







C195-SMSR-25

CNT-195 CNT® Jumper with interface types SMA Male and SMA Male Right Angle, 7.62

General Specifications

Body Style, Connector A Straight Body Style, Connector B Right angle CNT-195 Cable Family Interface, Connector A SMA Male Interface, Connector B SMA Male Nominal Size 0.195 in

Length 7.620 m | 25.000 ft

Jumper Assembly Sample Label



Return Loss/VSWR

Frequency Band VSWR Return Loss (dB) 700-3000 MHz 1.43 15.00

Regulatory Compliance/Certifications

Agency

Classification RoHS 2011/65/EU Compliant by Exemption

China RoHS SJ/T 11364-2006

Above Maximum Concentration Value (MCV)

ISO 9001:2008

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







C195-SMSR-25





Included Products

195PSM-CR — SMA Male for CNT-195 braided cable

195APSR-CR — SMA Male Right Angle for CNT-195 braided cable

CNT-195-FR — CNT-195-FR, CNT® 50 Ohm Braided Coaxial Cable, black non-halogenated, fire retardant polyolefin jacket

CNT-195-P — CNT-195, CNT® 50 Ohm Braided Coaxial Cable, white plenum CMP(ETL) C(ETL), fire retardant.



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195PSM-CR SMA Male for CNT-195 braided cable

General Specifications

nterface SMA	
Body Style	Straight
Brand	CNT®

Electrical Specifications

Operating Frequency Band	0 – 6000 MHz
Cable Impedance	50 ohm
Connector Impedance	50 ohm
RF Operating Voltage, maximum (vrms)	353.00 V
dc Test Voltage	1000 V
Outer Contact Resistance, maximum	2.50 mOhm
Inner Contact Resistance, maximum	3.00 mOhm
Insulation Resistance, minimum	5000 MOhm
Peak Power, maximum	2.50 kW
Insertion Loss, typical	0.05 dB

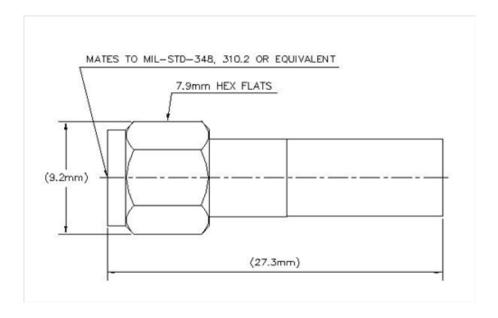


195PSM-CR





Outline Drawing



Mechanical Specifications

Outer Contact Plating Trimetal Inner Contact Plating Gold Outer Contact Attachment Method Crimp Inner Contact Attachment Method Solder Interface Durability 500 cycles Interface Durability Method IEC 61169-15:9.5 Connector Retention Tensile Force 134 N | 30 lbf 0.17 N-m | 0.13 ft lb Connector Retention Torque 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	0.195 in	
Diameter	9.15 mm 0.36 in	
Length	27.32 mm 1.08 in	
Weight	5.31 g 0.01 lb	
Width	9.15 mm 0.36 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)



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195PSM-CR



Water Jetting Test Mating Mated
Water Jetting Test Method IEC 60

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

Standard Conditions

Corrosion Test Method

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
 31.90

 3000-6000 MHz
 1.08
 28.00

Regulatory Compliance/Certifications

Agency

RoHS 2011/65/EU China RoHS SJ/T 11364-2006

ISO 9001:2008

Classification

Compliant by Exemption

Above Maximum Concentration Value (MCV)

IEC 60068-2-11

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





* Footnotes

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



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195APSR-CR

SMA Male Right Angle for CNT-195 braided cable

General Specifications

Interface SMA Male
Body Style Right angle
Brand CNT®

Electrical Specifications

Operating Frequency Band 0 - 6000 MHz Cable Impedance 50 ohm Connector Impedance 50 ohm RF Operating Voltage, maximum (vrms) 353.00 V 1000 V dc Test Voltage Outer Contact Resistance, maximum 2.50 mOhm Inner Contact Resistance, maximum 3.00 mOhm Insulation Resistance, minimum 5000 MOhm

