

WIRE & CABLE



# **PERFORMANCE VERIFICATION** FOR HIGH SPEED AV INTERFACE CABLES



UL's first ongoing compliance program focuses on addressing the needs of manufacturers, brand owners, installers, retailers, end-users, and other key stakeholders regarding the performance and reliability of the 4K high-speed digital, audio/video cable connecting devices.

## ACCELERATED ADOPTION OF 4K DISPLAY TECHNOLOGY

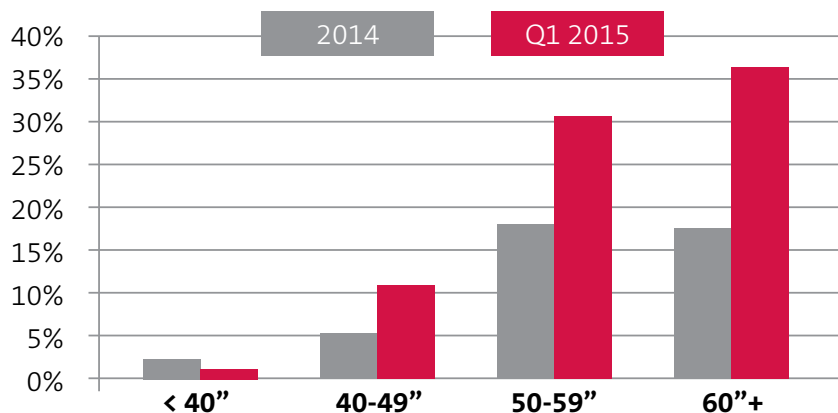


4K or 4K2K (Ultra HD; UHD) emits a resolution of 3840 x 2160 pixels (or 4096 x 2160 pixels), which is four times the number of pixels than full HD format. The extra resolution of 4K images adds more detail, more depth and more color resolution to the picture, resulting in images that look incredibly sharp.

The first quarter of 2015 showed strong growth in terms of 4K TV shipments, while shipments of LCD TVs declined in the same time period. 4K LCD TV shipments grew nearly 400 percent year-over-year from Q1 2014, to 4.7 million units worldwide in the first quarter of 2015. More than 31 percent of TVs 50-inches or larger contain 4K resolution technology.



