

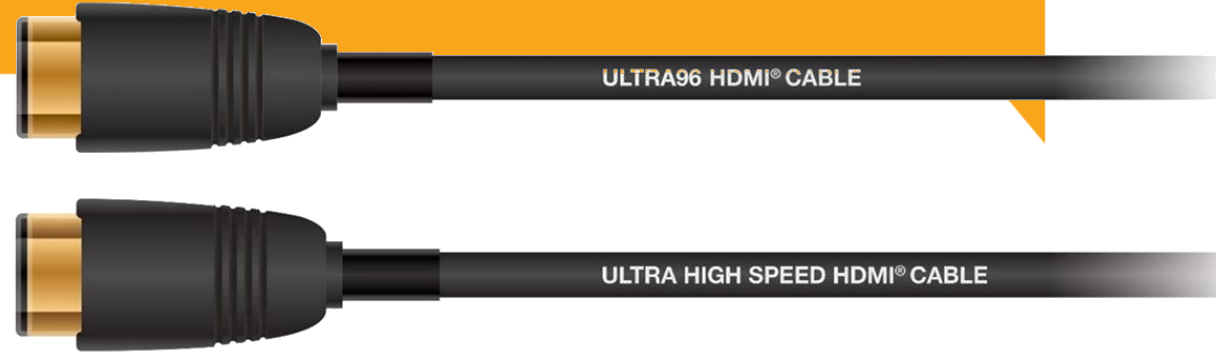


Ultra HDMI[®] Cable Certification Program

for Ultra96 HDMI[®] Cables

And Ultra High Speed HDMI[®] Cables

HDMI Licensing Administrator, Inc.
2025



The Ultra HDMI Cable Family



The Ultra96 HDMI[®] Cable supports all the features of the HDMI 2.2 Specification including up to 96Gbps bandwidth. The cable is expected in the market in 2025



The Ultra High Speed HDMI[®] Cable supports up to 48Gbps bandwidth and has been widely available since it launched in 2020



The Ultra HDMI Cables

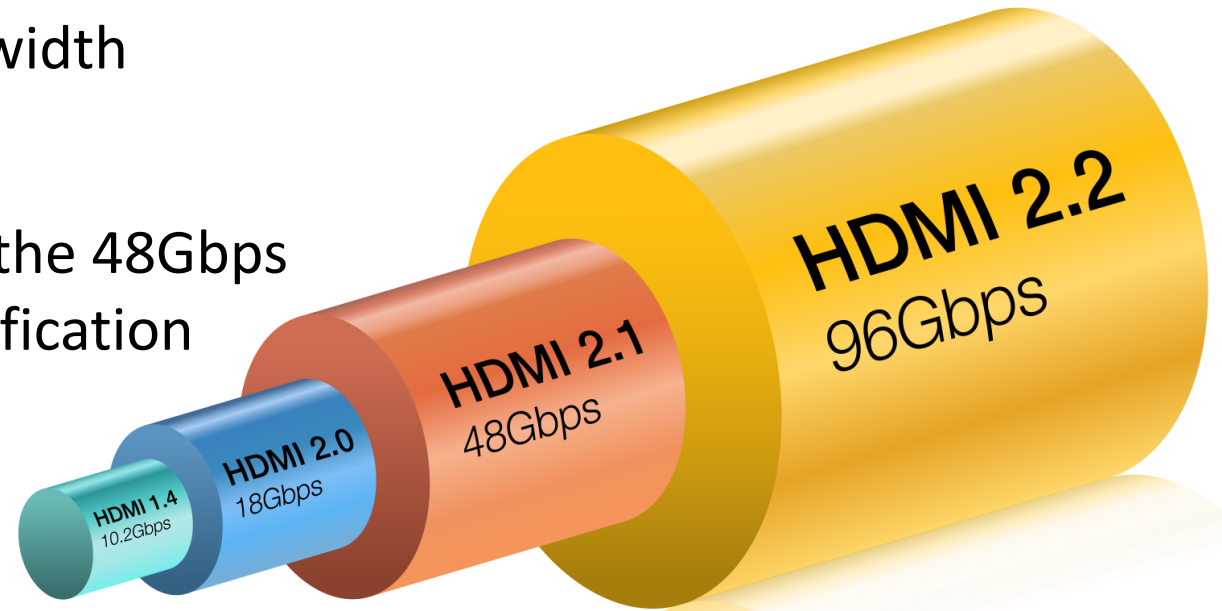


Ultra96 HDMI Cables support 96Gbps bandwidth and all the HDMI 2.2 Specification features

