 1 1 _ _ _ _ 0	4-way interleaved stereo
		_ 1 1 _ _ _ _ 1	Side-by-Side interleaved stereo
		_ _ _ **4 3 2 1** _	**Analog Sync Signal Definitions:**
		_ _ _ 0 0 _ _ _	Analog Composite Sync:
		_ _ _ 0 1 _ _ _	Bipolar Analog Composite Sync:
		_ _ _ 0 _ 0 _ _	---------- Without Serrations;
		_ _ _ 0 _ 1 _ _	---------- With Serrations (H-sync during V-sync);
		_ _ _ 0 _ _ 0 _	-------------------- Sync On Green Signal only
		_ _ _ 0 _ _ 1 _	-------------------- Sync On all three (RGB) video signals
		_ _ _ **4 3 2 1** _	**Digital Sync Signal Definitions:**
		_ _ _ 1 0 _ _ _	Digital Composite Sync:
		_ _ _ 1 0 0 _ _	---------- Without Serrations;
		_ _ _ 1 0 1 _ _	---------- With Serrations (H-sync during V-sync);
		_ _ _ 1 1 _ _ _	Digital Separate Sync:
		_ _ _ 1 1 0 _ _	---------- Vertical Sync is Negative;
		_ _ _ 1 1 1 _ _	---------- Vertical Sync is Positive;
		_ _ _ 1 _ _ 0 _	-------------------- Horizontal Sync is Negative (outside of V-sync)
		_ _ _ 1 _ _ 1 _	-------------------- Horizontal Sync is Positive (outside of V-sync)

Pre-Test Requirements: The tester shall review the display (sink device) product specifications and make note of all Display Monitor Timings (DMT) supported by the display (sink device). One of these DMTs will be listed in the First 18 Byte Descriptor section. And additional DMTs may be stored in the Second, the Third or the Fourth 18 Byte Descriptor**.** The tester should record the Detailed Timing Data in the Specification Data Column of the Verification Test Report Form. If the stored data is a Detailed Timing, then use the Detailed Timing Definition (in Tables 3-34 & 3-35) to decode the data stored in the 18 Byte Descriptor and record the decoded data. Run Test Case 18 (Tables 3-36 & 3-37) for the PTM in the First 18 Byte Descriptor and any DMT that may be stored in the Second, the Third or the Fourth 18 Byte Descriptor.

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Table 3-30: Test Case 18: **Detailed Timing Descriptor – Part 1**

Byte #	Test Case #	Action	Result	Pass/Fail
0 & 1	18-1	Read & record the data stored in Bytes 0 & 1.	Is the stored data (in Bytes 0 & 1) equal to the Pixel Clock Frequency per the Display Monitor Timing definition?	If 'Yes', then Pass --- continue to test case 18-2. If 'No', then Fail --- Stop, Repair & Re-test
2 & 4	18-2	Read & record the data stored in Bytes 2 & 4 (Upper Nibble).	Is the stored data (in Byte 2 & the upper nibble of Byte 4) equal to the Horizontal Addressable Video (in pixels) per the Display Monitor Timing definition?	If 'Yes', then Pass --- continue to test case 18-3. If 'No', then Fail --- Stop, Repair & Re-test
3 & 4	18-3	Read & record the data stored in Bytes 3 & 4 (Lower Nibble).	Is the stored data (in Byte 3 & the lower nibble of Byte 4) equal to the Horizontal Blanking (in pixels) per the Display Monitor Timing definition?	If 'Yes', then Pass --- continue to test case 18-4. If 'No', then Fail --- Stop, Repair & Re-test
5 & 7	18-4	Read & record the data stored in Bytes 5 & 7 (Upper Nibble).	Is the stored data (in Byte 5 & the upper nibble of Byte 7) equal to the Vertical Addressable Video (in lines) per the Display Monitor Timing definition?	If 'Yes', then Pass --- continue to test case 18-5. If 'No', then Fail --- Stop, Repair & Re-test
6 & 7	18-5	Read & record the data stored in Bytes 6 & 7 (Lower Nibble).	Is the stored data (in Byte 6 & the lower nibble of Byte 7) equal to the Vertical Blanking (in lines) per the Display Monitor Timing definition?	If 'Yes', then Pass --- continue to test case 18-6. If 'No', then Fail --- Stop, Repair & Re-test
8 & 11	18-6	Read & record the data stored in Bytes 8 & 11 (Bits 7 & 6).	Is the stored data (in Byte 8 and Bits 7 & 6 of Byte 11) equal to the Horizontal Front Porch (in pixels) per the Display Monitor Timing definition?	If 'Yes', then Pass --- continue to test case 18-7. If 'No', then Fail --- Stop, Repair & Re-test
9 & 11	18-7	Read & record the data stored in Bytes 9 & 11 (Bits 5 & 4).	Is the stored data (in Byte 9 and Bits 5 & 4 of Byte 11) equal to the Horizontal Sync Pulse Width (in pixels) per the Display Monitor Timing definition?	If 'Yes', then Pass --- continue to test case 18-8. If 'No', then Fail --- Stop, Repair & Re-test
10 & 11	18-8	Read & record the data stored in Bytes 10 (Upper Nibble) & 11 (Bits 3 & 2).	Is the stored data in Bytes 10 (Upper Nibble) & 11 (Bits 3 & 2) equal to the Vertical Front Porch (in lines) per the Display Monitor Timing definition?	If 'Yes', then Pass --- continue to test case 18-9. If 'No', then Fail --- Stop, Repair & Re-test
	18-9	Read & record the data stored in Bytes 10 (Lower Nibble) & 11 (Bits 1 & 0).	Is the stored data (in Lower Nibble of Byte 10 and Bits 1 & 0 of Byte 11) equal to the Vertical Sync Pulse Width (in lines) per the Display Monitor Timing definition?	If 'Yes', then Pass --- continue to test case 18-10. If 'No', then Fail --- Stop, Repair & Re-test

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Table 3-31: Test Case 18: **Detailed Timing Descriptor – Part 2**

Byte #	Test Case #	Action	Result	Pass/Fail
12 & 14	18-10	Read & record the data stored in Bytes 12 & 14 (Upper Nibble).	Is the stored data (in Byte 12 and the Upper Nibble of Byte 14) equal to the Horizontal Image Size (in mm) or Image Aspect Ratio (16 or 4: for DTV timing only) per the Display Monitor Timing definition?	If 'Yes', then Pass --- continue to test case 18-11.
				If 'No', then Fail --- Stop, Repair & Re-test
13 & 14	18-11	Read & record the data stored in Bytes 13 & 14 (Lower Nibble).	Is the stored data (in Byte 13 and the Lower Nibble of Byte 14) equal to the Vertical Image Size (in mm) or Image Aspect Ratio (9 or 3: for DTV timing only) per the Display Monitor Timing definition?	If 'Yes', then Pass --- continue to test case 18-12.
				If 'No', then Fail --- Stop, Repair & Re-test
15	18-12	Read & record the data stored in Byte 15.	Is the stored data (in Byte 15) equal to the Right or Left Horizontal Border (in pixels) per the Display Monitor Timing definition?	If 'Yes', then Pass --- continue to test case 18-13.
				If 'No', then Fail --- Stop, Repair & Re-test
16	18-13	Read & record the data stored in Byte 16.	Is the stored data (in Byte 16) equal to the Top or Bottom Vertical Border (in lines) per the Display Monitor Timing definition?	If 'Yes', then Pass --- continue to test case 18-14.
				If 'No', then Fail --- Stop, Repair & Re-test
17	18-14	Read & record the data stored in Byte 17.	Does the stored data in Bit 7 of Byte 17 indicate the correct Signal Interface Type (Non-Interlaced or Interlaced) per the Display Monitor Timing definition?	If 'Yes', then Pass --- continue to test case 18-15.
				If 'No', then Fail --- Stop, Repair & Re-test
	18-15		Does the stored data in Bits 6, 5 & 0 of Byte 17 indicate the correct Stereo Viewing Support per the Display Monitor Timing definition?	If 'Yes', then Pass --- continue to test case 18-16.
				If 'No', then Fail --- Stop, Repair & Re-test
	18-16		If Bit 4 of Byte 17 is equal to zero, then does the stored data in Bits 3, 2 & 1 of Byte 17 indicate the correct Analog Sync Signal Definition per the Display Monitor Timing definition?	If 'Yes', then Pass --- continue to test case 18-17.
				If 'No', then Fail --- Stop, Repair & Re-test
	18-17		If Bit 4 of Byte 17 is equal to one, then does the stored data in Bits 3, 2 & 1 of Byte 17 indicate the correct Digital Sync Signal Definition per the Display Monitor Timing definition?	If 'Yes', then Pass --- continue to test case 19-1.
				If 'No', then Fail --- Stop, Repair & Re-test

3.10 Display Descriptor Test Cases - 18 bytes

The use of Display Descriptors is optional in EDID structure version 1, revision 4. Table 3-38 defines the structure of a Display Descriptor. For more information on the Display Descriptors refer to section 3.10.3 in the E-EDID Standard Release A, Revision 2.

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Table 3-32: Display Descriptor Summary

Byte #	# of Bytes	Values	Display Descriptor Definitions
0, 1	2	(00 00)h	Indicates that this 18 byte descriptor is a Display Descriptor.
2	1	00h	Reserved: Set to 00h when 18 byte descriptor is used as a Display Descriptor
		Tag	**Display Descriptor Tag Numbers**
3	1	FFh	Display Product Serial Number: Defined in Section 3.10.3.1
		FEh	Alphanumeric Data String (ASCII): Defined in Section 3.10.3.2
		FDh	Display Range Limits: Includes optional timing information --- GTF using default parameters, GTF Secondary Curve or CVT Descriptor. Defined in Section 3.10.3.3
		FCh	Display Product Name: Defined in Section 3.10.3.4
		FBh	Color Point Data: Defined in Section 3.10.3.5
		FAh	Standard Timing Identifications: Defined in Section 3.10.3.6
		F9h	Display Color Management (DCM) Data: Defined in Section 3.10.3.7
		F8h	CVT 3 Byte Timing Codes: Defined in Section 3.10.3.8
		F7h	Established Timings III Defined in Section 3.10.3.9
		11h → F6h	Reserved: Currently undefined -- Do Not Use Refer to Section 3.10.3.10
		10h	Dummy Descriptor: Defined in Section 3.10.3.11
		00h → 0Fh	Manufacturer Specified Display Descriptors: Defined in Section 3.10.3.12
4	1	00h	Reserved: Set to 00h when 18 byte descriptor is used as a Display Descriptor Exception: Refer to Display Range Limits Descriptor (Tag FDh) – Section 3.10.3.3
5 → 17	13	00h → 0Fh	Stored data dependant on Display Descriptor Definition

3.10.1 Test for Valid Display Product Serial Number Descriptor (tag #FFh)

The Display Product Serial Number Descriptor is an optional ELEMENT in EDID structure version 1, revision 4. Up to 13 characters (using ASCII codes) of a serial number may be stored in the Display Product Serial Number Descriptor (tag #FFh). The data shall be sequenced such that the 1st byte (ASCII code) = the 1st character, the 2nd byte (ASCII code) = the 2nd character, etc. If there are less than 13 characters in the string, then terminate the serial number string with ASCII code '0Ah' (line feed) and pad the unused bytes in the field with ASCII code '20h' (space). Table 3-39 defines the format for the Display Product Serial Number Descriptor. The test for a valid Display Product Serial Number Descriptor is shown in Table 3-40. For more information on the Display Product Serial Number Descriptor refer to section 3.10.3.1 in the E-EDID Standard Release A, Revision 2.

Table 3-33: Display Product Serial Number Descriptor Definition

Byte #	Value	Display Product Serial Number Definition
0, 1	(00 00)h	Indicates that this 18 byte descriptor is a Display Descriptor.
2	00h	Reserved: Set to 00h when 18 byte descriptor is used as a Display Descriptor
3	FFh	Display Product Serial Number Descriptor Tag Number:
4	00h	Reserved:
5 → 17	00h → FFh	Up to 13 alphanumeric characters of a serial number may be stored.

Pre-Test Requirements: The tester shall make note of the serial number of the display (or sink device). Typically, the serial number of the display is shown on a label located on the rear of the display product. The tester should convert the serial number into ASCII codes and record both the serial number and the ASCII codes in the Specification Data Column of the Verification Test Report Form. If the Display Product Serial Number Descriptor is included in the BASE EDID (Block 0), then run Test Case 19 (Table 3-40).

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Table 3-34: Test Case 19: **Display Product Serial Number**

Byte #	Test Case #	Action	Result	Pass/Fail
0 → 4	19-1	Read & record the data stored in Bytes 0 → 4.	Is the data stored in Bytes 0 → 4 equal to (00 00 00 FF 00)h?	If 'Yes', then continue to test case 19-2.
				If 'No', then skip test case 19-2 & continue to test case 20-1.
5 → 17	19-2	Read & record the data stored in Bytes 5 → 17.	Is the data stored in Bytes 5 → 17 equal to the Display Product Serial Number of the display?	If 'Yes', then Pass --- continue to test case 20.1.
				If 'No', then Fail --- Stop, Repair & Re-test

3.10.2 Test for Valid Alphanumeric Data String Descriptor (tag #FEh)

The Alphanumeric Data String Descriptor is an optional ELEMENT in EDID structure version 1, revision 4. Up to 13 characters (using ASCII codes) of a data string may be stored in the Alphanumeric Data String Descriptor (tag #FEh). The data shall be sequenced such that the 1st byte (ASCII code) = the 1st character, the 2nd byte (ASCII code) = the 2nd character, etc. If there are less than 13 characters in the string, then terminate the alphanumeric data string with ASCII code '0Ah' (line feed) and pad the unused bytes in the field with ASCII code '20h' (space). Table 3-41 defines the format for the Alphanumeric Data String Descriptor. The test for a valid Alphanumeric Data String Descriptor is shown in Table 3-42. For more information on the Alphanumeric Data String Descriptor refer to section 3.10.3.2 in the E-EDID Standard Release A, Revision 2.

Table 3-35: Alphanumeric Data String Descriptor Definition

Byte #	Value	Alphanumeric Data String Definition
0, 1	(00 00)h	Indicates that this 18 byte descriptor is a Display Descriptor.
2	00h	Reserved: Set to 00h when 18 byte descriptor is used as a Display Descriptor
3	FEh	Alphanumeric Data String Descriptor Tag Number:
4	00h	Reserved:
5	00h → 0Fh	Up to 13 alphanumeric characters of a data string may be stored.

Pre-Test Requirements: The tester shall make note of the Alphanumeric Data String contents as defined by the display manufacturer. The tester should convert the Alphanumeric Data String into ASCII codes and record both the Alphanumeric Data String and the ASCII codes in the Specification Data Column of the Verification Test Report Form. If the Alphanumeric Data String Descriptor is included in the BASE EDID (Block 0), then run Test Case 20 (Table 3-42).

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Table 3-36: Test Case 20: **Alphanumeric Data String**

Byte #	Test Case #	Action	Result	Pass/Fail
0 → 4	20-1	Read & record the data stored in Bytes 0 → 4.	Is the data stored in Bytes 0 → 4 equal to (00 00 00 FE 00)h?	If 'Yes', then continue to test case 20-2. If 'No', then skip test case 20-2 & continue to test case 21-1.
5 → 17	20-2	Read & record the data stored in Bytes 5 → 17.	Is the data stored in Bytes 5 → 17 equal to the Alphanumeric Data String as defined by the display manufacturer?	If 'Yes', then Pass --- continue to test case 21-1. If 'No', then Fail --- Stop, Repair & Re-test

3.10.3 Test for Valid Display Range Limits & Additional Timing Descriptor (tag #FDh)

The use of the Display Range Limits Descriptor is optional (but recommended) in EDID version 1, revision 4. However, if the display is a continuous frequency (Bit 0 at address **18h** is equal to one), then the Display Range Limits Descriptor is required to be defined in the Second, Third or Fourth 18 Byte Descriptor. Refer to Table 3-43 for a definition of the Display Range Limits & Additional Timing Descriptor. The test for a valid Display Range Limits & Additional Timing Descriptor is shown in Tables 3-44 & 3-45. For more information on the Display Range Limits & Additional Timing Descriptor refer to section 3.10.3.3 in the E-EDID Standard Release A, Revision 2.

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Table 3-37: Display Range Limits & Additional Timing Descriptor Block Definition

Byte #	Value	Display Range Limits Definitions
0, 1	(00 00)h	Indicates that this 18 byte descriptor is a Display Descriptor.
2	00h	Reserved: Set to 00h when 18 byte descriptor is used as a Display Descriptor
3	FDh	Tag Number for Display Range Limits Descriptor
4	**7 6 5 4 3 2 1 0**	**Display Range Limits Offsets:** FLAGs
	0 0 0 0 _ _ 0 0	Vertical Rate Offsets are zero.
	0 0 0 0 _ _ 1 0	Max. Vertical Rate + 255 Hz Offset; Min. Vertical Rate is not offset
	0 0 0 0 _ _ 1 1	Max. Vertical Rate + 255 Hz Offset; Min. Vertical Rate + 255 Hz Offset
	0 0 0 0 0 0 _ _	Horizontal Rate Offsets are zero.
	0 0 0 0 1 0 _ _	Max. Horizontal Rate + 255 kHz Offset; Min. Horizontal Rate is not offset
	0 0 0 0 1 1 _ _	Max. Horizontal Rate + 255 kHz Offset; Min. Horizontal Rate + 255 kHz Offset
	01h, 04h → 07h, 09h, 0Dh 10h → FFh	Reserved: Do not use.
5	01h → FFh	**Minimum Vertical Rate:** (for interlace this refers to the field rate)
	[Byte 4, Bits 1, 0] ≠ 11	Binary coded rate in Hz, integer only (range is 1 Hz to 255 Hz)
	[Byte 4, Bits 1, 0] = 11	Binary coded rate in Hz, integer only (range is 256 Hz to 510 Hz)
	00h	Reserved: Do Not Use.
6	01h → FFh	**Maximum Vertical Rate:** (for interlace this refers to the field rate)
	[Byte 4, Bit 1] ≠ 1	Binary coded rate in Hz, integer only (range is 1 Hz to 255 Hz)
	[Byte 4, Bit 1] = 1	Binary coded rate in Hz, integer only (range is 256 Hz to 510 Hz)
		Note: *Minimum rate value shall be less than or equal to maximum rate value*
	00h	Reserved: Do Not Use.
7	01h → FFh	**Minimum Horizontal Rate:**
	[Byte 4, Bits 3, 2] ≠ 11	Binary coded rate in kHz, integer only (range is 1 kHz to 255 kHz)
	[Byte 4, Bits 3, 2] = 11	Binary coded rate in kHz, integer only (range is 256 kHz to 510 kHz)
	00h	Reserved: Do Not Use.
8	01h → FFh	**Maximum Horizontal Rate:**
	[Byte 4, Bit 3] ≠ 1	Binary coded rate in kHz, integer only (range is 1 kHz to 255 kHz)
	[Byte 4, Bit 3] = 1	Binary coded rate in kHz, integer only (range is 256 kHz to 510 kHz)
		Note: *Minimum rate value shall be less than or equal to maximum rate value*
	00h	Reserved: Do Not Use.
9	01h → FFh	**Maximum Pixel Clock:**
		Binary coded clock rate in MHz ÷ 10, *Example: 130MHz is '0Dh'*
		Note: *Maximum Pixel Clock shall be rounded to the nearest multiple of 10 MHz.*
	00h	Reserved: Do Not Use.
10		**Video Timing Support Flags:** Bytes 10 → 17 indicate support for additional video timings.
	00h	Default GTF supported if bit 0 in Feature Support Byte at address **18**h = 1
	01h	Range Limits Only --- no additional timing information is provided.
	02h	Secondary GTF supported --- requires support for Default GTF
	04h	CVT supported if bit 0 in Feature Support Byte at address **18**h = 1
	03h, 05h → FFh	Reserved for future timing definitions --- Do Not Use.
11	0Ah	Line Feed (if Byte 10 = 00h or 01h)
	00h → FFh	Video Timing Data (if Byte 10 = 02h or 04h) --- Refer to Tables 3.27 → 3.28
12 → 17	20h	Space (if Byte 10 = 00h or 01h)
	00h → FFh	Video Timing Data (if Byte 10 = 02h or 04h) --- Refer to Tables 3.27 → 3.28

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Pre-Test Requirements: The tester shall review the display (sink device) product specifications and make note of the Minimum & Maximum Vertical & Horizontal Rates and the Maximum Pixel Clock Frequency. The tester shall also make note of any support for default GTF, Secondary Curve GTF or CVT. The tester should convert the Display Range Limits data into hex codes and record both the Display Range Limits data and the hex codes in the Specification Data Column of the Verification Test Report Form. If the Display Range Limit Descriptor is included in the BASE EDID (Block 0), then run Test Case 21 (Table 3-44). Refer to Table 3-43 for a definition of the Display Range Limits Descriptor.

