

# C300-NMTR-1M

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CNT-300A CNT® Jumper with interface types N Male and TNC Male  
Right Angle, 1m



## Product Classification

<b>Product Type</b>	Braided cable assembly
<b>Product Brand</b>	CNT®
<b>Product Series</b>	CNT-300

## General Specifications

<b>Attachment, Connector A</b>	Factory attached
<b>Attachment, Connector B</b>	Factory attached
<b>Body Style, Connector A</b>	Straight
<b>Body Style, Connector B</b>	Right angle
<b>Cable Family</b>	CNT-400
<b>Interface, Connector A</b>	N Male
<b>Interface, Connector B</b>	TNC Male
<b>Specification Sheet Revision Level</b>	A

## Dimensions

<b>Length</b>	1 m   3.281 ft
<b>Nominal Size</b>	0.300 in

## VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
700–2000 MHz	1.288	18
2000–3000 MHz	1.433	14.99

## Jumper Assembly Sample Label

# C300-NMTR-1M

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## Included Products

- 300BPNM-C – Type N Male for CNT-300 braided cable
- 300BPTR-C – TNC Male Right Angle for CNT-300 braided cable
- CNT-300A – CNT-300, CNT® 50 Ohm Braided Coaxial Cable, black PE jacket

# 300BPNM-C

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Type N Male for CNT-300 braided cable

## Product Classification

<b>Product Type</b>	Braided cable connector
<b>Product Brand</b>	CNT®

## General Specifications

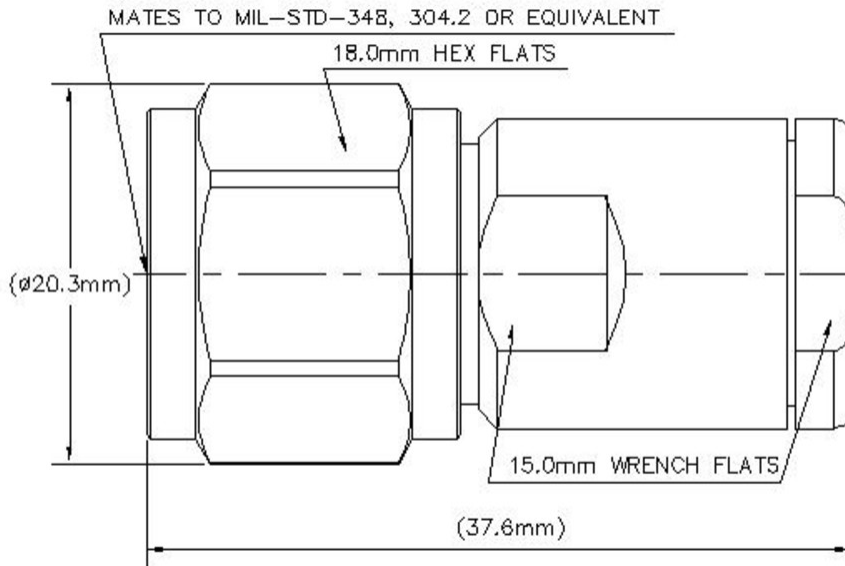
<b>Body Style</b>	Straight
<b>Inner Contact Attachment Method</b>	Captivated
<b>Inner Contact Plating</b>	Silver
<b>Interface</b>	N Male
<b>Outer Contact Attachment Method</b>	Clamp
<b>Outer Contact Plating</b>	Trimetal

## Dimensions

<b>Width</b>	20.25 mm   0.797 in
<b>Length</b>	37.6 mm   1.48 in
<b>Diameter</b>	20.25 mm   0.797 in
<b>Nominal Size</b>	0.300 in

## Outline Drawing

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## Electrical Specifications

<b>Insertion Loss, typical</b>	0.05 dB
<b>Cable Impedance</b>	50 ohm
<b>Connector Impedance</b>	50 ohm
<b>dc Test Voltage</b>	2000 V
<b>Inner Contact Resistance, maximum</b>	1 mOhm
<b>Insulation Resistance, minimum</b>	5000 MOhm
<b>Operating Frequency Band</b>	0 – 6000 MHz
<b>Outer Contact Resistance, maximum</b>	0.25 mOhm
<b>Peak Power, maximum</b>	10 kW
<b>RF Operating Voltage, maximum (vrms)</b>	707 V

## VSWR/Return Loss

<b>Frequency Band</b>	<b>VSWR</b>	<b>Return Loss (dB)</b>
<b>0–960 MHz</b>	1.04	34.16
<b>960–1000 MHz</b>	1.04	34.16
<b>1000–2000 MHz</b>	1.05	32.26
<b>2000–6000 MHz</b>	1.12	24.95

## Mechanical Specifications

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<b>Connector Retention Tensile Force</b>	220 N   49.458 lbf
<b>Connector Retention Torque</b>	0.45 N-m   3.983 in lb
<b>Coupling Nut Proof Torque</b>	1.7 N-m   15.046 in lb
<b>Coupling Nut Proof Torque Method</b>	IEC 61169-16:9.3.6
<b>Coupling Nut Retention Force</b>	450 N   101.164 lbf
<b>Coupling Nut Retention Force Method</b>	IEC 61169-16:9.3.11
<b>Interface Durability</b>	500 cycles
<b>Interface Durability Method</b>	IEC 61169-16:9.5
<b>Mechanical Shock Test Method</b>	IEC 60068-2-27

