

# C400-TMTM-30-X

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CNT-400-FR CNT® Jumper with interface types TNC Male and TNC

 Male, 9.14 m

## Product Classification

|                       |                        |
|-----------------------|------------------------|
| <b>Product Type</b>   | Braided cable assembly |
| <b>Product Brand</b>  | CNT®                   |
| <b>Product Series</b> | CNT-400                |

## General Specifications

|   |                  |
|---|------------------|
| <b>Attachment, Connector A</b>            | Field attachment |
| <b>Attachment, Connector B</b>            | Field attachment |
| <b>Body Style, Connector A</b>            | Straight         |
| <b>Body Style, Connector B</b>            | Straight         |
| <b>Cable Family</b>                       | CNT-400          |
| <b>Interface, Connector A</b>             | TNC Male         |
| <b>Interface, Connector B</b>             | TNC Male         |
| <b>Specification Sheet Revision Level</b> | A                |

## Dimensions

|                     |                    |
|---------------------|--------------------|
| <b>Length</b>       | 9.14 m   29.987 ft |
| <b>Nominal Size</b> | 0.400 in           |

## Electrical Specifications

|                         |        |
|-------------------------|--------|
| <b>DTF, Connector A</b> | -28 dB |
| <b>DTF, Connector B</b> | -28 dB |

## Jumper Assembly Sample Label

# C400-TMTM-30-X



## Regulatory Compliance/Certifications

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

## Included Products

|              |   |
|--------------|---|
| 400BPTM-C    | - TNC Male for CNT-400 braided cable  |
| 400BPTM-C-CR | - TNC Male for CNT-400 braided cable  |
| 400PTM-C     | - TNC Male for CNT-400 braided cable  |
| CNT-400-FR   | - CNT-400-FR, CNT® 50 Ohm Braided Coaxial Cable, black non-halogenated, fire retardant polyolefin jacket, Dca s2 d2 Compliant |

# 400BPTM-C

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TNC Male for CNT-400 braided cable

## Product Classification

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

## General Specifications

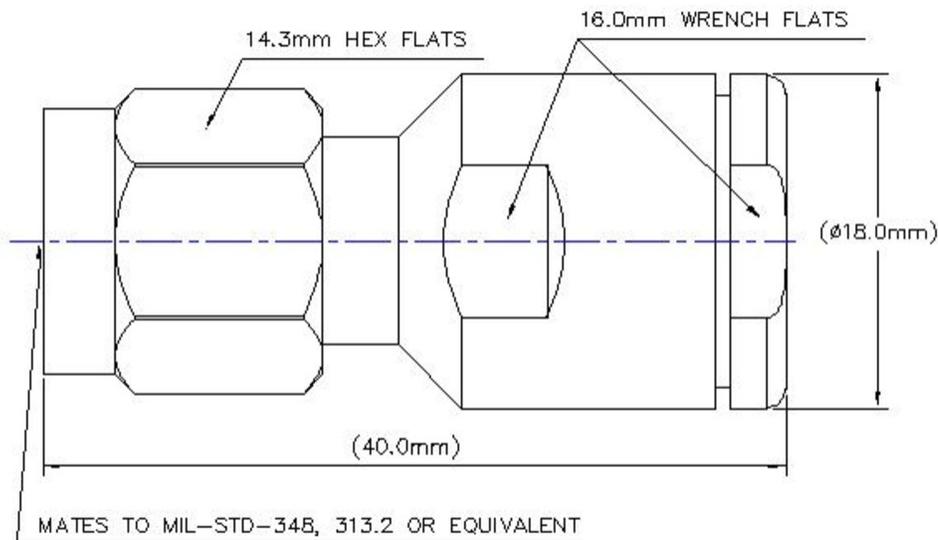
|  |            |
|--|------------|
| <b>Body Style</b>                      | Straight   |
| <b>Inner Contact Attachment Method</b> | Captivated |
| <b>Inner Contact Plating</b>           | Gold       |
| <b>Interface</b>                       | TNC Male   |
| <b>Outer Contact Attachment Method</b> | Clamp      |
| <b>Outer Contact Plating</b>           | Trimetal   |