Average Power 150.0 W @ 900 MHz

Peak Power, maximum 2.50 kW Insertion Loss, typical 0.05 dB

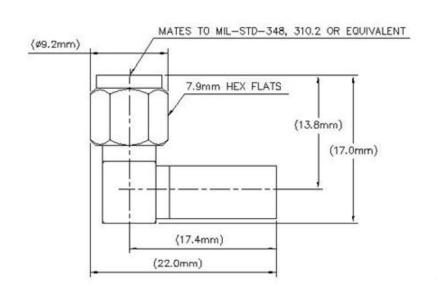


195APSR-CR

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Outline Drawing



Mechanical Specifications

Outer Contact Plating Trimetal Inner Contact Plating Gold Outer Contact Attachment Method Crimp Inner Contact Attachment Method Solder Interface Durability 500 cycles Interface Durability Method IEC 61169-15:9.5 Connector Retention Tensile Force 134 N | 30 lbf 0.17 N-m | 0.13 ft lb Connector Retention Torque Insertion Force 22.00 N | 4.95 lbf Insertion Force Method IEC 61169-15:9.3.5 Pressurizable Coupling Nut Proof Torque 1.70 N-m | 1.25 ft lb Coupling Nut Proof Torque Method IEC 61169-15:9.3.6

Dimensions

Coupling Nut Retention Force

Coupling Nut Retention Force Method

Nominal Size	0.195 in
Height	17.00 mm 0.67 in
Length	22.01 mm 0.87 in
Weight	9.63 g 0.02 lb
Width	7.92 mm 0.31 in

180.00 N | 40.47 lbf

IEC 61169-15:9.3.11



195APSR-CR

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Environmental Specifications

Operating Temperature -40 °C to +85 °C (-40 °F to +185 °F) -65 °C to +125 °C (-85 °F to +257 °F) Storage Temperature

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

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

Return Loss/VSWR

Return Loss (dB) **Frequency Band VSWR** 0-3000 MHz 1.07 29.20

Regulatory Compliance/Certifications

Agency

RoHS 2011/65/EU

China RoHS SJ/T 11364-2006

ISO 9001:2008

Classification

Compliant by Exemption

Above Maximum Concentration Value (MCV)

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





* Footnotes

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







CNT-195-FR

CNT-195-FR, CNT® 50 Ohm Braided Coaxial Cable, black non-halogenated, fire retardant polyolefin jacket



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 0.03 kg/m

Nominal Size 0.195 in

Outer Conductor OD 3.500 mm | 0.138 in

Electrical Specifications

Operating Frequency Band

Cable Impedance 50 ohm

Capacitance 79.7 pF/m | 24.3 pF/ft

dc Resistance, Inner Conductor 24.940 ohms/km | 7.600 ohms/kft dc Resistance, Outer Conductor 16.080 ohms/km | 4.900 ohms/kft

30 - 6000 MHz

dc Test Voltage 1500 V
Jacket Spark Test Voltage (rms) 3000 V
Maximum Frequency 37.90 GHz

Peak Power 2.5 kW
Shielding Effectiveness >90 dB
Velocity 75%

Environmental Specifications

Installation Temperature $-40 \, ^{\circ}\text{C}$ to $+85 \, ^{\circ}\text{C}$ ($-40 \, ^{\circ}\text{F}$ to $+185 \, ^{\circ}\text{F}$)

Operating Temperature $-40 \, ^{\circ}\text{C}$ to $+85 \, ^{\circ}\text{C}$ ($-40 \, ^{\circ}\text{F}$ to $+185 \, ^{\circ}\text{F}$)

Storage Temperature $-70 \, ^{\circ}\text{C}$ to $+85 \, ^{\circ}\text{C}$ ($-94 \, ^{\circ}\text{F}$ to $+185 \, ^{\circ}\text{F}$)



