

Specifications for TNC Connectors

TNC Series connectors are miniature sized, and weatherproof and are electrically similar to BNC Series, except that they have a coupling method which utilizes a screw system giving them additional resistance against shock and vibration. They are especially designed for use from DC to 18 GHz, in vibration exposed equipment like in commercial and military radio telecommunications systems and avionics equipment. These connectors are particularly useful for applications in computer and medical equipment and test instrumentation. TNC Series have a constant impedance of 50 ohms and are available in a variety of cable configurations.

| MATERIALS | | | | | |
|-------------------------------|--------------------------|------------------------|--|--|--|
| Connector Parts | Material | Equivalent Standard † | | | |
| Connector Body and Parts | Brass | ISOCuZn38Pb2 Body Part | | | |
| Male Contact Pin | Brass | QQ-B-626 | | | |
| Commercial Grade | Zinc Alloy/Brass | | | | |
| Outer Contact | Brass | QQ-B-750 | | | |
| Socket Contact | Beryllium Copper | QQ-C-530/MIL-H-7199 | | | |
| Socket Contact | Phosphor Bronze | CuBe2 | | | |
| Crimp Ferrule | Annealed Copper | QQ-C-576 | | | |
| Insulators, Standard Versions | Teflon | L-P403/BS4271 | | | |
| Insulators, Standard Versions | Delrin | Grade B | | | |
| Rubber Gaskets | Silicone Rubber | ASTM-E1418PSI | | | |
| Plating | Nickel (Silver Optional) | MIL-G-45204 | | | |

| ELECTRICAL | | | | |
|---|----------------------------|---------|-------------------------|--|
| Requirement | Perfor | mance | Test † Specification | |
| Impedance | 50 Ω | 75Ω | | |
| Frequency Range | 0-18 GHz | 0-1 GHz | | |
| VSWR | 1.30 Max. | | MIL- C-39012 | |
| RF Insertion Loss | 0.2 dB Max. at 3 | 3 GHz | MIL- C-39012 | |
| RF Leakage | -60 dB Min. at 3 | GHz | MIL- C-39012 | |
| Test Voltage (At Sea Level) | 1500V rms | | MIL-STD-202 | |
| Working Voltage (At Sea level) | 500V rms | | MIL-STD-202 | |
| Insulation Resistance | 5000 Megohms | Min. | MIL-STD-202 | |
| Contact Resistance *Center Contact *Outer Contact | 5mW Maximum 2mW Maximum | | MIL-C-39012 | |

MECHANICAL & ENVIRONMENTAL

| Requirement | Performance | Test † Specification |
|-------------------------------|---|-------------------------|
| Durability | 500 Insertions & Extractions Min. | MIL-C-39012 |
| Shock | 50 G | MIL-STD-202 |
| Vibration | 20 G from 80-2000 Hz | MIL-STD-202 |
| Cable Retention (Cable Types) | 60 lbs. Minimum Pull Test | MIL-C-39012 |
| Coupling Nut | 60 lbs. Maximum | MIL-C-39012 |
| Temperature Range | Teflon: -55 to +199 C Delrin: -40 to +85 C | |
| Moisture Resistance | Continuous Test | MIL-STD-202 |



No.

Part Number Gender **RG/U** Cable

| 510A405F | | Male | 58A/U, 58C/U, Stranded, 141/U | 53 | | |
|--|---|--------|----------------------------------|----|---------|--|
| 510A405G | K | Male | 59/U, 62/U, 210/U | 53 | | |
| 520A405F | | Female | 58A/U, 58C/U, Stranded, 141/U | 52 | Fig 53 | |
| 520A405G | N | Female | 59/U, 62/U, 210/U | 52 | 11g. 55 | |
| RoHS compliant REQUEST QUOTE REQUEST DRAWING | | | | | | |



Fig. 52

Bulkhead Jacks

Versions are available for front mounting (F/M), rear mounting (R/M), crimp types, bulkhead mount grounded, or bulkhead mount isolated. These jacks are held into the panel by a hex-nut and lock washer. All units feature nickel plated, brass bodies, and gold plated phosphor bronze contacts.

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