

## 1694A Coax - Low Loss Serial Digital Coax



For more Information  
please call

1-800-Belden1

**Description:**

RG-6/U Type, 18 AWG solid .040" bare copper conductor, gas-injected foam HDPE insulation, Duofoil® + tinned copper braid shield (95% coverage), PVC jacket.

**Physical Characteristics (Overall)****Conductor****AWG:**

| # Coax | AWG | Stranding | Conductor Material | Dia. (mm) |
|--------|-----|-----------|--------------------|-----------|
| 1      | 18  | Solid     | BC - Bare Copper   | 1.016     |

**Insulation****Insulation Material:**

| Insulation Material                                 | Dia. (mm) |
|-----------------------------------------------------|-----------|
| Gas-injected FHDPE - Foam High Density Polyethylene | 4.572     |

**Outer Shield****Outer Shield Material:**

| Layer # | Outer Shield Trade Name | Type  | Outer Shield Material                      | Coverage (%) |
|---------|-------------------------|-------|--------------------------------------------|--------------|
| 1       | Duofoil®                | Tape  | Aluminum Foil-Polyester Tape-Aluminum Foil | 100          |
| 2       |                         | Braid | TC - Tinned Copper                         | 95           |

**Outer Jacket****Outer Jacket Material:**

| Outer Jacket Material    |
|--------------------------|
| PVC - Polyvinyl Chloride |

**Overall Cabling**

Overall Nominal Diameter: 6.960 mm

**Mechanical Characteristics (Overall)**

|                                        |                |
|----------------------------------------|----------------|
| Operating Temperature Range:           | -30°C To +75°C |
| UL Temperature Rating:                 | 75°C           |
| Bulk Cable Weight:                     | 61.016 Kg/Km   |
| Max. Recommended Pulling Tension:      | 306.926 N      |
| Min. Bend Radius (Install)/Minor Axis: | 69.850 mm      |

**Applicable Specifications and Agency Compliance (Overall)****Applicable Standards & Environmental Programs**

|                                       |            |
|---------------------------------------|------------|
| NEC/(UL) Specification:               | CMR        |
| CEC/C(UL) Specification:              | CMG        |
| EU CE Mark:                           | Yes        |
| EU Directive 2000/53/EC (ELV):        | Yes        |
| EU Directive 2002/95/EC (RoHS):       | Yes        |
| EU RoHS Compliance Date (mm/dd/yyyy): | 01/01/2004 |
| EU Directive 2002/96/EC (WEEE):       | Yes        |

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|                                |     |
|--------------------------------|-----|
| EU Directive 2003/11/EC (BFR): | Yes |
|--------------------------------|-----|

|                                   |     |
|-----------------------------------|-----|
| CA Prop 65 (CJ for Wire & Cable): | Yes |
|-----------------------------------|-----|

|                             |     |
|-----------------------------|-----|
| MII Order #39 (China RoHS): | Yes |
|-----------------------------|-----|

|          |     |
|----------|-----|
| RG Type: | 6/U |
|----------|-----|

**Flame Test**

|                |                       |
|----------------|-----------------------|
| UL Flame Test: | UL1666 Vertical Shaft |
|----------------|-----------------------|

**Suitability**

|                       |     |
|-----------------------|-----|
| Suitability - Indoor: | Yes |
|-----------------------|-----|

|                        |                  |
|------------------------|------------------|
| Suitability - Outdoor: | Yes - Black only |
|------------------------|------------------|

|                       |                                                      |
|-----------------------|------------------------------------------------------|
| Suitability - Aerial: | Yes - Black only, when supported by a messenger wire |
|-----------------------|------------------------------------------------------|

**Plenum/Non-Plenum**

|               |    |
|---------------|----|
| Plenum (Y/N): | No |
|---------------|----|

|                |       |
|----------------|-------|
| Plenum Number: | 1695A |
|----------------|-------|

**Electrical Characteristics (Overall)****Nom. Characteristic Impedance:**

|                 |
|-----------------|
| Impedance (Ohm) |
|-----------------|

|    |
|----|
| 75 |
|----|

**Nom. Inductance:**

|                   |
|-------------------|
| Inductance (μH/m) |
|-------------------|

|          |
|----------|
| 0.347786 |
|----------|

**Nom. Capacitance Conductor to Shield:**

|                    |
|--------------------|
| Capacitance (pF/m) |
|--------------------|

|         |
|---------|
| 53.1522 |
|---------|

**Nominal Velocity of Propagation:**

|        |
|--------|
| VP (%) |
|--------|

|    |
|----|
| 82 |
|----|

**Nominal Delay:**

|              |
|--------------|
| Delay (ns/m) |
|--------------|

|         |
|---------|
| 4.06844 |
|---------|

**Nom. Conductor DC Resistance:**

|                     |
|---------------------|
| DCR @ 20°C (Ohm/km) |
|---------------------|

|         |
|---------|
| 20.9984 |
|---------|

**Nominal Outer Shield DC Resistance:**

|                     |
|---------------------|
| DCR @ 20°C (Ohm/km) |
|---------------------|