Table 3-38: Test Case 21: **Display Range Limits Descriptor – Part 1**

Byte #	Test Case #	Action	Result	Pass/Fail
0 → 3	21-1	Read & record the data stored in Bytes 0 → 3.	Is the data stored in Bytes 0 → 3 equal to (00 00 00 FD)h?	If 'Yes', then Pass --- continue to test case 21-2. If 'No', then skip test cases 21-2 to 21-13 & continue to test case 22-1.
4 & 5	21-2	Read & record the data stored in Bytes 4 (Bits 1 & 0) & 5.	Is the data stored in Byte 4 (Bits 1 & 0) and Byte 5 equal to the Minimum Vertical Rate (in Hz)?	If 'Yes', then Pass --- continue to test case 21-3. If 'No', then Fail --- Stop, Repair & Re-test
4 & 6	21-3	Read & record the data stored in Bytes 4 (Bits 1 & 0) & 6.	Is the data stored in Byte 4 (Bits 1 & 0) and Byte 6 equal to the Maximum Vertical Rate (in Hz)?	If 'Yes', then Pass --- continue to test case 21-4. If 'No', then Fail --- Stop, Repair & Re-test
4 & 7	21-4	Read & record the data stored in Bytes 4 (Bits 3 & 2) & 7.	Is the data stored in Bits 3 & 2 of Byte 4 and Byte 7 equal to the Minimum Horizontal Rate (in kHz)?	If 'Yes', then Pass --- continue to test case 21-5. If 'No', then Fail --- Stop, Repair & Re-test
4 & 8	21-5	Read & record the data stored in Bytes 4 (Bits 3 & 2) & 8.	Is the data stored in Bits 3 & 2 of Byte 4 and Byte 8 equal to the Maximum Horizontal Rate (in kHz)?	If 'Yes', then Pass --- continue to test case 21-6. If 'No', then Fail --- Stop, Repair & Re-test
9	21-6	Read & record the data stored in Byte 9.	Is the data stored in Byte 9 equal to the Maximum Pixel Clock (in MHz)?	If 'Yes', then Pass --- continue to test case 21-7. If 'No', then Fail --- Stop, Repair & Re-test

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Table 3-39: Test Case 21: **Display Range Limits Descriptor – Part 2**

Byte #	Test Case #	Action	Result	Pass/Fail
10	21-7	Read & record the data stored in Byte 10.	If the data stored in Byte 10 equal to the 00h (Default GTF) does the display support Default GTF?	If 'Yes', then Pass --- continue to test case 21-12.
				If 'No', then Fail --- Stop, Repair & Re-test
	21-8		If the data stored in Byte 10 equal to the 01h (Range Limits Only) does the display not support Default GTF, Secondary Curve GTF or CVT?	If 'Yes', then Pass --- continue to test case 21-12.
				If 'No', then Fail --- Stop, Repair & Re-test
	21-9		If the data stored in Byte 10 equal to the 02h (Secondary Curve GTF) does the display support Secondary Curve GTF?	If 'Yes', then Pass --- continue to test case 22-1.
				If 'No', then Fail --- Stop, Repair & Re-test
	21-10		If the data stored in Byte 10 equal to the 04h (CVT) does the display support CVT?	If 'Yes', then Pass --- continue to test case 23-1.
				If 'No', then Fail --- Stop, Repair & Re-test
	21-11		Is the data stored in Byte 10 equal to the 03h or 05h → FFh?	If 'Yes', then Fail --- Stop, Repair --- then repeat test cases 21.
				If 'No', then Pass --- continue to test case 21-12
11	21-12	Read & record the data stored in Byte 11.	If the data stored in Byte 10 is equal to 00h or 01h then is the data stored in Byte 11 equal to the 0Ah (Line Feed)?	If 'Yes', then Pass --- continue to test case 21-13.
				If 'No', then Fail --- Stop, Repair & Re-test
12 → 17	21-13	Read & record the data stored in Bytes 12 → 17.	If the data stored in Byte 10 is equal to 00h or 01h then is the data stored in Bytes 12 → 17 equal to the 20h (Space)?	If 'Yes', then Pass --- continue to test case 24-1.
				If 'No', then Fail --- Stop, Repair & Re-test

3.10.3.1 Test for Valid Display Range Limits with GTF Secondary Curve:

With EDID Structure version 1, revision 4, GTF has been ***Deprecated*** (GTF is considered obsolete and in the process of being phased out) in favor of CVT. GTF has been retained in EDID Structure version 1, revision 4 for legacy support only and may be retired in a future release of the E-EDID Standard. VESA no longer recommends using GTF. Table 3-49 defines support for the GTF Secondary Timing Curve Formula. Refer to the VESA Generalized Timing Formula (GTF) Standard for more information on the timing parameters listed in Table 3-46. The test for a valid Display Range Limits & GTF Secondary Timing Curve Descriptor is shown in Table 3-47. For more information on the Display Range Limits & GTF Secondary Timing Curve Descriptor refer to section 3.10.3.3.1 in the E-EDID Standard Release A, Revision 2.

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Table 3-40: Display Range Limits & GTF Secondary Curve Block Definition

Byte #	Value	GTF Secondary Curve Definitions
0 → 9	00h → FFh	**Defines Display Range Limits:** Refer to Table 3.26
10	02h	Indicates GTF Secondary Curve supported: (with Continuous Video Timings)
11	00h	Reserved: Shall be set to '00h'
12	00h → FFh	Start break frequency for secondary curve: ((Horizontal Frequency) ÷ 2) kHz
13	00h → FFh	C × 2: (range is $0 \leq C \leq 127$)
14, 15	(00 00)h → (FF FF)h	M: (range is $0 \leq M \leq 65{,}535$) --- Value of M stored as LSB first.
16	00h → FFh	K: (range is $0 \leq K \leq 255$)
17	00h → FFh	J × 2: (range is $0 \leq J \leq 127$)

Pre-Test Requirements: The tester shall review the display (sink device) product specifications and make note of the GTF Secondary Curve Support, the GTF Secondary Curve Break Frequency and the GTF Secondary Curve Parameters (C, M, K & J). The tester should convert the GTF Secondary Curve data into hex codes and record both the GTF Secondary Curve data and the hex codes in the Specification Data Column of the Verification Test Report Form. If the Display Range Limit with GTF Secondary Curve Descriptor is included in the BASE EDID (Block 0), run Test Case 22 (Table 3-47). Refer to Table 3-46 for a definition of the Display Range Limits & GTF Secondary Curve Descriptor.

Table 3-41: Test Case 22: **Display Range Limit Descriptor & GTF Secondary Curve**

Byte #	Test Case #	Action	Result	Pass/Fail
0 → 9	22-1	Refer to the Display Range Limits Descriptor Test Case 21 in Tables 3.44 & 3.45.		
10	22-2	Read & record the data stored in Byte 10.	If the data stored in Byte 10 equal to 02h, does the display support GTF Secondary Curve?	If 'Yes', then Pass --- continue to test case 22-3. If 'No', then Fail --- Stop, Repair & Re-test
11	22-3	Read & record the data stored in Byte 11.	Is the data stored in Byte 11 equal to 00h?	If 'Yes', then Pass --- continue to test case 22-4. If 'No', then Fail --- Stop, Repair & Re-test
12	22-4	Read & record the data stored in Byte 12.	Is the decoded data stored in Byte 12 equal to the GTF Secondary Curve Break Frequency?	If 'Yes', then Pass --- continue to test case 22-5. If 'No', then Fail --- Stop, Repair & Re-test
13	22-5	Read & record the data stored in Byte 13.	Is the decoded data stored in Byte 13 equal to the correct value of the GTF parameter C?	If 'Yes', then Pass --- continue to test case 22-6. If 'No', then Fail --- Stop, Repair & Re-test
14 & 15	22-6	Read & record the data stored in Bytes 14 & 15.	Is the decoded data stored in Bytes 14 & 15 equal to the correct value of the GTF parameter M?	If 'Yes', then Pass --- continue to test case 22-7. If 'No', then Fail --- Stop, Repair & Re-test
16	22-7	Read & record the data stored in Byte 16.	Is the data stored in Bytes 16 equal to the correct value of the GTF parameter K?	If 'Yes', then Pass --- continue to test case 22-8. If 'No', then Fail --- Stop, Repair & Re-test
17	22-8	Read & record the data stored in Byte 17.	Is the decoded data stored in Byte 17 equal to the correct value of the GTF parameter J?	If 'Yes', then Pass --- continue to test case 24. If 'No', then Fail --- Stop, Repair & Re-test

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3.10.3.2 Test for Valid Display Range Limits with CVT Support:

For displays that support the VESA CVT Standard, you have the option to include CVT support information in the Display Range Limits Descriptor. Tables 3-48 & 3-49 define support for CVT. Refer to the VESA CVT Standard for more information on the timing parameters listed in Tables 3-48 & 3-49. The test for a valid Display Range Limits & CVT Support Descriptor is shown in Tables 3-50 & 3-51. For more information on the Display Range Limits & CVT Support Descriptor refer to section 3.10.3.3.2 in the E-EDID Standard Release A, Revision 2.

Table 3-42: Display Range Limits & CVT Support Definition – Part 1

Byte #	Value								CVT Support Definitions
0 → 9	00h → FFh								**Defines Display Range Limits:** Refer to Table 3.26
10	04h								Indicates CVT supported: (with Continuous Video Timings)
11	1h → Fh; 0h → Fh								CVT Standard Version Number: e.g. '11h' implies "Version 1.1"
12	**7**	**6**	**5**	**4**	**3**	**2**			**Additional Pixel Clock Precision:**
	0	0	0	0	0	0	_	_	6 bits of extra pixel clock resolution for 0.25 MHz accuracy
	to								Max. Pix Clk = [(Byte 9) × 10] – [(Byte 12: bits 7 → 2) × 0.25MHz]
	1	1	1	1	1	1	_	_	Byte 9 is rounded up to the nearest multiple of 10 MHz
	_	_	_	_	_	_	**1**	**0**	**Maximum Active Pixels per Line - Most Significant Bits:**
	_	_	_	_	_	_	n	n	Range is 00 → 11
13	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**0**	**Maximum Active Pixels per Line - Least Significant Bits:**
	0	0	0	0	0	0	0	0	Indicates that there is no limit on the number of Horiz. Active Pixels
	0	0	0	0	0	0	0	1	Maximum Active Pixels per Line - Least Significant Bits
	to								Maximum Horizontal Active Pixels =
	1	1	1	1	1	1	1	1	8 × [Byte 13 + (256 × (Byte 12: bits 1, 0))]
14	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**0**	**Supported Aspect Ratios:**
	1	_	_	_	_	0	0	0	4 : 3 AR
	_	1	_	_	_	0	0	0	16 : 9 AR
	_	_	1	_	_	0	0	0	16 : 10 AR
	_	_	_	1	_	0	0	0	5 : 4 AR
	_	_	_	_	1	0	0	0	15 : 9 AR
	_	_	_	_	_	0	0	0	Reserved Bits: Shall be set to '000'.
15	**7**	**6**	**5**			**2**	**1**	**0**	**Preferred Aspect Ratio:**
	0	0	0	_	_	0	0	0	4 : 3 AR
	0	0	1	_	_	0	0	0	16 : 9 AR
	0	1	0	_	_	0	0	0	16 : 10 AR
	0	1	1	_	_	0	0	0	5 : 4 AR
	1	0	0	_	_	0	0	0	15 : 9 AR
	n	n	n	_	_	0	0	0	Reserved Values: 'nnn' = '101' → '111' shall not be used.
				4	**3**				**CVT Blanking Support:**
	_	_	_	_	0	0	0	0	Standard CVT Blanking is not supported.
	_	_	_	_	1	0	0	0	Standard CVT Blanking is supported.
	_	_	_	0	_	0	0	0	Reduced CVT Blanking is not supported.
	_	_	_	1	_	0	0	0	Reduced CVT Blanking is supported (preferred).
	_	_	_	_	_	0	0	0	Reserved Bits: Shall be set to '000'.

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Table 3-43: Display Range Limits & CVT Support Definition – Part 2

Byte #	Value								CVT Support Definitions
16	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**0**	**Type of Display Scaling Supported:**
	1	_	_	_	0	0	0	0	Horizontal Shrink
	_	1	_	_	0	0	0	0	Horizontal Stretch
	_	_	1	_	0	0	0	0	Vertical Shrink
	_	_	_	1	0	0	0	0	Vertical Stretch
	_	_	_	_	0	0	0	0	Reserved Bits: Shall be set to '0000'.
17	01h → FFh								**Preferred Vertical Refresh Rate:** Rate is in Hz; Integer Value only.
	00h								Reserved Value: '00h' shall not be used.

Pre-Test Requirements: The tester shall review the display (sink device) product specifications and make note of CVT support & CVT Standard version number, the CVT Maximum Pixel Clock Frequency, the Maximum Active Pixels per Line, the Supported Aspect Ratios, the Preferred Aspect Ratio, the CVT Blanking Support, the Types of Display Scaling Supported and the Preferred Vertical Refresh Rate. The tester should convert the CVT Support data into hex codes and record both the CVT Support data and the hex codes in the Specification Data Column of the Verification Test Report Form. If the Display Range Limit with CVT Support Descriptor is included in the BASE EDID (Block 0), then run Test Case 23 (Tables 3-50 & 3-51). Refer to Tables 3-48 & 3-49 for a definition of the Display Range Limits with CVT Support Descriptor.

Table 3-44: Test Case 23: **Display Range Limit Descriptor & CVT Support Information – Part 1**

Byte #	Test Case #	Action	Result	Pass/Fail
0 → 9	23-1	Refer to the Display Range Limits Descriptor Test Case 21 in Tables 3.44 & 3.45.		
10	23-2	Read & record the data stored in Byte 10.	If the data stored in Byte 10 equal to 04h, does the display support CVT?	If 'Yes', then Pass --- continue to test case 23-3.
				If 'No', then Fail --- Stop, Repair & Re-test
11	23-3	Read & record the data stored in Byte 11.	Is the data stored in Byte 11 equal to 11h (indicates Version 1.1)?	If 'Yes', then Pass --- continue to test case 23-4.
				If 'No', then Fail --- Stop, Repair & Re-test
9 & 12	23-4	Read & record the data stored in Bytes 9 & 12 (Bits 7 → 2).	Is the decoded data stored in Bytes 9 & 12 (Bits 7 → 2) equal to the Maximum CVT Pixel Clock Frequency?	If 'Yes', then Pass --- continue to test case 23-5.
				If 'No', then Fail --- Stop, Repair & Re-test
12 & 13	23-5	Read & record the data stored in Bytes 12 (Bits 1 & 0) & 13.	Is the decoded data stored in Bytes 12 (Bits 1 & 0) & 13 equal to the Maximum Active Pixels per Line?	If 'Yes', then Pass --- continue to test case 23-6.
				If 'No', then Fail --- Stop, Repair & Re-test
14	23-6	Read & record the data stored in Byte 14.	Is the decoded data stored in Byte 14 equal to the Supported Aspect Ratios?	If 'Yes', then Pass --- continue to test case 23-7.
				If 'No', then Fail --- Stop, Repair & Re-test

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Table 3-45: Test Case 23: **Display Range Limit Descriptor & CVT Support Information – Part 2**

Byte #	Test Case #	Action	Result	Pass/Fail
15	23-7	Read & record the data stored in Byte 15 (Bits 7 → 5).	Is the decoded data stored in Byte 15 (Bits 7 → 5) equal to the Preferred Aspect Ratio?	If 'Yes', then Pass --- continue to test case 23-8.
				If 'No', then Fail --- Stop, Repair & Re-test
	23-8	Read & record the data stored in Byte 15 (Bits 4 & 3).	Is the decoded data stored in Byte 15 (Bits 4 & 3) equal to the correct CVT Blanking Support?	If 'Yes', then Pass --- continue to test case 23-9.
				If 'No', then Fail --- Stop, Repair & Re-test
	23-9	Read & record the data stored in Byte 15 (Bits 2 → 0).	Is the data stored in Byte 15 (Bits 2 → 0) equal to (0 0 0)b?	If 'Yes', then Pass --- continue to test case 23-10.
				If 'No', then Fail --- Stop, Repair & Re-test
16	23-10	Read & record the data stored in Byte 16 (Bits 7 → 4).	Is the decoded data stored in Byte 16 (Bits 7 → 4) equal to the correct Type of Display Scaling Supported?	If 'Yes', then Pass --- continue to test case 23-11.
				If 'No', then Fail --- Stop, Repair & Re-test
	23-11	Read & record the data stored in Byte 16 (Bits 3 → 0).	Is the data stored in Byte 16 (Bits 3 → 0) equal to (0 0 0 0)b?	If 'Yes', then Pass --- continue to test case 23-12.
				If 'No', then Fail --- Stop, Repair & Re-test
17	23-12	Read & record the data stored in Byte 17.	Is the decoded data stored in Byte 17 equal to the correct Preferred Vertical Refresh Rate?	If 'Yes', then Pass --- continue to test case 24.
				If 'No', then Fail --- Stop, Repair & Re-test

3.10.3.3 Test for Valid Display Range Limits Descriptor – Special Case

Including the Display Range Limits Descriptor in BASE EDID (Block 0) is an option (but recommended) for EDID data structure, version 1, revision 4. If however, the display is a continuous frequency (Bit 0 at address **18h** is equal to one), then the Display Range Limits Descriptor is required to be defined in the Second, Third or Fourth 18 Byte Descriptor.

Pre-Test Requirements: The tester shall review the display (sink device) product specifications and make note if the display is continuous frequency. If the display is continuous frequency, then run Test Case 24 in Table 3-52. If the display is non-continuous frequency AND the EDID table includes a Range Limits Descriptor, then run Test Case 24 in Table 3-52. If the EDID table does not include a Range Limits Descriptor, then skip Test Case 24.

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Table 3-46: Test Case 24: **Display Range Limits Descriptor Tag Number**

Addresses	Test Case #	Action	Result	Pass/Fail
48h → 7Dh	24	Read & record the three 18 Byte Descriptors stored at addresses **48h → 59h, 5Ah → 6Bh,** and **6Ch → 7Dh.**	If bit 0 (at address **18h** – the Feature Support Byte) is set to one (indicating a continuous frequency display) then is the display continuous frequency AND does one of the 18 Byte Descriptors (stored at addresses **48h → 59h, 5Ah → 6Bh,** or **6Ch → 7Dh**) contain a valid Display Range Limits (Tag Number FDh)?	If 'Yes', then Pass --- continue to test case 25.
				If 'No', then Fail --- Stop, Repair & Re-test
			If bit 0 (at address **18h** – the Feature Support Byte) is set to zero (indicating a non-continuous frequency display) AND the display specifications indicate a Range Limits Descriptor is in EDID, then is the display non-continuous frequency AND does one of the 18 Byte Descriptors (stored at addresses **48h → 59h, 5Ah → 6Bh,** or **6Ch → 7Dh**) contain a valid Display Range Limits (Tag Number FDh)?	If 'Yes', then Pass --- continue to test case 25.
				If 'No', then Fail --- Stop, Repair & Re-test

3.10.4 Test for Valid Display Product Name (ASCII) String Descriptor (tag #FCh)

The model name of the display product may be listed (optional but recommended) in the Display Product Name (ASCII) String Descriptor (tag #FCh). Up to 13 alphanumeric characters (using ASCII codes) may be used to define the model name of the display product. The data shall be sequenced such that the 1st byte (ASCII code) = the 1st character, the 2nd byte (ASCII code) = the 2nd character, etc. If there are less than 13 characters in the string, then terminate the display product name string with ASCII code '0Ah' (line feed) and pad the unused bytes in the field with ASCII code '20h' (space).

Refer to Table 3-53 for the definition of the Display Product Name String Descriptor. The test for a valid Display Product Name String Descriptor is shown in Table 3-54. For more information on the Display Product Name String Descriptor refer to section 3.10.3.4 in the E-EDID Standard Release A, Revision 2.

Table 3-47: Display Product Name (ASCII) String Descriptor Block Definition

Byte #	Value	Display Product Name Definition
0 → 4	(00 00 00 FC 00)h	Display Product Name (ASCII) String Descriptor Tag Number (FCh)
5 → 17	ASCII String	Up 13 alphanumeric characters (using ASCII Codes) of a data string may be stored.

Pre-Test Requirements: The tester shall review the display (sink device) product specifications and make note of Display Product Name. The tester should convert the Display Product Name String into ASCII codes and record both the Display Product Name String and the ASCII codes in the Specification Data Column of the Verification Test Report Form. If the Display Product Name String Descriptor is included in the BASE EDID (Block 0), then run Test Case 25 (Table 3-54). Refer to Table 3-53 for a definition of the Display Range Limits with CVT Support Descriptor.

Table 3-48: Test Case 25: **Display Product Name (ASCII) String**

Byte #	Test Case #	Action	Result	Pass/Fail
0 → 4	25-1	Read & record the data stored in Bytes 0 → 4.	Is the data stored in Bytes 0 → 4 is equal to (00 00 00 FC 00)h?	If 'Yes', then Pass --- continue to test case 25-2.
				If 'No', then stop running test case 25 and continue to test case 26-1.
5 → 17	25-2	Read & record the data stored in Bytes 5 → 17.	Is the data stored in Bytes 5 → 17 equal to the Display Product Name String?	If 'Yes', then Pass --- continue to test case 26-1.
				If 'No', then Fail --- Stop, Repair & Re-test

3.10.5 Test for Valid Color Point Descriptor (tag #FBh)

Chromaticity coordinates (x, y) for up to two additional sets of white points may be stored in the Color Point Descriptor (Tag # FBh). In addition, GAMMAs associated with each white point may also be defined. The Color Point Descriptor definition is listed in Tables 3-55 & 3-56. The test for a valid Color Point Descriptor is shown in Table 3.57. For more information on the Color Point Descriptor refer to section 3.10.3.5 in the E-EDID Standard Release A, Revision 2.

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Table 3-49: Additional Color Point Descriptor Definition

Byte #	Value								Color Point Descriptor Definition
0 → 4	(00 00 00 FB 00)h								Color Point Descriptor Tag Number (FBh)
5	01h → FFh								White Point Index Number (Binary)
	00h								Reserved: Do not use.
	7	**6**	**5**	**4**	**3**	**2**	**1**	**0**	**Bit Definitions**
6	0	0	0	0	Wx1	Wx0	Wy1	Wy0	White-x, y
7	Wx9	Wx8	Wx7	Wx6	Wx5	Wx4	Wx3	Wx2	White-x
8	Wy9	Wy8	Wy7	Wy6	Wy5	Wy4	Wy3	Wy2	White-y
9	00h → FEh								Value Stored = (GAMMA × 100) - 100 Range is 1.00 → 3.54
	FFh								GAMMA Value is not defined here. Then GAMMA data shall be stored in an EXTENSION Block; for example, DI-EXT
10	02h → FFh								White Point Index Number (Binary)
	00h								Bytes 11 to 14 are reserved – set to ‘00h’
	7	**6**	**5**	**4**	**3**	**2**	**1**	**0**	**Bit Definitions**
11	0	0	0	0	Wx1	Wx0	Wy1	Wy0	White-x, y
12	Wx9	Wx8	Wx7	Wx6	Wx5	Wx4	Wx3	Wx2	White-x
13	Wy9	Wy8	Wy7	Wy6	Wy5	Wy4	Wy3	Wy2	White-y
14	00h → FEh								Value Stored = (GAMMA × 100) - 100 Range is 1.00 → 3.54
	FFh								GAMMA Value is not defined here Then GAMMA data shall be stored in an EXTENSION Block; for example, DI-EXT
15	0Ah								Line Feed - (All other values are reserved)
16, 17	20h								Space - (All other values are reserved)

Two sets of white point values may be stored. The white point chromaticity coordinates (x, y) shall be expressed as fractional numbers, accurate to the thousandth place. Each number shall be represented by a binary fraction, which is 10 bits in length. In this fraction a value of one for the bit immediately right of the decimal point (bit 9) represents 2 raised to the -1 power. A value of 1 in the right most bit (bit 0) represents a value of 2 raised to the -10 power. Add together the values for all bits set to ‘1’. See Table 3-56.