### 4K Share of Worldwide Shipments by Size\*

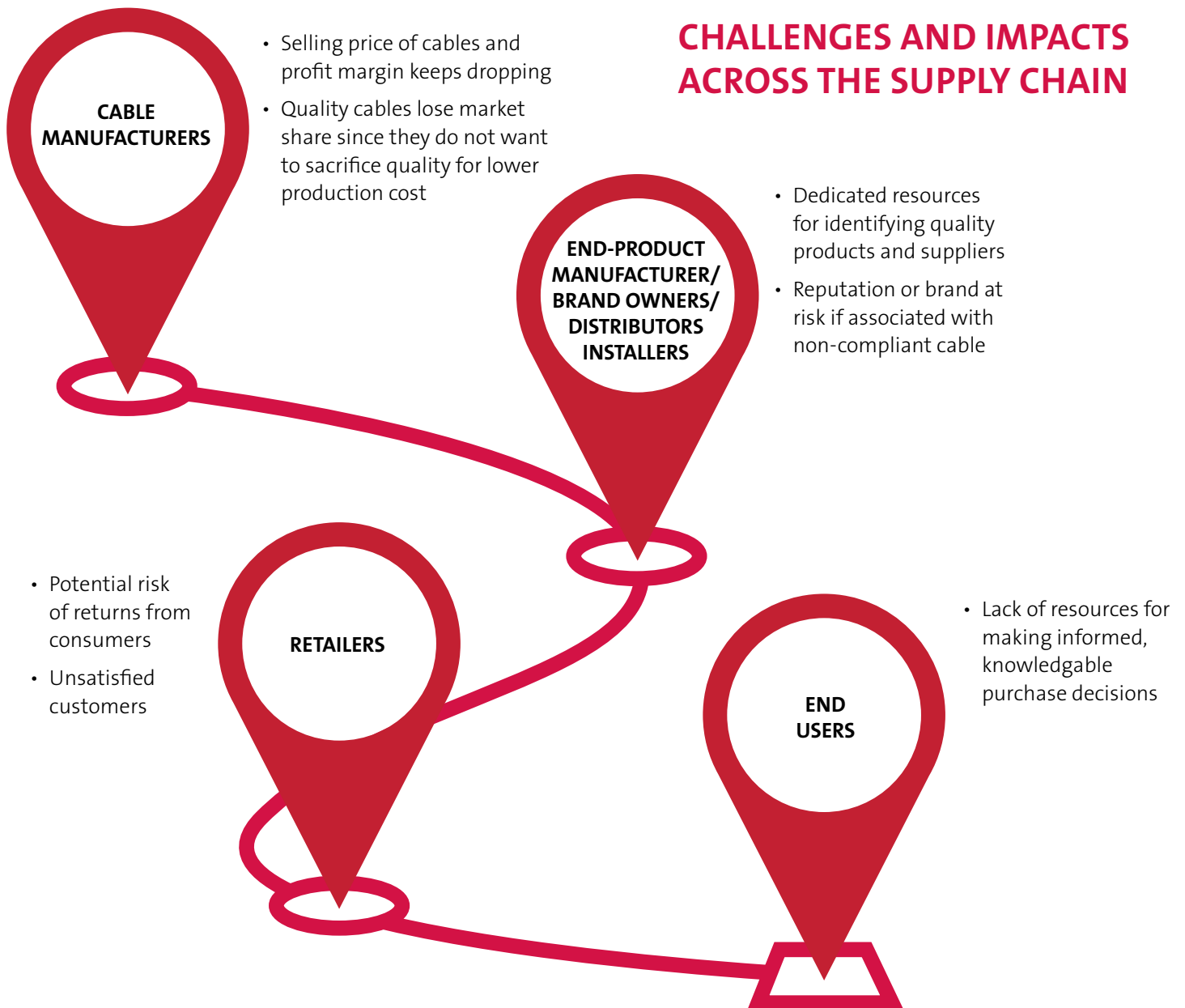


\*Source: IHS Quarterly Global TV Shipment and Forecast Report

# A CRITICAL CHALLENGE

As the 4K display technology evolves and becomes more widely accepted in the marketplace, there is growing concern among brand owners, installers, retailers, and end-users about the 4K cable connecting devices, including:

- Reliability of the data transmission rate of the 4K high-speed interface cable
- Sub-standard, counterfeit cable and self-declaration of compliance of high-speed cables in the supply chain
- Inadequate measurement under product specifications to ensure ongoing compliance of cable products
- Lack of objective guidelines and standards for buyers, brand owners, installers and end-users to reference in selecting or purchasing cable products

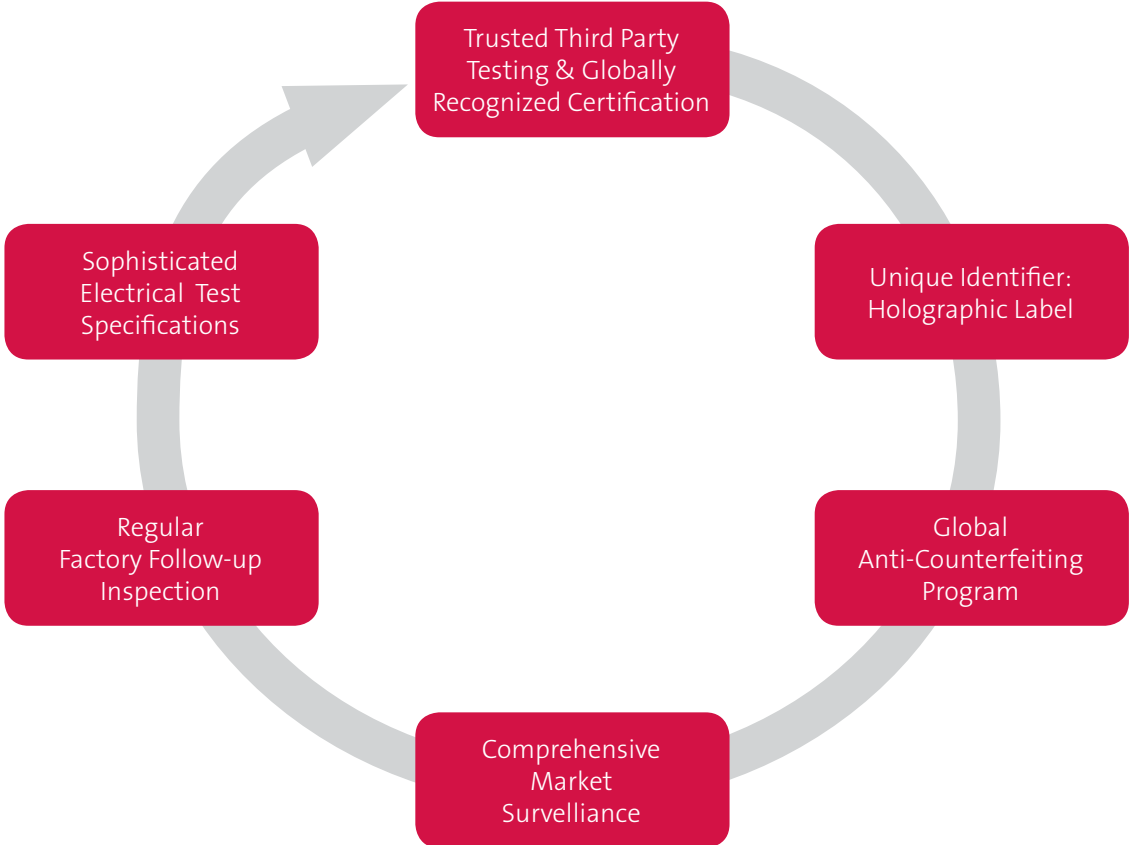






# UL PERFORMANCE VERIFICATION SOLUTIONS

To help meet the needs of all stakeholders and to mitigate the effects of sub-standard, counterfeit and self-declared compliant high-speed cables in the supply chain, UL has developed a performance verification program for these products. The program offers an independent, third-party assessment of compliance with transmission performance requirements. The assessment involves initial qualification testing of these products, as well as ongoing compliance testing via factory and marketplace sampling.



