

LG ELECTRONICS APPLAUDS ADOPTION OF ATSC 3.0 'PHYSICAL LAYER' TRANSMISSION STANDARD

Key LG Technologies at Heart of New Next-Generation Television Broadcasting System

WASHINGTON, Sept. 8, 2016 – Digital television pioneer LG Electronics applauded the Advanced Television Systems Committee's standardization of the ATSC 3.0 Physical Layer transmission system, the heart of the new broadcast system that will merge the capabilities of broadcast and broadband to propel broadcasters into television's next era.

Core technologies developed by LG, along with its U.S. R&D lab Zenith and GatesAir, are included in the majority of the new ATSC 3.0 Physical Layer Standard, according to LG Electronics President and CTO Dr. Skott Ahn.

"We are proud that LG technology is behind the majority of the elements of the Physical Layer transmission system and grateful to have been involved with many other experts in developing the new standard," Ahn said.

Multiple LG contributions to ATSC 3.0 in the new Physical Layer Standard include the scrambler, forward error correction, bit interlever, mapper, time interleaver, OFDM framer, frequency interleaver, pilots, reserved tones, and guard interval functions.

"Broadcasters will soon be able to enjoy new levels of flexibility and offer new services to viewers, from stunning 4K Ultra HD signals to TV 'on the go' that will be available on a wide variety of ATSC 3.0-enabled devices," said LG Senior Vice President Dr. Jong Kim, who also serves as President of the Zenith R&D Lab.

Expected to redefine TV broadcasting for decades to come, the next-generation ATSC 3.0 broadcast standard will require higher capacity to deliver 4K UHD services, robust reception on mobile devices and improved spectrum efficiency. The increased payload capacity of the physical layer combined with HEVC encoding will allow broadcasters many more options when planning their broadcast service offerings.

Kim said LG technologies approved in the ATSC 3.0 Physical Layer standard have been successfully verified in experimental broadcasts and field tests in the United States and in South Korea, which is expected to launch next-generation television using ATSC 3.0 next year.

Development of ATSC 3.0 technologies represents the latest LG/Zenith innovation in digital television, which also includes key technologies utilized in the A/153 Mobile Digital TV Standard adopted by the industry in 2009. Zenith also invented the core transmission system at the heart of today's ATSC A/53 Digital Television Standard, approved by the U.S. Federal Communications Commission in 1996.



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About LG Electronics, Inc.

LG Electronics, Inc. (KSE: 066570.KS) is a global leader and technology innovator in consumer electronics, mobile communications and home appliances, employing 77,000 people working in 125 locations around the world. With 2015 global sales of USD 48.8 billion (KRW 56.5 trillion), LG comprises four business units — Home Appliance & Air Solutions, Mobile Communications, Home Entertainment and Vehicle Components — and is one of the world's leading producers of flat panel TVs, mobile devices, air conditioners, washing machines and refrigerators. LG Electronics is a 2016 ENERGY STAR Partner of the Year-Sustained Excellence.

About LG Electronics USA

LG Electronics USA, Inc., based in Englewood Cliffs, N.J., is the North American subsidiary of LG Electronics, Inc., a \$49 billion global force and technology leader in consumer electronics, home appliances and mobile communications. LG Electronics sells a range of stylish and innovative home appliances, home entertainment products, mobile phones, commercial displays, air conditioning systems and energy solutions in the United States, all under LG's "Life's Good" marketing theme. LG's U.S. R&D subsidiary Zenith Electronics LLC is a long-time consumer electronics innovator and pioneer in digital television technology. For more information, please visit <u>www.LG.com</u> and <u>www.Zenith.com</u>.

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