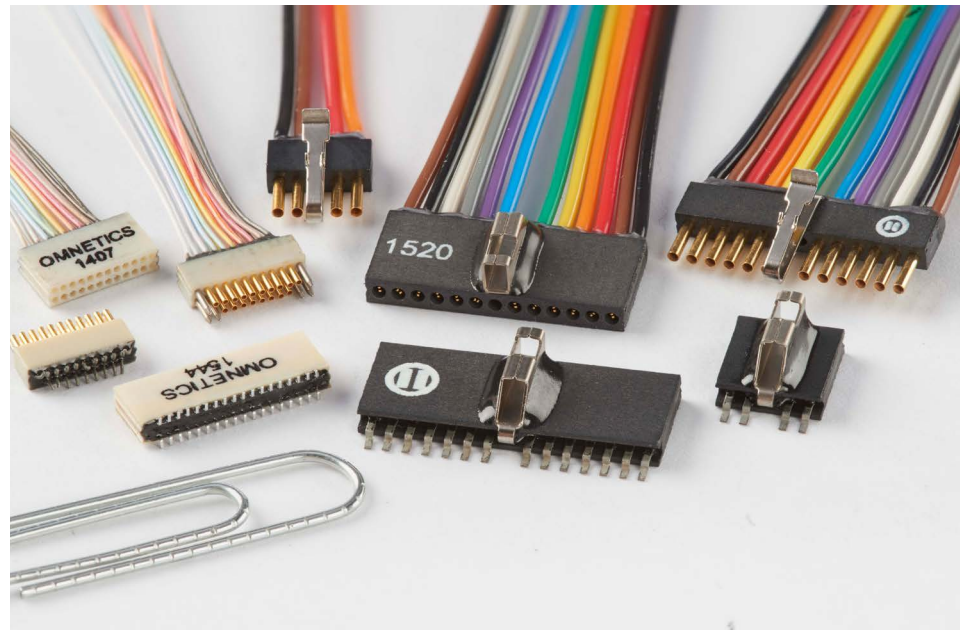


OMNETICS ADDS DIGI-KEY AS A NEW GLOBAL DISTRIBUTOR

Omnetics Connector Corporation is proud to announce that we have added Digi-Key Electronics as our worldwide distributor. Digi-Key's excellent reputation, one of a kind inventory, and global reach offers distribution services to customers; helping to meet the markets growing demand and fulfillment needs for small, rugged, high reliability connectors such as the Micro-D and Nano-D connectors. For over 30 years Omnetics has offered a full line of miniature and ultra-miniature connectors and this new partnership with Digi-Key will help increase access and to meet the markets growing demand for miniaturized electronic components such as Micro and Nano connectors.



The new partnership will provide Digi-Key customers a one stop shopping experience with the ability to include Omnetics Micro or Nano connectors to their order.



OVERMOLDING CONNECTOR AND CABLE ASSEMBLIES

Today's cable and connector systems are now capable of withstanding the most demanding environmental challenges, thanks to advancements in overmolded materials and processing techniques. The molding process insures bonding to connector backshells and over the cable to provide ingress protection from water and dust providing IP67 & IP68 sealing. In addition, overmolded designs provide strain or bend relief that protects the termination points and contacts. High shock and vibration protection helps eliminate fatigue and offers resistance to physical abuse and abrasion from rugged environments. Omnetics offers experience in material selection, design and manufacturing of high quality overmolded cables for a variety of military, space electronics, medical and industrial applications. Read more [here!](#)

OMNETICS SPECIAL PROJECTS GROUP

Our Special Projects Group is ready to serve new needs with a humble approach to collaboration and customer drive.

Using a unique approach to R&D for new process and product development, they work with both external and internal customers. Often, new products or design modifications need a few tweaks to insure devices are fully manufactural and can be reproduced at the highest reliability for the customer. Our group is comprised of a team of multi-talented individuals who have a natural curiosity to continue learning and will look outside our own walls to learn and use discoveries in other industries and disciplines to help solve customers' challenges and improve our processes.

In their pursuit of knowledge and products, they expand our ability to help modify and improve products for some of the most demanding challenges ahead. Customer-driven designs are often challenging and fun for our design and development driven process. The team works in tandem with our customers to understand the end-to-end product requirements and what the product vision is. They ask and analyze what problems and potential problems may occur in assembly as well as long term use of our product. With technical experience, manufacturing experience, and an understanding of new materials, the team tries to minimize costs of production and assembly manufacturing of the product. This group has a complete machine and fabrication shop to develop new forms, a family of polymer forming and over molding processes from high pressure over-molding, fast low pressure molding, and 3-D materials printing. They also offer years of direct experience from cable design, cable processing and development.

Recent projects using our flex circuit experience has saved a customer money, size and time. SMT methods are helping solve new design needs for sensor and detector designs. When new designs or adjustments to current products are needed, our Special Projects Group will work with our Engineering Design Team to plan a format and fabrication process to the exact fit, form and functions needed to meet the customers' requirements.

