April 30, 2024

The Honorable Ken Calvert  
Chair  
Subcommittee on Defense  
House Committee on Appropriations  
Washington, DC 20515

The Honorable Jon Tester  
Chair  
Subcommittee on Defense  
Senate Committee on Appropriations  
Washington, DC 20510

The Honorable Betty McCollum  
Ranking Member  
Subcommittee on Defense  
House Committee on Appropriations  
Washington, DC 20515

The Honorable Susan Collins  
Ranking Member  
Subcommittee on Defense  
Senate Committee on Appropriations  
Washington, DC 20510

Dear Chair Calvert, Chair Tester, Ranking Member McCollum, and Ranking Member Collins:

As the chief executives of leading U.S. electronics manufacturing companies, we are writing to inform your committees that the United States faces serious risks in the electronics supply chain for defense systems, and those risks could grow worse under the administration’s FY2025 budget request.

The FY2025 budget request for the Defense Production Act Purchases (DPAP) program does not request any FY25 funding to continue addressing the critical industrial base shortfall identified by Presidential Determination 2023-06 on Printed Circuit Boards (PCBs) and Advanced Packaging. **We urge you to appropriate at least $479.135 million for DPAP and include language directing the Secretary of Defense to prioritize printed circuit board investments in FY2025.**

This figure would be $85.758 million over the President’s budget request — the same amount budgeted for FY24 investments in *Advanced Packaging and Printed Circuit Boards*. This increase would represent just 0.01% of the total defense budget request. However, it would continue to be a critically important investment in a technology that is at the heart of virtually all electronics in the defense budget. Defense technologies ranging from sensors to satellites to the fuses in every shell fired require a PCB.

Even though technological superiority is a core strategic principle underlying U.S. national security the electronics manufacturing industry has been offshored over the last 30 years to the point
that, today, the U.S. industrial base is unable to manufacture the quantity and quality of electronics needed for U.S. defense technologies.

As a result, U.S. industry today lacks not just the capacity, but also the know-how and the capability to manufacture the most cutting-edge PCBs to enable the use of the most advanced semiconductors and technology designs.

President Biden’s March 2023 Presidential Determination naming PCBs and advanced packaging as a critical industrial base shortfall, was badly needed recognition that the supply chain for U.S. defense electronics is on a risky foundation. Any disruption in the supply chain would limit the ability to source advanced PCBs from abroad and would ripple across the entire national security ecosystem with catastrophic effects.

The Defense Production Act can provide critically needed investments to bring the U.S. industry in line with the current state-of-practice across the globe. These investments will fund research and development as well as retooling of facilities to enable more advanced manufacturing processes. To be clear, the DPA investments are not only related to R&D; rather, they would fund a triage effort to build minimally viable capability for defense-only needs. A much greater complementary effort will be needed if the U.S. is going to manufacture electronic systems based on the leading-edge semiconductors being fabricated in Arizona, New York, and Ohio courtesy of the CHIPS and Science Act. On its current course, the CHIPS Program will produce leading-edge chips that will still need to be shipped overseas to be placed on PCBs and interconnected with other components to create usable systems.

While we understand the effort to exercise restraint in the overall defense budget number, a decision to forgo FY25 funding for PCBs would generate miniscule savings; forestall efforts to build an industrial base capable of supplying critical electronics; and do so at the same time that U.S. adversaries are continuing to charge ahead.

The Department of Defense is currently faced with a requirement to wean itself off of PCBs from China, Iran, North Korea, and Russia by 2027. It is unclear how they plan to meet this requirement, given the current industrial base shortfall. Today the U.S. produces only 4% of the global supply of printed circuit boards, and less than 1% of IC substrates.

The DPAP showed progress in 2023, making two awards for PCBs and substrates. However, a few projects cannot reverse more than 30 years of technology loss. Sustained investment must continue to create a secure and resilient supply chain for defense technologies. It is both cost-effective to do so and essential to guard against any disruption of global trade. Your committees can protect taxpayers’ investments across all defense systems by helping to reinforce and upgrade the domestic PCB manufacturing industry.

