# C240-NMQM

#### **Base Product**

CNT-240 CNT® Jumper with interface types N Male and QMA Male, variable length

#### Product Classification

Product Type		Braided cable assem	nbly	
Product Brand		CNT®		
Product Series		CNT-240		
General Specifications				
Body Style, Connector A		Straight		
Body Style, Connector B		Right angle		
Cable Family		CNT-240		
Interface, Connector A		N Male		
Interface, Connector B		QMA Male		
Specification Sheet Revision Level		А		
Variable Length		For custom lengths of CommScope represe	contact 828-324-2200 or 1-800-982-1708 (toll free), or your local entative	
Dimensions				
Length		0 m   0 ft		
Nominal Size		0.240 in		
VSWR/Return Loss				
Frequency Band	VSWR		Return Loss (dB)	
700–3000 MHz	1.433		14.99	

# Jumper Assembly Sample Label

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# C240-NMQM



### Regulatory Compliance/Certifications

#### Agency

#### Classification

ISO 9001:2015

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

#### Included Products

240APNM-CS8	-	Type N Male for CNT-240 braided cable
240BPNM-C-CR	-	Type N Male for CNT-240 braided cable
240PNM-CS8	-	Type N Male for CNT-240 braided cable
240PQMR-C-CR	-	QMA Male Right Angle for CNT-240 braided cable
240PQMR-CA	-	QMA Male Right Angle for CNT-240 braided cable, for jumpers only not for sale
CNT-240	-	CNT-240, CNT® 50 Ohm Braided Coaxial Cable, black PE jacket
CNT-240-SFR	-	CNT-240-SFR, CNT® 50 Ohm Braided Coaxial Cable, black PE jacket

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# Product Classification

Product Type Braided cable connector **Product Brand** CNT® General Specifications **Body Style** Straight **Inner Contact Attachment Method** Captivated **Inner Contact Plating** Silver Interface N Male **Outer Contact Attachment Method** Crimp **Outer Contact Plating** Trimetal Pressurizable No Dimensions Width 22.35 mm | 0.88 in Length 44.81 mm | 1.764 in Diameter 22.35 mm | 0.88 in **Nominal Size** 0.240 in

# Outline Drawing

Type N Male for CNT-240 braided cable

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# **Electrical Specifications**

Insertion Loss, typical	0.05 dB
Average Power at Frequency	260.0 W @ 900 MHz
Cable Impedance	50 ohm
Connector Impedance	50 ohm
dc Test Voltage	1500 V
Inner Contact Resistance, maximum	1 mOhm
Insulation Resistance, minimum	5000 MOhm
Operating Frequency Band	0 – 6000 MHz
Outer Contact Resistance, maximum	0.25 mOhm
Peak Power, maximum	5.6 kW
RF Operating Voltage, maximum (vrms)	529 V

# VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
0–3000 MHz	1.065	30.05
3000–6000 MHz	1.173	21.99

# Mechanical Specifications

#### **Connector Retention Tensile Force**

134 N | 30.124 lbf

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Connector Retention Torque	0.23 N-m   2.036 in lb
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
Insertion Force	28 N   6.295 lbf
Insertion Force Method	IEC 61169-16:9.3.5
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 °C to +85 °C (-40 °F to +185 °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

39.12 g | 0.086 lb

#### Regulatory Compliance/Certifications

#### Agency Classification

ISO 9001:2015

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

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# \* Footnotes

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

Immersion Depth

Immersion at specified depth for 24 hours

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#### Type N Male for CNT-240 braided cable

Braided cable connector

CNT®

Product Classification	
Product Type	

Product Brand

### General Specifications

Body Style	Straight
Inner Contact Attachment Method	Captivated
Inner Contact Plating	Silver
Interface	N Male
Outer Contact Attachment Method	Crimp
Outer Contact Plating	Trimetal
Dimensions	
Width	22.35 mm   0.88 in
Length	44.81 mm   1.764 in
Diameter	22.35 mm   0.88 in
Nominal Size	0.240 in

# Outline Drawing

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# **Electrical Specifications**

Insertion Loss, typical	0.05 dB
Average Power at Frequency	260.0 W @ 900 MHz
Cable Impedance	50 ohm
Connector Impedance	50 ohm
dc Test Voltage	1500 V
Inner Contact Resistance, maximum	1 m0hm
Insulation Resistance, minimum	5000 MOhm
Operating Frequency Band	0 – 6000 MHz
Outer Contact Resistance, maximum	0.25 mOhm
Peak Power, maximum	5.6 kW
RF Operating Voltage, maximum (vrms)	529 V

# VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
0–3000 MHz	1.083	27.99
3000–6000 MHz	1.222	20.01

# Mechanical Specifications

#### **Connector Retention Tensile Force**

134 N | 30.124 lbf

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Connector Retention Torque	0.23 N-m   2.036 in lb
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 °C to +85 °C (-40 °F to +185 °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
Thermal Shock Test Method	IEC 60068-2-14
Vibration Test Method	IEC 60068-2-6
Water Jetting Test Mating	Mated
Water Jetting Test Method	IEC 60529:2001, IP65