The Ultra High Speed HDMI Cable supports the 48Gbps bandwidth and features from the 2.1b specification

Cables are backwards compatible with all previous HDMI-enabled devices

Like the current Ultra High Speed – the Ultra96 HDMI Cable will also be available in wire/passive, active optical and converter cable assemblies



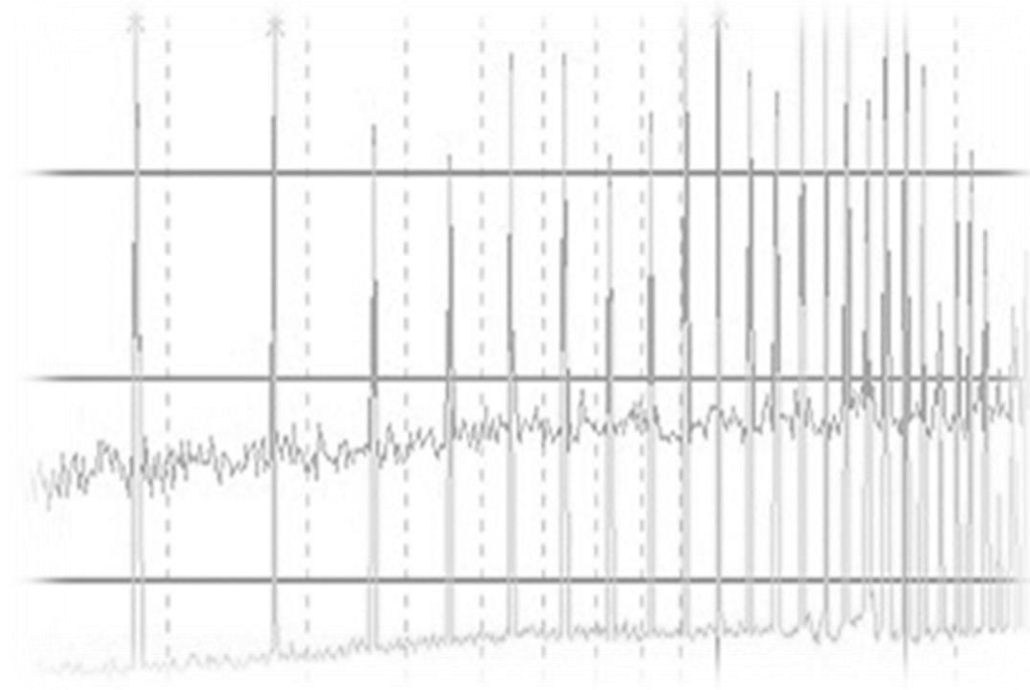
The Low EMI Requirement



Low EMI for both cables is a priority supported in both the specification and the CTS

Both cables exceed requirements of the latest international EMI standards

Cables are required to be tested and certified to ensure low EMI to reduce the possibility of interference with wireless networks, streaming media players, Bluetooth devices and mobile phones as well as wireless gaming controllers and headphones



The Ultra96 HDMI[®] Cable Feature Support



The only cable that supports all HDMI 2.2 features:

- Uncompressed/Compressed transmission modes
- Resolutions up to 16K
- Up to 96Gbps Bandwidth
- Fixed Rate Link (FRL) signaling technology
- Dynamic HDR
- Latency Indication Protocol (LIP)
- Source-Based Tone Mapping (SBTM)
- Enhanced Audio Return Channel (eARC)
- Auto Low Latency Mode (ALLM)
- Variable Refresh Rate (VRR)
- Quick Frame Transport (QFT)
- Quick Media Switching (QMS)
- HDMI Cable Power



the Ultra HDMI[®] Cable Certification Program

A mandatory certification program for all **Ultra96 HDMI[®] Cables** and **Ultra High Speed HDMI[®] Cables** to ensure quality HDMI Cables reach the market that are compliant with the most recent HDMI Cable Specifications

The HDMI 2.2 Specification for Category 4 Ultra96 HDMI[®] Cables is expected to be released in the first half of 2025

The Ultra HDMI Cable Certification Program



Requirements:

