# C400-NMNF-M3

CNT-400 CNT® Jumper with interface types N Male and N Female, 0.3



m

#### **Product Classification**

**Product Type** Braided cable assembly

Product Brand CNT®
Product Series CNT-400

### General Specifications

Attachment, Connector A Field attachment

Attachment, Connector B Field attachment

Body Style, Connector A Straight
Body Style, Connector B Straight
Cable Family CNT-400
Interface, Connector A N Male
Interface, Connector B N Female

Specification Sheet Revision Level A

#### **Dimensions**

**Length** 0.3 m | 0.984 ft

Nominal Size 0.400 in

#### VSWR/Return Loss

Frequency Band VSWR Return Loss (dB)

**700–3000 MHz** 1.288 18

### Jumper Assembly Sample Label





### Regulatory Compliance/Certifications

Agency Classification

CHINA-ROHS Above maximum concentration value

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

ROHS Compliant/Exempted UK-ROHS Compliant/Exempted



#### Included Products

400APNM-C–Type N Male for CNT-400 braided cable400BPNM-C–Type N Male for CNT-400 braided cable400PNF-C–Type N Female for CNT-400 braided cable

CNT-400 CNT-400, CNT® 50 Ohm Braided Coaxial Cable, variable, black PE jacket

CNT-400-SFR - CNT-400-SFR, C CNT® 50 Ohm Braided Coaxial Cable, black non-halogenated, fire retardant

polyolefin jacket, B2ca S1a d0 a1 Compliant

CNT-400-W - CNT-400-W, CNT® 50 Ohm Braided Coaxial Cable, variable, white PE jacket



# 400APNM-C

### Type N Male for CNT-400 braided cable

#### **Product Classification**

Product Type Braided cable connector

Product Brand CNT®

General Specifications

Body Style Straight

Inner Contact Attachment Method Captivated

Inner Contact PlatingGoldInterfaceN MaleOuter Contact Attachment MethodClamp

Outer Contact Plating Trimetal

**Dimensions** 

 Width
 20.25 mm | 0.797 in

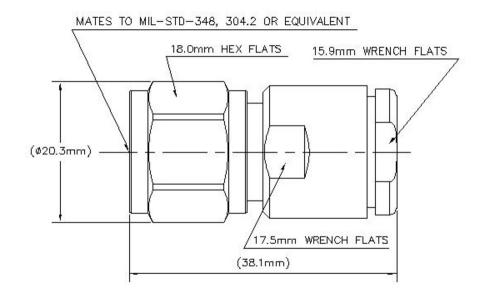
 Length
 38.22 mm | 1.505 in

 Diameter
 20.25 mm | 0.797 in

Nominal Size 0.405 in

Outline Drawing





## **Electrical Specifications**

Insertion Loss, typical 0.05 dB **Cable Impedance** 50 ohm **Connector Impedance** 50 ohm 2500 V dc Test Voltage Inner Contact Resistance, maximum 1 m0hm Insulation Resistance, minimum 5000 MOhm 0 - 6000 MHz **Operating Frequency Band Outer Contact Resistance, maximum** 0.25 m0hm Peak Power, maximum 10 kW RF Operating Voltage, maximum (vrms) 707 V

#### VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
0-3000 MHz	1.046	32.96
3000-6000 MHz	1.18	22

## Mechanical Specifications

Connector Retention Tensile Force330 N | 74.187 lbfConnector Retention Torque0.56 N-m | 4.956 in lb

ANDREW® an Amphenol company

# 400APNM-C

**Coupling Nut Proof Torque** 1.7 N-m | 15.046 in lb

**Coupling Nut Proof Torque Method** IEC 61169-16:9.3.6

**Coupling Nut Retention Force** 450 N | 101.164 lbf

**Coupling Nut Retention Force Method** IEC 61169-16:9.3.11

Interface Durability 500 cycles

**Interface Durability Method** IEC 61169-16:9.5

Mechanical Shock Test Method IEC 60068-2-27

### **Environmental Specifications**

**Operating Temperature**  $-40 \,^{\circ}\text{C} \text{ to } +85 \,^{\circ}\text{C} \, (-40 \,^{\circ}\text{F to } +185 \,^{\circ}\text{F})$ 