### Program Benefits:

- The first comprehensive follow-up and market surveillance program of its kind for these products helps to ensure a healthy and ongoing compliant supply chain and fair competition in the marketplace
- Cables are distinguished with an industry recognized and trusted UL performance verification Mark
- Sophisticated electrical performance test requirements that set a high performance benchmark and help ensure the integrity of high-speed signal transmission
- Our unmatched, well-proven anti-counterfeiting program
- Increased confidence and peace of mind regarding product quality for end-users, retailers, installers and brand owners
- A holographic label system sets UL apart by establishing a unique identifier for customs, regulators, buyers, retailers, and users.

**The types of cables currently covered under the program include:**

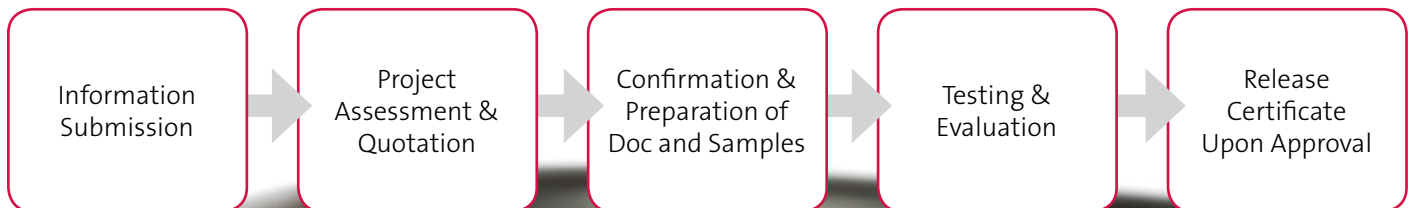
Description	Verified Data Rate
High Speed 4K Cable	10.2 Gbps
High Speed 4K Cable	18 Gbps

# WHAT YOU SHOULD KNOW

- UL's performance verification program is a third-party program, which is independent of all licensing and certification programs.\*
- Our program offers enhanced cable performance specification verification and provides comprehensive follow-up services and market surveillance to help ensure the ongoing compliance of your cables in the marketplace.
- UL protects the interests of participating manufacturers through our global anti-counterfeiting program, which leverages law enforcement expertise and works with global customs agencies and authorities to combat counterfeiting.
- The performance verification program focuses on cables sold to customers, OEM suppliers, distributors, and installers who have a relatively high demand for quality and reliability of cable transmission performance.
- The test requirements under this program are based on UL's proprietary performance specification and described in the UL Outline of Investigation for High Speed Cable Performance, UL 4000.



## WORK FLOW FOR APPLICATION



*\*UL does not verify any compliance status or required certificates, other than those issued by UL. Therefore, it is the responsibility of cable manufacturers to follow all of the requirements associated with non-UL licensing and certification programs they participate in.*



# CONTACT US

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For additional information, please visit [UL.com/wireandcable4k](http://UL.com/wireandcable4k), or contact your regional representative below:

## **NORTH AMERICA**

Joel Nelson  
T: +1.631.546.2706  
E: [Joel.Nelson@ul.com](mailto:Joel.Nelson@ul.com)

## **EUROPE**

Jacomijn Chemla  
T: +33.1.60198805  
E: [Jacomijn.Chemla@ul.com](mailto:Jacomijn.Chemla@ul.com)

## **JAPAN**

Shinya Hattori  
T: +81.596.24.7231  
E: [Shinya.Hattori@ul.com](mailto:Shinya.Hattori@ul.com)

## **KOREA**

DaeSung Lim  
T: +82.2.2009.9360  
E: [DaeSung.Lim@ul.com](mailto:DaeSung.Lim@ul.com)

## **ASEAN**

Ashley EdwardSinew  
T: +65.9825.8332  
E: [Ashley.EdwardSinew@ul.com](mailto:Ashley.EdwardSinew@ul.com)

## **INDIA AND M&E**

Shilpa A.  
T: +91.80.4138.4489  
E: [Shipla.A@ul.com](mailto:Shipla.A@ul.com)

## **BRAZIL & ARGENTINA**

Joao Abel  
T: +55.11.3049.8300  
E: [Joao.Abel@ul.com](mailto:Joao.Abel@ul.com)

## **SOUTH CHINA/HK**

Lydia Liang  
T: 86.20.3213.1136  
E: [Lydia.Liang@ul.com](mailto:Lydia.Liang@ul.com)

## **REST OF CHINA**

Eric Lu  
T: 86.512.6875.8709  
E: [Eric.Lu@ul.com](mailto:Eric.Lu@ul.com)

## **TAIWAN**

Eliot Lee  
T: 886.2.7737.3659  
E: [Eliot.Lee@ul.com](mailto:Eliot.Lee@ul.com)