- 1 All Ultra96 HDMI Cables and Ultra High Speed HDMI Cables to be tested and certified in compliance with the HDMI 2.2 Compliance Test Specification (CTS) for Category 3 and Category 4 cables
- 2 Cables to be tested and certified only at HDMI Forum Authorized Test Centers (Forum ATC)
- 3 Every length of cable must be tested and certified
- 4 All certified cables must be registered with HDMI LA verification and authentication program
- 5 All Ultra96 HDMI Cables and Ultra High Speed HDMI Cables to display an HDMI® Certification Label on each package and display the cable name on the cable jacket or on a paper wrap
- 6 Continuing product lifetime verification

HDMI 2.2 Compliance Test Specification for Cables



1

The HDMI Forum member companies that develop the HDMI 2.2 specification also develop the HDMI 2.2 Compliance Test Specifications (CTS) and are the only ones qualified to develop a test program that ensures compliance to the specification

This collaborative effort of HDMI Forum member companies includes HDMI semiconductor, product and cable manufacturers, as well as HDMI test equipment companies and HDMI Forum Authorized Test Centers

HDMI Forum Authorized Test Center Testing Only



2 This requirement adds a very rigorous level of control over what tests are used and how they are conducted

HDMI Forum ATCs are audited by the HDMI Forum Compliance Program Manager to ensure testing complies with the rigorous HDMI 2.2 CTS requirements

Utilizing the HDMI Forum ATCs is the best way to test and certify cables to ensure compliance to the HDMI 2.2 Specification and the CTS

Every Length Must Be Tested and Certified

3

Different lengths have different electrical and performance characteristics and a single certification should not represent multiple lengths

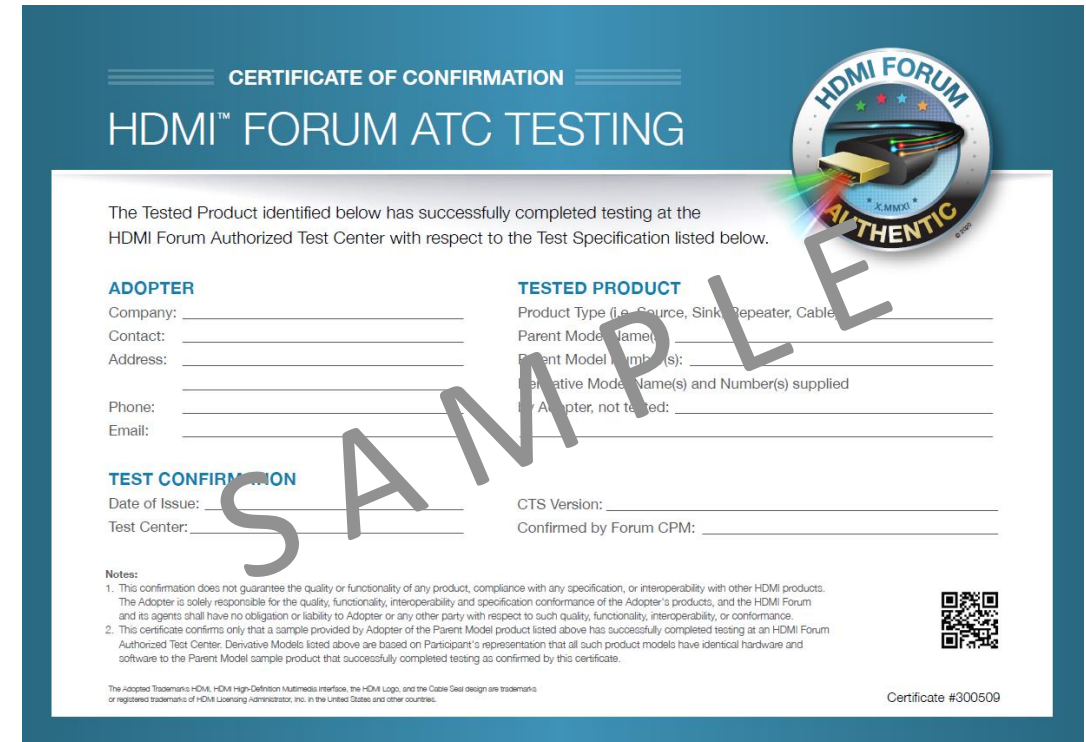
Every length of every cable will be tested and certified individually, and tracked for verification and authentication over the lifetime of that model