## Environmental Specifications

<b>Operating Temperature</b>	-40 °C to +85 °C (-40 °F to +185 °F)
<b>Storage Temperature</b>	-65 °C to +125 °C (-85 °F to +257 °F)
<b>Attenuation, Ambient Temperature</b>	20 °C   68 °F
<b>Average Power, Ambient Temperature</b>	40 °C   104 °F
<b>Average Power, Inner Conductor Temperature</b>	100 °C   212 °F
<b>Climatic Sequence Test Method</b>	IEC 60068-1
<b>Corrosion Test Method</b>	IEC 60068-2-11
<b>Damp Heat Steady State Test Method</b>	IEC 60068-2-3
<b>Immersion Depth</b>	1 m
<b>Immersion Test Mating</b>	Mated
<b>Immersion Test Method</b>	IEC 60529:2001, IP68
<b>Thermal Shock Test Method</b>	IEC 60068-2-14
<b>Vibration Test Method</b>	IEC 60068-2-6

## Packaging and Weights

<b>Weight, net</b>	43.59 g   0.096 lb
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## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
CHINA-ROHS	Above maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
ROHS	Compliant/Exempted

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## \* Footnotes

**Insertion Loss, typical** 0.05v~freq (GHz) (not applicable for elliptical waveguide)

**Immersion Depth** Immersion at specified depth for 24 hours

# 300BPTR-C

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TNC Male Right Angle for CNT-300 braided cable

## Product Classification

<b>Product Type</b>	Braided cable connector
<b>Product Brand</b>	CNT®

## General Specifications

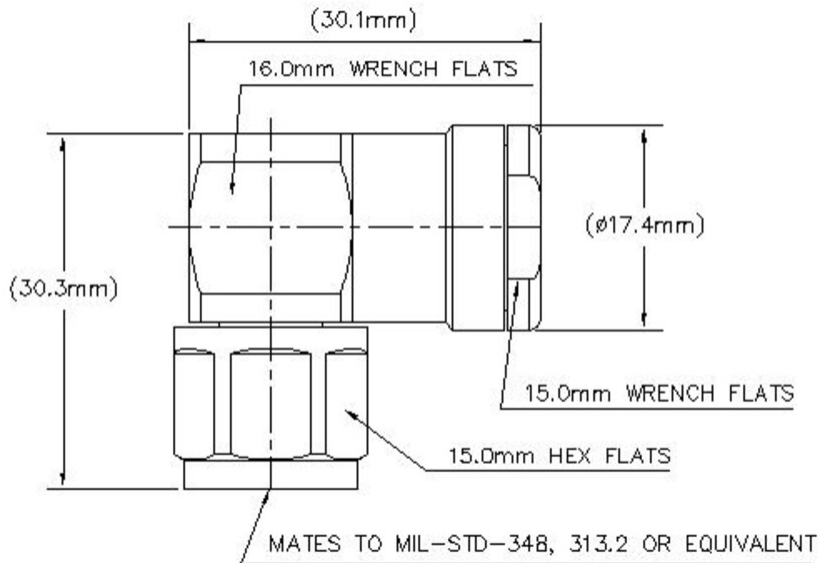
<b>Body Style</b>	Right angle
<b>Inner Contact Attachment Method</b>	Captivated
<b>Inner Contact Plating</b>	Gold
<b>Interface</b>	TNC Male
<b>Outer Contact Attachment Method</b>	Clamp
<b>Outer Contact Plating</b>	Trimetal

## Dimensions

<b>Height</b>	30.31 mm   1.193 in
<b>Width</b>	16.5 mm   0.65 in
<b>Length</b>	30.1 mm   1.185 in
<b>Nominal Size</b>	0.300 in

## Outline Drawing

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## Electrical Specifications

<b>Insertion Loss, typical</b>	0.05 dB
<b>Cable Impedance</b>	50 ohm
<b>Connector Impedance</b>	50 ohm
<b>dc Test Voltage</b>	1500 V
<b>Inner Contact Resistance, maximum</b>	1.5 mOhm
<b>Insulation Resistance, minimum</b>	5000 MOhm
<b>Operating Frequency Band</b>	0 – 6000 MHz
<b>Outer Contact Resistance, maximum</b>	0.4 mOhm
<b>Peak Power, maximum</b>	5 kW
<b>RF Operating Voltage, maximum (vrms)</b>	500 V

## VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
0–500 MHz	1.05	32.26
500–1000 MHz	1.052	31.93
1000–2000 MHz	1.069	29.54
2000–3000 MHz	1.08	28.3
3000–4000 MHz	1.069	29.54



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<b>4000–5000 MHz</b>	1.102	26.29
<b>5000–6000 MHz</b>	1.148	23.24

