Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Defense Logistics Agency	Date: March 2024
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 3: *Advanced Technology Development (ATD)*	**R-1 Program Element (Number/Name)** PE 0603720S *I Microelectronics Technology Development and Support (DMEA)*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	1,451.165	201.075	144.707	137.246	-	137.246	140.579	146.204	149.695	153.721	Continuing	Continuing
004: *Defense MicroElectronics Activity (DMEA)*	1,451.165	201.075	144.707	137.246	-	137.246	140.579	146.204	149.695	153.721	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Microelectronics Activity (DMEA) mission is to leverage advanced technologies to provide microelectronics solutions across the entire spectrum of technology development and system acquisition phases. It is critical to National Security for the Department to maintain technological superiority through microelectronics solutions via partnerships with the Defense Industrial Base, and by alternative means when industry is unable or unwilling to provide them. DMEA provides an in-house capability to quickly develop and deliver timely, cost-effective, technically appropriate solutions to sustain weapon systems, to modernize their capabilities, increase their lethality, address new threats, and meet operational demands. DMEA augments its in-house capability through extensive industry and Government partnerships, which enable streamlined access to a variety of microelectronics technologies and engineering services to enhance responsiveness and develop sources for advanced microelectronics solutions.

DMEA's capabilities are critical in an atmosphere of diminishing domestic semiconductor manufacturing capability and increasing worldwide supply chain risks. The Department has very little influence over the microelectronics industry; the defense market represents less than 0.1% share of the total global semiconductor market. Access to mainstream, State of the Practice (SOTP) and State of the Art (SOTA) technologies is therefore a major and growing challenge. Threats to defense microelectronics include counterfeiting, latent vulnerabilities, malicious insertions, reliability issues particular to military environments, consolidation and off-shoring of manufacturing, rapid obsolescence and diminishing technology availability coming from an unpredictable and unsecured supply chain. In addition, as the Department maintains its weapon systems longer than originally planned, extended use increases demand for sustainment and modernization, which further intensifies the need for DMEA's unique capabilities.

DMEA provides the Department with engineering expertise and laboratories to address the myriad of microelectronics issues and to meet military requirements across the entire spectrum of technology research and development, acquisition, and long-term support. DMEA applies its specialized capabilities to resolve microelectronics issues for hundreds of distinct Department programs across the acquisition lifecycle every year. In addition, DMEA assists the Combatant Commands (COCOMs) including Special Ops, Cyber, Intelligence, and the Radiation-Hard communities.

DMEA also manages the Trusted Foundry Program which provides the Department with access to SOTA microelectronics manufacturing capabilities with the added benefit of Trust when required. This program administers and manages a robust ecosystem of accredited suppliers that meet the Departments requirements for semiconductor assurance per DoDI 5200.44. This program also provides the Department with the most advanced ASIC technology's available in a Trusted or ITAR assurance level. The program also provides for a Multi-Project Wafer (MPW) program that enables the DoD to transfer research and prototyping into production acquisition programs.

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B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	207.333	144.707	147.472	-	147.472
Current President's Budget	201.075	144.707	137.246	-	137.246
Total Adjustments	-6.258	0.000	-10.226	-	-10.226
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-6.258	-			
• Program Increases: M365 Enterprise Licensing Upgrade & Non-labor Inflation	-	-	0.257	-	0.257
• Program Decrease	-	-	-10.483	-	-10.483

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2023	FY 2024
Project: 004: *Defense MicroElectronics Activity (DMEA)*		
Congressional Add: *Functional Transfer from line 101, Trusted and Assured Microelectronics*	12.500	-
Congressional Add: *Advanced node semiconductors*	10.000	-
Congressional Add: *Enhanced RF microelectronics production*	35.000	-
Congressional Add: *Secure advanced on-shore test capability*	10.000	-
Congressional Add Subtotals for Project: 004	67.500	-
Congressional Add Totals for all Projects	67.500	-

Change Summary Explanation

FY 2025 Program Increase: M365 Enterprise Licensing Upgrade - DISA transfer funds to the services and Defense organizations to enable DoD components to buy Microsoft 365 (M365) ES license upgrades for their respective users.