Verification and Authentication

Verification and Authentication System

- 4 After HDMI Forum ATC testing, test results will be verified by the HDMI Forum Compliance Program Manager
- HDMI Forum ATCs will then be issued the official HDMI Forum Certificate of Confirmation to provide HDMI Adopters
- HDMI Adopters can then order Ultra High Speed or Ultra96 HDMI Certification Labels for their (or their reseller's) cables



The image shows a sample of an HDMI Forum Certificate of Confirmation. The form is titled "CERTIFICATE OF CONFIRMATION" and "HDMI™ FORUM ATC TESTING". It includes a section for "ADOPTER" with fields for Company, Contact, Address, Phone, and Email. There is also a section for "TESTED PRODUCT" with fields for Product Type, Parent Model Name, Parent Model Number(s), and Derivative Model Name(s) and Number(s) supplied. A "TEST CONFIRMATION" section includes fields for Date of Issue, Test Center, CTS Version, and Confirmed by Forum CPM. The form also contains a "Notes" section with two paragraphs of text, a QR code, and a certificate number "#300509". A large "SAMPLE" watermark is overlaid on the form. In the top right corner, there is a circular logo for "HDMI FORUM AUTHENTIC" with a starburst design.

HDMI Forum Certificate of Confirmation

Ultra Cable Certification Label Affixed to Each Package

5

All packages are required to affix and display the official Ultra HDMI Cable Certification Label and cables are required to have the official cable names printed on cable jacket or on-cable paper wrap

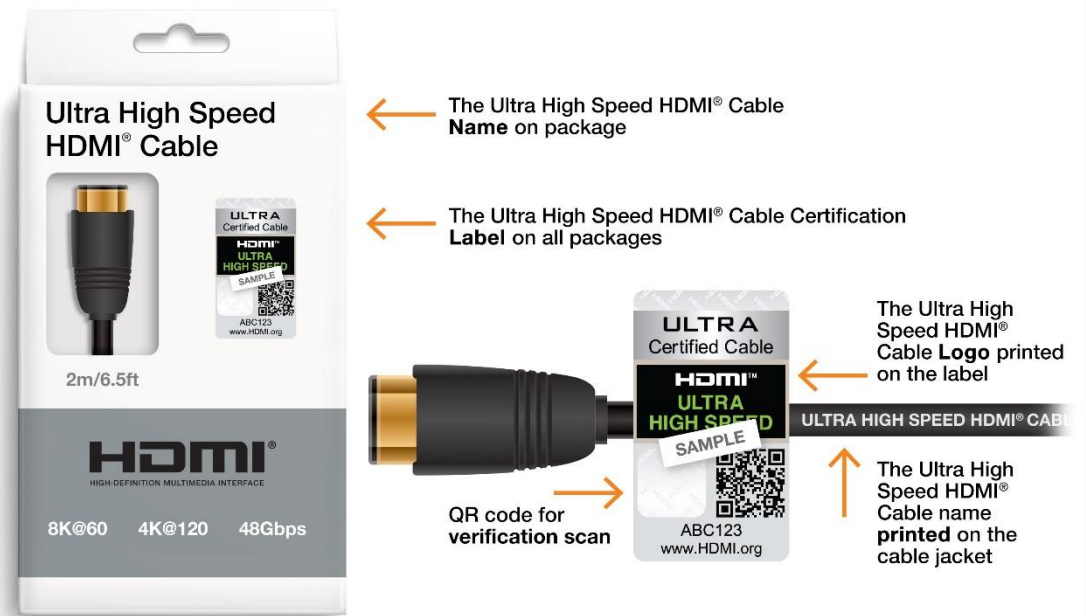
Other units of sale that don't use consumer packages are also required to display the label such as wrapped around the cable or affixed to a commercial polybag