Storage Temperature -65 °C to +125 °C (-85 °F to +257 °F)

**Attenuation, Ambient Temperature** 20 °C | 68 °F

**Average Power, Ambient Temperature** 40 °C | 104 °F

**Average Power, Inner Conductor Temperature** 100 °C | 212 °F

Climatic Sequence Test Method IEC 60068-1

**Corrosion Test Method** IEC 60068-2-11

Damp Heat Steady State Test Method IEC 60068-2-3

Immersion Depth 1 m

Immersion Test Mating Mated

**Immersion Test Method** IEC 60529:2001, IP68

Thermal Shock Test Method IEC 60068-2-14

Vibration Test Method IEC 60068-2-6

Packaging and Weights

**Weight, net** 47.08 g | 0.104 lb

## Regulatory Compliance/Certifications

#### Agency Classification

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

REACH-SVHC Compliant as per SVHC revision on www.andrew.com/ProductCompliance

ROHS Compliant UK-ROHS Compliant

#### \* Footnotes



Page 5 of 22

# 400APNM-C

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

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



# 400BPNM-C



### Type N Male for CNT-400 braided cable

#### **Product Classification**

 Product Type
 Braided cable connector

 Product Brand
 CNT® | ConQuest®

## General Specifications

Body Style Straight
Inner Contact Attachment Method Captivated
Inner Contact Plating Silver
Interface N Male
Outer Contact Attachment Method Clamp

#### Dimensions

**Outer Contact Plating** 

 Width
 20.25 mm | 0.797 in

 Length
 35.48 mm | 1.397 in

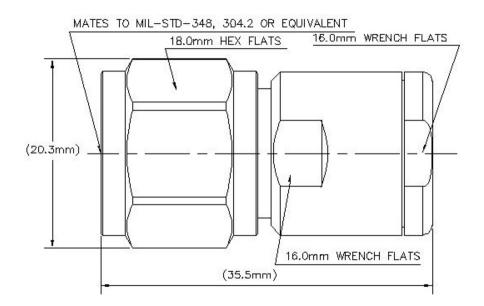
 Diameter
 20.25 mm | 0.797 in

Trimetal

Nominal Size 0.405 in

## Outline Drawing





## **Electrical Specifications**

Insertion Loss, typical 0.05 dB **Cable Impedance** 50 ohm **Connector Impedance** 50 ohm 2500 V dc Test Voltage Inner Contact Resistance, maximum 1 m0hm Insulation Resistance, minimum 5000 MOhm 0 - 6000 MHz **Operating Frequency Band Outer Contact Resistance, maximum** 0.25 m0hm Peak Power, maximum 10 kW RF Operating Voltage, maximum (vrms) 707 V

#### VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
0-3000 MHz	1.046	32.96
3000-6000 MHz	1.18	22

## Mechanical Specifications

Connector Retention Tensile Force330 N | 74.187 lbfConnector Retention Torque0.56 N-m | 4.956 in lb

ANDREW® an Amphenol company

# 400BPNM-C

Coupling Nut Proof Torque 1.7 N-m | 15.046 in lb

**Coupling Nut Proof Torque Method** IEC 61169-16:9.3.6

**Coupling Nut Retention Force** 450 N | 101.164 lbf

**Coupling Nut Retention Force Method** IEC 61169-16:9.3.11

Interface Durability 500 cycles

Interface Durability Method IEC 61169-16:9.5

Mechanical Shock Test Method IEC 60068-2-27

#### **Environmental Specifications**

**Operating Temperature**  $-40 \,^{\circ}\text{C} \text{ to } +85 \,^{\circ}\text{C} \, (-40 \,^{\circ}\text{F to } +185 \,^{\circ}\text{F})$ 

