

C100-SMSM

700–3000 MHz

1.43

15.00

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

SMA Male for CNT-100 braided cable

Product Classification

Brand	CNT®
Product Type	Braided cable connector

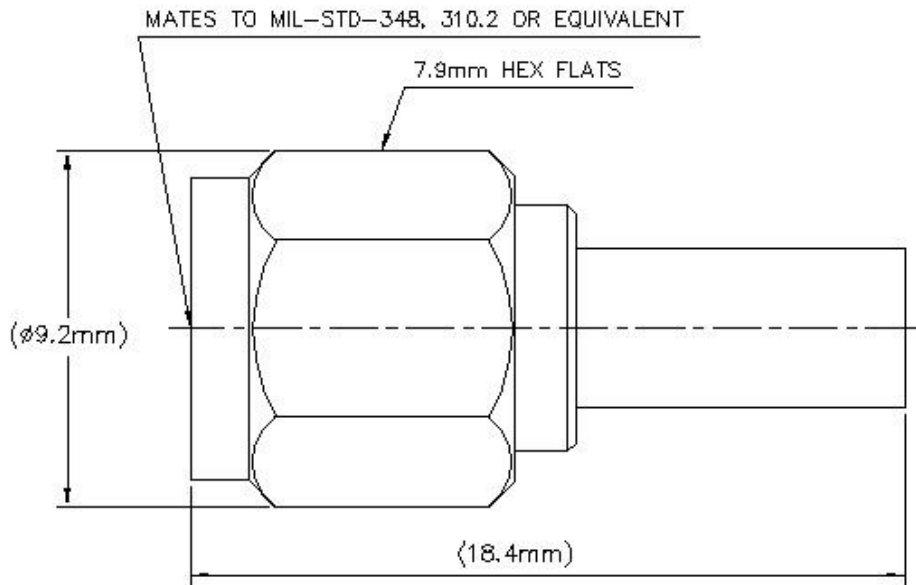
General Specifications

Interface	SMA Male
Body Style	Straight

Electrical Specifications

Operating Frequency Band	0 – 6000 MHz
Average Power at Frequency	50.0 W @ 900 MHz
Cable Impedance	50 ohm
Connector Impedance	50 ohm
RF Operating Voltage, maximum (vrms)	173.00 V
dc Test Voltage	500 V
Outer Contact Resistance, maximum	2.50 mOhm
Inner Contact Resistance, maximum	3.00 mOhm
Insulation Resistance, minimum	5000 MOhm
Peak Power, maximum	0.60 kW
Insertion Loss, typical	0.05 dB

Outline Drawing



Mechanical Specifications

Outer Contact Attachment Method	Crimp
Outer Contact Plating	Trimetal
Inner Contact Plating	Gold
Inner Contact Attachment Method	Solder
Interface Durability	500 cycles
Interface Durability Method	IEC 61169-15:9.5
Connector Retention Tensile Force	98 N 22 lbf
Insertion Force	22.00 N 4.95 lbf
Insertion Force Method	IEC 61169-15:9.3.5
Pressurizable	No
Coupling Nut Proof Torque	1.70 N-m 1.25 ft lb
Coupling Nut Proof Torque Method	IEC 61169-15:9.3.6
Coupling Nut Retention Force	180.00 N 40.47 lbf
Coupling Nut Retention Force Method	IEC 61169-15:9.3.11

Dimensions

Nominal Size	0.110 in
Diameter	7.92 mm 0.31 in

100PSM-CR

Length	18.39 mm 0.72 in
Weight	5.74 g 0.01 lb
Width	7.92 mm 0.31 in

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)
Water Jetting Test Mating	Mated
Water Jetting Test Method	IEC 60529:2001, IP65
Mechanical Shock Test Method	IEC 60068-2-27
Climatic Sequence Test Method	IEC 60068-1
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
Corrosion Test Method	IEC 60068-2-11

Standard Conditions

Attenuation, Ambient Temperature	20 °C 68 °F
Average Power, Ambient Temperature	40 °C 104 °F
Average Power, Inner Conductor Temperature	100 °C 212 °F

Return Loss/VSWR

Frequency Band	VSWR	Return Loss (dB)
0–3000 MHz	1.05	30.00
3000–6000 MHz	1.12	24.80

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* Footnotes

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

CNT-100-FR

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



OBSOLETE

Product Classification

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

Construction Materials

Jacket Color	Black
Jacket Material	Non-halogenated, fire retardant polyolefin
Braid Material	Tinned copper
Shield Tape Material	Aluminum
Dielectric Material	Foam PE
Inner Conductor Material	Copper

Dimensions

Cable Weight	0.02 kg/m
Diameter Over Dielectric	1.550 mm 0.061 in
Diameter Over Jacket	2.790 mm 0.110 in
Inner Conductor OD	0.4600 mm 0.0181 in
Nominal Size	0.100 in
Outer Conductor OD	2.060 mm 0.081 in

Electrical Specifications

Cable Impedance	50 ohm
Capacitance	102.0 pF/m 31.2 pF/ft
dc Resistance, Inner Conductor	105.000 ohms/km 32.000 ohms/kft
dc Resistance, Outer Conductor	28.200 ohms/km 8.600 ohms/kft

CNT-100-FR

dc Test Voltage	500 V
Jacket Spark Test Voltage (rms)	1500 V
Maximum Frequency	61.00 GHz
Operating Frequency Band	30 – 6000 MHz
Peak Power	0.6 kW
Shielding Effectiveness, minimum	90 dB
Velocity	66 %

Environmental Specifications

Installation Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Operating Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Storage Temperature	-40 °C to +60 °C (-40 °F to +140 °F)

General Specifications

Cable Type	CNT-100
Braid Coverage	93 %
Packaging Type	Reel

Mechanical Specifications

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

Electrical Performance

Frequency	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
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%*

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ISO 9001:2015

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