

MISSION-CRITICAL
INTERCONNECT
SOLUTIONS



Glenair
SIGNATURE SERIES



Series 806 Micro-Miniature Circular Connectors

Signature Interconnect Technology for Urban Air Mobility

LIGHTWEIGHT
AVIONICS,
FLIGHT DECK,
ACTUATOR AND
SENSOR CONNECTORS

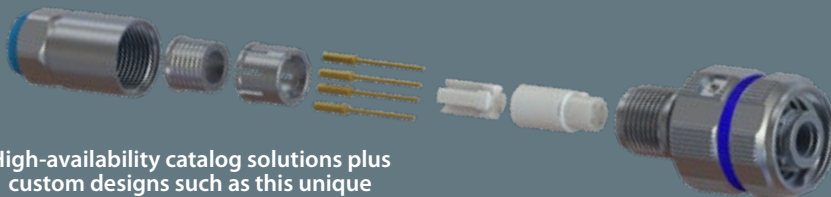
SERIES 806 MIL-AERO

Advanced performance,
reduced size and weight
connector series IAW
MIL-DTL-38999



Series 806 offers significant size and weight savings while meeting key performance benchmarks for a broad range of eVTOL / UAM applications including sensors, flight navigation avionics in piloted vehicles, electronic speed controllers, and more. Designed for broad use in harsh vibration, shock, and environmental aircraft zones—as well as high-altitude, unpressurized zones with aggressive voltage ratings and altitude immersion standards—the Series 806 Mil-Aero features numerous design innovations including durable mechanical insert retention, radial and triple-ripple grommet seals. Its reduced thread pitch and re-engineered ratchet prevent decoupling problems, particularly in small shell sizes, solving one of the major problems of shell size 9 and 11 MIL-DTL-38999 Series III connectors.

SIZE AND WEIGHT SAVING SOLUTIONS: CATALOG OR CUSTOM



High-availability catalog solutions plus custom designs such as this unique Quadrax implementation

- Next-generation small form factor aerospace-grade circular connector
- Designed for harsh application environments including air taxi sensors, flight navigation electronics, and flight deck avionics
- Integrated anti-decoupling technology
- High density 20HD, 22HD, RF, and high-speed contact arrangements
- Hermetic and filter versions
- +200°C temperature rating

Series 806 Mil-Aero Micro Miniature Circular Connectors

for rugged aerospace / UAM applications



SERIES 806 MIL-AERO: FEATURES / SPECIFICATIONS

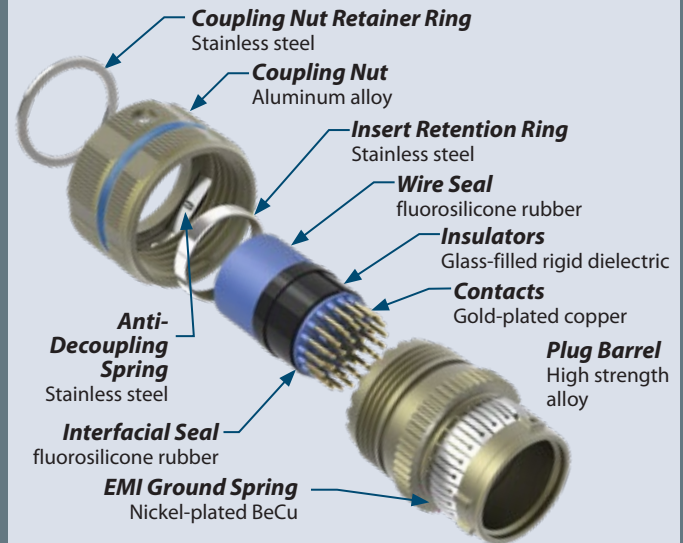
- High-density #20HD and #22HD arrangements for reduced size and weight
- Supported wire sizes:
#20HD contacts 20–24 AWG
#22HD contacts 22–28AWG
- Dielectric withstanding voltage
#20HD layouts: 1800 Vac
#22HD layouts: 1300 Vac
- Reduced pitch triple-start modified anti-decoupling stub ACME mating threads
- +200°C operating temperature
- “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 per D38999M para. 4.5.28 (65 dB min. leakage attenuation @ 10GHz)
- 10,000 amp indirect lightning strike
- MIL-S-901 Grade A high impact shock