**Storage Temperature**  $-65 \,^{\circ}\text{C}$  to  $+125 \,^{\circ}\text{C}$  (-85  $^{\circ}\text{F}$  to  $+257 \,^{\circ}\text{F}$ )

**Attenuation, Ambient Temperature** 20 °C | 68 °F

**Average Power, Ambient Temperature** 40 °C | 104 °F

**Average Power, Inner Conductor Temperature** 100 °C | 212 °F

Climatic Sequence Test Method IEC 60068-1

Corrosion Test Method IEC 60068-2-11

Damp Heat Steady State Test Method IEC 60068-2-3

Immersion Depth 1 m

Immersion Test Mating Mated

**Immersion Test Method** IEC 60529:2001, IP68

Thermal Shock Test Method IEC 60068-2-14

Vibration Test Method IEC 60068-2-6

Packaging and Weights

**Weight, net** 37.55 g | 0.083 lb

## Regulatory Compliance/Certifications

#### Agency Classification

CHINA-ROHS Below maximum concentration value

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

REACH-SVHC Compliant as per SVHC revision on www.andrew.com/ProductCompliance

ROHS Compliant UK-ROHS Compliant



# 400BPNM-C



#### \* Footnotes

**Insertion Loss, typical** 0.05√-freq (GHz) (not applicable for elliptical waveguide)

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



# 400PNF-C



### Type N Female for CNT-400 braided cable

#### **Product Classification**

 Product Type
 Braided cable connector

 Product Brand
 CNT® | ConQuest®

## General Specifications

Body StyleStraightInner Contact Attachment MethodCaptivatedInner Contact PlatingGold

 Interface
 N Female

 Outer Contact Attachment Method
 Clamp

 Outer Contact Plating
 Trimetal

 Pressurizable
 No

#### **Dimensions**

 Width
 19 mm | 0.748 in

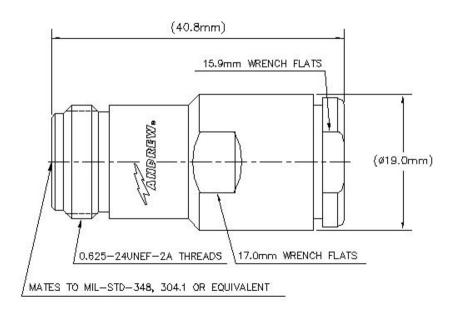
 Length
 40.84 mm | 1.608 in

 Diameter
 19 mm | 0.748 in

 Nominal Size
 0.405 in

## Outline Drawing





#### **Electrical Specifications**

**Insertion Loss, typical** 0.05 dB

Average Power at Frequency 580.0 W @ 900 MHz

Cable Impedance50 ohmConnector Impedance50 ohmdc Test Voltage2500 VInner Contact Resistance, maximum1 m0hm

Insulation Resistance, minimum5000 MOhmOperating Frequency Band0 - 6000 MHzOuter Contact Resistance, maximum0.25 mOhm

Peak Power, maximum 10 kW RF Operating Voltage, maximum (vrms) 707 V

## VSWR/Return Loss

 Frequency Band
 VSWR
 Return Loss (dB)

 0-3000 MHz
 1.045
 33.15

**3000–6000 MHz** 1.172 22.03

Mechanical Specifications

**Connector Retention Tensile Force** 330 N | 74.187 lbf

ANDREW® an Amphenol company

# 400PNF-C

**Connector Retention Torque** 0.56 N-m | 4.956 in lb | 0.75 N-m | 6.638 in lb

Insertion Force 28 N | 6.295 lbf
Insertion Force Method IEC 61169-16:9.3.5

Interface Durability 500 cycles

Interface Durability MethodIEC 61169-16:9.5Mechanical Shock Test MethodIEC 60068-2-27

### **Environmental Specifications**

Operating Temperature  $-40 \,^{\circ}\text{C}$  to  $+85 \,^{\circ}\text{C}$  (-40  $^{\circ}\text{F}$  to  $+185 \,^{\circ}\text{F}$ )