Some displays are capable of supporting more than one white point (color temperature). The white point index number is simply an identifier number in the range of 1 to 255. The second white point (and the white GAMMA) shall be listed first in bytes 5 → 9. A third (optional) supported white point (different index number) may be listed in bytes 10 → 14.

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Table 3-50: Ten bit Binary Fraction Representation

Bit #	Converted Back to Decimal
9	If bit 9 is set to '1', then add 2 raised to the power of -1 = 0.500
8	If bit 8 is set to '1', then add 2 raised to the power of -2 = 0.250
7	If bit 7 is set to '1', then add 2 raised to the power of -3 = 0.125
6	If bit 6 is set to '1', then add 2 raised to the power of -4 = 0.625
5	If bit 5 is set to '1', then add 2 raised to the power of -5 = 0.03125
4	If bit 4 is set to '1', then add 2 raised to the power of -6 = 0.01563
3	If bit 3 is set to '1', then add 2 raised to the power of -7 = 0.00781
2	If bit 2 is set to '1', then add 2 raised to the power of -8 = 0.00391
1	If bit 1 is set to '1', then add 2 raised to the power of -9 = 0.001953125
0	If bit 0 is set to '1', then add 2 raised to the power of -10 = 0.0009765625

In Table 3-55, the high order bits ($9 \rightarrow 2$) shall be stored as a single byte. The low order bits ($1 \rightarrow 0$) shall be paired with other low order bits to form the lower nibble of a byte. With this representation, all values should be accurate to +/- 0.0005 of the actual value.

The display transfer characteristic, referred to as GAMMA, is stored in a 1-byte field capable of representing GAMMA values in the range of 1.00 to 3.54. The integer value stored is determined by the formula:

$$\text{Value stored} = (\text{GAMMA} \times 100) - 100$$

Pre-Test Requirements: The tester shall review the display (sink device) product specifications and make note of any additional Color Point Information (White Point Index Numbers, White Point x, y Chromaticity Coordinates, and GAMMAs). The tester should convert the Color Point Information data into hex codes and record both the Color Point Information data and the hex codes in the Specification Data Column of the Verification Test Report Form. If the Additional Color Point Descriptor is included in the BASE EDID (Block 0), then run Test Case 26 (Table 3-57). Refer to Tables 3-55 & 3-56 for a definition of the Additional Color Point Descriptor.

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Table 3-51: Test Case 26: **Additional Color Point Descriptor**

Byte #	Test Case #	Action	Result	Pass/Fail
0 → 4	26-1	Read & record the data stored in Bytes 0 → 4.	Is the data stored in Bytes 0 → 4 equal to (00 00 00 FB 00)h AND does the display support Additional Color Points?	If 'Yes', then Pass --- continue to test case 26-2.
				If 'No', then stop running test case 26 and continue to test case 27-1.
5	26-2	Read & record the data stored in Byte 5.	Is the data stored in Byte 5 equal to a valid White Point Index Number?	If 'Yes', then Pass --- continue to test case 26-3.
				If 'No', then Fail --- Stop, Repair & Re-test
6 → 8	26-3	Read & record the data stored in Bytes 6 → 8.	Is the decoded data stored in Bytes 6 → 8 equal to the correct White Field x, y Chromaticity Coordinates?	If 'Yes', then Pass --- continue to test case 26-4.
				If 'No', then Fail --- Stop, Repair & Re-test
9	26-4	Read & record the data stored in Byte 9.	Is the decoded data stored in Byte 9 equal to the correct GAMMA?	If 'Yes', then Pass --- continue to test case 26-5.
				If 'No', then Fail --- Stop, Repair & Re-test
	26-5		If the data stored in Byte 9 is equal to FFh then is the GAMMA stored in an EXTENSION block?	If 'Yes', then Pass --- continue to test case 26-6.
				If 'No', then Fail --- Stop, Repair & Re-test
10	26-6	Read & record the data stored in Byte 10.	Is the data stored in Byte 10 equal to a valid White Point Index Number?	If 'Yes', then Pass --- continue to test case 26-7.
				If 'No', then Fail --- Stop, Repair & Re-test
	26-7		If the data stored in Byte 10 is equal to 00h, then is the data stored in Bytes 11 → 14 equal to (00 00 00 00)h?	If 'Yes', then Pass --- continue to test case 26-8.
				If 'No', then Fail --- Stop, Repair & Re-test
11 → 13	26-8	Read & record the data stored in Bytes 11 → 13.	Is the decoded data stored in Bytes 11 → 13 equal to the correct White Field x, y Chromaticity Coordinates?	If 'Yes', then Pass --- continue to test case 26-9.
				If 'No', then Fail --- Stop, Repair & Re-test
14	26-9	Read & record the data stored in Byte 14.	Is the decoded data stored in Byte 14 equal to the correct GAMMA?	If 'Yes', then Pass --- continue to test case 26-10.
				If 'No', then Fail --- Stop, Repair & Re-test
	26-10		If the data stored in Byte 14 is equal to FFh then is the GAMMA stored in an EXTENSION block?	If 'Yes', then Pass --- continue to test case 26-11.
				If 'No', then Fail --- Stop, Repair & Re-test
15	26-11	Read & record the data stored in Byte 15.	Is the data stored in Byte 15 equal to 0Ah (line feed)?	If 'Yes', then Pass --- continue to test case 26-12.
				If 'No', then Fail --- Stop, Repair & Re-test
16 & 17	26-12	Read & record the data stored in Bytes 16 & 17.	Is the decoded data stored in Bytes 16 & 17 equal to 20h (space)?	If 'Yes', then Pass --- continue to test case 27-1.
				If 'No', then Fail --- Stop, Repair & Re-test

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3.10.6 Test for Valid Standard Timing Identifier Descriptor (tag #FAh)

Six additional Standard Timings may be listed as a display descriptor (tag #FAh). The definition of the Standard Timings Descriptor is shown in Table 3.58. The two byte codes (for each Standard Timing) are defined in section 3.7 of the E-EDID Verification Guide. The test for a valid Standard Timings Descriptor is shown in Table 3-59. For more information on the Standard Timings Descriptor refer to section 3.10.3.6 in the E-EDID Standard Release A, Revision 2.

Table 3-52: Standard Timings (#9 to #14) Identifier Definitions

Byte #	Value	Standard Timing Identifier Definition
0 → 4	(00 00 00 FA 00)h	Standard Timing Identifier Tag Number (FAh)
5 6	00h → FFh 00h → FFh	Standard Timing Identification 9
7 8	00h → FFh 00h → FFh	Standard Timing Identification 10
9 10	00h → FFh 00h → FFh	Standard Timing Identification 11
11 12	00h → FFh 00h → FFh	Standard Timing Identification 12
13 14	00h → FFh 00h → FFh	Standard Timing Identification 13
15 16	00h → FFh 00h → FFh	Standard Timing Identification 14
17	0Ah	Line Feed (All other values are reserved)

Pre-Test Requirements: The tester shall review the display (sink device) product specifications and make note of all Display Monitor Timings (DMT) supported by the display (sink device). Some of these DMTs may be listed in the Standard Timings Identifier Descriptor. The tester should convert the supported DMT into the 2 Byte Standard Timing Codes (defined in Table 3-27). The tester should record the supported DMTs and the 2 Byte Standard Timing Codes in the Verification Test Report Form. If the Standard Timings Identifier Descriptor is included in the BASE EDID (Block 0), then run Test Case 27 (Table 3-59).

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Table 3-53: Test Case 27: **Standard Timings Identifier Descriptor**

Byte #	Test Case #	Action	Result	Pass/Fail
0 → 4	27-1	Read & record the data stored in Bytes 0 → 4.	Is the data stored in Bytes 0 → 4 equal to (00 00 00 FA 00)h AND does the display support additional Standard Timing Identifiers?	If 'Yes', then Pass --- continue to test case 27-2.
				If 'No', then stop running test case 27 and continue to test case 28-1.
5 & 6	27-2	Read & record the 2 Byte Standard Timing Code stored at Bytes 5 & 6.	Is the Standard Timing Identification 9 (defined by the 2 byte code stored at Bytes 5 & 6) supported by the display?	If 'Yes', then Pass --- continue to test case 27-3.
				If 'No', then Fail --- Stop, Repair & Re-test
7 & 8	27-3	Read & record the 2 Byte Standard Timing Code stored at Bytes 7 & 8.	Is the Standard Timing Identification 10 (defined by the 2 byte code stored at Bytes 7 & 8) supported by the display or is the data equal to (01 01)h?	If 'Yes', then Pass --- continue to test case 27-4.
				If 'No', then Fail --- Stop, Repair & Re-test
9 & 10	27-4	Read & record the 2 Byte Standard Timing Code stored at Bytes 9 & 10.	Is the Standard Timing Identification 11 (defined by the 2 byte code stored at Bytes 9 & 10) supported by the display or is the data equal to (01 01)h?	If 'Yes', then Pass --- continue to test case 27-5.
				If 'No', then Fail --- Stop, Repair & Re-test
11 & 12	27-5	Read & record the 2 Byte Standard Timing Code stored at Bytes 11 & 12.	Is the Standard Timing Identification 12 (defined by the 2 byte code stored at Bytes 11 & 12) supported by the display or is the data equal to (01 01)h?	If 'Yes', then Pass --- continue to test case 27-6.
				If 'No', then Fail --- Stop, Repair & Re-test
13 & 14	27-6	Read & record the 2 Byte Standard Timing Code stored at Bytes 13 & 14.	Is the Standard Timing Identification 13 (defined by the 2 byte code stored at Bytes 13 & 14) supported by the display or is the data equal to (01 01)h?	If 'Yes', then Pass --- continue to test case 27-7.
				If 'No', then Fail --- Stop, Repair & Re-test
15 & 16	27-7	Read & record the 2 Byte Standard Timing Code stored at Bytes 15 & 16.	Is the Standard Timing Identification 14 (defined by the 2 byte code stored at Bytes 15 & 16) supported by the display or is the data equal to (01 01)h?	If 'Yes', then Pass --- continue to test case 27-8.
				If 'No', then Fail --- Stop, Repair & Re-test
17	27-8	Read & record the data stored at Byte 17.	Is the data stored at Byte 17 equal to 0Ah (line feed)?	If 'Yes', then Pass --- continue to test case 28-1.
				If 'No', then Fail --- Stop, Repair & Re-test

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3.10.7 Test for Valid Color Management Data Descriptor (tag #F9h)

A shorthand method of defining Color Management Data may be listed in the Color Management Data (CMD) Descriptor (Tag #F9h). This requires the storage of the Display Color Management polynomial coefficients. More information on deriving the Display Color Management polynomial coefficients is available in the VESA Display Color Management (DCM) Standard, Version 1; January 6, 2003. The polynomial coefficients shall be stored as 2 byte codes (16 bits total) - Least Significant Byte (LSB) is stored first. The Color Management Data Descriptor definition is listed in Table 3-60. The test for a valid Color Management Data Descriptor is shown in Table 3-61. For more information on the Color Management Data Descriptor refer to section 3.10.3.7 in the E-EDID Standard Release A, Revision 2.

Table 3-54: Color Management Data Descriptor Definition

Byte #	Value	Color Management Data Descriptor Definitions
0 → 4	(00 00 00 F9 00)h	Color Management Data Descriptor Tag Number (F9h)
5	03h	Version Number: Set to 03h. (All other values are reserved)
6	00h → FFh	Red a_3 Least Significant Byte (LSB)
7	00h → FFh	Red a_3 Most Significant Byte (MSB)
8	00h → FFh	Red a_2 LSB
9	00h → FFh	Red a_2 MSB
10	00h → FFh	Green a_3 LSB
11	00h → FFh	Green a_3 MSB
12	00h → FFh	Green a_2 LSB
13	00h → FFh	Green a_2 MSB
14	00h → FFh	Blue a_3 LSB
15	00h → FFh	Blue a_3 MSB
16	00h → FFh	Blue a_2 LSB
17	00h → FFh	Blue a_2 MSB

Pre-Test Requirements: The tester shall review the display (sink device) product specifications and make note of support for the Color Management Data Descriptor, the a_2 & a_3 coefficients for the red, green and blue primaries. The tester should convert the Color Management Coefficient data into hex codes and record both the Color Management Coefficient data and the hex codes in the Specification Data Column of the Verification Test Report Form. If the Color Management Data Descriptor is included in the BASE EDID (Block 0), then run Test Case 28 (Table 3-61).

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Table 3-55: Test Case 28: **Color Management Data Descriptor**

Byte #	Test Case #	Action	Result	Pass/Fail
0 → 4	28-1	Read & record the data stored in Bytes 0 → 4.	Is the data stored in Bytes 0 → 4 equal to (00 00 00 F9 00)h AND does the display support Color Management Data?	If 'Yes', then Pass --- continue to test case 28-2. If 'No', then stop running test case 28 and continue to test case 29-1.
5	28-2	Read & record the data stored at Byte 5.	Is the data stored at Byte 5 equal to 03h (Version Number)?	If 'Yes', then Pass --- continue to test case 28-3. If 'No', then Fail --- Stop, Repair & Re-test
6 & 7	28-3	Read & record the data stored at Bytes 6 & 7.	Is the data stored at Bytes 6 & 7 equal to the red a_3 coefficient?	If 'Yes', then Pass --- continue to test case 28-4. If 'No', then Fail --- Stop, Repair & Re-test
8 & 9	28-4	Read & record the data stored at Bytes 8 & 9.	Is the data stored at Bytes 8 & 9 equal to the red a_2 coefficient?	If 'Yes', then Pass --- continue to test case 28-5. If 'No', then Fail --- Stop, Repair & Re-test
10 & 11	28-5	Read & record the data stored at Bytes 10 & 11.	Is the data stored at Bytes 10 & 11 equal to the green a_3 coefficient?	If 'Yes', then Pass --- continue to test case 28-6. If 'No', then Fail --- Stop, Repair & Re-test
12 & 13	28-6	Read & record the data stored at Bytes 12 & 13.	Is the data stored at Bytes 12 & 13 equal to the green a_2 coefficient?	If 'Yes', then Pass --- continue to test case 28-7. If 'No', then Fail --- Stop, Repair & Re-test
14 & 15	28-7	Read & record the data stored at Bytes 14 & 15.	Is the data stored at Bytes 14 & 15 equal to the blue a_3 coefficient?	If 'Yes', then Pass --- continue to test case 28-8. If 'No', then Fail --- Stop, Repair & Re-test
16 & 17	28-8	Read & record the data stored at Bytes 16 & 17.	Is the data stored at Bytes 16 & 17 equal to the blue a_2 coefficient?	If 'Yes', then Pass --- continue to test case 29-1. If 'No', then Fail --- Stop, Repair & Re-test

3.10.8 Test for Valid CVT 3 Byte Code Descriptor (tag #F8h)

Coordinated Video Timings (CVT) may be defined (optional) in the CVT 3 Byte Code Descriptor (Tag #F8h). The 3 Byte CVT Codes may be used to define video timing modes that include horizontal and vertical pixel formats that are defined in the "VESA and Industry Standards and Guidelines for Computer Display Monitor Timing (DMT), Version 1.0, Revision 10; October 29, 2004" or later. The 3 Byte CVT Codes may also be used to define video timing modes that include horizontal and vertical pixel formats that are not defined in the DMT Standard. The CVT 3 Byte Code Descriptor section may be divided to support up to 4 timing sub-blocks - each is 3 bytes long (12 bytes total). Unused bytes shall be padded with 00h. Table 3.62 provides a description of the 3 byte CVT codes. Refer to VESA CVT Standard, Version 1.1; September 10, 2003 for more information on CVT definitions. Refer to VESA's Video Timing Block Extension (VTB-EXT) Standard for more information on CVT 3 Byte Codes. The test for a valid CVT 3 Byte Code Descriptor is shown in Table 3-62. For more information on the CVT 3 Byte Code Descriptor refer to section 3.10.3.8 in the E-EDID Standard Release A, Revision 2.

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Table 3-56: CVT 3 Byte Code Descriptor Definition

Byte #	Value	CVT 3 Byte Code Descriptor Definition
0 → 4	(00 00 00 F8 00)h	CVT 3 Byte Code Descriptor Tag Number (F8h)
5	01h	Version Number (All other values are reserved)
6 → 8		**CVT 3 Byte Code Descriptor with the #1 (Highest) Priority**
6	**7 6 5 4 3 2 1 0**	**Eight Least Significant Bits (Bit Definitions):**
		12 Bit Value Stored = [(Addressable Lines per Field ÷ 2) – 1]
	n n n n n n n n	8 least significant bits of 12 bit Addressable Lines
	0 0 0 0 0 0 0 0	00h is Reserved: Do not use.
7	**7 6 5 4**	**Four Most Significant Bits (Bit Definitions):**
	n n n n _ _ _ _	4 most significant bits of 12 bit Addressable Lines
	3 2	**Aspect Ratio:**
	_ _ _ _ 0 0 _ _	4 : 3 AR
	_ _ _ _ 0 1 _ _	16 : 9 AR
	_ _ _ _ 1 0 _ _	16 : 10 AR
	_ _ _ _ 1 1 _ _	15 : 9 AR
	1 0	**Reserved Bits:**
	_ _ _ _ _ _ 0 0	Bits 1, 0 shall be set to '00'. All other values shall not be used.
8	**7**	**Reserved Bit:**
	0 _ _ _ _ _ _ _	Bit 7 shall be set to '0'. The value '1' shall not be used.
	6 5	**Preferred Vertical Rate:**
	0 0 0 _ _ _ _ _	50 Hz
	0 0 1 _ _ _ _ _	60 Hz
	0 1 0 _ _ _ _ _	75 Hz
	0 1 1 _ _ _ _ _	85 Hz
	4 3 2 1 0	**Supported Vertical Rate and Blanking Style**
	0 _ _ 1 _ _ _ _	50 Hz with standard blanking (CRT style) is supported
	0 _ _ _ 1 _ _ _	60 Hz with standard blanking (CRT style) is supported
	0 _ _ _ _ 1 _ _	75 Hz with standard blanking (CRT style) is supported
	0 _ _ _ _ _ 1 _	85 Hz with standard blanking (CRT style) is supported
	0 _ _ _ _ _ _ 1	60 Hz with reduced blanking (as per CVT Standard) is supported
9 → 11		**CVT 3 Byte Code Descriptor with the #2 Priority**
	(00 00 00)h	If not defined then enter (00 00 00)h.
9	●●●	Refer to Byte 6 above
10	●●●	Refer to Byte 7 above
11	●●●	Refer to Byte 8 above
12 → 14		**CVT 3 Byte Code Descriptor with the #3 Priority**
	(00 00 00)h	If not defined then enter (00 00 00)h.
12	●●●	Refer to Byte 6 above
13	●●●	Refer to Byte 7 above
14	●●●	Refer to Byte 8 above
15 → 17		**CVT 3 Byte Code Descriptor with the #4 (Lowest) Priority**
	(00 00 00)h	If not defined then enter (00 00 00)h.
15	●●●	Refer to Byte 6 above
16	●●●	Refer to Byte 7 above
17	●●●	Refer to Byte 8 above

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Pre-Test Requirements: The tester shall review the display (sink device) product specifications and make note of all Display Monitor Timings (DMT) supported by the display (sink device). In addition, the tester shall make note of all CVT compliant video timing modes that are not listed in the VESA DMT Standard. Some of these DMTs may be listed in the EDID table using the CVT 3 Byte Codes. The tester should convert the supported DMT into the CVT 3 Byte Codes (defined in Table 3-62). The tester should record the supported DMTs and the CVT 3 Byte Codes in the Verification Test Report Form. If the CVT 3 Byte Code Descriptor is included in the BASE EDID (Block 0), then run Test Case 29 (Tables 3-63 & 3-64). When running Test Case 29, decode the CVT 3 Byte Codes using the definition in Table 3-62. Look for a match between the decoded CVT 3 Byte Codes (in the BASE EDID) and the supported DMTs in the display product specification.