AVAILABLE LIGHTWEIGHT ALUMINUM “CODE RED” HERMETICS

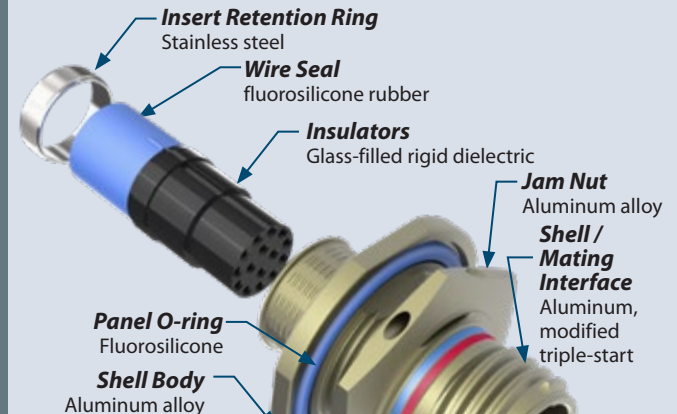
CODE RED is a lightweight encapsulant sealing and application process with 50% package-weight savings compared to glass-to-metal seal Kovar/stainless steel solutions. Non-outgassing CODE RED (IAW NASA/ESA) provides durable hermetic sealing with better than 1×10^{-7} leak rate performance. Gold-plated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



SERIES 806 MIL-AERO PLUG



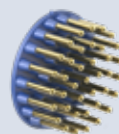
SERIES 806 MIL-AERO RECEPTACLE



SMALLER AND LIGHTER WITH EQUAL D38999 PERFORMANCE?

High-Density Layouts

Twice as many contacts in a smaller package



“Top Hat” Insulator

High voltage rating, foolproof alignment



Triple Ripple Wire Seal

Reliable 75,000 ft. altitude immersion



Series 806 Mil-Aero Micro Miniature Circular Connectors

for rugged aerospace / UAM applications

About The Series 806

The Series 806 Mil-Aero is an aerospace-grade microminiature circular connector with triple-start threaded coupling. The 806 connector is smaller and lighter than traditional 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.

Yes, there is more to the 806 than size and weight reduction. This new

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.

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 ultralightweight Nano-Band for maximum size and weight reduction.

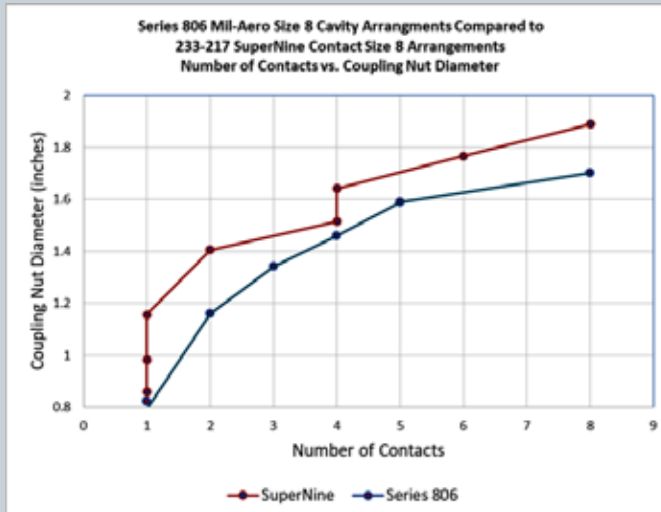
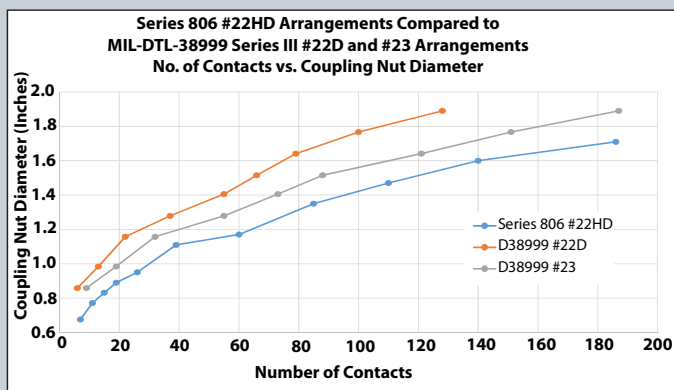
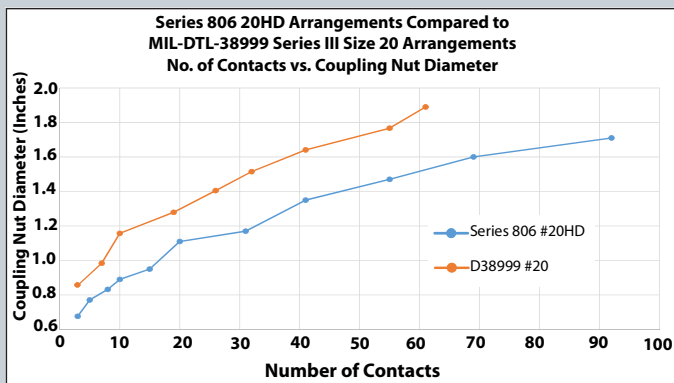
Another enhancement is a "top hat" insulator with raised bosses for foolproof