Storage Temperature  $-65 \,^{\circ}\text{C}$  to  $+125 \,^{\circ}\text{C}$  (-85  $^{\circ}\text{F}$  to  $+257 \,^{\circ}\text{F}$ )

Attenuation, Ambient Temperature20 °C | 68 °FAverage Power, Ambient Temperature40 °C | 104 °FAverage Power, Inner Conductor Temperature100 °C | 212 °F

Climatic Sequence Test MethodIEC 60068-1Corrosion Test MethodIEC 60068-2-11Damp Heat Steady State Test MethodIEC 60068-2-3

 Immersion Depth
 1 m

 Immersion Test Mating
 Mated

**Immersion Test Method** IEC 60529:2001, IP68

Thermal Shock Test Method IEC 60068-2-14

Vibration Test Method IEC 60068-2-6

Packaging and Weights

**Weight, net** 53.19 g | 0.117 lb

### Regulatory Compliance/Certifications

Agency Classification

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

\* Footnotes

**Insertion Loss, typical** 0.05√-freq (GHz) (not applicable for elliptical waveguide)

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





CNT-400, CNT® 50 Ohm Braided Coaxial Cable, variable, black PE jacket

#### **Product Classification**

Product Type Braided coaxial cable

Product Brand CNT®
Product Series CNT-400

### General Specifications

Braid Coverage 90 %

Cable Type CNT-400

Jacket Color Black

#### Dimensions

 Diameter Over Dielectric
 7.24 mm | 0.285 in

 Diameter Over Jacket
 10.29 mm | 0.405 in

 Diameter Over Tape
 7.391 mm | 0.291 in

 Inner Conductor OD
 2.74 mm | 0.108 in

 Outer Conductor OD
 8.08 mm | 0.318 in

Nominal Size 0.400 in

#### **Electrical Specifications**

Cable Impedance 50 ohm

 $\textbf{Capacitance} \hspace{1.5cm} 78 \text{ pF/m} \hspace{0.1cm} | \hspace{0.1cm} 23.774 \text{ pF/ft}$ 

dc Resistance, Inner Conductor4.69 ohms/km | 1.43 ohms/kftdc Resistance, Outer Conductor5.61 ohms/km | 1.71 ohms/kft

dc Test Voltage  $2500 \ \lor$  Jacket Spark Test Voltage (rms)  $4000 \ \lor$ 

Maximum Frequency 16.2 GHz

Operating Frequency Band 30 - 6000 MHz

Peak Power 16 kW

ANDREW® an Amphenol company

# CNT-400

#### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
30.0	2.49	0.76
50.0	3.18	0.97
150.0	4.92	1.5
220.0	6.23	1.9
450.0	8.86	2.7
900.0	12.8	3.9
1500.0	16.7	5.1
1800.0	18.4	5.6
2000.0	19.4	5.9
2400.0	21.65	6.6
2500.0	22	6.7
3000.0	24.6	7.5
4000.0	28.87	8.8
4500.0	30.84	9.4
5000.0	32.81	10
5200.0	33.46	10.2
5500.0	34.78	10.6
5800.0	35.76	10.9
6000.0	36.42	11.1

## Material Specifications

Braid MaterialTinned copperDielectric MaterialFoam PE

**Jacket Material** Non-halogenated PE

Inner Conductor Material Copper-clad aluminum wire

Shield Tape Material Aluminum

Mechanical Specifications

Minimum Bend Radius, single Bend25.4 mm | 1 inTensile Strength73 kg | 160.937 lb



# CNT-400

 Bending Moment
 0.7 N-m | 6.196 in lb

 Flat Plate Crush Strength
 0.7 kg/mm | 39.198 lb/in

#### **Environmental Specifications**

Installation temperature  $-40 \,^{\circ}\text{C}$  to  $+85 \,^{\circ}\text{C}$  (-40  $^{\circ}\text{F}$  to  $+185 \,^{\circ}\text{F}$ )