## Dimensions

|                     |                     |
|---------------------|---------------------|
| <b>Length</b>       | 41.24 mm   1.624 in |
| <b>Diameter</b>     | 18 mm   0.709 in    |
| <b>Nominal Size</b> | 0.405 in            |

# 400BPTM-C

## Outline Drawing



## Electrical Specifications

|   |              |
|---|--------------|
| <b>Insertion Loss, typical</b>              | 0.05 dB      |
| <b>Cable Impedance</b>                      | 50 ohm       |
| <b>Connector Impedance</b>                  | 50 ohm       |
| <b>dc Test Voltage</b>                      | 1500 V       |
| <b>Inner Contact Resistance, maximum</b>    | 1.5 mOhm     |
| <b>Insulation Resistance, minimum</b>       | 5000 MOhm    |
| <b>Operating Frequency Band</b>             | 0 – 6000 MHz |
| <b>Outer Contact Resistance, maximum</b>    | 0.4 mOhm     |
| <b>Peak Power, maximum</b>                  | 5 kW         |
| <b>RF Operating Voltage, maximum (vrms)</b> | 500 V        |

## VSWR/Return Loss

| <b>Frequency Band</b> | <b>VSWR</b> | <b>Return Loss (dB)</b> |
|-----------------------|-------------|-------------------------|
| <b>0–3000 MHz</b>     | 1.046       | 32.96                   |
| <b>3000–6000 MHz</b>  | 1.18        | 22                      |

## Mechanical Specifications

# 400BPTM-C

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|  |                        |
|--|------------------------|
| <b>Connector Retention Tensile Force</b>   | 330 N   74.187 lbf     |
| <b>Connector Retention Torque</b>          | 0.56 N-m   4.956 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>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>Immersion Depth</b>                            | 1 m                                   |
| <b>Immersion Test Mating</b>                      | Mated                                 |
| <b>Immersion Test Method</b>                      | IEC 60529:2001, IP68                  |
| <b>Thermal Shock Test Method</b>                  | IEC 60068-2-14                        |
| <b>Vibration Test Method</b>                      | IEC 60068-2-6                         |

## Packaging and Weights

|                    |                    |
|--------------------|--------------------|
| <b>Weight, net</b> | 41.85 g   0.092 lb |
|--------------------|--------------------|

## 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> |

# 400BPTM-C

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ROHS Compliant

UK-ROHS Compliant



## \* Footnotes

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

**Immersion Depth** Immersion at specified depth for 24 hours

# 400BPTM-C-CR

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TNC Male for CNT-400 braided cable

## Product Classification

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

## General Specifications

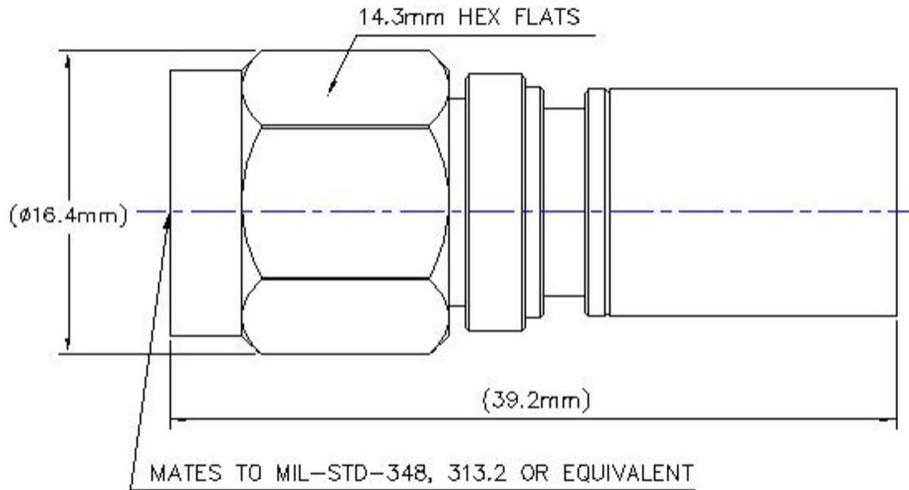
|  |            |
|--|------------|
| <b>Body Style</b>                      | Straight   |
| <b>Inner Contact Attachment Method</b> | Captivated |
| <b>Inner Contact Plating</b>           | Silver     |
| <b>Interface</b>                       | TNC Male   |
| <b>Outer Contact Attachment Method</b> | Crimp      |
| <b>Outer Contact Plating</b>           | Trimetal   |