CNT-195-FR

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General Specifications

Cable Type CNT-195
Braid Coverage 89% braid
Brand CNT®
Packaging Type Reel

Mechanical Specifications

Bending Moment 0.3 N-m | 0.2 ft lb Flat Plate Crush Strength 0.3 kg/mm | 15.0 lb/in Minimum Bend Radius, Single Bend 12.70 mm | 0.50 in Tensile Strength 18 kg | 40 lb

Electrical Performance

Frequency	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
30 MHz	7.20	2.20
50 MHz	8.90	2.70
150 MHz	14.24	4.34
220 MHz	17.38	5.30
450 MHz	26.24	8.00
900 MHz	39.03	11.90
1500 MHz	51.50	15.70
1800 MHz	57.07	17.40
2000 MHz	61.00	18.60
2500 MHz	69.54	21.20
3000 MHz	77.08	23.50
4000 MHz	90.86	27.70
5000 MHz	140.96	32.00
6000 MHz	117.10	35.70

^{*} Values typical, guaranteed within 5%

Regulatory Compliance/Certifications

Agency

RoHS 2011/65/EU China RoHS SJ/T 11364-2006

ISO 9001:2008

Classification

Compliant

Below Maximum Concentration Value (MCV)

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













CNT-195-P

CNT-195, CNT® 50 Ohm Braided Coaxial Cable, white plenum CMP(ETL) C(ETL), fire retardant.

Construction Materials

Jacket Color White

Jacket Material Fire retardant PVC
Braid Material Tinned copper
Shield Tape Material Aluminum
Dielectric Material Foam FEP
Inner Conductor Material Copper

Dimensions

Cable Weight 37.00 kg/km

Diameter Over Dielectric 2.790 mm | 0.110 in

Diameter Over Jacket 4.320 mm | 0.170 in

Inner Conductor OD 0.9400 mm | 0.0370 in

Outer Conductor OD 3.530 mm | 0.139 in

Electrical Specifications

Cable Impedance 50 ohm

Capacitance 87.2 pF/m | 26.6 pF/ft

dc Resistance, Inner Conductor 25.400 ohms/km | 7.740 ohms/kft dc Resistance, Outer Conductor 16.080 ohms/km | 4.900 ohms/kft

dc Test Voltage 2000 V

Jacket Spark Test Voltage (rms) 2000 V
Maximum Frequency 37.90 GHz
Operating Frequency Band 30 - 6000 MHz

Peak Power 2.5 kW
Shielding Effectiveness >90 dB
Velocity 75%

Environmental Specifications

Installation Temperature $-40 \, ^{\circ}\text{C}$ to $+75 \, ^{\circ}\text{C}$ ($-40 \, ^{\circ}\text{F}$ to $+167 \, ^{\circ}\text{F}$)

Operating Temperature $-40 \, ^{\circ}\text{C}$ to $+75 \, ^{\circ}\text{C}$ ($-40 \, ^{\circ}\text{F}$ to $+167 \, ^{\circ}\text{F}$)

Storage Temperature $-40 \, ^{\circ}\text{C}$ to $+75 \, ^{\circ}\text{C}$ ($-40 \, ^{\circ}\text{F}$ to $+167 \, ^{\circ}\text{F}$)

General Specifications

Cable Type CNT-195
Braid Coverage 89% braid
Brand CNT®
Packaging Type Reel

Mechanical Specifications

Bending Moment 0.1 N-m | 0.1 ft lb



CNT-195-P

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Flat Plate Crush Strength 0.3 kg/mm | 15.0 lb/in Minimum Bend Radius, Single Bend 12.70 mm | 0.50 in Tensile Strength 18 kg | 40 lb

Electrical Performance

Frequency	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	
30 MHz	7.20	2.20	
50 MHz	8.90	2.70	
150 MHz	14.24	4.34	
220 MHz	17.40	5.30	
450 MHz	26.24	8.00	
900 MHz	41.00	12.50	
1800 MHz	64.30	19.60	
2500 MHz	77.41	23.60	

^{*} Values typical, guaranteed within 5%

Regulatory Compliance/Certifications

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Compliant

Classification

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