

TNC Connectors

❖ TNC Coaxial Connectors - TNC Series RF Coaxial Connectors



Since TNC Series have a screw type design using the BNC series combining system, they can be used appropriately for mechanics having especially strong vibrations. They have 50 ohm and 75 ohm Impedances.

Frequencies up to 11 GHz can be used for 50 ohm connectors while 75 ohm connectors can use up to 1 GHz.

Cable Connectors are divided by clamp or crimp according to their usage and every 75 ohm and 50 ohm TNC connectors can be used compatibly.

Standards

▷ MIL-C-39012

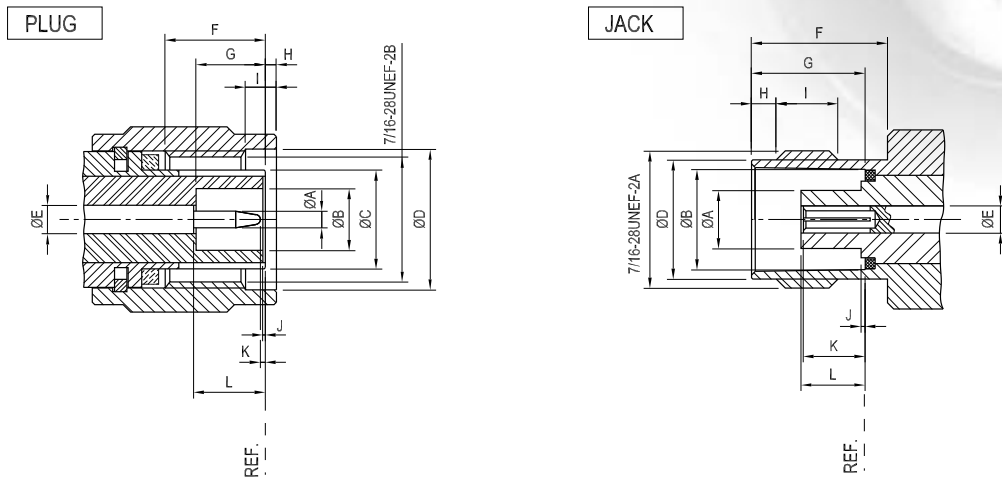
TNC

Connectors

❖ Characteristics

Requirement	MIL-C-39012 Paragraph	Specification
ELECTRICAL DATA		
Impedance		50Ω , 75Ω
Frequency range		DC 11 GHz , DC 1 GHz
Contact current		DC 3.5A max.
Voltage rating		250V rms
Contact resistance	3-16	Center contacts : 2.0 mΩ Outer contacts : 0.2 mΩ
Insulation resistance	3-11	5000MΩ min
Insertion loss	3-27	0.18dB max. at 9 GHz
V.S.W.R	3-14	≤1.5
MECHANICAL DATA		
Coupling nut torque		20Ncm-170Ncm
Life		500 matings.
Contact captivation	3-14	≥ 27N
Proof torque		Not applicable
ENVIRONMENTAL DATA		
Temperature range		: -65°C~+125°C
Corrosion resistance	3-13	MIL-STD-202, Method 101, Condition B.
Moisture resistance	3-21	MIL-STD-202, Method 106.
Thermal shock	3-20	MIL-STD-202, Method 107, Condition B.
Vibration	3-18	MIL-STD-202, Method 204, Condition B.
Shock	3-19	MIL-STD-202, Method 213, Condition G.
MATERIALS		
Bodies and Male contacts		Brass
Female contacts		Beryllium copper
Insulators		PTFE Teflon
Gasket		Silicone Rubber
PLATINGS		
Bodies,Coupling nuts		Nickel plated
Center contacts		Gold plated

