

# **MICROELECTRONICS**

# **POWERING AMERICAN DEFENSE**

Northrop Grumman's Microelectronics Center is comprised of two U.S.-based government-Trusted foundries and advanced packaging facilities. We design and deliver millions of mission-critical microelectronics annually to support next-generation defense and commercial systems. From design to fabrication, our mission-tailored microelectronics solutions deliver unparalleled performance for any application.

# **PIONEERING PROGRESS**

Northrop Grumman's advanced microelectronics are at the forefront of breakthrough technologies in both defense and commercial sectors. As a trusted leader for over 70 years, we excel in designing, manufacturing, assembling,

packaging, testing and delivering failproof microelectronics. Our talented and dedicated people are our greatest asset, driving our commitment to solving our customers' toughest challenges. This determination drives us to redefine the laws of physics and chemistry, break world records, set industry standards and advance our mission in microelectronics innovation.

# MICROELECTRONICS EXPLAINED

Microelectronics are advanced, hightech components designed on a microscopic scale, sometimes smaller than a grain of sand. They are crucial for powering electronic systems, from smartphones to space missions and are synonymous with microchips and semiconductors.



# **Chip Capacity**

Projected to manufacture more than 30 million microchips annually on U.S. soil by 2030



# **Award Winning Chips**

Since 1971 our revolutionary microchips have received global recognition winning 2 Emmy Awards and 2 Guinness World Records



# **Innovations**

We hold approximately 49 innovation awards made possible by our world-class scientists and engineers



# **MICROELECTRONICS FOR ANY MISSION** POWER **End-to-End Microelectronics Solutions** 4SSEMBLY

## **Power**

Enabling some of the world's most sophisticated systems—from the first smartphone to payloads for the James Webb Space Telescope.

Designing some of the highest performance microchips in the world-from NG Fabs to domestic commercial Fabs.

### **Fabricate**

Investing in infrastructure and production facilities on U.S. soil to deliver customizable, end-to-end microelectronics solutions.

Utilizing advanced automated techniques, we ensure each component is meticulously placed and secured.

Offering advanced packaging solutions, including post processing, wafer bumping, probing and dicing for greater efficiency.

## Integrate

By expertly integrating components into cohesive systems and platforms, we ensure top-tier performance, quality and innovation.

Evaluating our products throughout the entire process to ensure every device works, every time.

From engineering to manufacturing, testing and delivering, our vertical integration, tailored software configurations and hardware adaptations ensure we know how to meet each customer's needs. With an emphasis on flexibility and innovation, we fine tune every product to optimize performance.

# **ROBUST ADVANCED PACKAGING**

- Integrates semiconductor chips, components and materials into one package
- Utilizes 3D stacking, System-in-Package (SiP) and wafer-level packaging
- Delivers higher functionality and power in a smaller device

# **AMERICAN MADE**

- Exclusively manufacturing microelectronics in the U.S.
- Specialized foundries in California and Maryland
- Dedicated advanced packaging facility in Florida

# **WHY IT MATTERS**

- Powers hundreds of missions, from military systems to commercial technology
- Enhances efficiency, performance and reliability of electronic systems
- Ensures America leads in military strength and innovation





