

**Sarnoff Licenses TakeCharge® ESD Design Solution IP To
Matsushita**
First Application in HV-CMOS ICs

License Agreement Enhances Matsushita/Sarnoff Strategic Cooperation

Belgium, November 16th, 2004 – Sarnoff Europe (www.sarnoffeurope.com) today announced that Matsushita Electric Industrial Co, Ltd., acting through its Semiconductor Company in Kyoto, Japan, has licensed Sarnoff's TakeCharge® on-chip electrostatic discharge (ESD) design solution portfolio. The first applications are in high-voltage CMOS (HV-CMOS) integrated circuits.

“TakeCharge technology can reduce the capacitance of the input and output (I/O) pins of HV-CMOS IC's. Therefore, its application can reduce the power required to drive the data bus,” said Fumihisa Nakamura, Category Director, Display Driver and PDP, System LSI Division of Matsushita Semiconductor Company.

“We are proud to be working with Matsushita, one of the world's premier suppliers of driver ICs to the fast growing and competitive consumer market for large flat panel displays,” said Koen Verhaege, Director of ESD Design Solutions & Executive Director of Sarnoff Europe.

In addition to reducing power consumption at the chip level, the use of TakeCharge technology for chip design can significantly impact size and cost at the system level, according to Verhaege. Because the redesigned I/Os are compatible with higher-speed data buses, the same data transfer rate can be handled over fewer I/O and signal lines. This can markedly reduce system size and cost.

TakeCharge has been licensed to leading semiconductor companies in Japan and around the world.

More information is available by contacting:

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About Sarnoff Europe

Sarnoff Europe bvba (www.sarnoffeurope.com) located in Gistel, Belgium, is a subsidiary company of Sarnoff Corporation. Sarnoff Europe assumes worldwide responsibility for the development and commercialization of the TakeCharge® on-chip ESD protection IP portfolio.

About Sarnoff

Sarnoff Corporation (www.sarnoff.com) produces innovations in electronic, biomedical and information technology that generate successful new products and services for clients worldwide. Founded in 1942 as RCA Laboratories, it develops breakthroughs in ICs, lasers, and imagers; drug discovery, manufacture and delivery; digital TV and video for security,

surveillance, and entertainment; high-performance networking; and wireless communications. Its history includes the development of color TV, the liquid-crystal display, and the disposable hearing aid, and a leadership role in creating the new U.S. digital and HDTV standard. Sarnoff also founds new companies to bring its technologies to market. It is a subsidiary of SRI International.