



BUILD ELECTRONICS BETTER

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May 30, 2023

The Honorable Patty Murray, Chair  
Senate Appropriations Committee  
Room S-128, The Capitol  
Washington, DC 20510

The Honorable Susan Collins, Vice Chair  
Senate Appropriations Committee  
Room S-128, The Capitol  
Washington, DC 20510

The Honorable John Tester, Chair  
Subcommittee on Defense  
Senate Appropriations Committee  
Room S-128, The Capitol  
Washington, DC 20510

The Honorable Susan Collins, Ranking Member  
Subcommittee on Defense  
Senate Appropriations Committee  
Room S-128, The Capitol  
Washington, DC 20510

Dear Chairs and Ranking Member,

As leaders in the electronics manufacturing industry, we write to urge Congress to allocate the appropriate resources to support robust implementation of the presidential determination on printed circuit boards (PCBs) and semiconductor advanced packaging. An FY 2024 appropriation of \$100 million from the Defense Production Act account would represent a meaningful first step in addressing the industrial base vulnerabilities related to PCB fabrication and semiconductor packaging. Making these investments is critical to the technological edge that is the hallmark of the U.S. defense industrial base.

PCBs are the critical foundation of all electronics, and as such, they are integrated into a wide array of defense technologies from avionics and satellites to tanks and munitions. The United States once boasted state-of-the-art PCB capabilities and more than 30% of global production. Now it lacks cutting-edge capabilities and accounts for only 3% of global production. The erosion of the PCB industry was highlighted in the [2022 Review of the ICT Supply Chain](#) produced by the Departments of Homeland Security and Commerce.

The U.S. manufacturing base for integrated circuit (IC) substrates is equally alarming. IC substrates are critical in semiconductor packaging, and packaging today is driving innovation. Packaging is what delivers a functional semiconductor component that can be integrated into an electronic assembly. The U.S. has far too little capacity in advanced packaging generally and a lack of capacity and capability in IC substrate fabrication specifically. The U.S., in fact, has only nascent IC substrate capabilities that are unable to meet even basic defense needs.

In the interest of national security and furthering U.S. leadership in microelectronics innovation, we urge your support for these strategically important segments of the electronics industry. We specifically urge you to appropriate \$100 million under the Defense Production Act to rebuild

the U.S. PCB industry and accelerate the establishment of a robust advanced packaging industry, which necessarily includes IC substate fabrication.

As executives who operate manufacturing facilities across the United States, we strongly support this request as critical to the growth of our innovation economy.

Sincerely,

Raj Dhanani, President  
**Advanced Circuitry International**  
**Duluth, GA**

Anaya Vardya, CEO  
**American Standard Circuits, Inc.**  
**West Chicago, IL**

Steve Robinson, President & CEO  
**APCT, Inc.**  
**Santa Clara, CA**

Michael Goeringer, President  
**Arc-Tronics, Inc.**  
**Elk Grove Village, IL**

Dr. Chris Kalmus, President & CEO  
**Aurora Circuits**  
**Aurora, IL**

Stephen Garcia, President  
**Bay Area Circuits**  
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Steve D. Vairo, President & CEO  
**Calumet Electronics Corporation**  
**Calument, MI**

Anthony Ambrose, President & CEO  
**Data I/O**  
**Redmond, WA**

Foad Ghalili, President & CEO  
**Epoch**  
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Leo Lambert, Vice President  
**Eptac**  
**Manchester, NH**

Tom Hauge, President  
**Fusion- EMS**  
**Hillsboro, OR**

George Schudy, President  
**Innovative Circuits**  
**Alpharetta, GA**

Travis Kelly, President & CEO  
**Isola Group**  
**Chandler, AZ**

Kunal Shah, President  
**liloTree**  
**Redmond, WA**

Roger Patel, CEO  
**National Technology Inc**  
**Rolling Meadows, IL**

Hari Pillai  
**Sanmina**  
**San Jose, CA**

Jay Schmidt, Executive VP  
**Silicon Forest Electronics**  
**Vancouver, WA**

Gerard O'Brien, President  
**Solderability Testing and Solutions, Inc.**  
**Richmond, KY**

David Raby, President & CEO  
**STI Electronics**  
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John Shepard  
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**Anaheim, CA**

Terry Heilman, CEO  
**Sunstone Circuits**  
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Tom Edman, CEO  
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**Costa Mesa, CA**

Neil Scanlon, President  
**Worthington Assembly**  
**South Deerfield, MA**