

# 244813-1M5



CNT-240 CNT® Jumper with interface types N Male and N Female, 1.5 m

## Product Classification

Brand	CNT®
Product Series	CNT-240
Product Type	Braided cable assembly

## General Specifications

Body Style, Connector A	Straight
Body Style, Connector B	Straight
Interface, Connector A	N Male
Interface, Connector B	N Female
Length	1.500 m   4.921 ft
Nominal Size	0.240 in
Specification Sheet Revision Level	A

## Electrical Specifications

DTF, Connector A	-28.00 dB
DTF, Connector B	-21.00 dB

## Jumper Assembly Sample Label

The label contains the following information:

- Batch:** 0123456789
- Manufacturing Date (two digit year and week):** US22 1240
- Manufacturing Plant:** US22
- Product Revision:** /A
- Part Number:** F4-DMDM-2M-D
- Serial Number:** 12US220001242

Additional text on the label includes: COMMSCOPE® Andrew Solutions™, 2 M (6.562 FT), SUREFLEX ASSEMBLY, U.S. PATENT 5802710, and Product of UNITED STATES.

## Return Loss/VSWR

### Frequency Band

0–2100 MHz

## Regulatory Compliance/Certifications

### Agency

ISO 9001:2015

### Classification

Designed, manufactured and/or distributed under this quality management system



## Included Products

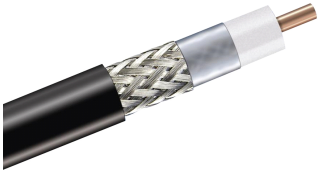
CNT-240 — CNT-240, CNT® 50 Ohm Braided Coaxial Cable, black PE jacket

240PTM-CR — TNC Male for CNT-240 braided cable

240BPNM-C-CR — Type N Male for CNT-240 braided cable

# CNT-240

CNT-240, CNT® 50 Ohm Braided Coaxial Cable, black PE jacket



## Product Classification

<b>Brand</b>	CNT®
<b>Product Series</b>	CNT-240
<b>Product Type</b>	Braided coaxial cable

## Construction Materials

<b>Jacket Color</b>	Black
<b>Jacket Material</b>	Non-halogenated PE
<b>Braid Material</b>	Tinned copper
<b>Shield Tape Material</b>	Aluminum
<b>Dielectric Material</b>	Foam PE
<b>Inner Conductor Material</b>	Copper

## Dimensions

<b>Cable Weight</b>	0.05 kg/m
<b>Diameter Over Dielectric</b>	3.810 mm   0.150 in
<b>Diameter Over Jacket</b>	6.100 mm   0.240 in
<b>Diameter Over Tape</b>	3.988 mm   0.157 in
<b>Inner Conductor OD</b>	1.4200 mm   0.0559 in
<b>Nominal Size</b>	0.240 in
<b>Outer Conductor OD</b>	4.520 mm   0.178 in

## Electrical Specifications

<b>Cable Impedance</b>	50 ohm
<b>Capacitance</b>	79.8 pF/m   24.4 pF/ft
<b>dc Resistance, Inner Conductor</b>	11.100 ohms/km   3.384 ohms/kft
<b>dc Resistance, Outer Conductor</b>	12.760 ohms/km   3.890 ohms/kft
<b>dc Test Voltage</b>	2500 V
<b>Jacket Spark Test Voltage (rms)</b>	2500 V

# CNT-240

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<b>Maximum Frequency</b>	31.00 GHz
<b>Operating Frequency Band</b>	30 – 6000 MHz
<b>Peak Power</b>	5.6 kW
<b>Shielding Effectiveness</b>	>90 dB
<b>Velocity</b>	83%

## 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)

## General Specifications

<b>Cable Type</b>	CNT-240
<b>Braid Coverage</b>	90% braid
<b>Packaging Type</b>	Reel

