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20th Century Fox, Panasonic and Samsung Gain Momentum for Best Possible TV-Viewing Experience with HDR10+ Technology

LAS VEGAS, NV – January 5, 2018 – 20th Century Fox, Panasonic Corporation and Samsung Electronics today announced updates to the associated certification and logo program for the open, royalty-free dynamic metadata platform for High Dynamic Range (HDR), called HDR10+ which they initially announced last year at IFA.

The HDR10+ platform will soon be made available to content companies, ultra-high definition TVs, Blu-ray disc players/recorders and set-top box manufacturers, as well as SoC vendors, royalty-free with only a nominal administrative fee. Companies can view the new logo, learn about the license program including final specifications, adopter agreements and sign up to receive a notification when technical specifications for HDR10+ become available at <http://www.hdr10plus.org>. In addition, Ultra HD Blu-ray metadata generation tools have been developed with third parties and will soon be available for content creators enabling Ultra HD Blu-ray players to enter the market. Details on the content transfer and interface format for the content creation pipeline will also be released shortly.

HDR10+ will offer a genuinely premium HDR experience for viewers through a device certification program ensuring an accurate representation of the creative intent expressed in the content. Also, its workflow improvements for creators will encourage increased production of premium HDR content.

The HDR10+ license program will provide interested companies with the necessary technical and testing specifications to implement HDR10+ technology in a way that both maintains high picture quality and gives each manufacturer the ability to apply dynamic tone mapping innovatively. The accompanying certification program will ensure that HDR10+ compliant products meet good picture quality and deliver the creative intent of movie directors and cinematographers. A certified product will feature the HDR10+ logo, which signifies the product's excellent picture quality.



Key aspects of the license program will include:

- Benefits for device manufacturers (e.g., TV, Ultra HD Blu-ray, OTT STB, etc.), content distribution services providers, SoC manufacturers, content publishers, and content creation tool providers.
- No per unit royalty.
- A nominal annual administration fee for device manufacturers, SoC manufacturers and content distribution service providers.
- Technical specification, test specification, HDR10+ logo/logo guide, patents from the three companies directly related to the technical specification and the test specification.
- Certification for devices will be performed by a third-party, authorized testing center.

Once the HDR10+ license program is open, the three founding companies will incorporate HDR10+

technologies in all future Ultra HD movie releases, selected TVs, Ultra HD Blu-ray player/recorders, and other products.

"It was important for us to create an open system that is flexible and offers a viewing experience much closer to the filmmaker's creative intent for the film," said Danny Kaye, Executive Vice President of 20th Century Fox, and Managing Director of the Fox Innovation Lab. "Together with Samsung and Panasonic, we aim to standardize the licensing process making it easy for partners, including content creators, television and device manufacturers, to incorporate this technology and improve the viewing experience for all audiences."

Support continues to grow for HDR10+ and companies are looking forward to applying the 3C specifications and certification program. More than 25 companies spanning many different industries have expressed strong interest in supporting the HDR10+ platform, further reinforcing its path to success.

Amazon Prime Video, the first streaming service provider to deliver HDR10+, has made the entire Prime Video HDR library available in HDR10+ globally. The Prime Video HDR10+ catalog includes hundreds of hours of content such as Prime Originals *The Grand Tour*, Golden Globe®-nominated *The Marvelous Mrs. Maisel*, *Jean-Claude Van Johnson*, *The Tick* and *The Man in the High Castle* plus hundreds of licensed titles.

Warner Bros. Home Entertainment will support HDR10+ to enable a dynamic metadata solution for Warner Bros. content to Samsung, Panasonic and other HDR10+ capable 4K HDR TVs. "Warner Bros. has always strived to provide the best next gen home entertainment experience to consumers," said Jim Wuthrich, President of the Americas and Global Strategy, Warner Bros. Home Entertainment. "With HDR10+ dynamic metadata, WB can continue to more accurately bring the filmmakers' vision of our 2018 releases and our vast catalog of over seventy-five 4K HDR titles to the home across a broad range of HDR10+ capable TV's."

The new HDR10+ technology optimizes picture quality for next generation displays by using dynamic tone mapping to reflect frame to frame or scene to scene variations in brightness, color saturation, and contrast, which makes for an enhanced viewing experience. HDR10+ technology optimizes the performance of many 4K ultra-high definition TVs, enabling playback on a wide range of next generation TVs bringing user experience much closer to the original creative intent for Hollywood films.

"By bringing together know-how and technology from the three founding companies, HDR10+ has the potential to deliver considerable picture quality benefits to both viewers and creators alike," said Toshiharu Tsutsui, Director of Panasonic's TV Business Division. "Accordingly, Panasonic anticipates wide support for HDR10+."

"Samsung is committed to technological innovation across our TVs and HDR10+ represents an evolution in display quality for the best possible viewing experience," said Jongsuk Chu, Senior Vice President of Visual Display Business at Samsung Electronics. "We have also designed the HDR10+ platform to encourage future development in order to deliver further enhanced technology in the years to come."

20th Century Fox, Panasonic and Samsung will show technical demonstrations of HDR10+ technology at CES 2018. Accredited journalists or parties interested in the licensee program may email chris.bess@fox.com for more information. Accredited journalists can see Panasonic's HDR10+ technical demo at its suite at the MGM Grand Conference Centre. A HDR10+ technology demo will be held at Samsung's First Look event at Enclave Las Vegas on 7th January.

To learn more about the HDR10+ license program, please contact the HDR10+ license administration office at info@hdr10plus.org.

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About Twentieth Century Fox Home Entertainment

Twentieth Century Fox Home Entertainment, LLC (TCFHE) is the industry leading worldwide marketing, sales and distribution company for all Fox produced, acquired and third-party partner film and television programming. Each year TCFHE expands its award-winning global product portfolio with the introduction of new entertainment content through established and emerging formats including DVD, Blu-ray™, Digital and VOD. Twentieth Century Fox Home Entertainment is a subsidiary of 20th Century Fox, a 20th Century Fox Company.

About Panasonic

Panasonic Corporation is a worldwide leader in the development of diverse electronics technologies and solutions for customers in the consumer electronics, housing, automotive, and B2B businesses. Celebrating its 100th anniversary in 2018, the company has expanded globally and now operates 495 subsidiaries and 91 associated companies worldwide, recording consolidated net sales of 7.343 trillion yen for the year ended March 31, 2017. Committed to pursuing new value through innovation across divisional lines, the company uses its technologies to create a better life and a better world for its customers. To learn more about Panasonic: <http://www.panasonic.com/global>.

About Samsung Electronics Co., Ltd.

Samsung inspires the world and shapes the future with transformative ideas and technologies. The company is redefining the worlds of TVs, smartphones, wearable devices, tablets, digital appliances, network systems, and memory, system LSI and LED solutions. For the latest news, please visit the Samsung Newsroom at <http://news.samsung.com>.