Table 3-57: Test Case 29: **CVT 3 Byte Code Descriptor – Part 1**

Byte #	Test Case #	Action	Result	Pass/Fail
0 → 4	29-1	Read & record the data stored in Bytes 0 → 4.	Is the data stored in Bytes 0 → 4 equal to (00 00 00 F8 00)h AND does the display support the DMTs defined by the CVT 3 Byte Codes?	If 'Yes', then Pass --- continue to test case 29-2.
				If 'No', then stop running test case 29 and continue to test case 30-1.
5	29-2	Read & record the data stored at Byte 5.	Is the data stored at Byte 5 equal to 01h (Version Number)?	If 'Yes', then Pass --- continue to test case 29-3.
				If 'No', then Fail --- Stop, Repair & Re-test
6 & 7	29-3	Read & record the data stored at Bytes 6 & 7 (Bits 7 → 4).	Is the decoded data stored at Bytes 6 & 7 (Bits 7 → 4) equal to the number of Addressable Lines per Field?	If 'Yes', then Pass --- continue to test case 29-4.
				If 'No', then Fail --- Stop, Repair & Re-test
7	29-4	Read & record the data stored at Byte 7 (Bits 3 → 2).	Is the decoded data stored at Byte 7 (Bits 3 → 2) equal to the correct Aspect Ratio?	If 'Yes', then Pass --- continue to test case 29-5.
				If 'No', then Fail --- Stop, Repair & Re-test
	29-5	Read & record the data stored at Byte 7 (Bits 1 → 0).	Is the decoded data stored at Byte 7 (Bits 1 → 0) equal to 00b?	If 'Yes', then Pass --- continue to test case 29-6.
				If 'No', then Fail --- Stop, Repair & Re-test
8	29-6	Read & record the data stored at Byte 8 (Bit 7).	Is the data stored at Byte 8 (Bit 7) equal to zero?	If 'Yes', then Pass --- continue to test case 29-7.
				If 'No', then Fail --- Stop, Repair & Re-test
	29-7	Read & record the data stored at Byte 8 (Bits 6 & 5).	Is the decoded data stored at Byte 8 (Bits 6 & 5) equal to the Preferred Vertical Rate?	If 'Yes', then Pass --- continue to test case 29-8.
				If 'No', then Fail --- Stop, Repair & Re-test
	29-8	Read & record the data stored at Byte 8 (Bits 4 → 0).	Does the decoded data stored at Byte 8 (Bits 4 → 0) indicate all supported Vertical Rates and Blanking Style?	If 'Yes', then Pass --- continue to test case 29-9.
				If 'No', then Fail --- Stop, Repair & Re-test

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Table 3-58: Test Case 29: **CVT 3 Byte Code Descriptor – Part 2**

Byte #	Test Case #	Action	Result	Pass/Fail
9 → 11	29-9	Read & record the data stored at Bytes 9 → 11.	Repeat the tests for Bytes 6, 7 & 8. Is the data stored at Bytes 9 → 11 correct or equal to (00 00 00)h?	If 'Yes', then Pass --- continue to test case 29-10.
				If 'No', then Fail --- Stop, Repair & Re-test
12 → 14	29-10	Read & record the data stored at Bytes 12 → 14.	Repeat the tests for Bytes 6, 7 & 8. Is the data stored at Bytes 12 → 14 correct or equal to (00 00 00)h?	If 'Yes', then Pass --- continue to test case 29-11.
				If 'No', then Fail --- Stop, Repair & Re-test
15 → 17	29-11	Read & record the data stored at Bytes 15 → 17.	Repeat the tests for Bytes 6, 7 & 8. Is the data stored at Bytes 15 → 17 correct or equal to (00 00 00)h?	If 'Yes', then Pass --- continue to test case 30-1.
				If 'No', then Fail --- Stop, Repair & Re-test

3.10.9 Test for Valid Established Timings III Descriptor (tag #F7h)

Support for Established Timings III is optional. Established Timings III lists those Display Monitor Timings (DMTs) that are defined in the VESA Monitor Timing Standard but are not included in Established Timings I or Established Timings II. Refer to section 3.6 in the VESA E-EDID Verification Guide. Note that Established Timings III is a bit set table of supported DMTs and cannot define the video timing priority (order of importance). Table 3-65 defines the Established Timings III Descriptor. The test for a valid Established Timings III Descriptor is shown in Table 3-66. For more information on the Established Timings III Descriptor refer to section 3.10.3.9 in the E-EDID Standard Release A, Revision 2.

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Table 3-59: Established Timings III Descriptor Definition

Byte #	Value								Established Timings III Support Definitions
0 → 4	(00 00 00 F7 00)h								Established Timings III Descriptor Tag Number (F7h)
5	0Ah								Revision Number (All other values are reserved)
	7	**6**	**5**	**4**	**3**	**2**	**1**	**0**	**Bit Definitions:**
6	1	_	_	_	_	_	_	_	640 x 350 @ 85 Hz
	_	1	_	_	_	_	_	_	640 x 400 @ 85 Hz
	_	_	1	_	_	_	_	_	720 x 400 @ 85 Hz
	_	_	_	1	_	_	_	_	640 x 480 @ 85 Hz
	_	_	_	_	1	_	_	_	848 x 480 @ 60 Hz
	_	_	_	_	_	1	_	_	800 x 600 @ 85 Hz
	_	_	_	_	_	_	1	_	1024 x 768 @ 85 Hz
	_	_	_	_	_	_	_	1	1152 x 864 @ 75 Hz
7	1	_	_	_	_	_	_	_	1280 x 768 @ 60 Hz (RB) Note: (RB) means reduced blanking
	_	1	_	_	_	_	_	_	1280 x 768 @ 60 Hz
	_	_	1	_	_	_	_	_	1280 x 768 @ 75 Hz
	_	_	_	1	_	_	_	_	1280 x 768 @ 85 Hz
	_	_	_	_	1	_	_	_	1280 x 960 @ 60 Hz
	_	_	_	_	_	1	_	_	1280 x 960 @ 85 Hz
	_	_	_	_	_	_	1	_	1280 x 1024 @ 60 Hz
	_	_	_	_	_	_	_	1	1280 x 1024 @ 85 Hz
8	1	_	_	_	_	_	_	_	1360 x 768 @ 60 Hz
	_	1	_	_	_	_	_	_	1440 x 900 @ 60 Hz (RB)
	_	_	1	_	_	_	_	_	1440 x 900 @ 60 Hz
	_	_	_	1	_	_	_	_	1440 x 900 @ 75 Hz
	_	_	_	_	1	_	_	_	1440 x 900 @ 85 Hz
	_	_	_	_	_	1	_	_	1400 x 1050 @ 60 Hz (RB)
	_	_	_	_	_	_	1	_	1400 x 1050 @ 60 Hz
	_	_	_	_	_	_	_	1	1400 x 1050 @ 75 Hz
9	1	_	_	_	_	_	_	_	1400 x 1050 @ 85 Hz
	_	1	_	_	_	_	_	_	1680 x 1050 @ 60 Hz (RB)
	_	_	1	_	_	_	_	_	1680 x 1050 @ 60 Hz
	_	_	_	1	_	_	_	_	1680 x 1050 @ 75 Hz
	_	_	_	_	1	_	_	_	1680 x 1050 @ 85 Hz
	_	_	_	_	_	1	_	_	1600 x 1200 @ 60 Hz
	_	_	_	_	_	_	1	_	1600 x 1200 @ 65 Hz
	_	_	_	_	_	_	_	1	1600 x 1200 @ 70 Hz
10	1	_	_	_	_	_	_	_	1600 x 1200 @ 75 Hz
	_	1	_	_	_	_	_	_	1600 x 1200 @ 85 Hz
	_	_	1	_	_	_	_	_	1792 x 1344 @ 60 Hz
	_	_	_	1	_	_	_	_	1792 x 1344 @ 75 Hz
	_	_	_	_	1	_	_	_	1856 x 1392 @ 60 Hz
	_	_	_	_	_	1	_	_	1856 x 1392 @ 75 Hz
	_	_	_	_	_	_	1	_	1920 x 1200 @ 60 Hz (RB)
	_	_	_	_	_	_	_	1	1920 x 1200 @ 60 Hz
11	1	_	_	_	0	0	0	0	1920 x 1200 @ 75 Hz
	_	1	_	_	0	0	0	0	1920 x 1200 @ 85 Hz
	_	_	1	_	0	0	0	0	1920 x 1440 @ 60 Hz
	_	_	_	1	0	0	0	0	1920 x 1440 @ 75 Hz
	_	_	_	_	0	0	0	0	Reserved Bits: Shall be set to ‘0000’.
12 → 17	00h								Reserved Byte: Shall be set to ‘00h’.

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Pre-Test Requirements: The tester shall review the display (sink device) product specifications and make note of all Display Monitor Timings (DMT) supported by the display (sink device). Some of these DMTs may be listed in Established Timings III. The tester should convert the supported Established Timings III DMT into the Established Timings III hex Codes (defined in Table 3-65). The tester should record the supported Established Timings III DMTs and the Established Timings III hex Codes in the Verification Test Report Form. If the Established Timings III Descriptor is included in the BASE EDID (Block 0), then run Test Case 30 (Table 3-66).

Table 3-60: Test Case 30: **Established Timings III**

Byte #	Test Case #	Action	Result	Pass/Fail
0 → 4	30-1	Read & record the data stored in Bytes 0 → 4.	Is the data stored in Bytes 0 → 4 equal to (00 00 00 F7 00)h AND does the display support the DMTs defined by the Established Timings III Descriptor?	If 'Yes', then Pass --- continue to test case 30-2.
				If 'No', then stop running test case 30 and continue to test case 31.
5	30-2	Read & record the data stored in Byte 5.	Is the data stored at Byte 5 equal to 0Ah (Revision Number)?	If 'Yes', then Pass --- continue to test case 30-3.
				If 'No', then Fail --- Stop, Repair & Re-test
6 → 11	30-3	Read & record the bit data stored at Bytes 6 → 10 & 11 (Bits 7 → 4).	Are the Established Timings III (any bits set to one) at Bytes 6 → 10 & 11 (Bits 7 → 4) supported by the display?	If 'Yes', then Pass --- continue to test case 30-4.
				If 'No', then Fail --- Stop, Repair & Re-test
11 → 17	30-4	Read & record the bit data stored at Byte 11 (Bits 3 → 0) & Bytes 12 → 17.	Is all of the bit data at Byte 11 (Bits 3 → 0) & Bytes 12 → 17 equal to zero?	If 'Yes', then Pass --- continue to test case 31-1.
				If 'No', then Fail --- Stop, Repair & Re-test

3.10.10 Unused – Reserved Data Tag Number (Tags #11h to #F6h)

Data Tag Numbers (#11h to #F6h) are currently undefined and are reserved (they shall not be used). In a future revision to the E-EDID Standard, VESA may define some of these data tag numbers as new descriptor blocks. For more information on the Unused Reserved Data Tag Number refer to section 3.10.3.10 in the E-EDID Standard Release A, Revision 2.

Table 3-67: Unused Reserved Data Tag Numbers

Byte #	Value	Reserved Data Tag Number Definition
3	11h → F6h	Reserved Data Tag Numbers: Do Not Use

There is no test case for the Unused Reserved Data Tag Numbers. The reason for this is the fact that the BASE EDID Data Table has already passed Test Case 14 (section 3.8.1 – First 18 Byte Descriptor), Test Case 15 (section 3.8.2 – Second 18 Byte Descriptor), Test Case 16 (section 3.8.3 – Third 18 Byte Descriptor) and Test Case 17 (section 3.8.4 – Fourth 18 Byte Descriptor),

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3.10.11 Test for Valid Dummy Descriptor Definition (Tag #10h)

Use of the Dummy Descriptor (Tag #10h) is optional. The Dummy Descriptor shall be used to indicate that the 18 byte descriptor space is unused. Table 3-68 provides a description of the Dummy Descriptor. The test for a valid Dummy Descriptor is shown in Table 3.69. For more information on the Dummy Descriptor refer to section 3.10.3.11 in the E-EDID Standard Release A, Revision 2.

Table 3-61: Dummy Descriptor Definition

Byte #	Value	Dummy Descriptor Definition
0 → 4	(00 00 00 10 00)h	Dummy Descriptor Tag Number (10h)
5 → 17	00h	All Bytes filled with ‘00h’
	01h → FFh	Reserved: Shall Not Be Used.

<u>Pre-Test Requirements</u>: The tester shall review the display (sink device) product specifications and make note of any Dummy Descriptors that may be included in the BASE EDID (Block 0). If the Dummy Descriptor is included in the BASE EDID (Block 0), then run Test Case 31 (Table 3-69). When running test case 31, decode the 18 Bytes using the definition in Table 3-68.

Table 3-62: Test Case 31: **Dummy Descriptor**

Byte #	Test Case #	Action	Result	Pass/Fail
0 → 4	31-1	Read the data stored in Bytes 0 → 4.	Is the data stored in Bytes 0 → 4 equal to (00 00 00 10 00)h?	If ‘Yes’, then Pass --- continue to test case 31-2.
				If ‘No’, then stop running test case 31 and continue to test case 32-1.
5 → 17	31-2	Read the data stored at Bytes 5 → 17.	Is the data stored at Bytes 5 → 17 equal to (00 00 00 00 00 00 00 00 00 00 00 00 00)h?	If ‘Yes’, then Pass --- continue to test case 32-1.
				If ‘No’, then Fail --- Stop, Repair & Re-test

3.10.12 Manufacturer Specified Data Tag Numbers (Tags #00h to #0Fh)

The use of Manufacturer Specific Descriptors is optional. Data Tag Numbers (#00h to #0Fh) are reserved for Manufacturer Specific Descriptor definitions. Manufacturers may use these data tag numbers to define custom descriptors. Table 3-70 provides a description of the Manufacturer Specified Data Descriptor.

Table 3-63: Manufacturer Specified Data Descriptor Definition

Byte #	Value	Manufacturer Specified Data Descriptor Definition
0 → 4	(00 00 00 nn 00)h	Manufacturer Specified Data Tag Numbers (nn = 00h → 0Fh)
5 → 17	00h → FFh	Manufacturer specifies the data stored in Bytes 5 → 17

There is no test case for the Manufacturer Specific Descriptors.

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3.11 Test for Valid EXTENSION Flag and Checksum

The EXTENSION Flag and Checksum are required elements in EDID data structure version 1, revision 4. They are defined in Table 3.71. The test for a valid EXTENSION Flag and Checksum is shown in Table 3.72. For more information on the EXTENSION Flag and Checksum refer to section 3.11 in the E-EDID Standard Release A, Revision 2.

EXTENSION Block Tag Numbers are used to numerically identify each type of EXTENSION Block. VESA and other Standards Groups have developed and continue to develop useful EDID EXTENSION Block Standards. VESA maintains the Master List of assigned EDID EXTENSION Block Tag Numbers. Refer to Table 3.72 for a list of valid EXTENSION Block Tag Numbers.

Table 3-64: EXTENSION Flag and Checksum

Address	Value	EXTENSION Flag & Checksum Definitions
7Eh	00h → FFh	EXTENSION Flag:
7Fh	00h → FFh	Checksum:

Table 3-65: EDID Structure – Extension Tag Numbers

Tag Numbers	Extension Block Description
02h	CEA-EXT: CEA 861 Series Extension (see Note 2)
10h	VTB-EXT: Video Timing Block Extension
40h	DI-EXT: Display Information Extension
50h	LS-EXT: Localized String Extension
60h	DPVL-EXT: Digital Packet Video Link Extension
F0h	EXTENSION Block Map
FFh	EXTENSIONS defined by the display manufacturer

<u>**Pre-Test Requirements:**</u> The tester shall review the display (sink device) product specifications and make note of the number of any optional EXTENSION Blocks that may be included in the total EDID Table. In addition, the tester shall make note of the EXTENSION Block Tag Numbers (first byte in each extension Block).

Table 3-66: Test Case 32: **EXTENSION Flag and Checksum**

Addresses	Test Case #	Action	Result	Pass/Fail
7Eh	32-1	Read & record the data stored in address **7Eh**.	Is the data stored in address **7Eh** equal to the total number of EXTENSION Blocks (including optional Block Maps) AND are the EXTENSION Block Tag Numbers valid?	If 'Yes', then Pass --- continue to test case 32-2. If 'No', then Fail --- Stop, Repair & Re-test
7Fh	32-2	Read & record the Checksum stored at address **7Fh.**	Validate the Checksum --- Is the addition (using modulo 256) of all 128 hexadecimal bytes stored at addresses **00h → 7Fh** in the BASE EDID equal to 00h?	If 'Yes', then Pass --- continue to test case 33. If 'No', then Fail --- Stop, Repair & Re-test

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Table 3-67: Test Case 33: **END OF VERIFICATION TESTING**

END OF VERIFICATION TESTING
Congratulations: You have completed the VESA E-EDID Verification Testing. The content in your Base EDID 1.4 (Block 0) Table is correct per your display (or sink device) product specifications. In addition, your Base EDID 1.4 (Block 0) Table is compliant to the VESA Enhanced Extended Display Identification Data (E-EDID) Standard Release A, Revision 2, September 25, 2006.
Notice: The test cases in this document are intended to be used as a guide to help check EDID 1.4 implementation and content. The purpose is to help debug or verify the EDID content. No certification, compliance, or official sponsorship or validation or endorsement of the results is intended or implied.

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4. Appendix A: Samples of E-EDID Verification Test Report Forms

Appendix A contains a sample of a completed E-EDID Verification Test Report Form for Test Cases 1 thru 8. This example is based on a 55-inch plasma widescreen (16x9) display that supports both IT(PC) timings and CE(DTV) timings. The display uses a 1366x768 pixel plasma panel and an HDMIa video input connector.

Refer to Appendix B for a blank E-EDID Verification Test Report Form.

Verification Testing of EDID 1.4 (Version 1, Revision 4)
As defined in the VESA E-EDID Standard (Release A, Revision 2, September 25, 2006)

DATE: 1/01/2007

MANUFACTURER: ABC

MODEL #: (F2,08)h

SERIAL #: 00000001

TESTER'S NAME: JOHN DOE

INSTRUCTIONS:

Before running the "Test Cases", the tester should make copies of all required data fields listed in the following Verification Test Report Form. The tester should also make copies of the optional data fields that are included in the Base EDID (Block 0) Table (that is under test). Note --- Some optional data fields may occur more than once in the Base EDID (Block 0) Table. In this case, multiple copies of the optional data field may be required.

Prior to running the test cases, the tester fills in the information listed in the "Specification Data" column using the manufacturer's specifications for the display (or sink device). For some test cases, it may be necessary to convert the specification data into EDID hex data. The tester then runs the "Test Case" in the order listed. The test cases are defined in the listed "Section Numbers" of the E-EDID Verification Guide. The results of each test case are recorded in the "EDID 1.4 Stored Data in Data Field" column. If there is a match between the "Specification Data" column and the "EDID 1.3 Stored Data in Data Field" column, then the test case is a Pass. If there is not a match, then the test case is a Fail. If a Fail occurs, then the creator of the Base EDID (Block 0) Table must correct the error and run a re-test of the failed test case before the tester can proceed to the next test case.

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Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
1	3.1	**00h → 07h** (Required)	Header =	(00 FF FF FF FF FF FF 00)h	(00FFFFFFFFFFFF00)h	PASS
2	3.2.1	**08h → 09h** (Required)	ID Manufacturer PNPID Code:	(Fill in data)	(Fill in data)	
			Character #1 = Character #2 = Character #3 =	A B C converts to (04 43)h	(04 43)h	PASS
3	3.2.2	**0Ah → 0Bh** (Required)	ID Product Code:	(Fill in data)	(Fill in data)	
			LSB (ab)h = MSB (cd)h =	(08 F2)h	(08 F2)h	PASS
4	3.2.3	**0Ch → 0Fh** (Optional)	ID Serial Number:	(Fill in data)	(Fill in data)	
			(e,fgh, ijk,lmn)d =	(0 0 0 0 0 0 0 1)d converts to (01 00 00 00)h	(01 00 00 00)h	PASS
5	3.2.4	**10h → 11h**	Week & Year of Manufacture:	(Fill in data)	(Fill in data)	
5-1		(Optional)	Week of Manufacture = or Model Year Flag =	(16)d converts to (10)h or (FF)h	(10)h	PASS
5-2 & 5-3		(Required)	& Year of Manufacture = or Model Year =	(2007)d converts to (11)h or ( )d converts to ( )h	(11)h	PASS
6	3.3	**12h → 13h** (Required)	EDID Structure:	(Required Data)	(Fill in data)	
6-1 & 6-2			Version Number = Revision Number =	(1)d converts to (01)h (4)d converts to (04)h	(01 04)h	PASS

Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
	3.4	14h → 18h (Required)	Basic Display Parameters and Features:			
7	3.4.1	**14h**	Video Input Definition: (Part 1)	(Check one box only)	(Fill in data)	
7-1	If Analog Video Input is supported then run test cases 7-1 to 7-6		(Bit 7) Analog Video Input =	☐ Yes --- converts to Bit 7 = (0)b or ☒ No --- converts to Bit 7 = (1)b	Bit 7 = (1)b	PASS
7-2		(Required)	(Bits 6 & 5) Signal Level Std. Supported:	(Check one box only)	(Fill in data)	
			0.700 : 0.300 : 1.000 V p-p = or 0.714 : 0.286 : 1.000 V p-p = or 1.000 : 0.400 : 1.400 V p-p = or 0.700 : 0.000 : 0.700 V p-p =	☐ converts to Bits 6 & 5 = (0 0)b ☐ converts to Bits 6 & 5 = (0 1)b ☐ converts to Bits 6 & 5 = (1 0)b ☐ converts to Bits 6 & 5 = (1 1)b	Bits 6 & 5 = (___ ___)b	OMIT
7-3		(Required)	(Bit 4) Video Setup:	(Check one box only)	(Fill in data)	
			Blank Level = Black Level = or Blank-to-Black Setup =	☐ converts to Bit 4 = (0)b or ☐ converts to Bit 4 = (1)b	Bit 4 = (__)b	OMIT
7-4		(Required)	(Bits 3 → 1) Synchronization Types:	(Check all boxes that apply)	(Fill in data)	
			Separate Sync H & V Signals =	☐ Yes --- converts to Bit 3 = (1)b or ☐ No --- converts to Bit 3 = (0)b	Bits 3, 2, 1 = (___ ___ ___)b	OMIT
			Composite Sync Signal on Horizontal =	☐ Yes --- converts to Bit 2 = (1)b or ☐ No --- converts to Bit 2 = (0)b		
			Composite Sync Signal on Green Video =	☐ Yes --- converts to Bit 1 = (1)b or ☐ No --- converts to Bit 1 = (0)b		
7-5 & 7-6		(Required)	(Bit 0) Serrations:	(Check one box only)	(Fill in data)	
			Support Serrations =	☐ Yes --- converts to Bit 0 = (1)b or ☐ No --- converts to Bit 0 = (0)b	Bit 0 = (__)b	OMIT
			(Bits 7 → 0) Summary of Address **14h**:	(Fill in data)	(Fill in data)	
			Bit Data at Address **14h** =	Bits 7 → 0 = (_ _ _ _ _ _ _ _)b converts to (____)h	Data at Address **14h** = (____)h	OMIT

Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
7-7	3.4.1	**14h**	Video Input Definition: (Part 2)	(Check one box only)	(Fill in data)	
	If Digital Video Input is supported then run test cases 7-7 to 7-9		(Bit 7) Digital Video Input =	☒ Yes --- converts to Bit 7 = (1)b or ☐ No --- converts to Bit 7 = (0)b	Bit 7 = (1)b	PASS
7-8		(Required)	(Bits 6 → 4) Color Bit Depth:	(Check one box only)	(Fill in data)	
			Color Bit Depth is undefined =	☐ converts to (0 0 0)b	Bits 6, 5, 4 = (0 1 0)b	PASS
			6 Bits per Primary Color =	☐ converts to (0 0 1)b		
			8 Bits per Primary Color =	☒ converts to (0 1 0)b		
			10 Bits per Primary Color =	☐ converts to (0 1 1)b		
			10 Bits per Primary Color =	☐ converts to (1 0 0)b		
			12 Bits per Primary Color =	☐ converts to (1 0 1)b		
			14 Bits per Primary Color =	☐ converts to (1 1 0)b		
			16 Bits per Primary Color =	☐ converts to (1 1 1)b		
7-9		(Required)	(Bits 6 → 4) Digital Video Interface Std:	(Check one box only)	(Fill in data)	
			Digital Interface is not defined =	☐ converts to (0 0 0 0)b	Bits 3, 2, 1,0 = (0 0 1 0)b	PASS
			DVI is supported =	☐ converts to (0 0 0 1)b		
			HDMI-a is supported =	☒ converts to (0 0 1 0)b		
			HDMI-b is supported =	☐ converts to (0 0 1 1)b		
			MDDI is supported =	☐ converts to (0 1 0 0)b		
			DisplayPort is supported =	☐ converts to (0 1 0 1)b		
			(Bits 7 → 0) Summary of Address **14h**:	(Fill in data)	(Fill in data)	
			Bit Data at Address **14h** =	Bits 7 → 0 = (1 0 1 0 0 0 1 0)b converts to (A2)h	Data at Address **14h** = (A2)h	PASS
8	3.4.2	**15h & 16h** (Required)	H & V Screen Size or AR:	(Fill in appropriate blanks)	(Fill in data)	
8-1			Horizontal Screen Size (cm) = or	(______)d converts to (____)h at address **15h** or	Data at Address **15h** = (4F)h Data at Address **16h** = (00)h	PASS
8-2			Aspect Ratio (Landscape) =	(1.78)d converts to (4F)h at address **15h** AND address **16h** = (00)h		
8-3			Vertical Screen Size (cm) = or	(______)d converts to (____)h at address **16h** or		
8-4			Aspect Ratio (Portrait) = or	(______)d converts to (____)h at address **16h** AND address **15h** = (00)h		
8-5			Image Size or Aspect Ratio is unknown or undefined =	☐ Yes --- then address **15h** = (00)h & address **16h** = (00)h		

5. Appendix B: E-EDID Verification Test Report Forms

Verification Testing of EDID 1.4 (Version 1, Revision 4)
As defined in the VESA E-EDID Standard (Release A, Revision 2, September 25, 2006)

DATE: ______________________

MANUFACTURER: ______________________

MODEL #: ______________________________

SERIAL #: ______________________________

TESTER'S NAME: _________________________

INSTRUCTIONS:

Before running the "Test Cases", the tester should make copies of all required data fields listed in the following Verification Test Report Form. The tester should also make copies of the optional data fields that are included in the Base EDID (Block 0) Table (that is under test). Note --- Some optional data fields may occur more than once in the Base EDID (Block 0) Table. In this case, multiple copies of the optional data field may be required.

Prior to running the test cases, the tester fills in the information listed in the "Specification Data" column using the manufacturer's specifications for the display (or sink device). For some test cases, it may be necessary to convert the specification data into EDID hex data. The tester then runs the "Test Case" in the order listed. The test cases are defined in the listed "Section Numbers" of the E-EDID Verification Guide. The results of each test case are recorded in the "EDID 1.4 Stored Data in Data Field" column. If there is a match between the "Specification Data" column and the "EDID 1.3 Stored Data in Data Field" column, then the test case is a Pass. If there is not a match, then the test case is a Fail. If a Fail occurs, then the creator of the Base EDID (Block 0) Table must correct the error and run a re-test of the failed test case before the tester can proceed to the next test case.

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Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
1	3.1	**00h → 07h** (Required)	Header =	(00 FF FF FF FF FF FF 00)h	(__ __ __ __ __ __ __ __)h	
2	3.2.1	**08h → 09h** (Required)	ID Manufacturer PNPID Code:	(Fill in data)	(Fill in data)	
			Character #1 = Character #2 = Character #3 =	_____ converts to _____ (_____ _____)h _____	(_____ _____)h	
3	3.2.2	**0Ah → 0Bh** (Required)	ID Product Code:	(Fill in data)	(Fill in data)	
			LSB (ab)h = MSB (cd)h =	(_____ _____)h	(_____ _____)h	
4	3.2.3	**0Ch → 0Fh** (Optional)	ID Serial Number:	(Fill in data)	(Fill in data)	
			(e,fgh, ijk,lmn)d =	(______________________)d converts to (____ ____ ____ ____)h	(____ ____ ____ ____)h	
5	3.2.4	**10h → 11h**	Week & Year of Manufacture:	(Fill in data)	(Fill in data)	
5-1		(Optional)	Week of Manufacture = or Model Year Flag =	(_____)d converts to (_____)h or (FF)h	(_____)h	
5-2 & 5-3		(Required)	& Year of Manufacture = or Model Year =	(_____)d converts to (_____)h or (_____)d converts to (_____)h	(_____)h	
6	3.3	**12h → 13h** (Required)	EDID Structure:	(Required Data)	(Fill in data)	
6-1 & 6-2			Version Number = Revision Number =	(**_1_**)d converts to (01)h (**_4_**)d converts to (04)h	(_____ _____)h	

Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
	3.4	**14h → 18h** (Required)	Basic Display Parameters and Features:			
7	3.4.1	**14h**	Video Input Definition: (Part 1)	(Check one box only)	(Fill in data)	
7-1	If Analog Video Input is supported then run test cases 7-1 to 7-6		(Bit 7) Analog Video Input =	☐ Yes --- converts to Bit 7 = (0)b or ☐ No --- converts to Bit 7 = (1)b	Bit 7 = (___)b	
7-2		(Required)	(Bits 6 & 5) Signal Level Std. Supported:	(Check one box only)	(Fill in data)	
			0.700 : 0.300 : 1.000 V p-p = or 0.714 : 0.286 : 1.000 V p-p = or 1.000 : 0.400 : 1.400 V p-p = or 0.700 : 0.000 : 0.700 V p-p =	☐ converts to Bits 6 & 5 = (0 0)b ☐ converts to Bits 6 & 5 = (0 1)b ☐ converts to Bits 6 & 5 = (1 0)b ☐ converts to Bits 6 & 5 = (1 1)b	Bits 6 & 5 = (___ ___)b	
7-3		(Required)	(Bit 4) Video Setup:	(Check one box only)	(Fill in data)	
			Blank Level = Black Level = or Blank-to-Black Setup =	☐ converts to Bit 4 = (0)b or ☐ converts to Bit 4 = (1)b	Bit 4 = (___)b	
7-4		(Required)	(Bits 3 → 1) Synchronization Types:	(Check all boxes that apply)	(Fill in data)	
			Separate Sync H & V Signals =	☐ Yes --- converts to Bit 3 = (1)b or ☐ No --- converts to Bit 3 = (0)b	Bits 3, 2, 1 = (___ ___ ___)b	
			Composite Sync Signal on Horizontal =	☐ Yes --- converts to Bit 2 = (1)b or ☐ No --- converts to Bit 2 = (0)b		
			Composite Sync Signal on Green Video =	☐ Yes --- converts to Bit 1 = (1)b or ☐ No --- converts to Bit 1 = (0)b		
7-5 & 7-6		(Required)	(Bit 0) Serrations:	(Check one box only)	(Fill in data)	
			Support Serrations =	☐ Yes --- converts to Bit 0 = (1)b or ☐ No --- converts to Bit 0 = (0)b	Bit 0 = (___)b	
			(Bits 7 → 0) Summary of Address **14h:**	(Fill in data)	(Fill in data)	
			Bit Data at Address **14h** =	Bits 7 → 0 = (__ __ __ __ __ __ __ __)b converts to (_____)h	Data at Address **14h** = (_____)h	

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Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
7-7	3.4.1	**14h**	Video Input Definition: (Part 2)	(Check one box only)	(Fill in data)	
	If Digital Video Input is supported then run test cases 7-7 to 7-9		(Bit 7) Digital Video Input =	☐ Yes --- converts to Bit 7 = (1)b or ☐ No --- converts to Bit 7 = (0)b	Bit 7 = (___)b	
7-8		(Required)	(Bits 6 → 4) Color Bit Depth:	(Check one box only)	(Fill in data)	
			Color Bit Depth is undefined =	☐ converts to (0 0 0)b	Bits 6, 5, 4 = (__ __ __)b	
			6 Bits per Primary Color =	☐ converts to (0 0 1)b		
			8 Bits per Primary Color =	☐ converts to (0 1 0)b		
			10 Bits per Primary Color =	☐ converts to (0 1 1)b		
			10 Bits per Primary Color =	☐ converts to (1 0 0)b		
			12 Bits per Primary Color =	☐ converts to (1 0 1)b		
			14 Bits per Primary Color =	☐ converts to (1 1 0)b		
			16 Bits per Primary Color =	☐ converts to (1 1 1)b		
7-9		(Required)	(Bits 6 → 4) Digital Video Interface Std:	(Check one box only)	(Fill in data)	
			Digital Interface is not defined =	☐ converts to (0 0 0 0)b	Bits 3, 2, 1,0 = (__ __ __ __)b	
			DVI is supported =	☐ converts to (0 0 0 1)b		
			HDMI-a is supported =	☐ converts to (0 0 1 0)b		
			HDMI-b is supported =	☐ converts to (0 0 1 1)b		
			MDDI is supported =	☐ converts to (0 1 0 0)b		
			DisplayPort is supported =	☐ converts to (0 1 0 1)b		
			(Bits 7 → 0) Summary of Address **14h:**	(Fill in data)	(Fill in data)	
			Bit Data at Address **14h** =	Bits 7 → 0 = (__ __ __ __ __ __ __ __)b converts to (_____)h	Data at Address **14h** = (_____)h	
8	3.4.2	**15h** & **16h**	H & V Screen Size or AR:	(Fill in appropriate blanks)	(Fill in data)	
8-1		(Required)	Horizontal Screen Size (cm) = or	(_______)d converts to (_____)h at address **15h** or	Data at Address **15h** = (_____)h Data at Address **16h** = (_____)h	
8-2			Aspect Ratio (Landscape) =	(_______)d converts to (_____)h at address **15h** AND address **16h** = (00)h		
8-3			Vertical Screen Size (cm) = or	(_______)d converts to (_____)h at address **16h** or		
8-4			Aspect Ratio (Portrait) = or	(_______)d converts to (_____)h at address **16h** AND address **15h** = (00)h		
8-5			Image Size or Aspect Ratio is unknown or undefined =	☐ Yes --- then address **15h** = (00)h & address **16h** = (00)h		

Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
9	3.4.3	**17h**	Transfer Characteristic (Gamma):	(Fill in data)	(Fill in data)	
9-1		(Required)	Gamma stored in Base EDID = or	(_______)d converts to (_____)h at address **17h** or	Data at Address **17h** = (_____)h	
9-2			Gamma is not stored in Base EDID but is stored in Extension Block =	Address **17h** = (FF)h		
10	3.4.4	**18h**	Feature Support Byte (Part 1):			
10-1		(Required)	(Bits 7 → 5) Display Power Management:	(Check all boxes that apply)	(Fill in data)	
			Standby Mode is supported =	☐ Yes --- converts to Bit 7 = (1)b or ☐ No --- converts to Bit 7 = (0)b	Bits 7, 6, 5 = (___ ___ ___)b	
			Suspend Mode is supported =	☐ Yes --- converts to Bit 6 = (1)b or ☐ No --- converts to Bit 6 = (0)b		
			Active Off is supported =	☐ Yes --- converts to Bit 5 = (1)b or ☐ No --- converts to Bit 5 = (0)b		
10-2	If Analog Video Input is supported then run test case 10-2.		(Bits 4 & 3) (Analog Video Input) Display Color Type:	☐ Analog Input is supported. (Check one box only)	☐ Analog Input is supported. (Fill in data)	
		(Required)	Monochrome/Grayscale display =	☐ converts to (0 0)b	Bits 4 & 3 = (__ __)b	
			or RGB color display =	☐ converts to (0 1)b		
			or Non-RGB color display =	☐ converts to (1 0)b		
			Display Color Type is Undefined =	☐ converts to (1 1)b		
10-3	If Digital Video Input is supported then run test case 10-3.		(Bits 4 & 3) (Digital Video Input) Color Encoding Format/s:	☐ Digital Input is supported. (Check one box only)	☐ Digital Input is supported. (Fill in data)	
		(Required)	RGB 4:4:4 =	☐ converts to (0 0)b	Bits 4 & 3 = (__ __)b	
			or RGB 4:4:4 & YCrCb 4:4:4=	☐ converts to (0 1)b		
			or RGB 4:4:4 & YCrCb 4:2:2=	☐ converts to (1 0)b		
			or RGB 4:4:4 & YCrCb 4:4:4 & YCrCb 4:2:2=	☐ converts to (1 1)b		

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Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
10	3.4.4	**18h**	Feature Support Byte (Part 2):			
10.4 & 10.5		(Required)	(Bit 2) sRGB Standard:	(Check one box only)	(Fill in data)	
			sRGB Standard supported =	☐ Yes --- converts to Bit 2 = (1)b or ☐ No --- converts to Bit 2 = (0)b	Bit 2 = (__)b	
10.6 & 10.7		(Required)	(Bit 1) Preferred Timing Mode:	(Check one box only)	(Fill in data)	
			Preferred Timing Mode includes the native pixel format and the preferred refresh rate of the display device =	☐ Yes --- converts to Bit 1 = (1)b or ☐ No --- converts to Bit 1 = (0)b	Bit 1 = (__)b	
10.8 & 10.9		(Required)	(Bit 0) Display Frequency Type:	(Check one box only)	(Fill in data)	
			Display is continuous frequency =	☐ Yes --- converts to Bit 0 = (1)b or ☐ No --- converts to Bit 0 = (0)b	Bit 0 = (__)b	
			(Bits 7 → 0) Summary of Address **18h:**	(Fill in data)	(Fill in data)	
			Bit Data at Address **18h** =	Bits 7 → 0 = (__ __ __ __ __ __ __ __)b converts to (_____)h	Data at Address **18h** = (_____)h	
11	3.5	**19h → 22h** (Required)	Display x, y Chromaticity Coordinates:	(Fill in data)	(Fill in data)	
			Red =	x = ______; y = ______	Data at Addresses **19h → 22h** = (___ ___ ___ ___ ___ ___ ___ ___ ___ ___)h	
			Green =	x = ______; y = ______		
			Blue =	x = ______; y = ______		
			White =	x = ______; y = ______		
				Converts to (___ ___ ___ ___ ___ ___ ___ ___ ___ ___)h		

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Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
12	3.6	**23h** (Optional)	Established Timings I & II:			
12-1			Support for Established Timings I:	(Check all boxes that apply)	(Fill in data)	
			720 x 400 @ 70Hz = 720 x 400 @ 88Hz = 640 x 480 @ 60Hz = 640 x 480 @ 67Hz = 640 x 480 @ 72Hz = 640 x 480 @ 75Hz = 800 x 600 @ 56Hz = 800 x 600 @ 60Hz =	☐Bit 7 ☐Bit 6 ☐Bit 5 ☐Bit 4 converts to (____)h ☐Bit 3 ☐Bit 2 ☐Bit 1 ☐Bit 0	Data at Address **23h** = (_____)h	
12-2	3.6	**24h** (Optional)	Support for Established Timings II:	(Check all boxes that apply)	(Fill in data)	
			800 x 600 @ 72Hz = 800 x 600 @ 75Hz = 832 x 624 @ 75Hz = 1024 x 768 @ 87Hz(I) = 1024 x 768 @ 60Hz = 1024 x 768 @ 70Hz = 1024 x 768 @ 75Hz = 1280 x 1024 @ 75Hz =	☐Bit 7 ☐Bit 6 ☐Bit 5 ☐Bit 4 converts to (____)h ☐Bit 3 ☐Bit 2 ☐Bit 1 ☐Bit 0	Data at Address **24h** = (_____)h	
12-3	3.6	**25h** (Optional)	Support for Manufacturer's Timings:	(Check all boxes and fill in blanks that apply)	(Fill in data)	
			1152 x 870 @ 75Hz = ______ x ______ @ ____Hz = ______ x ______ @ ____Hz = ______ x ______ @ ____Hz = ______ x ______ @ ____Hz = ______ x ______ @ ____Hz = ______ x ______ @ ____Hz = ______ x ______ @ ____Hz =	☐Bit 7 ☐Bit 6 ☐Bit 5 ☐Bit 4 converts to (____)h ☐Bit 3 ☐Bit 2 ☐Bit 1 ☐Bit 0	Data at Address **25h** = (_____)h	

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Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
13	3.7	**26h → 35h** (Optional)	Standard Timings:	(Fill in DMTs & convert to Standard Timing 2 Byte Codes)	(Fill in Standard Timing 2 Byte Codes that apply)	
13-1		**26h** & **27h**	Standard Timing 1 =	_____ x _____ @ ____Hz converts to (____ ____)h	Data at Addresses **26h** & **27h** = (____ ____)h	
13-2		**28h** & **29h**	Standard Timing 2 =	_____ x _____ @ ____Hz converts to (____ ____)h	Data at Addresses **28h** & **29h** = (____ ____)h	
13-3		**2Ah** & **2Bh**	Standard Timing 3 =	_____ x _____ @ ____Hz converts to (____ ____)h	Data at Addresses **2Ah** & **2Bh** = (____ ____)h	
13-4		**2Ch** & **2Dh**	Standard Timing 4 =	_____ x _____ @ ____Hz converts to (____ ____)h	Data at Addresses **2Ch** & **2Dh** = (____ ____)h	
13-5		**2Eh** & **2Fh**	Standard Timing 5 =	_____ x _____ @ ____Hz converts to (____ ____)h	Data at Addresses **2Eh** & **2Fh** = (____ ____)h	
13-6		**30h** & **31h**	Standard Timing 6 =	_____ x _____ @ ____Hz converts to (____ ____)h	Data at Addresses **30h** & **31h** = (____ ____)h	
13-7		**32h** & **33h**	Standard Timing 7 =	_____ x _____ @ ____Hz converts to (____ ____)h	Data at Addresses **32h** & **33h** = (____ ____)h	
13-8		**34h** & **35h**	Standard Timing 8 =	_____ x _____ @ ____Hz converts to (____ ____)h	Data at Addresses **34h** & **35h** = (____ ____)h	

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Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
	3.8		18 Byte Descriptors (Part 1)			
14	3.8.1	**36h → 47h**	First 18 Byte Descriptor:			
14-1		(Required)	If bit 1 = one (at address **18h**), then use Test Case 18 to determine if the First 18 Byte Descriptor contains the Preferred Timing Mode (PTM) AND the PTM includes the native pixel format & the preferred refresh rate of the display device (panel).	The Preferred Timing Mode is: _____ x _____ @ ____Hz converts to (___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___)h	Data at addresses **36h → 47h** = (___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___)h	
14-2			Or if bit 1 = zero (at address **18h**), then use Test Case 18 to determine if the First 18 Byte Descriptor contains the Preferred Timing Mode (PTM) AND the PTM does not include the native pixel format & the preferred refresh rate of the display device (panel).	The Preferred Timing Mode is: _____ x _____ @ ____Hz converts to (___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___)h	Data at addresses **36h → 47h** = (___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___)h	
15	3.8.2	**48h → 59h**	Second 18 Byte Descriptor:			
15-1		(Optional)	If the Second 18 Byte Descriptor contains a detailed timing definition then run Test Case 18.	The Second 18 Byte Descriptor contains a Detailed Timing: ______ x ______ @ ____Hz converts to (___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___)h	Data at addresses **48h → 59h** = (___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___)h	
15-2			Or if the Second 18 Byte Descriptor contains a Display Descriptor then run the appropriate Test Case in section 3.10 of the E-EDID Verification Guide.	Or the Second 18 Byte Descriptor contains a Display Descriptor: Tag Number: _____ converts to (___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___)h	Data at addresses **48h → 59h** = (___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___)h	

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Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
	3.8		18 Byte Descriptors (Part 2)			
16	3.8.3	**5Ah → 6Bh** (Optional)	Third 18 Byte Descriptor:			
16-1			If the Third 18 Byte Descriptor contains a detailed timing definition then run Test Case 18.	The Third 18 Byte Descriptor contains a Detailed Timing: ______ x ______ @ ____Hz converts to (___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___)h	Data at addresses **5Ah → 6Bh** = (___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___)h	
16-2			Or if the Third 18 Byte Descriptor contains a Display Descriptor then run the appropriate Test Case in section 3.10 of the E-EDID Verification Guide.	Or the Third 18 Byte Descriptor contains a a Display Descriptor: Tag Number: _____ converts to (___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___)h	Data at addresses **5Ah → 6Bh** = (___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___)h	
17	3.8.4	**6Ch → 7Dh** (Optional)	Fourth 18 Byte Descriptor:			
17-1			If the Fourth 18 Byte Descriptor contains a detailed timing definition then run Test Case 18.	The Fourth 18 Byte Descriptor contains a Detailed Timing: ______ x ______ @ ____Hz converts to (___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___)h	Data at addresses **6Ch → 7Dh** = (___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___)h	
17-2			Or if the Fourth 18 Byte Descriptor contains a Display Descriptor then run the appropriate Test Case in section 3.10 of the E-EDID Verification Guide.	Or the Fourth 18 Byte Descriptor contains a Display Descriptor: Tag Number: _____ converts to (___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___)h	Data at addresses **6Ch → 7Dh** = (___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___)h	

