

# ENVIRONMENTAL, MICRO MINIATURE CIRCULAR

## Series 806

### Mil-Aero Connectors

#### Product Features



### About The Series 806

The Series 806 Mil-Aero is an aerospace-grade micro miniature circular connector with triple-start threaded coupling. The 806 connector is smaller and lighter than conventional aerospace connectors. Featuring size 22HD, 20HD contacts plus size 8 power and high speed El Ochito®, quadrax, and fiber optic options. The Series 806 offers up to twice the number of contacts with no reduction in performance than MIL-DTL-38999 Series III. In fact, independent laboratory testing has demonstrated that the Series 806 meets, and in many cases exceeds, the requirements of MIL-DTL-38999.

But there is more to the 806 than just size and weight reduction. This flight-proven high-performance

connector has many innovative features that meet the most aggressive requirements of the military/aerospace industry, including better resistance to vibration-induced decoupling. This is accomplished by re-engineering the ratchet mechanism and introducing a shallower mating thread ramp angle than is available in D38999.

Glenair pioneered integral shield banding platforms to allow direct attachment of cable shields, boots and overmolds. This innovation continues with the 806—Glenair’s first connector to exclusively use the ultra lightweight Nano shield termination band for maximum size and weight reduction.

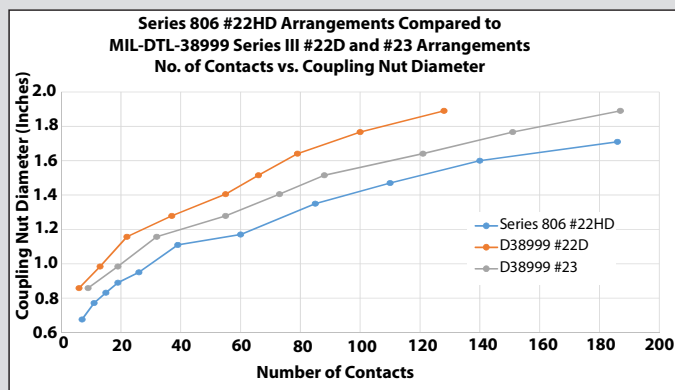
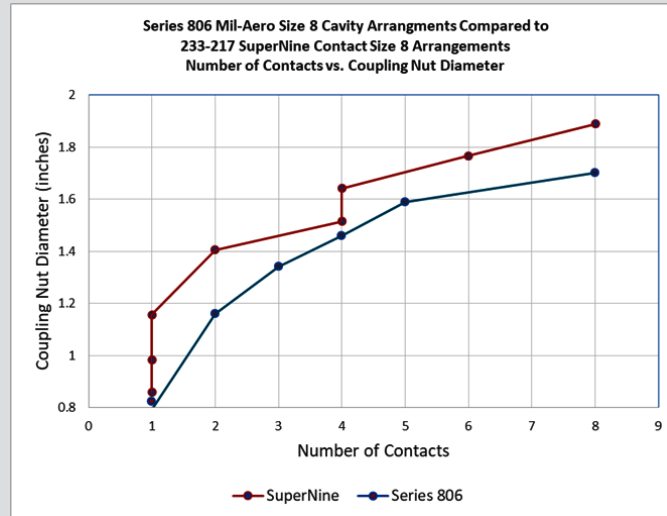
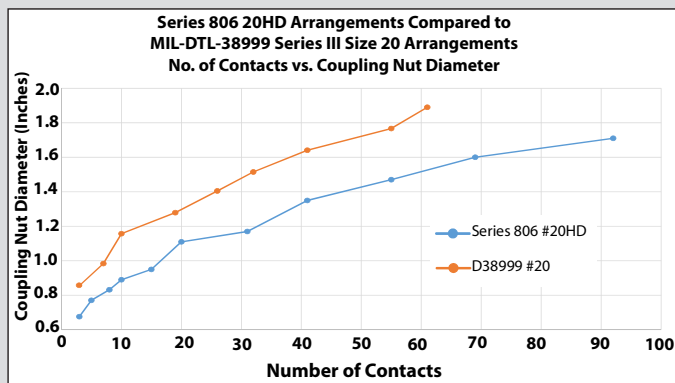
Another enhancement is a “top hat” insulator with raised bosses for foolproof alignment of insulator

cavities and retention clips as well as higher voltage ratings.

The Series 806 Mil-Aero connector features an O-ring radial interface sealing design instead of a flat gasket. This allows for easier metal-to-metal coupling, improved sealing, and better EMI performance. The MIL-DTL-38999 Series III and other legacy aerospace circular connectors have a flat gasket inside the receptacle shell. This peripheral seal must be compressed sufficiently to allow full metal-to-metal connector bottoming. In certain tolerance conditions this seal can make it difficult to fully mate the connectors “without the use of tools” as is required by MIL-DTL-38999.