## Mechanical Specifications

<b>Connector Retention Tensile Force</b>	220 N   49.458 lbf
<b>Connector Retention Torque</b>	0.45 N-m   3.983 in lb
<b>Coupling Nut Proof Torque</b>	1.7 N-m   15.046 in lb
<b>Coupling Nut Proof Torque Method</b>	IEC 61169-17:9.3.6
<b>Coupling Nut Retention Force</b>	445 N   100.04 lbf
<b>Coupling Nut Retention Force Method</b>	IEC 61169-17:9.3.11
<b>Interface Durability</b>	500 cycles
<b>Interface Durability Method</b>	IEC 61169-17:9.5
<b>Mechanical Shock Test Method</b>	IEC 60068-2-27

## Environmental Specifications

<b>Operating Temperature</b>	-40 °C to +85 °C (-40 °F to +185 °F)
<b>Storage Temperature</b>	-65 °C to +125 °C (-85 °F to +257 °F)
<b>Attenuation, Ambient Temperature</b>	20 °C   68 °F
<b>Average Power, Ambient Temperature</b>	40 °C   104 °F
<b>Average Power, Inner Conductor Temperature</b>	100 °C   212 °F
<b>Immersion Depth</b>	1 m
<b>Immersion Test Mating</b>	Mated
<b>Immersion Test Method</b>	IEC 60529:2001, IP68
<b>Vibration Test Method</b>	IEC 60068-2-6

## Packaging and Weights

<b>Weight, net</b>	58.49 g   0.129 lb
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## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
CHINA-ROHS	Above maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
ROHS	Compliant/Exempted

# 300BPTR-C

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## \* Footnotes

**Insertion Loss, typical** 0.05v~freq (GHz) (not applicable for elliptical waveguide)

**Immersion Depth** Immersion at specified depth for 24 hours

# CNT-300A

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CNT-300, CNT® 50 Ohm Braided Coaxial Cable, black PE jacket



## Product Classification

<b>Product Type</b>	Braided coaxial cable
<b>Product Brand</b>	CNT®
<b>Product Series</b>	CNT-300

## General Specifications

<b>Braid Coverage</b>	87 %
<b>Cable Type</b>	CNT-300
<b>Jacket Color</b>	Black

## Dimensions

<b>Diameter Over Dielectric</b>	4.83 mm   0.19 in
<b>Diameter Over Jacket</b>	7.62 mm   0.3 in
<b>Diameter Over Tape</b>	5.003 mm   0.197 in
<b>Inner Conductor OD</b>	1.78 mm   0.07 in
<b>Outer Conductor OD</b>	5.66 mm   0.223 in
<b>Nominal Size</b>	0.300 in

## Electrical Specifications

<b>Cable Impedance</b>	50 ohm
<b>Capacitance</b>	80.4 pF/m   24.506 pF/ft
<b>dc Resistance, Inner Conductor</b>	11.05 ohms/km   3.368 ohms/kft
<b>dc Resistance, Outer Conductor</b>	8.5 ohms/km   2.591 ohms/kft
<b>dc Test Voltage</b>	2500 V
<b>Jacket Spark Test Voltage (rms)</b>	3500 V

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<b>Maximum Frequency</b>	24.5 GHz
<b>Operating Frequency Band</b>	30 – 6000 MHz
<b>Peak Power</b>	10 kW
<b>Shielding Effectiveness</b>	90 dB
<b>Velocity</b>	83 %

## Attenuation

<b>Frequency (MHz)</b>	<b>Attenuation (dB/100 m)</b>	<b>Attenuation (dB/100 ft)</b>
30.0	3.8	1.16
50.0	4.9	1.5
220.0	9.5	2.9
450.0	13.1	4
900.0	19.4	5.9
1500.0	25.3	7.7
1800.0	28.2	8.6
2000.0	29.8	9.1
2500.0	33.8	10.3
3000.0	37.4	11.4
4000.0	44.61	13.6
4500.0	47.75	14.55
5000.0	50.52	15.4
5200.0	51.83	15.8
5500.0	53.14	16.2
5800.0	54.78	16.7
6000.0	55.8	17

## Material Specifications

<b>Braid Material</b>	Tinned copper
<b>Dielectric Material</b>	Foam PE
<b>Jacket Material</b>	PE
<b>Inner Conductor Material</b>	Copper-clad aluminum wire
<b>Shield Tape Material</b>	Aluminum

## Mechanical Specifications

<b>Minimum Bend Radius, single Bend</b>	22.352 mm   0.88 in
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<b>Tensile Strength</b>	23 kg   50.706 lb
<b>Bending Moment</b>	0.5 N-m   4.425 in lb
<b>Flat Plate Crush Strength</b>	0.5 kg/mm   27.999 lb/in

## Environmental Specifications

<b>Installation temperature</b>	-40 °C to +85 °C (-40 °F to +185 °F)
<b>Operating Temperature</b>	-40 °C to +85 °C (-40 °F to +185 °F)
<b>Storage Temperature</b>	-70 °C to +85 °C (-94 °F to +185 °F)

## Packaging and Weights

<b>Cable weight</b>	0.06 kg/m   0.04 lb/ft
<b>Packaging Type</b>	Reel

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

