

ConheX® Subminiature RF Connectors

ConheX® connectors are subminiature units built to meet or exceed the requirements of MIL-C-39012, Types SMB and SMC... used extensively in military, telecommunications and instrumentation for high-density radio frequency and microwave circuits up to 12.4 GHz. Because of their small size, these connectors utilize overlapping dielectrics to maintain electrical integrity at high frequencies. Screw-on MIL type SMC, snap-on MIL type SMB and slide-on interfaces in both 50 and 75 Ohm impedances. Crimp and clamp type connections for braided coax cable. Clamp, solder and solder-clamp attachments for semi-rigid coax. Over 300 different connector types available.



Standard Data

ELECTRICAL

Impedance: 50 ohms and 75 ohms, nominal

Frequency Range: 0 to 12.4 GHz

Insulation Resistance: 1000 megohms min.

Voltage Standing Wave Ratio (VSWR)*

To 12.4 GHz or 80% of upper cutoff frequency of the cable, whichever is lower.

| Cable | (F = GHz) Mating Engagement | | | |
|-----------------|-----------------------------|-------------|----------------|-------------|
| | Snap-On (SMB) | | Screw-On (SMC) | |
| | Straight | Rt. Angle | Straight | Rt. Angle |
| RG-196/U Series | 1.30 + .04F | 1.45 + .06F | 1.25 + .04F | 1.40 + .06F |
| RG-188/U Series | 1.25 + .04F | 1.35 + .04F | 1.20 + .04F | 1.30 + .04F |

Dielectric Withstanding Voltage (DWV): VRMS at Sea Level 1500
50 Ω connectors for RG-188/U series cable

R.F. Leakage:

Screw-On -60 dB min. @ 2-3 GHz
Snap-On and Slide-On -55 dB min. @ 2-3 GHz

Insertion Loss: .25 dB max. freq. GHz tested @ 4 GHz

MATERIALS AND FINISHES

Body and Body Components and Male Contacts: Brass, half hard, per QQ-B-626, Alloy 360.

Female Contacts: Beryllium copper per QQ-C-530, heat treated per MIL-H-7199.

Insulators: TFE fluorocarbon per ASTM D 1710, Type I Grade 1.

Lockwashers: Phosphor bronze per QQ-B-750.

Clamp Sleeve: Nickel silver.

Crimp Ferrule: Annealed copper alloy per WW-T-799.

Gaskets: Silicone rubber per ZZ-R-765, Class HB, Grade 65-75.

Center Contacts (except for QPL items):

.000050 min. Gold per MIL-G-45204B Type I, Grade C, Class 1.
over .000005 Gold per MIL-G-45204B Type I, Grade A.
over .0001 min. nickel Per QQ-N-290.

Other Metal Parts: Gold plated to meet the finish and corrosion requirements of MIL-C-39012.

*Applicable to 50 ohm cables only.

ENVIRONMENTAL

Temperature Rating: -65°C to +165°C

GENERAL

Hermetic Seal: Leakage of hermetically sealed connectors shall not exceed 1×10^{-5} cc/sec. of tracer gas at atmospheric pressure.

Contact Captivation: Unless otherwise specified, all connectors feature captivated contacts. When captivated, the contacts will withstand 4.0 lbs. minimum axial force.

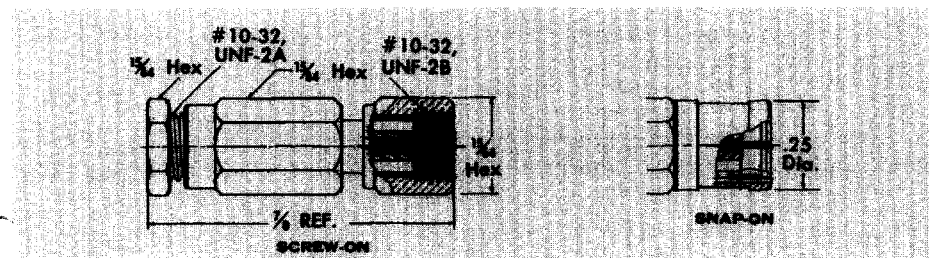
Contact Torque: N/A

Connector Durability: 500 cycles minimum.

