



## PIC Wire & Cable Introduces MACHFORCE PCB Connector for Enhanced Aerospace Solutions

[Waukesha, WI Oct. 3, 2023] - PIC Wire & Cable, a leading innovator in aerospace connectivity solutions, is proud to unveil the latest addition to the MACHFORCE product family - the MACHFORCE printed circuit board (PCB) connector. This cutting-edge innovation offers a direct PCB mounting solution, enhancing mechanical stability, signal integrity, and space efficiency in rugged computers and switches across the aerospace industry.

With the introduction of the MACHFORCE PCB connector, PIC Wire & Cable now offers a complete interconnect solution, supported with design consultation, and backed by manufacturing excellence, stringent quality control, supply chain expertise, and dedicated technical support.

**Mechanical Stability:** When integrated into a PCB design, the D38999 connector becomes an integral part of the system, providing enhanced mechanical stability and reducing the risk of connector damage due to vibrations or mechanical stress. This feature is particularly critical in demanding applications such as military vehicles and aircraft, where shock and vibration resistance are paramount.

**Signal Integrity:** The MACHFORCE PCB connector ensures a consistent and reliable electrical connection between the connector and the circuit board, minimizing the risk of signal interference or loss. This is crucial for aerospace and defense systems where reliable data transmission and communication are mission-critical.

**Space Efficiency:** The integration of the MACHFORCE PCB connector option allows for a more compact and streamlined design, saving valuable space within aerospace systems. In applications where size and weight constraints are significant considerations, MACHFORCE connectors provide a solution that maximizes efficiency.

**Port Density:** MACHFORCE connectors are designed to address the space and weight constraints prevalent in military and aerospace applications. Their proprietary high-speed modules enable the packing of 10 ports of 10G Ethernet into a size 25 shell, surpassing typical D38999 offerings that accommodate only 7 or 8 ports. Furthermore, size 17 MACHFORCE connectors allow for 4 ports of Ethernet, while standard size 17 offerings support only 2 ports.

**Signal Integrity:** MACHFORCE connectors feature high-speed modules (HSM) designed for superior electrical performance, with elements like linear module configuration, isolated twisted pairs,

1.800.742.3191

1.262.246.0500

[www.PICwire.com](http://www.PICwire.com)

W220 N1051 Springdale Road  
Waukesha, WI 53186



and dielectric materials contributing to impressive impedance control and signal isolation. These patented HSMs empower designers to create applications previously considered unfeasible.

**Simplified Termination:** Simplified termination is another hallmark of MACHFORCE connectors. The streamlined termination process not only saves time but also reduces labor costs and minimizes the need for skilled technicians. MACHFORCE connectors use industry-standard 22D pins and sockets, robust enough to withstand installation without bending or damage. Moreover, these connectors are entirely terminated with standard tools, eliminating the need for specialized equipment.

The introduction of MACHFORCE PCB and the expansion of the MACHFORCE family provides an end-to-end aerospace solution and reaffirms PIC Wire & Cable's commitment to delivering cutting-edge connectivity solutions to the aerospace and defense industries. These innovations empower design engineers, reduce costs, and achieve new levels of efficiency and performance in aerospace and defense systems.

For more information about the MACHFORCE PCB connector and the complete range of MACHFORCE connectors, please visit [www.PiCwire.com](http://www.PiCwire.com).

#### About PIC Wire & Cable:

PIC Wire & Cable is a global leader in aerospace connectivity solutions, dedicated to delivering innovation, performance, and customer satisfaction. With a rich history of advancing aerospace technology, PIC Wire & Cable continues to set industry standards.

1.800.742.3191

1.262.246.0500

[www.PiCwire.com](http://www.PiCwire.com)

W220 N1051 Springdale Road  
Waukesha, WI 53186

