

Contact: Tom Lento

For Immediate Release

609-734-3178

## **New Japan Radio Achieves Significantly Smaller Die Sizes For LCD Driver ICs With New Design Technology**

*NJR Engineers Use Sarnoff's TakeCharge<sup>®</sup> Technology To Get More ICs Per Wafer; Devices Fully Robust Against Electrostatic Discharge and Latch-Up*

KAMIFUKUOKA CITY, JAPAN / GISTEL, BELGIUM (September 5, 2002)—  
New Japan Radio (NJR, [www.njr.co.jp](http://www.njr.co.jp)), the Kamifukuoka-based provider of integrated circuits, today announced that its engineering team has achieved a reduction of 33% in driver size and a drastic decrease in overall device size for LCD driver ICs. The company used a customized version of the TakeCharge<sup>®</sup> design technology, developed by Sarnoff Corporation ([www.sarnoff.com](http://www.sarnoff.com)) of Princeton, NJ and marketed by Sarnoff Europe ([www.sarnoffeurope.com](http://www.sarnoffeurope.com)) of Gistel, Belgium, to get these results.

NJR predicts its new, more cost-effective IC design can help LCD display manufacturers improve their competitive positions. The technology also improves IC performance in the areas of speed and bandwidth, while it maintains the chip's protection against electrostatic discharge (ESD) and Latch-Up (LU).

“Smaller ICs can help LCD display manufacturers meet the cost pressures they face, and also offer an opportunity to develop even more compact designs,” said Ryo Ogura, the ESD project leader and Managing Director of NJR. “Our engineers achieved this breakthrough IC design for our customers just 8 months after we implemented the new technology, with no redesigns required.”

Driver ICs are crucial components in LCD displays. Low cost driver ICs for higher resolution screens are needed to meet market demand for high-performance LCD displays. NJR's new ICs are 0.6um high-voltage CMOS devices.

—MORE—

NJR licensed TakeCharge<sup>®</sup> from Sarnoff Corporation, the successor to RCA Laboratories, which originally invented the CMOS process. The license is a technology transfer arrangement under which NJR can apply TakeCharge<sup>®</sup> to future IC designs.

“This is an amazing result on NJR’s part,” said Koen Verhaege, Technical Director of Device Design at Sarnoff and Executive Director of Sarnoff Europe. “They have really pushed the technology into an area beyond what we predicted.”

“Getting more dies on a wafer is certainly the major benefit of what NJR has done, but it’s worth noting that by using TakeCharge<sup>®</sup> they have also avoided ESD susceptibility problems you often see in advanced and high voltage IC designs.”

NJR is currently planning to apply TakeCharge<sup>®</sup> to other IC product lines and silicon process technologies. The technology has also been proven in 0.5, 0.35, 0.25, 0.18, 0.13, 0.11, and 0.10 micron CMOS and SiGe BiCMOS. It is being customized in 0.065 micron processes as well.

TakeCharge<sup>®</sup> is available for immediate licensing. More information is available by contacting:

Tom Lento  
Sarnoff Corporation  
TEL (609) 734-3178  
FAX (609) 734-2040  
[tlento@sarnoff.com](mailto:tlento@sarnoff.com)

Inge Vercauysse  
Sarnoff Europe bvba  
tel +32-59-275-915  
fax +32-59-275-916  
[ivercauysse@sarnoffeurope.com](mailto:ivercauysse@sarnoffeurope.com)

###

#### **About New Japan Radio**

New Japan Radio (NJR, [www.njr.co.jp](http://www.njr.co.jp)) was founded in 1959 by the Japan Radio Company Limited, a pioneer in microwave and semiconductor technologies. Today NJR is a major manufacturer of silicon ICs, including bipolar, MOS, and BIMOS IC's; of GaAs IC's; and of microwave products. Production of bipolar and linear MOS ICs alone, for use in power supply circuits and operational amplifiers, totals 200,000,000 pieces per month. Through the fusion of LSI and microwave technologies the company is poised to meet the demands of the multimedia age. NJR is listed in the first section of the Tokyo Stock Exchange.

### **About Sarnoff**

Sarnoff Corporation ([www.sarnoff.com](http://www.sarnoff.com)), a subsidiary of SRI International, creates and commercializes electronic, biomedical and information technology for clients worldwide. Founded in 1942 as RCA Laboratories, it produces innovations in such areas as integrated circuits, lasers, and imagers; computational drug discovery and drug manufacture and delivery; digital TV and video; high-performance networking; and wireless communications. Its history includes the development of color TV, the liquid-crystal display, 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. SarnoffEurope ([www.sarnoffeurope.com](http://www.sarnoffeurope.com)), a wholly-owned subsidiary, markets Sarnoff's TakeCharge<sup>®</sup> technology.