



Press Release

Erlangen/Las Vegas, April 11, 2011

Visit us at NAB 2011 Las Vegas, NV, USA Booth SU5520

Fraunhofer Institute for Integrated Circuits IIS

Am Wolfsmantel 33 91058 Erlangen, Germany

Executive Director

Prof. Dr.-Ing. Heinz Gerhäuser **Directors**

Prof. Dr.-Ing. Günter Elst Prof. Dr.-Ing. Albert Heuberger

Contact

Matthias Rose Phone +49 9131 776-6175 Fax +49 9131 776-6099 matthias.rose@iis.fraunhofer.de

Public Relations

Marc Briele Phone +49 9131 776-1630 Fax +49 9131 776-1649 presse@iis.fraunhofer.de www.iis.fraunhofer.de

Fraunhofer USA, Inc.
Digital Media Technologies*
100 Century Court
Suite 504
San Jose, California 95112
www.dmt.fraunhofer.org

Contact

Jan Nordmann Phone +1 408 573 9900 Cell +1 408 390 6698 press@dmt.fraunhofer.org

Orban Licenses MPEG Surround from Fraunhofer IIS to Enable High-Performance Surround Audio Streaming

Fraunhofer's MPEG Surround audio streaming technology in Orban encoders allows broadcasters to deliver bandwidth-efficient surround Internet Radio Services

Fraunhofer IIS, the world's renowned source for audio and multimedia technologies, today announced in partnership with Orban the availability of the MPEG Surround and HE-AAC Multi-Channel audio formats in Orban's professional Opticodec-PC streaming encoders.

MPEG Surround is an ideal standard for bandwidth efficient surround Internet radio services, allowing the cost-efficient delivery of surround audio at stereo bitrates as low as 64 kbit/s for 5.1-channels. With the integration of MPEG Surround and HE-AAC Multi-Channel into Orban's products, Internet broadcasters and pure play music services will be able to clearly distinguish themselves from competitors by providing an immersive surround audio experience to consumers. Thanks to the stereo-compatible nature of the MPEG Surround codec, listeners can enjoy music streams in the highest quality on both surround-enabled and stereo devices.

"As consumer demand increases for high quality content delivered online, Fraunhofer's audio codecs in Orban's professional streaming encoders provide broadcasters with the best tools to fulfill this desire," said Harald Popp, head of the Multimedia Realtime Systems department at Fraunhofer IIS. "This enables the delivery of true surround sound experiences to listeners at affordable bitrates."

^{*} Fraunhofer USA Digital Media Technologies, a division of Fraunhofer USA, Inc., promotes and supports the products of Fraunhofer IIS in the U.S.





Press Release

Erlangen/Las Vegas, April 11, 2011

Fraunhofer Institute for Integrated Circuits IIS

Am Wolfsmantel 33 91058 Erlangen, Germany

Executive Director

Prof. Dr.-Ing. Heinz Gerhäuser **Directors**

Prof. Dr.-Ing. Günter Elst Prof. Dr.-Ing. Albert Heuberger

Contact

Matthias Rose Phone +49 9131 776-6175 Fax +49 9131 776-6099 matthias.rose@iis.fraunhofer.de

Public Relations

Marc Briele Phone +49 9131 776-1630 Fax +49 9131 776-1649 presse@iis.fraunhofer.de www.iis.fraunhofer.de

Fraunhofer USA, Inc. Digital Media Technologies* 100 Century Court Suite 504 San Jose, California 95112

www.dmt.fraunhofer.org

Contact

Jan Nordmann Phone +1 408 573 9900 Cell +1 408 390 6698 press@dmt.fraunhofer.org "Selecting Fraunhofer for our streaming encoders was a clear choice for Orban due to the company's reputation in the industry for delivering the highest quality audio and multimedia solutions," said Greg Ogonowski, VP Product Development, Orban. "Fraunhofer's expertise and dedication to innovation, as well as its flexible and efficient technology, will enable us to provide broadcasters with the technology they need to meet their listener's expectations," said Robert Orban, Orban's VP/Chief Engineer.