Operating Temperature  $-40 \,^{\circ}\text{C}$  to  $+85 \,^{\circ}\text{C}$  (-40  $^{\circ}\text{F}$  to  $+185 \,^{\circ}\text{F}$ )

Storage Temperature  $-70 \,^{\circ}\text{C}$  to  $+85 \,^{\circ}\text{C}$  (-94  $^{\circ}\text{F}$  to  $+185 \,^{\circ}\text{F}$ )

Packaging and Weights

**Cable weight** 0.1 kg/m | 0.067 lb/ft

### Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

REACH-SVHC Compliant as per SVHC revision on www.andrew.com/ProductCompliance

ROHS Compliant UK-ROHS Compliant



# CNT-400-SFR



CNT-400-SFR, C CNT® 50 Ohm Braided Coaxial Cable, black non-halogenated, fire retardant polyolefin jacket, B2ca S1a d0 a1 Compliant

#### Product Classification

Product Type Braided coaxial cable

Product Brand CNT®

Product Series CNT-400

General Specifications

Braid Coverage 90 %

Cable Type CNT-400

Jacket Color Black

**Dimensions** 

 Diameter Over Dielectric
 7.24 mm | 0.285 in

 Diameter Over Jacket
 10.29 mm | 0.405 in

 Diameter Over Tape
 7.391 mm | 0.291 in

 Inner Conductor OD
 2.74 mm | 0.108 in

 Outer Conductor OD
 8.08 mm | 0.318 in

Nominal Size 0.400 in

**Electrical Specifications** 

Cable Impedance 50 ohm

 $\textbf{Capacitance} \hspace{1.5cm} 78 \text{ pF/m} \hspace{.1cm} | \hspace{.1cm} 23.774 \text{ pF/ft}$ 

dc Resistance, Inner Conductor4.49 ohms/km | 1.369 ohms/kftdc Resistance, Outer Conductor5.61 ohms/km | 1.71 ohms/kft

dc Test Voltage2500 VJacket Spark Test Voltage (rms)4000 VMaximum Frequency16.2 GHz

**Operating Frequency Band** 30 – 6000 MHz

Peak Power 16 kW



Page 17 of 22

# CNT-400-SFR

Shielding Effectiveness 90 dB Velocity 85 %

#### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
30.0	2.49	0.76
50.0	3.18	0.97
150.0	4.92	1.5
220.0	6.23	1.9
450.0	8.86	2.7
900.0	12.8	3.9
1500.0	16.7	5.1
1800.0	18.4	5.6
2000.0	19.4	5.9
2400.0	21.65	6.6
2500.0	22	6.7
3000.0	24.6	7.5
4000.0	28.87	8.8
4500.0	30.84	9.4
5000.0	32.81	10
5200.0	33.46	10.2
5500.0	34.78	10.6
5800.0	35.76	10.9
6000.0	36.42	11.1

## Material Specifications

Braid Material Tinned copper

**Dielectric Material** Foam PE

Jacket Material Non-halogenated, fire retardant polyolefin

Inner Conductor Material Copper-clad aluminum wire

Shield Tape Material Aluminum

Mechanical Specifications

Minimum Bend Radius, single Bend25.4 mm | 1 inTensile Strength73 kg | 160.937 lb



# CNT-400-SFR

**Bending Moment** 0.7 N-m | 6.196 in lb

Flat Plate Crush Strength 0.7 kg/mm | 39.198 lb/in

## **Environmental Specifications**

Installation temperature  $-40 \,^{\circ}\text{C} \text{ to } +60 \,^{\circ}\text{C} \text{ (-40 }^{\circ}\text{F to } +140 \,^{\circ}\text{F)}$ Operating Temperature  $-40 \,^{\circ}\text{C} \text{ to } +60 \,^{\circ}\text{C} \text{ (-40 }^{\circ}\text{F to } +140 \,^{\circ}\text{F)}$ 