❖ Interface Dimensions



INTERFACE DIMENSIONS in mm/inch

	PLUG		JACK	
	Min.	Max.	Min.	Max.
A	1.32/.052	1.37/.054	—	4.72/.186
B	4.83/.190	—	8.10/.319	8.15/.321
C	8.06/.317	8.09/.318	—	—
D	11.18/.440	—	9.60/.378	9.68/.381
E	2.06/.081	2.20/.087	2.06/.081	2.20/.087
F	3.96/.156	—	10.52/.414	—
G	5.28/.208	5.79/.228	8.31/.327	8.51/.335
H	—	1.98/.078	1.73/.068	2.24/.088
I	1.60/.063	—	4.75/.187	—
J	0.15/.006	—	—	0.15/.006
K	0.08/.003	1.02/.040	4.72/.186	5.23/.206
L	5.33/.210	5.84/.230	4.78/.188	5.28/.208

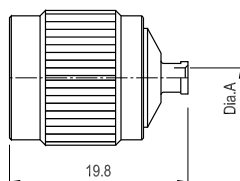
Applicable standards

▷ MIL-C-39012

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❖ Semi-Rigid Cables

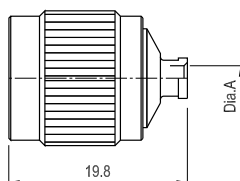
Straight Plug



for cable solder

Part number	1T-101
Cable group	U85
Dim. A	2.25(.089)

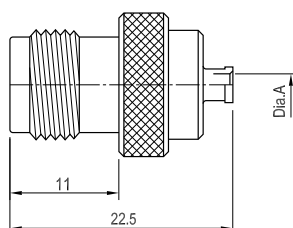
Straight Plug



for cable solder

Part number	1T-102
Cable group	U141
Dim. A	3.65(.144)

Straight Jack

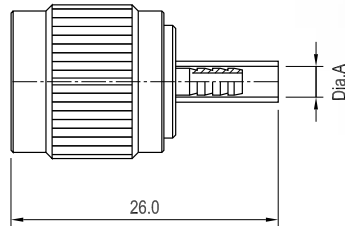


for cable solder

Part number	1T-201	1T-202
Cable group	U85	U141
Dim. A	2.25(.089)	3.65(.144)

❖ Flexible Cables

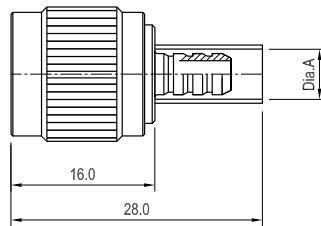
Straight Plug



for cable crimp

Part number	1T-111
Cable group	316
Dim. A	3.2(.089)

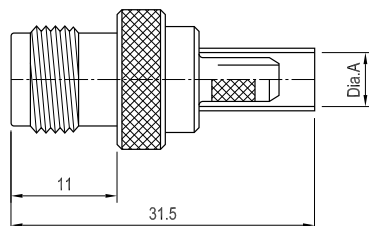
Straight Plug



for cable crimp

Part number	1T-112
Cable group	400
Dim. A	5.5(.144)

Straight Jack



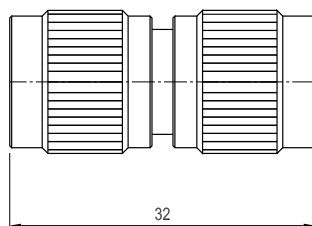
for cable crimp

Part number	1T-211	1T-212
Cable group	316	400
Dim. A	3.2(.089)	5.5(.144)

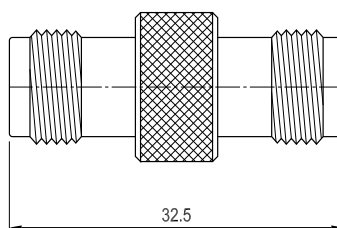
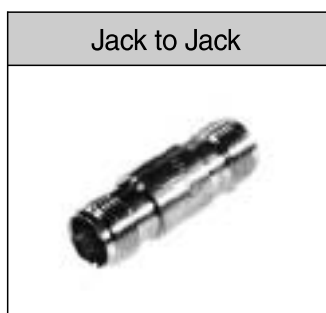
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❖ Adaptors -50Ω



Part number	1T-801
Cable group	Adaptors



Part number	1T-802
Cable group	Adaptors