### Save Size and Weight with Series 806 Mil-Aero Connectors

*The Next-Generation Higher-Density Connector for Demanding Aerospace and Defense Applications*



Series 806 plug with 19 #22 contacts compared to MIL-DTL-38999 Series III with 6 #22 contacts. More than 3X the number of contacts, yet only .020 inches larger in diameter.

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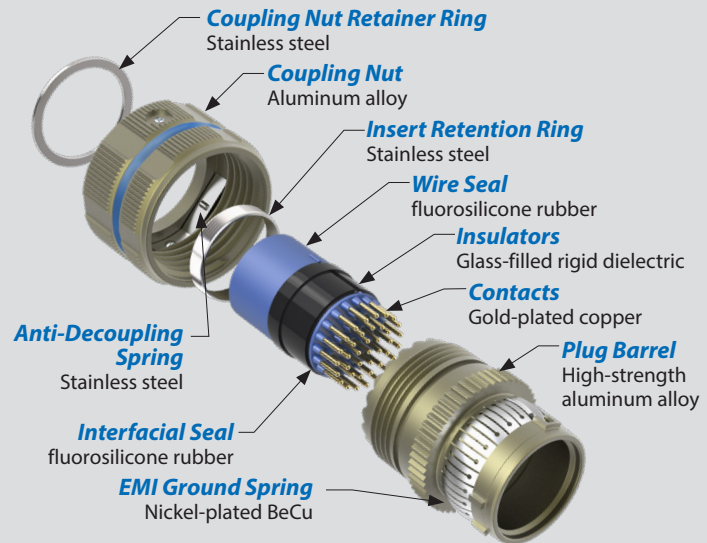


**KEY FEATURES**

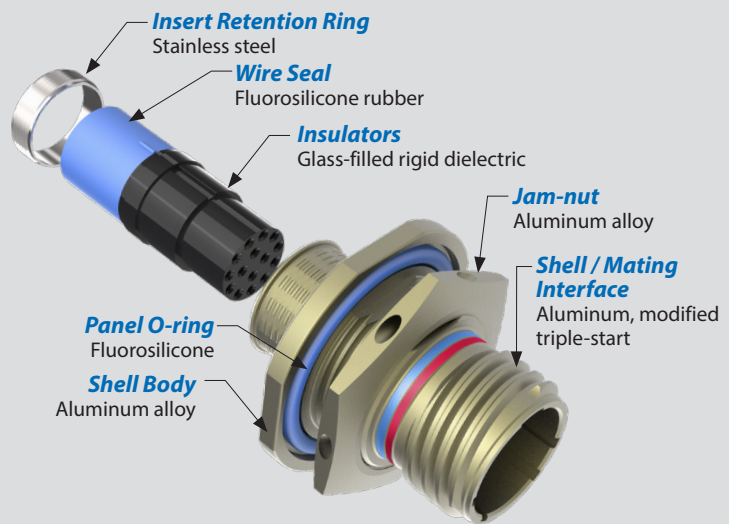
- Next-generation high-performance micro miniature aerospace connector
- Reduced-pitch triple-start modified anti-decoupling stub ACME thread
- Higher density 20HD and 22HD contact arrangements
- +200° C operating temperature
- High-strength aluminum alloy plug barrel
- “Triple ripple” wire sealing grommet (75,000 ft. rated)
- Snap-in, rear-release crimp contacts
- Metal contact retention clips
- Integral Nano-Band shield termination platform
- EMI shielding effectiveness IAW MIL-DTL-38999M para. 4.5.28 (65 dB min. leakage attenuation @ 10GHz)
- 10,000 amp indirect lightning strike
- 300g. shock
- MIL-S-901 Grade A high-impact shock
- Aluminum and stainless steel versions
- Environmental crimp contact, glass-to-metal seal PC tail and solder cup hermetics, RF, fiber, and EMI filter versions
- RoHS compliant nickel, nickel-PTFE, black zinc and stainless steel plus mil-grade cadmium finish options
- Printed circuit board versions with threaded mounting holes

CONNECTOR REFERENCE

**Plug Connector**



**Receptacle Connector**



**AVAILABLE LIGHTWEIGHT ALUMINUM “CODE RED” HERMETICS**

CODE RED is a lightweight encapsulant sealing and application process with 50% package-weight savings compared to glass-to-metal seal Kovar/stainless steel solutions. Non-outgassing CODE RED (IAW NASA/ESA) provides durable hermetic sealing with better than  $1 \times 10^{-7}$  leak-rate performance. Gold-plated copper PCB contacts deliver outstanding low-resistance current carrying capacity. See 806-028.



