onsemi Imaging Technology Enables Next Era of Digital Cinematography

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The ALEXA 35, ARRI's newest digital cinema camera, boasts onsemi's latest CMOS sensor technology to produce industry-leading image quality at a native 4.6K and 120 fps

PHOENIX--(BUSINESS WIRE)--Sep. 14, 2022-- **onsemi** (Nasdaq: ON), a leader in intelligent power and sensing technologies, today announced it developed the customized high-end CMOS sensor for ARRI's ALEXA 35 camera. The camera uses the ALEV 4 Super 35 4.6K CMOS image sensor from onsemi to deliver a resolution of 4608x3164 pixels (14.6 Mpixel) with a 6.075 um pitch featuring RGB color filters and a maximum frame rate of 120fps. The sensor features onsemi's latest technology for optimizing pixel response, High Dynamic Range techniques (HDR) and the improvement of pixel uniformity while reading out at high speeds; techniques deployed in mainstream onsemi sensors as well.

This latest collaboration between the two companies is another example of onsemi's strength in developing sensors for high-end cinematography that elevate image quality. This unique high-resolution, large-pixel image sensor with optimized readout techniques result in a 4.6K image, 17-stops of dynamic range at 120 frames per second, producing images with unprecedented quality. The extended Dynamic Range enables higher detail in a high contrast scene in a single frame, resulting in an extraordinary image and color experience.

"All digital ARRI cameras—starting with the first ARRIFLEX D-20 in 2005, followed by the first ALEXA delivered inJune 2010 up to the ALEXA 35 introduced this year—are based on CMOS sensors jointly developed with onsemi," said Walter Trauninger, managing director and head of business unit Camera Systems at ARRI. "The close collaboration between the two companies is the foundation for ARRI's ability to provide the best overall image quality to filmmakers. This kind of long-term commitment is an absolute exception in an ever-changing semiconductor market and is invaluable to ARRI."

The ARRI ALEXA 35 camera elevates digital cinematography to new heights, building on the evolution of the ALEXA family over the last decade-plus. During the 75th annual Cannes Film Festival in 2022, 30 of the 49 films that premiered at the festival, including Palme d'Or winner "Triangle of Sadness," used a camera from ARRI's ALEXA family, all powered by onsemi's customized CMOS image sensors.

"Developing the image sensors for the ALEXA 35 camera with ARRI shows our ability to develop high-end sensors that are low cost and high quality while maximizing performance," said Ross Jatou, senior vice president and general manager of ISG at onsemi. "22 years of working closely with ARRI demonstrates our commitment and skillset to deliver image sensors for the high-end digital cinematography and machine vision markets."

While higher resolution solutions exist, the ALEV 4 CMOS image sensor from onsemi allows ARRI to raise the bar with its latest camera by providing excellent image quality, natural colors and an entire ecosystem for the global film industry.

In 2017, the ARRI ALEXA camera system with onsemi's CMOS sensor was recognized with a Scientific and Engineering Award from the Academy of Motion Pictures Arts and Sciences and an Engineering Emmy® from the Television Academy. onsemi was awarded an Emmy for Technology and Engineering by the National Academy of Television Arts and Sciences (NATAS) in 2021. Industry experts and peers chose the company's work in the pioneering design and development of its intra-pixel charge transfer CMOS image sensors for showing excellence in engineering creativity.

Learn more about the latest intelligent imaging technologies from onsemi.

About onsemi

onsemi (Nasdaq: ON) is driving disruptive innovations to help build a better future. With a focus on automotive and industrial end-markets, the company is accelerating change in megatrends such as vehicle electrification and safety, sustainable energy grids, industrial automation, and 5G and cloud infrastructure. **onsemi** offers a highly differentiated and innovative product portfolio, delivering intelligent power and sensing technologies that solve the world's most complex challenges and leads the way to creating a safer, cleaner, and smarter world. **onsemi** is recognized as a Fortune 500® company and included in the S&P 500® index. Learn more about **onsemi** at www.onsemi.com.

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