Sandia LabNews

Labs Accomplishments 2009

1. Please check the ONE most-appropriate category:

__ Nuclear weapons engineering (incl. surety, survivability, etc.)	__ Weapons security (safeguards, transport, incident response, etc.)	__ Product realization (incl. NW design, manufacture, etc.)
__ Remote sensing (electronics for global awareness, verification, surveillance, reconnaissance, etc.)	_X_ Military programs (incl. military systems, missile defense, defense technology products & support, etc.)	__ Energy (nuclear energy, alternative energy, fossil fuels, water, energy security, etc.)
__ Global security (nonproliferation, global threat reduction, international maritime security, etc.)	__ Homeland security (incl. materials detection, event mitigation, force protection, border security, etc.)	__ Infrastructure protection
__ Bioscience	__ Computer & information sciences (incl. modeling & simulation, visualization, etc.)	__ Engineering sciences (incl. experimentation, validation, predictive simulation, etc.)
__ Materials (nano, materials processing, reliability, etc.)	___ Microelectronics & Microsystems	__ Pulsed Power
__ Partnerships & alliances	__ HR, Finance, & Legal	__ ES&H & Security
__ IT, networks, & facilities	__ Supply chain	__ Other (specify) _____ (ex.: Management)

2. SMU: Indicate which SMU(s) this project supports (required)? ___DS&A_____

3. Description of accomplishment: Be brief (**85 words**) and lively. Remember that this is for a general audience. Emphasize significance and/or potential application, interest to customers, etc. Avoid acronyms. Include center numbers at end of item for all centers that made significant contributions. Accomplishment should have occurred largely during FY08.
[Write here: 85 words or less]
The Key Data Processor (KDP) is a custom microcircuit that securely provides the next-generation cryptography mandated for all military Global Positioning System (GPS) receivers by the Joint Chiefs of Staff. Sandia's trusted design center pioneered numerous external interfaces and processes to successfully develop this first major microelectronic product fabricated in DoD's IBM Trusted Foundry. Sandia demonstrated first pass success with the 130nm KDP-III system, which has seamlessly been integrated into two receiver platforms. Sandia has now generated a KDP-IV design on the 90nm IBM process. (1700, 2600, 5600, 12300)

4. Illustrations: IMPORTANT: If you have a photo, drawing, or chart, please provide it, along with a brief caption. Submit electronically via e-mail in jpg, tif, PhotoShop, or other common format. (PowerPoint images or images embedded in Word files don't work as well.) Please be sure to label any separate graphics file in such a way that it can be readily associated with the written submission.
[Caption here: KDP-III Test Chip]

KDP-III Test Chip.jpg

5. Submitted by: (include name, phone, org. number, and email): Rita Gonzales, 1735, 844-9726.

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