

# RG142-NMSM-M5

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RG142 Braided Jumper with interface types N Male and SMA Male, 0.5m



## Product Classification

<b>Product Type</b>	Braided cable assembly
<b>Product Series</b>	RG142

## General Specifications

<b>Body Style, Connector A</b>	Straight
<b>Body Style, Connector B</b>	Straight
<b>Cable Family</b>	RG142
<b>Interface, Connector A</b>	N Male
<b>Interface, Connector B</b>	SMA Male
<b>Specification Sheet Revision Level</b>	A

## Dimensions

<b>Length</b>	0.5 m   1.64 ft
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## VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
700–3000 MHz	1.152	23

## Jumper Assembly Sample Label

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## Included Products

- RG142 – RG142 50 Ohm Braided Coaxial Cable
- RG142PSM-CR – SMA Male for RG142 braided cable
- RG142TNM-CR – Type N Male for RG142 braided cable

# RG142

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## RG142 50 Ohm Braided Coaxial Cable



### Product Classification

<b>Product Type</b>	Braided coaxial cable
<b>Product Brand</b>	CNT®
<b>Product Series</b>	RG142

### General Specifications

<b>Braid Coverage</b>	93 %
<b>Cable Type</b>	RG142
<b>Inner Shield (Braid) Coverage</b>	94.8 %
<b>Jacket Color</b>	Brown
<b>Outer Shield (Braid) Coverage</b>	93.1 %

### Dimensions

<b>Diameter Over Dielectric</b>	2.95 mm   0.116 in
<b>Diameter Over Jacket</b>	4.95 mm   0.195 in
<b>Inner Conductor OD</b>	0.94 mm   0.037 in
<b>Outer Conductor OD</b>	4.34 mm   0.171 in
<b>Nominal Size</b>	0.195 in

### Electrical Specifications

<b>Cable Impedance</b>	50 ohm
<b>Capacitance</b>	96.1 pF/m   29.291 pF/ft
<b>dc Test Voltage</b>	2000 V
<b>Jacket Spark Test Voltage (rms)</b>	5000 V
<b>Maximum Frequency</b>	12.4 GHz

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<b>Shielding Effectiveness</b>	85 dB
<b>Velocity</b>	69 %

## Attenuation

<b>Frequency (MHz)</b>	<b>Attenuation (dB/100 m)</b>	<b>Attenuation (dB/100 ft)</b>
<b>400.0</b>	31	9.45
<b>900.0</b>	48.4	14.76
<b>1000.0</b>	51	15.55
<b>1200.0</b>	56.1	17.1
<b>1500.0</b>	63.5	19.36
<b>1800.0</b>	69.7	21.25
<b>2000.0</b>	74.7	22.77
<b>2500.0</b>	84.6	25.79
<b>3000.0</b>	96	29.27
<b>8000.0</b>	190	57.93

## Material Specifications

<b>Braid Material</b>	Silver plated copper
<b>Dielectric Material</b>	PTFE
<b>Jacket Material</b>	FEP
<b>Inner Conductor Material</b>	Silver-plated copper-clad steel wire

## Mechanical Specifications

<b>Minimum Bend Radius, single Bend</b>	29.718 mm   1.17 in
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## Environmental Specifications

<b>Operating Temperature</b>	-55 °C to +200 °C (-67 °F to +392 °F)
<b>Fire Retardancy Test Method</b>	IEC 60332-3-24

## Packaging and Weights

<b>Packaging Type</b>	Reel
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## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

# RG142PSM-CR

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SMA Male for RG142 braided cable

## Product Classification

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

## General Specifications

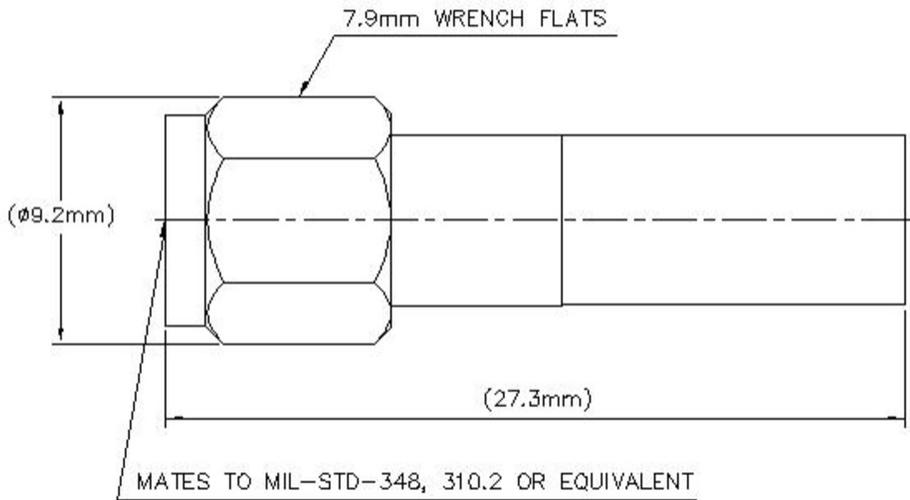
<b>Body Style</b>	Straight
<b>Inner Contact Attachment Method</b>	Solder
<b>Inner Contact Plating</b>	Gold
<b>Interface</b>	SMA Male
<b>Outer Contact Attachment Method</b>	Crimp
<b>Outer Contact Plating</b>	Trimetal
<b>Pressurizable</b>	No

## Dimensions

<b>Length</b>	27.32 mm   1.076 in
<b>Diameter</b>	9.15 mm   0.36 in
<b>Nominal Size</b>	0.195 in