How to Identify an Ultra96 HDMI® Cable



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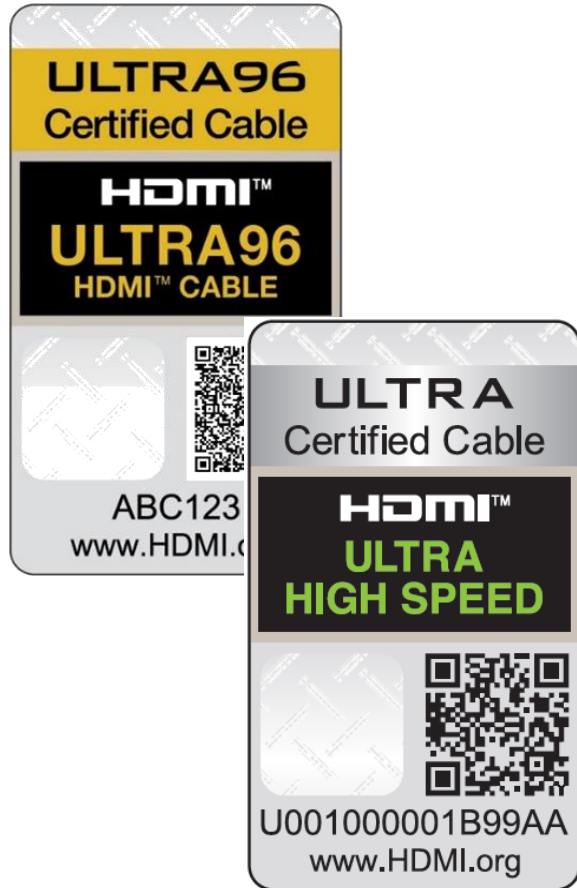
How to Identify an Ultra High Speed HDMI® Cable



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HDMI Certification Identification Details

5



Verification - Cable is verified as certified under the Ultra HDMI Cable Certification Program

Identification - The official Ultra High Speed HDMI® Cable and Ultra96 HDMI® Cable Name Logos appears on the label and is the only way the logo can be displayed on packaging

Authentication – the combination of holographic technology, QR code and label ID number are unique to each individual cable package and enable compliance tracking and anti-counterfeit confirmation

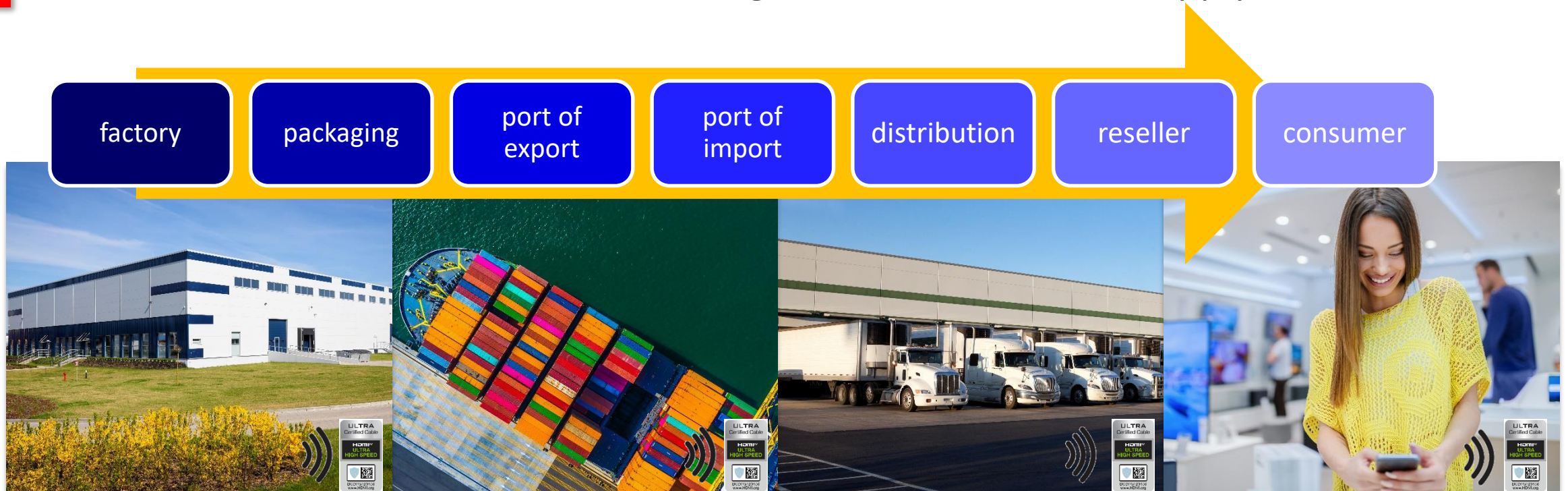


Size:
22mm wide x 38mm high...
Similar to cable over-molding

Continuing Product Lifetime Verification – Supply Chain

6

Authentication and verification scanning is utilized across the supply chain



Continuing Product Lifetime Verification - Tracking



6

Certification and labels enable each model of each cable to be regularly verified and authenticated over its model lifetime including all brand and reseller model numbers

