# Press Release

## Fraunhofer IIS Brings Surround Music to the iPod Community at CES

**Working with entertainment industry, artists and hardware OEMs, Fraunhofer drives online distribution, sales of enhanced digital music format**

**At the 2009 International Consumer Electronics Show (CES), Fraunhofer Institute for Integrated Circuits IIS, a worldwide leading provider of MPEG audio technologies, presents MPEG Surround, the new standard for high-quality surround music downloads. CES show attendees can experience MPEG Surround from a legacy iPod® through a Fraunhofer-designed iPod docking station prototype at booth 3219, North Hall. In addition, MPEG Surround will be demonstrated in one of the many environments to which it is ideally suited – the automobile.**

"We believe that MPEG Surround will become a major online distribution format when downloading music, movie and TV content, and offers the music industry a way to sell iPod-compatible surround content through the existing stereo download infrastructure," says Harald Popp, head of the Multimedia Realtime Systems department at Fraunhofer IIS. "As a consequence, we will work for the global acceptance of MPEG Surround in 2009 as the new sound paradigm for entertainment download as we have done for the radio broadcasting markets in the past. In addition, we will deliver efficient MPEG Surround software implementations to content providers, operators, music stores, broadcasters and related equipment OEMs to spur further industry adoption."

With MPEG Surround, Fraunhofer brings a new level of audio fidelity to the living room, the PC, the car and portable devices such as iPods and 3G phones. Music labels includ-

**Fraunhofer Institute for
Integrated Circuits IIS**

Am Wolfsmantel 33
91058 Erlangen, Germany

**Executive Director**
Prof. Dr.-Ing. Heinz Gerhäuser
**Director**
Prof. Dr.-Ing. Günter Elst

**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
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.*

ing Eagle Rock Entertainment and Telarc International have endorsed this enhanced music standard.

Renowned producer, multiple Grammy and TEC Award-winner George Massenburg says: "As a music mixing professional, I hear a dramatic world of possibilities mixing music in surround. For some time I've been looking for the right technology to make it easy for everyone to enjoy high-quality surround music. The technology will have to fit easily into existing delivery channels. It will have to offer a real stereo downmix solution. It will have to be scaleable and it will have to sound really good – good enough to pass modern critical listening evaluations conducted by impartial professionals – like me. Well, that solution is Fraunhofer's MPEG Surround"

About MPEG Surround
MPEG Surround is the ISO standard for high-quality multi-channel sound that allows for surround distribution at stereo bit rates while offering near-transparent sound quality. It is a generic multi-channel extension operating on top of perceptual audio codecs. In combination with an HE-AAC stereo core, a 5.1 audio signal can be transmitted at a total bit rate as low as 48 - 64 kbit/s. Because the 5.1 signal is compatible to existing stereo or mono devices, there is no need for simulcast. MPEG Surround enables an easy and cost-efficient transition from mono/stereo to multi-channel. For more information on MPEG Surround, visit www.iis.fraunhofer.de/amm.
MPEG Surround patent licensing terms are available at www.vialicensing.com/licensing/MPEGSurround_index.cfm.
In addition, CES attendees can experience Fraunhofer's high-fidelity, lossless audio codec, HD-AAC, that holds the potential to make CD collections obsolete, the brand new mp3D surround that enables surround sound over conventional stereo headphones as well as SX Pro, the formidable professional solution for stereo-to-multi-channel upmix.

About Fraunhofer IIS
Founded in 1985, the Fraunhofer Institute for Integrated Circuits IIS in Erlangen, Germany, today with 585 staff members, ranks first among the Fraunhofer Institutes concerning headcount and revenues. As the inventor of mp3 and co-inventor of the MPEG AAC audio coding standard, Fraunhofer IIS has reached worldwide recognition.
It provides research services on a contract basis and technology licensing. The research topics are: Audio and video source coding, multimedia realtime systems,

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digital radio broadcasting and digital cinema systems, integrated circuits and sensor systems, design automation, wireless, wired and optical networks, localization and navigation, imaging systems and nanofocus X-ray technology, high-speed cameras, medical sensor solutions and communications technology in transport and logistics. The budget of 72 million Euro is mainly financed by projects from industry, the service sector and public authorities. Less than 25 percent of the budget is subsidized by federal and state funds.
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US PR Contact:
John Tsantes,
Tsantes Consulting Group,
jtsantes@tsantes.com,
Direct: 408.426.4904,
Mobile: 408.309.9926

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Integrated Circuits IIS**

Am Wolfsmantel 33
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**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

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