|        |
|--------|
| 9.1868 |
|--------|

**Nom. Attenuation:**

| Freq. (MHz) | Attenuation (dB/100m) |
|-------------|-----------------------|
|-------------|-----------------------|

|       |       |
|-------|-------|
| 1.000 | 0.787 |
|-------|-------|

|       |       |
|-------|-------|
| 3.580 | 1.444 |
|-------|-------|

|       |       |
|-------|-------|
| 5.000 | 1.706 |
|-------|-------|

|       |       |
|-------|-------|
| 6.000 | 1.870 |
|-------|-------|

|       |       |
|-------|-------|
| 7.000 | 2.001 |
|-------|-------|

|        |       |
|--------|-------|
| 10.000 | 2.330 |
|--------|-------|

|        |       |
|--------|-------|
| 12.000 | 2.559 |
|--------|-------|

|        |       |
|--------|-------|
| 25.000 | 3.543 |
|--------|-------|

|        |       |
|--------|-------|
| 67.500 | 5.414 |
|--------|-------|

|        |       |
|--------|-------|
| 71.500 | 5.545 |
|--------|-------|

|        |       |
|--------|-------|
| 88.500 | 6.103 |
|--------|-------|

|         |       |
|---------|-------|
| 100.000 | 6.398 |
|---------|-------|

|         |       |
|---------|-------|
| 135.000 | 7.349 |
|---------|-------|

|         |       |
|---------|-------|
| 143.000 | 7.546 |
|---------|-------|

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|          |        |
|----------|--------|
| 180.000  | 8.432  |
| 270.000  | 10.401 |
| 360.000  | 12.107 |
| 540.000  | 15.093 |
| 720.000  | 17.652 |
| 750.000  | 18.046 |
| 1000.000 | 21.064 |
| 1500.000 | 26.215 |
| 2000.000 | 30.743 |
| 2250.000 | 32.843 |
| 3000.000 | 38.650 |
| 4500.000 | 48.953 |

## Max. Operating Voltage - UL:

| Voltage   |
|-----------|
| 300 V RMS |

## Other Electrical Characteristic 1:

Impedance tested in accordance with ASTM D-4566 paragraph 43.2, option 2 using a 75 Ohm fixed bridge and termination. 75 +/- 1.5 Ohms

## Other Electrical Characteristic 2:

Return Loss tested in accordance with ASTM D-4566 paragraph 45.3, using a 75 Ohm fixed bridge and termination.

## Minimum Return Loss:

| Start Freq. (MHz) | Stop Freq. (MHz) | Min. RL (dB) |
|-------------------|------------------|--------------|
| 5                 | 1600             | 23           |
| 1600              | 4500             | 21           |

## Sweep Test

## Sweep Testing:

100% Sweep tested 5 MHz to 4.5 GHz.

## Misc. Information (Overall)

## Notes (Overall)

**Notes:** Also available in bundled versions. See 7710A through 7713A.

## Related Documents:

No related documents are available for this product

## Put Ups and Colors:

| Item #        | Putup    | Ship Weight | Color       | Notes | Item Desc                |
|---------------|----------|-------------|-------------|-------|--------------------------|
| 1694A N3U1000 | 305 MT   | 20.412 KG   | GREEN, MIL  | C     | #18 PE/GIFHDPE SH FR PVC |
| 1694A N3U5000 | 1,524 MT | 102.059 KG  | GREEN, MIL  | C N   | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0011000 | 305 MT   | 20.412 KG   | BROWN       | C     | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0015000 | 1,524 MT | 102.059 KG  | BROWN       | C N   | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0021000 | 305 MT   | 20.412 KG   | RED         | C     | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0025000 | 1,524 MT | 102.059 KG  | RED         | C N   | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0031000 | 305 MT   | 20.412 KG   | ORANGE      | C     | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0041000 | 305 MT   | 20.412 KG   | YELLOW      | C     | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0061000 | 305 MT   | 20.412 KG   | BLUE, LIGHT | C     | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0065000 | 1,524 MT | 102.059 KG  | BLUE, LIGHT | C N   | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0071000 | 305 MT   | 20.412 KG   | VIOLET      | C     | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0075000 | 1,524 MT | 102.059 KG  | VIOLET      | C N   | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0081000 | 305 MT   | 20.412 KG   | GRAY        | C     | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0085000 | 1,524 MT | 102.059 KG  | GRAY        | C N   | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0091000 | 305 MT   | 20.412 KG   | WHITE       | C     | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0101000 | 305 MT   | 20.412 KG   | BLACK       | C     | #18 PE/GIFHDPE SH FR PVC |
| 1694A 010500  | 152 MT   | 9.299 KG    | BLACK       | C     | #18 PE/GIFHDPE SH FR PVC |
| 1694A 0105000 | 1,524 MT | 102.059 KG  | BLACK       | C N   | #18 PE/GIFHDPE SH FR PVC |

## Notes:

C = CRATE REEL PUT-UP.

N = FINAL PUT-UP LENGTH MAY VARY -0% TO +10% FROM LENGTH SHOWN.

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