



## Market & Solutions Overview

### Overview:

Ardent Concepts was founded in 2003 by Gordon Vinther to design interconnect solutions that could meet the challenges and demands presented by engineers seeking to create the world's fastest, highest performing electronic systems – supercomputers, servers, high-speed peripherals, network switches, PDA's and other consumer devices.

Located in Hampton, New Hampshire, today Ardent Concepts provides its products to global integrated circuit manufacturers and systems integrators, including IBM, Intel, Broadcom, Altera, Fairchild Semiconductor, BAE, Cisco, and Analog Devices. These and many other companies utilize Ardent's products to meet the ever-increasing need for greater speed, flexibility, and signal integrity in interconnect solutions.

### Industries/Applications:

- **Defense & Security** – Ardent Concepts' technology is tested and qualified for mil-spec applications using mezzanine connectors including: handheld radios, UAV systems, radar and satellite connectors, weapons systems, missile components, and monitoring equipment.
- **Medical Device** – Ardent interconnect products are used in medical device applications where flexible design and high performance are critical. Sample applications include surgical instruments, implantable devices, dispensary systems, and monitoring equipment.
- **Communications** – Durability and consistent performance are essential to companies in this sector. Ardent Concepts' products have been extensively tested and are proven to stand up over extended cycles and in ruggedized environments making them the preferred interconnect solution for radar systems, ruggedized laptops, hand-held communications systems, and antenna systems.
- **Computing** – Primary requirements in this sector include signal integrity at high speeds and a small footprint. Ardent's interconnect solutions are designed to meet these criteria; as such, they have seen wide use in the following applications: logic analyzers, networking equipment, and final package test equipment.

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**Semiconductor** – The electrical properties of connectors employed in semiconductor testing and evaluation are critical. Ardent’s technology not only provides the electrical characteristics required for high-speed testing and measurement but has proven to be a less expensive alternative to legacy solutions, enabling test engineers to cost effectively design solutions for demanding high-frequency applications.

#### **Solutions:**

Ardent Concepts is committed to developing the most innovative, robust, and cost-effective interconnect solutions in the industry – scalable solutions that deliver high-speed performance, flexibility, and ease of maintenance. The company offers a wide range of products – both off-the-shelf and custom interconnects – for chip to chip, chip to board, board to board, and flex to board applications. Ardent’s patented technologies are utilized in three primary types of interconnect solutions:

- **Test sockets**  
Engineers in test environments are generally focused on sockets that offer high performance at a lower cost. Ardent’s patented technology combined with industry-leading alloys provides a cost-effective and electrically robust socket solution for QFN/QFP sockets, BGA and LGA sockets, and test contactors for other small form factor devices. The company offers test sockets that are highly reliable for hundreds of thousands to millions of mating cycles.
- **Connectors & Interposers**  
Ardent’s precision engineering and rapid prototyping capabilities help engineers reduce lead times, footprints, and costs. Ardent delivers super high-speed connectors for prototypes while scaling to meet high-volume production demands. In short, the company’s technology is designed to provide high flexibility in design and rapid production of cost-effective interposers.
- **Commercial off-the shelf connectors**  
In addition to its custom products, Ardent offers engineers off-the-shelf commercial connectors to meet defined requirements and immediate needs. Ardent regularly adds new products to its commercial off-the-shelf connector portfolio.



“Our products offer the features, benefits, and performance that engineers and design teams are seeking as they look to develop next-generation electronics,” said Gordon Vinther, Ardent Concepts’ founder and president. “This, along with a long and proven track record in the industry, should continue to keep our technology and products in high demand both here in the US and around the world.”

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