### Packaging and Weights

#### Weight, net

39.12 g | 0.086 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.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

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**COMMSCOPE**°



# \* Footnotes

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

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# Type N Male for CNT-240 braided cable

Braided cable connector

CNT®

0.240 in

Product	Classification
ITOUULL	

Product Type

Product Brand

# General Specifications

Body Style	Straight
Inner Contact Attachment Method	Captivated
Inner Contact Plating	Silver
Interface	N Male
Outer Contact Attachment Method	Crimp
Outer Contact Plating	Trimetal
Pressurizable	No
Dimensions	
Width	22.35 mm   0.88 in
Length	44.81 mm   1.764 in
Diameter	22.35 mm   0.88 in

# Outline Drawing

**Nominal Size** 

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# **Electrical Specifications**

Insertion Loss, typical	0.05 dB
Average Power at Frequency	260.0 W @ 900 MHz
Cable Impedance	50 ohm
Connector Impedance	50 ohm
dc Test Voltage	1500 V
Inner Contact Resistance, maximum	1 m0hm
Insulation Resistance, minimum	5000 MOhm
Operating Frequency Band	0 – 6000 MHz
Outer Contact Resistance, maximum	0.25 m0hm
Peak Power, maximum	5.6 kW
RF Operating Voltage, maximum (vrms)	529 V

# VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
0–3000 MHz	1.065	30.05
3000–6000 MHz	1.173	21.99

# Mechanical Specifications

**Connector Retention Tensile Force** 

134 N | 30.124 lbf



Connector Retention Torque	0.23 N-m   2.036 in lb
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
Insertion Force	28 N   6.295 lbf
Insertion Force Method	IEC 61169-16:9.3.5
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 °C to +85 °C (-40 °F to +185 °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

39.12 g | 0.086 lb

#### Regulatory Compliance/Certifications

#### Agency Classification

ISO 9001:2015

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

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# \* Footnotes

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

Immersion Depth Immersion at specified depth for 24 hours

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#### QMA Male Right Angle for CNT-240 braided cable

Braided cable connector

CNT®

0.240 in

#### Product Classification

Product Type Product Brand General Specifications Body Style Inner Contact Attachment Method

Body Style	Right angle
Inner Contact Attachment Method	Captivated
Inner Contact Plating	Gold
Interface	QMA Male
Outer Contact Attachment Method	Crimp
Outer Contact Plating	Trimetal
Pressurizable	No
Dimensions	
Height	23.25 mm   0.915 in
Width	10.5 mm   0.413 in
Length	19.71 mm   0.776 in

# Outline Drawing

**Nominal Size** 

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# **Electrical Specifications**

Insertion Loss, typical	0.05 dB
Average Power at Frequency	260.0 W @ 900 MHz
Cable Impedance	50 ohm
Connector Impedance	50 ohm
dc Test Voltage	1000 V
Inner Contact Resistance, maximum	3 m0hm
Insulation Resistance, minimum	5000 MOhm
Operating Frequency Band	0 – 6000 MHz
Outer Contact Resistance, maximum	2.5 m0hm
Peak Power, maximum	5 kW
RF Operating Voltage, maximum (vrms)	500 V

# VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
0–3000 MHz	1.073	29.07
3000–6000 MHz	1.134	24.05

# Mechanical Specifications

#### **Connector Retention Tensile Force**

134 N | 30.124 lbf

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Connector Retention Torque	0.23 N-m   2.036 in lb
Insertion Force	22 N   4.946 lbf
Insertion Force Method	IEC 61169-15:9.3.5
Interface Durability	100 cycles
Interface Durability Method	IEC 61169-15:9.5
Mechanical Shock Test Method	IEC 60068-2-27

### **Environmental Specifications**

Operating Temperature	-40 °C to +85 °C (-40 °F to +185 °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
Thermal Shock Test Method	IEC 60068-2-14
Vibration Test Method	IEC 60068-2-6
Water Jetting Test Mating	Mated
Water Jetting Test Method	IEC 60529:2001, IP65

# Packaging and Weights

Weight, net

8.96 g | 0.02 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.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant



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# \* Footnotes

**Insertion Loss, typical** 0.05√<sup>−</sup>freq (GHz) (not applicable for elliptical waveguide)

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QMA Male Right Angle for CNT-240 braided cable, for jumpers only not for sale

#### Product Classification

Product Type Braided cable connector **Product Brand** CNT® General Specifications **Body Style** Right angle **Inner Contact Attachment Method** Captivated **Inner Contact Plating** Gold Interface QMA Male **Outer Contact Attachment Method** Crimp **Outer Contact Plating** Unplated Pressurizable No Dimensions Height 23.25 mm | 0.915 in Width 10.5 mm | 0.413 in Length 19.71 mm | 0.776 in **Nominal Size** 0.240 in

# Outline Drawing

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# **Electrical Specifications**

