

Rugged, High-density Amphenol Connectors Offer Increased Power and Durability

New 2M Series compatible with existing micro-miniature aerospace/defense connectors



Amphenol Aerospace, a global leader in interconnect systems, now offers a series of [rugged, micro-miniature connectors](#) [1] that provide more power throughput and consistent coupling by incorporating more electrical connections in compact form factor. Available in shell sizes from 5 to 23, the new high-density 2M Series weighs 72% less and is 52% smaller than standard MIL-DTL-38999 connectors.

The connectors are intermateable and intermountable with existing micro-miniature high-density connectors typically used in aerospace and defense applications. The lightweight 2M Series maximizes SWaP (size, weight and power) in a variety of high-reliability, harsh environments.

Designed for durability, the new 2M Series uses advanced bonding techniques to increase adhesion properties and reduce the risk of fod (foreign object debris). The enhanced process makes the new connectors even more reliable in the harsh conditions found throughout soldier-wearable, missile and ordnance, communication systems and avionics applications.

Each of the four coupling styles currently available combine more than 40 years of Amphenol design expertise to offer consistent coupling torque on every connector as well as withstand up to 37 g's of random vibration and 300 g's of shock.

The fast-mating 2M801 dual-start ACME thread connector offers a Duallok plug that exceeds MIL-DTL-38999 vibration levels and offers the highest coupling torque currently available in a micro-miniature connector. The 2M803 features a 1/4 turn bayonet coupling for quick mating in general avionics and weaponry applications.

For breakaway applications, such as soldier-worn equipment, the 2M804's push-pull

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coupling offers quick disconnect. Conversely, the tri-start ACME thread-style 2M805 uses an anti-decoupling ratchet for exceptionally secure mating.

AAO offers the 2M connectors in its Durmalon aluminum/nickel-PTFE plating, the only mil-qualified RoHS-compliant plating in the industry. The micro-miniature connectors come in various other common platings, including stainless steel/passivated, non-conductive aluminum/black anodize, aluminum/electroless nickel and aluminum/zinc-nickel with black chromate or olive drab.

The connectors can be internally-filtered for radiated and conducted EMI to increase system efficiency and reduce overall system size, weight and components.

Amphenol's full line of complementary accessories for the 2M Series includes protection caps and strain relief, EMI and environmental back shells, flange gaskets, hex nuts, O-rings and heat shrink boots.

Pricing for the 2M Micro-miniature connectors is dependent upon insert and contact arrangement. Delivery is 8-10 weeks ARO.

For more information, please visit www.amphenol-aerospace.com/circular_2m.asp [1].

Posted by Ron M. Seidel, Editorial Intern

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[1] http://www.amphenol-aerospace.com/circular_2m.asp