

Manufacturing Relocation Notice

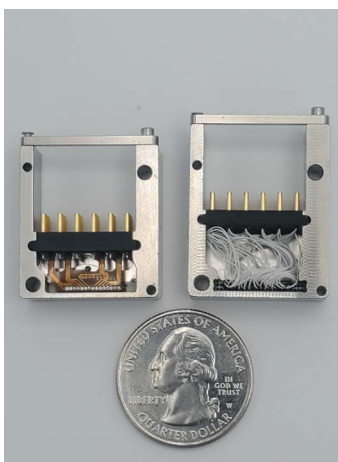
We are excited to notify you that **we will be moving** our manufacturing to a new state-of-the-art facility a few miles north of our existing location. This move will more than double our space from 55,000 to 124,00 square feet. The larger facility will enable us to expand our capacity and capabilities to better serve your growing needs.

Tentative Move-in date is:
February 2022

New address will be:
**8840 Evergreen Blvd
Minneapolis, MN 55433**



The products manufactured in our new facility will maintain the same high level of quality as you would expect from Omnetics.



FLEX VERSUS WIRED

Products often start their life as a put together solution to accomplish the goal in the shortest path possible. Although this path does help to create and build the concept, it may not be the most efficient for manufacturing. A product that started with one assembly solution and transitioned to a different method in a smaller form factor is what we're investigating here.

[Read more here!](#)

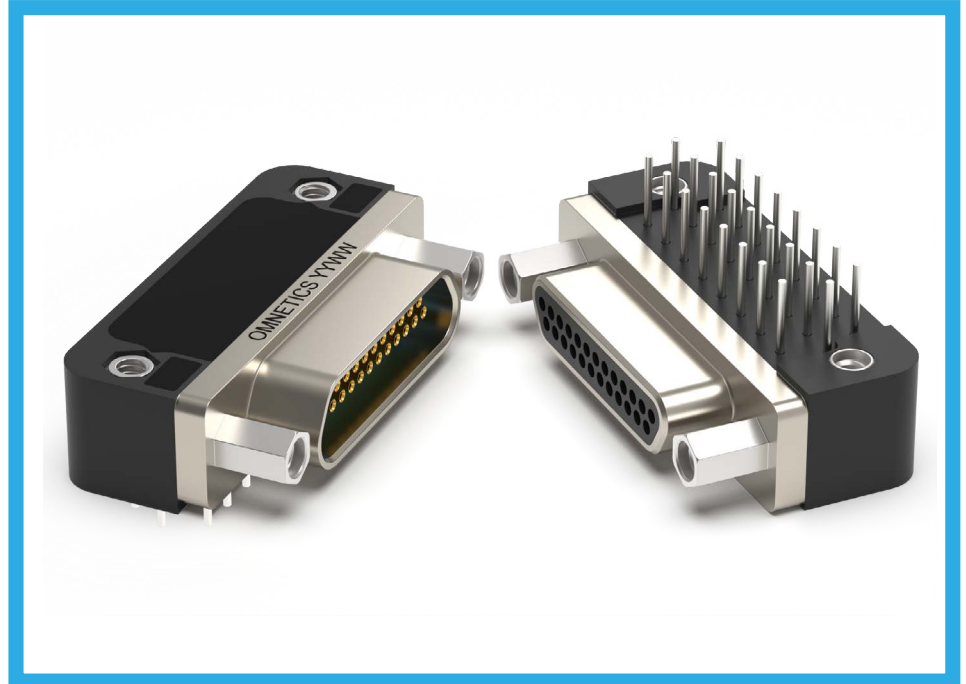
MICRO-D CONNECTORS MATCH STANDARD BOARD PAD-DESIGNS TO SUPPORT HIGH SPEED DATA

High-speed circuit design is rapidly moving to include miniaturization and high density as new chip materials and sensors provide highly mobile and remote data acquisition devices. COB, chip on board circuitry offers ruggedized circuits that support military and space designs through to everyday machine learning and industrial robotics. Omnetics Micro-D connectors provide a big step in reducing size to match amperage and signal path routing throughout system designs while fitting onto the standard printed board layouts.

Careful circuit board layout and signal routing for higher speed digital signal management has become critical. Specific attention to connector pad sizes and patterns on the printed board must be seriously reviewed to support multiple digital signal lines running closely to each other. Layout guidelines are well established to avoid crosstalk, noise and induced EMI to their signal paths.

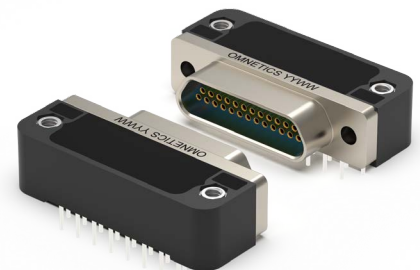
The higher-speed digital signals begin to develop noise and harmonic disturbance effects that can reach to adjacent lines if they are too close to each other. The Omnetics Micro-D standard pad and line spacing is working well for many of the new digital devices and help squeeze more electronics onto the boards than were possible with the larger D-Sub Connectors.

