Exhibit R-2, RDT&E Budget Item Justification				Date: February 2005				
Appropriation/Budget Activity RDT&E Defense-Wide, BA 5				R-1 Item Nomenclature: Trusted Foundry PE 0605140D8Z				
Cost ($ in millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost		30.000	31.655	41.860	44.189	42.444	42.260	42.364

A. Mission Description and Budget Item Justification:

The Department of Defense (DoD) and National Security Agency (NSA) require state-of-the-art microelectronics parts for incorporation into systems to satisfy existing and future DoD and NSA Information Assurance Directorate (IAD) and Signal Intelligence Directorate (SID) programs. The Director, NSA, has provided a mandate to continue operation of wafer manufacturing and mask-making in the Special Processing Laboratory (SPL), at least through FY 2006, to produce custom microelectronic parts for DoD/NSA and other external government consumers. The cost estimate to initially upgrade the SPL to keep pace with next generation NSA requirements is $1.7 billion. The estimate is beyond NSA's means. Advanced technology semiconductors are integral to a range of important capabilities and defense systems. Indeed, secure communications and cryptographic applications depend heavily upon high performance semiconductors where a generation of improvement can translate into a significant force multiplier and capability advantage. Important defense technology investments and demonstrations carry size, weight, power, and performance goals that can only be met through the use of the most sophisticated semiconductors. The SPL is not currently able to provide this cutting edge level of product, nor is it cost effective to incorporate the necessary improvements to attain such performance. Therefore, NSA has looked to commercial sources to satisfy their requirements. At the same time these needs have escalated, a variety of technical and economic pressures have eliminated many domestic on-shore suppliers and access to trusted fabrication sources for advanced technology semiconductors has declined. This trend is alarming to those uneasy about maintaining U.S. national competitiveness, but is of acute concern to the defense and intelligence community. Access to a Trusted Foundry is imperative to ongoing and future DoD/NSA systems, and most centrally, Trusted Foundry assess is absolutely necessary to meet secure communication and cryptographic needs.

The Trusted Foundry Program is a combined DoD-NSA project to develop and manufacture Application Specific integrated Circuits (ASICs) for critical DoD systems in a secure industrial environment. The Trusted Foundry process assures ASIC integrity from development and design through final delivery from NSA designated ASIC production facilities. ASD (NII) designates critical DoD systems to participate in the Trusted Foundry program. Identified Program Offices coordinate with NSA Trusted Foundry Program Office to design and deliver ASICs meeting DoD system specifications. The ASICs are provided to DoD programs as Government Furnished Equipment (GFE).

FY 2004 Accomplishments: N/A

FY 2005 Plans ($30.000 million)

Provides custom integrated circuits for the U.S. Army, U.S. Navy, U.S. Air Force, and Defense Advanced Research Projects Agency (DARPA) to satisfy requirements under the Defense Trusted Integrated Circuit Strategy (DTICS). Mostly prototype developments for these activities will occur this year; however, some production is possible. Funding will also purchase dedicated secure communications equipment and facility modifications necessary to clear the IBM fabrication facility in Burlington, Vermont.

FY 2006 Plans ($31.655 million)

Provides additional integrated circuits for the U.S. Army, U.S. Navy, U.S. Air Force, and DARPA to satisfy new and on-going programs. New product developments will occur, as well as production parts for some of the prototype developments sponsored the previous year(s). Funding will also purchase dedicated secure communications equipment and facility modifications necessary to clear the IBM fabrication facility in East Fishkill, New York. Maintenance support for the facility infrastructure equipment in Vermont and New York is also included.

FY 2007 Plans ($41.860 million)

Provides additional integrated circuits for the U.S. Army, U.S. Navy, U.S. Air Force, and DARPA to satisfy new and on-going programs. Costs are projected to be higher due to increased number of parts estimated and cost increases necessary to procure advanced technology parts. New product developments will occur, as well as production parts for some of the prototype developments sponsored the previous year(s). Maintenance support for the facility infrastructure equipment in Vermont and New York is also included.

B. Program Change Summary: N/A

C. Other Program Funding Summary:

Replicate the funding shown above A. and label as NSA support to the Trusted Foundry Program.

D. **Acquisition Strategy**:

NSA has negotiated a “take or pay” contract with IBM with 10 one year options going through FY 2013. IBM will provide custom integrated circuit parts in production and prototype quantities to meet DoD/NSA needs.

E. **Performance Metrics**:

All delivered parts will meet IBM standard commercial requirements. Any damaged or misprocessed parts will be replaced free of charge.