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Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
18	3.9	**36h → 47h**	Detailed Timing Descriptor (Part 1)			
18-1		(Required) or **48h → 59h** (Optional)	Pixel Clock Frequency = (Bytes 0 & 1)	______________MHz converts to (___ ___)h at Bytes 0 & 1 (LSB first).	Data stored in Bytes 0 & 1 = (___ ___)h	
18-2		or **5Ah → 6Bh** (Optional) or **6Ch → 7Dh** (Optional)	Horizontal Addressable Video = (Byte 2 & Byte 4{Upper Nibble})	___________Pixels converts to 12 bits: Upper Nibble of Byte 4 = (__ __ __ __)b and Byte 2 = (__ __ __ __ __ __ __ __)b or (_____)h	Data stored in: Upper Nibble of Byte 4 = (__ __ __ __)b and Byte 2 = (_____)h or (__ __ __ __ __ __ __ __)b	
18-3			Horizontal Blanking = (Byte 3 & Byte 4{Lower Nibble})	___________Pixels converts to 12 bits: Lower Nibble of Byte 4 = (__ __ __ __)b and Byte 3 = (__ __ __ __ __ __ __ __)b or (_____)h	Data stored in: Lower Nibble of Byte 4 = (__ __ __ __)b and Byte 3 = (_____)h or (__ __ __ __ __ __ __ __)b	
18-4			Vertical Addressable Video = (Byte 5 & Byte 7{Upper Nibble})	___________Lines converts to 12 bits: Upper Nibble of Byte 7 = (__ __ __ __)b and Byte 5 = (__ __ __ __ __ __ __ __)b or (_____)h	Data stored in: Upper Nibble of Byte 7 = (__ __ __ __)b and Byte 5 = (_____)h or (__ __ __ __ __ __ __ __)b	
18-5			Vertical Blanking = (Byte 6 & Byte 7{Lower Nibble})	___________Lines converts to 12 bits: Lower Nibble of Byte 7 = (__ __ __ __)b and Byte 6 = (__ __ __ __ __ __ __ __)b or (_____)h	Data stored in: Lower Nibble of Byte 7 = (__ __ __ __)b and Byte 6 = (_____)h or (__ __ __ __ __ __ __ __)b	

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Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
18	3.9	**36h → 47h**	Detailed Timing Descriptor (Part 1) --- Continued			
18-6		(Required) or **48h → 59h** (Optional) or **5Ah → 6Bh** (Optional) or **6Ch → 7Dh** (Optional)	Horizontal Front Porch = (Byte 8 & Byte 11{Bits 7 & 6})	____________Pixels converts to 10 bits: Bits 7 & 6 of Byte 11 = (__ __)b and Byte 8 = (__ __ __ __ __ __ __ __)b or (_____)h	Data stored in: Bits 7 & 6 of Byte 11 = (__ __)b and Byte 8 = (_____)h or (__ __ __ __ __ __ __ __)b	
18-7			Horizontal Sync Pulse Width = (Byte 9 & Byte 11{Bits 5 & 4})	____________Pixels converts to 10 bits: Bits 5 & 4 of Byte 11 = (__ __)b and Byte 9 = (__ __ __ __ __ __ __ __)b or (_____)h	Data stored in: Bits 5 & 4 of Byte 11 = (__ __)b and Byte 9 = (_____)h or (__ __ __ __ __ __ __ __)b	
18-8			Vertical Front Porch = (Byte 10 {Upper Nibble} & Byte 11{Bits 3 & 2})	____________Lines converts to 6 bits: Bits 3 & 2 of Byte 11 = (__ __)b and Upper Nibble of Byte 10 = (__ __ __ __)b	Data stored in: Bits 3 & 2 of Byte 11 = (__ __)b and Upper Nibble of Byte 10 = (__ __ __ __)b	
18-9			Vertical Sync Pulse Width = (Byte 10 {Lower Nibble} & Byte 11{Bits 1 & 0})	____________Lines converts to 6 bits: Bits 1 & 0 of Byte 11 = (__ __)b and Lower Nibble of Byte 10 = (__ __ __ __)b	Data stored in: Bits 1 & 0 of Byte 11 = (__ __)b and Lower Nibble of Byte 10 = (__ __ __ __)b	

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Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
18	3.9	**36h → 47h**	Detailed Timing Descriptor (Part 2)			
18-10		(Required) or **48h → 59h** (Optional) or **5Ah → 6Bh** (Optional)	Horizontal Image Size or AR = (Byte 12 & Byte 14 {Upper Nibble})	____________mm converts to 12 bits: Upper Nibble of Byte 14 = (__ __ __ __)b and Byte 12 = (__ __ __ __ __ __ __ __)b or (_____)h	Data stored in: Upper Nibble of Byte 14 = (__ __ __ __)b and Byte 12 = (_____)h or (__ __ __ __ __ __ __ __)b	
18-11			Vertical Image Size or AR = (Byte 13 & Byte 14 {Lower Nibble})	____________mm converts to 12 bits: Lower Nibble of Byte 14 = (__ __ __ __)b and Byte 13 = (__ __ __ __ __ __ __ __)b or (_____)	Data stored in: Lower Nibble of Byte 14 = (__ __ __ __)b and Byte 13 = (_____)h or (__ __ __ __ __ __ __ __)b	
18-12			(Byte 15) Horizontal Border =	___________Pixels converts to (___ ___)h at Byte 15.	Data stored in Byte 15 = (___ ___)h	
18-13			(Byte 16) Vertical Border =	___________Lines converts to (___ ___)h at Byte 16.	Data stored in Byte 16 = (___ ___)h	
18-14			Signal Interface Type: (Byte 17 {Bit 7})	(Check one box only)	(Fill in data)	
			Non-Interlaced = or	☐ Yes --- converts to: Bit 7 (of Byte 17) = (0)b	Data stored in Byte 17 = (____)h converts to Bits 7 of Byte 17 = (___)b	
			Interlaced =	☐ Yes --- converts to: Bit 7 (of Byte 17) = (1)b		

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Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
18	3.9	**36h → 47h**	Detailed Timing Descriptor (Part 2) --- Continued			
18-15		(Required) or **48h → 59h** (Optional) or **5Ah → 6Bh** (Optional) or **6Ch → 7Dh** (Optional)	Stereo Viewing Support: (Byte 17 {Bits 6, 5 & 0})	(Check one box only)	(Fill in data)	
			Normal Display – No Stereo =	☐ Yes --- converts to: Bits 6, 5 & 0 (of Byte 17) = (∗ 0 0 ∗ ∗ ∗ ∗ x)b	Data stored in Byte 17 = (____)h converts to Bits 6, 5 & 0 of Byte 17 = (∗ __ __ ∗ ∗ ∗ ∗ __)b	
			Field Sequential Stereo (right) =	☐ Yes --- converts to: Bits 6, 5 & 0 (of Byte 17) = (∗ 0 1 ∗ ∗ ∗ ∗ 0)b		
			Field Sequential Stereo (left) =	☐ Yes --- converts to: Bits 6, 5 & 0 (of Byte 17) = (∗ 1 0 ∗ ∗ ∗ ∗ 0)b		
			2-Way Interleaved Stereo (right) =	☐ Yes --- converts to: Bits 6, 5 & 0 (of Byte 17) = (∗ 0 1 ∗ ∗ ∗ ∗ 1)b		
			2-Way Interleaved Stereo (left) =	☐ Yes --- converts to: Bits 6, 5 & 0 (of Byte 17) = (∗ 1 0 ∗ ∗ ∗ ∗ 1)b		
			4-Way Interleaved Stereo =	☐ Yes --- converts to: Bits 6, 5 & 0 (of Byte 17) = (∗ 1 1 ∗ ∗ ∗ ∗ 0)b		
			Side by Side Interleaved Stereo =	☐ Yes --- converts to: Bits 6, 5 & 0 (of Byte 17) = (∗ 1 1 ∗ ∗ ∗ ∗ 1)b		

Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
18	3.9	**36h → 47h**	Detailed Timing Descriptor (Part 2) --- Continued			
18-16		(Required) or **48h → 59h** (Optional) or **5Ah → 6Bh** (Optional) or **6Ch → 7Dh** (Optional)	Analog or Digital Sync Signals: (Byte 17 {Bits 4 → 1})	(Check all boxes that apply)	(Fill in data)	
			Analog Composite Sync =	☐ Yes --- converts to: Bits 4 & 3 (of Byte 17) = (∗ ∗ ∗ 0 0 ∗ ∗ ∗)b	Data stored in Byte 17 = (____)h converts to Bits 7 → 0 of Byte 17 = (__ __ __ __ __ __ __ __)b	
			Bipolar Analog Composite Sync =	☐ Yes --- converts to: Bits 4 & 3 (of Byte 17) = (∗ ∗ ∗ 0 1 ∗ ∗ ∗)b		
			--- without Serrations =	☐ Yes --- converts to: Bits 4 & 2 (of Byte 17) = (∗ ∗ ∗ 0 ∗ 0 ∗ ∗)b		
			--- with Serrations =	☐ Yes --- converts to: Bits 4 & 2 (of Byte 17) = (∗ ∗ ∗ 0 ∗ 1 ∗ ∗)b		
			--- with Sync-On-Green =	☐ Yes --- converts to: Bits 4 & 1 (of Byte 17) = (∗ ∗ ∗ 0 ∗ ∗ 0 ∗)b		
			--- with Sync-On-All-Three =	☐ Yes --- converts to: Bits 4 & 1 (of Byte 17) = (∗ ∗ ∗ 0 ∗ ∗ 1 ∗)b		
			or			
18-17			Digital Composite Sync =	☐ Yes --- converts to: Bits 4 & 3 (of Byte 17) = (∗ ∗ ∗ 1 0 ∗ ∗ ∗)b		
			--- without Serrations =	☐ Yes --- converts to: Bits 4, 3 & 2 (of Byte 17) = (∗ ∗ ∗ 1 0 0 ∗ ∗)b		
			--- with Serrations =	☐ Yes --- converts to: Bits 4, 3 & 2 (of Byte 17) = (∗ ∗ ∗ 1 0 1 ∗ ∗)b		
			Digital Separate Sync =	☐ Yes --- converts to: Bits 4 & 3 (of Byte 17) = (∗ ∗ ∗ 1 1 ∗ ∗ ∗)b		
			--- with Negative Vertical Sync =	☐ Yes --- converts to: Bits 4, 3 & 2 (of Byte 17) = (∗ ∗ ∗ 1 1 0 ∗ ∗)b		
			--- with Positive Vertical Sync =	☐ Yes --- converts to: Bits 4, 3 & 2 (of Byte 17) = (∗ ∗ ∗ 1 1 1 ∗ ∗)b		
			--- with Negative Horizontal Sync =	☐ Yes --- converts to: Bits 4 & 1 (of Byte 17) = (∗ ∗ ∗ 1 ∗ ∗ 0 ∗)b		
			--- with Positive Horizontal Sync =	☐ Yes --- converts to: Bits 4 & 1 (of Byte 17) = (∗ ∗ ∗ 1 ∗ ∗ 1 ∗)b		
			Bit Data at Byte 17 =	Bits 7 → 0 = (__ __ __ __ __ __ __ __)b converts to (_____)h		

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Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions		Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
19	3.10.1	**48h → 59h**	Display Product Serial Number Descriptor (Tag: FFh): --- (Check one box only) --- ☐ Yes? or ☐ No?				
19-1		(Optional) or **5Ah → 6Bh**			Requirement	(Fill in all appropriate data)	
			(Bytes 0 → 4)	Descriptor Header =	(00 00 00 FF 00)h	Data stored in Bytes 0 → 4 = (___ ___ ___ ___ ___)h	
19-2		(Optional) or **6Ch → 7Dh** (Optional)			(Fill in up to 13 Serial Number Characters)	(Fill in data)	
			(Bytes 5 → 17)	Serial Number String =	(___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___) S/N converts to (___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___)h	Data stored in Bytes 5 → 17 = (___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___)h	
20	3.10.2	**48h → 59h**	Alphanumeric Data String Descriptor (Tag: FEh): --- (Check one box only) --- ☐Yes? or ☐ No?				
20-1		(Optional) or **5Ah → 6Bh**			Requirement	(Fill in all appropriate data)	
			(Bytes 0 → 4)	Descriptor Header =	(00 00 00 FE 00)h	Data stored in Bytes 0 → 4 = (___ ___ ___ ___ ___)h	
20-2		(Optional) or **6Ch → 7Dh** (Optional)			(Fill in up to 13 Alphanumeric Characters)	(Fill in up to 13 Alphanumeric Characters)	
			(Bytes 5 → 17)	Alphanumeric Data String =	(___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___) Alphanumeric converts to (___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___)h	Data stored in Bytes 5 → 17 = (___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___)h	

Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
21	3.10.3	**48h → 59h**	Display Range Limits Descriptor (Tag: FDh) Parts 1 & 2: --- (Check one box only) --- ☐ Yes? or ☐ No?			
21-1		(Optional) or **5Ah → 6Bh**		Requirement	(Fill in all appropriate data)	
			(Bytes 0 → 3) Descriptor Header =	(00 00 00 FD)h	Data stored in Bytes 0 → 3 = (___ ___ ___ ___)h	
21-2		(Optional) or **6Ch → 7Dh** (Optional)		(Fill in all appropriate data)	(Fill in all appropriate data)	
			Minimum Vertical Rate = (Byte 4 {Bits 1 & 0} & Byte 5)	_________Hz converts to: Bits 1 & 0 (of Byte 4) = (__ __)b and Byte 5 = (____)h	Data stored in Bits 1 & 0 (of Byte 4) = (__ __)b and Byte 5 = (____)h	
21-3			Maximum Vertical Rate = (Byte 4 {Bits 1 & 0} & Byte 6)	_________Hz converts to: Bits 1 & 0 (of Byte 4) = (__ __)b and Byte 6 = (____)h	Data stored in Bits 1 & 0 (of Byte 4) = (__ __)b and Byte 6 = (____)h	
21-4			Minimum Horizontal Rate = (Byte 4 {Bits 3 & 2} & Byte 7)	________kHz converts to: Bits 3 & 2 (of Byte 4) = (__ __)b and Byte 7 = (____)h	Data stored in Bits 3 & 2 (of Byte 4) = (__ __)b and Byte 7 = (____)h	
21-5			Maximum Horizontal Rate = (Byte 4 {Bits 3 & 2}& Byte 8)	________kHz converts to: Bits 3 & 2 (of Byte 4) = (__ __)b and Byte 8 = (____)h	Data stored in Bits 3 & 2 (of Byte 4) = (__ __)b and Byte 8 = (____)h	
21-6			Maximum Pixel Clock = (Byte 9)	________MHz converts to: Byte 9 = (____)h	Data stored in Byte 9 = (____)h	
21-7 to 21-11		NOTE: Refer to Special Case in Test Case 24.	(Byte 10) Video Timing Support Flags:	(Check one box only)	(Check one box only)	
			Range Limits Only = or	☐ Byte 10 = (01)h. Then run Test Cases 21-12 & 21-13.	Data stored in Byte 10 = (____)h.	
			Range Limits with Default GTF Support = or	☐ Byte 10 = (00)h. Then run Test Cases 21-12 & 21-13.		
			Range Limits with Secondary GTF Support = or	☐ Byte 10 = (02)h. Then skip Test Cases 21-12 & 21-13 & run Test Case 22.		
			Range Limits with CVT Support =	☐ Byte 10 = (04)h. Then skip Test Cases 21-12 & 21-13 & run Test Case 23.		
21-12			Range Limits Only or Default GTF Support	Requirement	(Fill in all appropriate data)	
			(Byte 11) Line Feed =	(0A)h	Data stored in Byte 11 = (____)h.	
21-13			(Bytes 12 to 17) Space =	(20 20 20 20 20 20)h	Data stored in Bytes 12 → 17 = (___ ___ ___ ___ ___ ___)h	

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Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
22	3.10.3.1	**48h → 59h**	Display Range Limits Descriptor (Tag: FDh) with Secondary GTF Support: --- (Check one box only) --- ☐ Yes? or ☐ No?			
22-1		(Optional)	(Bytes 0 → 9) Display Range Limits Descriptor (Tag FDh): Refer to Test Case 21 (Parts 1 & 2).			
22-2		or	GTF Secondary Curve Support:	Requirement	(Fill in all appropriate data)	
		5Ah → 6Bh (Optional)	(Byte 10) Video Timing Support Flag =	Byte 10 = (02)h.	Data stored in Byte 10 = (____)h.	
22-3		or		Requirement	(Fill in all appropriate data)	
		6Ch → 7Dh (Optional)	(Byte 11) Reserved Byte =	Byte 11 = (00)h	Data stored in Byte 11 = (____)h.	
22-4			(Byte 12) Start Break Horiz. Frequency =	________kHz converts to: Byte 12 = (____)h	Data stored in Byte 12 = (____)h.	
22-5			(Byte 13) GTF Parameter C =	________ converts to: Byte 13 = (____)h	Data stored in Byte 13 = (____)h.	
22-6			(Bytes 14 & 15) GTF Parameter M =	________ converts to: Bytes 14 & 15 (LSB first) = (____)h	Data stored in Bytes 14 & 15 = (____ ____)h.	
22-7			(Byte 16) GTF Parameter K =	________ converts to: Byte 16 = (____)h	Data stored in Byte 16 = (____)h.	
22-8			(Byte 17) GTF Parameter J =	________ converts to: Byte 17 = (____)h	Data stored in Byte 17 = (____)h.	

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Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
23	3.10.3.2	**48h → 59h**	Display Range Limits Descriptor (Tag: FDh) with CVT Support (Parts 1 & 2): --- (Check one box only) --- ☐ Yes? or ☐ No?			
23-1		(Optional)	(Bytes 0 → 9) Display Range Limits Descriptor (Tag FDh): Refer to Test Case 21 (Parts 1 & 2).			
23-2		or **5Ah → 6Bh** (Optional)	CVT Support:	Requirement	(Fill in data)	
			(Byte 10) Video Timing Support Flag =	Byte 10 = (04)h	Data stored in Byte 10 = (____)h.	
23-3		or **6Ch → 7Dh** (Optional)		Requirement	(Fill data)	
			(Byte 11) Version 1.1 =	Byte 11 = (11)h	Data stored in Byte 11 = (____)h.	
23-4				(Fill in data)	(Fill in data)	
			Maximum Pixel Clock = (Byte 9 & Byte 12 {Bits 7 → 2})	___________MHz converts to: Bits 7 → 2 (of Byte 12) = (__ __ __ __ __ __)b and Byte 9 = (____)h	Data stored in Bits 7 → 2 (of Byte 12) = (__ __ __ __ __ __)b and Byte 9 = (____)h	
23-5			Maximum Active Pixels per Line = (Byte 12 {Bits 1& 0} & Byte 13)	__________Pixels converts to: Bits 1 → 0 (of Byte 12) = (__ __)b and Byte 13 = (____)h	Data stored in Bits 1 → 0 (of Byte 12) = (__ __)b and Byte 13 = (____)h	
23-6			(Byte 14) Supported Aspect Ratios:	(Check all boxes that apply)	(Fill in data)	
			4 : 3 AR =	☐ Yes --- converts to: Bit 7 (of Byte 14) = (1 ∗ ∗ ∗ ∗ 0 0 0)b	Data stored in Byte 14 = (____)h	
			16 : 9 AR =	☐ Yes --- converts to: Bit 6 (of Byte 14) = (∗ 1 ∗ ∗ ∗ 0 0 0)b		
			16 : 10 AR =	☐ Yes --- converts to: Bit 5 (of Byte 14) = (∗ ∗ 1 ∗ ∗ 0 0 0)b		
			5 : 4 AR =	☐ Yes --- converts to: Bit 4 (of Byte 14) = (∗ ∗ ∗ 1 ∗ 0 0 0)b		
			15 : 9 AR =	☐ Yes --- converts to: Bit 3 (of Byte 14) = (∗ ∗ ∗ ∗ 1 0 0 0)b		
			Bit Data at Byte 14 =	Bits 7 → 0 = (__ __ __ __ __ 0 0 0)b converts to (_____)h		

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Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
23	3.10.3.2	**48h → 59h**	Display Range Limits Descriptor (Tag: FDh) with CVT Support (Parts 1 & 2): --- Continued			
23-7		(Optional)	Preferred Aspect Ratio: (Byte 15 {Bits 7 → 5})	(Check one box only)	(Fill in data)	
		or **5Ah → 6Bh**	4 : 3 AR =	☐ Yes --- converts to: Bits 7 → 5 (of Byte 15) = (0 0 0 ∗ ∗ 0 0 0)b		
		(Optional) or	16 : 9 AR =	☐ Yes --- converts to: Bits 7 → 5 (of Byte 15) = (0 0 1 ∗ ∗ 0 0 0)b		
		6Ch → 7Dh (Optional)	16 : 10 AR =	☐ Yes --- converts to: Bits 7 → 5 (of Byte 15) = (0 1 0 ∗ ∗ 0 0 0)b		
			5 : 4 AR =	☐ Yes --- converts to: Bits 7 → 5 (of Byte 15) = (0 1 1 ∗ ∗ 0 0 0)b		
			15 : 9 AR =	☐ Yes --- converts to: Bits 7 → 5 (of Byte 15) = (1 0 0 ∗ ∗ 0 0 0)b		
23-8			CVT Blanking Support: (Byte 15 {Bit 4 & 3})	(Check all boxes that apply)		
			Standard CVT Blanking is supported =	☐ Yes --- converts to: Bit 3 (of Byte 15) = (∗ ∗ ∗ ∗ 1 0 0 0)b	Data stored in Byte 15 = (____)h	
			or	☐ No --- converts to: Bit 3 (of Byte 15) = (∗ ∗ ∗ ∗ 0 0 0 0)b		
			Reduce CVT Blanking is supported =	☐ Yes --- converts to: Bit 4 (of Byte 15) = (∗ ∗ ∗ 1 ∗ 0 0 0)b		
			or	☐ No --- converts to: Bit 4 (of Byte 15) = (∗ ∗ ∗ 0 ∗ 0 0 0)b		
23-9				Requirement		
			(Byte 15 {Bits 2 → 0}) Reserved Bits =	(∗ ∗ ∗ ∗ ∗ 0 0 0)b		
			Bit Data at Byte 15 =	Bits 7 → 0 = (__ __ __ __ __ 0 0 0)b converts to (_____)h		

Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
23	3.10.3.2	**48h → 59h**	Display Range Limits Descriptor (Tag: FDh) with CVT Support (Parts 1 & 2): --- Continued			
23-10			Type of Display Scaling Supported: (Byte 16 {Bits 7 → 4})	(Check all boxes that apply)	(Fill in data)	
			Horizontal Shrink =	☐ Yes --- converts to: Bit 7 (of Byte 16) = (1 ∗ ∗ ∗ 0 0 0 0)b	Data stored in Byte 16 = (____)h	
			Horizontal Stretch =	☐ Yes --- converts to: Bit 6 (of Byte 16) = (∗ 1 ∗ ∗ 0 0 0 0)b		
			Vertical Shrink =	☐ Yes --- converts to: Bit 5 (of Byte 16) = (∗ ∗ 1 ∗ 0 0 0 0)b		
			Vertical Stretch =	☐ Yes --- converts to: Bit 4 (of Byte 16) = (∗ ∗ ∗ 1 0 0 0 0)b		
23-11			(Byte 16 {Bits 3 → 0}) Reserved Bits =	Requirement (∗ ∗ ∗ ∗ 0 0 0 0)b		
			Bit Data at Byte 16 =	Bits 7 → 0 = (__ __ __ __ 0 0 0 0)b converts to (_____)h		
23-12			(Byte 17) Preferred Vertical Refresh Rate =	(Fill in data) _________Hz converts to (_____)h	(Fill in all appropriate data) Data stored in Byte 17 = (____)h	

Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
24	3.10.3.3	**48h → 59h** or **5Ah → 6Bh** or **6Ch → 7Dh** (Required)	Display Range Descriptor (Special Case):	(Check one box only)	(Check one box only)	
			If the display is continuous frequency then bit 0 (at address **18h**) is set to one AND a valid Display Range Limits Descriptor is listed in one of the three 18 Byte Descriptors =	☐ Yes? or ☐ No?	☐ Yes? or ☐ No?	
25	3.10.4	**48h → 59h** (Optional) or **5Ah → 6Bh** (Optional) or **6Ch → 7Dh** (Optional)	Display Product Name Descriptor (Tag: FCh): --- (Check one box only) --- ☐ Yes? or ☐ No?			
25-1				Requirement	(Fill in data)	
			(Bytes 0 → 4) Descriptor Header =	(00 00 00 FC 00)h	Data stored in Bytes 0 → 4 = (___ ___ ___ ___ ___)h	
25-2				(Fill in up to 13 Alpha-Numeric Characters)	(Fill in up to 13 Alpha-Numeric Characters)	
			Display Product Name String = (Bytes 5 → 17)	(___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___) ASCII converts to (___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___)h	Data stored in Bytes 5 → 17 = (___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___)h	

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Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
26	3.10.5	**48h → 59h**	Additional Color Point Descriptor (Tag: FBh): --- (Check one box only) --- ☐ Yes? or ☐ No?			
26-1		(Optional) or **5Ah → 6Bh**		Requirement	(Fill in data)	
			(Bytes 0 → 4) Descriptor Header =	(00 00 00 FB 00)h	Data stored in Bytes 0 → 4 = (___ ___ ___ ___ ___)h	
26-2		(Optional) or **6Ch → 7Dh**		(Fill in data)	(Fill in data)	
			(Byte 5) White Point Index Number =	________ converts to (_____)h	Data stored in Byte 5 = (____)h	
26-3		(Optional)	(Bytes 6 → 8) White Point =	x = ______; y = ______ converts to (____ ____ ____)h	Data stored in Bytes 6 → 8 = (____ ____ ____)h	
26-4 & 26-5			(Byte 9) Gamma =	________ converts to (____)h or (FF)h	Data stored in Byte 9 = (____)h	
26-6 & 26-7			(Byte 10) White Point Index Number: =	________ converts to (_____)h	Data stored in Byte 10 = (____)h	
26-8			(Bytes 11 → 13) White Point =	x = ______; y = ______ converts to (____ ____ ____)h	Data stored in Bytes 11 → 13 = (____ ____ ____)h	
26-9 & 26-10			(Byte 14) Gamma =	________ converts to (____)h or (FF)h	Data stored in Byte 14 = (____)h	
26-11				Requirement	(Fill in all appropriate data)	
			(Byte 15) Line Feed =	(0A)h	Data stored in Byte 15 = (____)h.	
26-12			(Bytes 16 & 17) Space =	(20 20)h	Data stored in Bytes 16 & 17 = (___ ___)h	

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Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions		Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
27	3.10.6	**48h → 59h**	Standard Timings Identifier Descriptor: (Tag: FAh): --- (Check one box only) --- ☐ Yes? or ☐ No?				
27-1		(Optional)			Requirement	(Fill in data)	
		or **5Ah → 6Bh**	(Bytes 0 → 4)	Descriptor Header =	(00 00 00 FA 00)h	Data stored in Bytes 0 → 4 = (___ ___ ___ ___ ___)h	
27-2		(Optional) or			(Fill in DMTs & convert to Standard Timing 2 Byte Codes)	(Fill in Standard Timing 2 Byte Codes that apply)	
		6Ch → 7Dh (Optional)	(Bytes 5 & 6)	Standard Timing 9 =	_____ x _____ @ ____Hz converts to (____ ____)h	Data stored in Bytes 5 & 6 = (____ ____)h	
27-3			(Bytes 7 & 8)	Standard Timing 10 =	_____ x _____ @ ____Hz converts to (____ ____)h	Data stored in Bytes 7 & 8 = (____ ____)h	
27-4			(Bytes 9 & 10)	Standard Timing 11 =	_____ x _____ @ ____Hz converts to (____ ____)h	Data stored in Bytes 9 & 10 = (____ ____)h	
27-5			(Bytes 11 & 12)	Standard Timing 12 =	_____ x _____ @ ____Hz converts to (____ ____)h	Data stored in Bytes 11 & 12 = (____ ____)h	
27-6			(Bytes 13 & 14)	Standard Timing 13 =	_____ x _____ @ ____Hz converts to (____ ____)h	Data stored in Bytes 13 & 14 = (____ ____)h	
27-7			(Bytes 15 & 16)	Standard Timing 14 =	_____ x _____ @ ____Hz converts to (____ ____)h	Data stored in Bytes 15 & 16 = (____ ____)h	
27-8					Requirement	(Fill in data)	
				(Byte 17) Line Feed =	(0A)h	Data stored in Byte 17 = (____)h.	

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Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
28	3.10.7	**48h → 59h** (Optional) or **5Ah → 6Bh** (Optional) or **6Ch → 7Dh** (Optional)	Color Management Data Descriptor: (Tag: F9h): --- (Check one box only) --- ☐ Yes? or ☐ No?			
				Requirement	(Fill in data)	
28-1			(Bytes 0 → 4) Descriptor Header =	(00 00 00 F9 00)h	Data stored in Bytes 0 → 4 = (___ ___ ___ ___ ___)h	
28-2			(Byte 5) Version Number =	(03)h	Data stored in Byte 5 = (____)h.	
28-3				(Fill in data)	(Fill in data)	
			(Bytes 6 & 7) Red a_3 =	_______ a_3 converts to (____ ____)h LSB first.	Data stored in Bytes 6 & 7 = (____ ____)h	
28-4			(Bytes 8 & 9) Red a_2 =	_______ a_2 converts to (____ ____)h LSB first.	Data stored in Bytes 8 & 9 = (____ ____)h	
28-5			(Bytes 10 & 11) Green a_3 =	_______ a_3 converts to (____ ____)h LSB first.	Data stored in Bytes 10 & 11 = (____ ____)h	
28-6			(Bytes 12 & 13) Green a_2 =	_______ a_2 converts to (____ ____)h LSB first.	Data stored in Bytes 12 & 13 = (____ ____)h	
28-7			(Bytes 14 & 15) Blue a_3 =	_______ a_3 converts to (____ ____)h LSB first.	Data stored in Bytes 14 & 15 = (____ ____)h	
28-8			(Bytes 16 & 17) Blue a_2 =	_______ a_2 converts to (____ ____)h LSB first.	Data stored in Bytes 16 & 17 = (____ ____)h	

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Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
29	3.10.8	**48h → 59h**	CVT 3 Byte Code Descriptor (Tag F8h) Part 1: --- (Check one box only) --- ☐ Yes? or ☐ No?			
29-1		(Optional) or **5Ah → 6Bh**		Requirement	(Fill in data)	
			(Bytes 0 → 4) Descriptor Header =	(00 00 00 F8 00)h	Data stored in Bytes 0 → 4 = (___ ___ ___ ___ ___)h	
29-2		(Optional) or	(Byte 5) Version Number =	(01)h	Data stored in Byte 5 = (____)h.	
29-3		**6Ch → 7Dh**	(Bytes 6 → 8) CVT 3 Byte Code #1:			
		(Optional)	Addressable Vertical Lines = (Byte 6 & Byte 7 {Bits 7 → 4})	___________Lines converts to: Bits 7 → 4 (of Byte 7) = (__ __ __ __)b and Byte 6 = (____)h	Data stored in Bits 7 → 4 (of Byte 7) = (__ __ __ __)b and Byte 6 = (____)h	
29-4			(Byte 7 {Bits 3 & 2}) Aspect Ratio:	(Check one box only)	(Fill in data)	
			4 : 3 AR = or	☐ Yes --- converts to: Bits 3 & 2 (of Byte 7) = (∗ ∗ ∗ ∗ 0 0 ∗ ∗)b	Data stored in Bits 3 & 2 (of Byte 7) = (__ __)b	
			16 : 9 AR = or	☐ Yes --- converts to: Bits 3 & 2 (of Byte 7) = (∗ ∗ ∗ ∗ 0 1 ∗ ∗)b		
			16 : 10 AR = or	☐ Yes --- converts to: Bits 3 & 2 (of Byte 7) = (∗ ∗ ∗ ∗ 1 0 ∗ ∗)b		
			15 : 9 AR =	☐ Yes --- converts to: Bits 3 & 2 (of Byte 7) = (∗ ∗ ∗ ∗ 1 1 ∗ ∗)b		
29-5				Requirement	(Fill in data)	
			(Byte 7 {Bits 1 & 0}) Reserved Bits =	(∗ ∗ ∗ ∗ ∗ ∗ 0 0)b	Data stored in Bits 1 & 0 (of Byte 7) = (__ __)b	
			Bit Data at Byte 7 =	Bits 7 → 0 = (__ __ __ __ __ __ 0 0)b converts to (_____)h	Data stored in Byte 7 = (__ __)h	

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Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
29	3.10.8	**48h → 59h**	CVT 3 Byte Code Descriptor (Tag F8h) Part 1: --- (Continued)			
29-6		(Optional) or **5Ah → 6Bh**		Requirement	(Fill in data)	
			(Byte 8 {Bit 7}) Reserved Bit =	(0 ∗ ∗ ∗ ∗ ∗ ∗ ∗)b	Data stored in Bit 7 (of Byte 8) = (__)b	
29-7		(Optional) or **6Ch → 7Dh** (Optional)	Preferred Vertical Refresh Rate: (Byte 8 {Bits 6 & 5})	(Check one box only)	(Fill in data)	
			50 Hz = or	☐ Yes --- converts to: Bits 6 & 5 (of Byte 8) = (∗ 0 0 ∗ ∗ ∗ ∗ ∗)b	Data stored in Bits 6 & 5 (of Byte 8) = (__ __)b	
			60 Hz = or	☐ Yes --- converts to: Bits 6 & 5 (of Byte 8) = (∗ 0 1 ∗ ∗ ∗ ∗ ∗)b		
			75 Hz = or	☐ Yes --- converts to: Bits 6 & 5 (of Byte 8) = (∗ 1 0 ∗ ∗ ∗ ∗ ∗)b		
			85 Hz = or	☐ Yes --- converts to: Bits 6 & 5 (of Byte 8) = (∗ 1 1 ∗ ∗ ∗ ∗ ∗)b		
29-8			Supported Vertical Rate & Blanking Style: (Byte 8 {Bits 4 → 0})	(Check all boxes that apply)	(Fill in data)	
			50 Hz with Std. CVT Blanking =	☐ Yes --- converts to: Bits 4 → 0 (of Byte 8) = (∗ ∗ ∗ 1 ∗ ∗ ∗ ∗)b	Data stored in Bits 4 → 0 (of Byte 8) = (__ __ __ __ __)b	
			60 Hz with Std. CVT Blanking =	☐ Yes --- converts to: Bits 4 → 0 (of Byte 8) = (∗ ∗ ∗ ∗ 1 ∗ ∗ ∗)b		
			75 Hz with Std. CVT Blanking =	☐ Yes --- converts to: Bits 4 → 0 (of Byte 8) = (∗ ∗ ∗ ∗ ∗ 1 ∗ ∗)b		
			85 Hz with Std. CVT Blanking =	☐ Yes --- converts to: Bits 4 → 0 (of Byte 8) = (∗ ∗ ∗ ∗ ∗ ∗ 1 ∗)b		
			60 Hz with Reduced Blanking =	☐ Yes --- converts to: Bits 4 → 0 (of Byte 8) = (∗ ∗ ∗ ∗ ∗ ∗ ∗ 1)b		
			Bit Data at Byte 8 =	Bits 7 → 0 = (0 __ __ __ __ __ __ __)b converts to (_____)h	Data stored in Byte 8 = (____)h	

Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
29-9	3.10.8	**48h → 59h** (Optional) or **5Ah → 6Bh** (Optional) or **6Ch → 7Dh** (Optional)	CVT 3 Byte Code Descriptor (Tag F8h) Part 2:			
			(Bytes 9 → 11) CVT 3 Byte Code #2: Is there a #2 CVT 3 Byte Code? --- (Check one box only) --- ☐ Yes? or ☐ No?			
29-3			Addressable Vertical Lines = (Byte 9 & Byte 10 {Bits 7 → 4})	___________Lines converts to: Bits 7 → 4 (of Byte 10) = (__ __ __ __)b and Byte 9 = (____)h	Data stored in Bits 7 → 4 (of Byte 10) = (__ __ __ __)b and Byte 9 = (____)h	
29-4			(Byte 10 {Bits 3 & 2}) Aspect Ratio:	(Check one box only)	(Fill in data)	
			4 : 3 AR = or	☐ Yes --- converts to: Bits 3 & 2 (of Byte 10) = (∗ ∗ ∗ ∗ 0 0 ∗ ∗)b	Data stored in Bits 3 & 2 (of Byte 10) = (__ __)b	
			16 : 9 AR = or	☐ Yes --- converts to: Bits 3 & 2 (of Byte 10) = (∗ ∗ ∗ ∗ 0 1 ∗ ∗)b		
			16 : 10 AR = or	☐ Yes --- converts to: Bits 3 & 2 (of Byte 10) = (∗ ∗ ∗ ∗ 1 0 ∗ ∗)b		
			15 : 9 AR =	☐ Yes --- converts to: Bits 3 & 2 (of Byte 10) = (∗ ∗ ∗ ∗ 1 1 ∗ ∗)b		
29-5				Requirement	(Fill in data)	
			(Byte 10 {Bits 1 & 0}) Reserved Bits =	(∗ ∗ ∗ ∗ ∗ ∗ 0 0)b	Data stored in Bits 1 & 0 (of Byte 10) = (__ __)b	
			Bit Data at Byte 10 =	Bits 7 → 0 = (__ __ __ __ __ __ 0 0)b converts to (_____)h	Data stored in Byte 10 = (__ __)h	

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Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
29-9	3.10.8	**48h → 59h**	CVT 3 Byte Code Descriptor (Tag F8h) Part 2: (Continued)			
29-6				Requirement	(Fill in data)	
			(Byte 11 {Bit 7}) Reserved Bit =	(0 ∗ ∗ ∗ ∗ ∗ ∗ ∗)b	Data stored in Bit 7 (of Byte 11) = (__)b	
29-7			Preferred Vertical Refresh Rate: (Byte 11 {Bits 6 & 5})	(Check one box only)	(Fill in data)	
			50 Hz = or	☐ Yes --- converts to: Bits 6 & 5 (of Byte 11) = (∗ 0 0 ∗ ∗ ∗ ∗ ∗)b	Data stored in Bits 6 & 5 (of Byte 11) = (__ __)b	
			60 Hz = or	☐ Yes --- converts to: Bits 6 & 5 (of Byte 11) = (∗ 0 1 ∗ ∗ ∗ ∗ ∗)b		
			75 Hz = or	☐ Yes --- converts to: Bits 6 & 5 (of Byte 11) = (∗ 1 0 ∗ ∗ ∗ ∗ ∗)b		
			85 Hz =	☐ Yes --- converts to: Bits 6 & 5 (of Byte 11) = (∗ 1 1 ∗ ∗ ∗ ∗ ∗)b		
29-8			Supported Vertical Rate & Blanking Style: (Byte 11 {Bits 4 → 0})	(Check all boxes that apply)	(Fill in data)	
			50 Hz with Std. CVT Blanking =	☐ Yes --- converts to: Bits 4 → 0 (of Byte 11) = (∗ ∗ ∗ 1 ∗ ∗ ∗ ∗)b	Data stored in Bits 4 → 0 (of Byte 11) = (__ __ __ __ __)b	
			60 Hz with Std. CVT Blanking =	☐ Yes --- converts to: Bits 4 → 0 (of Byte 11) = (∗ ∗ ∗ ∗ 1 ∗ ∗ ∗)b		
			75 Hz with Std. CVT Blanking =	☐ Yes --- converts to: Bits 4 → 0 (of Byte 11) = (∗ ∗ ∗ ∗ ∗ 1 ∗ ∗)b		
			85 Hz with Std. CVT Blanking =	☐ Yes --- converts to: Bits 4 → 0 (of Byte 11) = (∗ ∗ ∗ ∗ ∗ ∗ 1 ∗)b		
			60 Hz with Reduced Blanking =	☐ Yes --- converts to: Bits 4 → 0 (of Byte 11) = (∗ ∗ ∗ ∗ ∗ ∗ ∗ 1)b		
			Bit Data at Byte 11 =	Bits 7 → 0 = (0 __ __ __ __ __ __ __)b converts to (_____)h	Data stored in Byte 11 = (____)h	

Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
29-10	3.10.8	**48h → 59h** (Optional)	CVT 3 Byte Code Descriptor (Tag F8h) Part 3:			
		or	(Bytes 12 → 14) CVT 3 Byte Code #3: Is there a #3 CVT 3 Byte Code? --- (Check one box only) --- ☐ Yes? or ☐ No?			
29-3		**5Ah → 6Bh** (Optional) or	Addressable Vertical Lines = (Byte 12 & Byte 13 {Bits 7 → 4})	___________Lines converts to: Bits 7 → 4 (of Byte 13) = (__ __ __ __)b and Byte 12 = (____)h	Data stored in Bits 7 → 4 (of Byte 13) = (__ __ __ __)b and Byte 12 = (____)h	
29-4		**6Ch → 7Dh** (Optional)	(Byte 13 {Bits 3 & 2}) Aspect Ratio:	(Check one box only)	(Fill in data)	
			4 : 3 AR = or	☐ Yes --- converts to: Bits 3 & 2 (of Byte 13) = (∗ ∗ ∗ ∗ 0 0 ∗ ∗)b	Data stored in Bits 3 & 2 (of Byte 13) = (__ __)b	
			16 : 9 AR = or	☐ Yes --- converts to: Bits 3 & 2 (of Byte 13) = (∗ ∗ ∗ ∗ 0 1 ∗ ∗)b		
			16 : 10 AR = or	☐ Yes --- converts to: Bits 3 & 2 (of Byte 13) = (∗ ∗ ∗ ∗ 1 0 ∗ ∗)b		
			15 : 9 AR =	☐ Yes --- converts to: Bits 3 & 2 (of Byte 13) = (∗ ∗ ∗ ∗ 1 1 ∗ ∗)b		
29-5				Requirement	(Fill in data)	
			(Byte 13 {Bits 1 & 0}) Reserved Bits =	(∗ ∗ ∗ ∗ ∗ ∗ 0 0)b	Data stored in Bits 1 & 0 (of Byte 13) = (__ __)b	
			Bit Data at Byte 13 =	Bits 7 → 0 = (__ __ __ __ __ __ 0 0)b converts to (_____)h	Data stored in Byte 13 = (__ __)h	

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Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
29-10	3.10.8	**48h → 59h** (Optional) or **5Ah → 6Bh** (Optional) or **6Ch → 7Dh** (Optional)	CVT 3 Byte Code Descriptor (Tag F8h) Part 3: (Continued)			
			(Bytes 12 → 14) CVT 3 Byte Code #3: Is there a #3 CVT 3 Byte Code? --- (Check one box only) --- ☐ Yes? or ☐ No?			
29-6				Requirement	(Fill in data)	
			(Byte 14 {Bit 7}) Reserved Bit =	(0 ∗ ∗ ∗ ∗ ∗ ∗ ∗)b	Data stored in Bit 7 (of Byte 14) = (__)b	
29-7			Preferred Vertical Refresh Rate: (Byte 14 {Bits 6 & 5})	(Check one box only)	(Fill in data)	
			50 Hz = or	☐ Yes --- converts to: Bits 6 & 5 (of Byte 14) = (∗ 0 0 ∗ ∗ ∗ ∗ ∗)b	Data stored in Bits 6 & 5 (of Byte 14) = (__ __)b	
			60 Hz = or	☐ Yes --- converts to: Bits 6 & 5 (of Byte 14) = (∗ 0 1 ∗ ∗ ∗ ∗ ∗)b		
			75 Hz = or	☐ Yes --- converts to: Bits 6 & 5 (of Byte 14) = (∗ 1 0 ∗ ∗ ∗ ∗ ∗)b		
			85 Hz =	☐ Yes --- converts to: Bits 6 & 5 (of Byte 14) = (∗ 1 1 ∗ ∗ ∗ ∗ ∗)b		
29-8			Supported Vertical Rate & Blanking Style: (Byte 14 {Bits 4 → 0})	(Check all boxes that apply)	(Fill in data)	
			50 Hz with Std. CVT Blanking =	☐ Yes --- converts to: Bits 4 → 0 (of Byte 14) = (∗ ∗ ∗ 1 ∗ ∗ ∗ ∗)b	Data stored in Bits 4 → 0 (of Byte 14) = (__ __ __ __ __)b	
			60 Hz with Std. CVT Blanking =	☐ Yes --- converts to: Bits 4 → 0 (of Byte 14) = (∗ ∗ ∗ ∗ 1 ∗ ∗ ∗)b		
			75 Hz with Std. CVT Blanking =	☐ Yes --- converts to: Bits 4 → 0 (of Byte 14) = (∗ ∗ ∗ ∗ ∗ 1 ∗ ∗)b		
			85 Hz with Std. CVT Blanking =	☐ Yes --- converts to: Bits 4 → 0 (of Byte 14) = (∗ ∗ ∗ ∗ ∗ ∗ 1 ∗)b		
			60 Hz with Reduced Blanking =	☐ Yes --- converts to: Bits 4 → 0 (of Byte 14) = (∗ ∗ ∗ ∗ ∗ ∗ ∗ 1)b		
			Bit Data at Byte 14 =	Bits 7 → 0 = (0 __ __ __ __ __ __ __)b converts to (____)h	Data stored in Byte 14 = (____)h	