**Storage Temperature**  $-40 \,^{\circ}\text{C} \text{ to } +60 \,^{\circ}\text{C} \, (-40 \,^{\circ}\text{F to } +140 \,^{\circ}\text{F})$ 

EN50575 CPR Cable EuroClass Fire PerformanceB2caEN50575 CPR Cable EuroClass Smoke Ratings1aEN50575 CPR Cable EuroClass Droplets Ratingd0EN50575 CPR Cable EuroClass Acidity Ratinga1

Smoke Index Test Method IEC 61034

Toxicity Index Test Method IEC 60754-2

Packaging and Weights

**Cable weight** 0.1 kg/m | 0.067 lb/ft

### Regulatory Compliance/Certifications

#### Agency Classification

CENELEC EN 50575 compliant, Declaration of Performance (DoP) available

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

CENELEC

CNT-400-W, CNT® 50 Ohm Braided Coaxial Cable, variable, white PE jacket



#### **Product Classification**

Product Type Braided coaxial cable

Product Brand CNT®
Product Series CNT-400

## General Specifications

Braid Coverage 90 %

Cable Type CNT-400

Jacket Color White

#### **Dimensions**

 Diameter Over Dielectric
 7.24 mm | 0.285 in

 Diameter Over Jacket
 10.29 mm | 0.405 in

 Diameter Over Tape
 7.391 mm | 0.291 in

 Inner Conductor OD
 2.74 mm | 0.108 in

 Outer Conductor OD
 8.08 mm | 0.318 in

Nominal Size 0.400 in

### **Electrical Specifications**

Cable Impedance 50 ohm

**Capacitance** 78 pF/m | 23.774 pF/ft

dc Resistance, Inner Conductor4.69 ohms/km | 1.43 ohms/kftdc Resistance, Outer Conductor5.61 ohms/km | 1.71 ohms/kft



# CNT-400-W

Maximum Frequency 16.2 GHz

Operating Frequency Band 30 - 6000 MHz

Peak Power16 kWShielding Effectiveness90 dBVelocity85 %

#### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
30.0	2.49	0.76
50.0	3.18	0.97
150.0	4.92	1.5
220.0	6.23	1.9
450.0	8.86	2.7
900.0	12.8	3.9
1500.0	16.7	5.1
1800.0	18.4	5.6
2000.0	19.4	5.9
2400.0	21.65	6.6
2500.0	22	6.7
3000.0	24.6	7.5
4000.0	28.87	8.8
4500.0	30.84	9.4
5000.0	32.81	10
5200.0	33.46	10.2
5500.0	34.78	10.6
5800.0	35.76	10.9
6000.0	36.42	11.1

## Material Specifications

Braid Material Tinned copper
Dielectric Material Foam PE

Jacket Material Non-halogenated PE

Inner Conductor Material Copper-clad aluminum wire

Shield Tape Material Aluminum



# CNT-400-W

## Mechanical Specifications

Minimum Bend Radius, single Bend25.4 mm | 1 inTensile Strength73 kg | 160.937 lbBending Moment0.7 N-m | 6.196 in lb

Flat Plate Crush Strength 0.7 kg/mm | 39.198 lb/in

### **Environmental Specifications**

Installation temperature  $-40 \,^{\circ}\text{C}$  to  $+85 \,^{\circ}\text{C}$  (-40  $^{\circ}\text{F}$  to  $+185 \,^{\circ}\text{F}$ )

Operating Temperature  $-40 \,^{\circ}\text{C}$  to  $+85 \,^{\circ}\text{C}$  (-40  $^{\circ}\text{F}$  to  $+185 \,^{\circ}\text{F}$ )

Storage Temperature  $-70 \,^{\circ}\text{C}$  to  $+85 \,^{\circ}\text{C}$  (-94  $^{\circ}\text{F}$  to  $+185 \,^{\circ}\text{F}$ )

Packaging and Weights

**Cable weight** 0.1 kg/m | 0.067 lb/ft

#### Regulatory Compliance/Certifications

Agency Classification

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system