## Outline Drawing

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## Electrical Specifications

<b>Insertion Loss, typical</b>	0.05 dB
<b>Average Power at Frequency</b>	150.0 W @ 900 MHz
<b>Cable Impedance</b>	50 ohm
<b>Connector Impedance</b>	50 ohm
<b>dc Test Voltage</b>	1000 V
<b>Inner Contact Resistance, maximum</b>	3 mOhm
<b>Insulation Resistance, minimum</b>	5000 MOhm
<b>Operating Frequency Band</b>	0 – 6000 MHz
<b>Outer Contact Resistance, maximum</b>	2.5 mOhm
<b>Peak Power, maximum</b>	2.5 kW
<b>RF Operating Voltage, maximum (vrms)</b>	353 V

## VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
0–3000 MHz	1.052	31.93
3000–6000 MHz	1.083	28

## Mechanical Specifications

<b>Connector Retention Tensile Force</b>	134 N   30.124 lbf
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<b>Connector Retention Torque</b>	0.17 N-m   1.505 in lb
<b>Coupling Nut Proof Torque</b>	1.7 N-m   15.046 in lb
<b>Coupling Nut Proof Torque Method</b>	IEC 61169-15:9.3.6
<b>Coupling Nut Retention Force</b>	180 N   40.466 lbf
<b>Coupling Nut Retention Force Method</b>	IEC 61169-15:9.3.11
<b>Insertion Force</b>	22 N   4.946 lbf
<b>Insertion Force Method</b>	IEC 61169-15:9.3.5
<b>Interface Durability</b>	500 cycles
<b>Interface Durability Method</b>	IEC 61169-15:9.5
<b>Mechanical Shock Test Method</b>	IEC 60068-2-27

## 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>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
<b>Climatic Sequence Test Method</b>	IEC 60068-1
<b>Corrosion Test Method</b>	IEC 60068-2-11
<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>Water Jetting Test Mating</b>	Mated
<b>Water Jetting Test Method</b>	IEC 60529:2001, IP65

## Packaging and Weights

<b>Weight, net</b>	5.2 g   0.011 lb
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## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
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 <a href="http://www.andrew.com/ProductCompliance">www.andrew.com/ProductCompliance</a>

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ROHS Compliant  
UK-ROHS Compliant/Exempted



## \* Footnotes

**Insertion Loss, typical**  $0.05\sqrt{\text{freq}}$  (GHz) (not applicable for elliptical waveguide)

# RG142TNM-CR

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Type N Male for RG142 braided cable

## Product Classification

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

## General Specifications

<b>Body Style</b>	Straight
<b>Inner Contact Attachment Method</b>	Solder
<b>Inner Contact Plating</b>	Gold
<b>Interface</b>	N Male
<b>Outer Contact Attachment Method</b>	Crimp
<b>Outer Contact Plating</b>	Trimetal
<b>Pressurizable</b>	No

## Dimensions

<b>Height</b>	223.5 mm   8.799 in
<b>Length</b>	33.32 mm   1.312 in
<b>Diameter</b>	22.35 mm   0.88 in
<b>Nominal Size</b>	0.195 in

## Electrical Specifications

<b>Insertion Loss, typical</b>	0.05 dB
<b>Average Power at Frequency</b>	150.0 W @ 900 MHz
<b>Cable Impedance</b>	50 ohm
<b>Connector Impedance</b>	50 ohm
<b>dc Test Voltage</b>	1000 V
<b>Inner Contact Resistance, maximum</b>	1 mOhm
<b>Insulation Resistance, minimum</b>	5000 MOhm
<b>Operating Frequency Band</b>	0 – 6000 MHz

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<b>Outer Contact Resistance, maximum</b>	0.25 mOhm
<b>Peak Power, maximum</b>	2.5 kW
<b>RF Operating Voltage, maximum (vrms)</b>	353 V

## VSWR/Return Loss

<b>Frequency Band</b>	<b>VSWR</b>	<b>Return Loss (dB)</b>
<b>0–3000 MHz</b>	1.052	31.92
<b>3000–6000 MHz</b>	1.222	20.01

## Mechanical Specifications

<b>Connector Retention Tensile Force</b>	134 N   30.124 lbf
<b>Connector Retention Torque</b>	0.17 N-m   1.505 in lb
<b>Coupling Nut Proof Torque</b>	1.7 N-m   15.046 in lb
<b>Coupling Nut Proof Torque Method</b>	IEC 61169-17:9.3.6
<b>Coupling Nut Retention Force</b>	445 N   100.04 lbf
<b>Coupling Nut Retention Force Method</b>	IEC 61169-17:9.3.11
<b>Insertion Force</b>	4.9 N   1.102 lbf
<b>Insertion Force Method</b>	IEC 61169-17:9.3.5
<b>Interface Durability</b>	500 cycles
<b>Interface Durability Method</b>	IEC 61169-17:9.5
<b>Mechanical Shock Test Method</b>	IEC 60068-2-27

## 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>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
<b>Climatic Sequence Test Method</b>	IEC 60068-1
<b>Corrosion Test Method</b>	IEC 60068-2-11
<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

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**Water Jetting Test Mating** Mated  
**Water Jetting Test Method** IEC 60529:2001, IP65

## Packaging and Weights

**Weight, net** 31.7 g | 0.07 lb

## Regulatory Compliance/Certifications

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

## \* Footnotes

**Insertion Loss, typical**  $0.05\sqrt{\text{freq}}$  (GHz) (not applicable for elliptical waveguide)