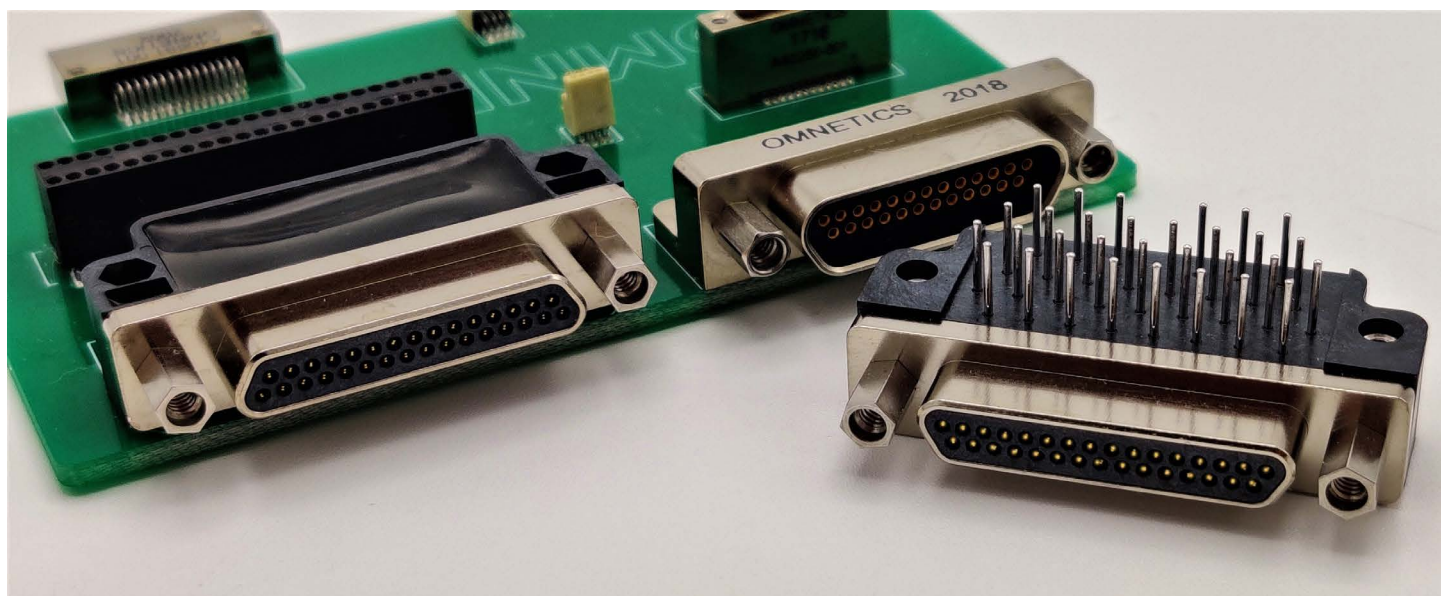


MICRO-MINIATURE CONNECTORS EXPAND MICRO-SENSOR AND DETECTOR INDUSTRY USE

Low profile and ruggedized connectors solve a rapidly changing signal routing environment challenge in designing today's compact high-density circuit modules. PZN (polarized Nano connectors) are designed specifically to offer constant signal integrity processing through high shock and vibration applications. These unique connectors can handle cable with up to 1 amp where needed. Micro signals can be routed from a wide range of devices evolving in the micro and sensor industry and interface with standard printed circuit boards for data processing. PZN are being used for controlling our robots, triggering cameras at the airport and being used for monitoring our biomedical data.

The semiconductor industry categorizes these devices as biosensors, Nano sensors, and MEMs (micro-mechanical chip) sensors. Circuit cards and flex-circuits usually support these devices and offer a wide range of applications. When needed, the sensor cards can activate plungers to open and or close devices, move flaps, turn on cooling devices and alert of oil level problems.

[> Read More](#)



Omnetics Splayed Micro-D Connectors

Omnetics Micro-D connectors are designed, qualified and manufactured to meet and exceed MIL-DTL-83513. The connector is built to assure the highest performance through high shock and vibration applications as well as extreme environmental use. They use the proven beryllium copper spring pin to socket contact system plated with both nickel and gold that assures the highest quality for mating and de-mating and very low contact resistance. Pin and sockets are set at .050" center to center lines. Our standard and COTs models are available in pin counts from 9 through 51 positions and beyond. Omnetics 4-Row board mount version with splayed mounting pins match perfectly the military layout specification standards used throughout the industry. They come available in solder cup or pre-wired as well as Horizontal and Vertical board mount configurations.

[> Read more](#)

EMPLOYEE SPOTLIGHT



EMPLOYEE
Spotlight

GRANT
SANFORD

Special Projects Lab Supervisor



Omnetics has decided to draw attention to the people behind the scenes in the building. The Employee Spotlight series aims to highlight the talented individuals who work here and make up our company. For our first spotlight, we are going to shine the light on Grant Sanford, our Special Projects Lab Supervisor. We asked Grant about his experience so far working with us. **Here's** what he said.

« I'm so fortunate to work with people who are knowledgeable, talented, and dedicated to this company »

ADVANCEMENTS IN HIGH RELIABILITY INTERCONNECTION SYSTEMS

This **white paper** reviews the improvements and changes needed to serve a very rapid demand for modernized interconnection and wiring systems that serve the new



electronic applications in defense, space satellites and portable electronic systems. New electrical power, high speed signal transmission and data collection systems are being used in

current semiconductor device driven circuitry in significantly different ways from our past. Interconnection systems must host and deliver new combinations of circuit and signal formats and power levels as well as maintain the highest signal integrity of data being processed from one module to the next. Surveillance and vision systems are chartered with collecting more information, more rapidly at higher resolution. Satellite position control and direction management demand the highest of controls from inside the instrument as well as from remote sites. Unmanned defense products from missiles to drones process massive volumes of data at extreme signal speeds to detect, guide and follow both computerized controls as well as remote signal directions. Ground troops in the field are being kept in constant communication and control their individual remote vehicles and equipment using the newest of ruggedized portable electronic devices. Maintaining signal quality and

routing both analog and digital data over the process of these applications has proven to be both challenging and successful. Lessons learned and key elements considered will be covered in this **white paper**.