# MICRO MINIATURE CIRCULAR

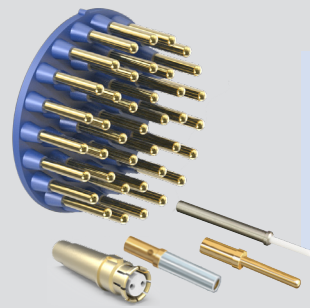
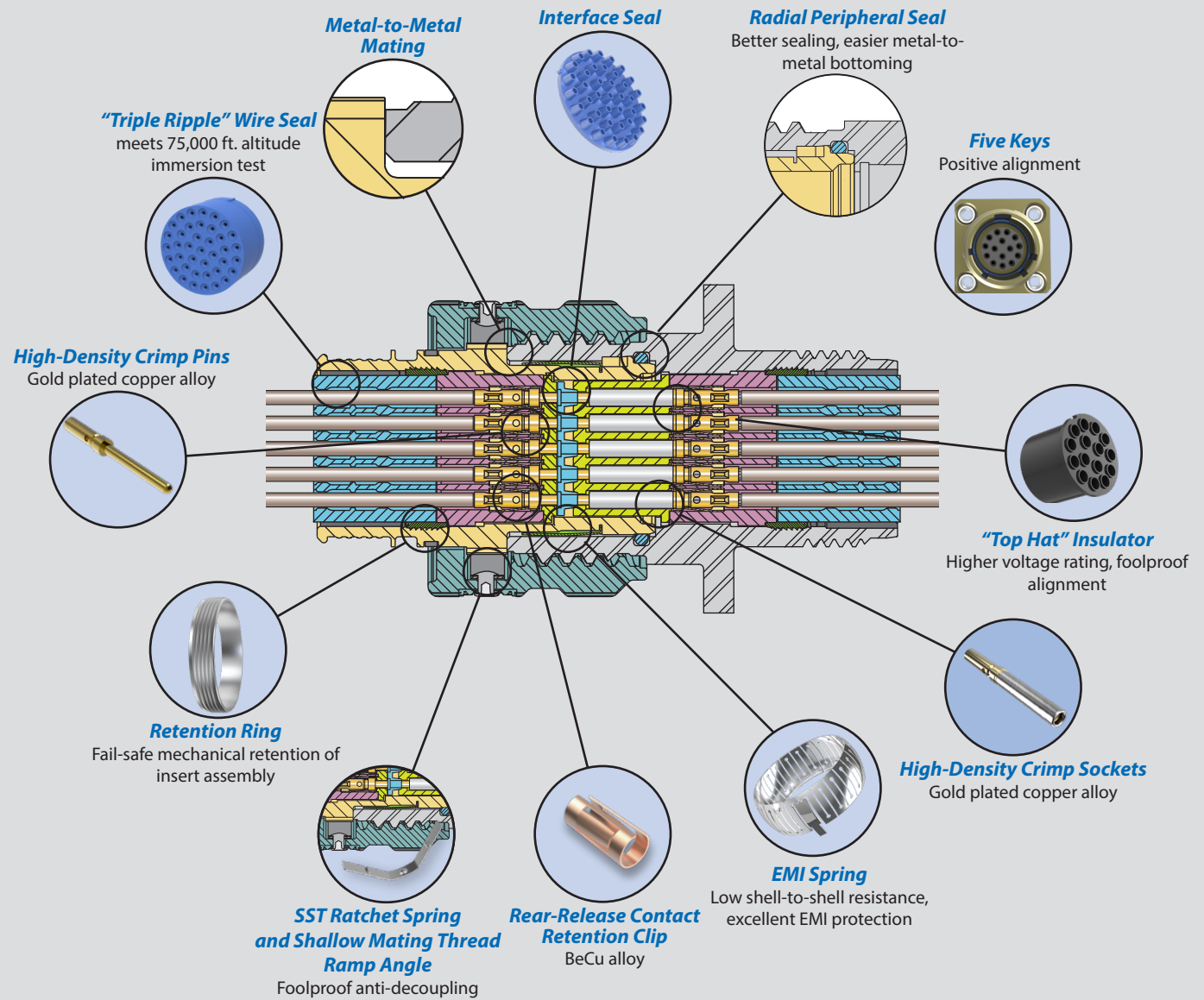
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#### SERIES 806 MIL-AERO FEATURES



**Series 806 Mil-Aero**, with its high-density size #8, #20HD and #22HD contact arrangements, is designed for universal mil-aero use. The many special design features shown above allow this micro miniature circular connector to meet and even exceed MIL-DTL-38999 performance even in high-altitude, unpressurized zones. In addition to high-density signal contacts, Series 806 also supports a broad range of high-speed shielded contacts including Glenair Signature El Ochito®, as well as Size #8 Coax, and fiber optic termini.

CONNECTOR REFERENCE