Featuring Fraunhofer's MPEG Surround and HE-AAC multichannel compression schemes, Orban Opticodec-PC Encoders will be promoted during NAB 2011 at the Orban (C3059) and Fraunhofer (SU5520) booths at the Las Vegas Convention Center (LVCC). MPEG Surround is an ISO standard codeveloped by Fraunhofer IIS. Software implementations for device and software player manufacturers are available for various operating systems and embedded platforms.

For more information, visit http://www.iis.fraunhofer.de/en/bf/amm/.

About Fraunhofer IIS

The Fraunhofer IIS Audio and Multimedia division, based in Erlangen, Germany, has been working in compressed audio technology for more than 20 years and remains a leading innovator of technologies for cutting-edge multimedia systems. Fraunhofer IIS is the main inventor of mp3 and universally credited with the development of AAC (Advanced Audio Coding) as well as technologies for the media world of tomorrow, including MPEG Surround, MPEG Spatial Audio Object Coding and the Fraunhofer Audio Communication Engine.

Through the course of more than two decades, Fraunhofer IIS has licensed its audio codec software and application-specific customizations to at least 1,000 companies. Fraunhofer estimates that it has enabled more than 1 billion commercial products worldwide using its mp3, AAC and other media technologies.

^{*} Fraunhofer USA Digital Media Technologies, a division of Fraunhofer USA, Inc., promotes and supports the products of Fraunhofer IIS in the U.S.





Press Release

Erlangen/Las Vegas, April 11, 2011

The Fraunhofer IIS organization is part of Fraunhofer-Gesellschaft, based in Munich, Germany. Fraunhofer-Gesellschaft is Europe's largest applied research organization and is partly funded by the German government. With 18,000 employees worldwide, Fraunhofer-Gesellschaft is composed of 60 Institutes conducting research in a broad range of research areas. For more information, contact Matthias Rose, matthias.rose@iis.fraunhofer.de, or visit www.iis.fraunhofer.de/amm.

About Orban

Founded in 1970 by Bob Orban, the world's foremost expert in transmission audio processing for broadcast, Orban leads the industry in the design and manufacture of audio processors for radio, television and Internet broadcasting. Recognized for its standard-setting Optimod digital audio processors and Opticodec hardware and software codecs, the Orban name has become synonymous with reliable, high performance products. Today, its versatile audio processing equipment and codecs are the products of choice for broadcasters, netcasters, and fast paced production environments worldwide. As technology evolves, Orban continues to innovate with state-of-the-art audio processing products for DAB, DTV and streaming media. For more information regarding Orban, call 510.351.3500 or visit the company's website at http://www.orban.com.

Fraunhofer Institute for Integrated Circuits IIS

Am Wolfsmantel 33 91058 Erlangen, Germany

Executive Director

Prof. Dr.-Ing. Heinz Gerhäuser **Directors**

Prof. Dr.-Ing. Günter Elst Prof. Dr.-Ing. Albert Heuberger

Contact

Matthias Rose Phone +49 9131 776-6175 Fax +49 9131 776-6099 matthias.rose@iis.fraunhofer.de

Public Relations

Marc Briele Phone +49 9131 776-1630 Fax +49 9131 776-1649 presse@iis.fraunhofer.de www.iis.fraunhofer.de

Fraunhofer USA, Inc.
Digital Media Technologies*
100 Century Court
Suite 504
San Jose, California 95112
www.dmt.fraunhofer.org

Contact

Jan Nordmann Phone +1 408 573 9900 Cell +1 408 390 6698 press@dmt.fraunhofer.org

^{*} Fraunhofer USA Digital Media Technologies, a division of Fraunhofer USA, Inc., promotes and supports the products of Fraunhofer IIS in the U.S.