Much of the potential noise transmission, such as radiation, and magnetic or electric field coupling are avoided by using the spacing of Micro-Ds' standard pads and lines. The pad distance also avoids the "Induced EMI" effect on newer higher speed digital signals but is not so tight it causes problems. In addition, board designers



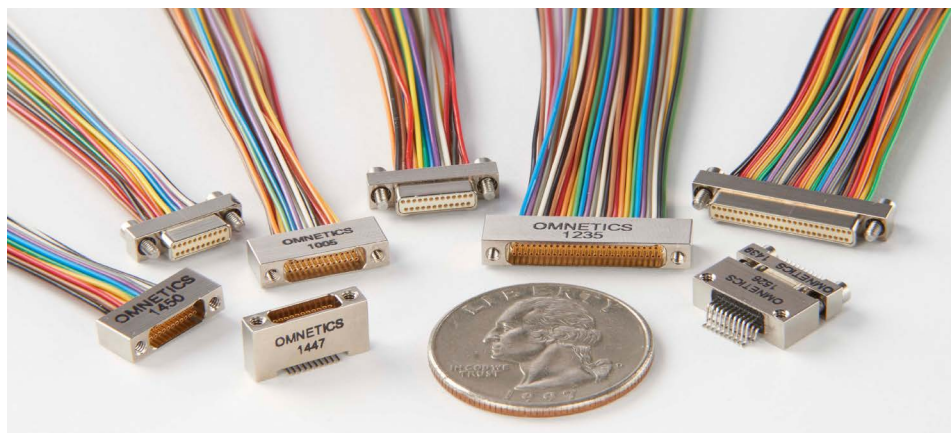
must plan for matching rise and fall times of digital signal pathways on their circuit board layouts. Digital signal pairs must also be quite similar in length to avoid skew and minimize reflection from one line to the other. Careful power source routing and distribution is necessary to avoid low noise coupling and may have to be filtered on the board itself. The dielectric constant, (Dk), of p.c. board materials has become critical in supporting fast rise and fall times of newer digital signals. Dielectric materials within circuit boards can be polarized during operation and negatively affect speed as well as dissipation factors (DF) of the energy on the surface of the boards,

themselves. Higher speed substrate materials that reduce the effect of weave and transition losses are also replacing FR-4 materials.



[> READ MORE HERE](#)

DOWNLOAD NEW MICRO-D AND NANO-D CATALOGS HERE



Micro and nano-miniature connector experts for defence and aerospace customers

Interview with Omnetics' Scott Unzen

When engineers set about developing ultra-lightweight electronic systems for defence and aerospace equipment, small connectors always feature heavily in the design process.

Because of the harsh environments these types of equipment must operate in, the demands placed on these small connectors tend to be tough. They need to be robust, rugged and reliable, despite their small size. Finding a trusted partner to provide small connectors that are high-performance and reliable is therefore critical in these applications.

As a leader in the industry, Omnetics Connector Corporation develops and supplies micro-miniature and nano-miniature electronic connectors and interconnect solutions for customers in the defence and aerospace sectors. Scott Unzen, Omnetics' Director of Marketing & Market Development, told us more about the company and how its solutions deliver for clients.



[> Read more here](#)

CONNECTOR TO CABLE DESIGN: KEY CONSIDERATIONS FOR USE IN AEROSPACE AND DEFENSE SYSTEMS

As speeds go up and voltages decrease, signal integrity design and management is critical to the functions needed in Military and Aerospace. Digital signal quality is more often assured by using differential cable design that matches the impedance of the output and or input system of the processor boards and detectors. Secondly, proper shield and drain wire interconnections increase accuracy of the system and help ensure appropriate eye



pattern quality of the transmitted signal through the connector and cable assembly and reduce jitter and crosstalk. Reduced size, lower weight and ruggedness immediately follow in the list of important specifications to serve the needs of portable ground troop electronics, airborne equipment (such as and UAVs) and in military satellite systems.

[> Learn more here](#)

Multispectral Imaging Systems for Space, Military and Commercial Applications

Multiphoton imaging techniques and camera systems are serving industries with immediate definition improvements for a wide range of applications.

Advanced devices utilize multi-spectrum cameras able to sense multiple frequencies of light selected from the electromagnetic spectrum. This new technology is being applied across multiple industries and applications. Satellites in space offer amazing views of earth's surface, as well as providing both physical analysis and chemical information to the users. Defense industries are building data bases for navigation and precise positioning control using geospatial imaging maps that help reduce

dependency on GPS, (global positioning satellites). Medical instruments are offering disease detection information by sensing cellular image changes during infections.

[> Learn more here](#)



Hyperspectral Satellite

GPS Defense Applications And Protection Of Precise Point Positioning

Advanced GPS systems have opened the world with exciting and exacting new technologies ranging from global surveying and reconnaissance to remote guidance and positioning of unmanned systems. Packages are being delivered by autonomous delivery devices, drones are used to monitor nuclear plants and active battlefields are in constant surveillance from above. Civilian navigation has entered our highways and sea-lanes. GPS systems also support our military, airspace and individual soldiers in the field with personal monitoring, and remote control of weapons that may be miles from away.

[> Learn more](#)