FY 2025 Program Decrease: Reduction to fund higher DoD priorities.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Defense Logistics Agency			Date: March 2024
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603720S / *Microelectronics Technology Development and Support (DMEA)*	Project (Number/Name) 004 / *Defense MicroElectronics Activity (DMEA)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
004: *Defense MicroElectronics Activity (DMEA)*	1,451.165	201.075	144.707	137.246	-	137.246	140.579	146.204	149.695	153.721	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

DMEA maintains an in-house ability to quickly develop and deliver timely, cost-effective, technically appropriate solutions to sustain weapon systems, to modernize their capabilities, increase their lethality, address new threats, and meet operational demands. These funds also support DMEA's ability to partner with industry, other Government agencies, and academia to enable streamlined access to a variety of microelectronics technologies and engineering services.

These funds enable DMEA to provide increasingly rare government microelectronics design, fabrication, and test expertise to DoD programs. DMEA's knowledge of varying military requirements across a broad and diverse range of combatant environments and missions—along with its unique technical perspective—allows it to develop, manage and deliver novel, decisive, quick-turn microelectronics solutions for defense, intelligence, special operations, cyber and combat missions.

These funds allow DMEA to maintain and enhance critical, microelectronics design, aggregation, fabrication, post-processing, assembly, hardware assurance and analysis capabilities to ensure that the Department is provided with solutions that enable or maintain the warfighter's technological superiority over potential adversaries. These solutions use high mix, low volume, unique microelectronics that are endemic to military requirements but are not commercially available. In addition, funding provides for the development and sustainment support necessary to ensure availability of microelectronics technologies in accordance the Department's needs and facilitates the Trusted Supplier Accreditation program required by DoDI 5200.44.

DMEA will continue to manage and operate the Trusted Access Program Office (TAPO) to facilitate DoD and US Government access to state-of-the-art microelectronics manufacturers, including Trusted Foundries, for secure production runs and manufacturing and production planning for wafers, dies, and modules. DMEA will also continue to accredit trusted suppliers and leverage its designation by Secretary Austin as a Center for Industrial Technical Excellence (CITE) and continue to support small runs of DoD-critical microelectronics and semiconductors both inside and outside DoD. The CITE designation also delegates the authority to DMEA to establish Public Private Partnerships (PPP).The Department, other US Agencies, and the Intelligence Community require uninterrupted access to semiconductor processes to produce custom integrated circuits designed specifically for military purposes. DMEA, via the TAPO, partners with industry to provide the required solutions, and the necessary access to commercial SOTA microelectronics semiconductor capabilities to meet confidentiality, integrity, availability, performance and delivery needs. A critical element required to enable continued success is DMEA's protection of the industry partners' valuable Intellectual Property (IP). DMEA is an agile, Government-owned-and-operated organization, providing the structure and confidence necessary to assure them that commercial IP is protected from potential competitors. This strategic and cooperative industry partnership approach allows DMEA to use industry-developed IP by acquiring, installing, and applying them toward meeting the immediate and long-term needs of the Department. This unique capability is essential to all major weapon systems, combat operations, and support needs. As such, DMEA serves the Department, other US Agencies, industry and Allied nations.