## Dimensions

|                     |                     |
|---------------------|---------------------|
| <b>Length</b>       | 40.74 mm   1.604 in |
| <b>Diameter</b>     | 16 mm   0.63 in     |
| <b>Nominal Size</b> | 0.405 in            |

# 400BPTM-C-CR

## Outline Drawing



## Electrical Specifications

|   |              |
|---|--------------|
| <b>Insertion Loss, typical</b>              | 0.05 dB      |
| <b>Cable Impedance</b>                      | 50 ohm       |
| <b>Connector Impedance</b>                  | 50 ohm       |
| <b>dc Test Voltage</b>                      | 1500 V       |
| <b>Inner Contact Resistance, maximum</b>    | 1.5 mOhm     |
| <b>Insulation Resistance, minimum</b>       | 5000 MOhm    |
| <b>Operating Frequency Band</b>             | 0 – 6000 MHz |
| <b>Outer Contact Resistance, maximum</b>    | 0.4 mOhm     |
| <b>Peak Power, maximum</b>                  | 5 kW         |
| <b>RF Operating Voltage, maximum (vrms)</b> | 500 V        |

## VSWR/Return Loss

| <b>Frequency Band</b> | <b>VSWR</b> | <b>Return Loss (dB)</b> |
|-----------------------|-------------|-------------------------|
| <b>0–3000 MHz</b>     | 1.046       | 32.96                   |
| <b>3000–6000 MHz</b>  | 1.18        | 22                      |

## Mechanical Specifications

# 400BPTM-C-CR

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|  |                        |
|--|------------------------|
| <b>Connector Retention Tensile Force</b>   | 330 N   74.187 lbf     |
| <b>Connector Retention Torque</b>          | 0.56 N-m   4.956 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>Interface Durability</b>                | 500 cycles             |
| <b>Interface Durability Method</b>         | IEC 61169-17:17        |
| <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> | 21.52 g   0.047 lb |
|--------------------|--------------------|

## 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> |
| ROHS          | Compliant  |
| UK-ROHS       | Compliant  |

# 400BPTM-C-CR

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## \* Footnotes

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

# 400PTM-C

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TNC Male for CNT-400 braided cable

## Product Classification

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

## General Specifications

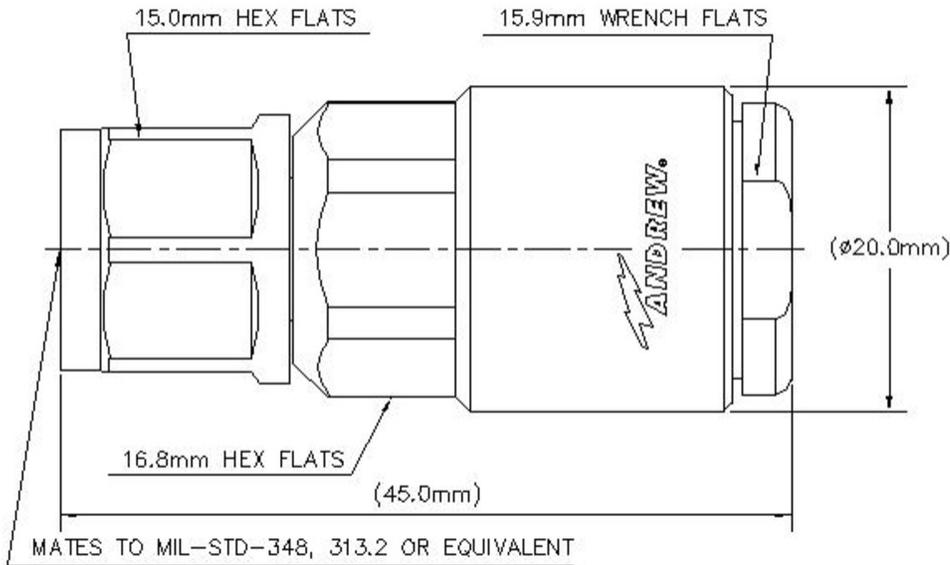
|  |            |
|--|------------|
| <b>Body Style</b>                      | Straight   |
| <b>Inner Contact Attachment Method</b> | Captivated |
| <b>Inner Contact Plating</b>           | Gold       |
| <b>Interface</b>                       | TNC Male   |
| <b>Outer Contact Attachment Method</b> | Clamp      |
| <b>Outer Contact Plating</b>           | Trimetal   |