## Mechanical Specifications

<b>Bending Moment</b>	0.3 N-m   0.3 ft lb
<b>Flat Plate Crush Strength</b>	0.4 kg/mm   20.0 lb/in
<b>Minimum Bend Radius, Single Bend</b>	19.10 mm   0.75 in
<b>Tensile Strength</b>	36 kg   80 lb

## Electrical Performance

<b>Frequency</b>	<b>Attenuation (dB/100 m)</b>	<b>Attenuation (dB/100 ft)</b>
30 MHz	4.90	1.50
50 MHz	6.20	1.90
150 MHz	10.20	3.10
220 MHz	12.50	3.80
450 MHz	17.40	5.30
900 MHz	24.90	7.60
1800 MHz	35.75	10.90
2500 MHz	42.31	12.90
3000 MHz	46.48	14.17
4000 MHz	53.92	16.44
4500 MHz	57.30	17.47
5000 MHz	60.51	18.45
5200 MHz	61.76	18.83
5500 MHz	63.60	19.39
5800 MHz	66.90	20.40
6000 MHz	73.82	22.50

\* Values typical, guaranteed within 5%

## Regulatory Compliance/Certifications

# CNT-240

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## Agency

RoHS 2011/65/EU

ISO 9001:2015

China RoHS SJ/T 11364-2014

## Classification

Compliant

Designed, manufactured and/or distributed under this quality management system

Below Maximum Concentration Value (MCV)



# 24OPTM-CR

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TNC Male for CNT-240 braided cable

## Product Classification

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

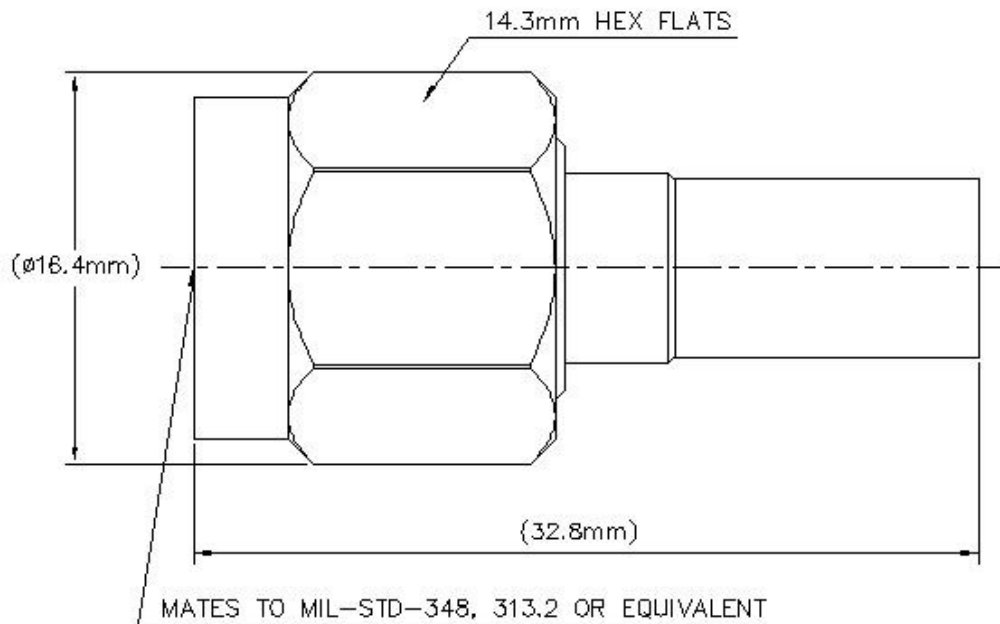
## General Specifications

<b>Interface</b>	TNC Male
<b>Body Style</b>	Straight

## Electrical Specifications

<b>Operating Frequency Band</b>	0 – 6000 MHz
<b>Cable Impedance</b>	50 ohm
<b>Connector Impedance</b>	50 ohm
<b>RF Operating Voltage, maximum (vrms)</b>	500.00 V
<b>dc Test Voltage</b>	1500 V
<b>Outer Contact Resistance, maximum</b>	0.40 mOhm
<b>Inner Contact Resistance, maximum</b>	1.50 mOhm
<b>Insulation Resistance, minimum</b>	5000 MOhm
<b>Average Power</b>	260.0 W @ 900 MHz
<b>Peak Power, maximum</b>	5.00 kW
<b>Insertion Loss, typical</b>	0.05 dB