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Programs that DMEA has recently provided critical support to include CH-53E Sea Stallion, Virginia, Class Submarines, Columbia Class Submarines, UH-60 Blackhawk, Air Force Air Combat Command, US Army Corps of Engineers, E-3 AWACS, Military GPS User Equipment, NASA Parker Solar Probe, Naval Research Laboratory High Power Microwave Office, among many others.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Defense Microelectronics Activity Accomplishments/Plans	133.575	144.707	137.246
FY 2024 Plans: DMEA will design, develop, and demonstrate microelectronics concepts, advanced technologies, and applications to solve operational problems. DMEA will apply advanced technologies to add performance enhancements in response to the newest asymmetric threats and to modernize and sustain aging weapon systems. To meet the increased missions seen in the last several years by CCMDs, Special Operations, and the Intelligence Community, DMEA will extend and refresh capability by recapitalizing and modernizing its aging laboratory infrastructure, all to meet quick turn solutions on which CCMDs and Special Operations can rely. DMEA will continue to act as the program manager for the Trusted Foundry Program and will provide the Department with access to state-of-the-art microelectronics semiconductor capabilities with the added benefit of Trust, if necessary, to meet their confidentiality, integrity, availability, performance and delivery needs via the Trusted Access Program Office. The program also provides the Services and other agencies with a competitive cadre of accredited Trusted suppliers that can meet the needs of their mission critical/essential systems for Trusted integrated circuit components. The TAPO has contracted with commercial sources to satisfy state-of-the-art semiconductor requirements. DMEA will foster all viable alternatives to continue the vital supply of Trusted microelectronics, including the work of the DMEA TAPO with commercial state-of-the-art industry. In areas where Trust is not available, DMEA will support the Department in semiconductor assurance pilots and frameworks as needed.			
FY 2025 Plans: DMEA will design, develop, and demonstrate microelectronics concepts, advanced technologies, and applications to solve operational problems. DMEA will apply advanced technologies to add performance enhancements in response to the newest asymmetric threats and to modernize and sustain aging weapon systems. To meet the increased missions seen in the last several years by CCMDs, Special Operations, and the Intelligence Community, DMEA will extend and refresh capability by recapitalizing and modernizing its aging laboratory infrastructure, all to meet quick turn solutions on which CCMDs and Special Operations can rely. DMEA will continue to act as the program manager for the Trusted Foundry Program and will provide the Department with access to state-of-the-art microelectronics semiconductor capabilities with the added benefit of Trust, if necessary, to meet their confidentiality, integrity, availability, performance and delivery needs via the TAPO. The program also provides the Services and other agencies with a competitive cadre of accredited Trusted suppliers that can meet the needs of their mission critical/essential systems for Trusted integrated circuit components. The TAPO has contracted with commercial sources to satisfy state-of-the-art semiconductor requirements. DMEA will foster all viable alternatives to continue the vital supply of Trusted microelectronics,			

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
including the work of the DMEA TAPO with commercial state-of-the-art industry. In areas where Trust is not available, DMEA will support the Department in semiconductor assurance pilots and frameworks as needed. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** FY 2025 baseline was reduced to fund higher DoD priorities.			
Accomplishments/Planned Programs Subtotals	133.575	144.707	137.246

	FY 2023	FY 2024
Congressional Add: Functional Transfer from line 101, Trusted and Assured Microelectronics ***FY 2023 Accomplishments:*** Funds were used to supplement the TAPO MPW program.	12.500	-
Congressional Add: Advanced node semiconductors ***FY 2023 Accomplishments:*** Initiated a pilot phase (engineering trade study) which utilized an existing U.S. based “Trusted” 300mm 12nm fab to develop a ferroelectric stack on a 12nm process with performance goals encompassing boosts in equivalent to three process nodes across both memory and logic.	10.000	-
Congressional Add: Enhanced RF microelectronics production ***FY 2023 Accomplishments:*** Continued TAPO’s efforts (phase 4) on scaling and establishing a domestic dual use 200mm Gallium Nitride (GaN) on Silicon (Si) source at a high volume DMEA accredited Trusted Supplier.	35.000	-
Congressional Add: Secure advanced on-shore test capability ***FY 2023 Accomplishments:*** Augmented, moved, or increased capacity to TAPO’s existing secure enclave for the use of the Department.	10.000	-
Congressional Adds Subtotals	67.500	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A