## Dimensions

|                     |                    |
|---------------------|--------------------|
| <b>Width</b>        | 20 mm   0.787 in   |
| <b>Length</b>       | 44.95 mm   1.77 in |
| <b>Diameter</b>     | 20 mm   0.787 in   |
| <b>Nominal Size</b> | 0.405 in           |

## Outline Drawing

# 400PTM-C



## Electrical Specifications

|   |                   |
|---|-------------------|
| <b>Insertion Loss, typical</b>              | 0.05 dB           |
| <b>Average Power at Frequency</b>           | 580.0 W @ 900 MHz |
| <b>Cable Impedance</b>                      | 50 ohm            |
| <b>Connector Impedance</b>                  | 50 ohm            |
| <b>dc Test Voltage</b>                      | 1500 V            |
| <b>Inner Contact Resistance, maximum</b>    | 1.5 mOhm          |
| <b>Insulation Resistance, minimum</b>       | 5000 MOhm         |
| <b>Operating Frequency Band</b>             | 0 – 6000 MHz      |
| <b>Outer Contact Resistance, maximum</b>    | 0.4 mOhm          |
| <b>Peak Power, maximum</b>                  | 5 kW              |
| <b>RF Operating Voltage, maximum (vrms)</b> | 500 V             |

## VSWR/Return Loss

| Frequency Band | VSWR  | Return Loss (dB) |
|----------------|-------|------------------|
| 0–3000 MHz     | 1.046 | 32.96            |
| 3000–6000 MHz  | 1.18  | 22               |

## Mechanical Specifications

|  |                    |
|--|--------------------|
| <b>Connector Retention Tensile Force</b> | 330 N   74.187 lbf |
|--|--------------------|

# 400PTM-C

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|  |                        |
|--|------------------------|
| <b>Connector Retention Torque</b>          | 0.56 N-m   4.956 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>Interface Durability</b>                | 500 cycles             |
| <b>Interface Durability Method</b>         | IEC 61169-17:17        |
| <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>Immersion Depth</b>                            | 1 m                                   |
| <b>Immersion Test Mating</b>                      | Mated                                 |
| <b>Immersion Test Method</b>                      | IEC 60529:2001, IP68                  |
| <b>Thermal Shock Test Method</b>                  | IEC 60068-2-14                        |
| <b>Vibration Test Method</b>                      | IEC 60068-2-6                         |

## Packaging and Weights

|                    |                    |
|--------------------|--------------------|
| <b>Weight, net</b> | 44.22 g   0.097 lb |
|--------------------|--------------------|

## Regulatory Compliance/Certifications

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

## \* Footnotes

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

# 400PTM-C

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**Immersion Depth**

Immersion at specified depth for 24 hours

# CNT-400-FR

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CNT-400-FR, CNT® 50 Ohm Braided Coaxial Cable, black non-halogenated, fire retardant polyolefin jacket, Dca s2 d2 Compliant

## Product Classification

|                       |                       |
|-----------------------|-----------------------|
| <b>Product Type</b>   | Braided coaxial cable |
| <b>Product Brand</b>  | CNT®                  |
| <b>Product Series</b> | CNT-400               |

## General Specifications

|                       |         |
|-----------------------|---------|
| <b>Braid Coverage</b> | 90 %    |
| <b>Cable Type</b>     | CNT-400 |
| <b>Jacket Color</b>   | Black   |

## Dimensions

|                                 |                     |
|---------------------------------|---------------------|
| <b>Diameter Over Dielectric</b> | 7.24 mm   0.285 in  |
| <b>Diameter Over Jacket</b>     | 10.29 mm   0.405 in |
| <b>Diameter Over Tape</b>       | 7.391 mm   0.291 in |
| <b>Inner Conductor OD</b>       | 2.74 mm   0.108 in  |
| <b>Outer Conductor OD</b>       | 8.08 mm   0.318 in  |
| <b>Nominal Size</b>             | 0.400 in            |

