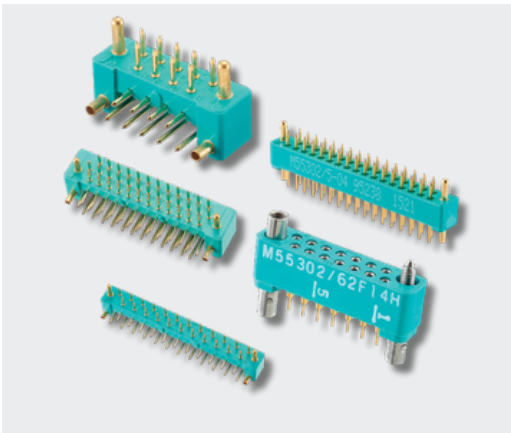


M55302 Connectors

Aptiv's M55302 (MIL-DTL-55302) connectors are a series of high-reliability, rectangular printed circuit board (PCB) connectors engineered to survive the most extreme environments on Earth and beyond. Designed with a legacy of performance, these connectors are the standard for mission-critical defense and aerospace platforms.

Built for high-vibration and extreme temperature scenarios, the M55302 line offers unparalleled versatility in contact arrangements and termination styles, ensuring high-density connectivity for land, airborne, naval, and space platforms.



KEY FEATURES & BENEFITS

- **High-Reliability Performance:** Designed to withstand extreme vibrations and corrosive environments found in fighter jets, tanks, and spacecraft.
- **Rugged Durability:** Rated for 500+ mating cycles and a broad temperature range of -65°C to +125°C.
- **Versatile Configurations:** Supports anywhere from 10 to over 160 contacts, typically arranged in 2, 3, or 4 rows.
- **Extensive Spec'd Presence:** Deeply embedded in ongoing procurement programs with over 4,000 active National Stock Numbers.
- **Superior Materials:** Features polyphenylene sulfide insulators (MIL-M-24519) and gold-plated copper alloy contacts.

APPLICATIONS

- **Aerospace:** Fighter jets and avionics control systems.
- **Defense:** Main battle tanks and tactical vehicle systems.
- **Space:** LEO satellite constellations and spacecraft.
- **Naval:** Fleet upgrades for destroyers and submarines.

PRODUCT SPECIFICATIONS

Electrical Properties	
Current Rating	5.0 to 7.5 Amperes maximum per contact
Test Voltage (Sea Level)	1000V to 1675V RMS, 60 Hz
Insulation Resistance	5,000 megohms minimum at 500V DC
Contact Resistance	0.005 ohm maximum at rated current

Mechanical Properties	
Mating Cycles	500 cycles minimum
Mating Force	Shall not exceed 1.0 pound times the number of contacts
Unmating Force	Shall exceed 0.25 pound times the number of contacts
Contact Size	No. 20 (0.040" dia) or No. 22 AWG

Environmental Properties	
Operating Temperature	-65°C to +125°C
Corrosion/Vibration	Salt spray, humidity, and vibration per MIL-C-55302
Materials	Glass fiber reinforced diallyl phthalate or Polyphenylene Sulfide