

# C100-SMSM-1M-PA



CNT-100 CNT® Jumper with interface types SMA Male and SMA Male, 1 m

## Product Classification

Brand	CNT®
Product Series	CNT-100
Product Type	Braided cable assembly

## General Specifications

Body Style, Connector A	Straight
Body Style, Connector B	Straight
Interface, Connector A	SMA Male
Interface, Connector B	SMA Male
Length	1.000 m   3.281 ft
Nominal Size	0.100 in
Specification Sheet Revision Level	A

## Jumper Assembly Sample Label



## Return Loss/VSWR

Frequency Band	VSWR	Return Loss (dB)
700–2000 MHz	1.22	20.00
700–3000 MHz	1.29	18.00

## Regulatory Compliance/Certifications

### Agency

RoHS 2011/65/EU

ISO 9001:2015

China RoHS SJ/T 11364-2014

### Classification

Compliant by Exemption

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

Above Maximum Concentration Value (MCV)



## Included Products

100PSM-CR — SMA Male for CNT-100 braided cable

CNT-100-FR — CNT-100-FR, CNT@ 50 Ohm Braided Coaxial Cable, black non-halogenated, fire retardant polyolefin jacket

# 100PSM-CR

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SMA Male for CNT-100 braided cable

## Product Classification

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

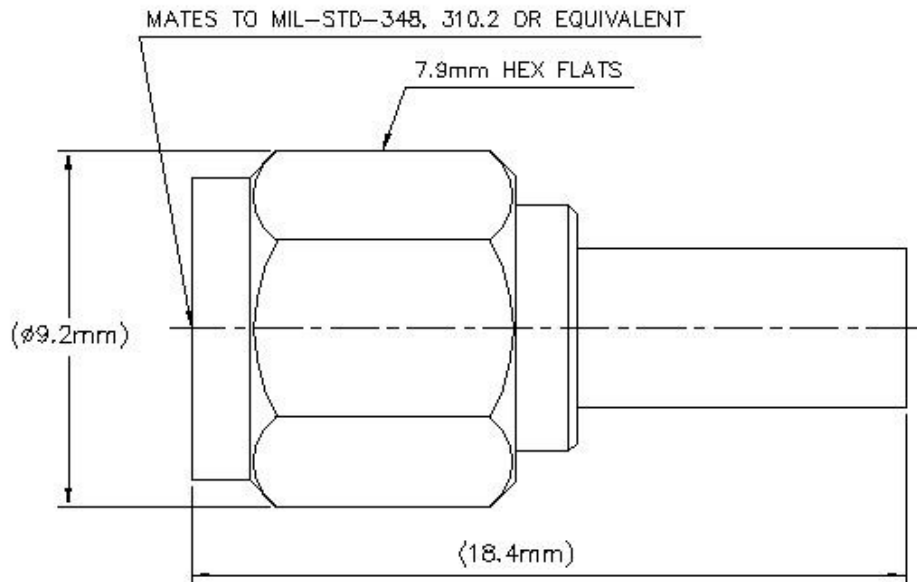
## General Specifications

<b>Interface</b>	SMA 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>	173.00 V
<b>dc Test Voltage</b>	500 V
<b>Outer Contact Resistance, maximum</b>	2.50 mOhm
<b>Inner Contact Resistance, maximum</b>	3.00 mOhm
<b>Insulation Resistance, minimum</b>	5000 MOhm
<b>Average Power</b>	50.0 W @ 900 MHz
<b>Peak Power, maximum</b>	0.60 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>	Gold
<b>Inner Contact Attachment Method</b>	Solder
<b>Interface Durability</b>	500 cycles
<b>Interface Durability Method</b>	IEC 61169-15:9.5
<b>Connector Retention Tensile Force</b>	98 N   22 lbf
<b>Insertion Force</b>	22.00 N   4.95 lbf
<b>Insertion Force Method</b>	IEC 61169-15:9.3.5
<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 61169-15:9.3.6
<b>Coupling Nut Retention Force</b>	180.00 N   40.47 lbf
<b>Coupling Nut Retention Force Method</b>	IEC 61169-15:9.3.11