## Electrical Specifications

|  |                               |
|--|-------------------------------|
| <b>Cable Impedance</b>                 | 50 ohm                        |
| <b>Capacitance</b>                     | 78 pF/m   23.774 pF/ft        |
| <b>dc Resistance, Inner Conductor</b>  | 4.49 ohms/km   1.369 ohms/kft |
| <b>dc Resistance, Outer Conductor</b>  | 5.61 ohms/km   1.71 ohms/kft  |
| <b>dc Test Voltage</b>                 | 2500 V                        |
| <b>Jacket Spark Test Voltage (rms)</b> | 4000 V                        |
| <b>Maximum Frequency</b>               | 16.2 GHz                      |
| <b>Operating Frequency Band</b>        | 30 – 6000 MHz                 |
| <b>Peak Power</b>                      | 16 kW                         |

# CNT-400-FR

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**Shielding Effectiveness** 90 dB

**Velocity** 85 %

## Attenuation

| Frequency (MHz) | Attenuation (dB/100 m) | Attenuation (dB/100 ft) |
|-----------------|------------------------|-------------------------|
| 30.0            | 2.49                   | 0.76                    |
| 50.0            | 3.18                   | 0.97                    |
| 150.0           | 4.92                   | 1.5                     |
| 220.0           | 6.23                   | 1.9                     |
| 450.0           | 8.86                   | 2.7                     |
| 900.0           | 12.8                   | 3.9                     |
| 1500.0          | 16.7                   | 5.1                     |
| 1800.0          | 18.4                   | 5.6                     |
| 2000.0          | 19.4                   | 5.9                     |
| 2400.0          | 21.65                  | 6.6                     |
| 2500.0          | 22                     | 6.7                     |
| 3000.0          | 24.6                   | 7.5                     |
| 4000.0          | 28.87                  | 8.8                     |
| 4500.0          | 30.84                  | 9.4                     |
| 5000.0          | 32.81                  | 10                      |
| 5200.0          | 33.46                  | 10.2                    |
| 5500.0          | 34.78                  | 10.6                    |
| 5800.0          | 35.76                  | 10.9                    |
| 6000.0          | 36.42                  | 11.1                    |

## Material Specifications

|                                 |  |
|---------------------------------|--|
| <b>Braid Material</b>           | Tinned copper                              |
| <b>Dielectric Material</b>      | Foam PE                                    |
| <b>Jacket Material</b>          | Non-halogenated, fire retardant polyolefin |
| <b>Inner Conductor Material</b> | Copper-clad aluminum wire                  |
| <b>Shield Tape Material</b>     | Aluminum                                   |

## Mechanical Specifications

|   |                    |
|---|--------------------|
| <b>Minimum Bend Radius, single Bend</b> | 25.4 mm   1 in     |
| <b>Tensile Strength</b>                 | 73 kg   160.937 lb |

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|                                  |                          |
|----------------------------------|--------------------------|
| <b>Bending Moment</b>            | 0.7 N-m   6.196 in lb    |
| <b>Flat Plate Crush Strength</b> | 0.7 kg/mm   39.198 lb/in |

## 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) |
| <b>EN50575 CPR Cable EuroClass Fire Performance</b> | Dca                                  |
| <b>EN50575 CPR Cable EuroClass Smoke Rating</b>     | s2                                   |
| <b>EN50575 CPR Cable EuroClass Droplets Rating</b>  | d2                                   |
| <b>Fire Retardancy Test Method</b>                  | UL VW1/CATVX                         |
| <b>Smoke Index Test Method</b>                      | IEC 61034                            |
| <b>Toxicity Index Test Method</b>                   | IEC 60754-2                          |

## Packaging and Weights

|                       |                         |
|-----------------------|-------------------------|
| <b>Cable weight</b>   | 0.07 kg/m   0.047 lb/ft |
| <b>Packaging Type</b> | Reel                    |

## Regulatory Compliance/Certifications

| <b>Agency</b> | <b>Classification</b>  |
|---------------|--|
| CENELEC       | EN 50575 compliant, Declaration of Performance (DoP) available   |
| 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> |
| ROHS          | Compliant  |
| UK-ROHS       | Compliant  |