Each individual label is associated with the following information:

- HDMI Adopter cable manufacturer
- HDMI Forum Certificate of Confirmation number ID and supporting test results
- Cable length
- Brand manufacturer/reseller and their specific model numbers
- Compliance audit testing results

Continuing Product Lifetime Verification – Scan Results

6

QR scan results confirm authentication and display cable brand name, model number and length

Holographic material prevents counterfeiting

Verify Authenticity with Scan



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Continuing Product Lifetime Verification – Compliance Audits

6 Production cables may change in manufacture or materials over time which may affect performance characteristics

Regular compliance audit testing helps ensure cables stay in compliance to the specification over the lifetime of the product

Testing is initiated by HDMI LA and performed by the HDMI Forum ATCs to the upcoming HDMI 2.2 CTS

Adopters whose cables have failed are given an opportunity to fix the problem and certify a new cable

Failed cables are removed from the label ordering system



Continuing Product Lifetime Verification – Compliance Audit

6

Continuous Auditing Ensures Continuous Compliance and Performance

If a cable fails, the adopter has a chance to correct manufacturing issues or else no further certification labels can be ordered for that cable.

However, if a cable passes, the adopter receives a letter confirming it is has passed the compliance audit and the label's scan result also confirms the audit pass.

SHOW ME THE LETTER!

This enables resellers and consumers to confirm continuous compliance.

Acknowledgement for Passing an In-Market Cable Audit

Congratulations!
Your Ultra High Speed HDMI® Cable has passed the Compliance Audit

We are pleased to inform you that your cable noted below has passed a recent compliance audit. We randomly test cables that we obtain in the marketplace to make sure manufactured cables remain in compliance to the HDMI 2.1b Specification. They are tested at HDMI Forum Authorized Test Centers and results certified by the HDMI Forum Compliance Program Manager.

Thank you for your continuing support of the Ultra High Speed HDMI Cable Certification Program.

Brand: Example
Model: ABC1234
Length: ft.
Audit Pass Date: Sept 2024

Best regards,
HDMI Licensing Administrator, Inc.
(administrator for the HDMI Forum's Ultra High Speed Cable Certification Program)

The Audit Pass Letter presented to the HDMI Adopter

The Certified Label scan result for cables passing the audit

HDMI
HIGH DEFINITION MULTIMEDIA INTERFACE

VERIFIED
You just verified an Ultra High Speed HDMI Cable and the packaging contains the following

Brand: Example
Model: ABC1234
Length: ft.
Audit Pass Date: Sept 2024

ULTRA Certified Cable
HDMI
ULTRA HIGH SPEED
ABC123
www.HDMI.org

GREAT NEWS!
After its initial testing and certification this cable has also recently passed a subsequent in-market test audit at an HDMI Forum Authorized Test Center ensuring it still meets the HDMI 2.1b compliance requirements.

The Ultra High Speed HDMI Cable is the only cable that complies with the stringent specifications designed to ensure support for ALL HDMI 2.1b features including uncompressed 4K120 and 8K60 and up to 48Gbps bandwidth.

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Continuing Product Lifetime Verification – Verification Banners

6 Shopping Online for HDMI Cables Can Be Confusing

Resellers may use a variety of misleading terms and features when promoting HDMI Cables on their websites and online marketplaces

Many resellers try to increase search results by posting a confusing jumble of specs and other manufacturers' model names

Official HDMI Cable Name designations may be missing or mis-stated

Media frequently recommend cables based on receiving affiliate payments

Some cables are not manufactured, tested or certified with the correct version of HDMI Specification

Worst of all – some products are counterfeits



Continuing Product Lifetime Verification – Verification Banners

6

Website-based HDMI **Verification Banners** are available to HDMI Adopters and Resellers

Consumers can verify certification of HDMI Cables during online shopping

“Click or Scan” banners connect to HDMI LA for verification of HDMI Adopter status, cable certification status, brand name, model number and cable length

HDMI LA controls banner distribution to adopters and the click or scan results are generated from HDMI LA servers



“verify before you buy”



Thank You

www.HDMI.org

www.HDMIForum.org

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