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Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
29-11	3.10.8	**48h → 59h** (Optional) or **5Ah → 6Bh** (Optional) or **6Ch → 7Dh** (Optional)	CVT 3 Byte Code Descriptor (Tag F8h) Part 4:			
			(Bytes 15 → 17) CVT 3 Byte Code #3: Is there a #4 CVT 3 Byte Code? --- (Check one box only) --- ☐ Yes? or ☐ No?			
29-3			Addressable Vertical Lines = (Byte 15 & Byte 16 {Bits 7 → 4})	___________Lines converts to: Bits 7 → 4 (of Byte 16) = (__ __ __ __)b and Byte 15 = (____)h	Data stored in Bits 7 → 4 (of Byte 16) = (__ __ __ __)b and Byte 15 = (____)h	
29-4			(Byte 16 {Bits 3 & 2}) Aspect Ratio:	(Check one box only)	(Fill in data)	
			4 : 3 AR = or	☐ Yes --- converts to: Bits 3 & 2 (of Byte 16) = (∗ ∗ ∗ ∗ 0 0 ∗ ∗)b	Data stored in Bits 3 & 2 (of Byte 16) = (__ __)b	
			16 : 9 AR = or	☐ Yes --- converts to: Bits 3 & 2 (of Byte 16) = (∗ ∗ ∗ ∗ 0 1 ∗ ∗)b		
			16 : 10 AR = or	☐ Yes --- converts to: Bits 3 & 2 (of Byte 16) = (∗ ∗ ∗ ∗ 1 0 ∗ ∗)b		
			15 : 9 AR =	☐ Yes --- converts to: Bits 3 & 2 (of Byte 16) = (∗ ∗ ∗ ∗ 1 1 ∗ ∗)b		
29-5				Requirement	(Fill in data)	
			(Byte 16 {Bits 1 & 0}) Reserved Bits =	(∗ ∗ ∗ ∗ ∗ ∗ 0 0)b	Data stored in Bits 1 & 0 (of Byte 16) = (__ __)b	
			Bit Data at Byte 16 =	Bits 7 → 0 = (__ __ __ __ __ __ 0 0)b converts to (_____)h	Data stored in Byte 16 = (__ __)h	

Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
29-11	3.10.8	**48h → 59h**	CVT 3 Byte Code Descriptor (Tag F8h) Part 4: (Continued)			
29-6		(Optional)		Requirement	(Fill in data)	
		or	(Byte 17 {Bit 7}) Reserved Bit =	(0 ∗ ∗ ∗ ∗ ∗ ∗ ∗)b	Data stored in Bit 7 (of Byte 17) = (__)b	
29-7		**5Ah → 6Bh** (Optional) or **6Ch → 7Dh** (Optional)	Preferred Vertical Refresh Rate: (Byte 17 {Bits 6 & 5})	(Check one box only)	(Fill in data)	
			50 Hz = or	☐ Yes --- converts to: Bits 6 & 5 (of Byte 17) = (∗ 0 0 ∗ ∗ ∗ ∗ ∗)b	Data stored in Bits 6 & 5 (of Byte 17) = (__ __)b	
			60 Hz = or	☐ Yes --- converts to: Bits 6 & 5 (of Byte 17) = (∗ 0 1 ∗ ∗ ∗ ∗ ∗)b		
			75 Hz = or	☐ Yes --- converts to: Bits 6 & 5 (of Byte 17) = (∗ 1 0 ∗ ∗ ∗ ∗ ∗)b		
			85 Hz = or	☐ Yes --- converts to: Bits 6 & 5 (of Byte 17) = (∗ 1 1 ∗ ∗ ∗ ∗ ∗)b		
29-8			Supported Vertical Rate & Blanking Style: (Byte 17 {Bits 4 → 0})	(Check all boxes that apply)	(Fill in data)	
			50 Hz with Std. CVT Blanking =	☐ Yes --- converts to: Bits 4 → 0 (of Byte 17) = (∗ ∗ ∗ 1 ∗ ∗ ∗ ∗)b	Data stored in Bits 4 → 0 (of Byte 17) = (__ __ __ __ __)b	
			60 Hz with Std. CVT Blanking =	☐ Yes --- converts to: Bits 4 → 0 (of Byte 17) = (∗ ∗ ∗ ∗ 1 ∗ ∗ ∗)b		
			75 Hz with Std. CVT Blanking =	☐ Yes --- converts to: Bits 4 → 0 (of Byte 17) = (∗ ∗ ∗ ∗ ∗ 1 ∗ ∗)b		
			85 Hz with Std. CVT Blanking =	☐ Yes --- converts to: Bits 4 → 0 (of Byte 17) = (∗ ∗ ∗ ∗ ∗ ∗ 1 ∗)b		
			60 Hz with Reduced Blanking =	☐ Yes --- converts to: Bits 4 → 0 (of Byte 17) = (∗ ∗ ∗ ∗ ∗ ∗ ∗ 1)b		
			Bit Data at Byte 17 =	Bits 7 → 0 = (0 __ __ __ __ __ __ __)b converts to (_____)h	Data stored in Byte 17 = (____)h	

Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
30	3.10.9	**48h → 59h**	Established Timings III (Tag: F7h) Part 1: --- (Check one box only) --- ☐ Yes? or ☐ No?			
30-1		(Optional) or **5Ah → 6Bh**		Requirement	(Fill in data)	
			(Bytes 0 → 4) Descriptor Header =	(00 00 00 F7 00)h	Data stored in Bytes 0 → 4 = (___ ___ ___ ___ ___)h	
30-2		(Optional) or	(Byte 5) Version Number =	(0A)h	Data stored in Byte 5 = (____)h	
30-3		**6Ch → 7Dh**	(Byte 6) Established Timings III:	(Check all boxes that apply)	(Fill in data)	
		(Optional)	(Byte 6, Bit 7) ---------- 640 x 350 @ 85 Hz =	☐ Yes --- converts to: Bit 7 (of Byte 6) = (1 ∗ ∗ ∗ ∗ ∗ ∗ ∗)b	Data stored in Bits 7 → 0 (of Byte 6) = (__ __ __ __ __ __ __ __)b	
			(Byte 6, Bit 6) ---------- 640 x 400 @ 85 Hz =	☐ Yes --- converts to: Bit 6 (of Byte 6) = (∗ 1 ∗ ∗ ∗ ∗ ∗ ∗)b		
			(Byte 6, Bit 5) ---------- 720 x 400 @ 85 Hz =	☐ Yes --- converts to: Bit 5 (of Byte 6) = (∗ ∗ 1 ∗ ∗ ∗ ∗ ∗)b		
			(Byte 6, Bit 4) ---------- 640 x 480 @ 85 Hz =	☐ Yes --- converts to: Bit 4 (of Byte 6) = (∗ ∗ ∗ 1 ∗ ∗ ∗ ∗)b		
			(Byte 6, Bit 3) ---------- 848 x 480 @ 60 Hz =	☐ Yes --- converts to: Bit 3 (of Byte 6) = (∗ ∗ ∗ ∗ 1 ∗ ∗ ∗)b		
			(Byte 6, Bit 2) ---------- 800 x 600 @ 85 Hz =	☐ Yes --- converts to: Bit 2 (of Byte 6) = (∗ ∗ ∗ ∗ ∗ 1 ∗ ∗)b		
			(Byte 6, Bit 1) -------- 1024 x 768 @ 85 Hz =	☐ Yes --- converts to: Bit 1 (of Byte 6) = (∗ ∗ ∗ ∗ ∗ ∗ 1 ∗)b		
			(Byte 6, Bit 0) -------- 1152 x 864 @ 75 Hz =	☐ Yes --- converts to: Bit 0 (of Byte 6) = (∗ ∗ ∗ ∗ ∗ ∗ ∗ 1)b		
			Bit Data at Byte 6 =	Bits 7 → 0 = (__ __ __ __ __ __ __ __)b converts to (_____)h	Data stored in Byte 6 = (____)h	

Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
30	3.10.9	**48h → 59h** (Optional) or **5Ah → 6Bh** (Optional) or **6Ch → 7Dh** (Optional)	Established Timings III (Tag: F7h) Part 2:			
30-3			(Byte 7) Established Timings III:	(Check all boxes that apply)	(Fill in data)	
			(Byte 7, Bit 7) - 1280 x 768 @ 60 Hz (RB) =	☐ Yes --- converts to: Bit 7 (of Byte 7) = (1 ∗ ∗ ∗ ∗ ∗ ∗ ∗)b	Data stored in Bits 7 → 0 (of Byte 7) = (__ __ __ __ __ __ __ __)b	
			(Byte 7, Bit 6) -------- 1280 x 768 @ 60 Hz =	☐ Yes --- converts to: Bit 6 (of Byte 7) = (∗ 1 ∗ ∗ ∗ ∗ ∗ ∗)b		
			(Byte 7, Bit 5) -------- 1280 x 768 @ 75 Hz =	☐ Yes --- converts to: Bit 5 (of Byte 7) = (∗ ∗ 1 ∗ ∗ ∗ ∗ ∗)b		
			(Byte 7, Bit 4) -------- 1280 x 768 @ 85 Hz =	☐ Yes --- converts to: Bit 4 (of Byte 7) = (∗ ∗ ∗ 1 ∗ ∗ ∗ ∗)b		
			(Byte 7, Bit 3) -------- 1280 x 960 @ 60 Hz =	☐ Yes --- converts to: Bit 3 (of Byte 7) = (∗ ∗ ∗ ∗ 1 ∗ ∗ ∗)b		
			(Byte 7, Bit 2) -------- 1280 x 960 @ 85 Hz =	☐ Yes --- converts to: Bit 2 (of Byte 7) = (∗ ∗ ∗ ∗ ∗ 1 ∗ ∗)b		
			(Byte 7, Bit 1) ------- 1280 x 1024 @ 60 Hz =	☐ Yes --- converts to: Bit 1 (of Byte 7) = (∗ ∗ ∗ ∗ ∗ ∗ 1 ∗)b		
			(Byte 7, Bit 0) ------- 1280 x 1024 @ 85 Hz =	☐ Yes --- converts to: Bit 0 (of Byte 7) = (∗ ∗ ∗ ∗ ∗ ∗ ∗ 1)b		
			Bit Data at Byte 7 =	Bits 7 → 0 = (__ __ __ __ __ __ __ __)b converts to (_____)h	Data stored in Byte 7 = (____)h	

Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
30	3.10.9	**48h → 59h**	Established Timings III (Tag: F7h) Part 3:			
30-3		(Optional)	(Byte 8) Established Timings III:	(Check all boxes that apply)	(Fill in data)	
		or **5Ah → 6Bh**	(Byte 8, Bit 7) -------- 1360 x 768 @ 60 Hz =	☐ Yes --- converts to: Bit 7 (of Byte 8) = (1 * * * * * * *)b	Data stored in Bits 7 → 0 (of Byte 8) = (__ __ __ __ __ __ __ __)b	
		(Optional) or	(Byte 8, Bit 6) - 1440 x 900 @ 60 Hz (RB) =	☐ Yes --- converts to: Bit 6 (of Byte 8) = (* 1 * * * * * *)b		
		6Ch → 7Dh (Optional)	(Byte 8, Bit 5) -------- 1440 x 900 @ 60 Hz =	☐ Yes --- converts to: Bit 5 (of Byte 8) = (* * 1 * * * * *)b		
			(Byte 8, Bit 4) -------- 1440 x 900 @ 75 Hz =	☐ Yes --- converts to: Bit 4 (of Byte 8) = (* * * 1 * * * *)b		
			(Byte 8, Bit 3) -------- 1440 x 900 @ 85 Hz =	☐ Yes --- converts to: Bit 3 (of Byte 8) = (* * * * 1 * * *)b		
			(Byte 8, Bit 2) 1400 x 1050 @ 60 Hz (RB) =	☐ Yes --- converts to: Bit 2 (of Byte 8) = (* * * * * 1 * *)b		
			(Byte 8, Bit 1) ------- 1400 x 1050 @ 60 Hz =	☐ Yes --- converts to: Bit 1 (of Byte 8) = (* * * * * * 1 *)b		
			(Byte 8, Bit 0) ------- 1400 x 1050 @ 75 Hz =	☐ Yes --- converts to: Bit 0 (of Byte 8) = (* * * * * * * 1)b		
			Bit Data at Byte 8 =	Bits 7 → 0 = (__ __ __ __ __ __ __ __)b converts to (_____)h	Data stored in Byte 8 = (____)h	

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Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
30	3.10.9	**48h → 59h**	Established Timings III (Tag: F7h) Part 4:			
30-3		(Optional)	(Byte 9) Established Timings III:	(Check all boxes that apply)	(Fill in data)	
		or **5Ah → 6Bh**	(Byte 9, Bit 7) ------- 1400 x 1050 @ 85 Hz =	☐ Yes --- converts to: Bit 7 (of Byte 9) = (1 ∗ ∗ ∗ ∗ ∗ ∗ ∗)b	Data stored in Bits 7 → 0 (of Byte 9) = (__ __ __ __ __ __ __ __)b	
		(Optional) or	(Byte 9, Bit 6) 1680 x 1050 @ 60 Hz (RB) =	☐ Yes --- converts to: Bit 6 (of Byte 9) = (∗ 1 ∗ ∗ ∗ ∗ ∗ ∗)b		
		6Ch → 7Dh (Optional)	(Byte 9, Bit 5) ------- 1680 x 1050 @ 60 Hz =	☐ Yes --- converts to: Bit 5 (of Byte 9) = (∗ ∗ 1 ∗ ∗ ∗ ∗ ∗)b		
			(Byte 9, Bit 4) ------- 1680 x 1050 @ 75 Hz =	☐ Yes --- converts to: Bit 4 (of Byte 9) = (∗ ∗ ∗ 1 ∗ ∗ ∗ ∗)b		
			(Byte 9, Bit 3) ------- 1680 x 1050 @ 85 Hz =	☐ Yes --- converts to: Bit 3 (of Byte 9) = (∗ ∗ ∗ ∗ 1 ∗ ∗ ∗)b		
			(Byte 9, Bit 2) ------- 1600 x 1200 @ 60 Hz =	☐ Yes --- converts to: Bit 2 (of Byte 9) = (∗ ∗ ∗ ∗ ∗ 1 ∗ ∗)b		
			(Byte 9, Bit 1) ------- 1600 x 1200 @ 65 Hz =	☐ Yes --- converts to: Bit 1 (of Byte 9) = (∗ ∗ ∗ ∗ ∗ ∗ 1 ∗)b		
			(Byte 9, Bit 0) ------- 1600 x 1200 @ 70 Hz =	☐ Yes --- converts to: Bit 0 (of Byte 9) = (∗ ∗ ∗ ∗ ∗ ∗ ∗ 1)b		
			Bit Data at Byte 9 =	Bits 7 → 0 = (__ __ __ __ __ __ __ __)b converts to (_____)h	Data stored in Byte 9 = (____)h	

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Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
30	3.10.9	**48h → 59h**	Established Timings III (Tag: F7h) Part 5:			
30-3		(Optional)	(Byte 10) Established Timings III:	(Check all boxes that apply)	(Fill in data)	
		or **5Ah → 6Bh**	(Byte 10, Bit 7) ----- 1600 x 1200 @ 75 Hz =	☐ Yes --- converts to: Bit 7 (of Byte 10) = (1 ∗ ∗ ∗ ∗ ∗ ∗ ∗)b	Data stored in Bits 7 → 0 (of Byte 10) = (__ __ __ __ __ __ __ __)b	
		(Optional) or	(Byte 10, Bit 6) ----- 1600 x 1200 @ 85 Hz =	☐ Yes --- converts to: Bit 6 (of Byte 10) = (∗ 1 ∗ ∗ ∗ ∗ ∗ ∗)b		
		6Ch → 7Dh (Optional)	(Byte 10, Bit 5) ----- 1792 x 1344 @ 60 Hz =	☐ Yes --- converts to: Bit 5 (of Byte 10) = (∗ ∗ 1 ∗ ∗ ∗ ∗ ∗)b		
			(Byte 10, Bit 4) ----- 1792 x 1344 @ 75 Hz =	☐ Yes --- converts to: Bit 4 (of Byte 10) = (∗ ∗ ∗ 1 ∗ ∗ ∗ ∗)b		
			(Byte 10, Bit 3) ----- 1856 x 1392 @ 60 Hz =	☐ Yes --- converts to: Bit 3 (of Byte 10) = (∗ ∗ ∗ ∗ 1 ∗ ∗ ∗)b		
			(Byte 10, Bit 2) ----- 1856 x 1392 @ 75 Hz =	☐ Yes --- converts to: Bit 2 (of Byte 10) = (∗ ∗ ∗ ∗ ∗ 1 ∗ ∗)b		
			(Byte 10,Bit 1) 1920 x 1200 @ 60 Hz (RB) =	☐ Yes --- converts to: Bit 1 (of Byte 10) = (∗ ∗ ∗ ∗ ∗ ∗ 1 ∗)b		
			(Byte 10, Bit 0) ----- 1920 x 1200 @ 60 Hz =	☐ Yes --- converts to: Bit 0 (of Byte 10) = (∗ ∗ ∗ ∗ ∗ ∗ ∗ 1)b		
			Bit Data at Byte 10 =	Bits 7 → 0 = (__ __ __ __ __ __ __ __)b converts to (_____)h	Data stored in Byte 10 = (____)h	

Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
30	3.10.9	**48h → 59h**	Established Timings III (Tag: F7h) Part 6:			
30-3		(Optional)	(Byte 11) Established Timings III:	(Check all boxes that apply)	(Fill in data)	
		or **5Ah → 6Bh**	(Byte 11, Bit 7) -------- 1920 x 1200 @ 75 Hz =	☐ Yes --- converts to: Bit 7 (of Byte 11) = (1 ∗ ∗ ∗ ∗ ∗ ∗ ∗)b	Data stored in Bits 7 → 4 (of Byte 10) = (__ __ __ __)b	
		(Optional) or	(Byte 11, Bit 6) -------- 1920 x 1200 @ 85 Hz =	☐ Yes --- converts to: Bit 6 (of Byte 11) = (∗ 1 ∗ ∗ ∗ ∗ ∗ ∗)b		
		6Ch → 7Dh (Optional)	(Byte 11, Bit 5) -------- 1920 x 1440 @ 60 Hz =	☐ Yes --- converts to: Bit 5 (of Byte 11) = (∗ ∗ 1 ∗ ∗ ∗ ∗ ∗)b		
			(Byte 11, Bit 4) -------- 1920 x 1440 @ 75 Hz =	☐ Yes --- converts to: Bit 4 (of Byte 11) = (∗ ∗ ∗ 1 ∗ ∗ ∗ ∗)b		
				Requirement	(Fill in data)	
			(Byte 11 {Bits 3 → 0}) Reserved Bits =	(∗ ∗ ∗ ∗ 0 0 0 0)b	Data stored in Bits 3 → 0 (of Byte 11) = (__ __ __ __)b	
			Bit Data at Byte 11 =	Bits 7 → 0 = (__ __ __ __ 0 0 0 0)b converts to (_____)h	Data stored in Byte 11 = (____)h	
				Requirement	(Fill in data)	
			(Bytes 12 → 17) Reserved Bytes =	(00 00 00 00 00 00)h	Data stored in Bytes 12 → 17 = (__ __ __ __ __ __)h	

Test Case Number	Section Number	Data Field Address/es	Byte/Bit Definitions	Specification Data	EDID 1.4 Stored Data in Data Field	Pass/Fail
31	3.10.9	**48h → 59h**	Dummy Descriptor: --- (Check one box only) --- ☐ Yes? or ☐ No?			
31-1		(Optional) or **5Ah → 6Bh**		Requirement	(Fill in data)	
			(Bytes 0 → 4) Descriptor Header =	(00 00 00 10 00)h	Data stored in Bytes 0 → 4 = (___ ___ ___ ___ ___)h	
31-2		(Optional) or **6Ch → 7Dh** (Optional)	(Bytes 5 → 17) Fill Data =	(00 00 00 00 00 00 00 00 00 00 00 00 00)h	Data stored in Bytes 5 → 17 = (___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___)h	
32	3.11	**7Eh**	Extension Flag:	(Fill in data)	(Fill in data)	
32-1		(Required)	Number of Extension Blocks =	_________ converts to (_____)h	Data stored in Address **7Eh** = (____)h	
			Extension Block Tag Numbers =	_________ _________ _________ _________ Etc.	_________ _________ _________ _________ Etc.	
32-2		**7Fh**	Checksum:			
		(Required)	Calculated Checksum =	(_____)h	Data stored in Address **7Fh** = (____)h	

End of the E-EDID Verification Guide

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