## C240-NRQMR

#### **Base Product**

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

### Product Classification

Product Type		Braided cable assembly	
Product Brand		CNT®	
Product Series		CNT-240	
General Specifications			
Body Style, Connector A		Right angle	
Body Style, Connector B		Right angle	
Cable Family		CNT-240	
Interface, Connector A		N Male	
Interface, Connector B		QMA Male	
Orientation		0°	
Specification Sheet Revision Level		A	
Variable Length		For custom lengths contact 828-324-2200 or 1-800-982-1708 (toll free), or your local CommScope representative	
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

Page 1 of 18



## C240-NRQMR



## Regulatory Compliance/Certifications

#### Classification

ISO 9001:2015

Agency

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

### Included Products

240BPNR-CR	-	Type N Male Right Angle for CNT-240 and CNT-240-Flex 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 $\ensuremath{^{\circ} extsf{B}}$ 50 Ohm Braided Coaxial Cable, black PE jacket

Page 2 of 18



## 240BPNR-CR



### Type N Male Right Angle for CNT-240 and CNT-240-Flex braided cable

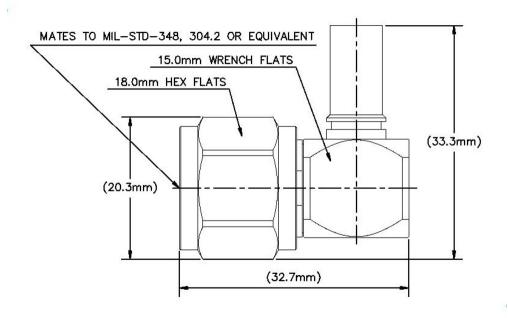
#### Product Classification

Product Type Braided cable c	
Product Brand	CNT®
General Specifications	
Body Style	Right angle
Inner Contact Attachment Method	Solder
Inner Contact Plating	Silver
Interface	N Male
Outer Contact Attachment Method	Crimp
Outer Contact Plating	Trimetal
Dimensions	
Height	32.74 mm   1.289 in
Width	20.25 mm   0.797 in
Length	33.33 mm   1.312 in
Nominal Size	0.240 in

## Outline Drawing

Page 3 of 18





## Electrical Specifications

Insertion Loss, typical	0.05 dB
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)
960–2200 MHz	1.06	30.72
2200-3000 MHz	1.07	29.42
3000–6000 MHz	1.22	20.08

Page 4 of 18



# 240BPNR-CR

### 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
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

41.62 g | 0.092 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

Page 5 of 18



# 240BPNR-CR

ROHS

UK-ROHS

Compliant Compliant



\* Footnotes

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

Page 6 of 18





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

Braided cable connector

CNT®

Right angle

Captivated

#### Product Classification

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

Inner Contact PlatingGoldInterfaceQMA MaleOuter Contact Attachment MethodCrimpOuter Contact PlatingTrimetalPressurizableNoDimensionsContact

 Height
 23.25 mm | 0.915 in

 Width
 10.5 mm | 0.413 in

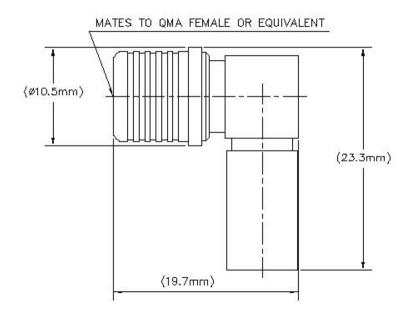
 Length
 19.71 mm | 0.776 in

 Nominal Size
 0.240 in

## Outline Drawing

Page 7 of 18





## **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 mOhm
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

Page 8 of 18



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 Classi	fication
CHINA-ROHS Below	maximum concentration value
ISO 9001:2015 Design	ned, manufactured and/or distributed under this quality management system
REACH-SVHC Comp	iant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS Comp	iant
UK-ROHS Comp	iant



Page 9 of 18



## \* Footnotes

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

Page 10 of 18





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

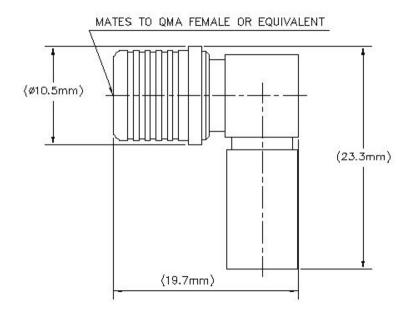
#### Product Classification

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

Page 11 of 18





## **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 mOhm
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

Page 12 of 18



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



Page 13 of 18



## \* Footnotes

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

Page 14 of 18



## CNT-240

CNT-240, 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

Page 15 of 18



# 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

Page 16 of 18



## 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

Page 17 of 18



# 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

Page 18 of 18