Cable Retention:

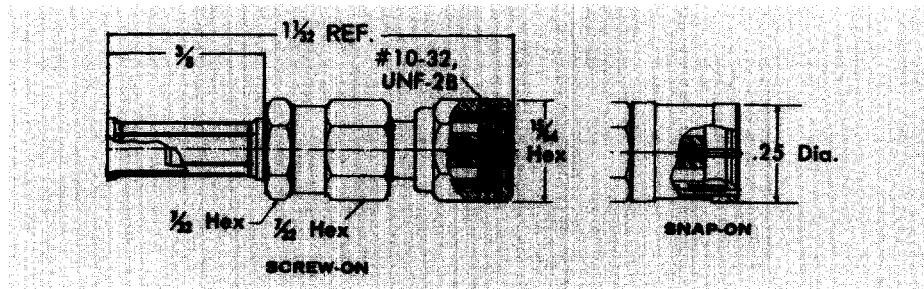
When properly assembled to the compatible braided coaxial cable, the retention is equal to the breaking strength of the cable.

Straight Plug for Braided Coax, Clamp Type



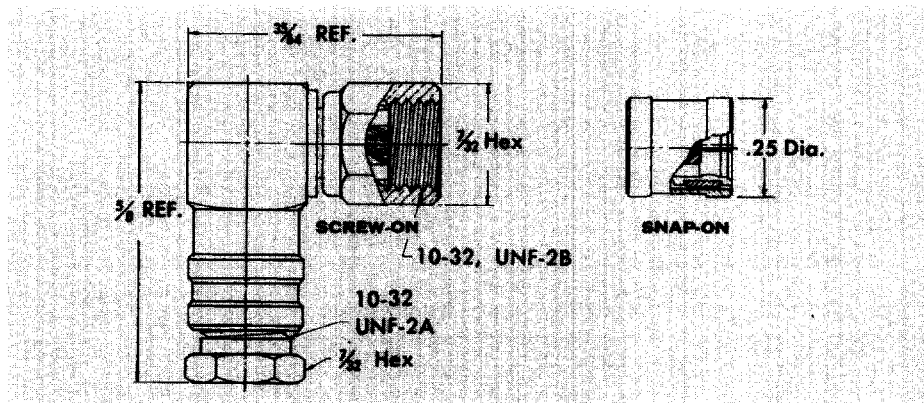
| Cable | Part Number | |
|-----------------|-------------|-------------|
| | Screw-On | Snap-On |
| RG-188/U; 316/U | 50-007-0000 | 51-007-0000 |
| RG-178/U; 196/U | 50-007-3196 | 51-007-3196 |

Straight Plug for Braided Coax, Crimp Type



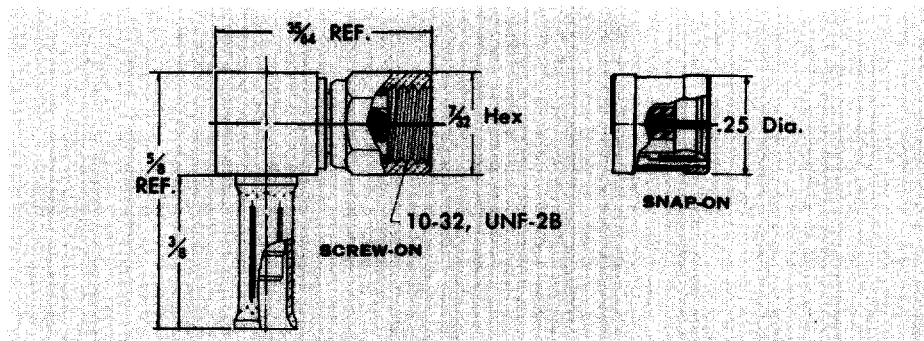
| Cable | Part Number | |
|-----------------|-------------|-------------|
| | Screw-on | Snap-on |
| RG-188/U; 316/U | 50-024-0000 | 51-024-0000 |
| RG-178/U; 196/U | 50-024-3196 | 51-024-3196 |

Right Angle Plug for Braided Coax, Clamp Type



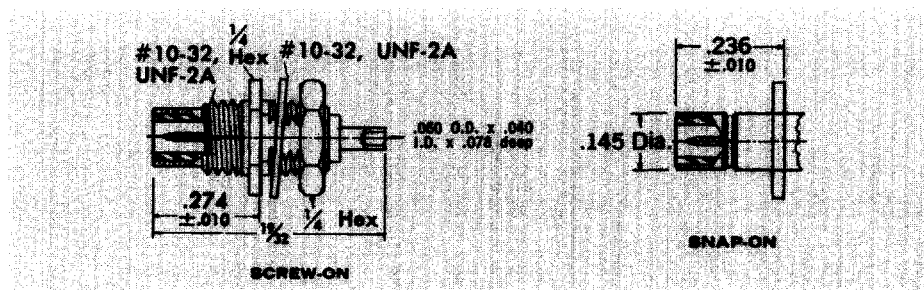
| Cable | Part Number | |
|-----------------|-------------|-------------|
| | Screw-on | Snap-on |
| RG-188/U; 316/U | 50-311-3188 | 51-311-3188 |
| RG-178/U; 196/U | 50-311-3196 | 51-311-3196 |

