

Media Contacts:

Denise Garibaldi
NEC Electronics America, Inc.
1 (408) 588-6620
denise.garibaldi@am.necel.com

Jessica Kerr
Porter Novelli
1 (408) 369-4637
jessica.kerr@porternovelli.com

**NEC Electronics America Announces New Intelligent Power Device
for Automotive Applications**

***Device Enables Compact, Light-Weight Electronic Control Units
through Use of Semiconductor Switches***

SANTA CLARA, Calif., January 12, 2006 — To further strengthen its automotive semiconductor business, NEC Electronics America, Inc., today announced the uPD166007 intelligent power device (IPD) for use in on-board electronic control units (ECUs) supporting applications such as headlights, anti-lock braking systems and air conditioners. In this new device, the mechanical switches or relays conventionally used to control these units have been replaced by semiconductors to enable smaller and lighter electronic control units (ECU) with improved on/off control and high reliability. This innovation frees cabin space and contributes to a lower environmental impact by reducing engine load. Another environmental benefit is achieved through the uPD166007 IPD's lead-free design.

In recent years, the number of electronic devices employed in vehicles has increased at a remarkable rate, creating a corresponding increase in on-board ECUs. To help reduce the demand these ECUs place on the engine, switches with higher performance and higher reliability are needed. To meet these requirements, NEC Electronics' uPD166007 IPD allows ECUs to be more compact for better integration into vehicle cabins. Additionally, as it uses semiconductors, the uPD166007 IPD does not suffer from the reliability issues that can affect mechanical relays due to contact wear.

A specific switching control function limits rapid fluctuations in output current, and thereby reduces electromagnetic noise and improves ECU performance, while a current-sensing function monitors current flow during normal operation, and a diagnosis function detects overcurrent and overheating. Support for these features enables an accurate grasp of the output status and the detection of abnormalities.

The uPD166007 IPD uses a stacked construction in a multi-chip package (MCP) and features vertical-type, field-effect transistors (FET) having a UMOS trench cell structure. This structure has a solid track record for low resistance and low heat generation, and with an on-resistance of 10 m Ω (see note), the uPD166007 IPD is ideal for use in on-board control units. The device comes in a compact TO-252 package with five external pins in line with JEDEC standards.

NEC Electronics America Announces New Intelligent Power Device for Automotive Applications

More information about NEC Electronics America's products for automotive applications can be found at <http://www.am.necel.com/automotive>.

Availability

Mass production of approximately one million units per month is scheduled to start in the second quarter of 2006. Availability is subject to change without notice.

About NEC Electronics America, Inc.

NEC Electronics America, Inc., headquartered in Santa Clara, California, is a wholly owned subsidiary of NEC Electronics Corporation (TSE: 6723), a leading provider of semiconductor products encompassing advanced technology solutions for the broadband and communications markets; system solutions for the mobile, PC, automotive and digital consumer markets; and multi-market solutions for a wide range of customer applications. NEC Electronics America offers a local manufacturing facility in Roseville, California, and the global manufacturing capabilities of its parent company. NEC Electronics America is also the marketing and sales channel in the Americas for industrial-type active-matrix LCD modules from NEC Technologies, Ltd., a global leader in innovative display technologies. More information about NEC Electronics America's products can be found at <http://www.am.necel.com>.

****Note:** On-resistance refers to the resistance when a MOSFET operates in "on" state. The lower the on-resistance, the larger the current flowing through the MOSFET.

###

NEC Electronics and NEC Electronics America are either registered trademarks or trademarks of NEC Electronics Corporation in the United States and/or other countries. All other registered trademarks or trademarks are property of their respective owners.