Insertion Loss, typical	0.05 dB
Average Power at Frequency	260.0 W @ 900 MHz
Cable Impedance	50 ohm
Connector Impedance	50 ohm
dc Test Voltage	1000 V
Inner Contact Resistance, maximum	3 m0hm
Insulation Resistance, minimum	5000 MOhm
Operating Frequency Band	0 – 6000 MHz
Outer Contact Resistance, maximum	2.5 m0hm
Peak Power, maximum	5 kW
RF Operating Voltage, maximum (vrms)	500 V

# VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
0–3000 MHz	1.073	29.07
3000–6000 MHz	1.134	24.05

# Mechanical Specifications

#### **Connector Retention Tensile Force**

134 N | 30.124 lbf

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Connector Retention Torque	0.23 N-m   2.036 in lb
Insertion Force	22 N   4.946 lbf
Insertion Force Method	IEC 61169-15:9.3.5
Interface Durability	100 cycles
Interface Durability Method	IEC 61169-15:9.5
Mechanical Shock Test Method	IEC 60068-2-27

### **Environmental Specifications**

Operating Temperature	-40 °C to +85 °C (-40 °F to +185 °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
Thermal Shock Test Method	IEC 60068-2-14
Vibration Test Method	IEC 60068-2-6
Water Jetting Test Mating	Mated
Water Jetting Test Method	IEC 60529:2001, IP65

# Packaging and Weights

Weight, net

8.96 g | 0.02 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.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant



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# \* Footnotes

**Insertion Loss, typical** 0.05√<sup>−</sup>freq (GHz) (not applicable for elliptical waveguide)

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# CNT-240

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



# Product Classification

dc Test Voltage

Jacket Spark Test Voltage (rms)

Product Type	Braided coaxial cable
Product Brand	CNT®
Product Series	CNT-240
General Specifications	
Braid Coverage	90 %
Cable Type	CNT-240
Jacket Color	Black
Dimensions	
Diameter Over Dielectric	3.81 mm   0.15 in
Diameter Over Jacket	6.1 mm   0.24 in
Diameter Over Tape	3.987 mm   0.157 in
Inner Conductor OD	1.42 mm   0.056 in
Outer Conductor OD	4.52 mm   0.178 in
Nominal Size	0.240 in
Electrical Specifications	
Cable Impedance	50 ohm
Capacitance	79.8 pF/m   24.323 pF/ft
dc Resistance, Inner Conductor	11.1 ohms/km   3.383 ohms/kft
dc Resistance, Outer Conductor	12.76 ohms/km   3.889 ohms/kft

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2500 V

2500 V



# CNT-240

Maximum Frequency	31 GHz
Operating Frequency Band	30 – 6000 MHz
Peak Power	5.6 kW
Shielding Effectiveness	90 dB
Velocity	83 %

# Material Specifications

Braid Material	Tinned copper
Dielectric Material	Foam PE
Jacket Material	Non-halogenated PE
Inner Conductor Material	Copper
Shield Tape Material	Aluminum

### Mechanical Specifications

Minimum Bend Radius, single Bend	19.05 mm   0.75 in
Tensile Strength	36 kg   79.366 lb
Bending Moment	0.3 N-m   2.655 in lb
Flat Plate Crush Strength	0.4 kg/mm   22.399 lb/in

### **Environmental Specifications**

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

### Packaging and Weights

Cable weight	0.05 kg/m   0.034 lb/ft
Packaging Type	Reel

## 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.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

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# CNT-240-SFR

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



### Product Classification

Product Type	Braided coaxial cable
Product Brand	CNT®
Product Series	CNT-240
General Specifications	
Braid Coverage	90 %
Cable Type	CNT-240
Jacket Color	Black
Dimensions	
Diameter Over Dielectric	3.81 mm   0.15 in
Diameter Over Jacket	6.1 mm   0.24 in
Diameter Over Tape	3.987 mm   0.157 in
Inner Conductor OD	1.42 mm   0.056 in
Outer Conductor OD	4.52 mm   0.178 in
Nominal Size	0.240 in
Electrical Specifications	
Cable Impedance	50 ohm
Capacitance	79.8 pF/m   24.323 pF/ft
dc Resistance, Inner Conductor	11.1 ohms/km   3.383 ohms/kft
dc Resistance, Outer Conductor	12.76 ohms/km   3.889 ohms/kft
dc Test Voltage	2500 V

Jacket Spark Test Voltage (rms) 2500 V

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# CNT-240-SFR

Maximum Frequency	31 GHz
Operating Frequency Band	30 – 6000 MHz
Peak Power	5.6 kW
Shielding Effectiveness	90 dB
Velocity	83 %

#### Material Specifications

Braid Material	Tinned copper
Dielectric Material	Foam PE
Jacket Material	Non-halogenated PE
Inner Conductor Material	Copper
Shield Tape Material	Aluminum

#### Mechanical Specifications

Minimum Bend Radius, single Bend	19.05 mm   0.75 in
Tensile Strength	36 kg   79.366 lb
Bending Moment	0.3 N-m   2.655 in lb
Flat Plate Crush Strength	0.4 kg/mm   22.399 lb/in

### **Environmental Specifications**

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

### Packaging and Weights

Cable weight	0.05 kg/m   0.034 lb/ft
Packaging Type	Reel

Classification

### Regulatory Compliance/Certifications

#### Agency

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

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