Right Angle Plug for Braided Coax, Crimp Type



| Cable | Part Number | |
|-----------------|-------------|-------------|
| | Screw-on | Snap-on |
| RG-188/U; 316/U | 50-328-3188 | 51-328-3188 |
| RG-178/U; 196/U | 50-328-3196 | 51-328-3196 |

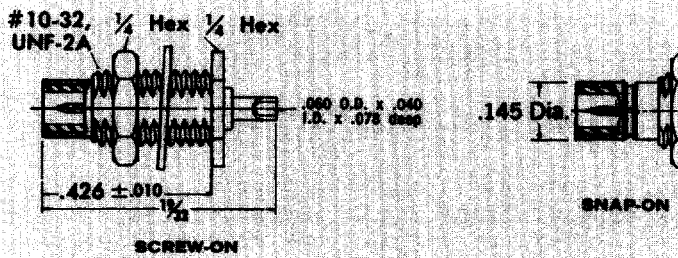
*Bulkhead Jack Receptacle, Front Mount, Solder Pot



| Screw-on | Part Number | |
|-------------|-------------|-------------|
| | Screw-on | Snap-on |
| 50-045-0000 | | 51-045-0000 |

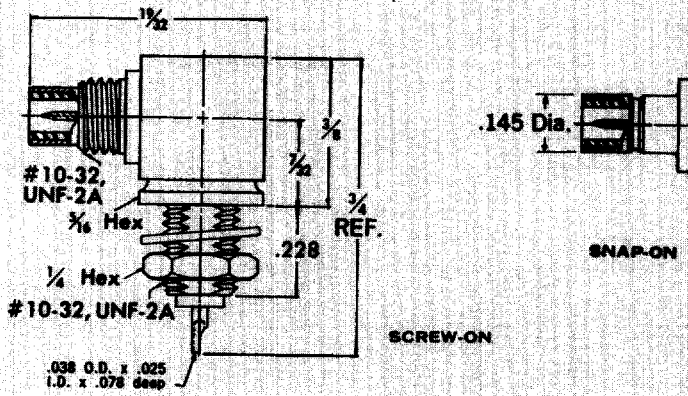
*Designed for .093" max. Panel

*Bulkhead Jack Receptacle, Rear Mount, Solder Pot



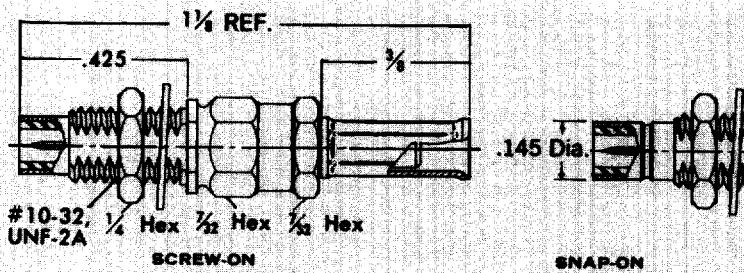
| Part Numbers | |
|--------------|-------------|
| Screw-on | Snap-on |
| 50-043-0000 | 51-043-0000 |

*Right Angle Bulkhead Jack Receptacle, Solder Pot



| Part Numbers | |
|--------------|-------------|
| Screw-on | Snap-on |
| 50-047-0000 | 51-047-0000 |

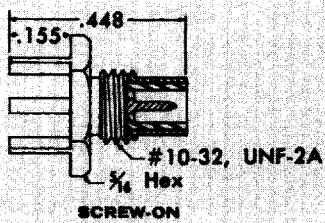
*Straight Bulkhead Jack for Braided Coax, Crimp Type



| Part Numbers | | |
|-----------------|-------------|-------------|
| Cable | Screw-on | Snap-on |
| RG-188/U; 316/U | 50-027-0000 | 51-027-0000 |
| RG-178/U; 196/U | 50-027-3196 | 51-027-3196 |

*Printed Circuit Jack Receptacle

Straight

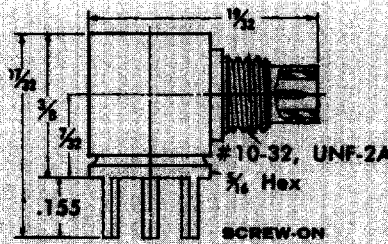


Part Number: 50-051-0000

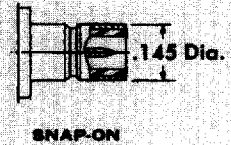


Part Number: 51-051-0000

Right Angle



Part Number: 50-053-0000



Part Number: 51-053-0000

*Designed for .093" max. panel