## Outline Drawing



## Mechanical Specifications

<b>Outer Contact Attachment Method</b>	Crimp
<b>Outer Contact Plating</b>	Trimetal
<b>Inner Contact Plating</b>	Silver
<b>Inner Contact Attachment Method</b>	Solder
<b>Interface Durability</b>	500 cycles
<b>Interface Durability Method</b>	IEC 61169-17:9.5
<b>Connector Retention Tensile Force</b>	134 N   30 lbf
<b>Connector Retention Torque</b>	0.23 N-m   0.17 ft lb
<b>Insertion Force</b>	15.00 N   3.37 lbf
<b>Insertion Force Method</b>	IEC 61169-17:9.3.5
<b>Pressurizable</b>	No
<b>Coupling Nut Proof Torque</b>	1.70 N-m   1.25 ft lb
<b>Coupling Nut Proof Torque Method</b>	IEC 61169-17:9.3.6
<b>Coupling Nut Retention Force</b>	445.00 N   100.04 lbf
<b>Coupling Nut Retention Force Method</b>	IEC 61169-17:9.3.11

## Dimensions

<b>Nominal Size</b>	0.240 in
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# 24OPTM-CR

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<b>Diameter</b>	16.40 mm   0.65 in
<b>Length</b>	32.80 mm   1.29 in
<b>Weight</b>	18.07 g   0.04 lb
<b>Width</b>	16.80 mm   0.66 in

## 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>Water Jetting Test Mating</b>	Mated
<b>Water Jetting Test Method</b>	IEC 60529:2001, IP65
<b>Mechanical Shock Test Method</b>	IEC 60068-2-27
<b>Climatic Sequence Test Method</b>	IEC 60068-1
<b>Damp Heat Steady State Test Method</b>	IEC 60068-2-3
<b>Thermal Shock Test Method</b>	IEC 60068-2-14
<b>Vibration Test Method</b>	IEC 60068-2-6
<b>Corrosion Test Method</b>	IEC 60068-2-11

## Standard Conditions

<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

## Return Loss/VSWR

<b>Frequency Band</b>	<b>VSWR</b>	<b>Return Loss (dB)</b>
0–3000 MHz	1.11	26.00
3000–6000 MHz	1.12	24.90

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
RoHS 2011/65/EU	Compliant by Exemption
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
China RoHS SJ/T 11364-2014	Above Maximum Concentration Value (MCV)



### \* Footnotes

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



# 240BPNM-C-CR

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Type N Male for CNT-240 braided cable

## Product Classification

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

## General Specifications

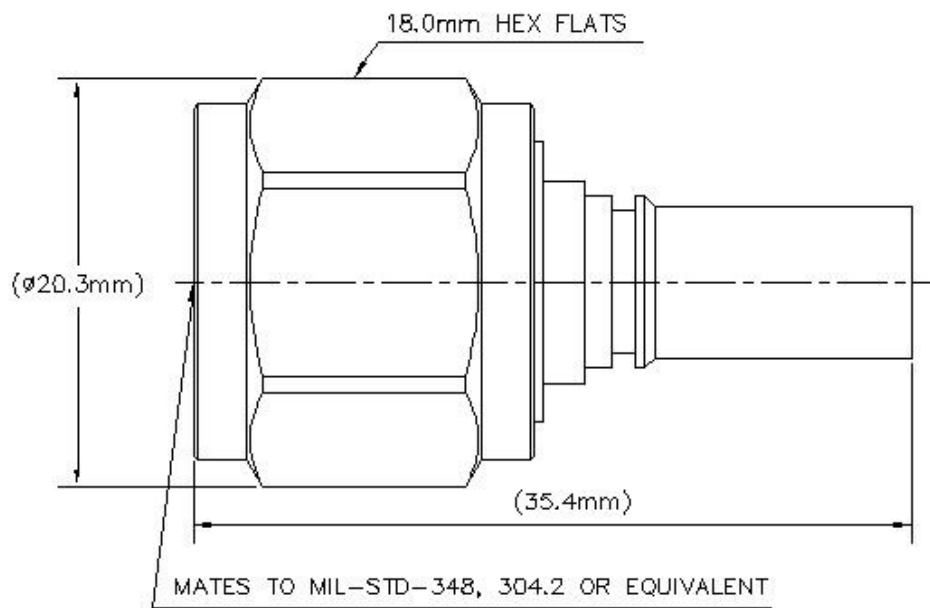
<b>Interface</b>	N Male
<b>Body Style</b>	Straight