## Dimensions

<b>Nominal Size</b>	0.110 in
<b>Diameter</b>	7.92 mm   0.31 in

# 100PSM-CR

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<b>Length</b>	18.39 mm   0.72 in
<b>Weight</b>	5.74 g   0.01 lb
<b>Width</b>	7.92 mm   0.31 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	1.05	30.00
3000–6000 MHz	1.12	24.80

## 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)



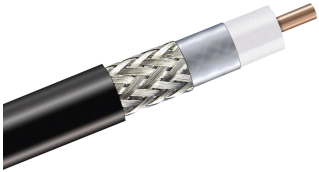
## \* Footnotes

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

# CNT-100-FR

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CNT-100-FR, CNT® 50 Ohm Braided Coaxial Cable, black non-halogenated, fire retardant polyolefin jacket



## Product Classification

<b>Brand</b>	CNT®
<b>Product Series</b>	CNT-100
<b>Product Type</b>	Braided coaxial cable

## Construction Materials

<b>Jacket Color</b>	Black
<b>Jacket Material</b>	Non-halogenated, fire retardant polyolefin
<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>	0.02 kg/m
<b>Diameter Over Dielectric</b>	1.550 mm   0.061 in
<b>Diameter Over Jacket</b>	2.790 mm   0.110 in
<b>Inner Conductor OD</b>	0.4600 mm   0.0181 in
<b>Nominal Size</b>	0.100 in
<b>Outer Conductor OD</b>	2.060 mm   0.081 in

## Electrical Specifications

<b>Cable Impedance</b>	50 ohm
<b>Capacitance</b>	102.0 pF/m   31.2 pF/ft
<b>dc Resistance, Inner Conductor</b>	105.000 ohms/km   32.000 ohms/kft
<b>dc Resistance, Outer Conductor</b>	28.200 ohms/km   8.600 ohms/kft
<b>dc Test Voltage</b>	500 V
<b>Jacket Spark Test Voltage (rms)</b>	1500 V
<b>Maximum Frequency</b>	61.00 GHz

# CNT-100-FR

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<b>Operating Frequency Band</b>	30 – 6000 MHz
<b>Peak Power</b>	0.6 kW
<b>Shielding Effectiveness</b>	>90 dB
<b>Velocity</b>	66%

## Environmental Specifications

<b>Installation Temperature</b>	-40 °C to +60 °C (-40 °F to +140 °F)
<b>Operating Temperature</b>	-40 °C to +60 °C (-40 °F to +140 °F)
<b>Storage Temperature</b>	-40 °C to +60 °C (-40 °F to +140 °F)

## General Specifications

<b>Cable Type</b>	CNT-100
<b>Braid Coverage</b>	93% braid
<b>Packaging Type</b>	Reel

## Mechanical Specifications

<b>Bending Moment</b>	0.1 N-m   0.1 ft lb
<b>Flat Plate Crush Strength</b>	0.2 kg/mm   10.0 lb/in
<b>Minimum Bend Radius, Single Bend</b>	6.40 mm   0.25 in
<b>Tensile Strength</b>	7 kg   15 lb

## Electrical Performance

<b>Frequency</b>	<b>Attenuation (dB/100 m)</b>	<b>Attenuation (dB/100 ft)</b>
30 MHz	12.80	3.90
50 MHz	16.40	5.00
150 MHz	27.60	8.40
220 MHz	33.50	10.20
450 MHz	48.20	14.70
900 MHz	70.20	21.40
1500 MHz	93.50	28.50
1800 MHz	103.60	31.60
2000 MHz	110.20	33.60
2500 MHz	125.30	38.20
3000 MHz	139.40	42.50
4000 MHz	171.70	52.35
4500 MHz	183.60	55.98
5000 MHz	195.10	59.48
5200 MHz	198.40	60.49
5500 MHz	206.00	62.81
5800 MHz	212.40	64.76
6000 MHz	216.60	66.04

\* Values typical, guaranteed within 5%

## Regulatory Compliance/Certifications

**Agency**

ISO 9001:2015

**Classification**

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