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

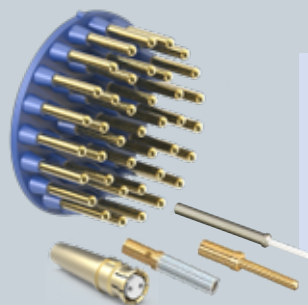
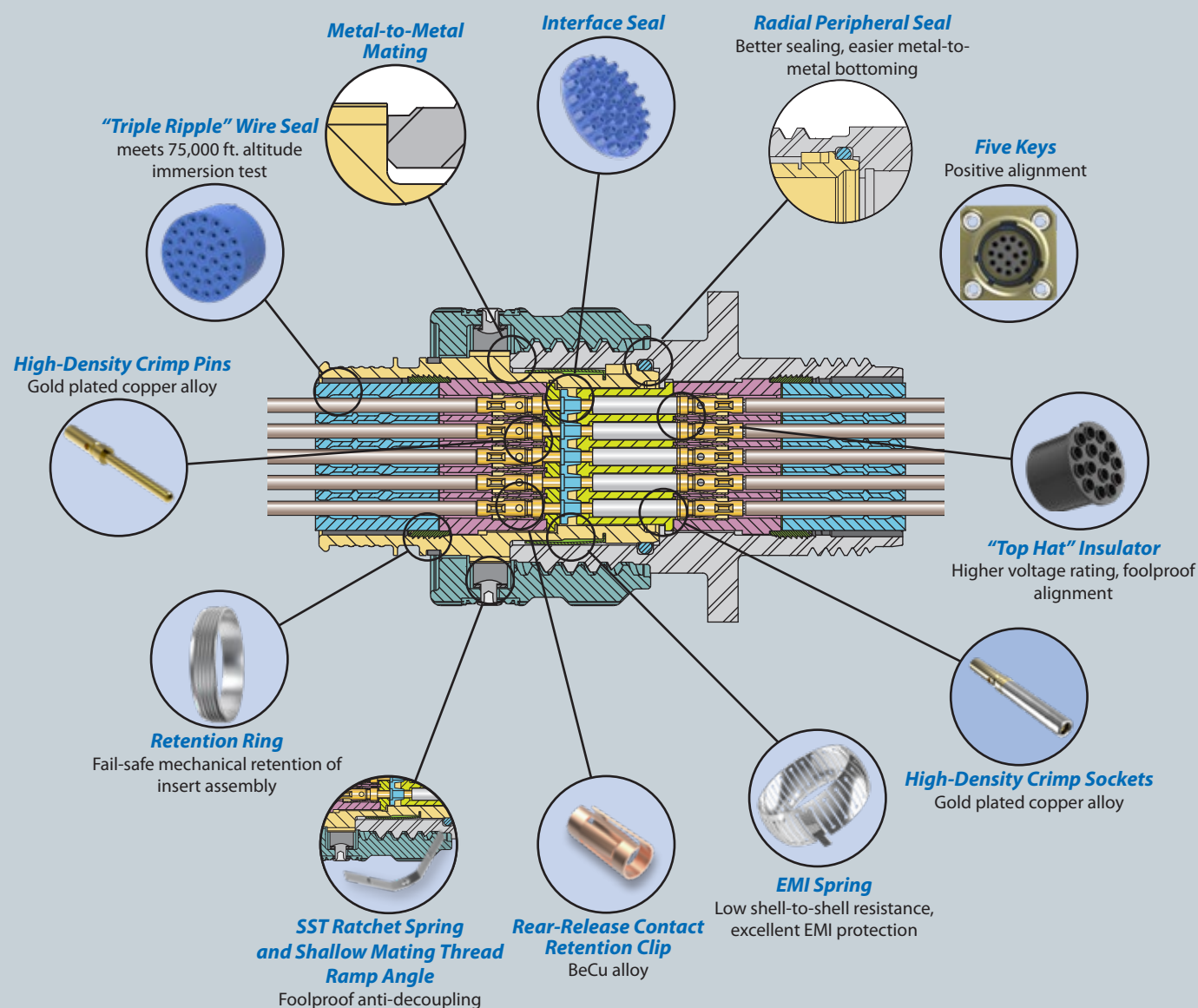


Series 806 plug with 19 #22 contacts compared to MIL-DTL-38999 Series III with 6 #22 contacts. More than 3X the number of contacts, yet only .020 inches larger in diameter.

Series 806 Mil-Aero Micro Miniature Circular Connectors for rugged aerospace / UAM applications



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 microminiature 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.



MISSION-CRITICAL INTERCONNECT SOLUTIONS

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