## Electrical Specifications

<b>Operating Frequency Band</b>	0 – 6000 MHz
<b>Cable Impedance</b>	50 ohm
<b>Connector Impedance</b>	50 ohm
<b>RF Operating Voltage, maximum (vrms)</b>	529.00 V
<b>dc Test Voltage</b>	1500 V
<b>Outer Contact Resistance, maximum</b>	0.25 mOhm
<b>Inner Contact Resistance, maximum</b>	1.00 mOhm
<b>Insulation Resistance, minimum</b>	5000 MOhm
<b>Average Power</b>	260.0 W @ 900 MHz
<b>Peak Power, maximum</b>	5.60 kW
<b>Insertion Loss, typical</b>	0.05 dB

# 240BPNM-C-CR

## Outline Drawing



## Mechanical Specifications

<b>Outer Contact Attachment Method</b>	Crimp
<b>Outer Contact Plating</b>	Trimetal
<b>Inner Contact Plating</b>	Silver
<b>Inner Contact Attachment Method</b>	Captivated
<b>Interface Durability</b>	500 cycles
<b>Interface Durability Method</b>	IEC 61169-16:9.5
<b>Connector Retention Tensile Force</b>	134 N   30 lbf
<b>Connector Retention Torque</b>	0.23 N-m   0.17 ft lb
<b>Coupling Nut Proof Torque</b>	1.70 N-m   1.25 ft lb
<b>Coupling Nut Proof Torque Method</b>	IEC 61169-16:9.3.6
<b>Coupling Nut Retention Force</b>	450.00 N   101.16 lbf
<b>Coupling Nut Retention Force Method</b>	IEC 61169-16:9.3.11

## Dimensions

<b>Nominal Size</b>	0.240 in
<b>Diameter</b>	22.35 mm   0.88 in
<b>Length</b>	44.81 mm   1.76 in
<b>Weight</b>	39.12 g   0.09 lb

# 240BPNM-C-CR

**Width** 22.35 mm | 0.88 in

## 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>Water Jetting Test Mating</b>	Mated
<b>Water Jetting Test Method</b>	IEC 60529:2001, IP65
<b>Mechanical Shock Test Method</b>	IEC 60068-2-27
<b>Climatic Sequence Test Method</b>	IEC 60068-1
<b>Damp Heat Steady State Test Method</b>	IEC 60068-2-3
<b>Thermal Shock Test Method</b>	IEC 60068-2-14
<b>Vibration Test Method</b>	IEC 60068-2-6
<b>Corrosion Test Method</b>	IEC 60068-2-11

## Standard Conditions

<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

## Return Loss/VSWR

<b>Frequency Band</b>	<b>VSWR</b>	<b>Return Loss (dB)</b>
0–3000 MHz	1.08	28.00
3000–6000 MHz	1.22	20.00

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
RoHS 2011/65/EU	Compliant by Exemption
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
China RoHS SJ/T 11364-2014	Above Maximum Concentration Value (MCV)



## \* Footnotes

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