We urge you to carry forward funding for “Advanced Packaging and Printed Circuit Boards” by increasing overall funding to the Defense Production Act Purchases account and by including
report language directing the Secretary of Defense to prioritize investments in support of printed circuit board fabrication.

Sincerely,

Steven Lach  
President  
AGC Multi Material America Inc.

Doug Mann  
EVP Production Technology  
AGY

Kim Klatt  
Executive Vice President  
American Chemet Corporation

Anaya Vardyua  
CEO  
American Standard Circuits, LLC.

Michael Goeringer  
President  
ARC-Tronics Inc.

Christopher E. Kalmus, Ph.D.  
CEO  
Aurora Circuits

Richard Lies  
CEO  
Chemcut

Bradley Kurrell  
President  
Circuit Technology Services Inc.

Enrique Sanchez  
Process Engineer  
Cirexx International

Humberto Murillo Jr.  
Account Manager  
Data Electronic Systems

Michael Coll  
COO  
Denkai America

Edward Knutson  
CEO/ Founder  
Dimation Inc.

David Reichert  
Business Development Leader  
DuPont Specialty Products USA, LLC

Nilesh Naik  
Owner and President  
Eagle Circuits

James McNeal  
Vice President  
Electro Plate Circuitry, Inc.

Ernest Legiehn  
President  
EMX US Inc.
Edward McMahon  
CEO  
Epec Engineered Solutions

Dennis Fritz  
Owner  
Fritz Technology Consulting

Hershel Petty  
CEO  
Gorilla Circuits

Joe Hughes  
Vice President  
Hughes Circuits

Patrick Redfern  
President & CEO  
Insulectro

Travis Kelly  
CEO  
Isola Group

Sean Kincaid  
President  
K & F Electronics

Joseph J. D’Ambrisi  
EVP and Head of Electronics  
MacDermid Alpha Electronics Solutions

Jeff Cassell  
VP Sales  
Matrix Circuit Board Materials

Elias Malfavon  
President  
Metal Etch Services, Inc.

Nicole Russo  
CEO and Owner  
Microboard Processing, Inc.

Matthew Fehsenfeld  
President & CEO  
Midwest Printed Circuit Service, Inc.

Irka Zazulak  
President  
Modular Components National, Inc.

Albert Block  
Chief Manufacturing Strategist  
NI.

Zachariah Peterson  
Owner  
Northwest Engineering Solutions, LLC

Robert Lee  
President & CEO  
Pioneer Circuits, Inc.

Jerry Huang  
CEO  
PPSI

Melanie Bera Anderson  
CEO  
Pro-Tech Interconnect Solutions

Brian Buyea  
CFO  
Remtec Inc.

Steven Roy  
Managing Member  
Roy Design and Manufacturing Services, LLC

Hari Pillai  
President, Technology Components  
Sanmina Corporation

Michael Kuczynski  
Sr. Librarian/ Sr. Designer  
Siemens Healthineers
David Raby  
President & CEO  
STI Electronics, Inc

Shane Whiteside  
President & CEO  
Summit Interconnect

John Hauschild  
Managing Director  
TCLAD Inc.

Ian Hemmings  
President  
TCT Circuit Supply, Inc

David Griesel  
CEO  
The Sunrise Group (a division of INTERBIZ LLC)

Thomas T. Edman  
President & CEO  
TTM Technologies

John Shepard  
CEO  
Veterans Assembled Electronics  
d/b/a STRAC Institute

Mary Johnson  
CEO  
Wavelength Electronics

Dennis Brown  
CEO  
Winonics

Michael Seltzer  
Chief Commercial Officer  
Zentech Manufacturing

CC:

The Honorable Tom Cole  
Chair  
House Committee on Appropriations  
Washington, DC 20515

The Honorable Patty Murray  
Chair  
Senate Committee on Appropriations  
Washington, DC 20510

The Honorable Rosa DeLauro  
Ranking Member  
House Committee on Appropriations  
Washington, DC 20515