

# SuperNine® RJ45, USB, and HDMI MIL-DTL-38999 Series III type connectors Modification Codes and Materials/Finishes



RJ45 / USB / HDMI CONNECTORS

## ASTM E595 Outgassing

### MOD CODE 186S

- SuperSeal® connectors specially processed to meet ASTM E595 outgassing requirements.
- Modification code specifies special outgassing bakeout processing.
- Meets NASA Screening Level 1 requirements

Space flight equipment requires low-outgassing components in order to prevent degradation to optics and other sensitive instruments. The space industry has adopted a standardized test procedure, ASTM E595, to evaluate outgassing properties. In the ASTM test, material samples are heated to 125° C at a vacuum of  $5 \times 10^{-5}$  torr for 24 hours. The test sample is then weighed to calculate the Total Mass Loss (TML), which may not exceed 1.0% of the total initial mass. A collector plate is used to determine the Collected Volatile Condensable Material (CVCM), which may not exceed 0.1% of the total original specimen mass. SuperSeal™ connectors contain nonmetallic materials such as rubber, plastic, adhesives and potting compounds which can give off gases when subjected to a vacuum or high heat. Unless the connector is specially processed, the TML and CVCM can exceed allowable limits. Glenair is able to offer a bakeout process, 48 hour oven bakeout at 257° F, which assures all materials comply with ASTM E595

## UL 94 V-0 Flammability Standard

### MOD CODE 928

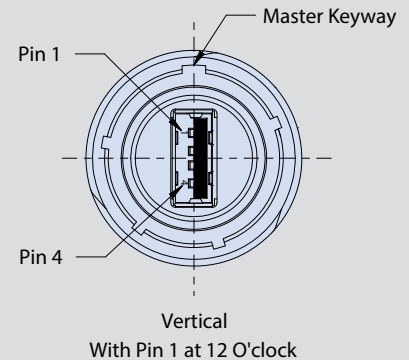
- SuperSeal® connectors specially processed to meet UL 94 V-0 flammability standard

UL 94, the Standard for Safety of Flammability of Plastic Materials for Parts in Devices and Appliances testing is a plastics flammability standard released by Underwriters Laboratories of the USA. The standard classifies plastics according to how they burn in various orientations and thicknesses. From lowest (least flame-retardant) to highest (most flame-retardant) V-0. Burning stops within 10 seconds on a vertical specimen; specimens may not drip flaming particles.

## Flip Vertical USB Orientation by 180 degrees

### MOD CODE 915

Flip standard, vertically oriented USB designs 180 degrees, allowing pin 1 to be located at the 12 O'clock position.



MIL-DTL-38999 Connector and Cable Assembly Material and Finish Codes

Code	Material	Finish	Finish Specification	Hrs. Salt Spray	Electrical Conductivity	Operating Temp. Range	RoHS Compliance
ME	Aluminum	Electroless Nickel	MIL-DTL-24308 Class K	96	Yes		Yes
MT	Aluminum	Nickel PTFE	SAE AMS2454	500	Yes	-65° to +175°C	Yes
NF	Aluminum	Cadmium, Olive Drab	SAE-AMS-QQ-P-416 Type II Class 2 over electroless nickel	500	Yes	-65 to +175°C	No
ZR	Aluminum	Zinc-Nickel, Black	ASTM B841 Grade 5 over electroless nickel	500	Yes	-65 to +175°C	Yes